

# LAND and NATURAL RESOURCES PLAN and POLICIES

RIO BLANCO COUNTY, COLORADO



*(Intentionally Left Blank)*

*(Intentionally Left Blank)*

# Contents

|  |    |  |    |
|--|----|--|----|
| 1. Introduction  | 1  | 4.4 Forest Management, Wildfire, and Community Wildfire Planning | 20 |
| 2. Land Use Planning Process and Legal Framework   | 3  | 4.4.1 Custom and Culture   | 20 |
| <b>2.1 Local “Land Use Plan, Policies or Controls” Defined</b>                               | 3  | 4.4.2 Background   | 20 |
| <b>2.2 Statutory Requirements for Local Government-to-Federal Interaction and Influence</b>  | 4  | 4.4.3 Policy Statements  | 27 |
| 2.2.1 The National Environmental Policy Act (NEPA)   | 4  | <b>4.5 Livestock Grazing</b>                                     | 29 |
| 2.2.2 Federal Land Policy and Management Act (FLPMA)   | 5  | 4.5.1 Custom and Culture   | 29 |
| 2.2.3 The National Forest Management Act (NFMA)  | 5  | 4.5.2 Background   | 29 |
| 2.2.4 Governor’s Consistency Review Process  | 6  | 4.5.3 Policy Statements  | 34 |
| <b>2.3 County and District Expectations from Land Use Planning Process and Land Use Plan</b> | 6  | <b>4.6 Noxious Weeds and Invasive Species</b>                    | 37 |
| <b>2.4 The Need for Credible Data</b>  | 7  | 4.6.1 Background   | 37 |
| 2.4.1 Policy Statements  | 8  | 4.6.2 Policy Statements  | 38 |
| 3. Geographic Areas  | 9  | <b>4.7 Oil, Gas, Coal and Minerals</b>                           | 39 |
| 4. Land Management Policies  | 12 | 4.7.1 Background   | 39 |
| <b>4.1 County History, Custom, and Culture</b>   | 12 | 4.7.2 Policy Statements  | 52 |
| 4.1.1 Background   | 12 | <b>4.8 Socioeconomics and Economic Viability</b>                 | 54 |
| 4.1.2 Policy Statements  | 13 | 4.8.1 Background   | 54 |
| <b>4.2 Air Quality</b>   | 14 | 4.8.2 Policy Statements  | 63 |
| 4.2.1 Background   | 14 | <b>4.9 Candidate, Threatened, and Endangered Species</b>         | 64 |
| 4.2.2 Policy Statements  | 15 | 4.9.1 Background   | 64 |
| <b>4.3 Climate Change</b>  | 17 | 4.9.2 Policy Statements  | 69 |
| 4.3.1 Background   | 17 | <b>4.10 Soils</b>  | 72 |
| 4.3.2 Policy Statements  | 18 | 4.10.1 Background  | 72 |
|  |    | 4.10.2 Policy Statements:  | 73 |
|  |    | <b>4.11 Special Designation Areas and Scenic Byways/Viewshed</b> | 74 |
|  |    | 4.11.1 Custom and Culture  | 74 |

|             |   |            |
|-------------|---|------------|
| 4.11.2      | Background  | 74         |
| 4.11.3      | Policy Statements   | 79         |
| <b>4.12</b> | <b>Travel Management, Access, and Recreation</b>                  | <b>80</b>  |
| 4.12.1      | Custom and Culture  | 80         |
| 4.12.2      | Background  | 80         |
| 4.12.3      | Policy Statements   | 83         |
| <b>4.13</b> | <b>Water – Rights and Use; Wild and Scenic River Designations</b> | <b>88</b>  |
| 4.13.1      | Background  | 88         |
| 4.13.2      | Policy Statements   | 94         |
| <b>4.14</b> | <b>Wild Horses, Burros, and Estray livestock</b>                  | <b>96</b>  |
| 4.14.1      | Custom and Culture  | 96         |
| 4.14.2      | Background  | 96         |
| 4.14.3      | Policy Statements   | 98         |
| <b>4.15</b> | <b>Wildlife Management</b>  | <b>101</b> |
| 4.15.1      | Custom and Culture  | 101        |
| 4.15.2      | Background  | 101        |
| 4.15.3      | Policy Statements   | 102        |
| 5.          | Acronym List  | 105        |
| 6.          | Definition of Terms   | 108        |
| 7.          | Works Cited   | 110        |

## List of Figures

|  |    |
|--|----|
| Figure 1. Stacking Hay in West Creek, 1949 .....   | 2  |
| Figure 2. Tidewater Camp, Rangely Basin, 1931.....   | 9  |
| Figure 3. Geographic areas of Rio Blanco County.....   | 10 |
| Figure 4. Conservation Easements.....  | 11 |
| Figure 5. Air Quality Monitoring Stations .....  | 16 |
| Figure 6. Fire occurrence in Rio Blanco County .....   | 23 |
| Figure 7. BLM and USFS grazing allotment boundaries.....   | 32 |
| Figure 8. Cattle west of Rangely in 1920. ....   | 36 |
| Figure 9. Old Richmond well .....  | 39 |
| Figure 10. Active and inactive oil and gas wells.....  | 43 |
| Figure 11. Coal and oil shale .....  | 49 |
| Figure 12. Sodium extraction areas .....   | 51 |
| Figure 13. Homestead cabin west of Rangely, 1920.....  | 53 |
| Figure 14. Population Trends for Rio Blanco County .....   | 55 |
| Figure 15. Employment by Industry (USDC 2014) .....  | 56 |
| Figure 16. Employment by Industry, 2001-2013 (USDC 2014) .....                                     | 56 |
| Figure 17. Employment by Industry (Colorado Workforce Center, 2022)<br>.....                       | 57 |
| Figure 18. Earnings by Industry, 1970-2013 (USDC 2014).....  | 57 |
| Figure 19. Earnings by Industry, 2001-2013 (USDC 2014).....  | 58 |
| Figure 20. Earnings by Industry, 2013-2020 (Colorado Workforce<br>Center, 2022) .....              | 58 |
| Figure 21. Employment and wages by major industry (USDL 2015) ..                                   | 59 |
| Figure 22. Employment and national recessions (USDL 2015).....                                     | 59 |
| Figure 23. Average annual unemployment rate (USDL 2015) .....                                      | 60 |
| <b>Figure 24. Rio Blanco County Assessed Valuation History (Rio Blanco<br/>County, 2022)</b> ..... | 61 |
| Figure 25. Listing Process Illustration .....  | 64 |
| Figure 26. Lynx Habitat .....  | 67 |
| Figure 27. Special Designation Lands.....  | 78 |
| Figure 28. Federal, State and County roads.....  | 82 |

|   |     |
|---|-----|
| Figure 29. Water resources.....             | 92  |
| Figure 30. Wild horse herd areas.....       | 100 |
| Figure 31. Greater Sage-Grouse Habitat..... | 104 |

# 1. Introduction

The White River and Douglas Creek Conservation Districts (Districts) are made up of locally elected officials who's special expertise is to provide leadership in the wise use of the natural resources within the Districts' boundaries. Conservation districts in Colorado are defined as "local governments" thus have the ability to participate in government-to-government interactions with the federal agencies. The Districts within Rio Blanco County have developed this Land & Natural Resource Use Plan and Policy (Plan) to translate their statutory mandate (Colo. Rev. Stat. § 35-70-108) into land management policy and direction guided by local landowners. One of the Districts' responsibilities is: "To prepare a plan for the care, treatment, and operation of the lands within the district." Colo. Rev. Stat. § 35-70-108(1)(k). Additionally, Colorado conservation districts were created by the state legislature to provide for constructive methods of land use providing for the conservation and preservation of natural resources, including adequate underground water reserves, the control of wind and water erosion, and the reduction of damage resulting from floods. The purposes of the conservation districts are to "insure the health, prosperity, and welfare of the state of Colorado and its people . . ." Colo. Rev. Stat. § 35-70-102.

By state statute, Colorado county governments, like Rio Blanco County, have authority (Colo. Rev. Stat. § 30-11-101(k)) to:

Coordinate, pursuant to 43 U.S.C. sec. 1712, the "National Environmental Policy Act of 1969", 42 U.S.C. sec. 4321 et seq., 40 U.S.C. sec. 3312, 16 U.S.C. sec. 530, 16 U.S.C. sec. 1604, and 40 C.F.R. parts 1500 to 1508, with the United States secretary of the Interior and the United States secretary of Agriculture to develop land management plans that address hazardous fuel removal and other forest management practices, water development and

conservation measures, watershed protection, the protection of air quality, public utilities protection, and private property protection on federal lands within such county's jurisdiction.

Thus, based on these statutory authorities, the policies and powers of the Districts and Rio Blanco County encompass the obligation to protect the customs and culture of the local citizens, to provide for community stability, and to protect the natural environment and resources. The purpose of this land use plan is to be a guide to efficiently and effectively use the resources while protecting the environment.

This Plan will identify the Districts' and County's (collectively "local governments") policies to facilitate, protect, and preserve the utilization and conservation of natural resources **on the federal and public lands (hereinafter "federal lands")**. These policies will support access to and wise use of natural resources on federal land; protect private property rights; protect and enhance the customs, cultures, and the economy; protect the tax base; assure the well-being of the people; and provide for the public health, safety, and welfare of the County citizens.

As required by the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act (FLPMA), the National Forest Management Act (NFMA) and other federal statutes, this Plan will be applied to federal regulatory frameworks that govern the management of federal land in regard to the rangeland, soil, water, wildlife, air, energy, and other resources. For example, Federal law requires federal agencies to give meaningful consideration to policies asserted in plans developed by local governments, including counties and conservation districts through a consistency review. See e.g., 40 C.F.R. § 1506.6(b)(1), (3) (NEPA); 43 C.F.R. § 1610.3-2(e) (FLPMA); 36 C.F.R. § 219.4(b)(2)(i) – (iv) (NFMA). Adoption of this plan will also allow Rio

Blanco County and the Districts to achieve Cooperating Agency status (40 C.F.R. §§ 1501.7(h), 1501.8 (NEPA); 36 C.F.R. § 219.4(a)(1)(iv) (NFMA); 43 C.F.R. § 1610.3-1(b) (FLPMA)), coordinate with federal land management agencies 43 C.F.R. §§ 1610.3-1, 1610.3-1(a)(4) (FLPMA); 16 U.S.C. § 1604(a) (NFMA), and will provide direction and policies for “consistency review purposes”. 40 C.F.R. § 1506.6(b)(1), (3) (NEPA); 43 C.F.R. § 1610.3-2(e) (FLPMA); 36 C.F.R. § 219.4(b)(2)(i) – (iv) (NFMA). Cooperating agencies assist the lead federal agency in development of all NEPA compliant documents. 40 C.F.R. § 1501.8(b) (NEPA).

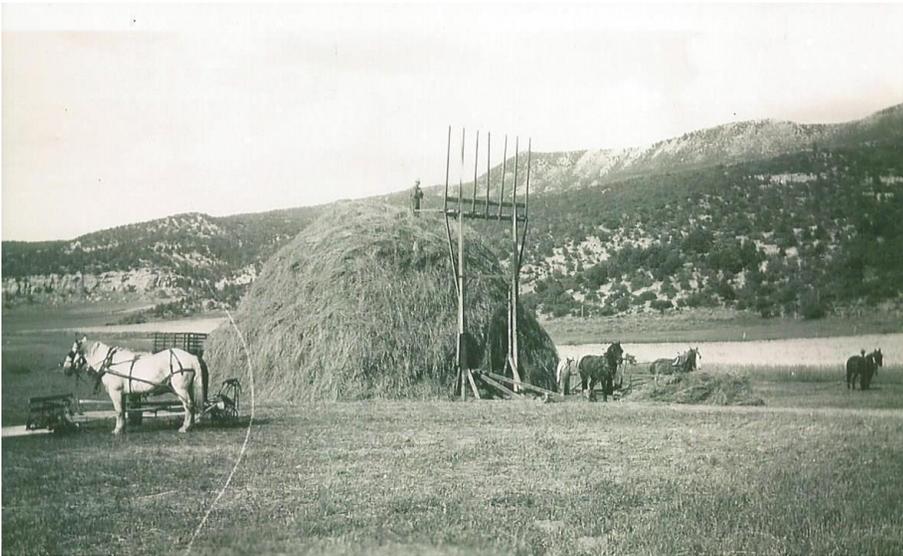


Figure 1. Stacking Hay in West Creek, 1949

## 2. Land Use Planning Process and Legal Framework

Locally elected governments and elected officials have far ranging and important responsibilities to their constituents, described by state statutes as protecting their “health, safety and welfare.” That responsibility includes specifically interacting with federal agencies (and state agencies acting pursuant to federal statute or receiving federal funding for a specific project) on all issues impacting the local community, county, or conservation district(s). To give the locally elected government the strongest voice it can have during this “government-to-government” interaction, local governments can adopt “local land use plans” or “resource plans” to set local policy regarding the use and management of federal lands and the adoption of federal policies, programs, and other types of federal decision-making. These local land use policies are not zoning and do not regulate the use of private lands. This plan is intended to protect the local citizens’ use of and access to federal lands and participate in the management of public resources.

Federal agencies and departments are mandated by various federal statutes to engage local governments in federal decision-making processes related to federal plans, policies, and programs that will impact the local land use, management of natural resources, the citizens, and the local tax base. The adoption of a local land use or resource plan by a local government is a critical tool allowing a local government to have a substantive impact on federal decisions, plans, policies, and programs. In fact, federal agency consideration of a local land use plan, resource plan, or “officially adopted policy” plays a key role in the success of a local government engaging as a cooperating agency or with consistency review under the NEPA, coordination under the FLPMA, or the NFMA, and in assisting in the Governor’s consistency review process.

### 2.1 Local “Land Use Plan, Policies or Controls” Defined

When people think of local “land use plans,” they typically have in mind the general planning document that counties use to determine zoning, public services and facilities, transportation, and the like. But these plans apply to land that is largely within the county’s jurisdiction and are based upon specific state authorization. By contrast, many rural counties and conservation districts have also officially adopted a separate land use plan, policy or control or natural resources management plan that contains policies relating to the surrounding federal land or state actions based on federal statutory authority or funding related to a specific project and reflects the local government’s position. These local plans also describe the local economic or tax base as well as local “customs and cultures” which the federal agencies (and state agencies operating under federal statutes or with federal funding for a particular project are required to consider.

For those unfamiliar with local land use planning participation for federal decisions, the very idea may seem odd. Local governments do not have jurisdiction over the federal government, and local land use plans cannot require federal land managers to take specific actions. For example, a conservation district cannot dictate in its land use plan how many grazing animal unit months (AUMs) will be allocated for a given grazing allotment, or that wild horse populations shall be managed below appropriate management levels (AML) to provide more forage for livestock grazing. These decisions are within the authority of the federal agency. However, rural counties’ socioeconomic well-being, health, safety, and culture can be strongly impacted by the management of the surrounding federal or public lands. Moreover, in Colorado, the courts have clearly recognized that county governments are generally required by state law to use their authority to protect the economic, social, and general well-being of the people and resources

that are within their jurisdictions, while soil and water conservation districts are required to provide for the ongoing stability and health of soil and water resources (Colo. Rev. Stat. § 35-7-102). The reason a local government would go through a process to develop a land use plan is to ensure the local socioeconomic wellbeing, the culture and customs of the constituents, and natural resource health are considered in decisions made pursuant to federal statute.

## 2.2 Statutory Requirements for Local Government-to-Federal Interaction and Influence

### 2.2.1 The National Environmental Policy Act (NEPA)

NEPA applies to “every major Federal action significantly affecting the quality of the human environment” (42 U.S.C. § 4332(2)(C)). The courts have interpreted this to mean that every time the federal government makes a decision for almost any action that may have an environmental impact, NEPA compliance is required. Some courts have even required agencies to follow NEPA when the agency spends a small amount of money on a project or program when they are not the lead agency. See *e.g.*, *Citizens Alert Regarding the Environment v. United States Environmental Protection Agency*, 259 F. Supp.2d 9, 20 (D.D.C. 2003). The Council on Environmental Quality (CEQ) NEPA regulations clarify what is a “major federal action.” The CEQ regulations define a “Major Federal Action” as “an activity or decision subject to Federal control and responsibility” (40 C.F.R. § 1508.1(q)). However, those activities and decisions are limited to those decisions that are discretionary or in which the federal government has sufficient control and responsibility over the outcome of the project. See *id.* This means that those projects that the government has a minor role in are not typically included under NEPA. Further, minor actions that typically do not have a significant effect on the human environment (such as allowing certain range improvements on a grazing allotment) are categorically exempt from NEPA (40 C.F.R. § 1508.1(d)).

There are several ways local governments can participate in the NEPA process, depending on the type of federal decision, the level of commitment of the local government, and the goal of the local government.

First, the local government can use its local land use or resource plan as part of the federal agency’s “consistency review” process. Under this provision, if the federal agency, in the course of writing an EIS, receives a local land use or resource plan, NEPA commands the federal agency to “discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the [environmental impact] statement should describe the extent to which the [federal] agency would reconcile its proposed action with the [local government] plan or law.” (40 C.F.R. §§ 1502.16(a)(5); 1506.1(d)).

NEPA also requires that copies of comments by State or local governments must accompany the EIS or EA throughout the review process (42 U.S.C. § 4332(C)(v)).

Second, local governments can separately participate in the NEPA process as a “cooperating agency” (40 C.F.R. § 1501.10(f)). Pursuant to NEPA, an applicant for cooperating agency status must both (1) be a locally elected body such as a conservation district board of supervisors or a county commission; and (2) possess “special expertise.” A local government’s special expertise is defined as the authority granted to a local governing body by state statute, agency mission or related program experience. (40 C.F.R. § 1508.1(ee)) Colorado statutes specifically authorize conservation districts to “plan, in cooperation with the United States government or any of its agencies, the state of Colorado or any of its political subdivisions, and private individuals or corporations, conservation districts, and others, watershed improvement, underground water storage and flood prevention

projects, conservation and erosion control practices, and other projects not inconsistent with this article” (Colo. Rev. Stat. § 35-70-102). Boards of county commissioners serve as both administrative and policy-making bodies for their counties. While, generally, boards have only those powers specifically conferred by the state General Assembly, courts have held that they have such implied powers as may be necessary to carry out their specified powers. Additionally, pursuant to Colo. Rev. Stat. §§ 30-11-101(2) and 30-15-401(1), Rio Blanco County is charged with protecting the health, safety, and welfare of its citizens. These statutes clearly define the local government’s “special expertise” required to be a cooperating agency pursuant to NEPA.

### 2.2.2 Federal Land Policy and Management Act (FLPMA)

FLPMA, which governs the Bureau of Land Management (BLM), provides detailed requirements for “coordination” and “consistency” with local land use plans. With regard to the requirements for “coordination”, FLPMA states (43 U.S.C. § 1712):

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

Such coordination is to be achieved by:

- To the extent practical, the BLM must stay apprised of local land use plans (43 U.S.C. § 1712(c)(9)).
  - The BLM must assure that local land use plans germane to the development of BLM land use plans are given consideration.

- To the extent practical, the BLM must assist in resolving inconsistencies between local and BLM land use plans.
- The BLM must provide for the meaningful involvement of local governments in the development of BLM land use programs, regulations, and decisions. This includes early notification of proposed decisions that may impact non-federal lands.

- Additionally, FLPMA requires BLM land use plans to be consistent with local land use plans, provided that achieving consistency does not result in a violation of federal law. FLPMA states: (43 U.S.C. § 1712(c)(9); 43 C.F.R. § 1610.3-1).
- Land use plans of the Secretary [of the Interior, BLM] 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. Id.

In other words, FLPMA requires both “coordination” and “consistency review.” Coordination should include both regularly scheduled meetings between the various local governments and BLM managers as well as inviting local BLM staff to local government meetings (Bureau of Land Management 2012). FLPMA’s consistency review requirement states that if a BLM land use plan is inconsistent with a local land use plan, the BLM owes an explanation of how achieving consistency would result in a violation of federal law.

Finally, FLPMA requires that the BLM also provide for a Governor’s consistency review as part of the land use planning process (43 C.F.R. § 1610.3-2(e)).

### 2.2.3 The National Forest Management Act (NFMA)

NFMA, which governs the U.S. Forest Service (USFS), requires the agency to “coordinate,” to encourage local governments to seek

cooperating agency status and to consider a “consistency review”. With regard to coordination, the NFMA requires:

*[T]he 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 (16 U.S.C. § 1604(a); see also 36 C.F.R. § 219.4(b)(1)).*

The fact that the USFS is directed to “coordinate” with local governments implies, by its plain meaning, that the USFS must engage in a process that involves more than simply “considering” the plans and policies of local governments; it must attempt to achieve compatibility between USFS plans and local land use plans.

The Forest Service is also required to engage local governments in the planning process and shall encourage States, counties and other local governments to seek cooperating agency status in the NEPA process for development, amendment or revision of a land use plan. (36 C.F.R. § 219.4(a)(1)(iv)).

With regard to consistency review between the Forest Service land use plan and local government plans, the Forest Service regulations require the federal review shall include (i) the objectives of State and local governments as set forth in their plans and policies; (ii) the compatibility and interrelated impacts of these plans and policies; (iii) opportunities for the Forest Service plan to address such impacts and contribute to joint objectives; (iv) opportunities to resolve or reduce conflicts within the context of developing the plan’s desired conditions or objectives. (36 C.F.R. § 219.4(b)(2)(i) – (iv)).

#### 2.2.4 Governor’s Consistency Review Process

State Governors are entitled to a separate consistency review of BLM and land use plans, revisions, and amendments. Title 43 C.F.R. § 1610.3-2 provides an opportunity for the Governor to review all proposed plans to identify any inconsistencies with State or local plans. If the Governor’s comments result in changes to the plan, the public should be re-engaged in the process.

### 2.3 County and District Expectations from Land Use Planning Process and Land Use Plan

While the statutes and regulations outlined above spell out the legal requirements of the federal agencies in their duties in dealing with local governments, the Districts and County also recognize that part of this land use planning process is to develop a solid working relationship with the federal agencies doing business in Rio Blanco County. The Districts and County also recognize that “coordination,” “cooperating agency status” and “consistency review” are required actions on behalf of both the federal agencies and the local governments. To that end, the Districts and County commit to the following actions:

1. Within 30 days of the date of adoption of this plan and any significant updated thereto, the County and Districts will inform the federal agencies of the date, time, and location of their regularly scheduled meetings with an open invitation that federal agency personnel should attend such meetings if there are issues to discuss.
2. Within 30 days of the date of adoption of this plan, the Districts and County will transmit a copy of this local land use plan and any updates thereto to the state, regional, and local federal agency offices doing business within Rio Blanco County for their consideration as part of any consistency review that is required pursuant to federal statute.

3. Within 30 days of the adoption of this plan, the Districts and County will contact the BLM and USFS offices to determine a protocol for informal communication that should occur so that each is apprised of issues and concerns as early as possible.
4. In a timely manner, the Districts and County will review NEPA documents to determine if they will request “cooperating agency status” and will consider entering into Memorandums of Understanding (MOU) or Memorandums of Agreement (MOA) as appropriate. The Districts and the County reserve the right to negotiate a MOU or MOA on a case-by-case basis, although a MOU or MOA is not appropriate nor necessary in all cases.
5. The County and Districts strongly support and will work toward assisting all federal agencies in completion of environmental assessments within 1 year from the date of the agency’s decision to prepare an environmental assessment to the publication of a Finding of No Significant Impact.
6. The County and Districts strongly support and will work toward assisting all federal agencies in completion of environmental impact statements within 2 years from the date of issuance of the Notice of Intent to the date the record of decision is signed.
7. The County and Districts support streamlining of permitting processes, removing redundant tasks/or reports by federal agencies to ensure the permitting process is more efficient.

The Districts support the ~~reestablishment of the~~ multi-agency stakeholder group hosted by the County Commissioners to review and discuss ongoing issues on public lands, and propose regular meetings on a schedule to be determined, but not less than ~~bi-monthly~~ **quarterly**. The County and Districts expect that the federal agencies will provide a record of compliance with the “standards of quality” and its peer review as discussed in section 2.4 of this plan.

## 2.4 The Need for Credible Data

To the greatest extent possible, data should drive all land use planning decisions. The Administrative Procedures Act (APA) places an obligation on Federal Agencies to provide the public with sufficient information about the data and methodology used to support a Federal rulemaking to meaningfully comment. “To allow an agency to play hunt the peanut with technical information, hiding or disguising the information that it employs, is to condone a practice in which the agency treats what should be a genuine interchange as mere bureaucratic sport.” *Connecticut Light & Power Co. v. Nuclear Regulatory Comm 'n*, 673 F.2d 525, 530 (D.C. Cir. 1982). Thus, “[i]n order to satisfy the requirement that the public be provided a meaningful opportunity to comment, an agency must ‘identify and make available technical studies and data that it has employed’ in developing a proposed rule.” *Air Transport Association of America, Inc. v. Department of Agriculture*, 303 F. Supp.3d 28, 54 2 (D.D.C. 2018) (quoting *Connecticut Light & Power Co. v. Nuclear Regulatory Comm 'n*, 673 F. 2d 525, 530 (D.C. Cir. 1982)).

Unfortunately however, sufficient data, data at an appropriate scale, or timely data to use in analysis are not always available. For all references to “data” in this plan, we refer to information that meets, at a minimum, the Federal Data Quality Act (FDQA).

The FDQA directs the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility and integrity of information (including statistical information) disseminated by Federal agencies” (Sec. 552(a) Pub. Law. 106-554; HR 5658; 114 Stat. 2763 (2000)).

The OMB guidelines apply to all federal agencies and require that information disseminated by the Federal government will meet basic

informational quality standards 66 Fed. Reg. 49718, Sept. 28, 2001; see also 67 Fed. Reg. 8452, Feb. 22, 2002).

This “standard of quality” essentially requires that data used and published by all Federal agencies meet four elements. These elements include (66 Fed. Reg. at 49718):

- (a) quality
- (b) utility (i.e., referring to the usefulness of the data for its intended purpose)
- (c) objectivity (i.e., the data must be accurate, reliable, and unbiased)
- (d) integrity

In addition to following the OMB guidelines, all federal agencies were also to issue data quality guidelines by October 1, 2002. 67 Fed. Reg. 8452.

In 2004, the OMB issued a memorandum requiring that, after June 15, 2005, influential scientific information representing the views of the department or agency cannot be disseminated by the federal government until it has been “peer reviewed” by qualified specialists (Office of Management and Budget 2004). This requirement does not specifically require outside peer review, but internal review.

#### 2.4.1 Policy Statements

- ~~1. Require the inclusion of quantitative data that meets credible data criteria, even if the data were not produced by a federal agency.~~
2. Require the inclusion of quantitative data that: 1) bases decisions on the “best available science,” with a priority on “publicly available, reproducible, peer-reviewed science”; and 2) to make publicly available any scientific data relied upon in a rulemaking, the analysis relied upon in a rulemaking, and the methodology used to gather and analyze data to support a proposed or final rule.

3. Support the use of credible scientific data. Credible scientific data is defined as rigorously reviewed, scientifically valid chemical, physical and/or biological monitoring data, timely collected under an accepted sampling and analysis plan; including quality control and assurance procedures and available historical data.
4. Require the BLM and USFS to only use data that meets the minimum criteria described in their respective handbooks (BLM H-1283-1 Data Administration and Management (Public) (Bureau of Land Management 2006) and FS FSH 1909.12, Chapter 40, Land Management Planning Handbook – Key Processes Supporting Land Management Planning (United States Forest Service 2013)), unless other criteria are agreed upon between the Districts, County, and agencies.
5. Make all data, technical studies, underlying data sets, and other information publicly available to the greatest extent provided by law.
6. Any decision based on scientific conclusions that are not supported by publicly available raw data, analysis, or methodology, have not been peer reviewed, or are not readily reproducible should include an explanation of why such science is the best available information.

### 3. Geographic Areas

For the sake of discussion, Rio Blanco County was divided into three geographic areas – Douglas – Piceance – White River Dome – Rangely, Meeker and surrounding area, and Up River. The BLM-managed land dominates ownership in the western area, which includes the Douglas, Piceance, White River Dome, and Rangely areas. Meeker and surrounding areas are dominated by private lands, with some BLM and local government ownership. Up River is dominated by USFS managed lands with some private land inholdings.

Rio Blanco County is approximately 2,064,000 acres located in northwestern Colorado. The County is approximately 56 percent owned by the BLM, 24 percent privately owned, and 17 percent owned by the USFS. The incorporated areas of Rangely and Meeker consist of approximately 2 percent of the land base, and the State of Colorado owns less than 1 percent of the land in the County (Figure 3).



Figure 2. Tidewater Camp, Rangely Basin, 1931

---

*The first settlers at Rangely were Nate Studer and C.P.Hill in 1882. Mr. Hill established a trading post and later a cattle operation. James W. Rector brought the first herd of 3,000 cattle into Douglas Creek in 1885 for the Douglas Creek Land and Cattle Company. Other cattle companies were in the area, and Mr. Rector managed three of these herds until about 1900.*

*Submitted by Rio Blanco County citizen*

---

## LAND MANAGEMENT/OWNERSHIP Rio Blanco County, CO

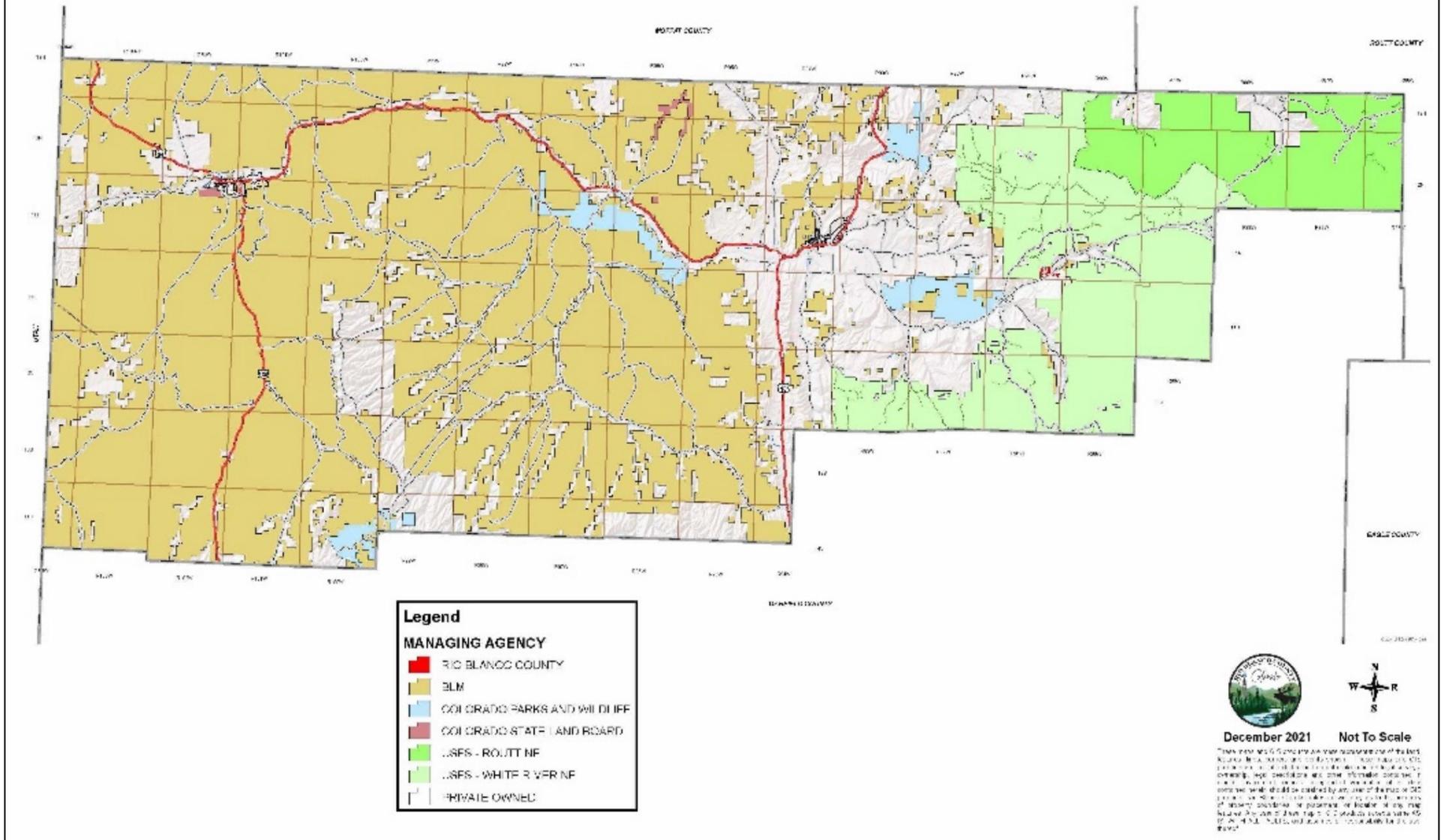


Figure 3. Geographic areas of Rio Blanco County

## CONSERVATION EASEMENTS Rio Blanco County, CO

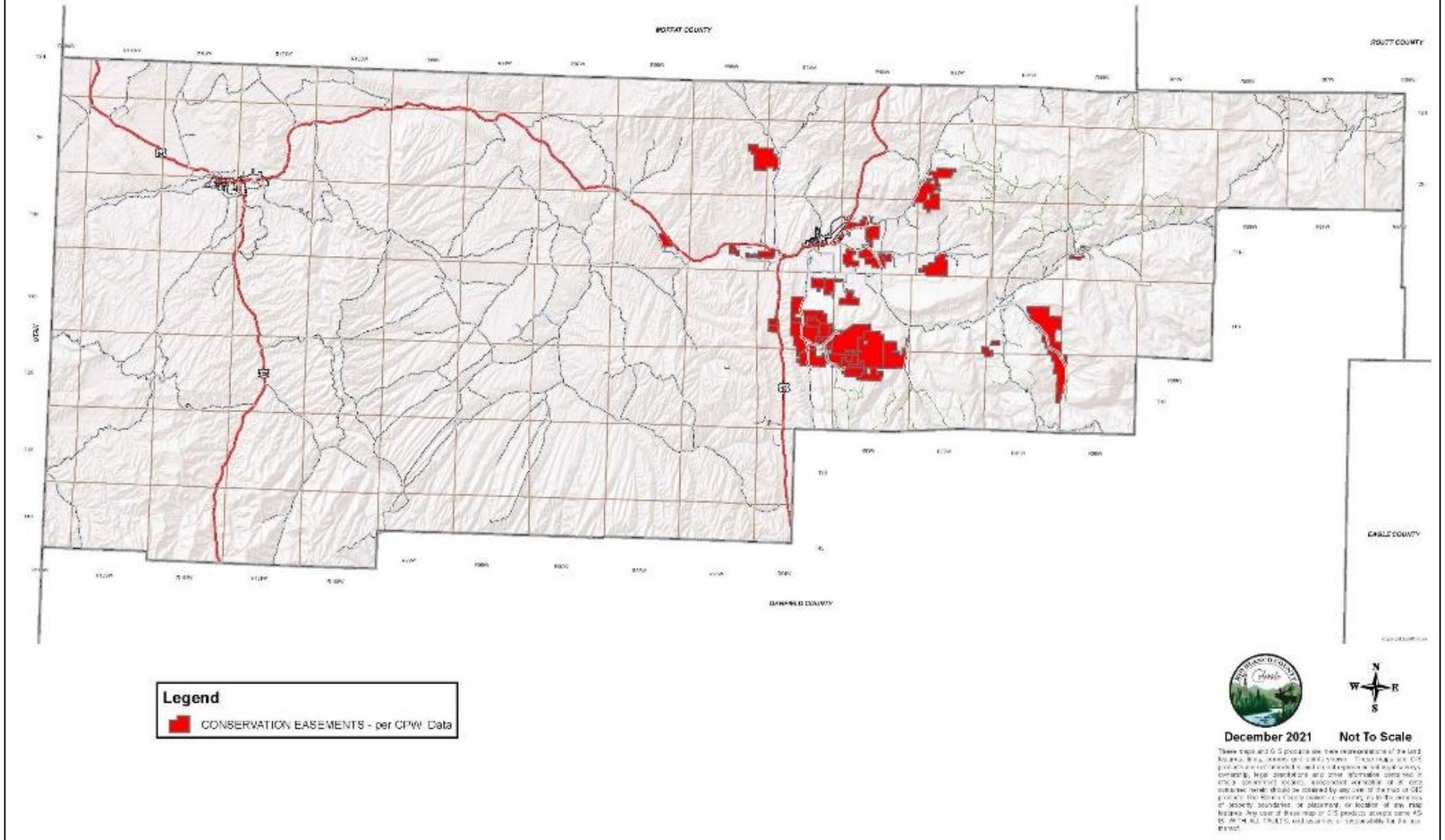


Figure 4. Conservation Easements

## 4. Land Management Policies

### 4.1 County History, Custom, and Culture

---

*Hunting and fishing have always been a part of the history of the County. The Ute Indians lived off the game before any settlers arrived. The numbers have fluctuated with changes in forage resources and bad winters, but most years the herds of deer and elk attract hunters from many states.*

*Submitted by a Rio Blanco County citizen*

---

#### 4.1.1 Background

The terms custom and culture describe the character of the citizens of Rio Blanco County through history and current practices.

Custom is a usage or practice of the people, which by long and unvarying habit, has become compulsory and has acquired the force of law with respect to the place or subject-matter to which it relates (Bouvier 1867). Culture is defined as the customary beliefs, social forms and material traits of a group; an integrated pattern of human behavior passed to succeeding generations (Webster's New Collegiate Dictionary 1975). The definition of "effects" or "impacts" under NEPA includes consideration of "ecological, aesthetic, historic, cultural, economic (such as effects on employment) social or health effects." (40 C.F.R. § 1508(g)(1))

A September 9, 1776 journal entry from the Dominguez-Escalante expedition states they came down the canyon (now Douglas Creek) to a river they named Rio San Clemente (White River). Early accounts also mention the Ute Indians may have called it the White River. Trappers and mountain men were in what is now Rio Blanco County during the early part of the 19<sup>th</sup> century, and explorers traversed northwest Colorado during the latter part of the 1800's.

Modern settlement began in Colorado in the 1850s and then grew rapidly during the post-Civil War economic depression and the passing of the Homestead Act. However, even with the encouragement of the promise of "free land" under the Homestead Act, the amount of land that could be patented was not enough for a viable livestock operation. Thus, these homesteaders relied on the use of the public lands (USFS and BLM) to make their grazing operations viable.

