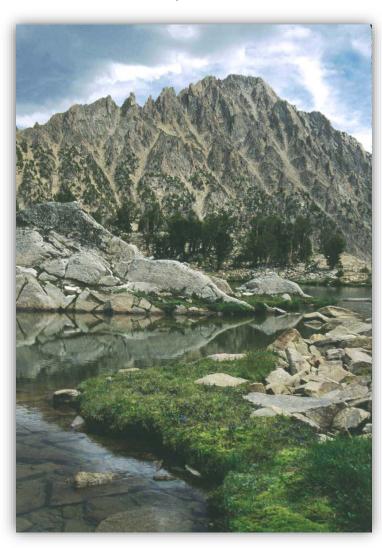




Hemingway-Boulders and Cecil D. Andrus-White Clouds Wilderness Management Plan

Sawtooth National Forest, Sawtooth National Recreation Area BLM, Idaho Falls District, Challis Field Office

May 7, 2018



For More Information Contact:

Kit Mullen, Forest Supervisor

Sawtooth National Forest

2647 Kimberly Road East Twin Falls, ID 83301-7976

Phone: 208-737-3200

Fax: 208-737-3236

Mary D'Aversa, District Manager

Idaho Falls District

1405 Hollipark Drive Idaho Falls, ID 83401

Phone: 208-524-7500

Fax: 208-737-3236

Description: Castle Peak in the Cecil D. Andrus-White Clouds Wilderness

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cust.html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call

(866) 632-9992. Submit your completed form or letter to USDA by:

(1) mail: U.S. Department of Agriculture

Office of the Assistant Secretary for Civil Rights

1400 Independence Avenue, SW Washington, D.C. 20250-9410;

(2) fax: (202) 690-7442; or

(3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

Acronyms, Initialisms, and Abbreviations

AFWA Association of Fish & Wildlife Agencies

BLM Bureau of Land Management
CFR Code of Federal Regulations

EPA Environmental Protection Agency

ESA Endangered Species Act
Forest Sawtooth National Forest

FRCC Fire Regime Condition Class

FSH Forest Service Handbook FSM Forest Service Manual

GPS Global Positioning System

IDEQ Idaho Department of Environmental Quality

IDFG Idaho Department of Fish and Game

IMPROVE Interagency Monitoring of Protected Visual Environments

IOGLB Idaho Outfitter and Guide Licensing Board

IVUMC Interagency Visitor Use Management Council

MA Management Area

MIS Management Indicator Species

MIST minimum impact suppression tactics

MPC Management Prescription Category

MOU Memorandum of Understanding
MRA Minimum Requirements Analysis
NIFC National Interagency Fire Center

NEPA National Environmental Policy Act

NFS National Forest System

NRA National Recreation Area

ORV Outstandingly Remarkable Values

RMP Resource Management Plan

SAR search and rescue

SGCN Species of Greatest Conservation Need

TMDL Total Maximum Daily Load

USDA United States Department of Agriculture

USDI United States Department of Interior

UTV utility vehicle

WAQV Wilderness Air Quality Values
WMP Wilderness Management Plan

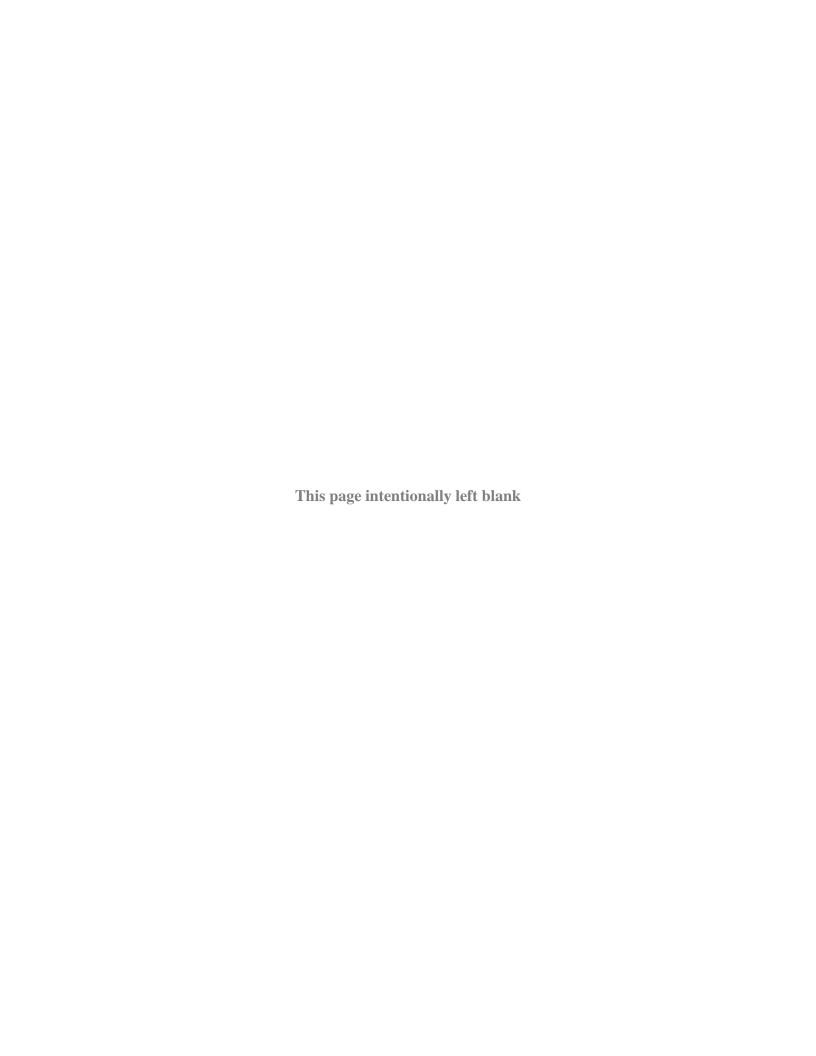
WSA Wilderness Study Area (BLM designation)

Table of Contents

1. Introduction	1
1.1. Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act	1
2. Wilderness Overview	1
2.1. Hemingway-Boulders Wilderness	3
2.2. Cecil D. Andrus-White Clouds Wilderness	3
2.3. Scope of the Wilderness Management Plan	4
3. Purpose of and Need for the Wilderness Management Plan	5
4. Consistency with Forest Service and Bureau of Land Management Use Plans	6
4.1. Existing Management Direction	6
4.1.1. Sawtooth Forest Plan	6
4.1.2. Challis Resource Management Plan	7
5. Issues Resolved by Policy	7
6. Management Area 21	8
6.1. Management Are Description	8
6.1.1. General Location and Description	9
6.2. Wilderness Character	9
6.3. Access	13
6.4. Air Quality	13
6.5. Soil, Water, Riparian, and Aquatic Resources	14
6.6. Vegetation	15
6.7. Botanical Resources	16
6.8. Non-native Plants	16
6.9. Wildlife Resources	16
6.10. Recreation Resources	17
6.11. Cultural Resources	20
6.12. Rangeland Resources	20
6.13. Mineral Resources	21
6.14. Fire Management	21
6.15. Lands and Special Uses	22
6.16. Management Direction	22
6.16.1. General Direction	22
6.16.2. Regulation and Policy	22
6.16.3. Desired Condition	23

6.16.4. Management Prescription Category 1.1—Existing Wilderness	23
7. Proposed Action	24
7.1. Wilderness	25
7.2. Sawtooth National Recreation Area General Management	27
7.3. Eligible Wild and Scenic Rivers	28
7.4. Air Quality	28
7.5. Soil, Water, Riparian, and Aquatic Resources	28
7.6. Vegetation	29
7.7. Botanical Resources	29
7.8. Non-native Plants	29
7.9. Wildlife Resources	30
7.10. Recreation Resources	33
7.10.1. Commercial Services	37
7.11. Scenic Environment	39
7.12. Heritage, Archaeological and Cultural Resources	39
7.13. Tribal Rights and Interests	40
7.14. Rangeland Resources	40
7.15. Mineral and Geologic Resources	41
7.16. Fire Management	42
7.17. Lands and Special Uses	43
7.18. Wilderness Education and Interpretation	44
7.19. Research	45
7.20. Search and Rescue	45
7.21. Management Zones	46
7.21.1. Zone 1	50
7.21.2. Zone 2	50
7.21.3. Zone 3	51
7.21.4. Zone 4	52
8. Wilderness Monitoring	53
9. Plan Implementation	54
9.1. Activities Associated with Plan Implementation	54
9.1.1. Ongoing Activities	54
9.1.2. Future Activities	54
10. Plan Evaluation	55
11. Glossary	55

12. References
Appendix 1—Approval Guidelines for the Use of Motorized and Mechanized Equipment or Vehicles for Search and Rescue
Appendix 2—Direction Crosswalk67
List of Tables
Table 1. Subwatershed (sub.) conditions within Wilderness planning area14
Table 2. Grazing allotments within the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wildernesses
Table 3. Forest-wide Goals, Objectives, Standards, and Guidelines, specific to designated wilderness
Table 4. Proposed zoning—percentage of each zone and percent visitor use by zone47
List of Figures
Figure 1. Map of the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wilderness areas
Figure 2. Management Area 21 overlaying the original boundaries of Management Areas 3 and 4
Figure 3. Management Area 21 showing Wild and Scenic River corridors and motorized access routes surrounding wilderness
Figure 4. Map of the Pack Goat Exclusion Area, as modified
Figure 5. Campfire restrictions within the Hemingway-Boulders Wilderness35
Figure 6. Campfire restrictions within the Cecil D. Andrus-White Clouds Wilderness36
Figure 7. Equine stock closure areas
Figure 8. Hemingway-Boulders Wilderness proposed zoning
Figure 9. Cecil D. Andrus-White Clouds Wilderness proposed zoning49



1. Introduction

The United States Congress established the National Wilderness Preservation System through the Wilderness Act of 1964 (Public Law 88-577; 16 U.S.C. 1131-1136) as a system of federal lands, "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." The Wilderness Act was created to ensure that, "an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States." Thus, wilderness provides a contrast to lands where human activities dominate the landscape.

Only Congress, with Presidential approval, may designate lands as wilderness. Wilderness designation is intended to preserve and protect lands in their natural state. The Wilderness Act defines wilderness, the uses of wilderness, and the activities prohibited within its boundaries. These areas are managed for preserving wilderness character and for the use by and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness.

1.1. Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act

As the designating legislation for the Hemingway-Boulders Wilderness and the Cecil D. Andrus-White Clouds¹ Wilderness, the Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act (P.L. 114-46) builds off of the Wilderness Act and includes direction specific to how these two wilderness areas should be administered, "Subject to valid existing rights, each wilderness area shall be administered by the Secretary in accordance with the Wilderness Act (16 U.S.C. 1131 et seq.)...". The Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act further states that each administering agency "shall seek to ensure that the wilderness areas are interpreted for the public as an overall complex linked by the following:

- 1) Common location in the Boulder-White Cloud Mountains; and
- 2) Common identity with the natural and cultural history of the state of Idaho and the Native American and pioneer heritage of the state.

This Act also includes several provisions that are out of scope of this planning effort, including land conveyances, and donations of livestock grazing permits.

2. Wilderness Overview

The two wilderness areas covered in this plan lie in central Idaho. The two areas are separated by a ridgeline between the East Fork of the Salmon River and Germania Creek (Figure 1). Both wildernesses lie predominately within the Sawtooth National Recreation Area (NRA), which was established "...to assure the preservation and protection of the natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the recreational values" (Sawtooth NRA Act, P.L. 92-400) found in the area.

¹ Public Law 115-141— Consolidated Appropriations Act, 2018 (3/23/2018) renamed the wilderness.

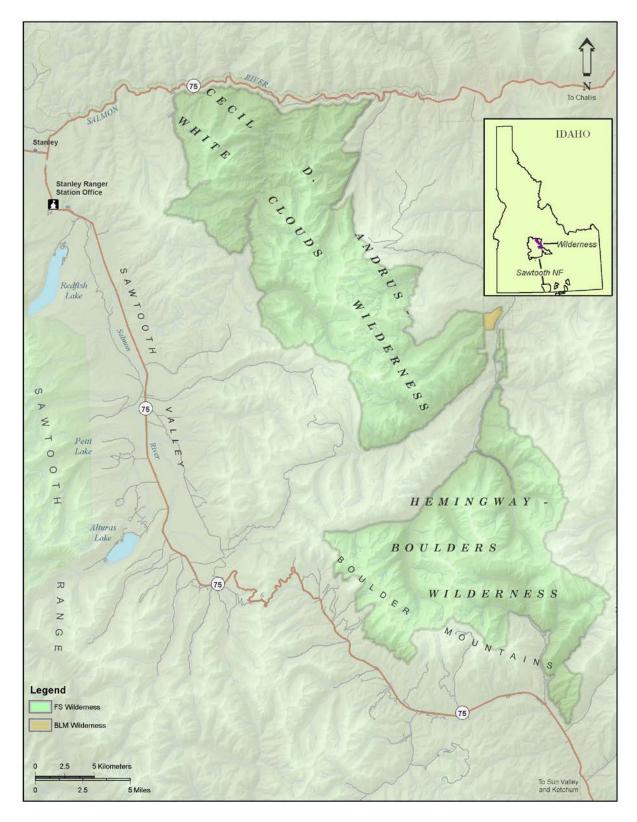


Figure 1. Map of the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wilderness areas

2.1. Hemingway-Boulders Wilderness

The Hemingway-Boulders Wilderness encompasses 67,998 acres of National Forest System (NFS) lands within the Sawtooth National Forest (Forest). The area was named for the Boulder Mountains and Ernest Hemingway, the 20th Century novelist, who was a resident in nearby Ketchum, Idaho.

The impressive 4,000-foot rise of the Boulder Front, as seen from Highway 75 just north of Ketchum and Sun Valley, is a defining characteristic of the Boulder Mountains. The complex geologic history of this area has yielded extensive and structurally impressive exposures of Paleozoic carbonate rocks and the intrusive roots of the Challis volcanic field; the most prominent being the pink granitic stock exposed along the Boulder Front.