Nathan Meeker, an agricultural settler from eastern Colorado, was appointed the Indian agent at the White River Indian Agency in 1878. His attempt to convert the Meeker area Utes to an agricultural lifestyle proved deadly. The Meeker Massacre in 1879 was one of the last major uprisings in the west and killed Meeker and his staff. The Colorado Ute Removal Act was ratified in the spring of 1880 in retaliation for the numerous battles between the settlers and Utes – forcing the Utes to leave northwest Colorado and resettle on a reservation in Utah.

A trading post was established in Rangely in 1882. In 1883, larger numbers of settlers began to occupy the land, and the town of Meeker became established in 1885. Large cattle herds were moved into the area and multiple cattle companies, such as the Douglas Creek Land and Cattle Company, were established. Homesteading the area brought more cattle, sheep, and farming industries to the area.

Gilsonite was discovered in the late 1800's. It was first hauled by mule trains and wagons. In 1904 a narrow-gauge railroad was built from Mack, Colorado north over Baxter Pass, down Evacuation Creek and passing through the far southwest corner of Rio Blanco County into Utah. The railroad had a significant impact on the County by bringing in supplies, carrying resources such as gilsonite, and providing transportation until it was abandoned in 1938.

Rio Blanco County was formed from the northern portion of Garfield County when it was divided in 1889. There were enough citizens to

consider a new county due to the gold rush in Colorado during the 1870s and the subsequent mining boom. The name Rio Blanco is connected to the Spanish translation of the neighboring White River. Sheep ranching became well established by the 1920s, bringing more people to settle the area. Rangely grew in size due to an oil boom in the 1940s and became incorporated in 1946.

Forestry and logging efforts were extensive in the County and began with the need for houses, barns, and railroads. Logging remained an economic driver in the County until the sawmills closed in the 1980's and 1990's.

Today the agricultural lifestyle remains a strong component of the Rio Blanco County residents' way of life. Expansion in energy development including oil, natural gas, coal, and oil shale has been a driving force in the economy at times over the past century and includes has the possibility for growth in the future should policies change, and prices are sufficient. current population of the area. Important to residents is the connection and access to the abundant natural resources in the area and the ability to engage in recreation, including both motorized and non-motorized activities. Maintaining traditional historical land uses – farming, livestock grazing, energy development, and recreation such as hunting and fishing, etc. – which all contribute to the economic viability of the area, is crucial to sustaining the Rio Blanco community. The County residents are typically supportive of renewable energy options that are environmentally sound and economically feasible.

The County and Districts goal is the development and implementation of long-term management strategies that resolve conflicts while maintaining healthy and sustainable rangelands, forests, energy resources, and economies.

This Plan is to provide the Districts and County guidance as they function as Cooperating Agencies during the coordination process with  
LAND & NATURAL RESOURCE PLAN AND POLICY – RIO BLANCO COUNTY

the Federal Agencies. We request the federal agencies to Communicate, Collaborate, Cooperate, and Consult with the various departments within the State of Colorado and the Governor's Office. ~~Topics to address include rangeland health, and wildlife habitat, fencing, water and forage related conflicts, and the development and implementation of long-term management strategies that resolve conflicts while maintaining healthy and sustainable rangelands and forests.~~

#### 4.1.2 Policy Statements

1. Support no net ~~loss of private land and other private property, gain of federal lands~~
2. The management of rangelands and forestlands to maintain and enhance desired plant communities that benefit watersheds, wildlife, water quality, recreation, and sustainable livestock grazing is of utmost importance.
3. ~~Federal lands must be managed in a manner that recognizes the Nation's need for a domestic source of energy, minerals, food, timber, and fiber. Require federal land management agencies to use the 4-C's – Conservation through cooperation, communication, and consultation in all interactions with the County and Districts. The local governments commit to engage in the 4-Cs.~~
4. Require consultation and coordination with the District and County at the earliest possible time for all NEPA analyses. (40 C.F.R. § 1501.9(b). ~~(“As part of the scoping process, the lead agency shall invite the participation of likely affected Federal, State, Tribal and local agencies and governments . . . .”); 40 C.F.R. § 1506.6(b)(3)(ii).~~ This includes participation in the development and disclosure of reasonable and foreseeable alternatives, economic and human impact analysis, and mitigation requirements.
5. It is critical for project planning and activities to be coordinated within the agency departments and with all impacted permittees

to allow for opportunities to serve multiple resources with each project. (e.g.: when an oil and/or gas pipeline project is going in, installation of a water pipeline for domestic livestock and wildlife use should be planned. This minimizes disturbance in the allotment and allows the permittee to improve domestic grazing distribution, helps wildlife, and “wild” horses where applicable.)

6. Communication **is required** with permittees or lessee prior to completing a site visit to the allotment or lease **is important and strongly encouraged**.
7. Domestic livestock grazing shall continue to be recognized as an important multiple use on BLM and USFS lands as documented in FLPMA, NFMA and the Taylor Grazing Act. The custom and culture of Rio Blanco County is based on continued access to BLM and USFS lands for livestock grazing, commensurate with and adjudicated to their private land base properties.
8. Access to all resources on federal lands shall also be recognized as part of the custom and culture of Rio Blanco County.
9. Encourage multiple use on current and future BLM special designation areas **where allowed**.

## 4.2 Air Quality

### 4.2.1 Background

The State of Colorado has been monitoring visible air pollution statewide since the mid-1960s. Monitoring of gaseous pollutants (carbon monoxide, sulfur dioxide, oxides of nitrogen, and ozone) began in 1965 in Denver.

Passage of the Federal Clean Air Act of 1970 created National Ambient Air Quality Standards (NAAQS) as established by the Environmental Protection Agency (EPA). Standards were established for total suspended particulate matter (TSP), carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>). Colorado submitted its first State Implementation Plan (SIP) to the EPA in 1972. The Clean Air Act amendments (1977) required submission of revised

SIPs; Colorado’s was submitted in 1979 after review and approval by the Colorado Air Quality Control Commission. Amendments in 1990 adjusted due dates for attainment of NAAQS.

The BLM funded Air Resource Specialists (Fort Collins, CO) to establish air quality (AQ) sites in the White River Basin to monitor air quality. Additional air monitoring stations were established in the Yampa River Basin and Uinta Basin (Utah) to assist with the understanding of regional air quality. Sites were also established in Meeker and Rangely. Both sites are Federal Reference Method (FRM) sites, which are part of the National Park Services Air Quality Division Gaseous Pollutant Monitoring Network and are audited annually by the Colorado Air Pollution Control Division. **In 2019, the BLM removed the AQ station from the location at the Upper Colorado Plant Center in Meeker and reinstalled it at the Meteorological site in Piceance Basin in 2020.** (Figure 5)

**A meteorological site was installed in the Piceance Basin and may have air quality data added in the future. Monthly reports are available from December 2010 to present (Figure 5)**

The BLM references additional monitoring sites in the 2015 Oil and Gas Resource Management Plan Amendment (RMPA) including CO data from the American Soda Plant monitoring and SO<sub>2</sub> data from the Unocal monitor.

According to monitoring data, the BLM states “air quality is good (substantially below the NAAQS for all pollutants except ozone), due to relatively few large air pollutant emission sources...Good atmospheric dispersion conditions due to reliable winds and vertical mixing, as well as limited air pollutant transport into the area, result in relatively low local air pollutant concentrations” (Bureau of Land Management 2015).

#### 4.2.2 Policy Statements

1. Implementation of the Clean Air Act and any Amendments of 1990 must be balanced with economically viable and sustainable communities.
2. Support quantitative analysis of any reasonably foreseeable significant impacts to air quality for proposed projects.
3. Support consultation and coordination with the County and/or Districts in the development of mitigation strategies to reduce air quality impacts, particularly where NAAQS are being exceeded.
4. Support consultation and coordination with the County and/or Districts when federal agencies are developing permitting or leasing stipulations (including enforcement protocols and exceedance levels) for proposed activities that may impact air quality.

DRAFT

# AIR QUALITY MONITORING STATIONS Rio Blanco County, CO

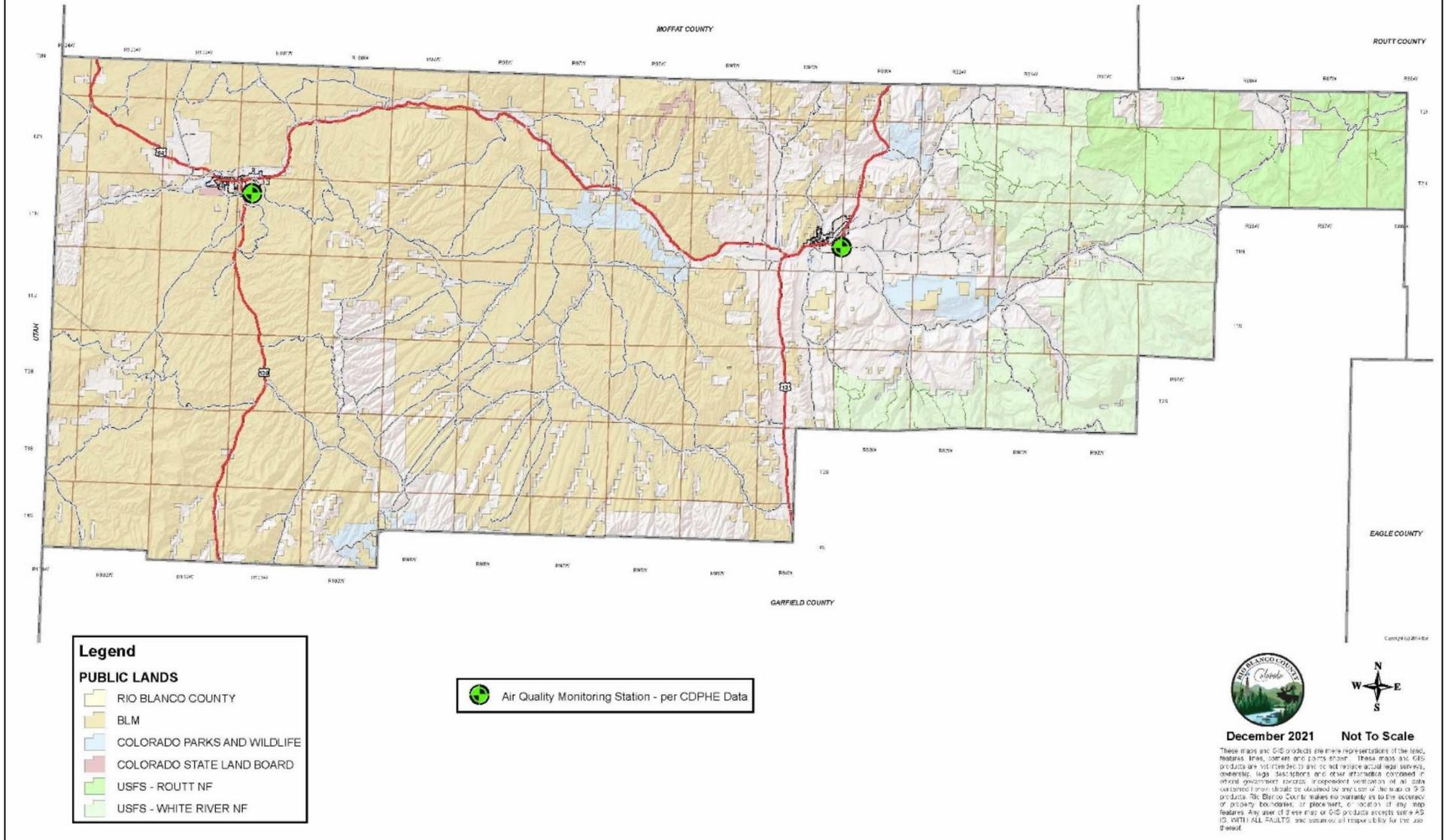


Figure 5. Air Quality Monitoring Stations

## 4.3 Climate Change

### 4.3.1 Background

Climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Under NEPA, federal agencies must assess the effects of major federal actions that affect the environment. According to the Supreme Court, as echoed in the Council of Environmental Quality (CEQ) regulations, such “effects” or “impacts” mean changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. 40 C.F.R. § 1508.1(g). Under the NEPA regulations, a “but for” causal relationship is insufficient to make the agency responsible for the effect. “Effects should generally not be considered if they are remote in time, geographically remote, or are the product of a lengthy causal chain. Effects do not include those effects that the agency has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action. (40 C.F.R. § 1508.1(g)(2)) Climate change and greenhouse gas (GHG) emissions are to be considered as part of the “effects of the human environment” to the extent they are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives.

#### **America the Beautiful (30 X 30) Plan:**

On January 7, 2021, President Joe Biden signed Executive Order 14008 entitled Tackling the Climate Crisis at Home and Abroad, to achieve the goal of conserving at least 30 percent of America’s lands and waters by 2030.

The Biden Administration believes that only 12% of US land is considered to be conserved, thus additional uses would have to be eliminated or private and state lands would have to be acquired to achieve 30x30 (U.S. Department of the Interior, 2021). It is estimated that an additional 440 million acres would have to be acquired by 2030. On May 6, 2021 the preliminary report ordered by E.O. 14008 was released (U.S. Department of the Interior et al., n.d.). The report identified eight primary principles the agencies were going to follow in pursuing President Biden’s 30x30 goal. Conserving and Restoring America the Beautiful p. 13-16. Those principles include:

1. Pursue a collaborative and inclusive approval to conservation.
2. Conserve America’s lands and waters for the benefit of all people.
3. Support locally led and locally designed conservation efforts.
4. Honor tribal sovereignty and support the priorities of tribal nations.
5. Pursue conservation and restoration approaches that create jobs and support healthy communities.
6. Honor private property rights and support the voluntary stewardship efforts of private landowners and fishers.
7. Use science as a guide.
8. Build on existing tools and strategies with an emphasis on flexibility and adaptive approaches.

Additionally, the report recommended the creation of an American Conservation and Stewardship Atlas. The Atlas would be an accessible, updated, and comprehensive tool through which to measure the progress of conservation, stewardship, and restoration efforts across the United States in a manner that reflects the goals and principles of 30x30, Conserving and Restoring America the Beautiful. The American Conservation and Stewardship Atlas would aggregate information from these databases and others, supplement this information with

information from the States, Tribes, public, stakeholders, and scientists, and provide a baseline assessment of how much land, ocean, and other waters in the U.S. are currently conserved or restored, including, but not necessarily limited to:

- 1) The contributions of farmers, ranchers, forest owners, and private landowners through effective and voluntary conservation measures;
- 2) The contributions of Fishery Management Councils and their conservation measures under the Magnuson-Stevens Fishery Conservation and Management Act; and
- 3) The existing protections and designations on lands and waters across Federal, State, local, Tribal, and private lands and waters across the nation.

Finally, the report created six goals that the agencies should focus on to achieve 30x30 Conserving and Restoring America the Beautiful.

Those goals include:

- 1) Create more parks and safe outdoor opportunities in nature deprived communities.
- 2) Support tribally led conservation and restoration priorities.
- 3) Expand collaborative conservation of fish and wildlife habitats and corridors.
- 4) Increase access for outdoor recreation.
- 5) Incentivize and reward voluntary conservation efforts of fishers, ranchers, farmers, and forest owners.
- 6) Create jobs by investing in restoration and resilience.

As of March 2021, there has been no substantive guidance as to what lands or uses will qualify under 30x30.

#### 4.3.2 Policy Statements

1. Require inclusion of credible scientific data that meets the credible data criteria, even if not produced by a federal agency (See Section 2.4).
2. Support climate change analysis on a regional level; the region should be identified through consultation and coordination with the County and Districts.
3. Support environmentally sound practices to reduce impact on the environment. Recognize all actions and energy sources will impact various aspects of the environment in different ways. (e.g.: pipeline reclamation requires equipment that will emit particulates into the atmosphere. However, quality reclamation can positively impact rangeland health which helps with carbon sequestration, wildlife habitat, soil erosion, livestock forage, etc.). ~~We require an analysis of the impact each “decision” will have upon the global environment and the local economy. If the decision will have insignificant impact on the global environment but will have significant negative impact on the local economy, the alternative/decision is unacceptable.~~
4. The costs and benefits of any management decision or regulation adopted to address climate change must be quantified.
5. Oppose management decisions that are proposed primarily to regulate greenhouse gases through climate change analysis that could harm the local economy.
6. Support the NEPA process as the tool and process that evaluates any need to conserve and protect the land and water. Therefore, oppose any other effort to implement other “protection” rules and regulations such as America the Beautiful (30 X 30) Plan.
7. Oppose identifying “conserved land or water” through the America the Beautiful (30 X 30) Plan as this would minimize or

remove multiple uses of the land and reduce the productivity of the land.

8. Support renewable energy options that are environmentally sound and economically viable considering all resources necessary to manufacture the equipment and the disposal of the equipment/materials at the end of their useful life.
9. Oppose federal agencies using coercive tactics to “encourage” landowners to either sell land, exchange land for lesser land, or take land out of production.
10. Federal agencies should consult with Rio Blanco County when evaluating whether lands and the multiple uses on them qualify as “conserved lands” under 30x30.
11. Protecting private property rights should be the greatest priority when attempting to fulfill the 30x30 goals outlined in Executive Order 14008.
12. Federal agencies shall not use coercive actions or the threat of condemnation to acquire land to achieve their 30x30 goals outlined in Executive Order 14008.

## 4.4 Forest Management, Wildfire, and Community Wildfire Planning

### 4.4.1 Custom and Culture

Native Americans reduced excess fuel loads and managed vegetation composition by burning areas prior to moving to their next encampment. This was done on a rotating basis that varied depending on weather conditions and fuel loads. This resulted in varying fire intensities being spread throughout the area, leading to a varied age structure and species composition in the forested areas.

Cattle and sheep ranchers continued the practice of setting annual burns. Before changing their seasonal grounds, the ranchers would burn **areas of** the grazed ground to bring new vegetation for their livestock and wildlife for the upcoming season.

During the same time periods and before settlement, range and forest fires were allowed to burn. Mother Nature struck a balance of cleansing the land of old growth and revitalizing the landscape. More recent fire suppression policies have extinguished the small, annual fires and resulted in a series of catastrophic fires that sterilize the soil and harm regrowth. The timeframe between fires is enough to cause a decline in aspen groves as they are encroached on by higher successional species such as spruce and firs.

A number of logging and sawmill businesses were present in Rio Blanco County since immigrant settlers homesteaded in the County. Logs were cut and floated down the White River to construct the military post established after the Meeker massacre.

An Engelmann Spruce beetle infestation in the 1940s changed the character of the forests in Rio Blanco County. An estimated 30 to 40 small sawmills, primarily located in the Burro Mountain and Triangle Park areas, logged the infected timber. From the early 1960s until

1991, one sawmill remained. The mill closed due to timber prices and environmental pressures in 1991.

### 4.4.2 Background

#### Forest Management

Forest management in the United States was formalized when Congress created the office of Special Agent in 1876 in the Department of Agriculture to assess the quality and condition of forests in the United States. In 1881 the Division of Forestry was added, and in 1891 Congress passed the Forest Reserve Act (also called the Creative Act) allowing the President to designate western lands as “forest reserves.” Western communities strongly opposed forest reserves under the Creative Act because development and use of “reserved lands” was prohibited. In order to quell the strong opposition to forest reserves, Congress adopted the Organic Administration Act of 1897 to protect the use of the reserves for local citizens.

The Organic Administration Act declared that forest reserves would be created for two purposes (1) to protect water resources for local communities and agriculture and (2) to provide a continuous supply of timber. Thus, the purposes for which forests were to be used changed from the land being reserved from local communities to the land being used for economic development by local communities. The Supreme Court upheld the original purposes of the Organic Administration Act in 1976 in *U.S. v. New Mexico*. Responsibility for these reserves was initially under the Department of the Interior, but in 1905 President Roosevelt transferred responsibility to the Department of Agriculture with the establishment of the USFS.

The White River National Forest (WRNF) was set aside as the second National Forest in the Nation under the Creative Act in 1891 as the White River Plateau Timber Reserve by President Benjamin Harrison. In 1905 when an act of Congress changed the name of the Forest

Reserves to National Forests, then Forest Ranger James Blair recognized that the resources in the WRNF were to be used and not locked up. Over time, the WRNF incorporated other reserves to reach its current size of approximately 2,270,000 acres. The forest includes ski areas as well as approximately 750,000 acres of wilderness, including a portion of the Flat Tops Wilderness Area (initially designated as the Flat Tops Primitive Area in 1932), located in the southeast corner of Rio Blanco County. The economic drivers in portions of the forest have shifted over time from consumptive uses (e.g., grazing and timber harvests) to recreational (United States Forest Service 2002), although in Rio Blanco County there is still a heavy reliance on consumptive uses.

The Blanco Ranger District headquarters is located in Meeker. There are 352,917 acres of National Forest land within the Blanco District boundaries, including the historic Flat Tops Wilderness, which encompasses approximately 235,406 acres.

The term “forest health” is challenging to define as different special-interest groups have varying perspectives based on their respective causes. A simple definition would be that a healthy forest is one that is likely to be sustained into the foreseeable future. Forest health depends on a sensitive balance of addressing problems such as pest infestation and fire outbreaks with forest goals such as continued livestock grazing, timber production, recreational use, and forest productivity.

High levels of biomass (fuel loads) are a primary concern in today’s forest health as these accumulations of live and dead vegetation can contribute to pest problems and encourage epidemics of insects and diseases, reduce native biological diversity, and of course provide fuel for fires that can grow to epic proportions with a constant fuel source.

Biomass reduction is an important step necessary to ensure the long-term health of a forest as well as the safety of its neighbors.

Historically logging was an important economic boost during the settling of the western states. The main forest cover types in the WRNF are aspen, Douglas fir, and Engelmann spruce-subalpine fir. Lodgepole pine and small pockets of ponderosa pine also exist in the WRNF. Approximately one-half the forested land on the WRNF is classified as a “mature” structural stage. WRNF estimates a large portion of the forest was regenerated between 100 and 130 years ago after logging and wildfires (United States Forest Service 2002).

As of 2002, the WRNF compared “managed areas” (areas that had approximately 40 percent of their area harvested in the last 50 years) to “reference areas” (areas not thought to be impacted by recent harvest or human activities). An extensive discussion of the analysis completed by the USFS to determine impacts of management is available in Chapter 3 of the Final EIS for the White River National Forest, but in very broad terms, the USFS has not noted a significant shift in forest composition (acreage, structure, or age class of trees) in the last 50 years (United States Forest Service 2002).

Over time, the WRNF, like many of its neighboring forests, has transitioned to an economy bolstered by tourism and recreation. However, logging still plays a vital role in maintaining the health of the forest. Fire suppression, which has occurred since Europeans settled the area, has altered the natural landscape of the forest. Research indicates that numerous factors, including drought and climate change, have allowed the pine beetle to expand its range (Weed 2015). Numerous tools exist to minimize the risk of pine beetle infestation but **and** decreasing forest canopy density is an effective and necessary tool in this reduction.

The NFMA ensures that the U.S. Forest Service completed specific monitoring tasks and further enhanced the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) by requiring an inventory of all USFS lands as well as evaluating the suitability of all its lands. With regard to timber management, the regulations require that for new forest plans or plan revisions, the agency must identify areas that are not suitable for timber production and the maximum quantity of timber that may be removed from the plan area. 36 C.F.R. §§ 219.7(c)(viii), (xi); 219.11. A revision occurred in 1982, and numerous iterations and litigation proceedings since then, but the 1982 version is still used today. It requires under 26 C.F.R. § 219.12 (k) part 5 that monitoring requirements identified in the forest plan are in compliance with the following standards: “ii. Lands identified as not suited for timber production are examined at least every ten years to determine if they have become suited; and that, if determined suited, such lands are returned to timber production.” The record of decision for the WRNF Plan Revision in 2002 identifies 425,000 suitable timber land acres and sets the allowable sale quantity (ASQ) as 7.4 million cubic feet per year and the ASQ 32.5 in million board feet per year.

In November 2015, the USFS and the Colorado State Forest Service (CSFS) signed the Master Good Neighbor Agreement, which encourages a collaborative approach and utilizes state resources to accomplish work across land ownership boundaries onto National Forest System lands. The CSFS will be able to work on the 11 National Forests in Colorado, including the WRNF. Authorized activities include treating insect and disease infected trees; activities to reduce hazardous fuels; and any other activities to restore or improve forest, rangeland, and watershed health, including fish and wildlife habitat. The Agreement excludes facilities maintenance and construction, road maintenance and construction, and projects in areas where removal of vegetation is prohibited or restricted (e.g., wilderness and wilderness study areas).

The CSFS is currently working on a similar agreement with the BLM.

The Routt National Forest (RNF) is located in the northeastern portion of the County. Approximately 123,479 acres is located in Rio Blanco County and most of this area is classified as roadless area. The Park Range Forest Reserve, established in 1905, was renamed to honor Colonel John N. Routt, the last territorial and the first elected governor of Colorado, in 1908. The RNF was merged with the Medicine Bow National Forest and the Thunder Basin National Grassland to form the Medicine Bow-Routt National Forests.

The Yampa Ranger District was established from the White River Forest Reserve lands in 1954 after merging several districts and is located in Yampa.

### Wildland Fire

Wildland fire occurrence data (Figure 6) plays an integral role in most forest and rangeland systems. Decades of intensive fire control have disrupted the natural fire regimes in the entire country. Additionally, the expansion of human development into historically uninhabited areas has increased threats to human health, safety and property.

In 2000, the National Fire Plan (NFP) was developed to increase the ability of BLM and USFS to respond to severe wildland fires and minimize their impacts on communities while ensuring sufficient firefighting capacity for the future. The NFP addresses five points:

## FIRE OCCURANCE Rio Blanco County, CO

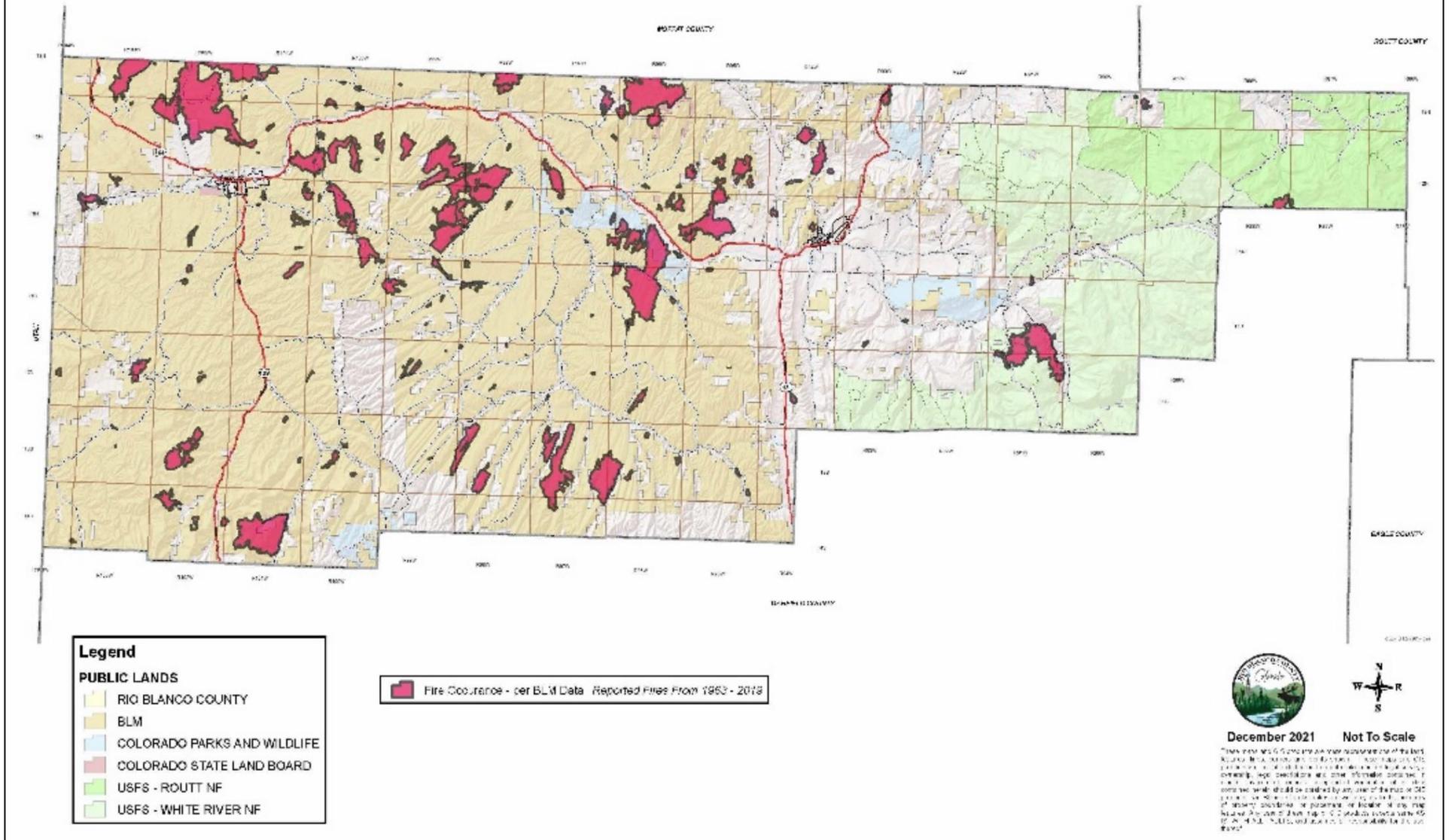


Figure 6. Fire occurrence in Rio Blanco County

Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability.

The Healthy Forests Initiative (HFI) was launched in 2002 to protect natural resources from unnaturally intensive and destructive fires and to reduce the risks wildfires pose to people and the environment. Additionally, the CEQ was directed to streamline NEPA compliance. A streamlined process was created for EAs for fuels treatments. Categorical Exclusions (see Section 5 for a definition) were developed for some kinds of fuels treatments based on project size, location, treatment method, compliance with existing land and resource management plans, and other environmental laws.

In December 2020, BLM finalized a new categorical exclusion increasing BLM's ability to analyze proposed harvests of dead and dying trees resulting from fire, insect, disease, drought from 250 acres to 5,000 acres. Additionally, the BLM issued a new categorical exclusion to expand BLM's ability to complete treatment on pinyon-juniper encroachments up to 10,000 acres. The Forest Service also finalized a categorical exclusion allowing activities (including prescribed burning, pruning, vegetation thinning and timber harvesting) with the primary purpose of meeting restoration objectives or increasing resilience on lands up to 2,800 acres.

BLM specifically added regulations to allow decisions to be made about wildfires when vegetation, soils, or other resources on public lands are at substantial risk of wildfire due to drought, fuels buildup, erosion, or other damage from wildfire. Secretary Order 3336 (United States Department of the Interior 2015) provides enhanced policies and strategies for suppressing rangeland fire and restoring burned sagebrush ecosystems. The order was largely driven by Greater Sage-grouse habitat conservation, but it applies to wildlife, ranching, and recreation. A focus is also on controlling the invasion of annual grasses

(primarily cheatgrass) with the intention of reducing the likelihood and severity of fire, to slow the spread of invasive species, and to restore the health and resilience of the landscape.

The HFI also changed guidance for Section 7 Endangered Species Act (ESA) consultation for hazardous fuels treatment projects. After training, agency personnel can make determinations without consulting with, or obtaining written concurrence from, the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service for actions that support the NFP and HFI.

Also in 2002, the Wildland Fire Leadership Council (WFLC) was established by the Secretaries of Agriculture and Interior to support the coordination and implementation of Federal Fire Management Policy. It was a committee that includes federal, state, tribal, county, and municipal government officials to provide policy coordination, accountability, and effective implementation of Federal Wildland Fire Management Policy and related long-term strategies. The group created the National Strategy Committee to provide leadership and oversight for strategy implantation.

The Healthy Forests Restoration Act (HFRA) (2003) sped up hazardous fuel reduction and forest restoration projects on lands at risk of wildland fire and/or of insect and disease epidemics. The Act also authorized and defined Community Wildfire Protection Plans.

The Western Regional Strategy Committee (a subset of the National Cohesive Wildland Fire Management Strategy) was created in 2011 to implement collaboration across stakeholders and landscapes to restore fire-resilient landscapes, create fire-adapted communities, and improve wildfire response. The Regional Committees are in the process of transitioning the planning completed through the national objectives to on-the-ground implementation of the Regional Action Plans.

More recently, the USFS developed the Western Bark Beetle Strategy: Human Safety, Recovery and Resiliency (United States Forest Service 2011) to detail how the USFS will respond to the mountain pine beetle epidemic over the next five years. USFS has focused on the mitigation of hazard trees and fuels and to reduce the potential negative impacts on the watershed. Since the outbreak began in 1996, more than four million acres have been impacted in northern Colorado and southeastern Wyoming.

Spruce beetles are the most significant “natural mortality agent” of mature spruce. After a wind throw event in the WRNF in 1939, a large spruce beetle outbreak lasted more than a decade. As a result of the 1939 outbreak, forests changed from being dominated by Engelmann spruce to subalpine fir. Spruce beetles prefer downed trees to standing trees (United States Forest Service 2010).

### **Forest Health and Water Quality/Quantity**

There is no question that the management of National forests has a direct impact of water quality in Colorado. According to the 2020 Report of the Health of Colorado’s Forests prepared by the Colorado Department of Natural Resources and the Colorado State Forest Service, 80% of Colorado residents rely on forested watersheds for clean drinking water. According to that report:

*We are primed to face the same types of uncharacteristic wildfires we saw last year unless an increase in the pace and scale of forest management is made a statewide priority, work is done more quickly and the buildup of beetle-killed and living fuels is addressed across the landscape in areas that can be accessed. Fire plays a crucial role in the long-term health and resiliency of fire-dependent forests in Colorado, but a long history of fire suppression and lack of forest management, combined with more people living in*

*the wildland-urban interface, have led to a growing and unsustainable problem for our state.*

Numerous studies worldwide demonstrate that changes in forest cover result in a change in water yield. (Troendle and Nankervis 2014) Based on analysis of data plots over the course of many years, water yield increases and increases in water quality occur with a decrease in timber stand density. Id.

### **Post-fire Revegetation Efforts**

#### *Bureau of Land Management*

BLM Handbook H 1742-1 (Burned Area Emergency Stabilization and Rehabilitation Handbook – Public) (Bureau of Land Management 2007) describes the planning process, standards, compliance and monitoring/reporting requirements for the Burned Area Emergency Response (BAER) program. It is tiered to Departmental Manual (DM) Part 620, Wildland Fire Management (Bureau of Land Management 2004). BAER is to address emergency stabilization needs to prevent further damage to life, property, natural, and cultural resources by including information about effects to existing vegetation. BAER Teams perform emergency assessments and soil stabilization treatments immediately following wildfire containment.

Emergency stabilization is defined as “planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life and property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency stabilization actions must be taken within one year following containment of a wildland fire” (620 DM 3.3E).

The objective of emergency stabilization is to “determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property or to stabilize and prevent unacceptable degradation to natural and cultural resources resulting from the effects of a fire” (620 DM 3.4A).

The priorities for post-fire protection are: human health and safety, property and unique biological resources (designated Critical Habitat for federal and state listed, proposed or candidate threatened and endangered species) and significant heritage sites (620 DM 3.7A).

Rehabilitation is defined as “efforts undertaken within 3 years of containment of a wildland fire to repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by fire” (620 DM 3.3M).

Rehabilitation objectives are to (620 DM 3.4B):

- Evaluate actual and potential long-term post-fire impacts to critical cultural and natural resources and identify those areas unlikely to recover naturally from severe wildland fire damage;
- Develop and implement cost-effective plans to emulate historical or pre-fire ecosystem structure, function, diversity and dynamics consistent with approved land management plans, or if that is infeasible, then to restore or establish a healthy, stable ecosystem in which native species are well represented; and
- Repair or replace minor facilities damaged by wildland fire.

Allowable rehabilitation actions are limited to: lands unlikely to recover naturally, weed treatments, tree planting, repair/replacement minor facilities, and monitoring.

Emergency Stabilization (ES) Plans are prepared immediately following a wildfire when stabilization is necessary. The Burned Area Rehabilitation (BAR) plans may be prepared concurrently. Funding may not be in place until the following fiscal year, but may be available sooner. ES is funded through Wildland Fire Operations. BAR activities are funded through the Other Fire Operations, Burned Area Rehabilitation. Funding is on a priority basis determined by the Interior BAER Working Group in consultation with the Office of Wildland Fire Coordination.

Emergency Stabilization and Rehabilitation (ESR) plans must be consistent with Land Use Plans, as well as any applicable activity level plans (e.g., Area of Critical Environmental Concern plans, Wilderness plans).

Due to the “emergency nature” of stabilization treatments, BLM may issue a decision to implement treatments immediately, or on a date specified in a decision document. A Full Force and Effect (FFE) decision may be issued using 43 C.F.R. § 4190.1 for rangelands and 43 C.F.R. § 5003.1 for forest lands. Any appeal of wildfire management decisions is appealed directly to the Interior Board of Land Appeals (IBLA) rather than through normal protest and appeal processes.

FFE decisions still require the BLM to make “reasonable efforts” to discuss the decision with interested parties, partners, stakeholders, and state, local, and tribal governments during the project planning and NEPA analysis. Efforts must also be made to allow for public comment during the planning process.

If livestock removal or modification is important to the success of the ESR treatment, and the determination is made to implement the treatment immediately, and the decision is placed in FFE, then the livestock grazing modification should also be placed in FFE. The decision must clearly document what resources are at “substantial risk

of wildfire” or “at immediate risk of erosion or other damage due to wildfire” and the factors placing those resources at risk of post-fire damage.

#### *Forest Service*

The USFS uses the Rapid Assessment of Vegetation Condition after Wildfire (RAVG) process to provide information to assist with post-fire vegetation management within 45 days of fire containment. RAVG products include mapping and Geographic Information Systems (GIS) products showing the location of basal area loss within the fire perimeter, and a summary of vegetation affected by the fire organized by basal area loss. The Remote Sensing Applications Center creates these products by comparing pre-fire digital imagery with burn severity maps. RAVG data are used in the BAER process.

#### **Wildland-Urban Interface and Community Wildfire Protection**

From a wildland fire perspective, the wildland-urban interface (WUI) refers to the transition zone between unoccupied land and human development that is prone to wildfire. This occurs in forested areas and sagebrush communities. The primary WUI zones in Rio Blanco County are mapped near Rangely and Meeker, but the interface occurs at every ranch house or cabin throughout the County. The main objective for existing residences in the WUI focuses on hazardous fuels reduction. A number of grants are available to individual homeowners, the fire department, and County for WUI fuels mitigation efforts. Firewise.org maintains a list of current grant opportunities at <http://www.firewise.org/usa-recognition-program/grants-and-funding/federal-government.aspx>.