Lower elevations in the wilderness include steep slopes of sagebrush and a mix of meadow and alpine vegetation. Increasing in elevation, stands of subalpine fir, Douglas-fir, and lodgepole pine tower above visitors. Interspersed between the fir and pine stands are aspen groves with their delicate green leaves in spring and striking yellow tones in fall. In rockier areas, whitebark pine may be found in vegetated pockets.

This habitat diversity, in turn, supports a variety of wildlife, including mountain goats, wolverine, gray wolf, and mountain lion. Elk and mule deer use the area in the summer. The headwaters of the East Fork of the Salmon River and key tributaries of the headwaters of the Big Wood River originate here, providing important spawning and rearing areas for Chinook salmon, steelhead, endemic Wood River Sculpin, native westslope cutthroat trout, and bull trout.

The Boulder Mountains, one of Idaho's highest and wildest ranges, are rich with human history, from early Native Americans to Idaho's prospecting and mining legacy to today, when explorers may still find a challenging adventure. The wilderness offers outstanding recreational opportunities for hikers (on and off trail), horseback riders, skiers, hunters, and anglers. With 12 summits topping 11,000 feet and only 29 miles of trails, opportunities for solitude are outstanding for off-trail exploring and peak climbing. Most recreational use is focused on the small system of primitive trails, including a short accessible trail originating from the North Fork of the Big Wood River. Many of the trails do not lead to the area's alpine lakes; approach to these secluded areas is only gained through the hard work and determination of the recreationist who is willing to explore the challenging terrain.

2.2. Cecil D. Andrus-White Clouds Wilderness

The Cecil D. Andrus-White Clouds Wilderness encompasses 90,769 acres, which is jointly managed by the Forest (90,310 acres), and Bureau of Land Management (BLM), Idaho Falls District, Challis Field Office (459 acres). The landscape of the Cecil D. Andrus-White Clouds Wilderness is said to be some of the most diverse, rugged, and isolated land in central Idaho. Picturesque high-elevation lakes and limestone peaks are the distinctive features of this wilderness.

The bright white limestone first observed by early settlers gave way to the name White Cloud Peaks, which give the wilderness its name. These soaring white peaks rise to meet the clouds and tower over dramatic cirque basins. Volcanic rocks provide productive soils and clear streams, which support the lush flora and fauna found within the wilderness. Here, one may find quiet solitude surrounded by majestic scenery and abundant wildlife.

The topography ranges from 6,000 feet in elevation to 11,815 feet at Castle Peak, the tallest mountain in the Cecil D. Andrus-White Clouds Wilderness, and the entire Sawtooth NRA, this Idaho icon towers above all other peaks in the area. It was here that a proposed open-pit molybdenum mine set off one of Idaho's fiercest conservation battles, leading to the designation of the Sawtooth NRA.

The remarkable character of the White Cloud Peaks is attributed to a complicated assemblage of sedimentary rocks accumulated in a lost Paleozoic sea, Cretaceous granitic intrusions related to the emplacement of the Idaho Batholith, and intrusive and extrusive rocks of the Challis volcanics. The white limestone pyramid of D.O. Lee Peak is one of the most distinguishable summits within the White Clouds. A granitic intrusion, aptly named the White Cloud Stock, forms the foundation rocks of Castle Peak. Thick sequences of the Challis volcanics overlie the Paleozoic and Cretacous age rocks and are distinctive at lower elevations and within the eastern and southern portions of the range.

The sagebrush steppe ecosystem transition to subalpine forests of aspen and lodgepole pine, which rise to meet alpine talus slopes. Above treeline, rolling fell fields and turf communities support several rare endemic species. Whitebark pine, some of the oldest trees on earth, are an important component in these high-elevation communities.

This wilderness provides habitat that supports species such as mountain goat, bighorn sheep, moose, elk, mule deer, black bear, pronghorn antelope, pika, gray wolf, mountain lion, and the elusive wolverine. Some of these species, such as wolverine, mountain goat, and pika, need the high elevation refugia that this wilderness area is expected to provide in the future as snowpack and snow persistence continue to decrease (Mote et al 2005, Copeland et al. 2010).

The East Fork of the Salmon River, which flows out of this watershed, supports the longest migration route for species of anadromous fish in the lower 48 states. Their headwaters, originating in the Boulder Mountains, foster habitat for westslope cutthroat trout and redband trout. Endangered species, such as bull trout, Chinook, and steelhead, use many of these waterways for spawning and rearing as well as migratory corridors.

The area has been an important part of the West's pioneer and Native American history. Today, world class opportunities for recreational activities are existing throughout the wilderness, including hiking, camping, hunting, fishing, horseback riding, and backcountry skiing during the winter. Because of the diversity of wildlife and its wild character, the Cecil D. Andrus-White Clouds Wilderness is a treasured destination for hunters, fisherman, and wildlife watchers. Along 66 miles of trails, the wilderness offers opportunities for self-reliance and risk; additional opportunities can be found off-trail. Trails lead to secluded basins with high-elevation lakes, while other alpine gems challenge visitors' navigation skills. Opportunities for solitude abound throughout the changing seasons.

2.3. Scope of the Wilderness Management Plan

Planning for wilderness involves translating the Wilderness Act, enabling legislation, agency policy, and regulations into a Wilderness Management Plan (WMP). A WMP provides direction for a specific area and guides the preservation, management, and use of the wilderness to ensure that wilderness is unimpaired for future use and enjoyment as wilderness.

This WMP provides the primary management direction for the Hemingway-Boulders Wilderness and Cecil D. Andrus-White Clouds Wilderness and was jointly prepared by the Forest Service

and BLM. Each agency has jurisdictional authority for separate portions of the Cecil D. Andrus-White Clouds Wilderness, whereas the Hemingway-Boulders is entirely managed by the Forest Service. Given their proximity, comparable natural resources, similar broad management issues, and administrative jurisdiction, incorporating the administration of these two areas into a single plan is appropriate.

This WMP contains current comprehensive descriptions of the wilderness areas and proposed management direction that relates to specific resources. It defines an acceptable range of desired resource and social conditions by identifying zones. An Environmental Assessment follows the WMP to describe and analyze potential impacts relating to proposed management direction and alternatives.

This WMP does not repeat guidance already contained in existing laws and policies (e.g., the Wilderness Act, Endangered Species Act, or Clean Water Act and existing Federal Regulations). It does not describe the methods, the "how to," or the schedule of implementing the direction, nor does it describe the day-to-day or operational actions to be carried out in the management of the wildernesses. The rate of implementation and potential management activities depend on the annual budgeting process. A Minimum Requirements Analysis (MRA) and National Environmental Policy Act (NEPA) analysis will be conducted to support management decisions made at the site-specific level. All actions are supplemental to and consistent with wilderness laws, regulations, and policies, which must be further consulted in the event of unforeseen issues.

3. Purpose of and Need for the Wilderness Management Plan

The purpose of a WMP is to provide management direction for the preservation of wilderness character by identifying the conditions and opportunities that will be managed for within wilderness, creating specific standards and guidelines for managing wilderness resources and activities. The Wilderness Act (Section 4) requires that "... each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area." Although wilderness character is a complex idea and is not explicitly defined in the Wilderness Act, the qualities of wilderness character are described as follows (adapted from *Keeping it Wild 2* [Landres et al. 2015]):

- **Untrammeled**—Area is unhindered and free from intentional actions of modern human control or manipulation.
- **Natural**—Area appears to have been primarily affected by the forces of nature and are substantially free from the effects of modern civilization.
- **Undeveloped**—Area is essentially without permanent improvements or the sights and sounds of modern human occupation.
- Outstanding opportunities for solitude or a primitive and unconfined type of recreation—Area provides outstanding opportunities for recreation in an environment that is relatively free from the encumbrances of modern society and for the experience of the benefits and inspiration derived from self-reliance, self-discovery, physical and mental challenge, and freedom from societal obligations.

• Other Features of Value—Area may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. Though not required of any wilderness, where they are present, they are part of that area's wilderness character and must be protected as rigorously as any of the other four required qualities.

The need for the Proposed Action stems from the signing of Public Law 114-46 which changed the management direction of these areas. For the Forest Service portions of the two wilderness areas, the change was from recommended wilderness to designated wilderness. The BLM portion of the Cecil D. Andrus-White Clouds Wilderness was previously managed as the Boulder Creek Wilderness Study Area (WSA).

Additionally, as directed by the Sawtooth National Recreation Area and Jerry Peak Wilderness Act, "Not later than 3 years after the date of enactment of this Act, the Secretary of Agriculture and the Secretary of Interior shall collaboratively develop wilderness management plans for the wilderness areas."

4. Consistency with Forest Service and Bureau of Land Management Use Plans

This WMP conforms with the programmatic direction of the Sawtooth National Forest Land and Resource Management Plan, as amended (Forest Plan; USDA Forest Service 2012) and is consistent with the BLM Challis Resource Area Record of Decision and Resource Management Plan (RMP; BLM 1999). This WMP complies with Forest Service planning regulations, will meet Forest-wide direction, and will amend management area direction. This WMP direction applies to the BLM portion of the Cecil D. Andrus-White Clouds Wilderness.

4.1. Existing Management Direction

4.1.1. Sawtooth Forest Plan

This section provides an overview of the management of the area—as established in the 2012 Forest Plan—that now includes designated wilderness. It is this direction that may be changed by approval of this plan, through a Forest Plan amendment.

4.1.1.1. Existing Forest-wide Direction

The Forest Plan includes these areas as recommended wilderness and provides the following direction (USDA Forest Service 2012):

Manage recommended wilderness to protect wilderness values as defined in the Wilderness Act. Activities permitted in recommended wilderness do not compromise wilderness values nor reduce the area's potential for wilderness designation. Non-conforming uses in recommended wilderness should not be promoted (WRGO02).

Additionally, the following standards within the Forest Plan apply to recommended wilderness areas (Management Prescription Category [MPC] 1.2) (USDA Forest Service 2012):

- Management actions, including wildland fire use and prescribed fire, must be designed and implemented in a manner that maintains wilderness values, as defined in the Wilderness Act.
- Mechanical vegetation treatments, including salvage harvest, are prohibited.

- No new motorized or mechanized uses will be allowed, except where these uses must be allowed in response to reserved or outstanding rights, statute or treaty.
- Existing motorized or mechanical uses are allowed only if they do not lead to long term adverse changes in wilderness values.

4.1.1.2. Existing Management Area Direction

In 2003, the Forest Plan established two management areas that included the Boulder/White Cloud recommended wilderness areas: the East Fork Salmon River/White Clouds Management Area (03) and the Big Wood River Management Area (04). These management areas included direction for these recommended wildernesses. Specifically, trails were not to be constructed within trail-less areas of the Boulder/White Cloud recommended wilderness area unless the trails were determined to be necessary to prevent resource damage.

The following prohibitions were also applied to these areas (and a Special Order enforcing them was issued) (Forest Plan Standards 0305 and 0405 [USDA Forest Service 2012]):

- Having greater than 20 persons in a group
- Being in the area with a combined number of recreational stock in excess of 25 animals
- Shortcutting trail switchbacks on foot or with recreational stock
- Building, maintaining, attending, or using campfires within 200 yards of the following lakes: Cirque, Cove, Sapphire, Sheep, Slide, Tin Cup, Gunsight, Four Lakes Basin, Scree, Shallow, Castle, and Chamberlain 9,849'
- Tethering recreational stock within 100 feet of springs, lakes, or streams
- Tying recreational stock to live trees for longer than one hour

4.1.2. Challis Resource Management Plan

The Challis RMP includes direction for WSAs released from wilderness consideration and limited direction regarding management of designated wilderness, including a plan of operations for minerals activities (BLM 1999, p. 88), the withdrawal of the area from mineral entry and general land laws (BLM 1999, p. 89), and incorporation of Minimum Impact Suppression Tactics Guidelines (BLM 1999, p.104).

5. Issues Resolved by Policy

The listed topics below have been addressed by law or agency policy and not discussed further in this WMP, unless noted.

Wilderness Designation—The wilderness areas were designated by Congress through the Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act. This WMP does not consider releasing the wilderness designation. The boundaries of the wilderness were set through passage of the Act and are not open to review through this planning process (see 36 CFR Part 261.18, National Forest Wilderness, and 43 CFR Part 6300, Management of Designated Wilderness Areas). The direction established in the WMP would apply within the final surveyed boundaries.

Hunting, Fishing, and Trapping—Hunting, fishing, and trapping regulations are written and enforced by the State of Idaho. Section 1029(g) of the Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act reiterates this provision, "Nothing in this title affects the jurisdiction of the State of Idaho with respect to the management of fish and wildlife on public land in the State, including the regulation of hunting, fishing, and trapping within the wilderness areas."

Per wilderness law and policy, access associated with hunting, fishing, and trapping is limited to non-motorized and non-mechanized means and is allowable as long as the trapper does not commercially sell the fur, hides, or other parts of the trapped animal.

Livestock Grazing and Allotment Management Plans—Livestock grazing, where established prior to August 7, 2015, shall be administered in accordance with Section 4(d)(4) of the Wilderness Act; Section 102(e) of the Sawtooth National Recreation Area and Jerry Peak Wilderness Additions Act; the grazing guidelines in House Report 96-617; and Appendix A of House Report 101-405. The wilderness designation may affect some of the methods used to maintain range improvements; these effects are discussed in this WMP.

The wilderness designation does not affect grazing preference, nor does it preclude the development of Allotment Management Plans. These items are administered according to the regulations in 36 CFR 222 and 43 CFR 4100. In accordance with existing Forest Service and BLM policy, periodic interdisciplinary allotment evaluations assess grazing use by domestic cattle, sheep, and other animals on vegetation and a determination of ecological health is made. Waiver and donation of grazing permits and leases, as identified in the designating legislation, is considered outside of this planning process.

Special Uses—Section 4(d)(6) of the Wilderness Act states that commercial services, such as outfitter and guides and/or pack stock rentals, are allowed "to the extent necessary for activities which are proper for realizing the recreational or other purposes of the areas." This recognition is reiterated in the enabling legislation, Section 102(f). Commercial services are further guided by the Federal Lands Recreation Enhancement Act and agency-specific policy and guidance (FSM 2709.14, BLM Manual 2930, H-2930-1) in addition to direction specific to wilderness.

6. Management Area 21

6.1. Management Are Description

This WMP amends the Forest Plan (USDA Forest Service 2012) to include a new management area (Management Area [MA] 21), which encompasses the entirety of the two wildernesses, and to modify the portions of MA 3 and MA 4 to exclude the lands now designated as wilderness (see Figure 2 below). The Challis RMP is not amended or modified per this WMP.

The subsequent portions of this document are structured similarly to the Forest Plan, starting with a narrative section describing the management area by resource, followed by specific management direction for MA 21. The narrative section provides an overview of current conditions and issues. Within this section, the terms management area and wilderness areas are used interchangeably.

MA 21, includes only the NFS portions of the two wildernesses; however, this WMP applies to the entirety of the two wildernesses, and the area description below includes the BLM-managed

portion of the Cecil D. Andrus-White Clouds Wilderness. This section references the wildernesses, of which 99% is within MA 21.

6.1.1. General Location and Description

MA 21 is composed of NFS lands administered by the Sawtooth NRA and Ketchum Ranger District of the Forest. MA 21 is located within the northeastern portion of the Forest.

The Hemingway-Boulders Wilderness and Cecil D. Andrus-White Clouds Wilderness lie in Custer and Blaine counties. The wildernesses are bordered on the south and west by the Sawtooth NRA and Sawtooth National Forest, on the north by the Salmon-Challis Forest, and on the east by the Sawtooth National Forest, Salmon-Challis Forest, and BLM.

In total, the two wildernesses encompass 158,767 acres: 67,998 acres in the Hemingway-Boulders Wilderness and 90,769 acres in the Cecil D. Andrus-White Clouds Wilderness. Approximately 99.9% of the area is administered by the Forest Service, with less than 0.1% administered by the BLM. The primary uses and activities in the area have been recreation, livestock grazing, and historic mining.

6.2. Wilderness Character

As part of the 1987 Forest Planning process and the 2003 Forest Plan revision process, portions of the Boulder White Cloud Inventoried Roadless areas were recommended as wilderness because of their high natural integrity and minimal impact by humans. These areas generally include the Cecil D. Andrus-White Clouds and Hemingway-Boulders Wildernesses which have consistently shown wilderness characteristics suitable for inclusion in the National Wilderness Preservation System as defined by the Wilderness Act. Similarly, the BLM portion of the Cecil D. Andrus-White Clouds Wilderness was previously managed as the Boulder Creek WSA to preserve wilderness characteristics.

The Wilderness Act defines wilderness and mandates that the primary management direction is to preserve wilderness character. The definition of wilderness is found in Section 2(c) of the Wilderness Act, and the qualities of wilderness character are commonly described as untrammeled; natural; undeveloped; outstanding opportunities for solitude or a primitive unconfined form of recreation; and other features of scientific, educational, scenic, or historical value.

Untrammeled—Portions of the Cecil D. Andrus-White Clouds and Hemingway-Boulders Wilderness areas have had some degree of human control or manipulation of the biophysical environment. Past activities, which have affected the untrammeled quality of the wilderness, include prescribed burning, historic mining, and grazing. More recently, trammeling actions include management of wildland fire and invasive species, fish stocking, and livestock grazing.

Natural—The natural quality of these wilderness areas is mostly intact. The varying elevations in the area provide important habitat for a wide array of fish and wildlife species. Vegetation ranges from mountain sagebrush to whitebark pine ecosystems. Some changes to the native vegetation composition have occurred in portions of the wilderness, including the introduction of non-native species; fire exclusion; and livestock grazing impacts. Additionally, fish have been stocked in many of the high mountain lakes, thus altering the natural composition of the area.

Undeveloped—For the most part, these areas show few signs of human habitation and permanent improvements. Developments—such as range fences, developed springs, troughs, and abandoned

or unauthorized vehicle routes; and mining debris—are scattered across the wildernesses. Generally, these developments are few and far between considering the vastness of the landscape. Emergency administrative authorizations for motorized/mechanized use occur for fire suppression and search and rescue operations. Unauthorized motorized and mechanized recreational uses occur along the boundaries and intrude into wilderness. Existing motorized roads and trails surrounding the wilderness areas, including cherry-stemmed routes, make administration challenging with additional opportunities for illegal motorized or mechanized incursions into wilderness.

Outstanding opportunities for solitude or a primitive and unconfined recreation—These wilderness areas provide outstanding opportunities for solitude and primitive, unconfined recreation. The varying topography of the wildernesses and relatively few trails provide excellent opportunities for solitude. In addition, a range of recreational experiences can be found within the wildernesses, including short day hikes, plentiful backpacking options, multi-day pack trips, or off-trail scrambles allowing for exploration and discovery. Visitor use restrictions have been in place within these two areas since 1996, reducing the perception of unconfined recreation. Also, within the wildernesses are recreation-related facilities, such as bridges, trails, tent base logs, meat poles, and stock tie facilities.

Other Features of Value—The Hemingway-Boulders and Cecil D. Andrus-White Clouds Wildernesses provide quality air and water, spectacular scenery, and unique geologic features. These wilderness areas are important for providing clean water to downstream imperiled fish species.

Segments of the following ten streams that flow through wilderness are eligible for Wild and Scenic River designation: Warm Springs Creek, Boulder Chain Lakes Creek, Little Boulder Creek, Germania Creek, West Fork East Fork Salmon River, East Fork Salmon River, South Fork East Fork Salmon River, West Pass Creek, West Fork North Fork Big Wood River, and North Fork Big Wood River (see Figure 3).

Night sky visibility across the two wildernesses is of very high quality and contributes to the wilderness character of each wilderness.

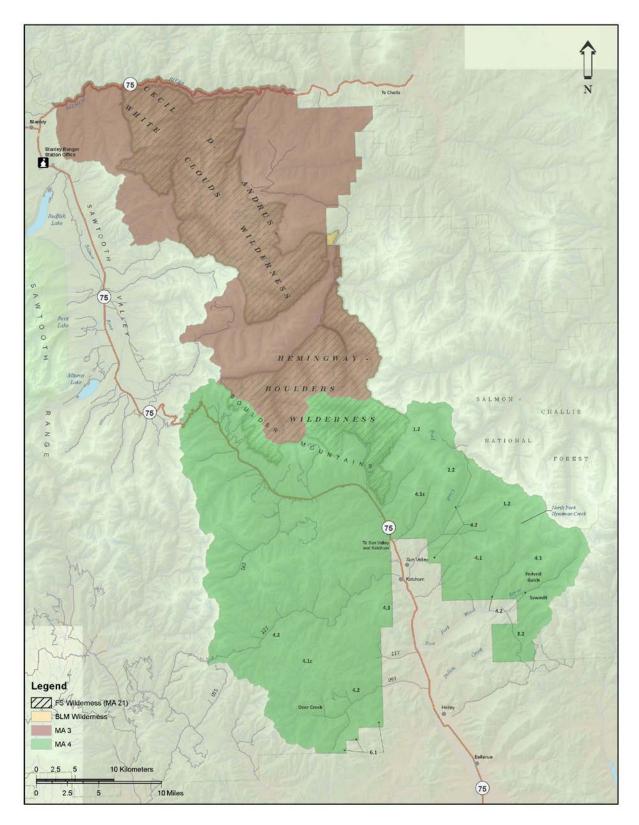


Figure 2. Management Area 21 overlaying the original boundaries of Management Areas 3 and 4 $\,$

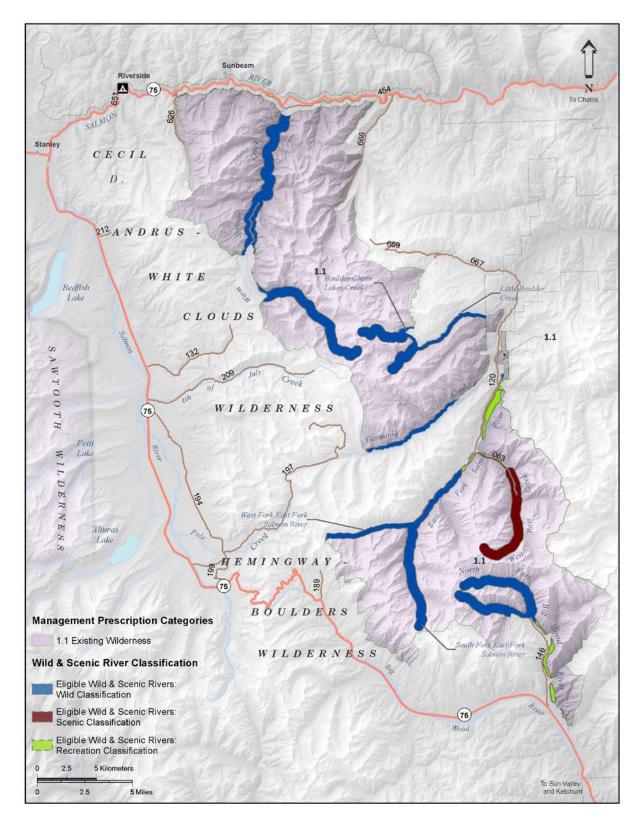


Figure 3. Management Area 21 showing Wild and Scenic River corridors and motorized access routes surrounding wilderness

6.3. Access

Vehicle access to the boundary of the Cecil D. Andrus-White Clouds Wilderness is by NFS road 209 (Fourth of July Creek) from State Highway 75, NFS road 667 (Livingston Mill), and the East Fork Road. These roads are maintained and gravel surfaced. Other access routes include NFS road 197 up Pole Creek to Germania Creek, and NFS road 120, which is an extension of the East Fork Salmon River Road. A system of trails also provides access to portions of the wilderness areas.

Most vehicle access to the boundary of the Hemingway-Boulders Wilderness is via NFS road 146 (North Fork Big Wood River) from State Highway 75 and NFS road 120, an extension of the East Fork Road. These roads are well maintained and gravel surfaced. West Pass Creek Road (NFS road 063) provides more primitive access from the north to the wilderness. Several short roads also exist off of State Highway 75 that end at the wilderness boundary and are some of the primary access points for winter recreation.

6.4. Air Quality

These wildernesses lie within Montana/Idaho Airsheds ID-17 in Custer and Blaine counties. The Idaho Department of Environmental Quality (IDEQ) regulates air quality in the state and the Forest Service participates in coordinated smoke management as a member of the Montana/Idaho State Airshed Group for wildland fire. The intent of the Montana/Idaho Airshed Group smoke management program is to minimize or prevent smoke impacts while using fire to accomplish land management objectives.

The Cecil D. Andrus-White Clouds and Hemingway-Boulders Wildernesses are located within a state designated Class II airshed regulated by the Environmental Protection Agency (EPA) as required by the federal Clean Air Act. The wilderness areas are bracketed by the nearby Sawtooth Wilderness, Craters of the Moon National Monument, and the Selway-Bitterroot Wilderness, all federal Class I areas. The highest level of protection from air pollution impacts is provided to these Class I areas, which are monitored through visibility monitoring by Interagency Monitoring of Protected Visual Environments (IMPROVE) sites. These three IMPROVE sites are reasonable approximations of visibility conditions in west-central Idaho, including the Cecil D. Andrus-White Clouds and Hemingway-Boulders Wilderness areas and have documented good visibility with periodic reductions during periods of active wildfire (UC Davis IMPROVE Report 2014).

In addition to information provided by the nearby IMPROVE monitors, lichen monitoring in the Sawtooth Wilderness provides managers with information regarding potential deposition impacts and current conditions affecting wilderness resources that may be affected by air pollution (St. Clair 2013). Late winter snowpack samples provide a very useful metric of chemical deposition from all transport sources (short and long range) through late fall and winter. Snow chemistry is cooperatively monitored with the U.S. Geological Survey Water Resource Division in Colorado at sites at Banner and Galena Summits. Analysis of snow collected at these sites shows generally low concentrations of contaminants (Ingersoll 2016). Another key component of the nearby Sawtooth and Frank Church-River of No Return Wilderness air quality monitoring has been lake chemistry sampling. Lake chemical records can indicate changes in a lake's composition, which is very diagnostic of atmospheric chemistry in sensitive lakes (Mebane and Gurrier 2006). These data are reflective of conditions in less sensitive Challis volcanics bedrock as well as the more sensitive granitic bedrock of the Idaho Batholith found within the wildernesses.

6.5. Soil, Water, Riparian, and Aquatic Resources

Elevations range from 5,943 feet on the Salmon River to 11,815 feet atop Castle Peak. Three major mountainous ranges occur within the wildernesses: Boulder Mountains, East Fork Salmon River Mountains, and White Cloud Peaks. These mountains are derived from a range of geologic parent material in which glaciation and fluvial processes have resulted in a variety of landforms. Slopes range from near vertical to 45% in the glaciated highlands and from 0% to 35% in the glacial and fluvial outwash areas. The surface geology is a mix of Idaho Batholith granitics, Challis volcanics, and remnant Paleozoic metasedimentary rocks. Soils generally have moderate-to-high surface erosion potential, and productivity is low to moderate. Subwatershed vulnerability ratings range from low to high, with the majority being low (Table 1). Geomorphic Integrity ratings for the subwatersheds vary from high (functioning appropriately) to moderate (functioning at risk) to low (not functioning appropriately), with the majority being moderate (Table 1).

Localized impacts are occurring, primarily from livestock grazing, dispersed recreation, and past mining activities. These impacts include soil instability, compaction, and reduced productivity, as well as accelerated sediment and stream channel modification, which can be individually severe.