The Rio Blanco County Community Wildfire Protection Plan Update was completed in 2012 (Alpenfire, LLC 2012). Community Wildfire Protection Plans (CWPP) are defined and authorized by HFRA and

provides recommendations on local firefighting capability, the need for defensible space, and land management prioritization on federal and non-federal lands. CWPPs also make the County eligible for federal funds to complete fuels mitigation projects.

The CWPP divided the County into four zones for the WUI assessment. WUI, in the CWPP, includes commerce, industry, and infrastructure in the County. Oil and gas development, mining, road and utility corridors, agricultural areas, watersheds, and cultural resources are all concerns in the County.

The CWPP provides a comprehensive summary of risks and potential responses to wildfire throughout the County and is available at the Upper Colorado River Interagency Fire and Aviation Management Unit website.

#### **4.4.3 Policy Statements**

1. Create a local interdisciplinary working group to assist with the implementation of the Federal Wildland Fire Management Policy that includes a member or members from the Districts and County.
2. Implement the strategies, priorities, and recommendations in the Rio Blanco County Community Wildfire Protection Plan (updated 2012) and any subsequent plan updates.
3. The management of non-native and noxious weeds, including cheatgrass, after wildland fire events using tools including (but not limited to) livestock grazing, chemical, and other mechanical control is critical to protect ecosystem health.
4. The reduction of fuels through silviculture and livestock grazing is necessary. Proactive management practices such as selective timber harvest and thinning, livestock grazing, and prescribed burns on federal lands will encourage ecosystems with varied age classes and successional states that support a variety of

species and uses (including watershed improvement and improved wildlife habitat) and decrease the risk of catastrophic wildland fires and disease.

5. Long-term (i.e., 20-year) timber harvest leases, based on local market value, are important to allow private industry to take the financial risk and make an investment in the infrastructure necessary to maintain the timber industry and forest health in the County.
6. Increased timber harvests (above the 425,000 acres identified in the 2002 WRNF revision) should be analyzed in the next forest plan update to improve the economic viability of logging in the County and improve forest condition.
7. Treat insect outbreaks as an emergency. Forest insect management should focus on forest management that alters stand conditions that factor in insects and include all methods to reduce or prevent insect infestations, e.g., salvage and sanitation cutting, spraying, biological control, prescribed burning, etc. to prevent the next epidemic of widespread tree mortality.
8. Support wildland fire use on rangelands as a management tool and encourage prescribed burns.
9. Support the involvement of the District and County as cooperating agencies in the Master Good Neighbor Agreement planning process.
10. Managed livestock grazing is an appropriate management tool for revegetation and fuels reduction.
11. Livestock grazing should be returned to pre-fire levels when post-fire monitoring data shows objectives have been met or have been achieved to the extent allowed by the site potential.
12. Adaptive management practices for grazing should be developed and included in term permits to allow for flexible management practices that will decrease fuel loads on the

landscape, particularly in areas with cheatgrass infestations or heavy grass understory.

13. The development of measurable, achievable objectives should be used in all ESR planning and decision documents based on site potential and management objectives.
14. Vacant grazing allotments should be assigned to permittees affected by fire or other resource concerns as quickly as possible to minimize the economic disruption to permittees.
15. The removal of pinon-juniper infestations throughout the County is important to decrease wildfire potential and improve upland habitat conditions.
16. Post-fire monitoring should be completed as soon as allowed by the fire closure decision to determine if reseeding objectives have been met. If objectives have not been met, complete a determination regarding the likelihood of the objectives being met without additional resources and continued closure.
17. Coordinate with the County and Districts to select and describe management indicator species and their role in determining forest health.
18. Management must focus on watershed health for all public land.
19. Support forest thinning and burning to improve watershed health.

## 4.5 Livestock Grazing

### 4.5.1 Custom and Culture

*When Rueben D. Oldand went overseas to fight in WWII, he was a scout. Not only was a scout's life expectancy short but the conditions were terrible. He promised God that if He would let him live and return to his beloved Piceance he would never complain again. He lived and returned to Piceance to spend the rest of his life with never a complaint. Actually the no complaining came easy to dad as he was so happy to live and work on Piceance. Not only was there a proud feeling of continuing the family tradition of ranching on the Piceance but he loved the land. The climate isn't bad. All you have to do is watch the news everyday of hurricanes, tornadoes, earthquakes and all the other natural disasters to appreciate the Piceance weather. The cattle really thrive here. He always told me that when the weather wasn't the best and you had to be out in it, you needed to find something you enjoyed. From the horse he rode to the wildlife he saw and the geological formations he enjoyed, he was always able to find something he could enjoy. The community of friends is important. Most of the ranchers have been here as long as we have and would do anything to help one another. Meeker is the community where our children went to school and is where we shop. We know these people and they are all an extended part of our family. All these things come together and become the glue that keeps us here continuing what our great-grandfather started over 125 years ago.*

*Submitted by Chris Uphoff*

The history of domestic livestock grazing in Rio Blanco County goes back to the late 1800's. Although native herbivores have grazed the area for centuries, livestock production has been a critical component of the economy and lifestyle of the County. Proper grazing management positively influences the ecosystem health. Prior to 1900,

the White River Valley was open range for cattle. Settlers brought sheep into the area beginning in the late 1880s.

### 4.5.2 Background

#### **Bureau of Land Management**

The Taylor Grazing Act (TGA) of 1934 (43 U.S.C. 315) established the Grazing Service, which eventually became known as the BLM, through local grazing advisory boards, who created an adjudication process to determine where, when, and what type of livestock grazing could occur on public rangelands. To receive an allotment through this process, the stockman had to have (1) "commensurate base property" on which he could graze his livestock when they were not using the federal lands, (2) have an economically viable livestock operation and (3) be members of the local community and support the local stability of the community.

FLPMA and the Grazing regulations changed the above to the following language for qualifications.

#### ***§ 4110.1 Mandatory qualifications.***

***(a) Except as provided under §§ 4110.1–1, 4130.5, and 4130.6–3, to qualify for grazing use on the public lands an applicant must own or control land or water base property, and must be: (1) A citizen of the United States or have properly filed a valid declaration of intention to become a citizen or a valid petition for naturalization; or (2) A group or association authorized to conduct business in the State in which the grazing use is sought, all members of which are qualified under paragraph (a) of this section; or (3) A corporation authorized to conduct business in the State in which the grazing use is sought.***

***(b) Applicants for the renewal or issuance of new permits and leases and any affiliates must be determined by the authorized officer to have a satisfactory record of performance.***

The TGA gives individuals the right to apply for grazing permits on federal lands based upon the ownership of qualified base property (43 U.S.C. § 315(b)). The purpose of the TGA is “to stabilize, preserve, and protect the use of public lands for livestock grazing purposes...” (*Barton v. United States*, 609 F.2d 977 (10th Cir. 1979)). As the court in *Public Lands Council v. Babbitt*, explained, “Congress enacted the [TGA], establishing a threefold legislative goal to regulate the occupancy and use of the federal lands, to preserve the land and its resources from injury due to overgrazing, and ‘to provide for the orderly use, improvement, and development of the range’ (154 F.3d 1160, 1161 (10th Cir. 1998)).

Once a grazing district is established, grazing must occur on the land (*See generally, Mountain States Legal Foundation v. Andrus*, 499 F.Supp. 383 (D. Wyo. 1980))(holding that the intent of FLPMA was to limit the ability of the Secretary of the Interior to remove large tracts of public land from the operation of the public land laws). Further, Congress intended that once the Secretary established a grazing district under the TGA, the primary use of that land should be grazing (*Public Lands Council v. Babbitt*, 167 F.3d 1287, 1308 (10<sup>th</sup> Cir. 1999) *aff’d on other grounds*, 529 US 728 (2000)). The Secretary can modify the boundaries of a grazing district, but unless land is removed from designation as grazing, or the TGA designation is terminated, the Secretary must use it for grazing (43 U.S.C. § 315).

When modifying the boundaries of a grazing district or terminating the TGA designation of an allotment, the Secretary must classify the land as no longer “chiefly valuable for grazing” (May 13, 2003, Solicitor’s Memorandum to the Assistant Secretaries for Policy, Management and Budget, Land and Minerals Management and the Director, Bureau of Land Management, clarifying the Solicitor’s Memorandum M-37008 (issued October 4, 2002)). Thus, a permittee may relinquish a permit but, barring the Secretary determining that there is a better use for the land through land-use planning, the forage attached to the permit must be available for grazing. Thus, except upon the showing that the land is no longer “chiefly valuable for grazing,” the Secretary does not

have the discretion to bar grazing within a grazing district and must therefore review applications for grazing permits and make a final decision in a timely fashion when they are filed.

**Current authorized** Grazing levels were established from 1940 to 1965, during which time the BLM completed livestock forage inventories to establish estimated grazing capacity. These levels have been adjusted to accommodate differences in production capabilities and use by other species (Bureau of Land Management 1981). Approximately 1.5 million acres are managed by the BLM White River Field Office (WRFO) in Rio Blanco County. One hundred thirty-nine (139) grazing allotments were identified in the 1981 RPS (Bureau of Land Management 1981) (Figure 7).

The 1981 Rangeland Program Summary (RPS) is the Record of Decision (ROD) for the 1981 Final Environmental Impact Statement (FEIS), impacting the White River Resource Area (WRRRA) grazing management. The EIS proposed issuing term grazing permits for 183,460 AUMs in the short term and increasing to 230,330 AUMs by 2000. Additional range improvements and intensive management actions were proposed in the FEIS.

The proposed increase in AUMs from 1981 to 2000 was to accommodate other public land resources such as big game and wild horses (Bureau of Land Management 1981).

The Colorado Public Land Health Standards provide further guidance on land management objectives.

As of 2014, 1,460,013 acres of BLM land are permitted in 156 allotments for livestock grazing in the WRFO; 105,362 AUMs are held in active permits, 15,179 AUMs are suspended, and 673 AUMs are temporarily suspended. Sixty (60) allotments are in the Custodial class, 58 are in Improvement, and 38 are in the Maintenance category

(Bureau of Land Management n.d.). Classes are further defined in Chapter 6.

Seventy-six allotments have an approved Allotment Management Plan (AMP) or Coordinated Management Plan (CMP). Thirty-six of the AMP/CMPs are less than ten years old; nine of those documents are for Custodial allotments (Bureau of Land Management n.d.). A cooperative range monitoring program was developed between the permittees, the Districts, USFS, BLM, and Colorado Cattlemen among others as part of the Colorado Resource Monitoring Initiative to create a common understanding of range management standards.

To assist with livestock grazing management, the BLM maintains a network of precipitation monitoring stations throughout the White River Field Office. Currently 17 continuously recording precipitation gauges are operated by the BLM. ~~with five additional planned to be added to the stream monitoring sites on Piceance, Yellow, E. Douglas, E. Willow, and Black Sulphur creeks. During the summer of 2016,~~

## GRAZING ALLOTMENTS Rio Blanco County, CO

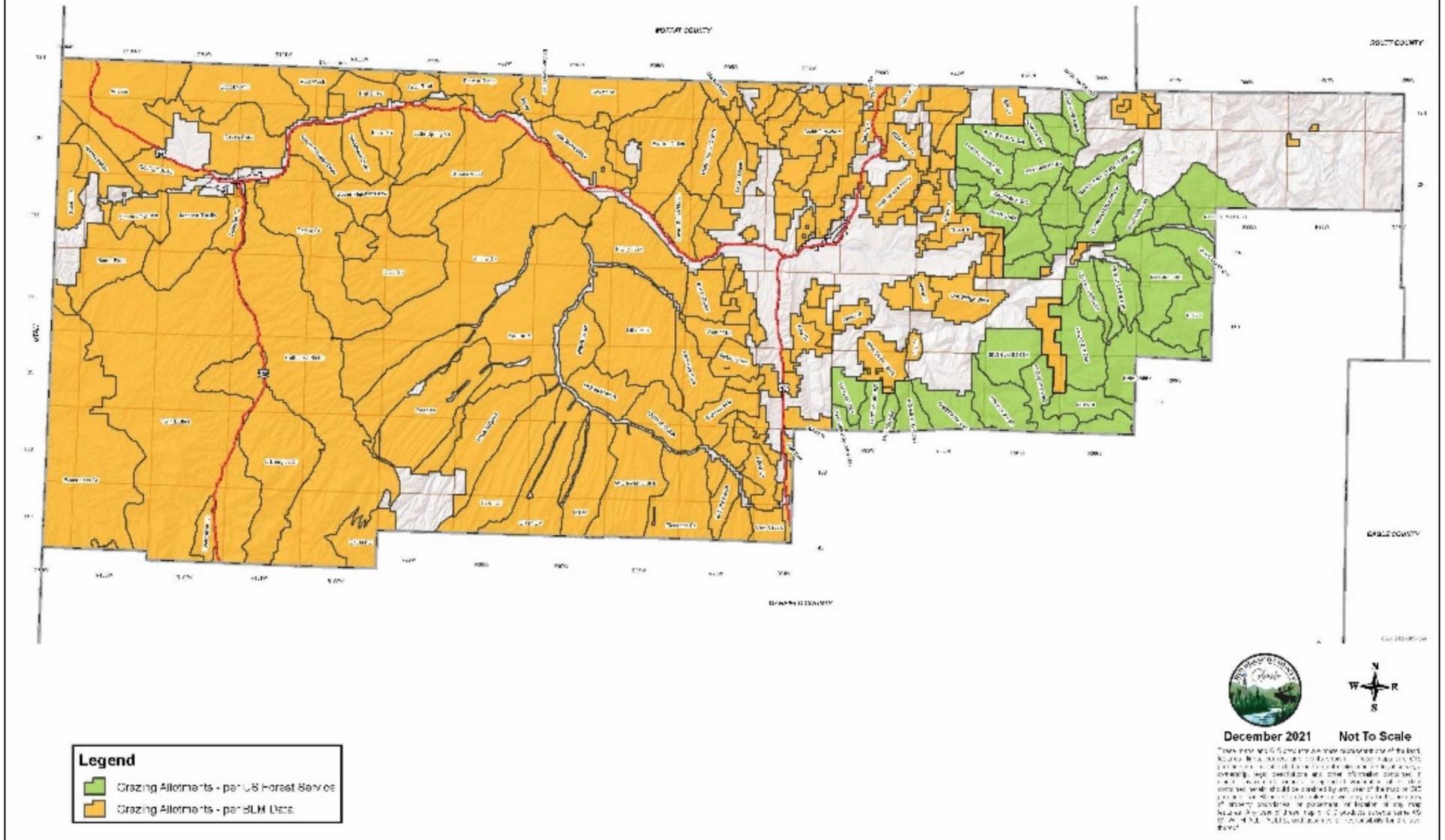


Figure 7. BLM and USFS grazing allotment boundaries

~~updates to these five sites enabled precipitation data to be~~ Data is transmitted via the NOAA GOES data collection system. This data is viewable by the public on the National Weather Service Hydrometeorological Automated Data System (HADS) and BLM website (Sauter 2016).

With the passage of FLPMA, BLM's mission was altered to require retention of the public lands rather than disposal. FLPMA did not repeal the Taylor Grazing Act.

Permitted grazing on public lands is a critical piece of livestock operations in Rio Blanco County. The intermingled BLM and private lands allow ranching to continue in the County. The low percentage of private lands in the County means that access to public lands is critical to the continued ability to maintain the ranching community and the viability of the County.

#### *BLM Range Improvements*

All range improvements on BLM lands must be authorized by the agency. There are two options for authorization: a Cooperative Range Improvement Agreement or a Range Improvement Permit. The Cooperative Range Improvement Agreement identifies how the costs of labor, materials, and maintenance are divided between the agency and the permittee. Range Improvement Funds can be used for labor, materials, and final survey and design of projects to improve rangelands. The Range Improvement Permit requires the permittee or lessee to provide full funding for construction and maintenance of the improvement. NEPA analysis is not required for normal repair and maintenance of range improvements that are listed on a term grazing permit; permission of the authorized officer is also not required. However, for reconstruction of a range improvement or construction of new improvements, NEPA analysis and a decision by the authorized officer is required.

#### United States Forest Service

The WRNF was established in 1891 as the White River Plateau Timber Reserve. Permitted livestock grazing was originally authorized by the first Forest Service regulations in the "Use Book of 1905."

The Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 established standards for how the USFS manages national forests, required the development of land management plans for national forests and grasslands, and required the Forest Service to regularly report on resource trends in their forests and rangelands. It was amended with NFMA. Numerous planning rules have been issued since 2000 and revised planning rules were issued most recently in 2012.

The first WRNF Land and Resource Management Plan was issued in 1984 and revised in 2002 (United States Forest Service 2002). In fiscal year 2013, the WRNF issued seasonal permits for 17,425 cattle and 38,735 domestic sheep on 89 grazing allotments. Potential areas of conflict exist between domestic sheep and bighorn sheep in the Flat Tops allotment. The Park Creek Sheep and Goat allotment was closed to livestock grazing through a separate EIS concurrent with the 2002 Forest Plan revision.

The Routt National Forest Land and Resource Management Plan was issued in 1997. Based upon the requirements of the Forest Service 2012 planning rule, the Routt National Forest completed its monitoring update and plan on May 29, 2014. In fiscal year 2015, the Yampa Ranger District of the Routt National Forest issued seasonal permits for 1,309 cattle AUMs and 8,274 domestic sheep AUMs on 26 grazing allotments.

## USFS Range Improvements

All range improvements on USFS lands must be authorized by the agency. The USFS allows structural improvements (e.g., fencing) and non-structural improvements (e.g., change in management practices). Any requirements for permittee construction or development of range improvements are identified in the grazing permit with credits for improvements (if any) to be allowed toward the annual grazing fee. It is a common practice for the USFS to furnish materials and the permittee to provide labor for structural improvements. If significant costs are expected, the permittee can assume responsibility for the improvement (maintenance) but the USFS generally holds title to the improvement. Should the improvement not be adequately maintained, the USFS can take action against the permittee for non-compliance with their grazing permit. Range Betterment Funds are available for planning and building rangeland improvements.

### 4.5.3 Policy Statements

#### 1. Environment:

- a. Create adaptive grazing programs that allow permittees to respond to changes in forage availability. Adaptive management is a process that uses focused monitoring information to determine if management changes are needed, and if so, what to change and to what degree change needs to occur.
- b. Locally-led planning efforts such as coordinated resource management planning plans (CRMP) should be used to ensure all resources and uses are protected.
- c. Support the use of soils and range site data to create site-specific objectives for livestock, wildlife, etc. until Ecological Site Descriptions are available.
- d. Drill-seeding can be one of the most effective methods of seeding for rangeland restoration or improvement efforts

and should be utilized wherever possible. Seed mixes for all reclamation efforts must be beneficial to both livestock and wildlife and developed on a site-specific basis through a collaborative effort with the agency, Districts, County, and permittee.

- e. Temporary fences should be removed as soon as they are eligible for removal (e.g., after a wildfire closure), unless it is converted and utilized as a range improvement in consultation with the permittee.
- f. Require involvement of the permittee in the development of the Standards & Guidelines Assessment for Rangeland Health, including monitoring.

#### 2. Monitoring:

- a. Develop and implement rangeland monitoring programs for all allotments using monitoring methods and return intervals agreed to through the Colorado Resource Monitoring Initiative to ensure proper collection and analysis of data.
- b. Support the analysis of all submitted data by a qualified team or third-party before using the data for any management decision unless collected under a Cooperative Monitoring Agreement or MOU between the permittee, agency, and an agreed-upon third party. See Section 2.4 for a description of acceptable data standards.
- c. Support the creation of Ecological Site Descriptions by 2025 to help identify what each area is capable of producing/supporting.
- d. Support consultation, cooperation, and collaborative efforts to ensure that rangeland health and wildlife habitat are being maintained through monitoring and implementation of well-designed livestock grazing management plans on all public land allotments.

- e. Develop monitoring programs that separate the use by species (e.g., wild horse, livestock, or wildlife) that can be used to inform management. If a resource problem is occurring, such monitoring should determine the source of the issue and adaptive management should be used to tailor a response to the source of the problem.

### 3. Rangeland Improvement Projects:

- a. Encourage coordination between agencies and permittees to identify and prioritize where range improvement funds are spent based on allotment category and need.
- b. Require range improvements be kept functional or maintained in a timely manner by the responsible party whether it be the grazing permittee or the agency.
- c. Encourage development of additional rangeland improvements when the opportunity presents itself, such as creating water impoundments near roads and drill pads to catch water.
- d. Installation of wildlife-friendly range improvements (e.g., wildlife-friendly fence, bird ramps in tanks) are an important component of range improvements.
- e. Encourage the development of a programmatic Categorical Exclusion for range improvements to allow improvements to be installed in a timely manner.
- f. Oppose the acquisition by the BLM or USFS of water rights in the course of BLM or USFS authorization of range improvements.
- g. Request the permit holder complete range improvement maintenance even in years of non-use.

### 4. Permits/AUMs:

- a. Timely processing of all term grazing permits renewals, including actions proposed by the permittee, is necessary.
- b. Categorical Exclusions for term permit renewals should be used when (1) renewal of the permit is under substantially

the same terms and conditions as the existing permit, (2) monitoring shows that the allotment is at or making substantial progress toward meeting rangeland and riparian health standards and (3) no extraordinary circumstances that cannot be mitigated exist such as conflicting threatened or endangered species management, special status lands, etc.

- c. Permanent retirement of any grazing allotment is generally unacceptable. Any closure or retirement of an allotment shall require a NEPA analysis and consider the wildfire and invasive species risks as well as economic impacts, customs, and culture of the local area.
- d. AUMs in suspended use should be analyzed and reinstated. If improvements are necessary to support reinstatement of AUMs, such improvements should be analyzed through the NEPA process as expeditiously as possible.
- e. When a grazing allotment is in non-use for personal convenience of the permittee, it should be made readily available for other permittees to utilize. If there is a resource concern on that allotment, the grazing plan should acknowledge the concern and utilize the livestock as a tool to help in recovery. If the allotment is in non-use and the range is in good condition, the grazing plan must fully utilize all available grazing AUMs.
- f. Vacant allotments should be prioritized for NEPA analysis to ensure their availability for domestic livestock grazing.
- g. Support changes in season of use or class of livestock for improvements in rangeland health and wildlife habitat quality when done in consultation with the permittee.
- h. Permits for temporary actions such as hauling water should be completed as quickly as possible to address the resource concerns necessitating the action.

- i. Livestock grazing should be returned to pre-fire levels when post-fire monitoring data shows objectives have been met or have been achieved to extent allowed by the site potential.
- j. Adaptive management practices for grazing should be developed and included in term permits to allow for flexible management practices that will decrease fuel loads on the landscape, particularly in areas with cheatgrass infestations or heavy grass understory.
- k. Vacant grazing allotments should be assigned to permittees affected by fire or other resource concerns not related to management as quickly as possible to minimize the economic disruption to permittees.

**l. Support flexibility for livestock grazing permits based on sound science and the use of livestock grazing as a tool to reach ecological goals.**

**m. Only those entities who own or control livestock and qualified base property should hold livestock grazing permits.**

5. Reduction in AUMs:

- a. Suspended AUMs shall be returned immediately to livestock grazing when the resource concerns causing the reduction (e.g., wildfire, range condition) have ended. Term permit renewals should reinstate suspended AUMs.
- b. Changes in class of livestock and permit transfers should be completed without reductions in AUMs and in a timely manner.
- c. Reductions of domestic livestock grazing AUMs to provide additional forage for another species that is over its biological objective (e.g., wild horses over AML) are unacceptable.

- d. AUMs on federal lands should not be reduced unless a documented resource condition indicates a need for temporary reduction to improve condition.



Figure 8. Cattle west of Rangely in 1920.

Photo provided by Cheryl Robertson

## 4.6 Noxious Weeds and Invasive Species

---

*The reason that we don't have weeds everywhere we graze cattle is that dad started fighting weeds around the mid-sixties. He knew what toad flax looked like from seeing it up the White River. There was one toadflax plant in the middle of the road, he came back with oil and we thought we killed it. The toadflax grew back in the road 40 years later. We also started spraying hound's tongue and musk on our Garfield neighbor's side of the fence in about 1980. At that time, it took 4 of us about 5 days to spray the bottom of the gulch. We lost that battle and started to just spray our side of the fence which got away from us too. We now spot spray acres and acres. In the eighties we spent half a day every day taking care of the cattle in some way. Today we spend over half of every day, June through September, spraying weeds and we are still losing the battle. We haven't lost any of our permits because of weeds but at this rate I do not want to think about how bad the problem may be in 10 years. Also the cattle that are covered in weed seed bring less in the market place.*

*Submitted by Chris Uphoff*

---

### 4.6.1 Background

Pursuant to the Federal Noxious Weed Act (7 U.S.C. § 2814), federal agencies have the authority and responsibility to manage undesirable plants and noxious weeds on federal and public lands. Each federal agency has a designated weed specialist and weed control program.

The Colorado Noxious Weed Act (C.R.S. § 35-5.5-101) defines a noxious weed as an alien plant or parts of an alien plant that have been designated by rule as being noxious or has been declared a noxious weed by a local advisory board, and meets one or more of the following criteria:

- Aggressively invades or is detrimental to economic crops or native plant communities;
- Is poisonous to livestock;
- Is a carrier of detrimental insects, diseases, or parasites;
- The direct or indirect effect of the presence of this plant is to be detrimental to the environmentally sound management of natural or agricultural ecosystems.

Rio Blanco County has a Noxious Weed Management Plan (WMP) (Rio Blanco County 2014) with the goals to:

- Prevent the introduction, spread, and establishment of dangerous and economically devastating noxious weed species within Rio Blanco County and adjacent counties and states to enhance the likelihood of success on a landscape treatment approach.
- Preserve the integrity of the landscape and conserve local resources.
- Engage in early detection and rapid response protocols to limit financial impacts.
- Comply with the Colorado Noxious Weed Act.
- Promote weed awareness by providing public educational programs.

A Local Advisory Board (7-10 members) advises the County Commissioners on weed management in the county.

Many Rio Blanco County citizens have historically aggressively treated weeds on their private lands and leases. Without a comprehensive and concerted effort across the County, however, their properties become islands that will ultimately be overrun by noxious weeds.

#### 4.6.2 Policy Statements

1. Require BLM, USFS, and State agencies to meet the weed control requirements of existing agreements, including the County Weed Management Plan.
2. Aggressive weed management practices are necessary in grazing allotments currently impacted by noxious weeds (e.g., Corral Creek), and especially so in areas where adjacent private landowners are aggressively controlling weeds. Encourage cooperation between adjacent landowners and federal agencies to control weeds.
3. Weed management efforts of the Rio Blanco Weed and Pest Department, Lower White River Weed and Pest District, Piceance Weed and Pest District, and implementation of all federal, state, and local noxious weed laws and enforcement are important to decrease weed infestations.
4. The goals and objectives of the County WMP provide useful guidance for weed control, and should be implemented. ~~we support implementation of the WMP.~~
5. Control of listed noxious weeds within Rio Blanco County as prioritized by the State and County weed management plans and defined in the Colorado Noxious Weed List should be priority for management.
6. Funding local, state, and federal governments for appropriate levels of weed control on all lands in the County is a high priority.
7. Support monitoring efforts to accurately identify the extent of noxious weed infestations and the identification of dispersal mechanisms where possible.
8. Support the prevention of aquatic nuisance species (e.g., zebra mussels, quagga mussels) and other invasive species on all waters within Rio Blanco County.

9. Support pest control efforts on private and public land that impact the productivity of the land. Examples: Mormon crickets, ground squirrels, etc.
10. Educate public land users regarding all possible vectors of weed spread.

## 4.7 Oil, Gas, Coal and Minerals

---

*The oil industry is almost as old as farming and livestock around Rangely. In 1898 Mr. Rector found oil seeping out of a rock ledge into the White River on his property west of Rangely, and he and nine other men purchased a Star drilling rig. They were one of the numerous companies and individuals who drilled shallow wells during the late 1800's and early 1900's.*

*Submitted by Cheryl Robertson*

---

### 4.7.1 Background

Rio Blanco County has been explored for natural resources for more than 100 years and was settled in part due to the extraction boom of the late 1800's and early 1900's. Energy development and natural resource extraction continues to be a principal industry in Rio Blanco County. Oil and gas wells are common throughout Rio Blanco County excluding the WRNF. Extending west from the Town of Rangely to the state border, there is extensive oil and gas development. Vast oil shale resources are located in Rio Blanco and neighboring Garfield County. Areas identified as suitable for coal leasing are located in the northwestern and northeastern portion of Rio Blanco County. In the last ten years, natural gas has been the dominant factor in energy development.

The development and production of extractable resources are vital to the custom, culture, social, and economic stability of Rio Blanco County. Mineral resources support a multitude of local jobs, industries, and activities. Development of these resources occurs on private, state, and federal land. Because of the split-estate nature of mineral and land ownership within the county, many stakeholders have an interest in these developments.



Figure 9. Old Richmond well

Unless otherwise noted, all information contained in this section is from the Resource Management Plan Amendment, Environmental Impact Statement (RMPA/EIS) (Bureau of Land Management 2015).

### **Oil and Gas Regulatory Framework**

Oil and natural gas development on public land and the public mineral estate is a significant economic driver for the Colorado economy. Approximately 90 percent of oil and natural gas development in Colorado occurs on state and private lands, although in Rio Blanco County a majority of the resources are on federal lands. The Colorado Oil and Gas Conservation Commission (COGCC) promulgates rules to regulate oil and gas development in Colorado. They issue drilling permits and enforce applicable oil and gas statutes and regulations. The COGCC rules promote the exploration, development, and conservation of Colorado's oil and gas resources and ensure the prevention and mitigation of adverse impacts of oil and gas development on public health, safety, welfare, and the environment.

The majority of lands with high oil, gas, and mineral values in Rio Blanco County are on land administered by the BLM. BLM management policy decisions are critical to the local economy and to governmental revenues in Rio Blanco. Further development of natural resources on these public lands could produce significant employment and residential growth in the future.

In June, 2019, the Colorado BLM, the Rocky Mountain Region of the USFS, and the COGCC entered into a MOU concerning oil and gas permitting on BLM and USFS lands. Under the MOU, the parties will advise operators to identify and incorporate applicable standards and practices contained in the COGCC Rules into a federal APD, MDP, or other authorization related to oil and gas operations so long as such

state standards or practices are at least as stringent as comparable federal standards or practices, in order to minimize the potential for multiple reviews.

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give the BLM responsibility for oil and gas leasing on BLM, National Forest, and other federal lands, as well as private lands where mineral rights have been retained by the federal government. The BLM is a multiple use agency and therefore must balance the development of mineral resources in the best interests of the country as well as managing for uses like livestock grazing, recreation, and development and conservation of wildlife habitat. The Mineral Leasing Act makes the disposition of oil and gas in the form and manner provided by the Act a mandatory Act. 30 U.S.C. § 181. Further, lease sales for each state where eligible lands are available must be held at least quarterly. 30 U.S.C. § 226.

The USFS regulates all surface-disturbing activities on USFS land, (30 U.S. Code § 226 (g)). The USFS is the lead agency to apply stipulations on a lease and conduct environmental analysis of leasing and permitting on USFS lands. There are USFS lands in Rio Blanco County that are medium-to-high oil and gas potential and available for lease (but currently unleased). Oil and gas leasing on White River National Forest is guided by the December 2015 Oil and Gas Leasing on Lands Administered by the White River National Forest ROD and FEIS USFS lands were not part of the 2010 BLM leasing reform (BLM IM 2010-117).

The BLM manages approximately 1.5 million acres of surface and subsurface acres and approximately 365,000 acres of split-estate lands (referred to as the "Planning Area"), where the federal government controls subsurface mineral rights underlying private and state lands.

Mineral resources in the WRFO Planning Area include leasable (e.g., oil and gas, geothermal, coal, sodium, and oil shale), locatable (e.g., uranium) and salable minerals (e.g., sand and gravel). There are various authorizations to use the public surface for leases, permits, and easements within the WRFO Planning Area.

BLM-administered public lands and resources are managed in accordance with approved Resource Management Plans (RMPs). BLM field offices prepare RMPs for the lands within their boundaries. An RMP is a blueprint explaining how the BLM will manage areas of public land over a period of time (generally 10-15 years). RMPs contain decisions that guide future management actions and subsequent site-specific implementation decisions. RMPs establish goals and objectives for resource management (desired outcomes) and the measures needed to achieve these goals and objectives (management actions and allowable uses).

The BLM use RMPs to make oil and gas planning decisions, such as areas closed to leasing, open to leasing, or open to leasing with major or moderate constraints (lease stipulations) based on known resource values and reasonably foreseeable oil and gas development scenarios. RMPs allocate lands that are available for oil and gas leasing and outline what restrictions will be placed on leases to protect sensitive resources within the Planning Area. The Federal Oil and Gas Leasing Reform Act of 1987 addresses whether leasing is held competitively or non-competitively – provided leasing is an acceptable use of the land as identified in a particular RMP.

To help better balance these often-conflicting demands on our public lands, the BLM implemented oil and natural gas leasing reform in 2010. These reforms provide the public more involvement earlier in the process in an attempt to better inform decisions and reduce conflict,

protests, and litigation. The increased opportunity for public participation at the outset of the process and a more thorough environmental review process is believed to help reduce the number of protests filed and enable the BLM to resolve protests prior to lease sales.

Current management decisions for oil and gas exploration and development within Rio Blanco County on BLM lands are governed by the Record of Decision (ROD) and Approved Resource Management Plan (approved July 1, 1997). The RMP was recently amended by the WRFO ROD and Approved Resource Management Plan Amendment (RMPA) for Oil and Gas Development (approved August 17, 2015).

The WRFO prepared the 2015 Oil and Gas Development Draft RMPA/EIS to propose amendments to the 1997 RMP due to greater demand for natural gas and new technologies enabling economic extraction of oil and gas. The final amendment to the RMP addresses potential oil and gas exploration and development activities above what was planned in the 1997 RMP. Key elements in the amendment include:

- Acknowledging a trend for increasing the number of wells per pad
- Surface disturbance of 13,200 acres
- Well numbers anticipated at 15,040
- A majority of development within the Mesaverde Playa Area

The Northwest Colorado Greater Sage-Grouse Approved Resource Management Plan Amendment was passed in September 2015. This document applies to BLM managed lands and subsurface mineral estate. Key elements in the amendment include:

- Avoid or limit new surface distribution in Priority Habitat Management Areas
- Minimize surface disturbance in General Habitat Management Areas

Most of the BLM WRFO Planning Area is contained within two United States Geological Survey (USGS) petroleum resource assessment provinces: Uinta-Piceance Province and the Southwestern Wyoming Province. The Uinta-Piceance Basin contains eighty-six percent (86 percent) of the Planning Area and a majority of the oil and gas development potential. The Uinta-Piceance Basin is in north eastern Utah and north western Colorado and encompasses most of Rio Blanco County (Figure 10) – its eastern boundary abuts the WRNF and the Flat Top Wilderness in far eastern Rio Blanco. The Uinta-Piceance Basin is one of six priority provinces for the National Oil and Gas Assessment because of its potential for significant natural gas resources. Approximately 77 percent of the WRFO Planning Area has a moderate to high potential of encountering hydrocarbon-bearing rocks in the subsurface.

The Southwestern Wyoming Province (SWWP) is a structural basin that formed during the Laramide orogeny. The SWWP occupies most of southwestern Wyoming, parts of northeastern Utah, and northwestern Colorado. In Rio Blanco County the basin occupies about 7% of the very northeastern part of the county under the Routt National Forest. Currently on the Routt NF there are only 2 active wells. Further development is limited by the remoteness of the region and the presence of the Flat Tops Wilderness.

The Rangely Oil Field in western Rio Blanco County is one of the largest and oldest oil fields in the Rocky Mountain West with cumulative production of about 900 million barrels of oil and 700 billion cubic feet

of natural gas. Rangely Field is an elliptical dome about 11 miles long that contains oil and natural gas in the Upper Pennsylvanian Weber Sandstone. The dome is formed by an anticline that is quite evident on the surface, so it was an early target for oil exploration and the first discovery was in 1901 at a depth of between 500 to 1,000 feet. Production in the vast Weber Unit began in 1933 after drilling down to over 6,000 feet – a deep well for its day. However, large scale production didn't commence until the 1940's because of the remoteness of its location and the low demand for oil.

1956 was a record year for oil production in the state of Colorado, and Rio Blanco County produced almost one-half of the states' annual production at 30.2 million barrels. In 2000, Rio Blanco produced 6.52 million barrels of oil representing 32.56 percent of Colorado production. In 2013, while the state of Colorado broke the previous 1956 production record, Rio Blanco County produced only 2.9 million barrels of oil, or 6.1 percent of Colorado's total annual production.