The wildernesses are located within portions of five watersheds in the Upper Salmon River subbasin and three watersheds in the Big Wood River subbasin. Streams in the Basin-Casino, Warm Spring Creek, and Squaw-Slate Watersheds drain directly north into the Salmon River. Streams in the Big Lake-Boulder and Upper East Fork Salmon River Watersheds drain into the East Fork Salmon River, which flows north into the Salmon River. The three southern watersheds drain into the Big Wood River, which flows south towards the Snake River. The major streams in the area are the East Fork Salmon River, Warm Springs Creek, Slate Creek, Big Boulder Creek, Little Boulder Creek, Germania Creek, West Pass Creek, and North Fork of the Big Wood River. Many alpine lakes occur in the area, including Big Boulder Lakes, Boulder Chain Lakes, Chamberlain Basin Lakes, and Amber Lakes. Water Quality Integrity ratings for the subwatersheds vary from high (functioning appropriately) to moderate (functioning at risk) to low (not functioning appropriately), with the majority being moderate (Table 1).

Localized accelerated sediment impacts have occurred from dispersed recreation, livestock grazing, and historic mining. Three of the 18 subwatersheds in this area were listed in 2012 as having impaired water bodies under Section 303(d) of the Clean Water Act. These subwatersheds are Slate Creek, Wickiup-Sheep, and Harden-Rough Creek. The pollutant of concern was sedimentation/siltation for the Harden-Rough waterbodies as well as not meeting criteria for combined habitat/bio-assessments (cold water aquatic life and salmonid spawning) for the Slate and Wickiup-Sheep waterbodies. No Total Maximum Daily Load (TMDL)-assigned subwatersheds are located within the wildernesses.

No public water system subwatersheds occur in the area.

Table 1. Subwatershed (sub.) conditions within Wilderness planning area

Subwatershed Vulnerability (No. of subwatersheds)		Geomorphic Integrity (No of subwatersheds)			Water Quality Integrity (No of subwatersheds)			No. No. of 303(d) subwatersheds Sub. with Total		No. of Public Water	
High	Mod	Low	High	Mod	Low	High	Mod	Low		Maximum Daily Loads	System Subs
3	5	10	1	12	5	0	17	1	3	0	0

Within the Salmon River subbasin, the lower segments of several of the wildernesses' larger streams support spawning and rearing habitat for Chinook salmon and steelhead. Bull trout occupy these same segments and extend upstream towards the headwaters. All three species are listed and protected under the ESA, and their critical habitat has been designated. Within the area, critical habitat for Chinook salmon and steelhead is located primarily within Warm Springs Creek and the East Fork Salmon River and its tributaries. Bull trout critical habitat occurs in these same segments but also extends upstream to headwater reaches. Migratory and resident bull trout use Warm Springs Creek, the East Fork Salmon River, and their tributaries for spawning and rearing. The East Fork Salmon River and Warm Springs Creek, and their tributaries, also provide spawning, rearing, and migratory habitat for westslope cutthroat trout—a Region 4 sensitive species. Wood River Sculpin occur within the Big Wood Basin and southern portions of the Hemingway-Boulders Wilderness. Wood River Sculpin are a species endemic to the Big Wood drainage and are listed as a Region 4 sensitive species.

Most of the high alpine lakes within these wildernesses are hatchery-stocked recreational fisheries, with cutthroat trout as well as non-native eastern brook trout, golden trout, rainbow trout, and artic grayling. Impacts to native aquatic species and habitats can occur from the introduced stocked species and increased recreational use of these habitats. Aquatic habitat around these lakes is functioning at risk in some localized areas due to past and present impacts from trail alignments, dispersed recreation, livestock grazing, and historic mining. Native fish and amphibian populations are at risk from the presence of non-native fish species and the habitat impacts described above.

The Wickiup-Sheep, Big Boulder Creek, Upper East Fork Salmon, Germania Creek, Slate Creek, Prospect-Robinson Bar, Swimm-Martin, Upper Warm Springs, North Fork Big Wood-Murdock, and Upper North Fork Big Wood River subwatersheds have been identified as important to maintaining or restoring strong populations of native species and the recovery of listed fish species.

6.6. Vegetation

An estimated 9% of the two wildernesses is non-forested, or covered by grassland, shrubland, meadows, rock, or water. Much of this percentage is comprised of the Mountain Big Sagebrush, Montane Shrub, and Alpine/Dry Meadows vegetation groups. The main forested vegetation groups are High Elevation Subalpine Fir (32%), Warm Dry Subalpine Fir (20%), Cool Dry Douglas-Fir (10%), and Persistent Lodgepole Pine (10%). Aspen is a minor but important component in the Warm Dry Subalpine Fir and Cool Dry Douglas-Fir groups.

The Montane Shrub group is near properly functioning condition, although older age classes dominate structure due to factors including, but not limited to, livestock grazing impacts, non-native invasive species, and conifer encroachment. The Mountain Big Sagebrush group is functioning at risk in localized areas due to factors including, but not limited to, livestock grazing impacts, non-native invasive plant species, and conifer encroachment.

The Alpine and Dry Meadows groups are functioning at risk in some areas because of historic grazing impacts, non-native invasive plant species, and conifer encroachment. The Grass Montane and Alpine Sparsely Vegetated group is near properly function condition, although soil loss and compaction from livestock grazing and recreational impacts exist in some areas.

The High Elevation Subalpine Fir vegetation group is functioning at risk where fire exclusion has allowed shade-tolerant subalpine fir to increase in density to the detriment of the whitebark

pine component. Whitebark pine is an important component of the High Elevation Subalpine Fir group and is being affected by climate variations, insects, disease, and altered fire regimes.

The Warm Dry Subalpine Fir, Cool Dry Douglas-Fir, and Persistent Lodgepole Pine groups are functioning at risk where fire exclusion has resulted in older, more decadent stands with more climax species and less early seral species, particularly aspen.

Aspen is present in pure stands and mixed with Douglas-fir and lodgepole pine. Many stands are dying out because of environmental reasons, and localized impacts are occurring from past management practices including, but not limited to, conifer encroachment, fire exclusion, and livestock grazing. Fire hazard is increasing in Douglas-fir and lodgepole stands due to factors including, but not limited to, increasing mortality from Douglas-fir beetle and mountain pine beetle outbreaks and resulting increased fuel loads.

Riparian vegetation is functioning at risk in localized areas due to vegetation loss and stream and floodplain alterations from factors including, but not limited to, dispersed recreational sites and grazing. Campfires and user-developed routes can impact sensitive, high elevations lakes; riparian areas; and vegetation (e.g., alpine plant communities and whitebark pine). Dead and down wood levels are low in areas with dispersed camping because of fuelwood gathering. Native mesic/hydric plant communities have transitioned to species found in drier habitats in localized areas due to factors including, but not limited to, livestock grazing. Fire exclusion has had the cumulative effect of reducing wet meadows.

6.7. Botanical Resources

Region 4 sensitive species—White Cloud milkvetch, whitebark pine, slender moonwort, and Marsh's bluegrass—are found in the wildernesses. Forest Watch plant species in the wildernesses include northern sagewort, wedge-leaf saxifrage, Mt. Shasta sedge, and pointed draba/rockcress draba. No federally listed or proposed plant species are known to occur in the area, except whitebark pine, a candidate species, which occurs at high elevations throughout the wildernesses.

6.8. Non-native Plants

Spotted knapweed, diffuse knapweed, scotch and Canada thistle, yellow toadflax, black henbane, and dalmatian toadflax occur in the wildernesses or adjacent to their boundaries. The main species of concern are Dalmatian and yellow toadflax, found in small, scattered populations, and spotted knapweed, found along travel corridors. Areas adjacent to trails, roads, and high-use areas are highly susceptible to invasion by and spread of non-native plant species.

6.9. Wildlife Resources

Shrublands are used by pronghorn antelope, elk, mule deer, and moose in spring, fall, and winter and greater sage-grouse during late summer. Area forests provide habitat for the ESA-listed Canada lynx and several Region 4 sensitive species including northern goshawk, flammulated owl, great gray owl, boreal owl, three-toed woodpecker, Townsend's big-eared bat, gray wolf, and fisher. Gray wolves were re-introduced into central Idaho in 1995 and 1996 and a several packs have used potions of the wilderness areas since then.

The area also provides habitat for several migratory bird species and pileated woodpecker, a management indicator species (MIS). High-elevation alpine areas provide habitat for bighorn sheep in the spring and summer and mountain goats year-round. The wildernesses also provide habitat for wolverine, which is a Region 4 sensitive species and proposed for ESA-listing. Much

of the area provides nesting and foraging habitat for migratory land birds and general habitat for wide-ranging mammals such as bear and mountain lion.

Terrestrial habitat is functioning at risk in some areas due primarily to human-caused disturbance; grazing; and long-term fire exclusion, which has altered some habitats. Recreational uses directly disturb species such as bighorn sheep and wolverine (during the reproductive denning period) and degrade habitat from the use of campsites and campfires and the creation of unauthorized user-developed routes. The risk of disease transmission between pack goats and bighorn sheep is also a concern. Introduced spotted knapweed and other non-native species are affecting sagebrush communities and other habitats. Current livestock and recreational stock grazing in some areas is preventing localized areas to recover from grazing impacts.

Idaho's State Wildlife Action Plan (IDFG 2017) provides a framework for identifying and conserving Species of Greatest Conservation Need (SGCN) and the habitats upon which they depend. The Forest participated in working groups that assisted the State in identifying conservation actions important for SGCN. The State Wildlife Action Plan is organized by ecological sections, and the wildernesses fall mostly within the Challis Volcanics Section with a small portion of the Cecil D. Andrus-White Clouds Wilderness in the Idaho Batholith Section. Within each section, target habitats and target species were identified for conservation actions. The wildernesses contain nine target habitats (Dry Lower Montane–Foothill Forest, Sublpine–High Montane Conifer Forest, Aspen Forest & Woodland, Lower Montane–Foothill Grassland & Shrubland, Sagebrush Steppe, Alpine & High Montane Scrub, Grassland & Barrens, Riverine–Riparian Forest & Shrubland, Springs & Groundwater- Dependent Wetlands, and Lakes, Ponds & Reservoirs) and five target taxa (Bat assemblage, Wolverine, Bighorn Sheep, Pollinators, and Mountain Goat). In addition to the Statewide Wildlife Action Plan, the Idaho Department of Fish and Game (IDFG) has developed various species management plans, which help guide management of wildlife in the wildernesses.

The Memorandum of Understanding (MOU) between the IDFG and the Forest Service (2010-MU-11062754-027) identifies that a separate MOU for managing fish and wildlife in wilderness areas in Idaho is needed. Until an Idaho-specific wilderness MOU is developed, the guidelines within the document, *Policies and Guidelines for Fish and Wildlife Management in National Forest and BLM Wilderness* (USDA Forest Service, BLM, and AFWA 2006) will serve as a framework for enhanced cooperation between State fish and wildlife agencies, the Forest Service, and the BLM for fish and wildlife management in wilderness. The guidelines in this document will be applied for managing activities including (but not limited to) use of motorized equipment, application of pesticides, fish and wildlife research and management surveys, facility development and habitat alteration, conservation of threatened and endangered species, population sampling, fish stocking, wildlife damage control, and visitor management to conserve wilderness wildlife resources.

6.10. Recreation Resources

The Cecil D. Andrus-White Clouds Wilderness and Hemingway-Boulder Wilderness provide outstanding opportunities for solitude and primitive recreation. A variety of dispersed recreational activities occur throughout the area, including hiking, backpacking, stock packing, hunting, fishing, horseback riding, backcountry skiing, wildlife viewing, photography, mountaineering, and other pursuits. These wildernesses are in Idaho Fish and Game Management Units 36, 36A, and 48.

Approximately 95 miles of trail occur within the Cecil D. Andrus-White Clouds and Hemingway-Boulders Wilderness areas, ranging from a minimally developed Class 1 trail to a more developed Class 3 trail, providing a variety of wilderness trail opportunities (for trail standards see USDA Forest Service 2008). Additionally, both wilderness areas offer extensive opportunities for off-trail exploration that supports opportunities for challenge, risk, and solitude.

Due to landscape and topographic features, most recreational use is funneled toward lake basins in sensitive, high-elevation zones. As a result, certain areas receive relatively high and concentrated recreational use; predominantly at Boorn Lakes, Chamberlain Lakes, Boulder Chain Lakes, and Big Boulder basin in the Cecil D. Andrus-White Clouds Wilderness. This use has resulted in soil compaction, fire-scarred rock, loss of and damage to vegetation and ground cover, and increased erosion.

Some campsites or stock tie areas are denuded of dead and down wood, and living trees have been damaged by recreationists. Whitebark pine is used for fuelwood and used by visitors to build campsite structures. Campfire rings, and the associated scars and trash, appear throughout the area, including at low use and sensitive high-alpine areas.

The current group size limit of 20 persons and 25 head of stock (Special Order 0414-04-034) is greater than most campsites can accommodate without unacceptable impacts to resources; impacts include unauthorized user-developed routes, campsite expansion, and sanitation concerns, particularly within sensitive environments such as the high alpine lakes. Trailhead registration and wilderness ranger contacts indicate that some groups exceed the group size limit, particularly at popular destinations. Research shows that large groups affect the solitude of other users.

Recreational stock use, primarily horses and mules, is typically concentrated on developed trails. Pack goats and llamas are infrequent users of these areas. Current regulations limit recreational stock to 25 head in one group (Special Order 0414-04-034). Even with these limitations, recreational stock use and recreational grazing at high-elevation lakes is impacting soil; vegetation, including whitebark pine; riparian processes; and aquatic biota. Some conflicts between general recreation and recreational stock uses may occur due to stock waste, vegetation damage, and trail encounters.

Few recreational developments are found in the wildernesses. Trail structures are typically limited to puncheons and turnpikes made of native materials; however, one structural timber bridge was installed as part of an accessible trail development on Murdock Creek Trail in the Hemingway-Boulders Wilderness prior to designation. In an effort to concentrate impacts caused by recreational stock, nine stock tie areas are identified in high-use portions of the Cecil D. Andrus-White Clouds Wilderness. These sites are provided with either hitching posts or cable highlines. Signs are placed at trail junctions and to identify stock tie areas. Campsites are undesignated, primitive sites with no developments.

No motorized trails or roads were closed because of wilderness designation. However, all trails were closed to mechanized use, including some previously used by mountain bikers. Some use continues illegally, primarily on Castle Divide (NFS trail 047) and Antz Basin/Warm Springs (NFS trail 671).

In some places, roads and motorized trails define the boundary of the Cecil D. Andrus-White Clouds and Hemingway-Boulders Wilderness areas; notably Rough Creek (NFS trail 647), Garland Lakes/Martin Creek (NFS trails 646 and 648), Germania Creek (NFS trail 111), Frog

Lake Loop (NFS trails 047 and 682), South Fork of the East Fork of the Salmon River (NFS trail 112), and North Fork Wood River road. Slate Creek and West Pass Creek roads and Warm Springs Trail "cherry-stem" into the wilderness. Pre-existing vehicle routes accessing dispersed campsites and unauthorized, user-developed routes intrude on the wilderness boundaries and degrade wilderness character. Some areas of concern include the North Fork of the Big Wood River, Upper East Fork of the Salmon River, Lower Warm Springs, and Slate Creek. During the winter, snowmobilers are drawn to high-elevation heavy snowpack and boundaries are difficult to sign. The sights and sounds of motorized and mechanized uses can penetrate the wilderness and affect a visitor's experience. These factors present a range of management challenges, including the potential for motorized or mechanized incursions.

Permitted livestock grazing may impact recreational experiences in areas where active allotments exist. Impacts from livestock grazing include livestock waste, vegetation trampling and trails, negative interactions with guard dogs, and the presence of developments such as fencing and water troughs.

Section 4(d)(6) of the Wilderness Act states that commercial services, such as outfitter and guides and/or pack stock rentals, may be performed to "the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas." This recognition is reiterated in the enabling legislation, Section 102(f). The agencies acknowledge the MOU between Regions 1, 4, and 6 of the Forest Service, the Idaho State BLM office, and the Idaho Outfitter and Guide Licensing Board (IOGLB). Agencies will work with the IOGLB to manage commercial services within the wilderness, such as when undertaking the needs assessment through the land use plans.

Traveling by horseback in these lands, now designated as wilderness, is a traditional use with a long history. Outfitters and guides provide services to support recreational activities of wilderness visitors. Outfitters also assist agencies with trail maintenance, campsite maintenance, and education.

Six outfitters hold priority use permits for operations in the Cecil D. Andrus-White Clouds Wilderness, five are administered by the Sawtooth NRA and one is administered by the Challis Field Office. Of these six outfitters, three also operate in the Hemingway-Boulders Wilderness. These outfitters offer guided hiking, mountain climbing, skiing, horse packing, hunting, and fishing opportunities. Two assigned outfitter campsites are located in the Cecil D. Andrus-White Clouds Wilderness and one is located in the Hemingway-Boulders Wilderness. These sites have some development, including tent and stock structures. Temporary use outfitting and guiding occurs in these areas as well. The type and amount of temporary outfitter and guide use varies from year to year.

Management presence typically includes two to four wilderness rangers, a Wildlands Education Coordinator, and two trail maintenance crews that split their time between the Sawtooth, Cecil D. Andrus-White Clouds, and Hemingway-Boulders Wilderness areas. Several non-profit organizations lead volunteer trail maintenance and reconstruction projects. Volunteers and interns are also used to augment ranger patrols and support the Wildlands Education Program, providing information and education to users prior to their wilderness visit or during their backcountry visit.

6.11. Cultural Resources

Cultural themes in this area are represented by prehistoric occupation, Euro-American exploration, trapping, mining, ranching, and recreation. Native American tribes continue to use the tributaries of the Salmon River and other natural resources in this region, and certain peaks within the new wildernesses are known to be sacred for these tribes. Historic activities beginning in the 1870s, such as mining and ranching, have left related installations or structures that may be considered for historic value. The high-elevation lakes within the wildernesses have been recreation destinations since the Forest Service was established in 1906. Current impacts to cultural resources include grazing, threats from fire suppression, vandalism, and illegal collection of cultural artifacts.

6.12. Rangeland Resources

This area contains part or all of three cattle allotments, two sheep allotments, and the Ketchum-Stanley sheep driveway (Table 2).

Table 2. Grazing allotments within the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wildernesses

Allotment	Acres	Wilderness	Wilderness Acres	Percent of Wilderness in Allotment	Percent of Allotment in Wilderness
North Fork/Boulder Creek ^a	34,678	Hemingway- Boulders	13,631	20.0%	39.3%
Upper East Fork ^{a,}	58,615	Hemingway- Boulders	36,593	53.8%	62.4%
Lower East Fork ^a	73,076 Hemingway- Boulders		98	0.1%	0.1%
Lower East Fork ^a	73,076	Cecil D. Andrus-White Clouds	15,629	17.2%	21.4%
Warm Springs Meadow ^{a,b}	18,636	Cecil D. Andrus-White Clouds	5,943	6.5%	31.9%
East Fork ^c (BLM)	21,480	Cecil D. Andrus-White Clouds	445	0.5%	2.1%

^aThis allotment is administered by the Forest Service.

Current management of the active allotments generally involves rest/rotation or deferred rotation grazing systems in which no unit of an allotment receives livestock use that persists throughout the plant growing season. Timing of livestock grazing within each unit can vary from year to year, depending on variations in unit rotations, available forage, and livestock management (such as distribution and numbers turned out). Consequently, exact numbers and dates of livestock in the wilderness areas also vary from year to year. Routine livestock management and improvement maintenance is accomplished using non-motorized methods.

^bThe Warm Springs Meadow Cattle and Horse Allotment has been closed through the donation process.

^cThis allotment is administered by the Bureau of Land Management

^dThe Upper East Fork Allotment has been closed through the donation process.

Two water troughs, three fence lines, and one exclosure occur in the Upper East Fork Allotment within the Hemingway-Boulders Wilderness and one exclosure, two fence lines, and two troughs occur in the Lower East Fork Allotment within the Cecil D. Andrus-White Clouds Wilderness.

6.13. Mineral Resources

Mining and prospecting have historically occurred in the Big Boulder Creek, Cherry Creek, Germania Basin, Washington Basin, and West Pass Creek areas. A minor level of personal mineral collecting occurs within the wildernesses.

Subject to valid existing rights, all federally managed lands located in wilderness are withdrawn from all forms of mineral entry, location, leasing, and patent. Public Law 92-400, the enabling legislation creating the Sawtooth NRA on August 22, 1972, withdrew those federal lands from mineral entry; however, valid existing rights established prior to the 1972 date for those Sawtooth NRA lands incorporated within the new wilderness are preserved. A total of 55 unpatented mining claims occurred within the wildernesses with valid existing rights as of the 1972 Sawtooth NRA withdrawal. While no active mineral exploration or mining occurs, the potential for mineral development may be considered moderate.

6.14. Fire Management

From 1997 to 2016, 23 wildfires have burned 10,921 acres of the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wilderness areas. Seventeen of these fires were caused by lightning (74%) and six were caused by campfires (26%). Most acreage burned during the 2005 Valley Road Wildfire, which burned into what is now the Cecil D. Andrus-White Clouds Wilderness. Historically, a full suppression strategy has been used on most fires across the two wildernesses.

From 1997 to 2016, all wildfires caused by campfires occurred less than 1.0 mile from a trail or lake. Trailheads, campgrounds, roads, and high-use recreational areas adjacent to the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wildernesses have historically had more ignitions and a higher percentage of human-caused fires compared to the wilderness areas themselves. This trend may influence the probability of a wildfire burning into designated wilderness.

Historically, the fire regime in much of the Hemingway-Boulders and Cecil D. Andrus-White Clouds Wilderness areas could be characterized as having infrequent, large fires that burned with relatively high severity. Fire intervals, or the time elapsed between fires occurring, ranged between 70 and 300 years across the majority of each wilderness. Tree mortality greater than 50% was common, although patches of unburned vegetation or low severity typically occurred within the perimeter of large wildfires. Historically, a high degree of variance in fire interval and fire size has occurred, largely due to climate variability and/or climate change, elevation, and vegetation type.

Substantial lodgepole and whitebark pine community mortality has occurred over the last 10–15 years because of mountain pine beetle outbreaks. In many locations within the wildernesses, an abundance of snags and surface fuels now exist, making high-intensity and high-severity fire more likely.

Fire Regime Condition Class (FRCC) is a relative measure describing the degree of departure from the historical fire regime (Hann and Bunnell 2001). Approximately 12% of the wildernesses

is mapped as having a low departure (FRCC 1), 52% is moderately departed (FRCC 2), and 5% has a high departure (FRCC 3). Approximately 28% of the wildernesses is mapped as unburnable. At the landscape scale, FRCC suggests the fire regime and vegetation across half of the wildernesses has been moderately altered from its historical range of conditions. Fire exclusion has affected both wildernesses; but the overall impact on vegetation communities and fuel loading has been lower compared to vegetation communities that historically burned with higher frequency and lower intensity.

6.15. Lands and Special Uses

Non-recreation lands and special uses permits and issues include diversions and associated facilities, research permits, and commercial filming. Three existing diversions (Bowery, Deer Creek, and Last Chance) occur within the wildernesses. The number and type of facilities in wilderness will depend upon the final boundary survey. No private inholdings occur within these wildernesses.

6.16. Management Direction

6.16.1. General Direction

The Wilderness Act provides general direction for managing wilderness and protecting wilderness values. The Act states "... it is hereby declared to be the policy of the Congress to secure, for the American people of present and future generations, the benefits of an enduring resource of wilderness...unimpaired for future use and enjoyment as wilderness." It further states that Congress intended to manage these wildernesses so that, "...the earth and its community of life are untrammeled by man..." Wilderness is defined as an area "retaining its primeval character and influence..." and it "...appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; has outstanding opportunities for solitude or a primitive and unconfined type of recreation..." and "may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

No other land designations are, by law, required to be managed as untrammeled. The Wilderness Act dictates not only the goals of stewardship but also how management is to be approached—with the utmost humility and restraint. When there is an opportunity for restraint, wilderness legislation directs the managing agency to scrutinize its actions and minimize control or interference with plants, animals, soils, water bodies, and natural processes. This legislative requirement is unique among all types of land management, defining wilderness in terms of how it is managed rather than what is there (Landres et al. 2015). Untrammeled is frequently described as the "wildness" in wilderness.

6.16.2. Regulation and Policy

The Forest Service will apply the standards and guidelines outlined in this WMP, in accordance with the level of compliance as set out in this document and in accordance with the National Forest System Land Management Planning, New Plan Development regulations (36 CFR 219.7) and FSM 2320. For the portion of the Cecil D. Andrus-White Clouds Wilderness on BLM-administered lands, the BLM will also manage consistent with standards and guidelines outlined in this WMP and in accordance with management direction identified in BLM Manual 8561 Wilderness Management Plans, BLM Manual 6340 Management of Designated Wilderness, and 43 CFR 6300.

The Forest Service manages wilderness to meet the five primary objectives, as outlined in FSM 2300, "Chapter 2320—Wilderness Management". The BLM is guided by the objectives (referred to as goals in the BLM manual) for the management of wilderness, as defined in Appendix 1 of the BLM wilderness management planning manual (BLM Manual 8561²). Forest Service manual direction and BLM manual direction are compatible.

6.16.3. Desired Condition

The Forest Plan sets forth the following desired condition for designated wilderness (USDA Forest Service 2012):

People visiting wilderness within the National Forest can find outstanding opportunities for primitive and unconfined recreation, including exploration, solitude, risk, and challenge. The area is primarily affected by the forces of nature, with man's imprint substantially unnoticeable.

The two wilderness areas covered in this WMP possess the qualities inherent in wilderness and were, therefore, designated by Congress as wilderness. The mandate from the Wilderness Act for each agency is to preserve wilderness character. This mandate is reiterated in the desired condition for wilderness as described above in the Sawtooth Forest Plan. This desired condition applies to the Hemingway-Boulders Wilderness and Cecil D. Andrus-White Clouds Wilderness.

The Sawtooth Forest Plan includes the various Forest-wide Goals, Objectives, Standards, and Guidelines, specific to designated wilderness (Table 3; USDA Forest Service 2012).

Table 3. Forest-wide Goals, Objectives, Standards, and Guidelines, specific to designated wilderness

Direction	Number	Management Direction Description
Goal	WRGO01	Protect wilderness values as defined in the 1964 Wilderness Act. Improve opportunities and experiences through the development of wilderness management plans, partnerships with permittees and user groups, and interpretive and educational opportunities.
Objective	WROB02	Manage high mountain lakes within designated wilderness to be consistent with policies for fish and wildlife management in National Forest and Bureau of Land Management wilderness (Forest Service, BLM, and AFWA 2006 ^a). Jointly develop management agreements with the Idaho State Fish and Game Department for such areas.
Guidelines	WRGU01	Use public education and interpretation programs to foster wilderness values, and to maintain environmental qualities and primitive recreation experiences.

Source: USDA Forest Service 2012

^aUpdated from the Forest Plan direction to reflect new agreement date.

6.16.4. Management Prescription Category 1.1—Existing Wilderness

Management Prescription Categories (MPCs) are established in the Forest Plan. MPC 1.1 applies to all areas on the Sawtooth National Forest designated by Congress as wilderness. The main management objective is to preserve wilderness attributes, including natural appearance, ecological integrity, opportunities for solitude, opportunities for primitive recreation, and

² If revised, manual number may change.

_

identified special features. The area is managed to allow ecological processes to prevail, with little or no evidence of human development.

The Forest Plan contains the following Standards that apply specifically to MPC 1.1:

- Management actions shall be designed and implemented in manner that protects wilderness character.³
- Mechanical vegetation treatments, including salvage harvest, are prohibited.
- Road construction or reconstruction may only occur where needed and determined to be the minimum necessary:
 - o To provide access related to reserved or outstanding rights, or
 - o To respond to statute or treaty.
- Fire suppression strategies and tactics shall be in accordance with the appropriate WMP.⁴

Additional management guidance for the Sawtooth NRA is found in the Sawtooth Forest Plan. This management direction must also be followed (e.g., Forest-wide guidance, or substantial impairment evaluation), in addition to the wilderness management direction included in this WMP.