# OIL & GAS Rio Blanco County, CO

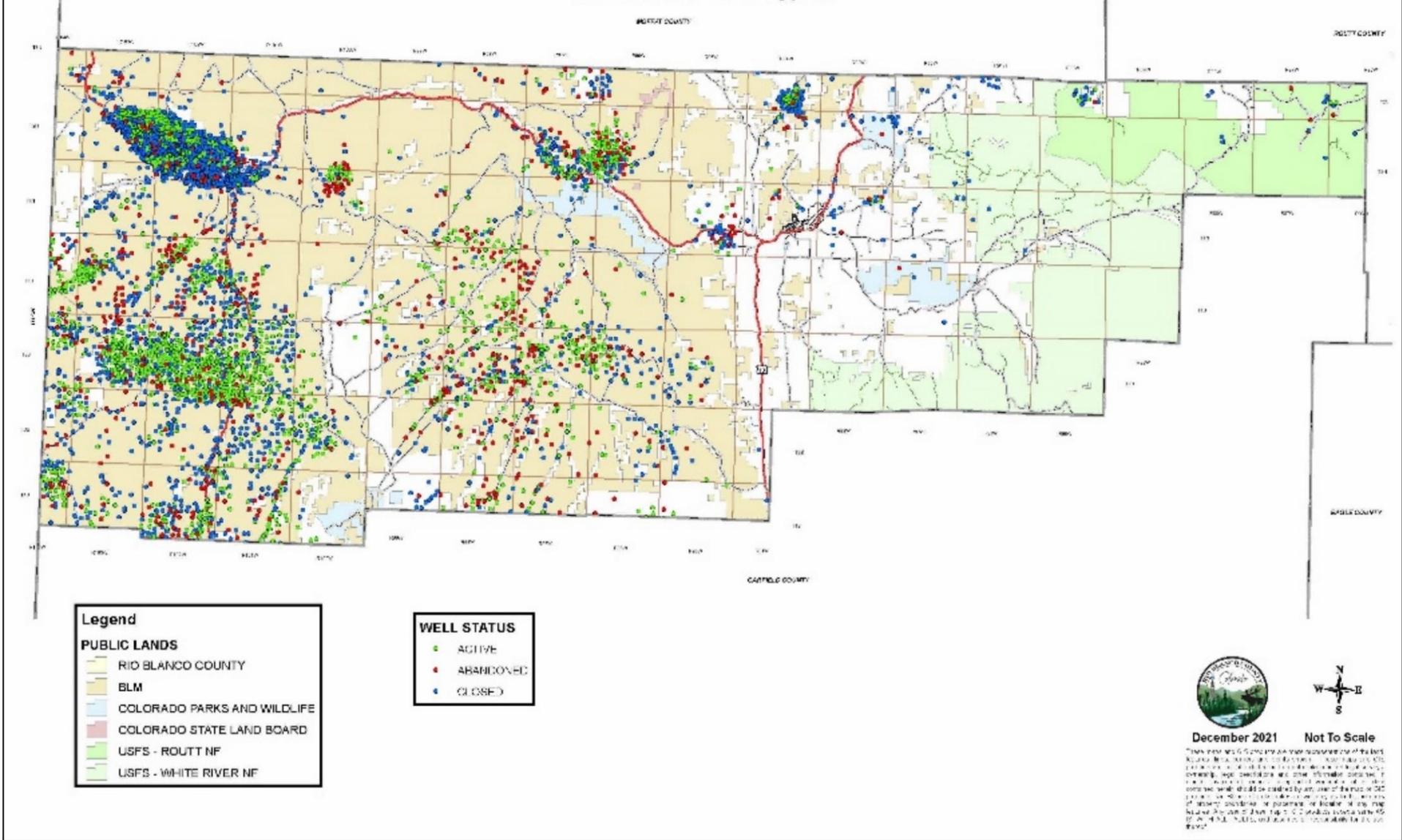


Figure 10. Active and inactive oil and gas wells

Starting in the 1990s and extending to the early part of the 2000s, about half of the total drilling in the WRFO was concentrated in the Douglas Creek Arch. The Douglas Creek Arch is a north-south-trending faulted anticline that separates the Uinta basin of northeastern Utah from the Piceance basin of northwestern Colorado. It holds significant resources of recoverable oil and gas. In 1991, deep gas reserves were discovered in the Mesaverde Group (Williams Fork Sandstone and the Cameo Coal Zone) at the White River Dome Field. The majority of the wells to be drilled in the next 20 years will likely be constructed in the low permeability Mesaverde Group at depths of 8,500 to 16,500 feet. The WRFO RMPA/FINAL EIS provides the following information:

Beginning in 2004, the WRFO Planning Area experienced a dramatic increase in drilling activity. Roughly 70 percent of the current operations are centered in the Piceance Creek Drainage Basin (focused on the thick, gas-saturated Mesaverde tight sand play), about 20 percent in the Douglas Creek Arch area (primarily drilling Cretaceous sand, shale, and coalbed gas reservoirs), and the remaining ten percent in the Rangely Field (targeting the Weber oil sand).

The emerging interest in the Mesaverde basin-centered play in the central part of the WRFO Planning Area (the Mesaverde Play Area) is principally related to the development of new technology (e.g., modern hydraulic fracturing techniques) coupled with the increase in crude oil prices since 1997, which crested at over \$140/barrel in 2008 and most recently at over \$100/barrel in 2014. Operators aggressively pursued both exploration and development drilling activities in the Piceance Creek area. Exploratory outpost or new field wildcat wells account for roughly 30 percent of the wells drilled in this region, with an average

success rate of 88 percent over the past four years. The remaining 70 percent of the penetrations drilled in the Piceance Creek area were infill development wells and nearly all (97 percent) of these boreholes have been successfully perforated and completed.

In the Douglas Creek Arch area, overall drilling activity is currently in decline and this is probably in response to difficulties in the effective disposal of high volumes of produced water in this maturely developed part of the northern Piceance Basin. Since 2004, exploratory drilling has represented only about ten percent of the recent wells spudded in this westernmost region, and operators have attained nearly a 90 percent average success rate in drilling these “riskier” opportunities. Most of the wells drilled on the Douglas Creek Arch; however, have been infill development penetrations; these exploitation programs have achieved an average success rate of about 96 percent. Lastly, the Rangely Field has been characterized by an absence of exploratory activity. Development operations on the anticline have also continued to steeply decline. Relatively few development wells (fewer than 30) have been drilled since 2004 but nearly all of them (94 percent) were successfully perforated and completed. Although limited future activity is anticipated for the Rangely Field, enhanced recovery operations (carbon dioxide and water injection methods) would continue to help sustain the production...

Approximately 5,800 wells have been drilled in the WRFO Planning Area as a result of exploration and development activities: 1,806 producing wells, 317 injection wells, 12

water disposal wells, more than 2,500 plugged and abandoned wells, 271 shut in wells, 65 temporarily abandoned wells, and 36 wells waiting on completions (COGCC 2006). The 1,806 producing wells produced a total of 47,716,491 barrels of oil and 273,602,232 thousand cubic feet of gas from 1999 to 2006. Oil production has declined over that eight year period, while gas production and the produced water volume have increased over the same time period, primarily as a result of bringing new Mesaverde natural gas wells online in the last two years of the period.

In 2006, just over 5.6 million barrels of oil were produced in the WRFO and over 4.4 million barrels of oil were produced in 2015. In 2006 almost 43 million Mcf (1,000 cubic feet) of gas were produced, while in 2015 gas production rose to just over 55 million Mcf.

From 2003 to 2008, drilling and development of natural gas increased, with many development companies active across northwestern Colorado. Energy companies began pursuing Colorado natural gas in earnest in the late 1980s, with drilling and production growing steadily. As of July 2012, Rio Blanco County accounted for about 3,000 of the 24,000 wells completed in Colorado since 2000, compared to 18,000 in Garfield County. However, the area of development for natural gas has moved east and north from western Garfield County and the BLM predicted movement north into Rio Blanco County.

After 2008, the natural gas industry growth in the region slowed significantly as the price of natural gas dropped. Nationwide there was an increasing supply of natural gas resulting from horizontal drilling and hydraulic fracturing, as well as decreasing demand for natural gas due to the general economic downturn. Natural gas prices had reached

a wellhead price high in 2008 of \$10.25/Mcf as production from shale formations increased and prices reached a low of \$1.95/Mcf in April 2012. Large numbers of employees in the oil and gas sector lost their jobs and the number of wells being drilled in Rio Blanco County dropped from a high of 477 in the year 2008 to a low of 109 in 2011 and 3 in 2021. Corresponding drops in well construction occurred as well. In 2015, natural gas prices are were below \$3/Mcf. In 2008, there were 102 rigs in western Colorado, and in 2015 there were 7, and in 2021, there were 3.

Natural gas extraction continues to decline due to several factors. One of which was the passage of Senate bill 19-181, *Concerning Additional Public Welfare Protections Regarding The Conduct Of Oil And Gas Operations, And, In Connection Therewith, Making An Appropriation*. This bill changed the Colorado Oil and Gas Commission purpose from, “Foster the responsible, balanced development, production, and utilization of the natural resources of oil and gas in the state of Colorado in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources” to “Regulate the development and production of the natural resources of oil and gas in the state of Colorado in a manner that protects public health, safety, and welfare, including protection of the environment and wildlife resources.”

### Pipelines

Transmission of hazardous liquids and gases by pipeline is an essential transportation mode for transporting these products. While pipelines offer an efficient and convenient method of transport, the potential for ruptures and uncontrolled leaks of products that are highly flammable, explosive, or toxic requires careful consideration of pipeline siting and protection of pipelines from third-party damage. Pipeline infrastructure plays a crucial role in the development and transmission

of hydrocarbons at the national, state, and county levels. Pipelines offer a safe and effective means for delivering large amounts of hydrocarbons across extended distances with some risk for spills (Global Energy Institute, 2013).

### **Geothermal**

BLM studies and the recently amended RMP indicate that WRFO does not have a high level of potential for development of geothermal power.

### **Solid Leasables - Oil Shale**

The United States holds the world's largest known concentration of oil shale – more than one-half the world's supply. Oil shales have yet to be economically recoverable and therefore are considered a contingent resource.

More than 70 percent of American oil shale, including the thickest and richest deposits, is on federal land, primarily in Colorado, Utah, and Wyoming. The potential within the Piceance Basin totals approximately 1.0 trillion barrels of oil in place. High-grade oil shale in the area contains more than 25 gallons of oil per ton of shale (8).

No mining method yet applied has provided a viable method for the commercial extraction of shale oil. However, data and methods derived from the current oil shale Research Development and Demonstration (RD&D) leases taking place could lead to the development of viable commercial operations. A total of seven RD&D leases were issued and two are still moving forward with development. Development of commercial oil shale operations would be dependent on the cost of recovering oil from the oil shale as well as the price of oil and future regulation.

Following the oil embargo of the 1970s, and with Congressional support, a number of commercial-scale oil shale mining projects were initiated in the WRFO Planning Area. Both the federal and commercially backed projects ended in the early 1980s when oil prices declined, which had a dramatic damaging effect on the local economy and the community. The shutdown of Exxon's Colony Project in 1982 on "Black Sunday" resulted in the loss of several thousand jobs in western Colorado. Oil shale is still regarded as a valuable potential resource and interest in commercial development of oil shale increases with higher oil prices.

In 2005, the federal government and Congress expressed renewed interest in oil shale. The Energy Policy Act of 2005 declared oil shale and tar sands (and other unconventional fuels) a strategically important domestic energy resource that should be developed to reduce the nation's growing dependence on oil from politically and economically unstable foreign sources. The Energy Policy Act required that a commercial leasing program be established for these resources.

In 2013, BLM issued a Record of Decision (ROD) that amended ten RMPs to designate certain public lands in Colorado, Utah, and Wyoming as available for leasing and potential development of oil shale and tar sands resources; this applied even in areas which may have been closed by the local RMP. The WRFO RMP/EIS was included (Bureau of Land Management 2013). Essentially the ROD amends, to the extent necessary, applicable local RMPs to ensure that certain specified areas remain open and available for leasing and future exploration and development of oil shale and tar sands resources. The ROD specifically references Congress's policy emphasis on these resources in the Energy Policy Act.

The ROD provides that the areas allocated as open for future oil shale leasing are only open to RD&D leases for now. The BLM will issue a commercial lease only after a lessee satisfies the conditions of its RD&D lease and the regulations for conversion to a commercial lease. Because this energy resource is not presently commercially viable, the BLM determined that it will be necessary to obtain more information about the environmental consequences associated with tar sands/oil shale development prior to committing to broad-scale commercial development – and only after a commercially viable method is developed that can be assessed (Bureau of Land Management 2013).

BLM (Bureau of Land Management 2013) states “With commercial development of oil shale at least several years away, the new planning process will allow the BLM to take a fresh look at what public lands are best suited for oil shale and tar sands development. Final land-use decisions will be made in light of any new information about potential resource needs and impacts, and the technological innovations.”

In early 2005, the BLM solicited nominations for parcels to be leased for RD&D of oil shale recovery technologies in Colorado, Utah, and Wyoming. In 2007, the BLM issued six oil shale RD&D leases and five were within the Piceance Basin in the WRFO. There are currently two proposals being considered by the WRFO from the second round of RD&D leasing.

### **Solid Leasables - Coal**

The U.S. Department of the Interior’s Office of Surface Mining, Reclamation, and Enforcement (OSM) is tasked with implementing and enforcing the Surface Mining Control and Reclamation Act (SMCRA) of 1977. SMCRA was designed to protect the environment from the adverse effects of surface coal mining operations and allows the state

to enter into a cooperative agreement with OSM to regulate surface coal mining and reclamation on federal lands. Colorado entered into an agreement in 1980 through the Colorado Division of Reclamation, Mining and Safety. Several divisions were merged in the Colorado Department of Natural Resources in 1992 to create the Division of Minerals and Geology (DMG). Within DMG, the Office of Mined Land Reclamation administers rules and regulations through the Coal and Mineral programs.

Coal potential exists in two major fields in the WRFO Planning Area under current economic conditions. The Danforth Hills Field north of Meeker contains an estimated 416 million tons of recoverable coal reserves and has been previously mined, but mines are currently non-operational. The White River Field is in the general vicinity of Rangely and contains an estimated 327 million tons of recoverable coal reserves. The main coal-bearing beds in both fields are the Iles and Williams Fork Formations of the Upper Mesaverde Group (BLM 2007b). Deserado Mine currently produces coal in the White River Field near Rangely.

The coal lease areas are designated as suitable for both surface and subsurface coal mining, suitable for subsurface but not surface mining, or not suitable for either surface or subsurface coal mining.

Several closed coal mines in the Danforth Hills Field have the potential to reopen if the economics become favorable. Future coal mining activities will be dependent upon the price of coal, transportation, the desire to reduce dependency on foreign oil, the oil and natural gas and renewable energy markets and future federal clean air regulations.

The Colowyo Coal Mine is located approximately 22 miles north/northeast of Meeker and is located in Rio Blanco and Moffat

Counties. It has been in operation since 1977 (Figure 11). Currently, The mine continues to produce approximately over 2.3 million tons per year. Colowyo was in litigation over an expansion for which NEPA was completed in 2006, but the court found OSM violated NEPA by failing to notify the public of, and involve the public in preparation of, the EA for the expansion. OSM also violated NEPA by failing to take a “hard look” at the direct and indirect effects of the increased mining operation before determining their level of environmental impact. The court gave OSM 120 days to fix the identified deficiencies and OSM provided a revised EA to the court in September, 2015; WildEarth Guardians has not pursued further litigation at this time. The EA and FONSI for the Colowyo Collom Permit Expansion was issued in 2016 and the EA and FONSI for the Trapper Mine was issued in 2015.

DRAFT



## **Solid Leasables - Nahcolite/ Soda**

The Piceance Basin contains the world's largest and most economically significant nahcolite resource (naturally occurring sodium bicarbonate or baking soda) (Figure 12). Most of the significant deposits ... of the sodium resources are found in the Parachute Creek Member of the Green River Formation. The sodium resource in the basin was estimated at 32 billion short tons and 29 billion tons. Solution mining operations have been constructed on two sodium leases in Rio Blanco County. One solution mining operation was mothballed in 2004 due to market issues. The other mine has been operating since 1991 and produces greater than 200,000 tons of sodium bicarbonate annually and is projected to increase. Future development of sodium resources is likely in the WRFO Planning Area. The development would depend on the results of continued improvement of solution mining technology, and market-driven prices of sodium bicarbonate (Bureau of Land Management 2015).

## **Locatable Minerals**

Locatable minerals is a legal term that, for federal lands in the U.S., defines a mineral or mineral commodity that is acquired through the General Mining Law of 1872, as amended. [...] Examples of locatable minerals include, but are not limited to, gold, silver, platinum, copper, lead, zinc, magnesium, nickel, tungsten, bentonite, barite, feldspar, uranium, and uncommon varieties of sand, gravel, and dimension stone. [...] The BLM manages the Mining Law program on the federal mineral estate including authorizing and permitting mineral exploration, mining, and reclamation actions...

There are no current or past mining areas in the WRFO Planning Area associated with locatable metal minerals other than uranium. Uranium is designated as a strategic locatable mineral. Interest in uranium exploration has been cyclic and is influenced by war, the threat of war, LAND & NATURAL RESOURCE PLAN AND POLICY – RIO BLANCO COUNTY

shortages, temporary surpluses, poor planning, and a fear of environmental hazards.

To date there has not been any development of potential uranium reserves within the WRFO Planning Area. However, when uranium prices go up as they have recently, interest in uranium exploration increases. Uranium mining claims have been staked in the northwestern portion of the WRFO Planning Area north of Rangely near US 40. Several claims have been staked encompassing approximately 44 square miles within two separate blocks of claims south of US 40. As of December 2015, there are no active mining claims within the WRFO (Daggett 2016).

# SODIUM EXTRACTION Rio Blanco County, CO

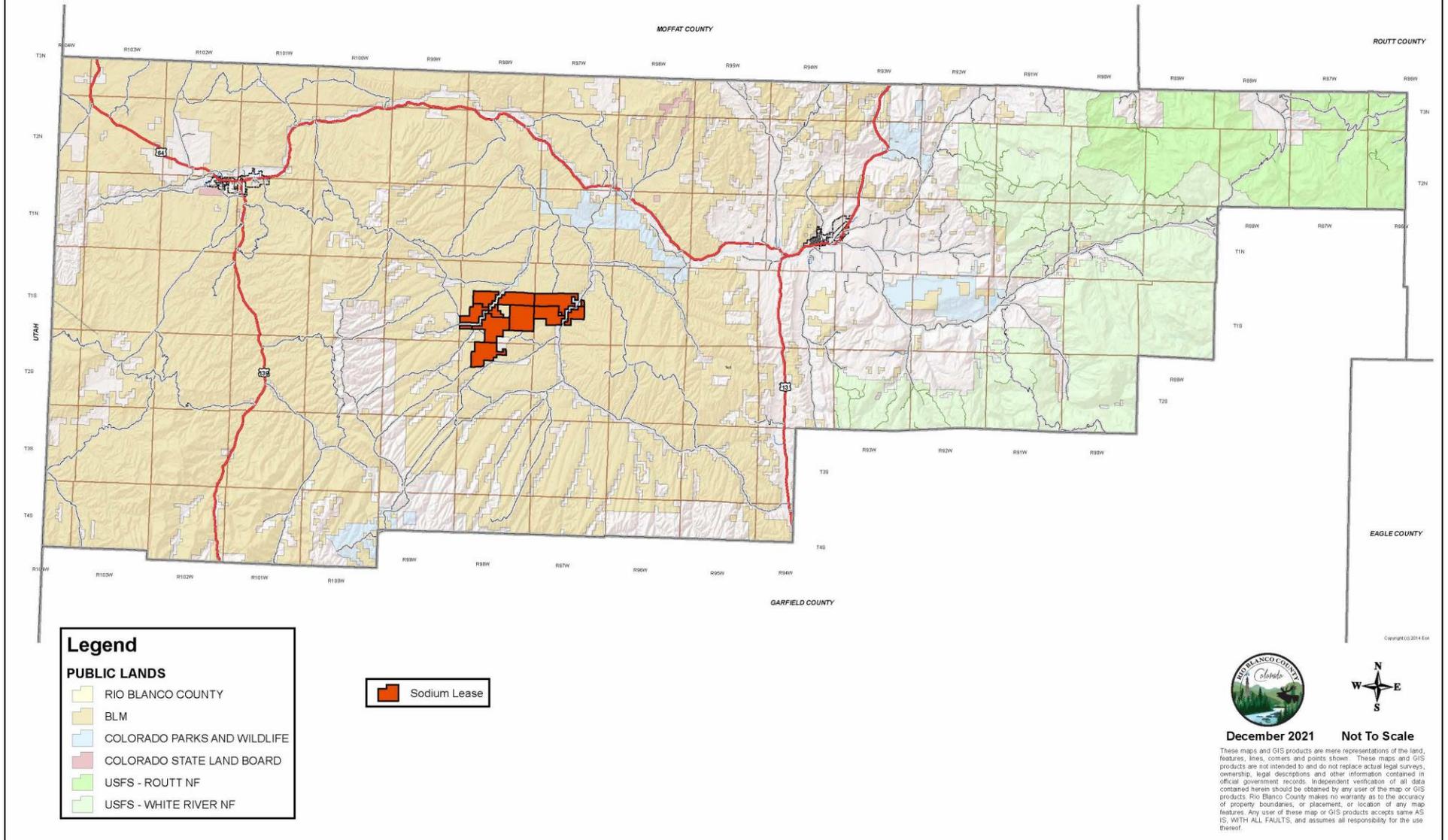


Figure 12. Sodium extraction areas

## Salable Minerals

Salable minerals, also known as mineral materials, include common variety materials such as sand, gravel, stone (e.g., decorative stone, limestone, and gypsum), clay (e.g., shale and bentonite), limestone aggregate, borrow material, clinker (scoria), and leonardite (weathered coal). Of the salable minerals, only sand and gravel are found within the WRFO Planning Area. Sand and gravel provide raw materials for most construction and paving activities. Sand and gravel deposits are found along the White River and major tributary valleys. Other sources include widespread colluvial deposits at the base of rock outcrops and alluvial fans. Large sand and gravel reserves occur near Meeker in the vicinity of Agency Park and in the Little Beaver area. **With the projected increase in oil and gas activities over the next 20 years,** The need for additional sand and gravel resources for road improvements and other construction-related activities will likely **continue to** increase over the next 20 years.

## Master Lease Program

The Master Lease Program (MLP) concept was introduced in May 2010 via the Oil and Gas Leasing Reform Act. MLPs promote a proactive approach to planning for oil and gas development and recognize that additional planning and analysis may be necessary in some areas prior to new oil and gas leasing because of changing circumstances, updated policies, and new information. Leasing reform allows the BLM to conduct a more in-depth review for areas that are or may be opened to leasing at the planning level through master leasing plans. As of the release of this document, only the Dinosaur Trail MLP is active.

The purpose of an MLP is to plan for oil and gas development at the land-use plan level in a defined area containing a high-level of potential resource concerns. The two main components of MLPs are:

1. Develop goals for maintaining or improving the condition of natural resource values in the area.
2. Identify resource protection measures and best management practices that may be adopted as lease stipulations in an RMP. A MLP is not a special designation but rather it delineates a planning area in which there is analysis of decisions related to oil and gas leasing and development within a distinct geographic area.

The following are examples of planning decisions that may be considered through the MLP process with appropriate supporting NEPA analysis:

- Phased leasing
- Phased development
- Requirements to reduce or capture emissions
- Multiple wells on a single pad
- Additional mitigation stipulations

### 4.7.2 Policy Statements

1. Object to the cancellation or withdrawal of existing lease rights. Uphold and support existing lease rights, and the intent of the original lease terms, without modification or cancellation.
2. Extractable resource development and maintenance should occur with science-based reclamation practices and responsible land stewardship.
3. Develop site-specific seed mixes for reclamation of disturbed sites to maximize diversity of high-quality forage available for livestock, wildlife, and to maintain rangeland health.
4. Encourage modern reclamation practices, including site specific soil analysis amendments, mulches, and barriers increasing the probability of successful reclamation which will help speed the natural process of restoration.

5. Support inclusion of appropriate non-native species in seed mix to enhance the ability of the soil to withstand erosion and control sediment flows off construction sites as needed.
6. The County and Conservation Districts should be involved in any initiative, mitigation, or compensatory mitigation programs or studies.
7. Establish and/or use restoration pilot projects on private or public lands to inform restoration practices in the area, or use methods already used in successful local restoration projects.
8. Require enforcement of the use of weed-free seed mixes and products in all restoration efforts.
9. Support consistent, appropriate reclamation of all surface resource disturbances as soon as feasible after impacts have been created. "As soon as feasible" means restoring at the time and season that reseeding methods are most likely to succeed and are appropriate for the site (e.g., seeding should occur in the fall).
10. Streamline regulations to decrease overlap and contradictions between various permitting agencies.
11. ~~Open all federal lands shown to have reasonable mineral potential leasing with stipulations and conditions that will protect resource values.~~ Oppose all nation-wide leasing moratoriums. All federal lands with reasonable mineral potential shall be available for lease with stipulations and conditions that will protect resource values.
12. Support analysis of all fiscal and economic impacts to the minerals industry and the county from any proposed land management changes or natural-resource related plans.
13. Design and construct all new roads to a safe and appropriate standard, "no higher than necessary" to accommodate their intended use.
14. Consult with the County and Conservation district regarding road placement and maintenance to reduce soil erosion.

15. Use best available technologies and best management practices in energy development to reduce pollution impacts during all stages of development, with the appropriate economic analysis to ensure economic viability.
16. The BLM and/or USFS should host at least one economic strategy workshop for the development of all new management plans (or plan amendments and revisions) to provide an opportunity for local government officials, community leaders, and other citizens to discuss regional economic conditions, trends, and strategies.
17. Require documentation of existing improvements (e.g., two-track roads) prior to development and require return of the improvement at least to its original condition when the well closes, as appropriate for the site.
18. Federal agencies should support the development and improvement of future and existing pipeline infrastructure for the transmission of materials in and through Rio Blanco County when it will not affect pre-existing uses or rights.



Figure 13. Homestead cabin west of Rangely, 1920.

Photo submitted by Cheryl Robertson

## 4.8 Socioeconomics and Economic Viability

### 4.8.1 Background

The NEPA defines “effects” to include ecological, aesthetic, historic, cultural, economic (such as effects on employment) social or health effects. Given that definition, it is important to recognize the significant relationship between federal lands management and the economic viability of the County which is approximately 76% federally managed lands. The socioeconomic status of the County and its residents heavily rely on the multiple uses of these federally managed lands.

Rio Blanco County is the sixth largest county in size in Colorado and is forty-fifth (of sixty-four) in population. With a population density of approximately two people per square mile, Rio Blanco County is a lightly populated county. The County has historically relied on agricultural activities (e.g., ranching, logging) on federal lands to support its economy. Recreational activities, particularly hunting, have also been important economic drivers. With the discovery of oil in the mid 1900’s, oil shale in the 1980s, and natural gas in the 1990s, the County has been through multiple boom and bust cycles.

The economy of Rio Blanco County requires access to public lands and resources. According to the USDA, National Agricultural Statistics Service (NASS), The total market value of livestock and crop sales dropped from \$24,412,000 in 2012 to \$18,751,000 in 2017. Livestock made up 85 percent of the 2017 total (\$15.981 million). In 2012, there were 313 farms totaling 507,343 acres reported hosting a total of 24,757 cattle and calves and 20,762 sheep and lambs (this does not account for use of public lands). In 2017, there were 320 farms totaling 410,923 acres reported hosting a total of 25,253 cattle and calves and 7,859 sheep and lambs (this does not account for use of public lands).

In 2012, cattle and calves accounted for \$17.073 million of the sales, meaning each bovine contributed an average of \$689.62 to the economy. Each sheep contributed an average of \$150.80 to the economy. (NASS 2012)

In 2017, cattle and calves accounted for \$14.436 million of the sales, meaning each bovine contributed an average of \$571.65 to the economy. Each sheep contributed an average of \$163.00 to the economy. (NASS 2017)

The Agriculture Census data does not adequately reflect the reliance on access to federal lands. There are significant limitations to try to create in excess of \$20 million in revenue from the private lands in the County. The 1.46 million acres of BLM lands and over 300,000 acres of USFS lands are necessary for the continuation of agriculture in Rio Blanco County.

Hunting, fishing, wildlife viewing, and outdoor recreation have always been a key part of the custom, culture, and history of Rio Blanco County. Colorado Parks and Wildlife (CPW) has completed numerous analyses of direct, indirect, and induced contributions to the Colorado economy from outdoor recreation. In 2008, CPW estimated that the economic impacts of big game hunting and fishing at the individual county level across Colorado. That report estimated that approx. 6 percent of the total jobs in Rio Blanco County were related to hunting and fishing. In 2015, CPW generated over \$80 million in hunting and fishing license sales and other wildlife fees. According to "The 2017 Economic Contributions of Outdoor Recreation in Colorado" Northwest Colorado benefits from an economic output of \$536 million to the region in the form of hunting, fishing and wildlife watching.

Outdoor recreation (including hunting, fishing, wildlife viewing and many other types of outdoor activities) contributes \$62.5 billion to Colorado’s economy annually. Big game hunting contributed

\$1,609,611, while small game contributed \$1.9 billion, and wildlife viewing contributed \$437,417 to Colorado's economy in FY 2017. Northwest Colorado accounted for 40 percent of the overall hunting economic contributions in Colorado, with over 133,658 jobs supported by outdoor recreation (e.g., hunting, fishing and wildlife viewing) in NW Colorado

([https://cpw.state.co.us/Documents/Trails/SCORP/2017EconomicContributions\\_SCORP.pdf](https://cpw.state.co.us/Documents/Trails/SCORP/2017EconomicContributions_SCORP.pdf)).

The above CPW report (Table 9) states the total hunting economic contribution to Rio Blanco County is:

- Output - \$9,433,000
- Labor Income - \$4,741,000
- GDP Contribution - \$5,086,000
- State/Local Taxes - \$1,229,000
- Federal Taxes - \$708,000

### Summary of Employment

From 1970 to 2013, the county population increased by 41 percent from 4,835 to 6,807 people. Employment in that same time period increased by 101 percent from 2,375 to 4,776 jobs and personal resident income increased by 147 percent (Figure 14).

The 2021 population is estimated at 6,476 by the US Census Bureau.



Figure 14. Population Trends for Rio Blanco County (USDC 2014).

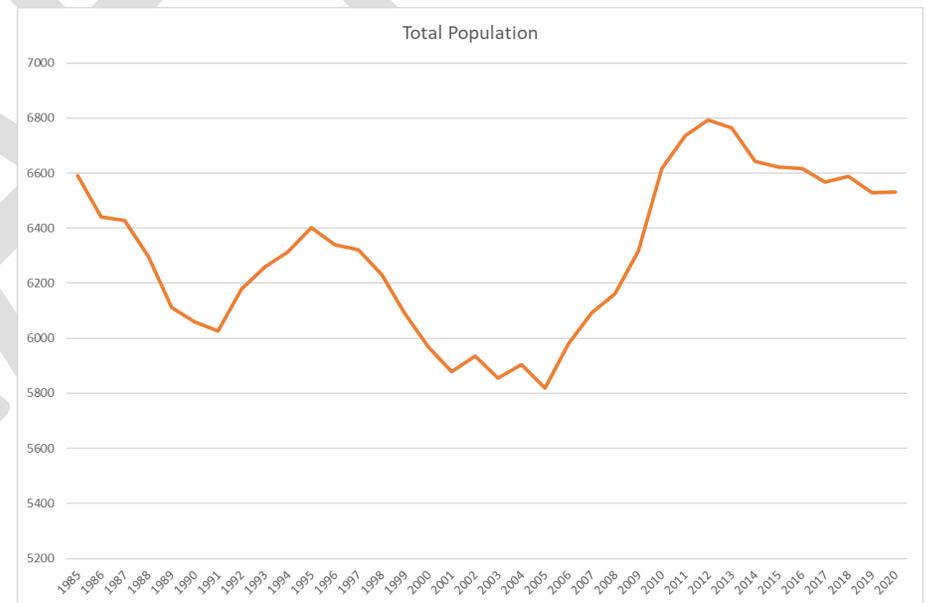


Figure 14. Population Trends for Rio Blanco County

(Source:

<https://demography.dola.colorado.gov/assets/html/county.html>)

## Employment by Industry (1970-2013)

Employment data are categorized using two different systems. From 1970 to 2000, the Standard Industrial Classification (SIC) was used. Since 2001, industry-level data have been organized using the North American Industrial Classification System (NAICS).

From 1970 to 2000, the three industry sectors that added the most new jobs were government, services, and retail trade (Figure 15).

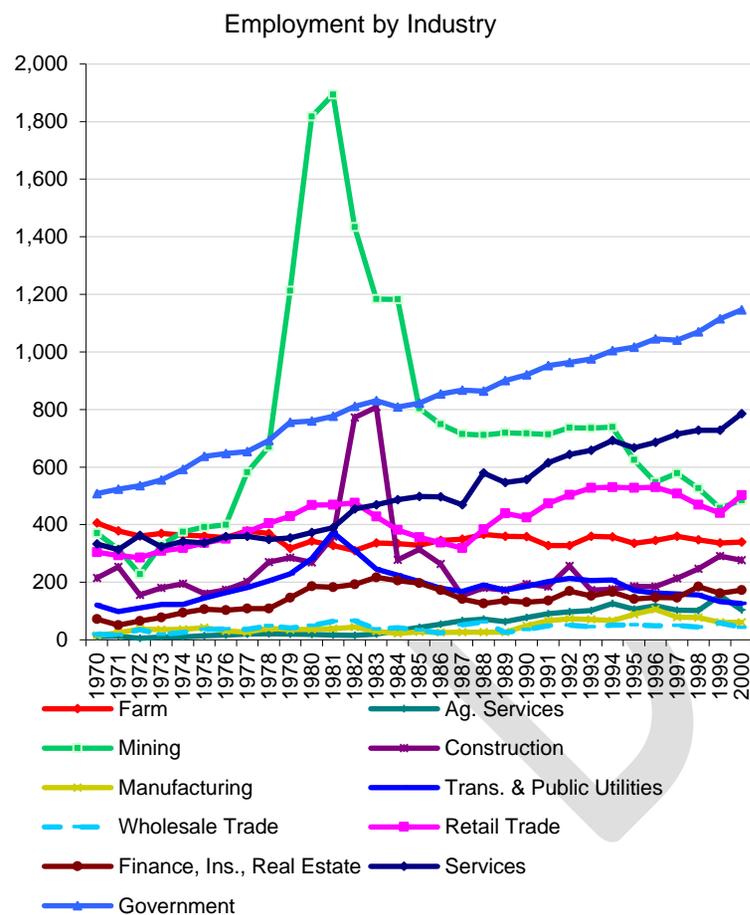


Figure 15. Employment by Industry (USDC 2014)

From 2001 to 2013, total employment increased slightly from 4,170 jobs to 4,776 jobs. Non-services related jobs (e.g., farming, mining and construction) increased 30 percent from 1,283 to 1,664 jobs. Service related industries (e.g., transportation and warehousing, utilities, retail) increased 13 percent from 1,580 to 1,782 jobs. From 2001 to 2013, the three industry sectors that added the most new jobs were mining (including fossil fuels), construction, and transportation and warehousing (Figure 16).

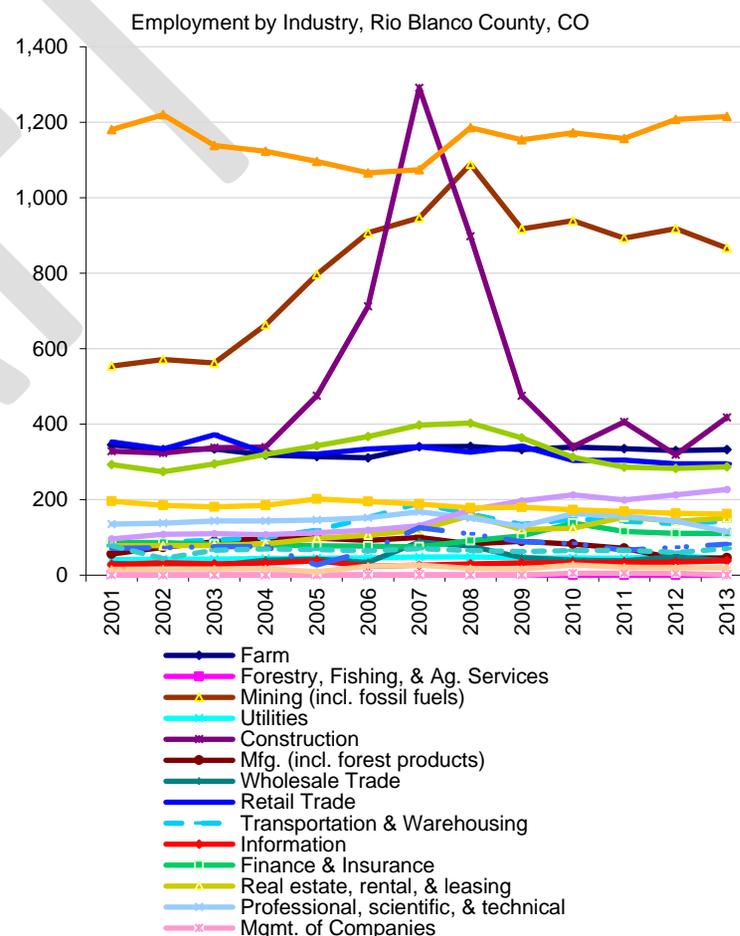


Figure 16. Employment by Industry, 2001-2013 (USDC 2014)

Below is the employment by industry based on the Colorado Workforce Center information. Between 2013 and 2019, Goods-producing (companies and organizations that make products, rather than provide services) declined from 1,087 in 2013 to 694 in 2017 before rebounding slightly. Natural Resources and Mining declined from 748 in 2013 to 473 in 2017 before increasing slightly. (Figure 17)

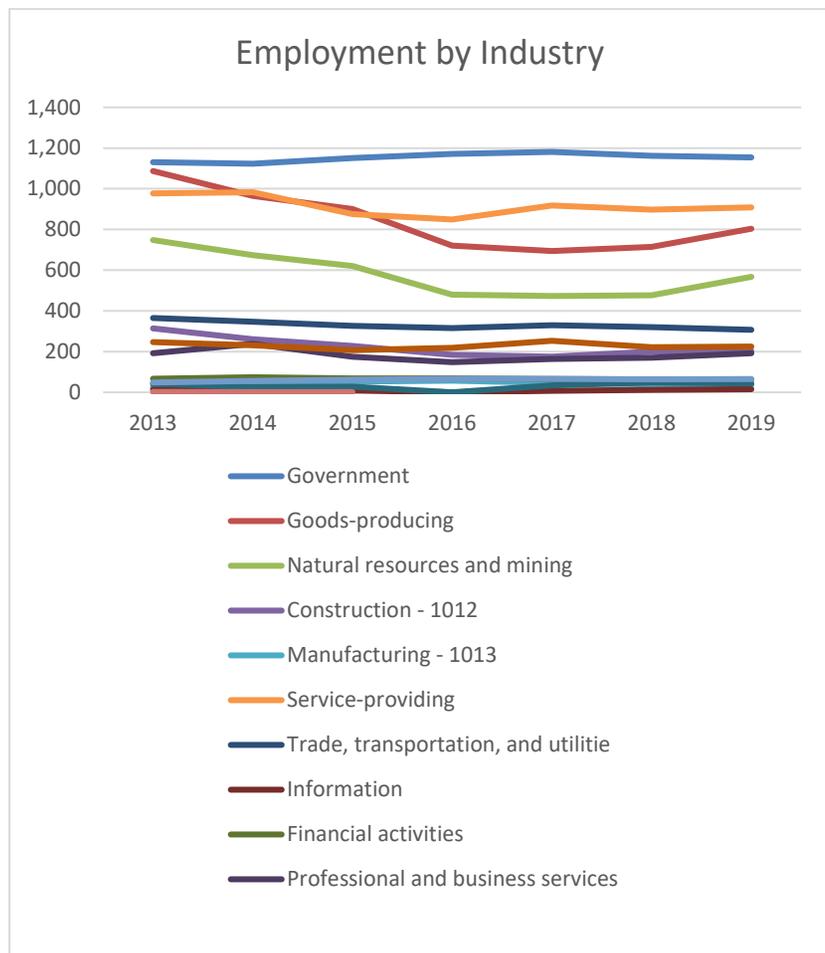


Figure 17. Employment by Industry (Colorado Workforce Center, 2022)

### Earnings by Industry, 1970-2013

Not unsurprisingly, earnings by industry generally reflect the same trends as employment by industry. From 1970 to 2000, the three industry sectors that added the most earnings to Rio Blanco County were mining (including fossil fuels), services and finance, insurance, and real estate (Figure 18).