7. Proposed Action

The following management approach is intended to programmatically guide management of the Hemingway-Boulders Wilderness and Cecil D. Andrus-White Clouds Wilderness. Implementation of individual, site-specific projects will depend on annual budgeting and completion of site-specific NEPA analyses. The intent of the management direction is to protect, preserve, and perpetuate wilderness character.

Management approach detailed in this section is to be applied across the entire area identified in the Sawtooth Forest Plan as MA 21 and the BLM portion of the Cecil D. Andrus-White Clouds Wilderness. The section, "Management Zones" establishes zones and describes varying direction by zone.

This direction amends the Sawtooth Forest Plan. Most direction is new, as these areas are newly designated as wilderness. Some direction, indicated with an asterisk (*), has been carried forward, generally *with modifications*, from previous management area direction in the Forest Plan. See Appendix 2 to compare the original management area direction and the revisions proposed for MA 21.

Management direction follows the numbering convention established in the Forest Plan. The first two numbers indicate the management area, in this case 21. The subsequent numbers increase numerically from 01 (e.g., 2101, 2102). However, the numbers appear out of order, as the

³ Editorial change to remove incorrect reference. Original language: Management actions shall be designed and implemented in accordance with the Frank Church—River of No Return Wilderness Management Plan.

⁴ Editorial change to remove incorrect reference. Original language: Fire suppression strategies and tactics shall be in accordance with the Frank Church—River of No Return Wilderness Management Plan.

numbering convention reflects the organization as it appears in the Forest Plan amendment. Here, the wilderness section is brought forward, as it sets the stage for, and is applicable to, the resources that follow.

Changes to the approved direction would require a Forest Plan amendment or NEPA analysis for the BLM portion of the Cecil D. Andrus-White Clouds Wilderness. If, for instance, monitoring shows that a certain standard is not working, or that a new guideline is needed, these changes may be made with a Forest Plan amendment.

7.1. Wilderness

The direction in this section applies to only the Hemingway-Boulders Wilderness and the Cecil D. Andrus-White Clouds Wilderness. Management direction for the Sawtooth Wilderness is located in Appendix I of the Sawtooth Forest Plan.

located in Appendix I of the Sawtooth Forest Plan.			
Goals			
2103	Protect and preserve wilderness character.		
2104	Manage and coordinate all resources and uses within the wilderness in a manner that recognizes the interrelationships of these components and their effect on wilderness character.		
2105	Preserve the untrammeled quality of wilderness character by refraining from the deliberate manipulation or management of the biophysical environment except as necessary to protect or enhance overall wilderness character, to preserve human life, or to accommodate other activities in compliance with applicable laws.		
2106	Provide for outstanding opportunities for solitude or primitive and unconfined recreation as long as visitor uses can be offered without degrading overall wilderness character, other significant resources, or public purposes of wilderness.		
2107	Promote the natural quality of wilderness character by allowing natural process to dominate.		
2108	Allow for special provision land uses determined by the Wilderness Act or designating legislation while minimizing developments, degradation to naturalness, and other impacts to the wilderness resource.		
2109	Protect and preserve the undeveloped quality of wilderness character by removing nonconforming and/or unnecessary facilities and installations and minimizing human-caused surface disturbances. National Historic Preservation Act protocols will be followed.		
2110	Manage the Forest Service and BLM portions of the Cecil D. Andrus-White Clouds Wilderness through a single management plan to provide a maximum amount of management consistency in wilderness protection across administrative boundaries.		

Objectives

- Ensure, where possible, management between the Forest Service and BLM, including regulation of visitor uses, appears seamless to the public. Where differences in agency policy occur, and if allowable by law, regulation, or policy, the WMP will endeavor to apply the stricter policy to the adjacent land of the other agency.
- Ensure the BLM and Forest Service assist one another in wilderness management activities, including education and public outreach, recreational use, emergency management, law enforcement, fire management, and monitoring.
- Incorporate partners and volunteers to accomplish work in these wilderness areas.
- Minimize administrative flights that cannot avoid airspace over wilderness and fly them at the highest altitude possible (minimum 500 feet above ground level) to minimize disturbance to wilderness character. Avoid airspace over wilderness by routine administrative flights.

Standards

- Implement proposed actions only when necessary to meet minimum requirements for the administration of the areas as wilderness and to have the least impact to wilderness character. Using an MRA is required for any non-emergency action, including those proposed by State and federal agencies, that includes a prohibited use as described in Section 4(c) of the Wilderness Act, or for other actions that may impair wilderness character.
- Remove existing structures, developments, and installations unless they are determined to be the minimum necessary for the administration of the area as wilderness, or are:
 - a) Associated with existing rights,
 - b) Authorized range developments; or
 - c) Of significant historical or cultural value as identified by the Forest Archaeologist in consultation with the Idaho State Historic Preservation Officer, following National Historic Preservation Act protocols.
- Allow natural processes to dominate and maintain ecosystem functions, including natural restoration. Where human activities have substantially degraded the wilderness condition, active management may be considered to restore wilderness character. In addition to an MRA, the Framework for Evaluating Ecological Intervention (or most current) is a valuable method that may be used for evaluating necessary and appropriate action.
- Use locally sourced native seed or plants where reseeding or replanting is determined necessary.
- 2119* Manage vehicle access points to prevent unauthorized vehicle use by posting appropriate boundary signage and blocking or rehabilitating unauthorized routes.

- Assess impacts and determine if management actions are needed to maintain wilderness character (see "Wilderness Monitoring" section) if campsites and travel encounters increase by 10% or more over two reporting periods.
- Assess impacts and determine if management actions are needed to maintain wilderness character if recreation site condition class increases by 5% or more over two reporting periods (see "Wilderness Monitoring" section).
- Assess impacts and determine if management actions are needed to maintain wilderness character if total miles of user-developed routes (i.e., unauthorized trails) increase by 3% or more over two reporting periods (see "Wilderness Monitoring" section).
- 2123 Ensure management activities are consistent with wilderness zone descriptions.

Guideline

- Use natural openings for helicopter landing areas when needed for fire or emergency operations to avoid impacts to wilderness character and minimize intrusions.
- Implement the wilderness character monitoring framework identified in *Keeping It Wild 2* (Landres et al. 2015), in addition to the Forest Service *Wilderness Character Monitoring Technical Guide* (Landres, et al. in press), or most current agency direction. For the interagency Cecil D. Andrus-White Clouds Wilderness, the Forest Service protocols for wilderness character monitoring will be applied across the wilderness, and the Forest Service will take the lead in reporting wilderness character trends and data.

7.2. Sawtooth National Recreation Area General Management

Much of the Hemingway-Boulders Wilderness and Cecil D. Andrus-White Clouds Wilderness is located in the Sawtooth NRA; therefore, the following Sawtooth NRA general management direction also applies therein and must work in concert with the Wilderness Act.

Standards

- 2101* Manage lands to ensure the preservation and protection of the natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the associated recreational values in accordance with Public Law 92-400.
- Management, utilization, and disposal of natural resources on federally owned lands (such as timber, grazing, and mineral resources) shall be allowed only insofar as their utilization does not substantially impair achievement of the purposes for which the recreation area was established. (As a management approach, "Substantial Impairment" is defined as that level of disturbance of the values of the SNRA that is incompatible with the standards and guidelines of the Forest Plan. The proposed activities shall be evaluated as to: 1) the period of impact; 2) the area affected; and 3) the importance of the impact on the SNRA values. Use process guidance in Appendix I of the Forest Plan to assist in determining compliance with this standard.)

7.3. Eligible Wild and Scenic Rivers

Standard

- Manage the eligible Wild and Scenic River corridors to their assigned classification standards and preserve their outstandingly remarkable values (ORVs) and free-flowing status until the rivers undergo a suitability study and the study finds them suitable for designation by Congress or releases them from further consideration as Wild and Scenic Rivers.
- The full range of fire suppression strategies may be used to manage wildfires. Emphasize strategies and tactics that minimize the impacts of suppression activities on the river classifications, ORVs, and wilderness character.
- Wildland fire (prescribed fire and/or wildfire) may be used as management tools in any river corridor as long as ORVs and wilderness character are maintained within the corridor.

7.4. Air Quality

<u>Goals</u>

- Ensure that air quality over the wilderness is protected from pollution in excess of established standards.
- 2130 Manage smoke, while achieving wilderness management objectives, to provide for desirable air quality and visibility.

Objectives

2131 Monitor visibility to determine baseline air quality information through existing IMPROVE sites.

<u>Guidelines</u>

- 2132 Identify Wilderness Air Quality Values (WAQV) in an Air Quality Management Plan.
- Evaluate potential effects of proposed pollution sources from activities of outside the wilderness for violation of Class II Prevention of Significant Deterioration standards within the wilderness.
- 2134 Conduct monitoring procedures in a manner compatible with the preservation of wilderness character.
- 2135 Recognize fire as a natural process that may temporarily cause smoke impacts.

7.5. Soil, Water, Riparian, and Aquatic Resources

Goals

2136 Protect soil, water, riparian, and aquatic resources to preserve wilderness character.

Maintain soil quality and long-term soil productivity by maintaining soil porosity; organic matter; hydrologic function (e.g., infiltration, water table, drainage, percolation); and buffering capacity (e.g., soil filtering and chemical regulation properties).

Objective

- Within the Germania Creek subwatershed, projects or activities must provide for protection of habitat for the isolated bull trout population above the falls on Germania Creek.
- 2139* Reduce effects to fish habitat and water quality from livestock grazing within the tributaries of the East Fork Salmon River and Slate Creek subwatersheds. The Upper East Fork Salmon subwatershed is the priority.
- 2140* Protect spawning and rearing areas within streams and rivers during critical spawning and incubation periods. The Upper East Fork Salmon subwatershed is the priority.

7.6. Vegetation

Objective

- Allow natural ecological processes to define the composition, abundance, and distribution of native biotic communities.
- Restoration activities may be considered and evaluated to return native biotic communities to natural patterns of abundance and distribution in areas where conditions are unable to recover naturally from human-caused disturbance (also see Objective 21118).

7.7. Botanical Resources

Goal

2143 Protect Region 4 sensitive species habitat to preserve wilderness character.

Objective

Manage fire suppression tactics, livestock grazing, mining activities, recreational use, dispersed camping, firewood collection for personal use, or trail construction and maintenance to minimize impacts to whitebark pine.

7.8. Non-native Plants

Goal

2145 Minimize impacts to the untrammeled quality of wilderness character while effectively treating non-native, invasive plant species to maintain the natural quality.

Objective

Refer to the *Boise and Sawtooth National Forests Invasive Plant Species Treatments Final Environmental Impact Statement* (USDA Forest Service 2017, or most current) and the forthcoming BLM *Challis Field Office Integrated Weed Management Program Environmental Assessment* (or most current) for direction on non-native invasive plant treatments within the two wilderness areas.

7.9. Wildlife Resources

Goal

Allow natural processes and the forces of natural selection to be the primary factors determining the diversity of wildlife and fish species and their habitats.

Objectives

- Ensure healthy, viable, and naturally distributed wildlife populations in an effort to retain the areas' natural quality.
- 2149* Provide for high-quality mountain goat and bighorn sheep habitat by reducing summer and fall forage competition between domestic livestock where allotments overlap mountain goat and bighorn sheep habitat.
- Lakes and streams currently without fish that have been stocked in the past, may be considered for stocking if the land management agency and the State agree that no appreciable loss of scientific values or adverse effects on wilderness character will occur. Stocking previously unstocked waters is undesirable. In cooperation with the Idaho Department of Fish and Game, fishless lakes and streams that have never been stocked should remain fishless.
- Removal of fish from occupied waters may be considered to reestablish historic habitat for the return of native fish species, or to remove either native or non-native fish from historically fishless waters. When federal and State agencies agree removing fish is necessary for protecting and improving wilderness character, removal may occur contingent upon an MRA and NEPA analysis, as required. Methods may include using biological controls, such as the temporary use of a sterile, non-native predatory fish species.
- 2152 Minimize contact between domestic animals (e.g., pack goats, dogs) and bighorn sheep.

Standards

- Allow fish stocking by the State agency only in coordination with the Forest Service to perpetuate or recover native threatened or endangered species within historically occupied waters, or to reestablish or maintain non-native fish where established prior to wilderness designation and likely to survive perennially.
- 2154 Prohibit pack goats within Pack Goat Exclusion Area, as described in Figure 4. The boundary was modified to provide clarity for pack goat users by following trails and natural geographic features, such as ridgelines and drainages.

- 2155 Require the following measures from the North American Packgoat Association to minimize contact between bighorn sheep and domestic pack goats:
 - All pack goats will be on leads or have leads attached to their collar or halter at all times.
 - All pack goats will be tethered at night within 30 feet of humans.
 - If bighorn sheep are observed within 100 yards of a potential camping area, pack goat users will take all reasonable measures to move their campsite to a different area. Hazing techniques may be used to deter bighorn sheep from moving closer to campsites if necessary.
 - Pack goat numbers will be limited to a maximum of three (3) pack goats per person, and a maximum of nine (9) pack goats per group.
 - When bighorn sheep are using trails for travel, pack goat users will move 100 yards off of the trail. If that distance is not attainable, the pack goat user will travel back along the trail away from the bighorn sheep and exit the trail when the 100-yard distance can be reached. Pack goat users will stay off the trail until bighorn sheep have passed. If visibility is limited to less than 100 yards up trail, a pack goat user will go to the trail and observe for bighorn sheep before continuing with pack goats.
 - When accessing browsing areas and water, a pack goat user will check for the
 presence of bighorn sheep before allowing access for pack goats. Whenever
 possible, water access will be limited to areas of unlikely bighorn sheep use.
 - If direct contact of a pack goat and a bighorn sheep is observed, the location and as much of a description as is possible of the sheep and incident will be written, photographed if possible, and reported to the appropriate agency as soon as reasonably possible.
 - If any pack goat becomes lost, missing, or separated from the owner and herd, every effort will be exhausted to locate and recover the lost pack goat. If the owner is unable to locate and recover the lost pack goat, the owner must contact the Sawtooth National Recreation Area by telephone immediately. A full disclosure of all available information shall be provided, including the last known location (GPS coordinates, legal description, geographic location, or name or number of trail or trailhead); the circumstances that resulted in it becoming lost; a description of the pack goat; and a description of any equipment it was carrying.
- 2156 Continue to work cooperatively with IDFG to reduce the risk of disease transmission or other stressors between bighorn sheep and domestic animals.