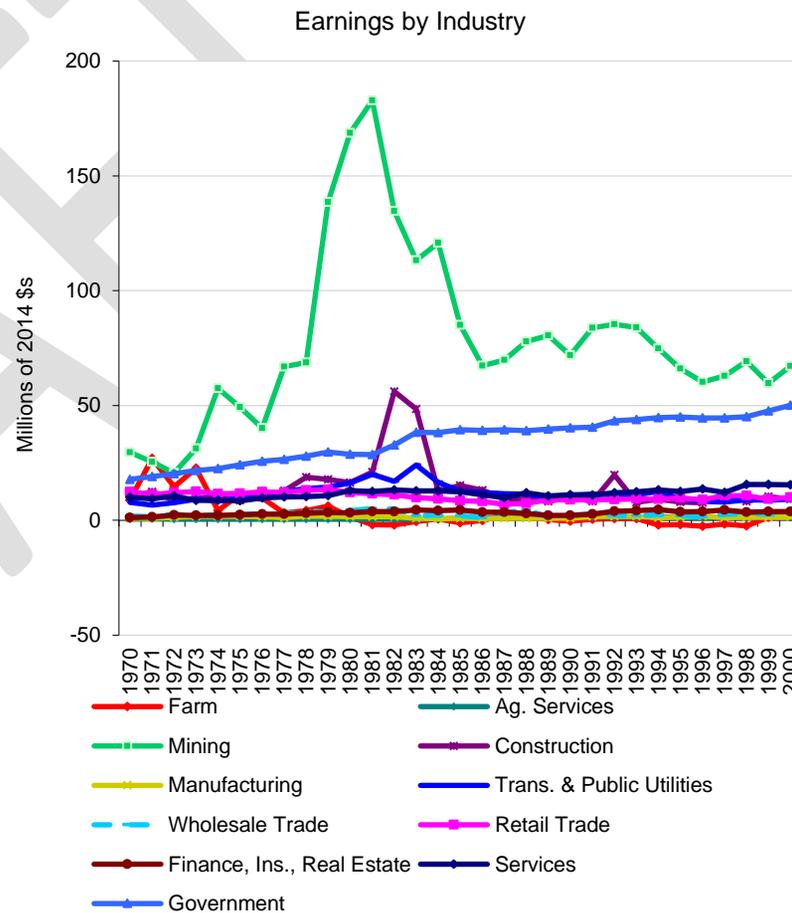


Figure 18. Earnings by Industry, 1970-2013 (USDC 2014)

From 2001 through 2013, non-services related industry earnings grew from \$68.3 million to \$119.8 million, increasing by 75 percent. Services related industries grew 25 percent in that same timeframe, from \$54.3 million to \$67.2 million. In 2013, the industry sectors with the largest earnings were mining (including fossil fuels), construction and farm. These same three sectors added the most earnings from 2001 to 2013 (Figure 19).

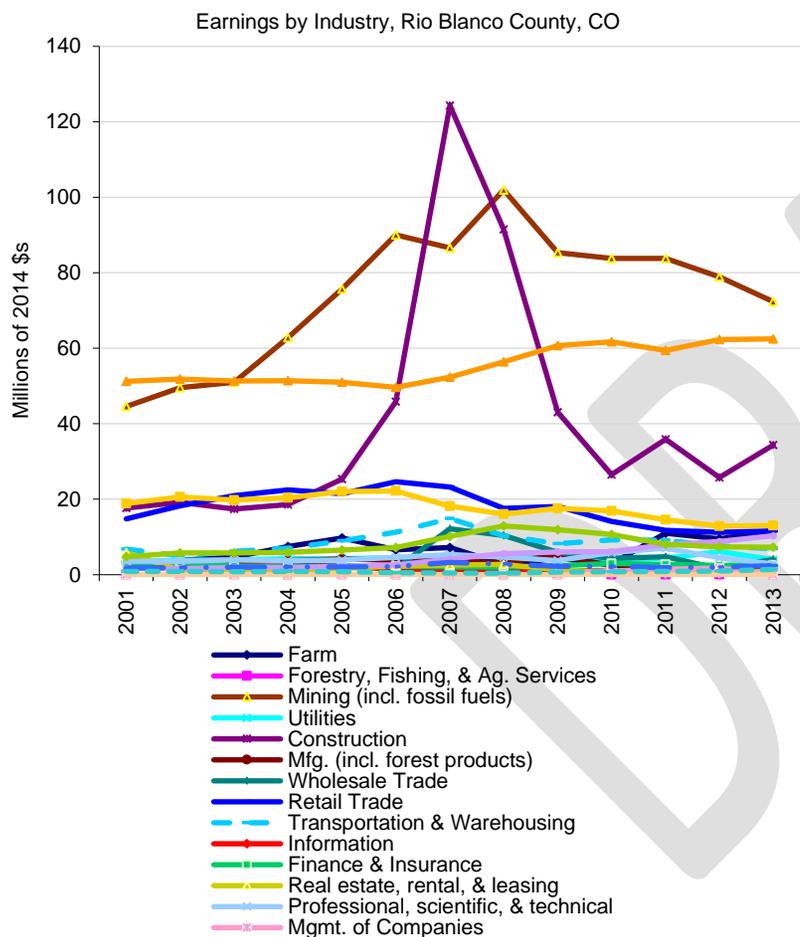


Figure 19. Earnings by Industry, 2001-2013 (USDC 2014)

From 2013 through 2020, Goods-producing declined from \$78.3 million to \$52.6 million. Natural resources and mining declined from \$56.2 million to \$40.8 million in 2016. Both rebounded some before dropping again between 2019 and 2020. (Figure 20)

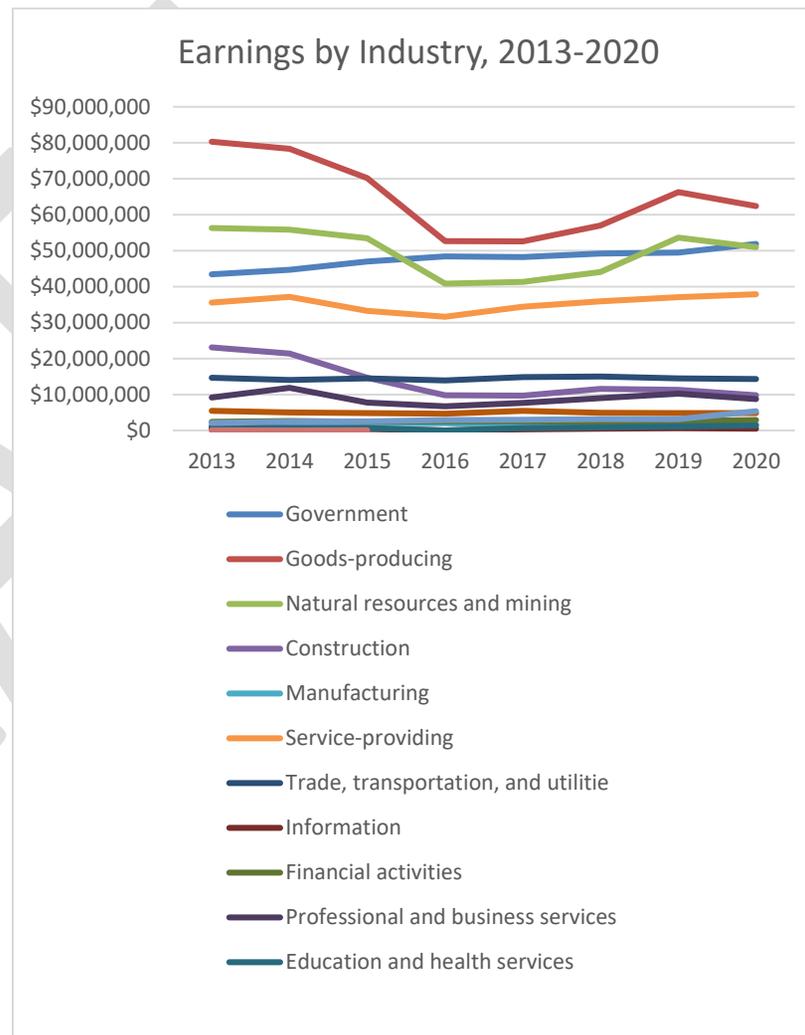


Figure 20. Earnings by Industry, 2013-2020 (Colorado Workforce Center, 2022)

### Employment and Wages by Industry (2014)

In 2014, 3,070 total jobs had an average annual wage of \$52,147. Non-services related jobs paid the highest (\$82,984) and services related jobs paid the lowest (\$37,751). Federal government jobs employed the most people; natural resources and mining employed the fewest (Figure 21).

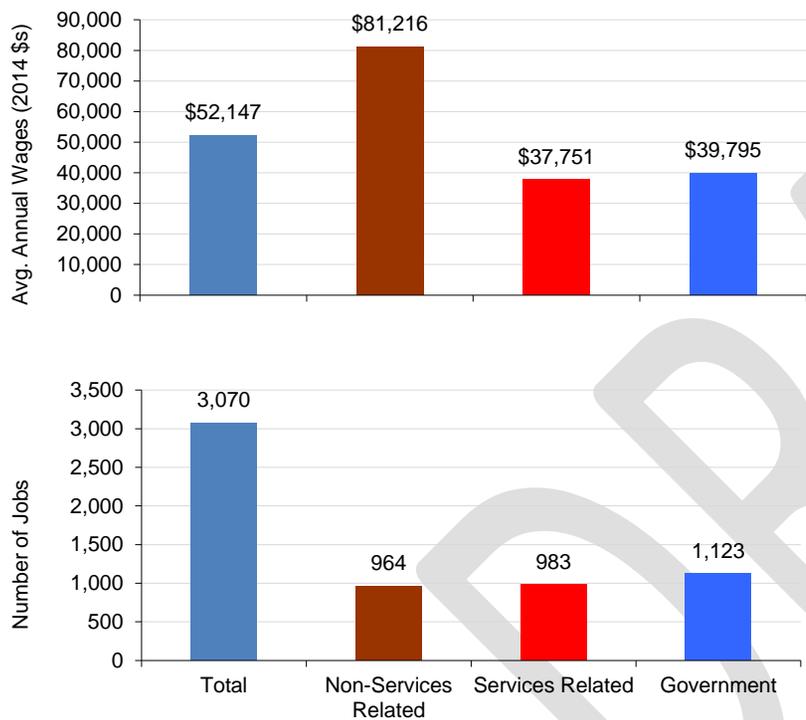


Figure 21. Employment and wages by major industry (USDL 2015)

### Employment and Wages by Industry (2020)

In 2020, 3,245 total jobs had an average annual wage of approximately \$54,400. Government jobs employed the most people while wholesale trade employed the fewest. The largest job growth in Rio Blanco County was in the industries of “Other Services (except Public Administration)” and Health Care and Social Assistance. (Data Source: EMSI data set)

### Employment Changes During Recessions, 1976-2014

Five national recessions occurred from 1976-2014. From 1976 to 2014 jobs increased by 34 percent, the highest number of people were employed in the County in 2007 (6,611). Since the 2008 recession, employment has remained relatively steady at around 3,000 employees in the County (Figure 22); USDC and USDL offer different numbers for total employment and number of jobs.

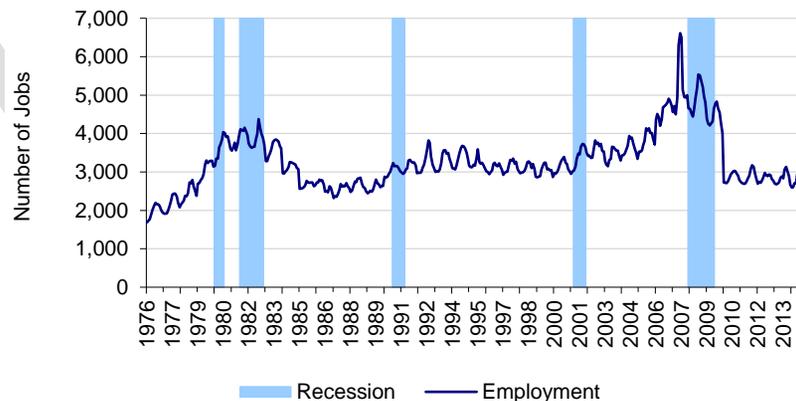


Figure 22. Employment and national recessions (USDL 2015)

## Unemployment, 1976 – 2014

Since 1976, the annual unemployment rate ranged from a low of 2.1 percent (2007) to a high of 8.9 percent (2010). Unemployment was above 8 percent in 1983 and 1987 and remained below 4 percent from 1997 through 2009, before peaking in 2010. In mid-2014 unemployment dropped to 5.8 percent (Figure 23).

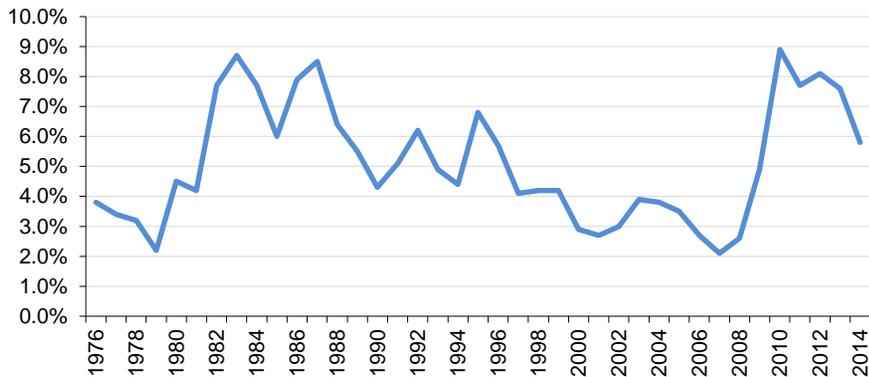


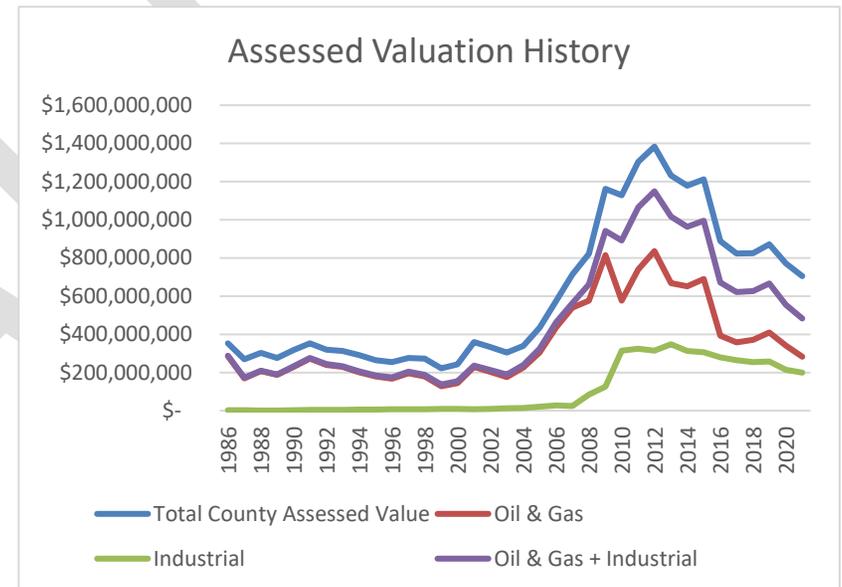
Figure 23. Average annual unemployment rate (USDL 2015)

## County Budget and Assessed Valuation

A major concern during the development of any budget is the amount of fund balance that will be available at the end of the year for use in future years. This is especially important in Rio Blanco County where predominant industries tend to “boom and bust” along with new legislative impacts.

The most recent boom peaked in 2008/2009. At the end of 2009, total County fund balance was at \$58.3 million. By the end of 2014, that balance had climbed to \$98.8 million. This year’s budget projects fund balances being down to \$69.7 million by the end of 2022.

Property tax is the largest source of the County’s revenue. Property tax revenue is calculated by dividing the prior year assessed value by 1,000 and then multiplying the result by the mill levy. The County mill levy is 9.050 mills. Movement in total assessed valuation in Rio Blanco County is directly related to the movement in oil and gas and industrial valuations. Oil and gas valuations have averaged 63% of the County’s total assessed value over the last 36 years.



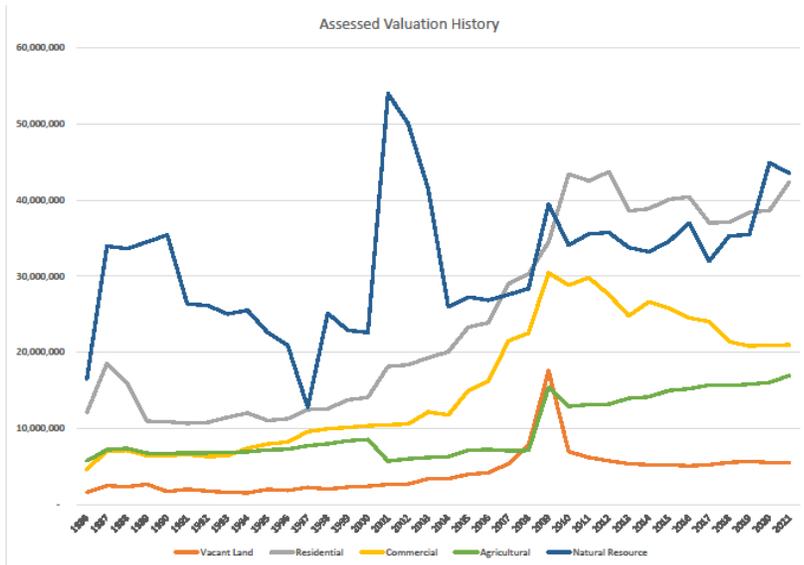


Figure 24. Rio Blanco County Assessed Valuation History (Rio Blanco County, 2022)

### County Fiscal Summary

The County's overall budget for 2016 is \$43.1 million. County revenue showed growth from 2002 through 2010; property taxes continued to increase through 2013. Sales/use tax has declined to pre 2004 levels, which is attributed to energy policies, decreased oil and gas prices, and a worldwide surplus inventory. The County is anticipating 2017 and 2018 to be difficult budget years and is anticipating scrutiny of expenditures and programs. For the 2016 budget year the County projects an increase in capital grants/donations by \$8 million, property tax by \$399,000, highway user tax by \$200,000, and miscellaneous by \$207,000. The County expects a decrease in sales/use tax by \$392,000,

impact fees, by \$362,000, and other licenses/permits and fees by \$472,000 (Singleton 2015).

Highlights from the County budget for 2016 (approved 12/14/15) follow (Singleton 2015):

### Revenue Summary

- Capital Grants & Donations: \$16.6 million; could be the largest source of revenue in 2016 but could range from \$6.5 to \$18.6 million.
- Property Tax: \$11 million; peaked at \$13 million in 2013.
- Sales & Use Tax: \$1.8 million, down from a high of \$10.3 million in 2008.
- Specific Ownership Tax: \$358,000, down from a high of \$537,000 in 2008.
- Impact Fees: Suspended in early 2015, the \$154,000 may not happen and has declined from \$3 million in 2009.
- Charges for Services: \$806,000 down from a high of \$2.8 million in 2012.
- Interfund Charges: internally generated at \$3.2 million.
- Licenses, Permits, Fees & Fines: \$2.6 million; tied to property taxes and some internal funds.
- Highway Users Tax: \$2.8 million.
- Intergovernmental: \$2.8 million down from a high of \$7.5 million in 2014 (does not include Payment In Lieu of Taxes severance taxes or mineral leases estimated to be \$3 to \$4.5 million).
- Investment Earnings: \$202,000 down from \$1.7 million in 2007.

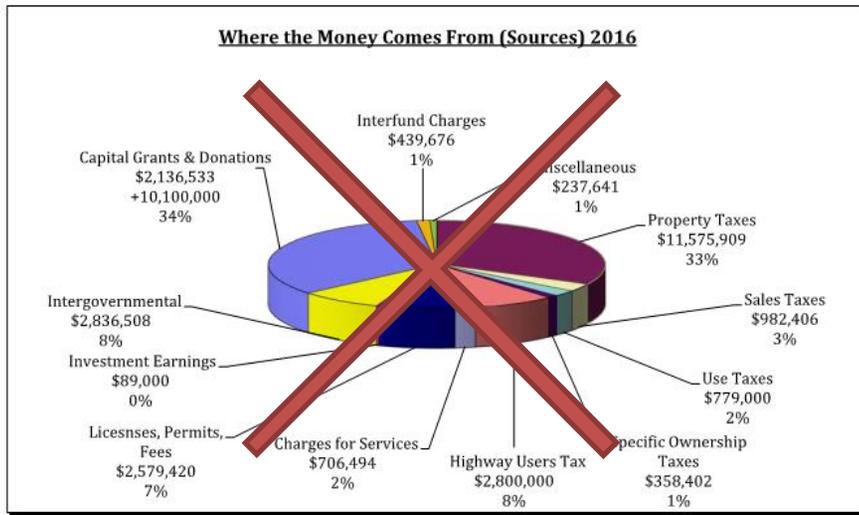


Figure 22. Operating funds revenue chart, 2016 budget (Singleton 2015).

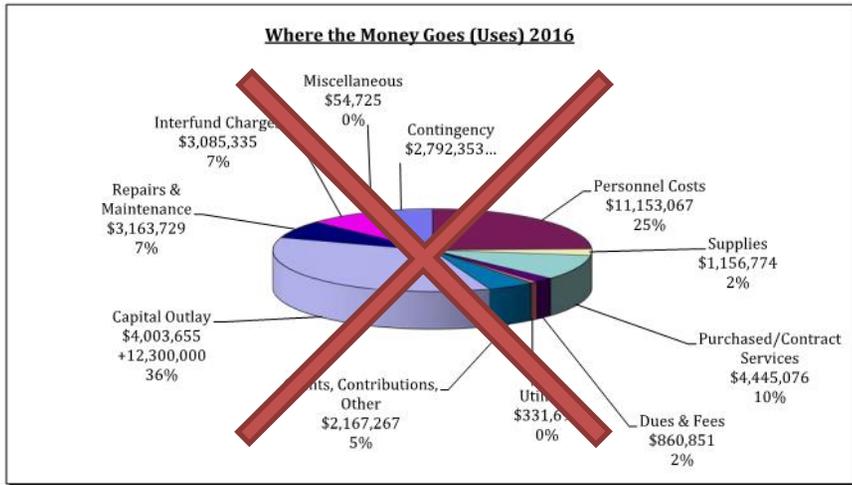


Figure 23. Operating funds expense chart, 2016 budget (Singleton 2015).

### County Staffing

Rio Blanco County staff has a total of 147 Full Time Equivalent (FTE) employees. Salary and benefits make up 42 percent of the County's operating budget. Table 1 shows the cost by category for County staff (Singleton 2015).

Table 1. Personnel Cost by category (revised from Singleton 2015).

| Description          | Personnel Cost | FTEs   | Percent of Total |
|----------------------|----------------|--------|------------------|
| General Government   | \$ 3,703,955   | 46.20  | 31 percent       |
| Public Works         | \$ 3,144,293   | 40.55  | 28 percent       |
| Public Safety        | \$ 2,541,056   | 27.65  | 19 percent       |
| Health & Welfare     | \$ 1,452,086   | 20.95  | 14 percent       |
| Facilities & Fleet   | \$ 666,852     | 7.50   | 5 percent        |
| Recreation & Culture | \$ 293,677     | 4.15   | 3 percent        |
|                      | \$ 11,801,919  | 147.00 |                  |

### Economic Studies of Rio Blanco County

A consulting firm, Better City, embarked on a multi-phase process to complete a community assessment, and economic assessment, and market analysis for Rio Blanco County. The final phase, a

~~comprehensive plan, is under development. Better City identified community strengths and assets that could help define future growth and diversification.~~

#### 4.8.2 Policy Statements

1. Require consultation and coordination with the County and Districts at the earliest time possible for any proposed action, change of existing activities, newly permitted activities, or changes in regulations that may affect the economic basis of the County.
2. Support consultation and coordination with the County and Districts to determine the full scope of potential social and economic effects of activities proposed on public lands and any “major federal actions”, including impacts to circulating dollars when access and use of federal lands is proposed.
3. Promote the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act, which provides small entities an expanded opportunity to participate in the development of certain regulations (<http://www2.epa.gov/reg-flex/learn-about-regulatory-flexibility-act>).
4. Support continued access to natural resources development/use on federal lands to maintain economically viable communities in our County.
5. Subject experts should complete socioeconomic analyses for proposed projects; the experts should be familiar with and focus on the County’s unique history, culture, economy and resources. Analyses will include a description of existing social, demographic and economic conditions; the analytical methodologies used; and the impacts to topics including (but not limited to) population, employment, income levels, industry activity, housing, community services, utility services, schools, fiscal impacts to the County and local jurisdictions, public revenues and expenses, transportation, and quality of life.

6. Support the analysis of social and economic factors at the lowest possible level, such as on a county-wide basis in addition to consideration on a state-wide or national scale.
7. Support “no net loss” in County economic base due to federal agency decisions. Include County and Districts in all discussions regarding mitigation if necessary to protect the economic base of the County.
8. Analyze each “decision” based on both the global environment and the local economy. If the decision will have insignificant impact on the global environment but will have significant negative impact on the local economy, the alternative/decision is unacceptable.
9. Ensure that environmental consequences section of all NEPA documents fully analyze any economic benefits or detriments to the County and Districts of the proposed action and all alternatives, including on employment.

## 4.9 Candidate, Threatened, and Endangered Species

### 4.9.1 Background

Congress passed the Endangered Species Preservation Act in 1966, which provided limited protection for species listed as endangered. The Departments of Interior, Agriculture, and Defense were to seek to protect listed species and to the extent possible preserve the habitats of listed species. In 1969, Congress amended the Act to provide additional protection for species at risk of “worldwide extinction” by prohibiting the import and sale in the United States. This amendment called for an international meeting to discuss conservation of endangered species and changed the title of the act to the Endangered Species Conservation Act. In 1973, 80 nations met to sign the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). As a follow-up, Congress passed the Endangered Species Act (ESA) of 1973. The ESA ([FWS.gov](http://FWS.gov) accessed 10/31/2015):

- Defined “endangered” and “threatened”;
- Made plants and all invertebrates eligible for protection;
- Applied “take” prohibitions to all endangered animal species, and allowed the prohibitions to apply to threatened animal species by special regulation; such “take” prohibitions also include “adverse modification” of critical habitat;
- Required federal agencies to use their authorities to conserve listed species and consult on “may affect” actions;
- Prohibited federal agencies from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its “critical habitat”;
- Made matching funds available to States with cooperative agreements;
- Provided funding authority for land acquisition for foreign species; and

- Implemented CITES protection in the United States.

The ESA was amended in 1978, 1982, and 1988. Funds are annually appropriated for the implementation of the ESA and have been since 1993.

Candidate species are “any species being considered...for listing as an endangered or threatened species, but not yet the subject of a proposed rule” (50 C.F.R. § 424.02(b)).

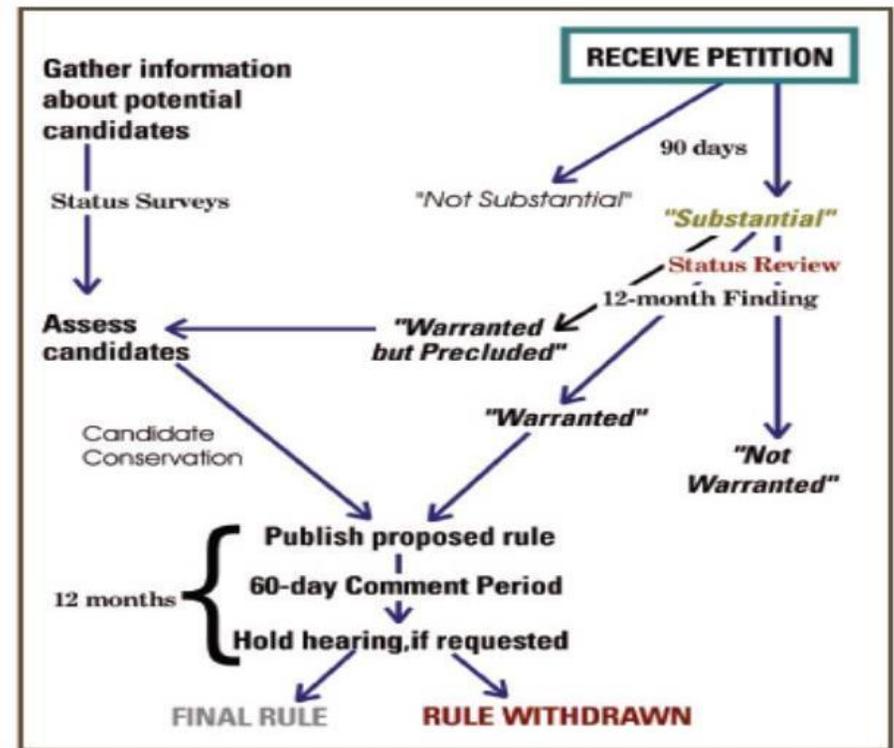


Figure 25. Listing Process Illustration

Critical habitat is a specific geographic area that contains at least one of the physical or biological features essential to the conservation and recovery of a listed species and may require special management or protection. Critical habitat can only consist of areas that qualify as

“habitat.” *Weyerhaeuser Co. v. US Fish and Wildlife Service*, 139 S. Ct. 361, 368 (2018). The ESA does not define “habitat.” *Id.* However, the USFWS regulations define “habitat,” for the purpose of designating critical habitat only, as “the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species.” 50 C.F.R. § 424.02. Critical habitat can include areas that are not currently occupied by a listed species under certain circumstances including (1) a determination that the critical habitat occupied by the species is inadequate to ensure the conservation of the species and (2) so long as such unoccupied areas have at least one of the physical or biological feature required for the species essential to the conservation of the species. According to the ESA regulations issued on February 11, 2016, such habitat includes temporary habitat, ephemeral habitat, and migratory habitat. Although economic impacts are not considered during the species listing process, the economic impacts of a critical habitat designation must be analyzed in the designation process. The USFWS may choose to exclude any area from critical habitat if the agency determines that the benefits of such exclusion outweigh the benefits of designating the area, unless such exclusion would result in the extinction of the species. 16 U.S.C § 1533(b)(2). A decision not to exclude critical habitat for economic reasons is reviewable by courts under an abuse of discretion standard. *Weyerhaeuser*, 139 S. Ct. at 370.

In response to the *Weyerhaeuser* Court’s decision allowing decisions not to exclude critical habitat to be reviewed under the Administrative Procedure Act, the Fish and Wildlife Service promulgated rules regarding the exclusion of critical habitat. There are five major items developed in those regulations.

1. The rule gives local governments expert status when discussing the economic and other non-biological local impacts of critical

habitat designation within their jurisdiction. 50 C.F.R. § 17.90(d)(1)(ii).

2. The rule also allows federal land to be excluded from critical habitat designation. 50 C.F.R. § 17.90(c)(2)(i).
3. The rule sets a meaningful standard as to when critical habitat should be excluded. 50 C.F.R. § 17.90(d) and (e).
4. The rule encourages the USFWS to exclude critical habitat for more than just economic consideration, including whether the critical habitat may harm community development. 50 C.F.R. § 17.90(a).
5. The rule allows lands that have proven conservation agreements to be excluded from critical habitat. These agreements can be agreements created by local governments or the state and not just the USFWS. 50 C.F.R. § 17.90(d)(3) and (4).
6. The rule does not automatically designate critical habitat on federal lands.

The ESA also created several additional planning tools, including:

- Recovery plans (population and viability goals; define when delisting may be possible; what is required for delisting to begin)
- Reintroduction plans
- Habitat conservation plans (define when and how much “take” may occur, defines mitigation options)
- Conservation plans or agreements

For species that are candidates for listing, there are also Candidate Conservation Agreements (CCA) and CCAs with Assurances (CCAAs) (private landowner arrangements for the protection of Candidate species that provides the landowner with protection if the species is listed).

For information on all listed and potentially listed threatened or endangered species or designated critical habitat in Rio Blanco County, visit <http://ecos.fws.gov/ecp>.

Rio Blanco County contains seven threatened species, five endangered species and three candidate species. There is also an experimental, non-essential population of black-footed ferrets (*Mustela nigripes*) in the County.

The Colorado pikeminnow (*Ptychocheilus lucius*) was listed as endangered under the name of the Colorado River squawfish in 1967. Critical habitat was proposed in 1978 and finalized in 1994. The most recent 5-year review was completed in 2011.

The Dudley Bluffs twinpod (*Physaria obcordata*) and Dudley Bluffs bladderpod (*Physaria congesta*) are threatened plants found in the Piceance Creek area listed in 1990. Critical habitat has not been designated. A five-year review was finalized in 2008. Recreationists bringing weeds into the area is noted in the listing documents as one of many factors for listing of the plant. The plant is located in the northern Piceance Basin.

Canada lynx (*Lynx canadensis*) was listed as threatened in 2000. Although critical habitat was identified for the lynx no critical habitat is designated in Colorado. (Figure 24 Figure 25).

The western population of the yellow-billed cuckoo (*Coccyzus americanus*) was warranted but precluded from listing in 2001 and was listed as threatened in 2014. Listing documents indicate the bird is relatively common, but its riparian habitat is being lost or degraded. Critical habitat was also proposed in 2014; no critical habitat is proposed for Rio Blanco County at this time.

# LYNX HABITAT Rio Blanco County, CO

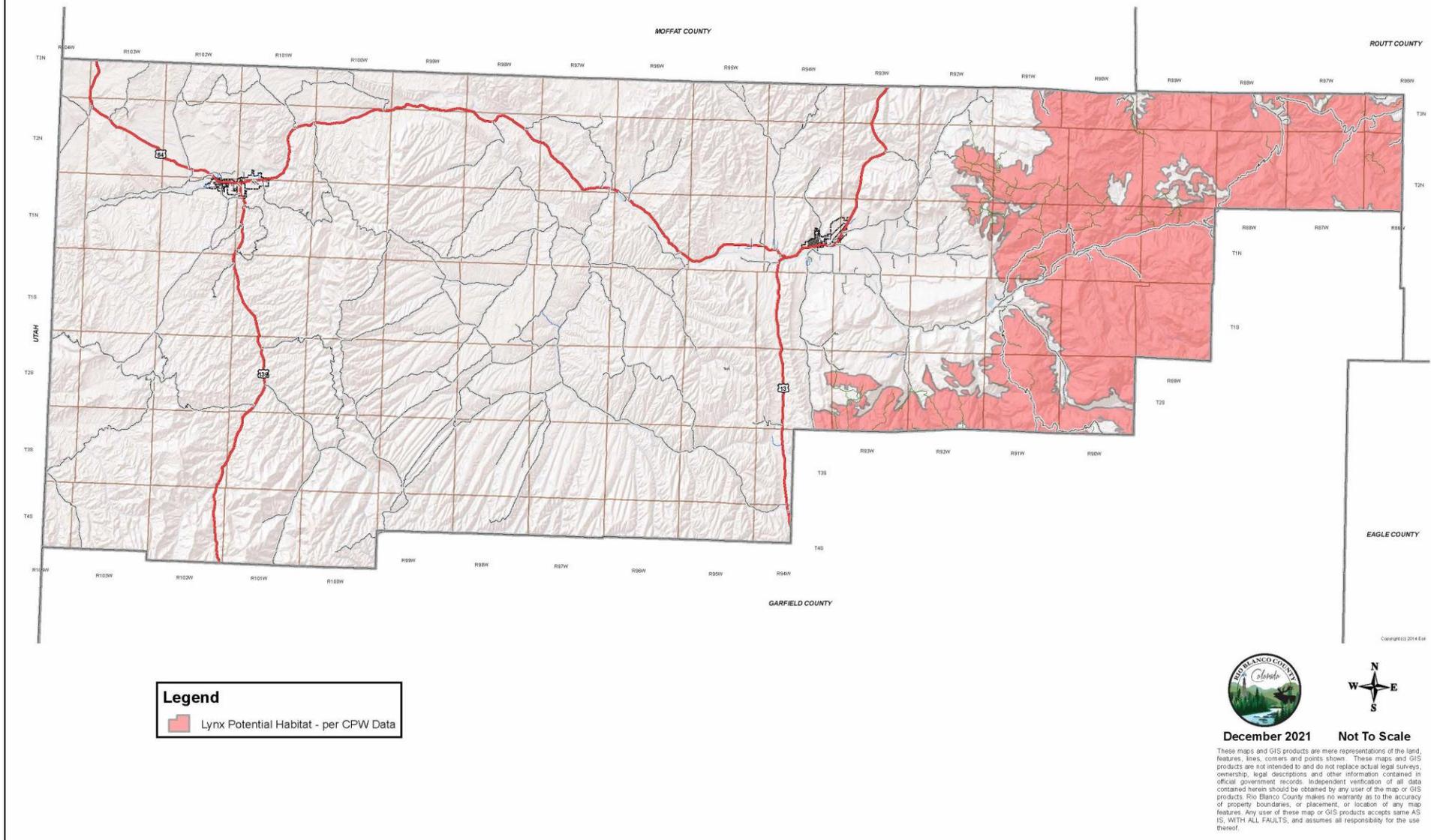


Figure 26. Lynx Habitat

## **Species of Concern**

For the purposes of the Districts and County and for this document, we utilize the term “species of concern.” This designation will identify species for which conservation actions may be needed and such actions may preclude the need to list these species under the ESA in the future.

## **Bureau of Land Management**

BLM uses the term “special-status species” to include federally listed or proposed for listing as threatened or endangered, candidate species, state protected and sensitive species, and other special-status species including federal and state “species of concern”. BLM designates special-status species where there is credible scientific evidence to document a threat to the continued viability of a species population (Bureau of Land Management 2008).

## **United States Forest Service**

The Forest Service Manual 2600, Chapter 2670 (United States Department of Agriculture 2005) defines how the USFS manages threatened, endangered and sensitive plants and animals. The USFS manages sensitive species to ensure they do not become threatened or endangered because of USFS actions. “Sensitive Species” are defined as those plant and animal species identified by a regional forester for which population viability is a concern because of downward trends in population or habitat (predicted or actual). The USFS seems to defer to the State definition of a sensitive species (e.g., establish management objectives in cooperation with the states when projects on USFS lands may have a significant effect on sensitive species population numbers or distributions).

## **State of Colorado**

The State of Colorado created a State Wildlife Action Plan (SWAP) in 2006 that documented the status of wildlife species of conservation need, the threats to the species and their habitat, and described strategies to minimize those threats. It was based on the best available science. The SWAP was updated in 2015 and the final document is available at

<https://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx>.