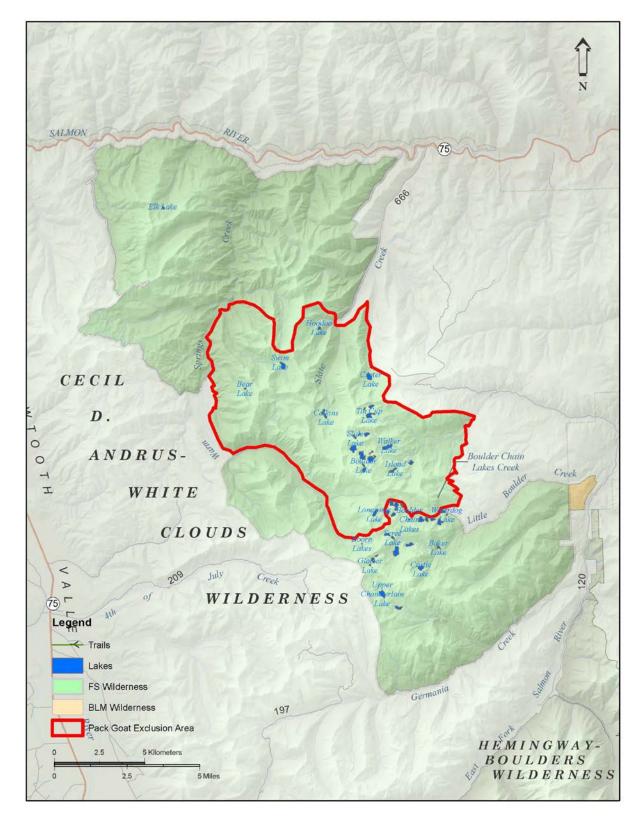


Figure 4. Map of the Pack Goat Exclusion Area, as modified

7.10. Recreation Resources

Commercial Services are addressed under a separate subheading below.

Goal

- 2157 Provide for the use and enjoyment of wilderness while maintaining outstanding opportunities for solitude or primitive and unconfined recreation.
- Continue to be proactive and adaptive when planning for and managing visitor use, including the physical and social setting, by using a variety of strategies and tools while preserving wilderness character. Use commonly accepted practices such as those laid out in the *Interagency Visitor Use Management Framework* (or more current strategy; IVUMC 2016) to guide and inform the decision-making process.

Objectives

- Use visitor education and indirect management techniques to achieve objectives, preferring indirect methods of reducing visitor impact. Consider direct methods when indirect methods are insufficient to adequately protect wilderness character. Do not wait until wilderness character has been irretrievably degraded to implement management restrictions.
- Maintain or improve existing opportunities for solitude by monitoring visitor use patterns that trigger the need for additional management actions. Refer to the "Wilderness Monitoring" section below and Chapter 4 of the Forest Plan (USDA Forest Service 2012) for monitoring requirements.
- 2161 Conduct law enforcement activities in a manner that minimizes impacts to wilderness character.
- Favor education and design (i.e., reconstruction and location of trails and campsites) for ensuring compliance with regulations and recommendations.
- 2163 Manage trails and routes to prevent resource damage and to minimize proliferation of unauthorized user-developed routes.
- 2164* Manage dispersed campsites and recreational activities to prevent them from expanding or deteriorating beyond a point where impacts to riparian and aquatic resources cannot be effectively addressed.

Standards

- Limit group size to a maximum of 12 people. (See exception for Native American tribes in the Tribal Rights and Interests section.)
- Limit the combined number of recreational stock in one group to 14 head of stock.
- 2167 Prohibit shortcutting trail switchbacks on foot or with recreational stock.
- Only allow campfires below 8,800 feet elevation and within 200 yards of Walker Lake, Island Lake, Upper and Lower Chamberlain Lakes (9,477 and 9,197 feet), and Boorn Lakes (Figure 5 and Figure 6).

- 2169 Prohibit tethering recreational stock within 200 feet of lakes, streams, and springs, with the exception of agency provided tie-up sites where topography does not allow for tethering more than the 200 feet from lakes, streams, and springs.
- 2170 Prohibit grazing by recreational stock within 200 feet of lakes, streams, or springs.
- Limit tying of recreational stock to live trees to a maximum of one hour.
- 2172 Require human waste to be buried and covered, at least 200 feet from water, campsites, and trails; or packed out.
- 2173 Prohibit recreational equine stock use within the following drainages: Slickenslide Creek above Quiet Lake; Boulder Chain Lakes Creek above Lodgepole Lake; Gunsight Creek; Bighorn Creek; and Big Boulder Lakes, excluding Walker and Island Lakes (see Figure 7).
- 2174* Manage winter recreation to minimize conflict with high-elevation wildlife species, including mountain goats and wolverine.
- 2175* Prohibit constructing new trails unless determined to be the minimum necessary to protect wilderness character.
- 2176 Require the use of weed-free feed or pellets for stock animals (FS Order Number 04-00-097; BLM Supplementary Rule LLID-931-000-L1020-0000-JP-0000252R).
- 2177 Remove the following trails from the Forest Service Trail inventory:
 - Cecil D. Andrus-White Clouds Wilderness:
 - NFS trail 674—Above O'Caulkins⁵ Lake to Warm Springs Creek (NFS trail 671 junction; 3.9 miles)
 - o NFS trail 684—Wickiup Creek (6.7 miles)
 - Hemingway-Boulders Wilderness:
 - o NFS trail 113—The upper 5.2 miles of the South Fork of the East Fork of the Salmon River

-

⁵ Also alternatively identified as Ocalkens and Calkins.

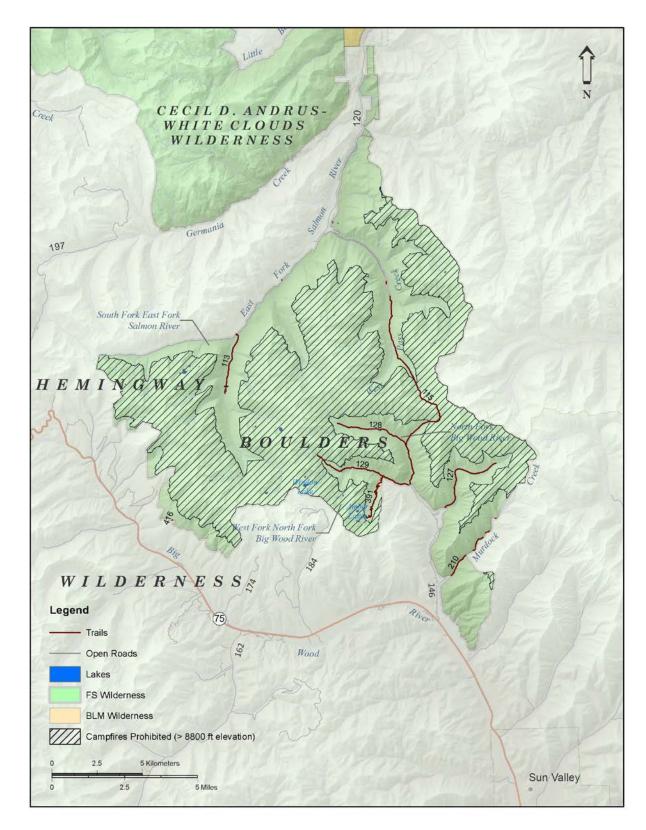


Figure 5. Campfire restrictions within the Hemingway-Boulders Wilderness

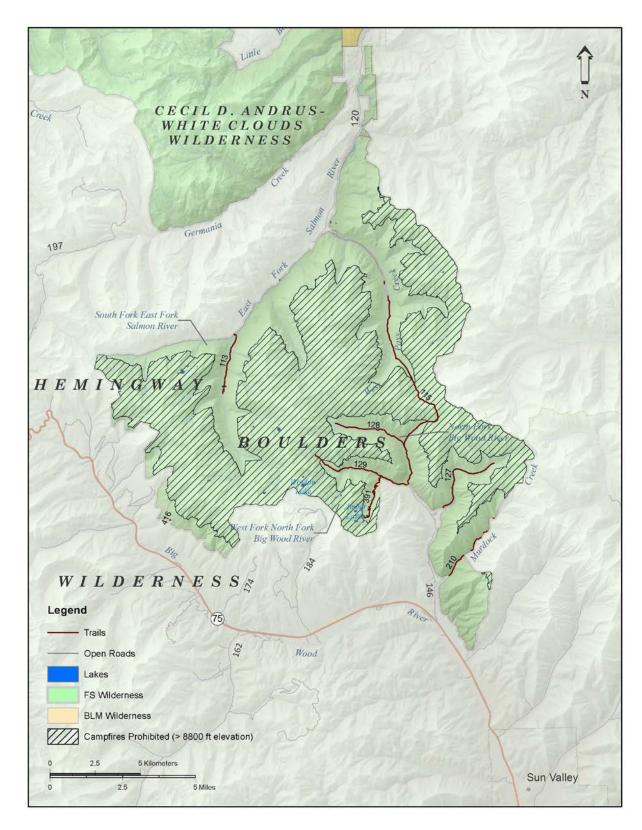


Figure 6. Campfire restrictions within the Cecil D. Andrus-White Clouds Wilderness

Guidelines

- 2178 Prevent human/wildlife encounters by emphasizing proper camping techniques and food storage and containment.
- Discourage off-trail route marking and remove user-created route markers (e.g., stacked rocks, flagging).
- Encourage the use of no trace fires (i.e., use of fire pans or fire blankets).
- 2181 Maintain the voluntary registration system.
- Encourage use of temporary stock containment systems and require tree-saver devices to minimize tree damage.

7.10.1. Commercial Services

<u>Goals</u>

- Ensure outfitters provide quality services that enable the public to use, access, enjoy, and understand the recreational and other values of wilderness, emphasizing opportunities for primitive or unconfined types of recreation, physical and mental challenge, inspiration, and solitude.
- Ensure outfitters protect the wilderness resource by modeling and helping the public understand how to use wilderness responsibly.
- Ensure outfitters play a role in providing opportunities for the public to develop awareness, appreciation and understanding of the wilderness resource and its natural and cultural history.

Objectives

- Maintain outfitter and guide priority use permit holder service days at existing actual use levels based on a review of actual use consistent with Forest Service and BLM handbook direction. Evaluate changes in amount of use, type of use, operating areas, or service day allocation using the most current guidance (e.g., needs assessment, capacity analysis), consistent with Forest Service and BLM handbook direction. Current direction is found at FSH 2709.14, Chapter 53 and BLM H-2930-1, IIIA.
- Develop temporary outfitter and guide use pools based on a review of actual use at the time of designation. Evaluate changes in the amount of use, type of use, or operating areas, using the most current guidance (e.g., needs assessment, capacity analysis) consistent with Forest Service and BLM handbook direction. Current direction is found at FSH 2790.14, Chapter 53.11. BLM policy (BLM H-2930-1 IIIA) allows for temporary uses, including the use of pools, as appropriate.

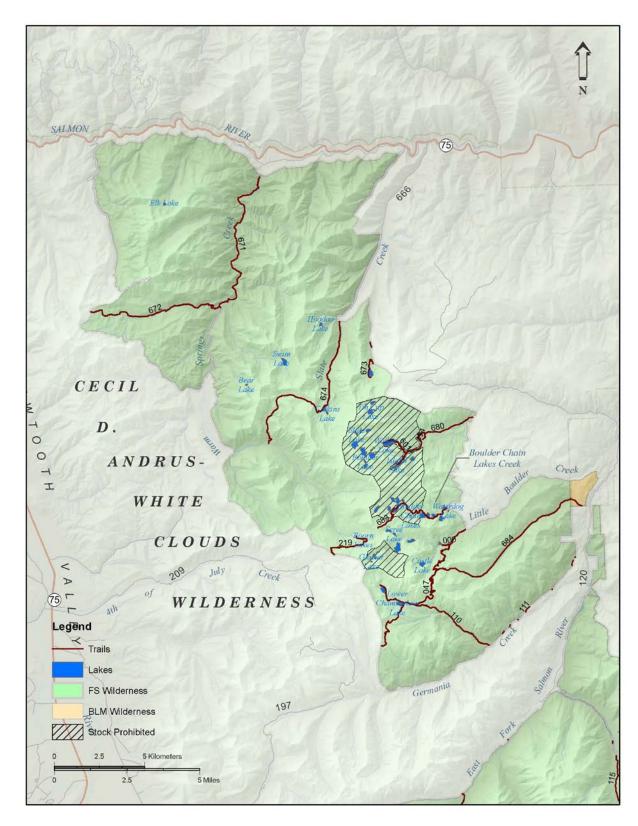


Figure 7. Equine stock closure areas

Standards

- Approve only temporary structures and facilities for outfitter and guide operations necessary to meet the public need in a manner compatible with the wilderness environment. (Current direction may be found FSH 2709.14, Chapter 53.1c (3), FSM 2320.13g, and BLM H-2930-1, BLM 6340 B.2(i).)
- Authorize assigned campsites for outfitters and guides in Zones 3 and 4 only and locate them to reduce conflicts with non-outfitted users and to protect sensitive areas.
- Ensure operating plans for priority use and temporary use outfitting and guiding permits direct outfitters to model appropriate wilderness practices and incorporate awareness of wilderness values in their interaction with clients and others.
- 2191 Prohibit caches (see FSM 2323.13(g) and BLM Manual 6340 B.2.j for additional direction).

7.11. Scenic Environment

Goal

2192 Preserve the scenic and visual qualities of wilderness, as they are significant to solitude and the undeveloped quality of wilderness character and play a significant role in the overall recreational experience of visitors.