It states the draft SWAP “reflects the fundamental goal of CPW and the state as a whole, which is to secure wildlife populations such that they do not require protection via federal or state listing regulations” (Colorado Parks and Wildlife 2015). The SWAP also fulfills the requirements of the State Wildlife Grants program by addressing the eight elements identified in the legislation (Title IX, PL 106-553 and Title 1, PL 107-63). The eight elements are provided below:

- Element 1: Species of Greatest Conservation Need – 159 species in two tiers
- Element 2: Habitats – 23 habitat types, 9 aquatic habitats and 2 “other” habitat categories
- Elements 3 & 4: Threats and Conservation Actions
- Element 5: Monitoring
- Element 6: Review and Revision of the SWAP
- Elements 7 & 8: Agency Coordination and Public Participation

Element 1 requires the identification of Species of Greatest Conservation Need (SGCN). These species are broken into two tiers. Tier 1 species are truly the highest conservation priority in the state and on which CPW will likely focus funding and efforts. Tier 2 species are important but their urgency for protection is less than for Tier 1 species. The SWAP also identifies the status and trend of each species on the list. The list includes species identified by USFWS, USFS, BLM, NatureServe, and the Colorado Natural Heritage Program.

The purpose for the SWAP document is to provide a blueprint for conservation and management of species of conservation need (i.e., declining native Species) by CPW and other conservation partners in Colorado. The SWAP also enhances Colorado's opportunity to secure federal funding resources for the conservation and management of native wildlife species that are not primarily supported through the sale of state hunting and fishing licenses. CPW's statutory obligation to manage wildlife is very broad. The obligation as stated in state statute is: "It is the policy of the state of Colorado that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors."

CPW fulfills its obligation by using a broad range of tools including; strategic planning, regulatory authorities, budgeting, policy, and management activities. CPW cooperates with federal land management agencies such as the BLM, USFS, NPS, USFWS, Bureau of Reclamation, etc., in land planning processes and project specific evaluations and recommendations when they reach out to CPW for expertise. CPW also works closely with other Colorado state agencies such as the COGCC, Department of Transportation, the Division of Reclamation, Mining and Safety, the State Land Board, and others. Finally, CPW works with local governments (Counties and municipalities) by providing technical expertise (House Bill 34) and recommendations through House Bill 1041 when requested.

#### 4.9.2 Policy Statements

##### 1. Sensitive Species/Species of Concern

1. Support creating a unified (cross-agency) definition for "species of concern".
2. Support the use of credible data or information BLM and USFS can use on which to base a decision that a species should be designated a "species of concern" or "sensitive" beyond criteria provided in their respective handbooks.
3. Oppose the management of non-ESA listed species (e.g., species of concern, species of special concern, or any other non-ESA designation) as though they are protected by the rules of the Endangered Species Act.
4. ~~Support delisting of any species with insufficient, unsupported, or questionable data not meeting the minimum criteria for its listing or protection level.~~
5. Management plans should not be created for single species and should be consistent with multiple use mandates.
6. The Districts and County should be involved in the species of concern and sensitive species review process, including in the determination of what should be included as a species of concern or sensitive species.
7. The Districts and County should be involved in the establishment of recovery objectives for species of concern (e.g. Greater Sage-grouse) and the development of management actions to move species off the list of concern. Once recovery objectives for species of concern have been reached, support moving species off of the list of concern.

##### 2. Threatened or Endangered Species

1. Support the participation of the Districts and County as cooperating agencies and/or in coordination in federal

rulemaking, including any NEPA analysis related to the designation of critical habitat and development of recovery plans.

2. Require the full analysis of the economic impacts on all proposed critical habitat designations or species management plans, and the inclusion of the County and Districts in this analysis. Economic impacts include, but are not limited to, the economy of a particular area, productivity, jobs and any opportunity costs or losses arising from the proposed critical habitat designation or species management plan (including those anticipated from reasonable and prudent alternatives that may be identified through ESA section 7 consultation) as well as possible benefits and transfers (such as increased outdoor recreation and ecosystem services).
- ~~3. Support cooperation between private landowners and federal agencies to reduce the risk of listing under ESA.~~
4. With regard to proposed critical habitat designations, require analysis of all “other relevant impacts” (16 U.S.C. § 1533(b)(2)), including, but are not limited to, impacts to Tribes, States and local governments, public health and safety, community interests, the environment (such as increased risk of wildfire or pest and invasive species management), Federal land uses and conservation plans, agreements and partnerships.
5. Require complete and detailed “extinction analysis” for all particular areas of proposed critical habitat proposed for exclusion by County or Districts.
6. Object to “automatically” including federal lands as critical habitat without completion of scientifically based exclusion analysis.
7. Recognize County’s and Districts’ expertise and first-hand knowledge regarding economic and other relevant

impacts when analyzing the benefits of inclusion versus the benefits of excluding a particular area from proposed critical habitat.

8. Support cooperation between private landowners and federal agencies (e.g., CCAs and CCAAs) to reduce the risk of listing under ESA. Support “net conservation benefit” standard for CCAAs and CCAs that includes analysis of both the (1) baseline approach of considering the legal status quo of the species with and without the proposed CCAA or CCA and (2) a comparison of the proposed conservation measures and their future effects and determine whether there is a benefit to the species.
9. As stated in *Weyerhaeuser Co. v. US Fish and Wildlife Service*, 139 S.Ct. 361 (2018) in order to be designated as critical habitat, the area must first be habitat for the species. The use of the word “be” indicates a present tense that both occupied and unoccupied critical habitat must exist in its current state, and not in state that requires some undefined and unidentified “degree of restoration. ~~Federal agencies should continue using the US Fish and Wildlife Service 2020 regulatory definition of critical habitat and only those habitats that currently or periodically contain the resources and conditions necessary to support one or more life processes of a species should be defined as habitat.~~
10. Upon conducting an exclusion analysis, if the agency finds that the economic, relevant and/or non-biological impacts of designating certain areas as critical habitat outweigh the biological benefit to the species, the U.S. Fish and Wildlife Service shall immediately exclude such habitat from critical habitat designation, unless it is determined that failure to designate that area as critical

habitat will result in the extinction of the species concerned.

11. Oppose the introduction or reintroduction of listed species into Rio Blanco County, unless the Districts or County deem no harm will come to the County, or the District and County consent to terms and conditions or standard operating criteria that avoid disrupting current land uses.

12. Should an agreement not be reached on the potential introduction or reintroduction, and the species is introduced anyway, support it being introduced only as a non-essential experimental population.

13. If a species is introduced as non-essential or experimental, support consultation and coordination with the Districts and County in the development of Standard Operating Procedures (SOPs) for management of the non-essential or experimental species.

14. Support participation as cooperating agencies in all decisions and proposed actions which affect the District regarding sensitive, threatened or endangered species; the reintroduction or introduction of listed species; habitat conservation plans; conservation agreements or plans; and candidate conservation agreements.

15. Support the development of recovery plans within 18 months of listing that includes clear objectives to reach for delisting to occur; for species already listed support the development of a recovery plan within 18 months of this document.

~~16. Require the petition of the immediate delisting of a species when population or recovery plan objectives have been met.~~

17. Require the immediate delisting of a species when it no longer meets the five factors required for listing as described in 50 C.F.R. § 424.11(e).

18. Support the development of local solutions (e.g., habitat management plans, conservation plans or conservation plans with assurances) to keep a species from being listed under ESA or as species of concern/species of special concern.

19. Include consideration of management activities on federal lands as part of the local solutions to keep a species from being listed under ESA or as a species of concern/species of special concern.

20. Require the avoidance of single-species management in all planning efforts and require multiple uses of lands and resources as required by federal law.

21. Require the data used in any listing decision meet all credible data standards and be the “best scientific and commercial data available”. ~~defined in (Bureau of Land Management 2006) Data Administration and Management and FS Handbooks FSH 1909.12, (United States Forest Service 2013) Supporting Land Management Planning.~~

22. Support control of predators and zoonotic and vector borne diseases negatively impacting special status, candidate, or listed species.

23. Support involvement of the County and Districts in discussions and decisions regarding any proposed introduction of experimental populations.

24. Oppose management actions increasing the population of any listed species in the County without an approved recovery plan. Without a recovery plan, management cannot focus on increasing the species population or habitat, and cannot move closer to a potential delisting.

25. Support returning to existing approved management document(s) when litigation is pursued (e.g., revert to the State or local plan rather than the BLM/USFS Sage-grouse Land Use Plan Amendment).
26. Require the continued use of existing valid permits and lease rights on lands with listed species wherever possible.
27. At a minimum, provide copies of legal descriptions showing the exact boundaries of all designated critical habitat to local governments in Rio Blanco County.
- ~~28. Oppose the designation of potential habitat as critical habitat unless quantifiable data showing when and how features necessary for species recovery will be achieved on the property.~~
- ~~29. Require completion of exclusion analysis for all lands within Rio Blanco County.~~
30. Support concurrent completion of ESA § 4(d) rule for all species listed as threatened. For species already listed as threatened, support the development of an ESA § 4(d) rule within 18 months of this document.
31. Support delisting of any species with insufficient, unsupported, or questionable data not meeting the minimum criteria for its listing or protection level.

## 4.10 Soils

### 4.10.1 Background

Healthy soils sustain plant communities, keep sediment out of streams, and dust out of the air. Land managers of federal lands are mandated to manage soils and vegetation to ensure land-health standards are maintained and to safeguard sustainable plant and animal populations (NRCS, 2018). Soil type dictates the vegetation within an area, which determines the area's uses, productivity, resistance to disturbance, and scenic quality.

Most natural resource work, whether for agriculture, energy, or wildlife purposes, begins with the evaluation of the soils to determine site potential. Managing soils so they are healthy and sustainable for future generations is important. One Natural Resources Conservation Service (NRCS) definition of soil health, also referred to as soil quality, is "the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans." (NRCS, n.d.-c) Soil has inherent properties like the soil's natural ability to function that does not change easily. For example, sandy soil drains faster than clayey soil. Dynamic soil quality on the other hand can change more easily and is dependent on how it is managed. Management choices affect the amount of soil organic matter, soil structure, soil depth, and water and nutrient holding capacity. Soils respond differently to management depending on the inherent properties of the soil and the surrounding landscape. (NRCS, n.d.-c)

To facilitate soils meeting their range of ecosystem functions requires a combination of soil physical, chemical, and biological properties that are a stable reflection of the environmental forces that formed the soil, including the climate, parent material, topography, and vegetation acting over a long period of time.

### Resource Assessment and Legal Framework

## Soil Surveys

Soil surveys provide detailed information on soil limitations and properties necessary for project planning and implementation. Soil surveys document soil properties and distribution to monitor and understand the impacts of various uses. There are five levels or “Orders” of soil surveys depending on the level of detail involved. Order three is typical for most federal lands projects which do require onsite investigations by expert soil scientists for site specific project related activities or projects (USDA: Soil Science Division Staff, 2017).

## Ecological Sites

Ecological sites are defined as “a distinctive kind of land with specific soil and physical characteristics that differ from other kinds of land in its ability to produce a distinctive kind and amount of vegetation and its ability to respond similarly to management actions and natural disturbances.” (The Jornada, n.d.-a) Ecological sites are the basic units of soils and associated plant communities, and they provide the basis for setting vegetative management objectives, monitoring, and extrapolations of management impact to other areas. Information and data pertaining to a particular ecological site are organized into a reference document known as an Ecological Site Description (ESD). ESDs function as a primary repository of ecological knowledge regarding an ecological site. The uniform use of ESDs should be used as the foundation for the inventory, evaluation, setting of monitoring objectives, and management of rangeland, pasture, and forestland.

Ecological Site Descriptions (ESDs) provide a consistent framework for classifying and describing rangeland and forestland soils and vegetation. ESDs are reports that provide detailed information about a particular type of land. ESDs are described using the soil mapping for a landscape and each ‘site’ has multiple characteristics that are tied to the soil traits present. They are used for assessing vegetation states

and are often used when designing reclamation and rehabilitation of an area. ESDs help determine how a site will react to disturbances and potential vegetation that could be used in reclamation of the site.

### 4.10.2 Policy Statements:

1. Federal agencies should support projects and policies which improve soil quality and ecology throughout Rio Blanco County.
2. Federal agencies should support erosion control as a means of flood control.
3. For new soil disturbing projects or permits, federal agencies should support implementation of best management practices to manage runoff, preservation and maintenance of topsoil, watershed management, stabilize soils on site and reclamation.
4. Oppose land use designations or management objectives that eliminate or reduce the opportunity for implementation of practices that can improve soil health.
5. Supports and encourages the use of natural processes, including livestock grazing, in site reclamation for soil health and biodiversity.
6. Federal agencies should consult with existing surface users, the County, and conservation districts when developing reseeding and reclamation requirements for permittees conducting soil disturbing activities.
7. Weed management plans should be developed in consultation with the appropriate Rio Blanco County specialists for soil surface disturbance on public lands.
8. Federal agencies should use Ecological Site Descriptions developed by the USDA Natural Resource Conservation Service as the foundation for the inventory, evaluation, monitoring and management of rangelands and forestlands.

## 4.11 Special Designation Areas and Scenic Byways/Viewshed

### 4.11.1 Custom and Culture

Areas that are now included in a special designation area are still used, in many cases, for agricultural pursuits. The use of these areas often requires trail clearing and repairing or maintaining established range improvements.

### 4.11.2 Background

#### Wilderness Areas

The Wilderness Act of 1964 established the National Wilderness Preservation System to be managed by the USFS, National Park Service (NPS), and the USFWS. The passage of FLPMA in 1976 added the BLM as a wilderness management authority to the Wilderness Act. Wilderness areas must have “wilderness character”, which is described with four qualities below. Wilderness Study Areas (WSAs) must have the same four qualities.

The area must be untrammeled by man. Untrammeled refers to wilderness as an area unhindered and free from modern human control and manipulation. Human activities or actions on these lands impairs this quality.

The area must be natural. The area should be protected and managed to preserve its natural conditions and should be as free as possible from the effects of modern civilization. If any ecosystem processes were managed by humans, they must be allowed to return to their natural condition.

The area must be undeveloped. No human structures or installations, no motor vehicles or mechanical transport, or any other item that increases man’s ability to occupy the environment can be present.

Finally, the area must offer solitude or primitive and unconfined recreation. People should be able to experience natural sights and sounds, remote and secluded places, and the physical and emotional challenges of self-discovery and self-reliance.

The Flat Tops Wilderness Area was designated in 1975 and exists in the eastern portion of Rio Blanco County. It is Colorado’s second largest wilderness area and was where Arthur Carhart, a USFS landscape architect, recommended in 1919 that the area remain undeveloped. Sometimes called the “Cradle of Wilderness,” Flat Tops is where the idea of wilderness was first applied to public land.

#### USFS Roadless Areas

In January 2001, the Roadless Area Conservation Rule was adopted into regulation by the USFS. It has been the subject of litigation for more than a decade, but it is still in effect as of this writing. The Colorado Roadless Rule was drafted in partnership with the state of Colorado and the USFS in order to address state-concerns through management direction. It was finalized in 2012 and applies to all national forests in the state. It established a system of Colorado Roadless Areas (CRAs) that replaces the roadless areas identified under the earlier rule. To conserve roadless area characteristics, the USFS will prohibit tree cutting, sale, or removal; road construction and reconstruction; and linear construction zones, with some limited exceptions. The rule also establishes a system of upper tier acres within CRAs where additional restrictions apply, further limiting exceptions to the prohibitions. See Figure 27 for roadless areas.

#### Wilderness Study Areas

WSAs are established in three different ways. 1) WSAs were identified by the wilderness review as required by Section 603 of FLPMA. 2) They may be identified during the land use planning process under Section

202 of FLPMA. 3) Finally, they may be established by Congress. There are three WSAs at least partially contained within Rio Blanco County encompassing 41,177 acres. All three WSAs were identified in 1980 as part of the inventory requirement of FLPMA.

Section 603(c) of the FLMPA requires that WSAs be managed in a manner that does not impair the suitability of such areas for preservation as wilderness. However, the Act also requires that mining, livestock grazing and mineral leasing (e.g., grandfathered uses) continue in the manner and degree as they were being conducted in 1976. Thus, to the extent that grazing was allowed in the wilderness prior to 1976, its use, specifically including allowing the same number of livestock as existed in 1976, should be continued. Grandfathered uses are protected and must be maintained in the same manner and degree as they were being conducted on October 21, 1976, even if they impair wilderness characteristics. *Rocky Mountain Oil and Gas Association v. Watt*, 696 F.2d 734, 749 (10<sup>th</sup> Cir. 1982). This requirement includes the authority to develop livestock related improvements. *Utah v. Andrus*, 486 F. Supp. 995 (D. Utah 1979) (quoting and adopting provisions of a solicitors' opinion dated Sept 5, 1978).

BLM's 1997 Record of Decision (ROD) and Approved Resource Management Plan (RMP) states:

- "The recommendation to the Congress for Black Mountain, Oil Spring Mountain, and Windy Gulch WSAs was that the areas not be carried forward as wilderness." Pg 2-37
- "If Congress releases the Black Mountain/Windy Gulch areas from further wilderness review, they will again become available for multiple use management." Pg 2-38
- "Oil Spring Mountain ... will be designated as ACECs if Congress releases these areas to multiple use management." Pg 2-38

### Lands with Wilderness Characteristics (LWC)

Section 201 of FLPMA requires BLM to maintain an inventory of all public lands with wilderness characteristics. The inventory is completed using the methods in BLM Manual 6310 – Conducting Wilderness Characteristics Inventory on BLM Lands. The inventory is not supposed to change or prevent change of the management or use of public lands. Areas determined to have wilderness characteristics must be over 5,000 acres of roadless, contiguous BLM-managed lands. Areas less than 5,000 acres may qualify if they are adjacent to lands already determined to have wilderness or potential wilderness value, Wilderness Areas (WAs), or WSAs. Lands must appear to be affected primarily by the forces of nature and any work of humans must be substantially unnoticeable. Fences or water troughs may often be considered substantially unnoticeable. Lands must offer outstanding opportunities for solitude or primitive, unconfined recreation. Finally, if size, naturalness, and outstanding opportunities criteria are met, then other features or values (ecological, geological, and historical) may be noted but are not required.

Almost 223,000 acres of LWCs exist in Rio Blanco County. Some of the LWCs overlap with Areas of Critical Environmental Concern.

### Areas of Critical Environmental Concern (ACEC)

The majority of the ACECs in Rio Blanco County were established in 1997 in the ROD for the White River RMP. They were established to designate and protect areas that contain important historic, cultural, scenic, and natural values. Fourteen ACECs include 80,141 acres.

White River Riparian ACEC protects important, biologically diverse plant communities; bald eagle roosts; and federally endangered Colorado River pikeminnow below the Taylor Draw Dam.

Oil Spring Mountain ACEC protects spruce-fir and other important, biologically diverse plant communities.

Lower Greasewood Creek ACEC protects BLM sensitive plant species, including the narrowstem gilia (*Aliciella stenothyrsa*), and remnant vegetation associations. Shale formations such as the Green River often support plant species that are uniquely adapted to the particular chemistry of the shale-derived soils.

Yanks Gulch/Upper Greasewood Creek ACEC protects remnant vegetation associations; federally threatened plants including the Dudley Bluffs twinpod (*Physaria obcordata*); and BLM sensitive plants. Yanks Gulch is also a Colorado Natural Area under CPW.

Raven Ridge ACEC protects remnant vegetation associations and BLM sensitive plant species including: Narrow stem-gilia (*Gilia stenothyrsa*), debris milkvetch (*Astragalus detritalis*), Duchesne milkvetch (*Astragalus duchesnensis*), Colorado feverfew (*Parthenium ligulatum*), Ephedra buckwheat (*Eriogonum ephedroides*), Rollins cryptanth (*Cryptantha rollinsii*), the White River beardtongue (*Penstemon scariosudus* var. *albifluvis*), and Graham beardtongue (*Penstemon grahamii*).

The Duck Creek ACEC protects cultural resources and federally threatened plant species, including the Dudley Bluffs bladderpod (*Physaria congesta*). (Woodruff 2016).

Ryan Gulch ACEC is designated to protect federally threatened plant species including the Dudley Bluffs bladderpod (*Physaria congesta*) and the Dudley Bluffs twinpod (*Physaria obcordata*).

Dudley Bluffs ACEC protects remnant vegetation associations; federally threatened plant species including the Dudley Bluffs

bladderpod (*Physaria congesta*) and the Dudley Bluffs twinpod (*Physaria obcordata*); and BLM sensitive plant species.

Deer Gulch ACEC is a mountainous region filled with Great Basin grassland and a Douglas-fir forest. The Deer Gulch ACEC was designated to protect BLM sensitive plant species, including the Piceance bladderpod (*Physaria parviflora*), and remnant vegetation. Deer Gulch is also a Colorado Natural Area under the direction of the Colorado Natural Areas Program.

The Coal Oil Rim ACEC was designated to protect small aspen clones and other biologically diverse plant communities and riparian habitats. East Douglas Creek/Soldier Creek ACEC protects important, biologically diverse plant communities, riparian habitat, and Colorado River cutthroat trout habitat. The Cathedral Bluffs meadow-rue (*Thalictrum heliophilum*), a BLM sensitive plant, is also found here.

South Cathedral Bluffs ACEC protects remnant vegetation associations and BLM sensitive plant species, including the Cathedral Bluff dwarf gentian (*Gentianella tortuosa*), the Piceance bladderpod (*Physaria parviflora*) and the Cathedral Bluffs meadow-rue (*Thalictrum heliophilum*).

The East Douglas Creek ACEC protects important, biologically diverse plant communities, riparian habitat, and Colorado River cutthroat trout habitat. BLM sensitive plant Cathedral Bluffs Meadow-rue (*Thalictrum heliophilum*) is found here.

Blacks Gulch ACEC is the best fossil vertebrate locality in Colorado from the Lysite Age (middle-early Eocene). It has produced several hundred good mammal fossils including *Lophiparamys debequensis*. This site also contains Lysitean fauna. Blacks Gulch is also a Colorado Natural Area under CPW.

Coal Draw ACEC includes areas known to contain vertebrate fossils or noteworthy occurrences of invertebrate or plant fossils as collected under BLM permit.

### **Scenic Byways**

The National Scenic Byway Program defines a scenic byway as “...A public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration...The term “byway” refers not only to the road or highway itself but also to the corridor through which it passes.

Two scenic byways exist in Rio Blanco County. The Dinosaur Diamond byway is in the western portion of the county and travels north to south on State Highway 139. The Flat Tops byway (County Road 8) bisects a USFS roadless area from east to west ending in Meeker (Figure 27).

# SPECIAL DESIGNATION LANDS Rio Blanco County, CO

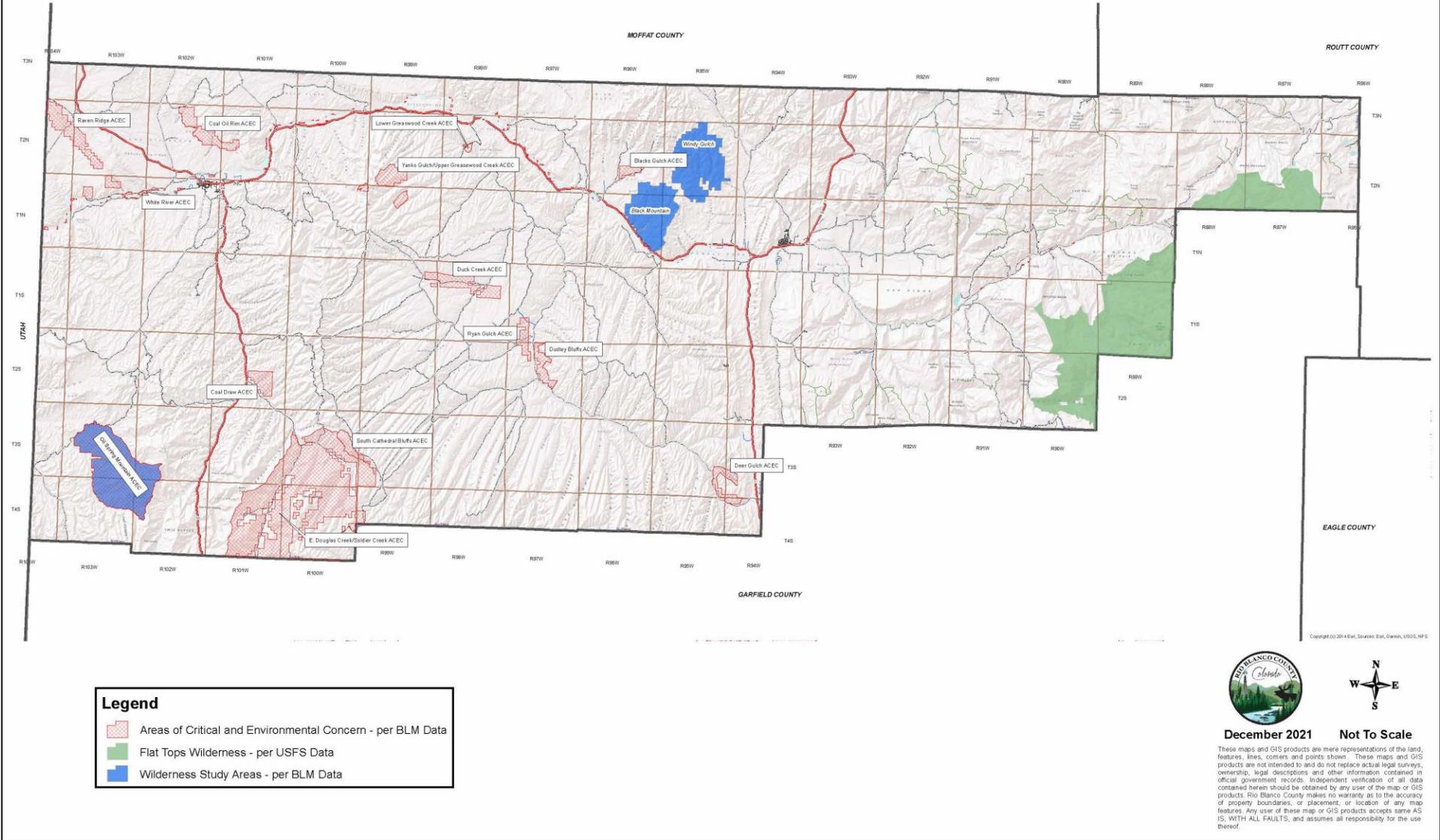


Figure 27. Special Designation Lands

**Viewsheds**

BLM manual H-8410-1, Visual Resource Inventory describes the visual resource inventory process on BLM-administered lands. The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of disturbance zones. Based on these three factors, the lands are placed into one of the following visual resource inventory classes:

- Classes I and II – most valued
- Class III – a moderate value
- Class IV – least value

The inventory classes provide the basis for considering visual values in the RMP process. The current RMP for White River Field Office includes Visual Resource Management (VRM) Class II and III areas: Canyon Pintado National Historic District, Highway 139 corridor, White River Corridor, and Cathedral Bluffs are VRM Class II areas around Meeker.

#### 4.11.3 Policy Statements

1. Land use classifications should not establish *de facto* wilderness areas outside of the already-identified WAs.
2. Support the continuation or reinstatement of prior existing lease rights in WAs and WSAs as required by FLPMA.
3. Support the continued installment or maintenance of rangeland improvements in Wilderness or Wilderness Study Areas (e.g., fences and water developments) in order to maintain the prior existing rights in the area.
4. Remove or release all WSAs from consideration that contain non-wilderness characteristics, such as roads or active oil/gas wells.
5. Support BLM's recommendation to the Congress for "Black Mountain, Oil Spring Mountain, and Windy Gulch WSAs not be carried forward as wilderness." (White River ROD and Approved Resource Management Plan, pg 2-37)

6. Special land use designations should only be used when they are consistent with surrounding management and contribute to the sound policy of multiple use, economic viability, and community stability.
7. No change in access to water developments, fences, or other infrastructure located within designated wilderness, wilderness study areas, ACECs, roadless, and other special status areas should be allowed.
8. Accurately represent potential wilderness areas by not mapping around existing, known infrastructure such as roads or water tanks.
9. Support and encourage accurate, on-the-ground mapping of roads, fences, rangeland improvement and any other anthropogenic influence in lands under consideration for LWCs or WSA designations.
10. Remove duplicative land use classifications (e.g., determine if an area should be ACEC or LWC).
11. Encourage historical access and uses on lands already designated as ACEC or LWC. Ensure pre-FLMPA (October 21, 1976) valid existing right and grandfathered are appropriately recognized and allowed in WSAs
12. Support the inclusion by the BLM and USFS of District and/or County mapping efforts to document roads and range improvements in the County.
13. No actual or *de facto* buffer zones should be established around special designation areas.
14. Viewsheds should not impact the use of private property.
15. Viewshed boundary designations should not adversely impact the multiple uses of BLM and USFS lands.
16. Oppose the designation of additional ACECs in Rio Blanco County for sage grouse

salting locations, fences, and forage. Hunters and outdoorsmen rely on access to hunt areas.

The County depends on access to public lands for social and economic pursuits. The development of public land resources also requires access with motorized and non-motorized travel.

The access to areas for hunting has been curtailed in the recent past due to increased road and trail closures.

#### 4.12.2 Background

Travel throughout Rio Blanco County occurs in many forms. Motorized travel includes both on-highway and off-highway vehicles (OHVs). All OHVs must be registered with CPW. OHVs include motorcycles, dirt bikes, three-wheelers, all-terrain vehicles (ATVs), and dune buggies. All OHVs (including motor vehicles and motorcycles that are not licensed for public road access) must display current (annual) Colorado OHV registration stickers when in a person's possession in an OHV staging area or operated on designated OHV trails or routes in Colorado. All licensed vehicles must also display a current Colorado OHV use permit sticker when operating on designated OHV trails or routes. CPW manages the trail program for the State; the BLM and USFS have their own processes, described below.

Commonly known as R.S. 2477, rights-of-way for roadways were recognized by Congress in 1866 with what may be the shortest statute on record: "the right-of-way for the construction of highways across public lands not otherwise reserved for public purposes is hereby granted." In 1976, section 706 of FLPMA repealed

R.S. 2477, but recognized valid rights-of-way existing before the date of enactment of FLPMA. The repeal did not provide any time limitation on filing claims for pre-1976 rights-of-way. Rio Blanco County has an

## 4.12 Travel Management, Access, and Recreation

### 4.12.1 Custom and Culture

Access to public lands has always been a key need in Rio Blanco County. Seventy-three percent (over 1.5 million acres) of the County is in federal ownership. Access to land, water, and natural resources is critical to the economy of Rio Blanco County. Ranchers rely on everything from established roads to game trails to access water tanks,

additional 930 miles of County-maintained roads; 173 miles are asphalt (rbc.us, accessed 1/2022) (Figure 28).

Many areas of Rio Blanco County, where posted, allow for open range on state roads. The Taylor Grazing Act also provides for the establishment, maintenance, and use of stock driveways within established grazing districts. 43 U.S.C. § 316.

The BLM and USFS have undertaken travel planning processes in recent years. These plans address motorized and non-motorized vehicle use and road closures for each agency.

### **Bureau of Land Management**

The BLM must follow numerous federal laws regarding management of transportation and travel on public lands. FLPMA is the overarching document that pertains to all of the BLM's management responsibilities. FLPMA directs the BLM regarding travel to balance public access and multiple uses with the protection and preservation of the quality of the lands and its resources to be able to be enjoyed by the public for many years to come. Travel management and road access on BLM lands are determined through the land use management planning process.

Due to the importance of transportation when making the balance of conservation preservation with multiple use management, the BLM must incorporate travel and transportation management decisions into all new and revised RMPs to address needs with regard to resource management and resource use goals and objectives (BLM M-1626 Travel and Transportation Management Manual, 3-1 (09/27/2016)). Travel Management Plans (TMPs) are the primary implementation-level decision documents laying out the management of BLM's travel network and transportation systems. All decisions made in TMPs are

implementation-level decisions and should be tied to the goals, objectives, and management actions contained within the RMP.

The National Trails Systems Act defines the standards and methods by which additional trails may be added to the system that includes scenic, historic, and recreational trails. NEPA requires certain federal projects and land use decisions (including decisions related to opening and closing or BLM roads) to go through an environmental review process. The Wilderness Act of 1964 prohibits motor vehicles in wilderness areas except in emergency situations or when there is a possible management need.

The WRFO has completed public input on its 2014-2016 Travel Inventory which will be used to create future travel management plans. The next step in travel management planning in WRFO is for BLM (with public input) to make route designation decisions on every single route. BLM estimates there are about 4,500 miles of routes so the agency intends to break that up into 6 different travel management plans. It will likely take us several years to finish that workload (depending on funding for contractors/surveys). In the interim, the Travel RMPA clarifies that "existing routes" means those shown on the 2014-2016 travel route inventory. (In contrast, without that language, "existing routes" just means someone drove off route and created a new route before you showed up which can be a real problem with enforcement and "travel network creep".) Under the still-pending Travel RMPA DR, all areas not designated as open or

## FEDERAL, STATE, and COUNTY ROADS Rio Blanco County, CO

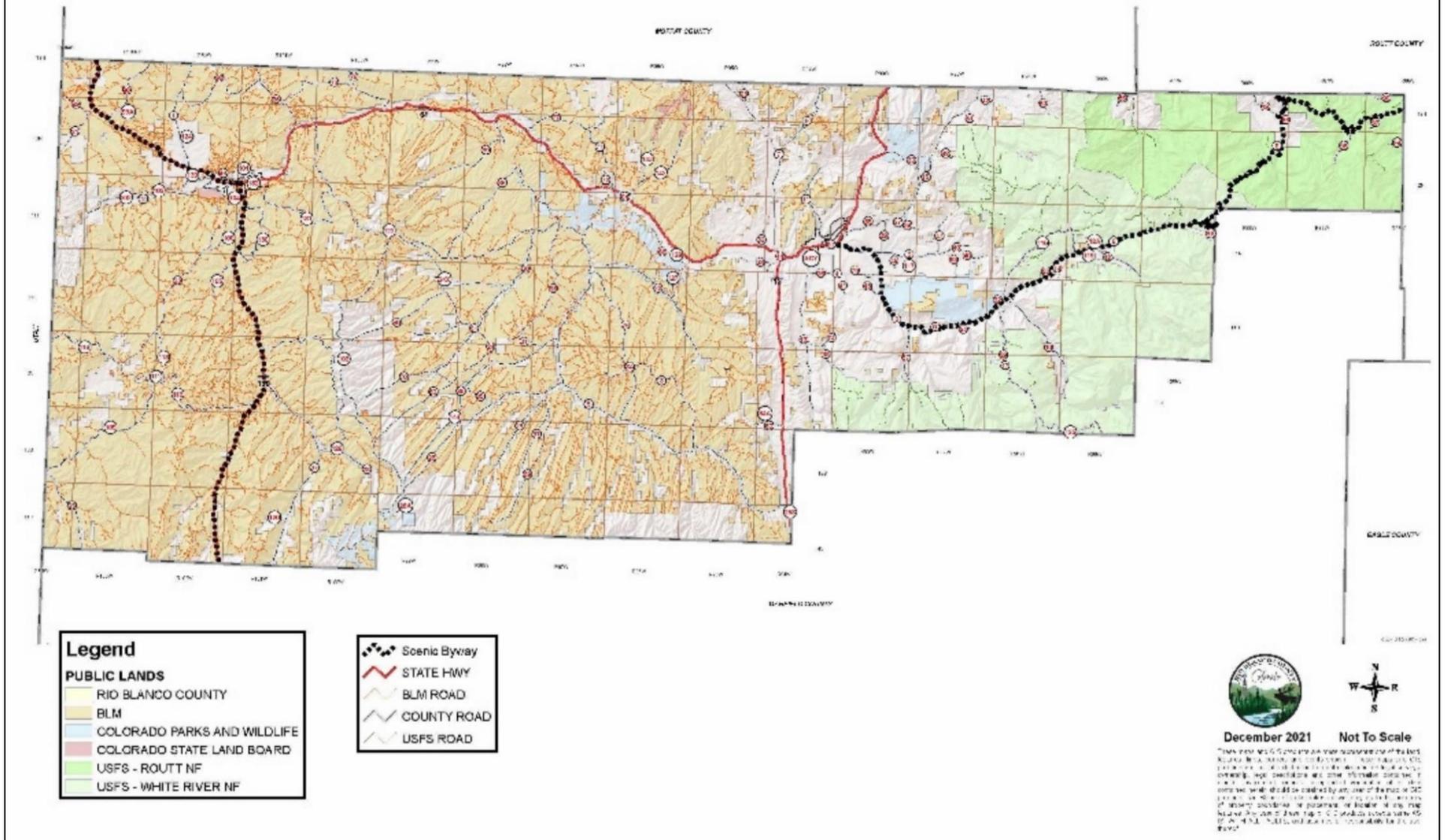


Figure 28. Federal, State and County roads

closed for motorized travel are limited to designated routes. As interim

management, motorized travel would be restricted to existing routes (as depicted on the 2014-2016 Travel Route Inventories). As TMPs are completed, motorized travel would be restricted to designated routes (in limited areas).

### Forest Service

The USFS is directed to coordinate the preparation of TMPs with the County (36 CFR 212). “The responsible official shall coordinate with appropriate federal, state, county and other local governmental entities, and tribal governments when designating National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to this subpart.” (36 CFR 212.53) “Designations of National Forest System roads, National Forest System trails, and areas on National Forest System lands pursuant to §212.51 may be revised as needed to meet changing conditions. Revisions of designations shall be made in accordance with the requirements for public involvement in §212.52, the requirements for coordination with governmental entities in §212.53, and the criteria in §212.55.” (36 CFR 212.54)

In 2005 the Forest Service issued a Travel Management Rule requiring national forests to designate which roads are open, and prior legalized motorized use on non-designated routes became illegal. The 2011 White River National Forest Travel Management Plan was created in response to the revision of the White River National Forest Land and RMP (Forest Plan), finalized in 2002. With dramatic improvements in mapping technology since the 1985 plan, advanced refinements of the forest road and trail data were conducted. The purpose of the plan was to identify the entire transportation system within the forest and “align the travel strategy on the forest with the forest plan and any changes

in laws and regulations” (Forest Service 2012). Roads that were created over time by “unauthorized” use were inventoried and evaluated for incorporation into the official road and trail system network. Ultimately, the issues identified during the scoping process were volume and type of recreation access, resolution of recreation conflict, and protection of natural resources. 225 miles of previously unauthorized trails were incorporated into the system and 692 miles of inventoried unauthorized routes were deemed to be decommissioned and rehabilitated. Any future discovered unauthorized routes will also be decommissioned. 519 miles of known system routes deemed no longer needed will be decommissioned (Forest Service 2012).

Rio Blanco County is significantly different than the other areas within the WRNF and RNF in that recreation has focused primarily on consumptive uses such as hunting and fishing, off-highway vehicle use, camping and hiking. The surrounding population is also much smaller, resulting in fewer recreationists overall in comparison to other parts of the WRNF and RNF. However, with the COVID pandemic, all types of outdoor recreation on the public lands significantly increased in Rio Blanco County.

#### 4.12.3 Policy Statements

1. Create and adopt rules where needed to protect natural resources, air quality, wildlife, and private property rights while facilitating recreational access (e.g., for OHVs, non-motorized, commercial development, industrial projects, agricultural and livestock operations, recreational development) while limiting noxious weed expansion.
2. Rio Blanco County should document county or public roads recognized by R.S. 2477 and provide such information to federal agencies. This information should be incorporated into

- travel plans and map updates to minimize trespass and inform the agencies of valid travel rights in a timely manner.
3. The historic right to access federal lands in the pursuit of mining, oil and gas development, ranching, farming, logging, recreational activities, motorized vehicle use, hunting, other historic uses, and those roads used by emergency medical and/or law enforcement services in the protection of residents and visitors, is critical to the economic viability of Rio Blanco County.
  4. Identify all County roads and public rights-of-way on public lands to protect the County's resources and promote public health and safety (e.g., search and rescue, fire protection, resource conservation, law enforcement, emergency medical services).
  5. Incorporate the Rio Blanco County Trails Master Plan (2014) into the federal agency travel planning processes.
  6. Work with federal agencies to support the cross-education of all user groups in common courtesy to facilitate and encourage an understanding of private property rights and access; consequences of interactions between recreationists, other resources users, and wildlife; and the impacts of recreational uses on natural resources. For example, leaving gates in the condition you found them (open or closed), cleaning up behind yourself, being considerate of other users and their needs, and how to traverse through livestock whether in herds or scattered on the rangelands, and understanding the potential impacts of off-road use to erosion.
  7. Require that BLM, USFS and the County accurately show public and private access on roadways throughout Rio Blanco County.
  8. Develop seasonal use restrictions in areas with high value resource conflicts (e.g., critical wildlife habitat, hunting, and OHV use).
  9. Enforce existing federal recreational rules (e.g., season of use, trail use).
  10. Develop common terms and strategies between BLM and USFS travel planning processes, and interagency communication and coordination regarding travel planning, recreation, and access.
  11. Support administrative access for permittees on closed or restricted roads when necessary for allotment access.

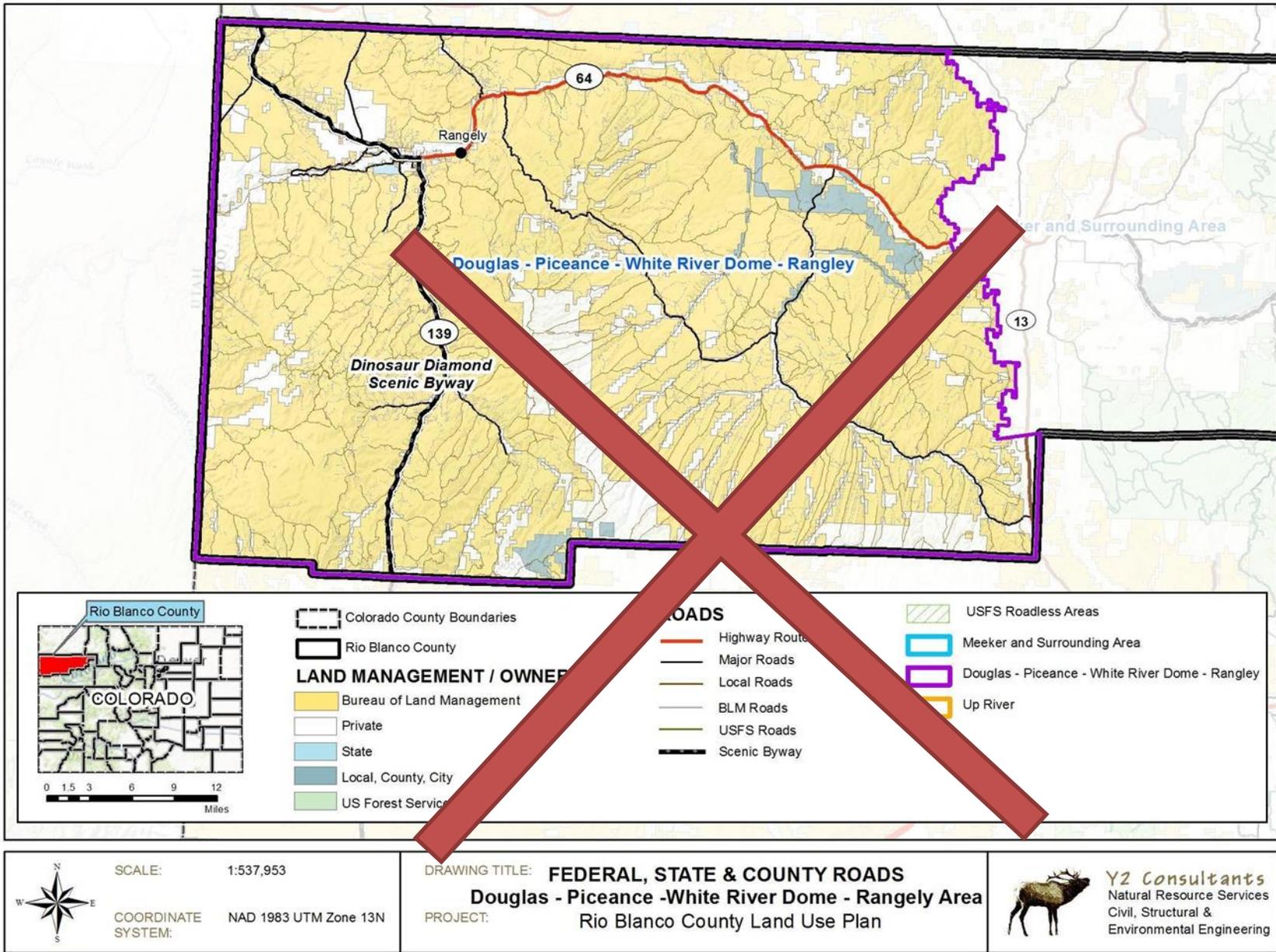


Figure 28. Douglas Piceance White River Dome Rangely Area

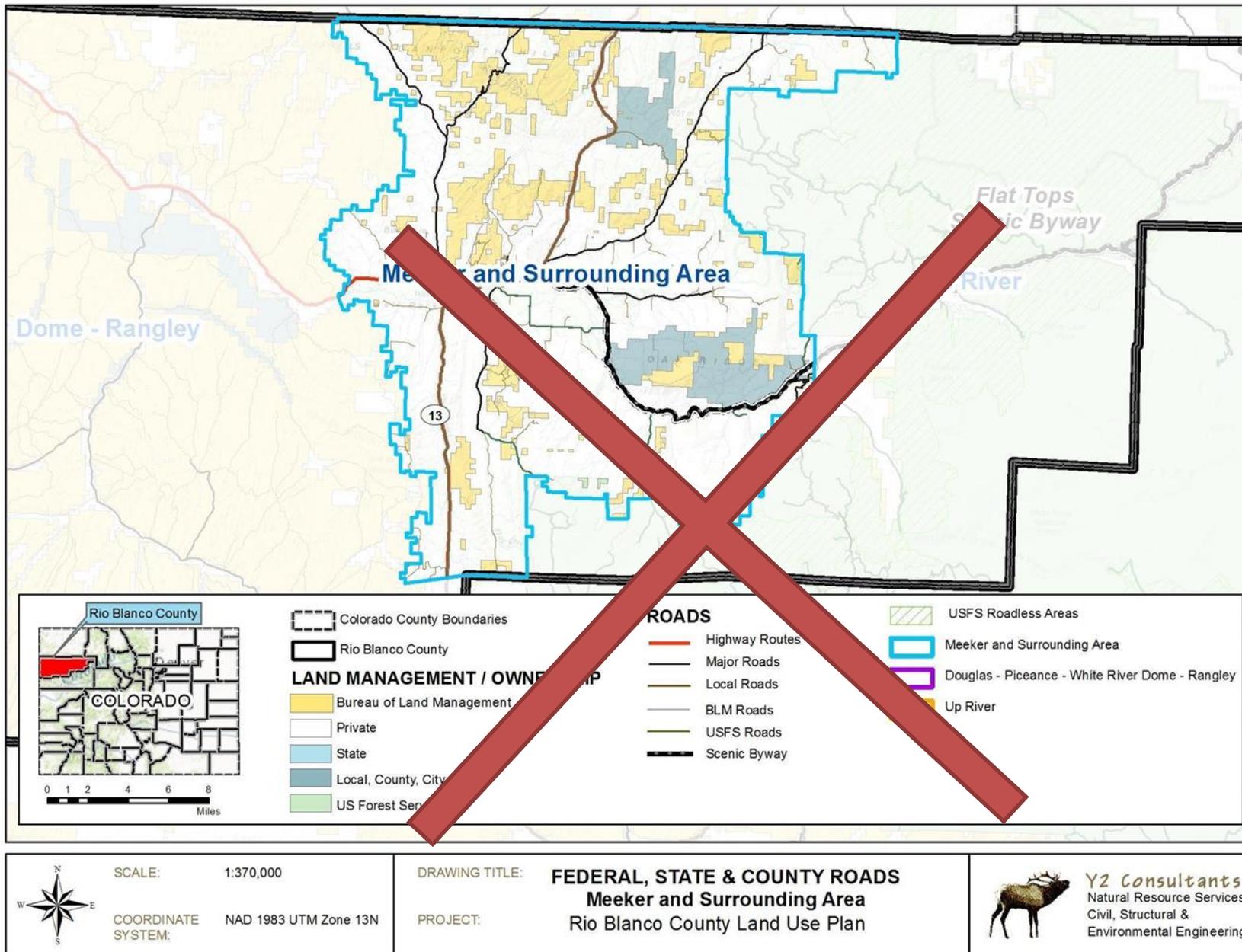


Figure 29. Meeker and Surrounding Areas

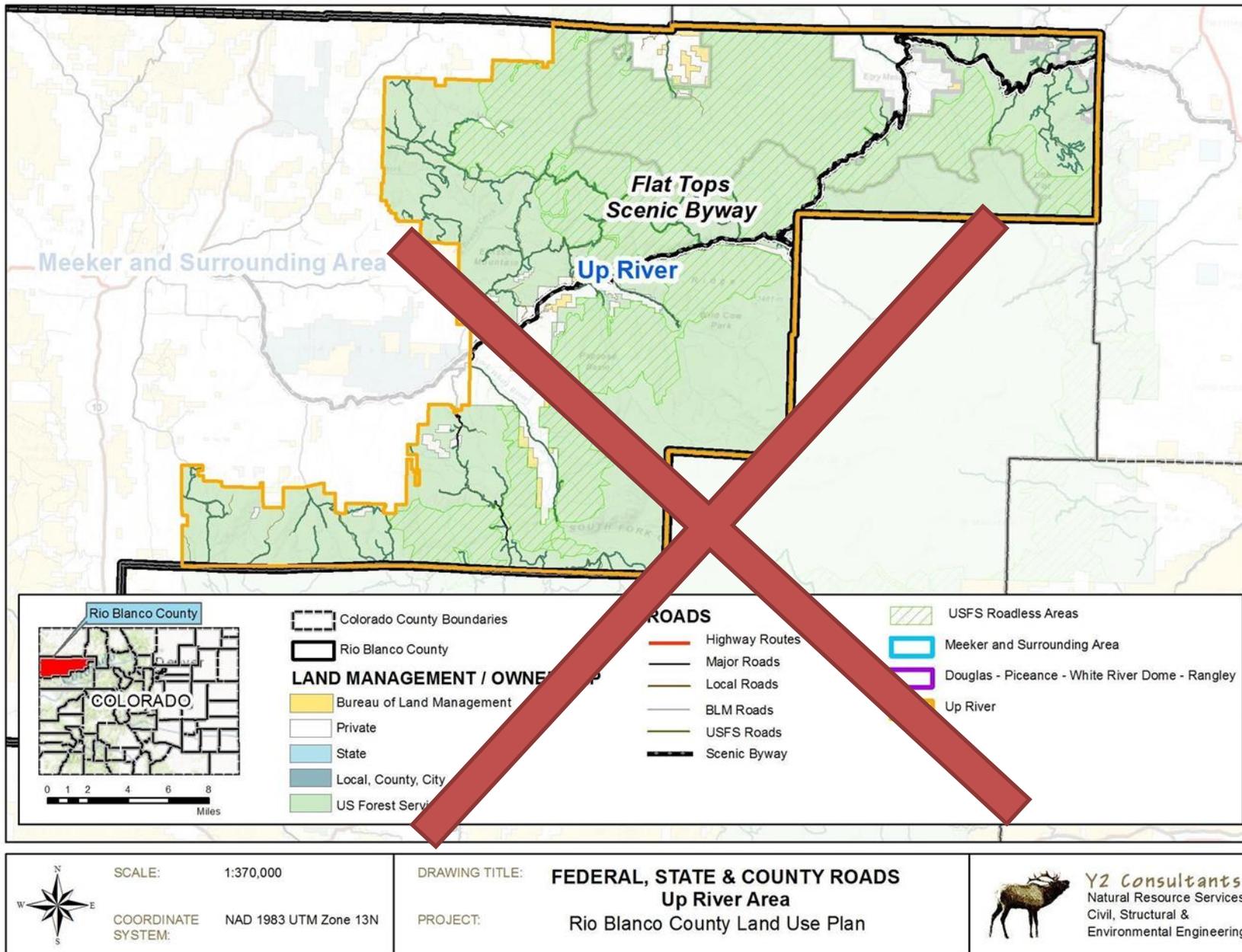


Figure 30. Up River Area

## 4.13 Water – Rights and Use; Wild and Scenic River Designations

### 4.13.1 Background

In Colorado water is “the water of the state” - a public resource for the benefit of all: public agencies, private citizens, and entities. A water right is a private property right to use this public resource.

Colorado set up a unique system to allocate and closely monitor the waters of Colorado, including satellite monitoring of lakes, reservoirs, rivers, and streams. Primary provisions detailing water use, rights, and management in Colorado are found in the 1969 Water Rights and Administration Act and the 1965 Ground Water Management Act.

Surface water and tributary waters in Colorado are governed by the doctrine of Prior Appropriation or “first in time, first in right.” It is a priority system mandated in the Colorado Constitution and determines who can use how much water and when that water may be used. Under the Prior Appropriation system, the first party to put water to a beneficial use becomes the senior water right holder with the first right to use that quantity of water. Shortages of water are not shared; a senior right holder is entitled to their full allocation. The water cannot be wasted, and the amount allocated must be put to a beneficial use, but a senior right holder’s water right must be fulfilled before any junior holder’s rights can be satisfied - after a water court decree establishes the priority. Methods of diversion and conveyance of surface water must be “reasonably efficient.”

Beneficial use must employ reasonably efficient practices without waste in order to have enough water available to as many water right holders as possible. The uses that are considered beneficial have evolved and increased in response to Colorado’s changing community and economic values. For example, an environmental and ecological purpose, such as maintaining the wildlife habitat that is dependent on

a natural body of water, is now considered to be a beneficial use under Colorado water law. However, a recent Colorado Supreme Court case narrowed the definition by holding that recreation, aesthetic, and piscatorial uses for flow-through water rights do not qualify as beneficial use under Colorado law. This ruling calls into question many existing decrees conditional decrees, and water uses under a broader interpretation of beneficial use (St. Jude’s Co. v. Roaring Fork Club LLC 2015).

The Colorado Division of Water Resources (DWR) (also known as the State Engineer’s office) administers the system of water rights within the state and Colorado’s water sharing agreements with other states. Colorado has used water courts to determine the priority and quantity of water rights beginning in 1879. Water courts have jurisdiction over all water except certain “designated” ground water. Water court decrees do not grant or create water rights; they merely confirm them. Only use of water creates a water right.

The Water Rights Determination and Administration Act of 1969 created the seven water divisions based on the major watersheds that are each staffed by at least one water judge and a water clerk as well as a water engineer and a water referee. Rio Blanco and the White River Basin are in Water Division 6 based out of Steamboat Springs.

The DWR cooperates with local management agencies, which includes water conservation districts, water conservancy districts, ground water management districts, water and sanitation districts, towns and cities, and irrigation districts. These local agencies may contract with the Bureau of Reclamation to build reservoirs and other water storage projects.

## *Ground water*

Groundwater is found in aquifers under the land. Generally, ground water is allocated to the owner of the overlying land. The system governing Colorado ground water is administered and enforced by the DWR, which operates and coordinates a network for monitoring groundwater levels throughout the state. Wells are measured to assist in projecting ground water levels and to aid in the administration of groundwater. The State Engineer provides support and assistance to the Colorado Ground Water Commission. The Ground Water Commission adjudicates water rights in the eight “designated” groundwater basins in eastern Colorado.

There are four categories of groundwater: Tributary groundwater, nontributary groundwater, designated groundwater, and Denver Basin groundwater. However, Rio Blanco County is outside of the boundaries of Denver Basin.

“Tributary groundwater” is water in an aquifer that is hydraulically connected to surface water, meaning if you pull water out of the ground you have an impact to the flows of the stream on the surface. All ground water is presumed to be tributary unless proven otherwise. Tributary groundwater is regulated under the prior appropriation system.

Designated groundwater, nontributary groundwater, and Denver Basin groundwater are not subject to the doctrine of prior appropriation.

“Nontributary groundwater” is water that is physically separated from surface water by impermeable layers in the aquifer. It is also considered non-tributary when the groundwater is at such a great distance from the surface water that it has little or no connection with the surface water. Outside Colorado’s eight designated ground basins, pumping groundwater is presumed not to materially impact the stream

or river on the surface. In a non-tributary aquifer, the landowner overlying the aquifer has the ability to pump the groundwater as long as it will not affect surface water levels at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal within 100 years. Under this system of water management, obtaining and exercising non-tributary groundwater rights emulates the basic concepts of beneficial use, non-waste, and anti-speculation.

“Designated groundwater” is defined as water that is not used to supplement or recharge continuously flowing surface streams under natural conditions. It is not hydraulically connected to the surface water system and by definition “in its natural course would not be available to or required for the fulfillment of surface rights.” A modified system of prior appropriation governs designated groundwater.

## *Wild and Scenic Rivers*

No Wild and Scenic River designations exist in Rio Blanco County as of 2022.

## *Water Quality*

Under the federal Clean Water Act every state must adopt water quality standards to maintain, protect, and improve the surface waters of the United States. Water quality is governed by the Colorado Water Quality Control Commission in the Colorado Department of Public Health and Environment. The commission establishes standards, policies, rules, and regulations for both groundwater and surface water. The EPA must approve the Commission’s classifications and standards. The EPA may step in to enforce state standards if the state fails to do so. Water courts may play a role in water quality when it concerns replacement water for exchanges and augmentation plans. The Commission has a classification system for all of Colorado’s aquifers, streams, and designates uses (recreation, drinking water,

agriculture, etc.). Standards and regulations are written for each designated use.

### *Rio Blanco Water*

Water is historically extremely important in many communities in the western United States and so it has been in Rio Blanco County – particularly western Rio Blanco County. **Irrigated land is critical to the economic base in Rio Blanco County.** Development in the county largely occurred in narrow corridors along the White River and its tributaries. The principal communities of Meeker, Rangely, and Buford are located along the White River. Water resources are illustrated in Figure 29.

Rio Blanco County encompasses most of the White River basin. The headwaters of the North Fork and South Fork of the White River lie at an elevation of approximately 11,000 feet within the Flat Tops Wilderness Area of the WRNF in eastern Rio Blanco and the adjoining county of Garfield. The North Fork and South Fork of the White River flow generally westward and converge in Rio Blanco County near Buford just outside of the White River Forest. The White River continues to descend and flow westerly through Rio Blanco County, past the communities of Meeker (6,240 feet) and Rangely (5,297 feet), and then enters Utah about 20 miles west of Rangely at an elevation of approximately 4,600 feet. The average annual streamflow of the White River as it crosses into Utah is 596,000 acre-feet (calculated on the average from 1977 to 1985). **The average annual streamflow for 1986-2021 is 464,088 acre-feet per year at White River Near Watson Utah (09306500).** [USGS Surface Water data for USA: USGS Surface-Water Annual Statistics](#)

In addition to the North and South Fork of the White River, sub basins in the White River Basin include Big Beaver Creek, Fawn Creek, Hahn Creek, Piceance Creek, Yellow Creek, and Douglas Creek.

The primary use of water in Rio Blanco County is for agriculture. There is also municipal and industrial use. Most water rights are held and used by individual farmers or ranchers. There are a few organized mutual ditch or irrigation companies.

Farming and ranching are the principal economic activity in the eastern half of the County. The greatest concentration of irrigated lands is adjacent to the White River **around in the Meeker area.** **A total of approximately 28,600 acres are irrigated as of 2008.** The 2017 Census of Agriculture identifies 27,124 acres as irrigated. USDA, Natural Resources Conservation Service (NRCS) Web Soil Survey identifies approximately 90,000 acres of prime farmland in Rio Blanco County, if irrigated.

Surface waters are monitored by the Water Quality Control Division of the Colorado Department of Public Health and Environment (CDPHE). The Clean Water Program (CWP) manages nonpoint source pollution, and monitors rivers, lakes, and streams. The CWP maintains a list of impaired waters per the federal Clean Water Act requirements and reports impairments to the EPA. The 303(d) listing is generally updated every two years. The monitoring report **accessed on the CDPHE site in December 2021 indicates impaired waters in the County.** **Additionally, there is a long-term monitoring of stream flows and water quality throughout the White River system through a partnership with USGS, Colorado River District, towns of Rangely and Meeker, BLM, Colorado Parks and Wildlife, and industry.** **is from 2012 and identifies several impaired drainages in the County; this report is currently being updated by the Water Quality Control Division.**

In addition to the CDPHE monitoring, the BLM has installed and maintains monitoring sites on Piceance, Yellow, E. Douglas, E. Willow, and Black Sulphur creeks in the Piceance basin. During the summer of 2016, updates to these sites enabled climate, water quality, and water

quantity data to be transmitted via the NOAA GOES data collection system. This data is viewable by the public on the National Weather Service Hydrometeorological Automated Data System (HADS) and the BLM website.

Oil, gas, and mineral extraction are major industries and economic drivers particularly in western Rio Blanco due to the Weber Sandstone oil field, which uses traditional methods of extraction. Many conditional water rights have been filed in the area of the Piceance Creek and Roan Creek Plateau which host large oil shale and coal bed methane reservoirs. A conditional water right establishes a fixed priority date even though the water has yet to be appropriated. It grants time to the holder to complete a particular project as long as they can demonstrate diligence. Conditional water rights must be obtained through the water courts, which review the progress made every six years. If successful, the court will decree an absolute water right. However, extraction of oil from oil shale is not currently practiced on a production scale. Less than 1,000 acre feet per year (af/yr) of water is put to industrial use according to estimates done by Colorado's Decision Support Systems. If the technology and demand conditions ever supported full scale production of oil shale in the future there could be a substantial increase in the demand for water for this industrial use, depending on the technology and production levels. There would also be an increased demand for water for domestic use should there be any influx of workers and their families. Oil shale R&D projects have been conducted on the oil shale reserves in Rio Blanco County on BLM land pursuant to federal R&D leases. There is also solution mining for nahcolite (baking soda) in Rio Blanco County with a process that involves injection of hot water underground.

Impacts from oil and gas production can adversely affect the surface and ground water of Rio Blanco County. Issues associated with oil/gas development include:

- land disturbed for the construction of roads, well pads, pipelines, and compressor stations leads to erosion and sediment transport to surface waters during storm water runoff
- well production can result in spills of drilling fluid, fracking fluid, and water with hydrocarbons and other chemicals which flow in runoff to contaminate surface water
- ground water drilling can release contaminating fluids and chemicals directly into aquifers and groundwater

To prevent these effects, industry is required to obtain a permit from the Water Quality Control Division. Permits require Stormwater Management plans and Best Management Practices. ~~Additionally, starting~~ In 2008, the BLM ~~has funded and continues to fund~~ a USGS long-term monitoring program in the Piceance Basin to analyze potential cumulative impacts to groundwater from energy and mineral development. ~~Currently, 15 wells are being monitored for water level and water quality on a rotating basis. Data is available in the USGS Scientific Investigation Report 2013-5132. An update is planned for the end of sampling season 2016 (Sauter 2016).~~ The water monitoring wells are still open but have not been sampled due to lack of funding since the report that was issued by USGS in 2013. The wells are water monitoring wells that were transferred over to BLM from Shell and XTO to provide a good ground water monitoring network within the Piceance Basin. Each well provides information based on the aquifer that it is monitoring. (Roberts 2021)

Meeker and Rangely are the only municipal water providers. Meeker withdraws their drinking water from the White River through alluvial wells for municipal, domestic, and stock watering. Rangely uses a surface water system, pulling directly from the White River.

## HYDROLOGY MAP Rio Blanco County, CO

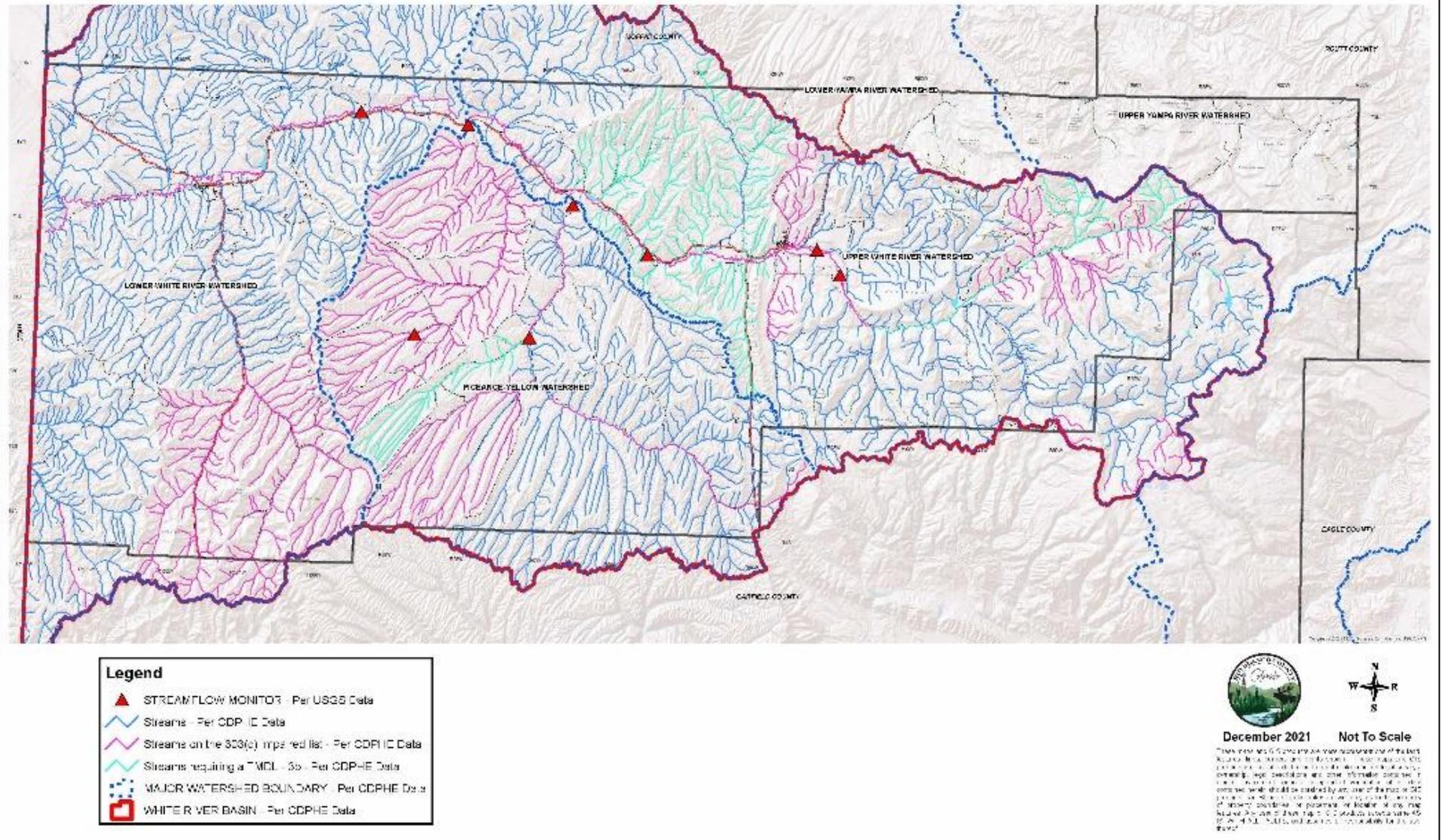


Figure 29. Water resources

There are approximately 83 permitted water wells and 574 decreed water wells within the Yellow Jacket Water Conservancy District concentrated to the east and west of Meeker, which are used for domestic, municipal, irrigation, and stock watering purposes. Well depths range from 7 to 147 feet with 90% of wells less than 120 feet deep –most ranging from 10 to 70 feet. Most of the water yields are less than 25 gallons per minute. Water quality is generally potable and exceeds secondary drinking water in some places. The groundwater in the western part of the County is highly alkaline. (See Yellow Jacket Water Conservancy District Water Storage Feasibility report, 2016.)

Withdrawal of ground water from alluvial wells is not extensive – only about 10 percent of the water used in Rio Blanco County is drawn from groundwater. The other 90 percent of water used in Rio Blanco is drawn from surface water sources. ~~Approximately 1,000 af/yr of groundwater is pumped from alluvial wells annually. Total annual ground water withdrawn in 1995 was approximately 15,000 acre feet. There is a great deal more ground water in the White River Basin than what is currently utilized. Researchers estimate there is 103,000 acre feet of ground water in storage in the White River basin alluvium between Meeker and Rangely.~~

Remarkably, there has never been a river call on the main tributary of the White River – where demand has exceeded supply and a senior right holder requests that junior right holders' use be restricted until the senior rights are satisfied. Starting with the most junior right holder, water diversions stop until the rights of more senior holders are fulfilled. Piceance Creek, a tributary of the White River, is routinely administered during irrigation season. There are no known exports of water out of the White River basin.

Water storage is not considered to be significantly developed in the White River Basin and Rio Blanco County. There are no federal reservoirs.

The three largest reservoirs in Rio Blanco are Taylor Draw Reservoir (aka Kenney Reservoir), Lake Avery Reservoir (aka Big Beaver Reservoir), and Rio Blanco Reservoir (aka Johnnie Johnson Reservoir). The largest, Kenney Reservoir, just east of Rangely, is owned and operated by the Rio Blanco Water Conservancy District, and is used for hydropower and recreation but could also be used for irrigation, stock, domestic, and municipal use. It has a storage volume of 13,800 acre-feet, but sedimentation has reduced its capacity to 3,400 acre-feet as of 2021. Lake Avery Reservoir is owned and operated by the Colorado Division of Wildlife, is located 20 miles east of Meeker, and is used largely for recreation. It has a storage volume of 7,658 acre-feet. Rio Blanco Reservoir is sixteen miles west of Meeker and has a storage volume of 1,036 acre-feet. It is also owned and operated by Colorado Division of Wildlife.

There currently are four Water Conservation Districts in Colorado, which were created by the Colorado legislature to protect and develop Colorado's water in various regions of the state. Rio Blanco County is a part of the Colorado River Water Conservation District, which comprises fifteen Western Slope counties communities. In general, the Water Conservation Districts can appropriate water rights, litigate water matters, enter into contracts, operate projects, and perform other functions as needed to meet the present and future water needs of the District. They may issue bonds, levy taxes, and impose user fees.

Water conservation conservancy districts build, fund, and operate local water projects. They can issue bonds, levy taxes, and impose user fees. The Rio Blanco Water Conservancy District (RBWCD) owns and operates Kenney Reservoir. Having identified a need, the RBWCD is

conducting feasibility studies for a new reservoir is proposing a new regional water supply. Wolf Creek was chosen as the ideal preferred alternative for a reservoir with a capacity up to 90,000 acre-feet of water. It is anticipated that the NEPA process for this storage project will begin in 2022.

On January 7, 2021, the RBWCD obtained a water right from the State of Colorado for 66,720 acre feet of water. Beneficial uses include municipal, augmentation, mitigation of environmental impacts, hydroelectric power generation, recreation, piscatorial, and wildlife habitat.

Water rights holders in Rio Blanco County have concerns about the controversial practice of the USFS's practice of requiring by-pass flows as a condition for issuing or renewing a permit for diversions and rights of way and reservoirs in the forest. A bypass flow is the amount of water required to flow past a dam or diversion for other uses – wildlife habitat or recreation. BLM and USFS have also both required water right assignments for construction of rangeland improvements.

#### 4.13.2 Policy Statements

1. Oppose placing water rights in the name of any state or federal agency when the water right is applied for and proved upon by a private individual or corporation, or as the condition of any permit.
2. Voluntary projects that improve water quality and quantity and increases the dependability of the water supply should be supported.
3. Ensure any recovery plan, habitat management plan, critical habitat designation, or any other plan proposing an “in stream flow” requirement adequately considers local existing and anticipated future water uses, local custom and culture, and local economic and individual needs.

4. ~~Oppose conditioning the granting of a special use permit, Ditch bill easement or other federal grant on “voluntary” instream flow requirement.~~ Oppose federal agencies requiring a “voluntary” instream flow right as a condition of granting a special use permit, ditch easement, or other federal grant/permit.
5. Oppose any attempt by an agency to condition an exaction of water rights. (exaction means requiring a water user to allow in-stream flows or not fully utilize their water right in exchange for a right of way, ditch permit, or maintenance access).
6. Additional water storage facilities in the County that will assure present and future growth and protection of Colorado Water Rights pursuant to the Colorado River Compact ~~must should~~ be considered.
7. Locally led efforts to monitor and improve water quality should be prioritized, and where feasible completed in conjunction with existing state and federal agencies with the same mandate.
8. Support the implementation of the Town of Meeker Source Water Protection Plan and the Town of Rangely Source Water Protection Plan.
9. Require baseline water quality sampling and cataloguing of all collected data for wells (including injection wells) drilled on federal lands.
10. Use the Colorado Constitution and Colorado statutes as the legal basis for the acquisition of water rights and water use in the County, including the right to divert unappropriated waters.
11. Privately held water rights should be protected from federal encroachment and/or coerced acquisition.
12. Analyze federal land management decisions for their potential impact on water quality, yields and timing of those yields; impacts on facilities such as dams, reservoirs, delivery systems, or monitoring facilities; and any other water-related proposal.

13. Oppose any action, lack of action, or permitted use that results in a significant or long term decrease in water quality or quantity.
14. Oppose “wild”, “scenic,” and “recreational” designations on rivers and their tributaries in Rio Blanco County and oppose management of water resources as “wild”, “scenic,” and “recreational” designations on rivers and their tributaries in Rio Blanco County, or those designations that affect the County, prior to such designation by Congress.
15. Should “wild,” “scenic,” “recreational” or other designations be imposed by Congress, support local government participation in all federal agency management plans as required by NEPA, FLPMA and/or NFMA. Any management plan for a designated “wild”, “scenic,” and/or “recreational” river must include consideration and recognition of Rio Blanco customs, culture and economic impacts.
16. Land use improvements and practices should be implemented which promote healthy drainages and watersheds.
17. Manage areas affected by native and non-native plant and animal species (e.g., pine beetle, tamarisk), which have a negative impact on water quality and quantity. For example, remove dead/dying trees to prevent mega “hot” fires which leave soil sterilized and hydrophobic, reducing infiltration and increasing stream total maximum daily load (TMDL) and turbidity.
18. The County and Districts shall participate in all Clean Water Act 303(d) listing/designation processes.
19. When an in-stream flow, or other water right, is issued, the priority date shall remain that date of issuance.
20. Support streamlining of permitting processes, removing redundant tasks/or reports by federal agencies to ensure the permitting process is more efficient.
21. Acknowledge and strongly encourage better forest and range health management for water quantity and quality.
22. Oppose any policy or action that results in buy and dry of agricultural land for the benefit of sensitive species, species of concern, threatened, or endangered species.
23. Support federal lands for storage of state-owned water to be put to beneficial use such as irrigation, recreation, environmental, etc.
24. Support locally led grassroots management of stream improvement projects benefiting agriculture, fisheries, and ecosystem.

## 4.14 Wild Horses, Burros, and Estray livestock

### 4.14.1 Custom and Culture

---

*Native Americans had horses. Then early day livestock operations had large horse herds. Some ranchers turned studs out on the range with loose mares in order to raise better horses to break for saddle horses. Most of these horses were on the open range. During the early 1930s there was a horse trader in the western part of the County. When the depression hit there was no market for horses so he just left a large number of horses on the range. Thus, over the years, horses never gathered became "wild". All through the early and mid-1900s some ranchers, settlers, and homesteaders would rope these horses to break for saddle horses. Many were caught and sold. After Rangely became a boom town, some people ran wild horses for sport on weekends. There were never large wild horse herds in the area prior to the Wild Free-Roaming Horse and Burro Act.*

*Submitted by Cheryl Robertson*

---

### 4.14.2 Background

Under the Wild Free-Roaming Horse and Burro Act (WFRHBA), "wild free-roaming horses and burros" on BLM land are under the Secretary of the Interior's jurisdiction for the purpose of management. (16 U.S.C. § 1333(a)). That act requires that the Secretary and BLM must inventory and determine appropriate management levels (AMLs) of wild horses and burros, determine if overpopulation exists, and "shall immediately remove excess animals from the range so as to achieve AMLs" (16 U.S.C. §§ 1333(b) (1) and (2) and 43 C.F.R. § 4720.1)

Under WFRHBA, BLM is required to maintain wild horse and burro population levels "in a manner that is designed to achieve and maintain a thriving natural ecological balance" and to establish appropriate management levels for the herd, considering the relationships with other uses of the public, and adjacent private lands (16 U.S.C. §

1333(a); 43 C.F.R. § 4710.3-1). The WFRHBA was specifically amended, then, to require "immediate" removal of excess horses. 16 U.S.C. § 1333(b)(2). The removal of wild horses from public rangelands is carried out to ensure rangeland health in accordance with land-use plans that are developed in an open, public process. These land-use plans are how the BLM carries out its core mission, which is to manage the land for multiple uses while protecting the land's resources.

Once the inventory occurs and the AML has been set, if an overpopulation of wild horses exists, the BLM "shall immediately remove excess animals from the [public] range so as to achieve appropriate management levels (AMLs)." See 16 U.S.C. § 1333(b) (1) and (2) and 43 C.F.R. § 4720.1 ("Upon examination of current information and a determination by the authorized officer that an excess of wild horses ... exists, the authorized officer shall remove the excess animals immediately..."). "Excess animals" are defined as those that must be removed in order to preserve and maintain a thriving natural ecological balance and to preserve the "multiple use relationships" in an area. See 16 U.S.C. § 1332 (f). As stated in another section of the WFRHBA, "[A]ll excess animals" must be removed by the BLM "so as to restore a thriving ecological balance to the range, and to protect the range from deterioration associated with overpopulation" to preserve and maintain the "multiple use relationship in that area." See 16 U.S.C. § 1333 (b)(2). When a determination is made that there is an "excess," action is immediately required because the "endangered and rapidly deteriorating range cannot wait." *Blake v. Babbitt*, 837 F. Supp. 458, 459 (D. D.C. 1993).

According to the Tenth Circuit, the BLM must make two determinations before the BLM's duty to remove excess animals is triggered. *Wyoming v. United States Department of the Interior*, 839 F.3d 938 (10<sup>th</sup> Cir. 2016). The first determination is that an overpopulation exists on a given area of the public lands. *Id.* at 944. This is shown when an area

exceeds its AMLs as discussed above. The second determination is that “action is necessary to remove excess animals.” *Id.* If a determination has not been made by the agency that an action is necessary, then the agency does not have a duty to remove those excess horses. *Id.*

H-4700-1 Wild Horses And Burros Management Handbook (Public)  
Chapter 3—Habitat Management General Habitat for WH&B is composed of four essential components: forage, water, cover, and space. These components must be present within the HMA in sufficient amounts to sustain healthy WH&B populations and healthy rangelands over the long term. If they are not present in sufficient amounts, the authorized officer should consider amending or revising the LUP to remove the area’s designation as an HMA.

A recurring pattern of WH&B movement out of the HMA to access forage, water, or thermal or hiding cover is an indication that year-long WH&B use cannot be sustained. If one or more of the key habitat components is missing, the HMA should be considered as unsuitable for yearlong use. In these situations, the authorized officer should consider removing the area’s designation as an HMA through LUP.

Wild horses, as they are now perceived, are not native to America’s rangelands; they are feral animals. Their vulnerability to predators is limited and their population growth rate is high. BLM estimates the growth rate of the wild horse population in the Piceance-East Douglas Herd Management Area (PEDHMA) to be 20 percent annually.

Although there is no federal statute requiring private landowners to allow wild horses to graze on their private lands, private landowners cannot remove the horses. The WFRHBA mandates that the BLM, once notified, must “immediately” remove excess wild horses from state and private land.

Rio Blanco County has one Herd Management Area (HMA) (Figure 30). PEDHMA has an AML of 135 - 235; as of March 2021 population level is estimated at approximately 963 horses (Memorandum Bruce Lubow, Ph.D.). Two other areas where horses were found in 1974 have been determined unsuitable for management of horses and now have an AML of zero. These areas are now known as the West Douglas Herd Area (WDHA) and North Piceance Herd Area (NPHA). March 2021 estimates are; WDHA at 376 and NPHA at 97, although AML for each is zero. The history of wild horses in the WDHA is summarized in “Wild Horse Management History and Current Conditions within the West Douglas Herd Area, January 2015” (Turner 2015). An emergency gather was conducted in July and August 2021 with 457 horses gathered and removed. The BLM estimates there are another 30 – 40 horses remaining in the WDHA.

~~The BLM WRFO issued a Decision Record calling for the removal of 167 wild horses in and around the WDHA in August 2015. The gather occurred as scheduled in September 2015 and 167 horses were removed from WDHA. An estimated 200 wild horses remain in the WDHA; more than 70 wild horses are estimated to be in the NPHA.~~

In March 2019, the BLM issued Permanent Instruction Memorandum (PIM)-2019-0041, that established policy for issuance of wild horse gather decisions. Specifically, PIM-2019-004 directs the BLM to “issue decisions authorizing gathers, removals, or population control actions through a phased approach or over a multi-year period when it determines that such an approach would help it achieve its management objectives.” Issuing multi-year decisions would “enhance agency flexibility by allowing the BLM to adapt to unforeseen circumstances (such as, changes in national priorities, limited funding and holding space, reduced gather numbers, hard-to-catch or trap-shy animals, and emergency gather needs that impact gather schedules).” The 10-year time frame after any initial gather, under consideration in

action alternatives in this EA, is consistent with this policy. Piceance-East Douglas Herd Management Area Gather and Fertility Control Plan February 2021

The Decision Record for the Piceance-East Douglas Herd Management Area (PEDHMA) Gather and Fertility Control Plan states: “The BLM is proposing a multi-year effort that combines gather operations and a fertility control plan to manage the wild horse population within the PEDHMA at the AML. The BLM would gather and selectively remove excess wild horses down to the low end of AML using an initial gather operation conducted as soon as possible and return periodically to gather excess wild horses to maintain the AML within the PEDHMA. An initial gather to the low end of AML would permit long term management of wild horse population that allows for a thriving natural ecological balance. The BLM would return to the PEDHMA to continue to remove excess wild horses (to the low end of AML) by conducting subsequent (follow-up) gather and removals as necessary over a 10-year period. The BLM would use a variety of gather techniques including bait trapping, helicopter drive trapping, and helicopter assisted roping (helicopter use would only be scheduled between July 1 and February 28).

The BLM would also initiate the administration of fertility control treatments to reduce the current annual recruitment rate. Fertility control treatments would primarily consist of vaccine treatments (e.g., PZP, PZP-22, GonaCon – Equine; preference is GonaCon – Equine) along with the potential use of intrauterine devices (IUDs).

Gather operations and fertility control treatments may be delayed and/or halted and then restarted depending on funding and the allocation of spaces in holding facilities.”

"Estray" means any bovine animal, horse, mule, ass, or alternative livestock as defined in section 35-41.5-102 (1) found running at large

upon public or private lands in the state of Colorado whose owner is either known or unknown in the section where found or which is outside the limits of its usual range or pasture. It is unlawful for any person, corporation, or company, or any of its employees or agents, to take into its custody any such stray and retain possession of the same, except as provided in this article (Colo. Rev. Stat. 35-44-101 (2015)).

#### 4.14.3 Policy Statements

1. Support full implementation of the Wild and Free Roaming Horse and Burro Act as amended through 1996.
2. Recognize the horses protected under the WFRHBA are in fact feral horses even when they are referenced as “wild”.
3. Proactively manage horses within the PEDHMA at AML (135 – 235) as identified in the current Resource Management Plan (U. S. Interior 1996):
4. Insist all excess horses (those above 235 within the PEDHMA) be gathered and removed from the rangelands.
5. Feral horses within the PEDHMA should be managed for a viable, healthy herd that will result in the thriving natural ecological balance (including the standards and guidelines for rangeland health) and multiple-use relationship in that area as required by the Act.
6. Immediately remove wild horses from private lands when notified of their presence as defined through the WFRHB Act and Colorado estray laws. Immediate removal should be conducted in such a manner so that the horses will not return to the private land nor be placed within County boundaries as long as the BLM is out of compliance with AML.
7. Insist on the immediate removal of all wild/feral horses within Rio Blanco County that are found outside the PEDHMA in accordance with the Act, including the areas referenced as the West Douglas and North Piceance Herd Areas.
8. Any proposed enlargement or expansion of the current HMA or HA boundaries or any new HMAs or HAs are outside the WFRHB Act and unacceptable.

9. Inventory wild horses at least every three years.
10. When a herd management area exceeds its appropriate management level, the Bureau of Land Management should take the appropriate action to decide that overpopulation exists in the herd management area and within 60 days of discovery, determine whether action is necessary to remove excess animals.
11. The Bureau of Land Management should perform a gather within 6-months of declaring that a gather is needed.
12. Remove horses to the lowest range of the AML to reduce the frequency of gathers. Because completing a gather is a lengthy and expensive undertaking often hampered by litigation, and because horses have no predators, if not gathered to the lowest end of AML population, numbers will rebound requiring another gather in too short of time.
13. Support the use of long-term fertility control such as spaying of mares but only if the numbers are within AML.
14. Public education programs should be created to inform the public at large about the need to maintain healthy ecosystems and the differences between livestock, wild horse, and wildlife management needs and impacts.
15. Rulemaking should be pursued to give the BLM additional options for the disposal of wild horses to allow BLM to meet their existing statutory requirements.
16. Modifications of HMA boundaries would be allowed only for the purpose of reducing resource conflicts and adverse effects on private lands so long as there is no net increase in boundary size or AML numbers.
17. Any reduction in HMA size should be completed with appropriate reduction in AML.
18. Develop and implement habitat management and/or monitoring plans to specifically determine impacts of wild horses on range, riparian, water, wildlife, and other resources.
19. Monitoring plans should accurately identify the causal factors in resource changes (e.g., separate wild horse, livestock, and wildlife impacts) and if monitoring shows any adverse impacts, take action to manage the activity based on the specific results in the monitoring.
20. Livestock AUMs shall not be reduced due to excess numbers of horses on the rangelands.
21. Once excess horses are removed from areas where livestock grazing permittees have taken reductions in AUMS, livestock grazing reductions shall be reinstated as soon as resources recover.
22. Any equine animal released from private individuals, tribes, or neighboring lands onto public lands after 1971 is considered as stray as defined in Colo. Rev. Stat. 35-44-101 and dealt with accordingly.
23. Support non-reproducing herds within HMA boundaries and within AML.
24. Develop monitoring programs that separate the utilization by species (e.g., wild horse, livestock, or wildlife) that can be used to inform management.
25. Oppose BLM hauling water for horses when the numbers are above AML unless water is specifically being hauled for bait and trap operations to remove the excess horses.

# WILD HORSE HERD MANAGEMENT AREA Rio Blanco County, CO

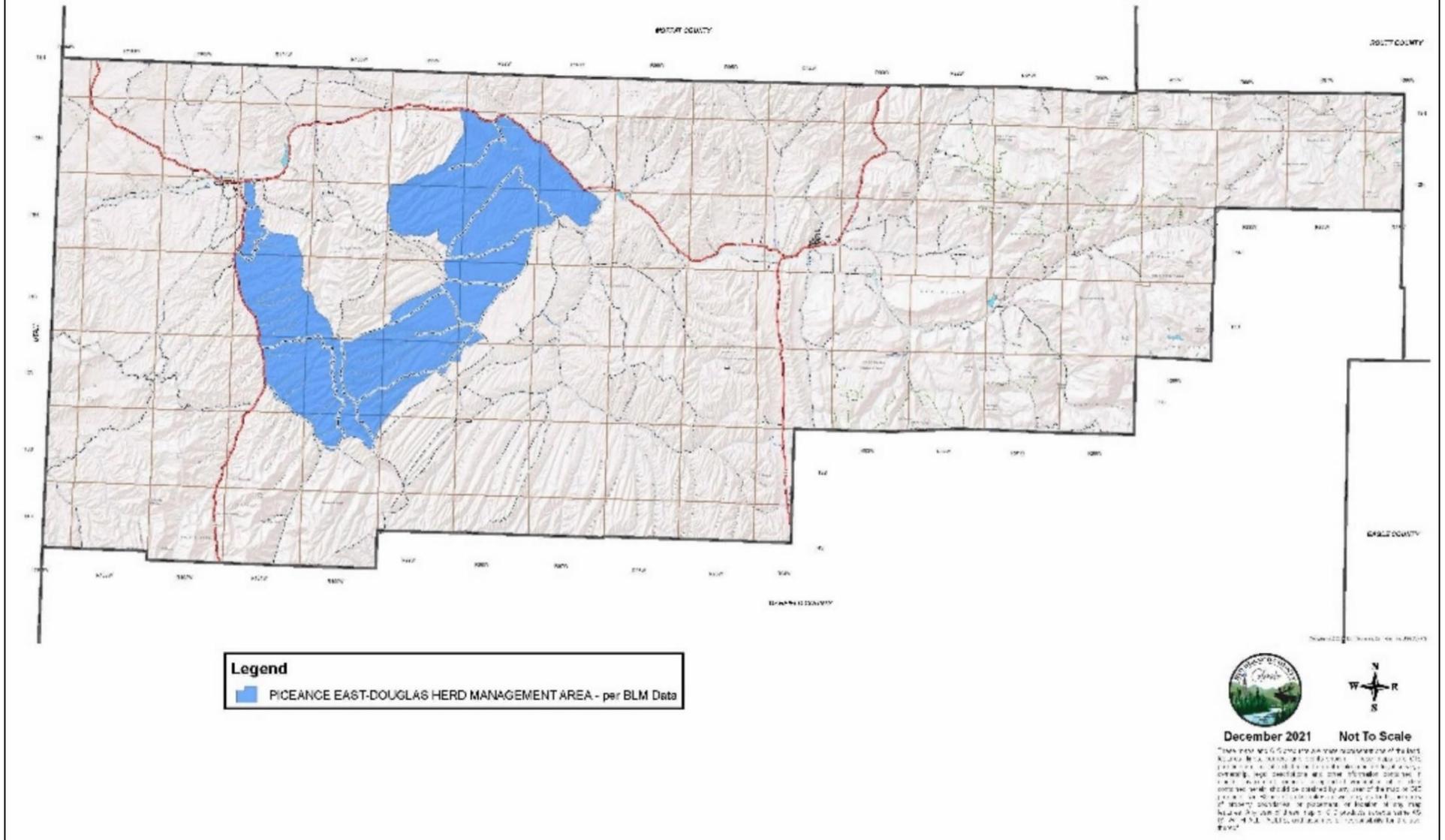


Figure 30. Wild horse herd areas

## 4.15 Wildlife Management

### 4.15.1 Custom and Culture

Rio Blanco County is known for its abundant wildlife populations. Hunting and fishing is not only critical to the survival of many Rio Blanco residents, but is a significant economic driver in the County.

Hunting big game, waterfowl, small mammals, game birds, and fishing has long been a way of life in Rio Blanco County. The Ute tribe maintained a subsistence living in the area long before white settlers came to the area. Settlers depended not only on their livestock but on the native wildlife for food.

The White River Valley is home to the largest herds of elk and deer in the state of Colorado and also has small herds of pronghorn, bighorn sheep, and moose. The White River Valley experiences long, cold winters with occasional above average snowfall which results in annual migrations of big game animals from the high elevation summer ranges at the headwaters to the lower elevation transition and winter ranges which lie to the west. With so many wild ungulates that inhabit Rio Blanco County year-round, it is inevitable that conflicts arise with agricultural producers, private landowners, and recreation activities.

In addition to the diverse big game populations which thrive in the White River Valley, the County also enjoys diverse and productive aquatic fisheries (i.e., the White River and its many tributaries and high mountain lakes and reservoirs), small game, furbearer and waterfowl hunting opportunities all of which provide a variety of recreational and economic benefits in the County. Further, the County offers tremendous wildlife viewing opportunities for diverse populations of non-game wildlife species (e.g., avian bird and raptor species, etc.). The Meeker and Rangely Chambers of Commerce both tout the many opportunities for both consumptive and non-consumptive wildlife interactions as part of their economic development strategies.

### Pests, Predator Control, and Livestock Predation

Predatory wildlife is important to the ecology of an ecosystem. However, predators have negative impacts on livestock operations, developing communities, and other agriculture operations. It is important to properly manage predators to ensure safe communities and stock, and healthy functioning ecosystems.

During the settlement of the western states, depredation was an issue across livestock operations. Predators were controlled on an individual basis until the early 1900s, when stock growers began asking for government assistance. The common mindset in the early 1900s was that “the only good predator is a dead one.” However, by the 1960s, with the release of the Leopold Report, the importance of proper management of predators became known (deCalesta, n.d.). The common public mindset began to shift to the control of predators threatening stock operations and communities while allowing natural predator populations to exist (deCalesta, n.d.).

### 4.15.2 Background

Wildlife in Colorado is owned by the State and managed by CPW, formerly Colorado Division of Wildlife. Because of the large percentage of public lands in the County (73 percent between BLM and USFS), maintaining access to public lands is very important. Although CPW sets population and sex ratio objectives for big game population management, habitat is managed by the USFS and BLM. However, CPW is actively involved with managing, protecting, and improving habitat on both private and state lands in Rio Blanco County through CPW’s habitat protection and habitat partnership program. CPW’s White River Habitat Partnership Program (HPP) works cooperatively with private landowners and federal land management agencies to improve wildlife habitat and resolve conflicts between big game animals and agricultural/livestock interests.

CPW completed an analysis of direct, indirect, and induced contributions to the Colorado economy from outdoor recreation. Fishing contributed over \$1.9 billion and hunting over \$900 million to the state economy in FY 2013-14. Almost 500,000 hunting licenses and over one million fishing licenses were sold (Colorado Parks and Wildlife 2015). In 2008, CPW estimated that the economic impacts of big game hunting and fishing at the individual county level across Colorado. That report estimated that approximately 6% of the total jobs in Rio Blanco County were related to hunting and fishing.

For big game animals, management plans have been created summarizing their population objectives and status. The primary decisions to be made for each management unit is how many animals should exist in the area and the desired sex ratio for the population. This information supports big game season setting processes (harvest objectives) and are set for 10-year periods. Management plans are created by obtaining input from the community, federal agencies, and interested public. In the Yampa District of the Routt National Forest, elk have the largest impact on vegetation, riparian areas, and aspen regeneration.

In addition to big game species, the County enjoys a diverse and abundant non-game wildlife population. This resource – which includes fisheries, small mammals, and avian species – provides a variety of recreational opportunities and economic benefits in the County. The Meeker and Rangely Chambers of Commerce both tout the many opportunities for wildlife interactions as part of their economic development strategies.

The Northwest Colorado Greater Sage-Grouse Approved Resource Management Plan Amendment was approved in September 2015 and is available via the blm.gov website. See Figure 31 for a map of Greater Sage-Grouse habitat.

## Pests, Predator Control, and Livestock Predation

The Animal and Plant Health Inspection Service (APHIS) within the Department of Agriculture manages a Wildlife Damage Program. The Wildlife Damage Program researches and develops wildlife damage management methods and provides resources to the public (USDA APHIS, n.d.). The Colorado State Legislature established predator control statutes. Those statutes include Colo. Rev. Stat. §§ 33-1-105, 33-3-103, 33-3-106, 33-4-101.3, 33-6-107, 33-6-208, 35-40-101.2 through 115. The Colorado Department of Agriculture's depredation regulations can be found in Title 1200 of the Colorado Code of Regulations Colorado Code of Regulations 8 CCR 1201-12. (Colorado Department of Agriculture & Colorado parks and Wildlife, n.d.)

Wildlife population management through sportsman hunting and trapping occurs throughout Rio Blanco County. Predator control within the County affects the economic stability of the livestock industry and the hunting/fishing industry. Predator control has been used to protect the health and safety of the public by reducing human-wildlife conflict and the spread of diseases commonly carried by predators. A few of the more common predators in Rio Blanco County and the surrounding area include mountain lion, black bear, bobcat, coyote, and fox.

### 4.15.3 Policy Statements

#### 1. Wildlife

1. Create wildlife management objectives based on the carrying capacity of the habitat including all multiple use mandates (livestock grazing, mineral extraction, wild horses) on federal lands.
2. Support wildlife and wildlife habitat monitoring efforts and refine available habitat data.
3. Consultation and coordination should occur with the Districts and County where federal monies or resources are

committed for the development of management plans, population objectives, wildlife introductions (e.g., moose or big horn sheep), or other decisions that may affect the economic viability of Rio Blanco County.

4. Only data collected or reviewed in compliance with Section 2.4 of Rio Blanco's Land and Natural Resource Policy should be considered.
5. Peer-reviewed science, or those data meeting the agency data specifications, should be used in the management of disease spread between native and domestic species, with consultation and coordination of local government.
6. Encourage habitat improvements on federal lands that increase forage to reduce private land conflicts with wildlife in consultation with the County, Districts, and permittees.
7. Signage should be used to notify the public of seasonal wildlife related closures (calving/fawning).
8. Support management of Greater Sage-grouse according to the Colorado Greater Sage-grouse Conservation Plan, or local plans where they exist.
9. Support consultation, cooperation, and collaborative efforts to minimize impacts of vehicle collisions and highway fencing along county roads and highways within key wildlife migration corridors in Rio Blanco County.
10. Develop monitoring programs that separate the use by species (e.g., wild horse, livestock, or wildlife) that can be used to inform management.

## **2. Predator Control**

1. Support selective science-based predator control as a valid means of increasing the productivity of state and federal lands within the County and as a valid method of attaining sustainability of the wildlife and domestic livestock populations.

2. Predator control measures should be applied on all private, state, and federal lands within the County.
3. Support recognized proactive efforts such as aerial hunting to control predator populations.
4. Rio Blanco County does not support the reintroduction of the gray wolf into Colorado.
5. Federal agencies should coordinate with the County in the determination of any impact of management of predator species when related to the management of ESA listed species or the use of APHIS funds, as required by federal agency mandates. This includes impacts on the economy and safety of the residents of the County.
6. Pursuant to state statute, the County will establish and implement a cooperative plan for predator control incorporating coordination with APHIS and county resources where available.
7. Predator populations must be managed to maintain healthy ecological levels, while still prioritizing reducing the occurrence of livestock depredation and the health and welfare of citizens of Rio Blanco County.

## GREATER SAGE GROUSE HABITAT Rio Blanco County, CO

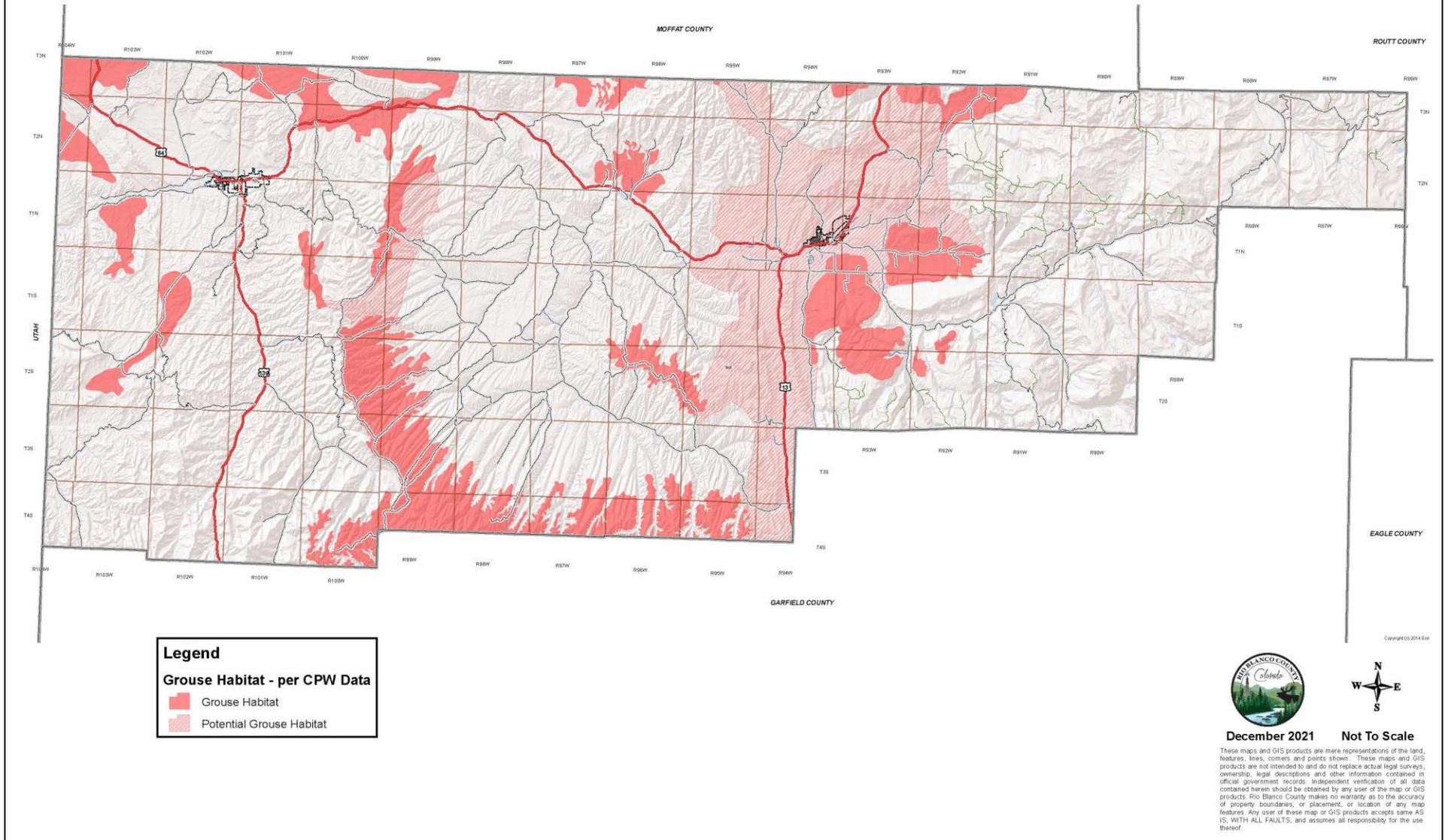


Figure 31. Greater Sage-Grouse Habitat

## 5. Acronym List

ACEC – Area of Critical Environmental Concern

AML – Appropriate Management Level

AMP – Allotment Management Plan

AUM – Animal Unit Month

ASQ – Allowable Sale Quantity

BAR – Burned Area Rehabilitation (plans)

BAER – Burned Area Emergency Response (program)

BLM – United States Department of the Interior, Bureau of Land Management

CCA – Candidate Conservation Agreement

CEQ – Council on Environmental Policy

CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMP – Coordinated Management Plan

CM – Carbon Monoxide

COGCC – Colorado Oil and Gas Conservation Commission

CPW – Colorado Parks and Wildlife

CRA – Colorado Roadless Area

CRMP – Coordinated Resource Management Plan

CSFS – Colorado State Forest Service

CWP – Clean Water Program

CWPP – Community Wildfire Protection Plans

DM – Departmental Manual

DMG – Division of Minerals and Geology

DWR – Division of Water Resources

EA – Environmental Assessment

EIS – Environmental Impact Statement

EPA – United States Environmental Protection Agency

ES – Emergency Stabilization (plans)

ESA – Endangered Species Act

ESR – Emergency Stabilization and Rehabilitation (plans)

FDQA – Federal Data Quality Act

FEIS – Final EIS

FFE – Full Force and Effect (decision)

FLPMA – Federal Land Policy Management Act

FRM – Federal Reference Method

FTE – Full-Time Equivalent

FWS – United States Department of the Interior, Fish and Wildlife Services

GHG – Greenhouse gas

GIS – Geographic Information System

HFI – Healthy Forests Initiative

HFRA – Healthy Forests Restoration Act

HMA – Herd Management Area

LWC – Lands with Wilderness Characteristics

MLP – Master Lease Program

MOA – Memorandum of Agreement

MOU – Memorandum of Understanding

NAAQS – National Ambient Air Quality Standards

NAICS – North American Industrial Classification System

NEPA – National Environmental Policy Act

NFMA – National Forest Management Act

NFP – National Fire Plan

$NO_2$  – Nitrogen Dioxide

NPHA – North Piceance Herd Area

NPS – National Park Service

OMB – Office of Management and Budget

$O_3$  – Ozone

OHV – Off-highway vehicle

OSM – United States Department of the Interior, Office of Surface Mining, Reclamation, and Enforcement

PEDHMA – Piceance-East Douglas Herd Management Area

RAVG – Rapid Assessment of Vegetation Condition after Wildfire

RD&D – Research Development and Demonstration

RMP – Resource Management Plan

RMPA – Resource Management Plan Amendment

RNF – Routt National Forest

RPA – Forest and Rangeland Renewable Resources Planning Act

RPS – Rangeland Program Summary

ROD – Record of Decision

SGCN – Species of Greatest Conservation Need

SIC – Standard Industrial Classification

SIP – State Implementation Plan

SMCRA – Surface Mining Control and Reclamation Act

$SO_2$  – Sulfur Dioxide

SWAP – State Wildlife Action Plan

TSP – Total Suspended Matter

USFS – United States Forest Service

USGS – United States Department of the Interior, United States Geological Survey

WA– Wilderness Area

WDHA – West Douglas Herd Area

WFLC – Wildland Fire Leadership Council

WFRHBA – Wild Free-Roaming Horse and Burro Act

WMP – Noxious Weed Management Plan

WRFO – White River Field Office, BLM

WRNF – White River National Forest

WRRRA – White River Resource Area, BLM

WSA – Wilderness Study Area

WUI – Wildland-urban interface

DRAFT

## 6. Definition of Terms

10(j) Rule – allows establishment of an “experimental” population of a threatened or endangered species.

Adverse modification – A direct or indirect alteration that appreciably diminishes the conservation value of critical habitat for listed species. Such alterations may include, but are not limited to, effects that preclude or significantly delay the development of the physical or biological features that support the life-history needs of the species for recovery.

Af – acre feet of water, usually written as af/yr meaning acre feet of water per year.

AUM – Animal Unit Month is the amount of air-dried forage needed to support a 1,000-pound cow and her calf (up to 3 months of age) for one month. This is usually assumed to be between 780 and 800 pounds of air-dried forage.

Candidate Conservation Agreements – voluntary conservation agreements between USFWS and one or more public or private parties to design and implement species-specific conservation measures.

Candidate Conservation Agreements with Assurances – voluntary agreements between USFWS and private landowners with additional incentives to engage in voluntary, proactive conservation through assurances that ensure additional restrictions will not be enforced if the species is listed under the ESA.

Categorical Exclusion – a category of actions which do not have a significant effect on the human environment when reviewed individually or cumulatively. The lack of significant effect on the human environment means neither an Environmental Assessment nor Environmental Impact Statement is required.

Category C (Custodial) Allotment – Allotments where public lands produce less than 10 percent of the forage in the allotment or are less than 10 percent of the land area. An allotment should generally not be designated as Category C if the public land in the allotment contains: 1) critical habitat for a threatened or endangered species, 2) wetlands negatively affected by livestock grazing.

Category I (Improvement) Allotment – Allotments where current livestock grazing management or level of use on public land is, or is expected to be, a significant causal factor in the non-achievement of land health standards, or where a change in mandatory terms and conditions in the grazing authorization is or may be necessary. Category I allotments are identified by a review of the condition of critical habitat, conflicts with Greater Sage-grouse, and whether projects have been proposed specifically for implementing the Healthy Lands Initiative.

Category M (Maintenance) Allotment – Allotments where land health standards are met or where livestock grazing on public land is not a significant causal factor for not meeting the standards and current livestock management is in conformance with guidelines developed by the State Directors in consultation with Resource Advisory Councils. Allotments where an evaluation of land health standards has not been completed, but existing monitoring data indicates that resource conditions are satisfactory are also in Category M.

Consistency review – requirement for federal decisionmakers to review local land use policies, plans or controls for harmony with federal agency proposed decisions or alternatives. Where an inconsistency exists, the NEPA document should describe the extent to which the agency would reconcile its proposed action with the local plan or law. While the statement should discuss any inconsistencies,

NEPA does not require reconciliation. 40 C.F.R. § 1506.1(d); 36 C.F.R. § 219.4(b)(2)(i) – (iv).

Consultation – the action or process of formally consulting or discussing.

Coordination – a cooperative effort resulting in an effective relationship. See 40 C.F.R. § 1506.2(d), 1506.2(c); 43 U.S.C. § 1712.

Credible Scientific Data – rigorously reviewed, scientifically valid chemical, physical and/or biological monitoring data, timely collected under an accepted sampling and analysis plan; including quality control and assurance procedures and available historical data.

Critical Habitat – the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Endangered Species – any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined to be a pest.

Experimental Population – a geographically-described group isolated from other existing populations of the species. It can be designated as “essential” (necessary to the survival of the species) or “non-essential” (the species will contribute to restoring the species, but its recovery can be achieved without the population).

Jeopardy – when an action is reasonably expected, directly or indirectly, to diminish a species’ numbers, reproduction, or distribution so that the likelihood of survival and recover in the wild is appreciably reduced.

Mcf – a unit of measure in the oil and gas industry for natural gas.

Mcf equals the volume of 1,000 cubic feet of natural gas

Silviculture – the art and science of controlling the establishment, grown, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.  
(<http://www.fs.fed.us/forestmanagement/silviculture/>)

Suspended AUMs – AUMs not authorized for grazing use.

Take – to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such contact. “Take” includes the adverse modification of critical habitat.

Temporary Suspended AUMS – AUMs removed from authorized use for a short or specific amount of time, e.g., as part of a wildfire closure.

Threatened Species – any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Warranted-but-Precluded – any species warranted for protection under the ESA, but not listed due to other, higher-priority species.

## 7. Works Cited

Alpenfire, LLC. 2012. "Rio Blanco County Community Wildfire Protection Plan."

Bouvier, Judge. 1867. *Bouvier's Law Dictionary*. Philadelphia: George W. Childs.

Bureau of Land Management. 2012. "A Desk Guide to Cooperating Agency Relationships and Coordination with Intergovernmental Partners." Washington D.C.

Bureau of Land Management. 2013. *Approved Land Use Plan Amendments/Record of Decision (ROD) for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming and Final Programmatic Environmental Impact Statement*. United States Department of the Interior.

Bureau of Land Management. 2004. *Departmental Manual Part 620, Chapter 3 Burned Area Emergency Stabilization and Rehabilitation*. Washington, D.C.: United States Department of the Interior, Bureau of Land Management.

Bureau of Land Management. 1981. *Final Environmental Impact Statement, White River Resource Area Grazing Management*. Craig: United States Department of the Interior.

Bureau of Land Management. 2006. *H 1283-1 Data Administration and Management (Public)*. Washington, D.C.: United States Department of the Interior, Bureau of Land Management.

Bureau of Land Management. 2007. *H 1742-1 Burned Area Emergency Stabilization and Rehabilitation Handbook (Public)*.

Washington, D.C.: United States Department of the Interior, Bureau of Land Management.

Bureau of Land Management. 2008. *Manual 6840 - Special Status Species Manual for the Bureau of Land Management*. Washington, D.C.: United States Department of the Interior.

—. n.d. *Rangeland Administration System (RAS)*. <http://www.blm.gov/ras/>.

Bureau of Land Management. 1981. *Rangeland Program Summary, White River Resource Area*. Graig: United States Department of the Interior.

Bureau of Land Management. 2015. *White River Field Office Record of Decision and Approved Resource Management Plan Amendment for Oil and Gas Development*. Meeker: United States Department of the Interior, Bureau of Land Management.

Census of Agriculture. 2012. "Census of Agriculture County Profile." *Rio Blanco County, Colorado Profile*.

Colorado Department of Public Health and Environment, Water Quality Control Division. 2012. *Integrated Water Quality Monitoring and Assessment Report*. Colorado Department of Public Health and Environment.

Colorado Parks and Wildlife. 2015. *2015 Fact Sheet*. Denver: Colorado Parks and Wildlife.

Colorado Parks and Wildlife. 2015. *State Wildlife Action Plan Draft*. Fort Collins: State of Colorado.

Daggett, P. 2016. "Personal Communication." February 26.

Department of the Interior. 2004. "Part 620: Wildland Fire Management Burned Area Emergency Stabilization and Rehabilitation." In *Departmental Manual*, by Office of Wildland Fire Coordination, 15. Washington D.C.: Department of the Interior.

Forest Service. 2012. *Travel Management Implementation Plan, White River National Forest*. Meeker: United States Department of Agriculture.

Interior, United States Department of the. 1996. *White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement*. Proposed RMP and Final EIS, Craig, CO: Bureau of Land Management.

NFPA. n.d. *Federal Government Grant Opportunities*. Accessed November 15, 2015. <http://www.firewise.org/usa-recognition-program/grants-and-funding/federal-government.aspx?sso=0>.

Office of Management and Budget. 2004. *Memorandum for Heads of Departments and Agencies, Issuance of OMB's: Final Information Quality Bulletin for Peer Review*". Washington, D.C.: Executive Office of the President.

Rio Blanco County. 2014. *Rio Blanco County Noxious Weed Management Plan*. Meeker: Rio Blanco County.

—. 2015. *Rio Blanco County, Colorado*. 13 31. [www.rbc.us](http://www.rbc.us).

Sauter, K. 2016. "Personal Communication." February 26.

Singleton, Chris C. 2015. *Rio Blanco County Adopted 2016 Budget*. Meeker: Rio Blanco County.

Turner, Tyrell. 2015. *Wild Horse Management History and Current Conditions within the West Douglas Herd Area*. Meeker: Bureau of Land Management, White River Field Office.

United States Department of Agriculture. 2005. "Chapter 2670 - Threatened, Endangered and Sensitive Plants and Animals." In *FSM 2600 - Wildlife, Fish and Sensitive Plant Habitat Management*, by U.S. Forest Service. Washington D.C.

United States Department of Agriculture. 2002. *Land and Resource Management Plan 2002 Revision for the White River National Forest*. Glenwood Springs, CO: U.S. Forest Service.

United States Department of Commerce. 2014. *Regional Economic Accounts*. Washington, D.C.: Bureau of Economic Analysis.

United States Department of Labor. 2015. *Quarterly Census of Employment and Wages Study Guide*. Washington, D.C.: Bureau of Labor Statistics.

United States Department of the Interior. 2015. "Order No. 3336." *Rangeland Fire Prevention, Management and Restoration*. Washington, D.C.: United States Department of the Interior, January 5.

United States Forest Service. 2013. "Chapter 40 - Key Processes Supporting Land Management Planning." In *FSH 1909.12 - Land Management Planning Handbook*, by United States Forest Service, 34. Washington, D.C.: United States Department of Agriculture.

United States Forest Service. 2010. *Field guide to diseases and insects of the Rocky Mountain Region*. Fort Collins: United States Department of Agriculture.

United States Forest Service. 2002. *Final Environmental Impact Statement for the White River National Forest Land and Resource Management Plan*. Glenwood Springs: United States Department of Agriculture, Forest Service.

United States Forest Service. 2011. *Western Bark Beetle Strategy: Human Safety, Recovery and Resiliency*. United States Department of Agriculture, Forest Service.

USDC. 2014. "U.S. Department of Commerce." *Census Bureau, American Community Survey Office*. Washington, D.C.

1975. *Webster's New Collegiate Dictionary*. Springfield: G.&G. Merriam Co.

Weed, A.S., B.J. Bentz, M.P. Ayers, and T.P. Holmes. 2015. "Geographical variable responses of *Dendroctonus ponderosae* to winter warming in the western United States." *Landscape Ecology*.

Woodruff, H. 2016. "Personal Communication." February 2