Objective

2193 Preserve the scenic and natural landscape consistent with the protection of wilderness character.

Guideline

- Build facilities and structures, when needed for resource protection, out of natural materials that blend into the natural environment.
- Do not consider visual conditions changed by natural events and processes as detrimental to scenic qualities.

7.12. Heritage, Archaeological and Cultural Resources

Goals

2196 Protect and preserve significant cultural, archaeological, and historical resources as identified while managing for recreational, scenic, scientific, educational, conservation, and historic uses consistent with preservation of wilderness character.

Objectives

Identify cultural resources prior to implementing new projects in order to protect and preserve these resources while minimizing impacts to wilderness character.

Guidelines

2198

Develop a management strategy that includes, but is not limited to, education/interpretation or signage outside of wilderness, or natural barriers to prevent additional damage if monitoring reveals that damage is occurring to cultural, archaeological, or historic resources. The wilderness specialist and archaeologist, in consultation with sovereign tribal governments and the State Historic Preservation Officer, will work together to develop the management strategy.

Standard

2199

Any undertakings, with the potential to affect cultural resources, will be conducted in compliance with the National Historic Preservation Act.

7.13. Tribal Rights and Interests

<u>Goal</u>

21100

Protect lands and sites of traditional and cultural significance, including religious, sacred, and ceremonial sites, important to Shoshone-Bannock, Shoshone-Paiute, and Nez Perce Tribes.

Objectives

21101 Continue consultation with affected tribes regarding wilderness management.

21102 Coordinate and consult with affected tribes regarding traditional Native American use practices while maintaining wilderness character.

Standards

21103 Coordinate and consult with tribes to maintain their right to gather fish, wildlife, and plants and access traditional cultural and religious sites while maintaining wilderness character.

21104 Group size and length of stay limitations do not apply to the Tribes when exercising off-reservation treaty rights.

7.14. Rangeland Resources

Goal

21105 Provide for continued livestock grazing in wilderness in a manner that minimizes impacts to wilderness character.

Objectives

21106

Consider the wilderness resource when preparing or modifying term grazing permits, annual operating instructions, or allotment management plans or when conducting NEPA analyses.

Standards

- Follow Congressional Grazing Guidelines (House Report 96–617 and House Report 105-405, Appendix A); FSM 2320 (Wilderness Management); the Sawtooth Forest Plan; the Challis RMP and applicable amendments; BLM Manual 6340; and 43 CFR 4100.
- 21108 Prohibit the use of motor vehicles for routine livestock monitoring, herding, and gathering.
- Routine livestock management activities in wilderness, including maintenance, would normally be accomplished by non-motorized, non-mechanized means.

 Requests by grazing permittees for occasional use of motorized or mechanized equipment or vehicles would be evaluated on a case-by-case basis through a MRA.
- Require the use of natural materials when constructing or replacing existing facilities if their use would not impose unreasonable added cost. An exception may be granted when using other materials would require less frequent motorized or mechanized access to perform maintenance.
- Permit new range improvements only for the purpose of enhancing the protection of wilderness character.
- Water use for irrigation to maintain livestock grazing operations will be in accordance with existing water rights issued by the State of Idaho with priority dates predating the wilderness designation.
- 21113* For FS-administered allotments, livestock fences must provide for big-game passage.
- For FS-administered allotments, forage utilization for riparian areas will not exceed 30% use of most palatable forage species or must retain a minimum 6-inch stubble height of hydric greenline species.

Guideline

Review wildlife damage control measures, including predator control, to determine the need for control pursuant to agency policy and regulation, and the method(s) to be used pursuant to cooperative agreements or memoranda of understanding. Actions that would involve uses generally prohibited under Section 4(c) of the Wilderness Act would may be considered and could be authorized if determined the minimum necessary. The authorized agency implementing control measures would provide post-action reporting to the Forest Service and BLM, as applicable. (FSM 2323.33c, and BLM Manual 6340 1.6C 21.c.viii(8))

7.15. Mineral and Geologic Resources

Goals

21116 Preserve the wilderness environment while allowing activities for the purpose of gathering information about mineral resources on existing mining claims.

Objective

- Where valid existing rights occur, provide direction for managing mineral activities in wilderness in accordance with agency directives and regulations and with consideration of all applicable State and federal requirements.
- Identify impacts to wilderness character and methods for its preservation in mining plans of operation. Reclamation efforts would serve to return the land as closely as possible to its natural condition.
- Ensure lands disturbed during mineral exploration and development activities are restored as nearly as practicable promptly upon completion or abandonment of operations. Plans of operations will stipulate reclamation and bonding requirements of the authorized operator.

Standard

The plan of operation must outline all terms and conditions for reclamation and rehabilitation of an area upon completion of mineral exploration or development activity, including a timeline for removing all structures, equipment, and support facilities for the operation, and the area impacted by mineral operations must be restored as nearly as practicable to the contour and appearance of the landscape before operations commenced.

7.16. Fire Management

Goal

21121 Permit lightning-caused fire to play its natural role in ecosystem function.

Objectives

- 21122 Consider the full range of fire-management strategies and tactics (ranging from monitoring to full suppression) when responding to a wildfire in or near wilderness).
- 21123* Identify areas where lightning-caused wildfires can restore or maintain natural vegetative conditions; account for spatial and temporal changes in vegetation and fuels affecting the relative risk of wildfire impacting wildland-urban interfaces and other fire-affected values within and outside of wilderness.

Standard

- Obtain prior approval from the appropriate line officer, or designee, to use motorized equipment or mechanized transport in wilderness for fire management activities.
- On BLM-managed lands, obtain prior approval from the Field Office Manager, or designee for helicopter bucket work, dip sites, and water delivery, as well as motorized water pumps, aerial retardant application, air transport/personnel shuttle, supply drops, and chainsaw use. Prior approval from the District Manager must be obtained for motor vehicle use including engines, transports, crew trucks, UTV/ATV, as well as helispot construction and heavy equipment use.

- All or a portion of a wildfire originating from a natural ignition may be managed to maintain wilderness character and the unique resource values the wilderness areas were designated to protect.
- Initially suppress human-caused wildfire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety (*Interagency Standards for Fire and Fire Aviation Operations* [NIFC 2017]).

Guidelines

- 21128 Prescribed fire may be considered in the wilderness areas and will be evaluated consistent with Forest Service and BLM policy (FSM 2320, BLM 6340).
- Determine actions for each wildland fire that are consistent with protecting wilderness character while providing for firefighter and public safety and considering impacts to private property and developed facilities in surrounding areas.
- 21130* Coordinate across agencies and with Forest Service and BLM wilderness specialists and adjacent landowners, as appropriate, to develop compatible wildland fire management strategies.
- Avoid locating temporary wildfire management support facilities (e.g., spike camps, landing areas) in wilderness. When considered necessary, all efforts will be made to use areas with pre-existing impacts outside of Zone 1. Responder safety will be the first consideration when making this determination.
- Minimize suppression impacts to wilderness character by using Minimum Impact Suppression Tactics (MIST) and assigning Resource Advisor(s) with knowledge, training, and/or experience in wilderness management. Return disturbance caused by suppression actions to as natural a condition as possible.

7.17. Lands and Special Uses

For Outfitter & Guide direction, see the "Commercial Services" section under the "Recreation Resources" section.

Goals

- Allow special uses within the wilderness that are shown to meet an identified public need to the extent necessary for activities which are proper for realizing recreational or other wilderness purposes and meet the agency's objectives and provide benefits to the wilderness resource.
- Allow for special provision land uses as determined by laws, regulations, and the agency's policies and management plans, while minimizing developments, degradation to naturalness, and other impacts to wilderness character.

Objective

21135 Provide for continued use of existing special use authorizations as long as such uses are the minimum necessary, are consistent with the Wilderness Act, and are in the public interest.

Standards

- Do not permit competitive events, training events, and contests (FSM 2323.13h; BLM Manual 6340 1.6 C. 13. d.).
- Evaluate proposals for commercial filming in wilderness consistent with Forest Service policy (FSH 2709.11 45.51b), or most current policy, or BLM Manual 6340 (Section 1.6 C. 4), as applicable.
- 21138 Consider the direction for each zone when evaluating a proposal; zone direction may influence where and how approval is granted.

7.18. Wilderness Education and Interpretation

<u>Goal</u>

Use education, information, and interpretation as a proactive approach in managing activities that may impact the preservation of wilderness character. Emphasize the value of wilderness, not just as a non-motorized recreation area, but as an undeveloped place of natural processes and personal risks.

Objective

- 21140* Provide educational information on areas susceptible to weed invasion and measures to help prevent non-native, invasive plant establishment and spread.
- 21141* Enhance public awareness and support through education about the role of fire in the ecosystem and fire's role in maintaining wilderness character.
- 21142 Emphasize proper camping techniques, food storage, and containment to minimize interaction with wildlife.
- 21143* Coordinate with tribal communities and others to provide public interpretation of American Indian sites.
- 21144 Provide educational information regarding proper management of dogs to minimize social conflicts or effects to wildlife (e.g., under voice or physical control, horse or hiker encounter etiquette).

Standards

- Develop and implement a wilderness education plan and monitor it for effectiveness.
- Interpretive information may be included on trailhead information signs or communicated elsewhere outside of wilderness but will not be located on signs in wilderness.

Guidelines

Emphasize a proactive approach to wilderness education. Build partnerships and relationships with organization camps, group organizations, businesses, school and university programs, permittees, permanent and seasonal staff, and other users to integrate Leave No Trace and wilderness ethics into their operations.

21148 Communicate rules and regulations primarily outside of wilderness.

7.19. Research

For information on wildlife management actions, see the "Wildlife Resources" section and Forest-wide direction.

Goals

Ensure research conducted in wilderness improves wilderness stewardship, provides benefits to society and science, and contributes to the preservation of wilderness character.

Objective

The wildernesses are available for conducting inventory, monitoring, and research determined by the federal agency to be wilderness dependent. Proposals that do not contribute to stewardship of the area as wilderness will not be permitted if they can be accomplished outside of wilderness or cannot be conducted in a manner compatible with the preservation of wilderness character.

Standards

- Require prior authorization for all parties interested in conducting research activities in wilderness. Proposals for scientific research may be evaluated through the Framework to Evaluate Proposals for Scientific Activities in Wilderness (Landres 2010, or most current). MRAs will be completed, as appropriate, to ensure activities are the minimum necessary for administering the wilderness area for wilderness purposes.
- 21152 Require researchers to provide a copy of findings to the Forest Service and BLM.

7.20. Search and Rescue

Goals

- 21153 Conduct search and rescue operations in such a manner that emphasizes the safety of both victims and rescuers, with minimal impact on wilderness character.
- Support and cooperate with County Sheriffs in search and rescue operations and provide information and education on wilderness law and policy.

Objectives

Encourage collaboration, coordination, and agreements between the Forest Service and/or BLM and local Sherriff departments to develop search and rescue procedures in wilderness that are well-defined, respond to life-threatening situations in a timely manner, and protect wilderness character.

Standards

21156 Coordinate with the Counties to develop Search and Rescue Plans.

- Develop Memorandums of Understanding (MOUs) or other formal agreements with Custer and Blaine counties that cover the appropriate use of motorized equipment and mechanized transportation inside wilderness and identify the information needed for a Forest Service Line Officer/BLM Field Manager to authorize this use.
- Use the flow chart in Appendix 10 for approving motorized and mechanized emergency response.

Guidelines

- In emergency situations, consider the safety of the victim and the rescuers as the priority. Consider difficulty of access, time constraints, distance factors, and risks to safety of rescue team which may elevate the medical severity.
- 21160 Ensure search and rescue operations comply with wilderness regulations except as otherwise necessary to provide for human life or recovery. Use of motorized and mechanized equipment or vehicles, including medical evacuation by helicopter or wheeled devices, may be granted by the Forest Supervisor/BLM Field Manager (or designated authority) on a case-by-case basis.
- Use natural terrain features for helicopter landing areas. Care should be taken that vehicles used in search and rescue operations do not transport invasive species or cause unacceptable resource or social impacts. Immediately address any resource damage resulting from search and rescue operations.
- Reduce the need for search and rescue missions by promoting visitor awareness of inherent risks, lack of rapid response, and possible preventive measures.

7.21. Management Zones

Zoning is the practice of delineating areas in a wilderness where different biophysical or social resources call for applying varying management policies, actions, or visitor use restrictions. While zoning is not mentioned in the Wilderness Act, it is a concept that can be essential to managing the complex realities of wilderness in the 21st century. Biophysically and socially, wilderness areas are not homogeneous. In other words, not every acre is the same: some ecological areas may be more sensitive, or areas may be more attractive or accessible to visitors. Zoning aims to be proactive; working toward desired conditions. The management area is divided into four zones (Table 4, Figure 8, Figure 9):

- Zone 1—This zone has the lowest level of human use and disturbance and has the highest degree of natural integrity. Zone 1 represents the majority of each wilderness.
- Zone 2—This zone has a high degree of wilderness integrity and a low level of human disturbance and can be vulnerable to impacts from human use.
- Zone 3—The predominantly unmodified natural environment in this zone includes some popular destinations and more heavily used areas.
- Zone 4—This zone includes popular destinations and routes. A predominantly unmodified natural environment characterizes this zone; however, some areas are substantially affected by human activity. This zone represents the smallest portion of wilderness when compared to other zones.

Zones were developed based on current conditions (trails, campsites), current visitor use levels and patterns, and desired conditions to ensure non-degradation of wilderness.

Table 4. Proposed zoning—percentage of each zone and percent visitor use by zone

Proposed Zone	Zoning: Hemingway- Boulders	Visitor Use: Hemingway- Boulders*	Zoning: Cecil D. Andrus-White Clouds	Visitor Use: Cecil D. Andrus-White Clouds*	Zoning: Management Area Total
1	99%	1%	96%	4%	98%
2	<1%	10%	3%	4%	2%
3	<1%	12%	<1%	12%	<1%
4	<1%	77%	<1%	80%	<1%

^{*}Percentages of visitor use are representative estimates. A full survey of the wildernesses was not available.

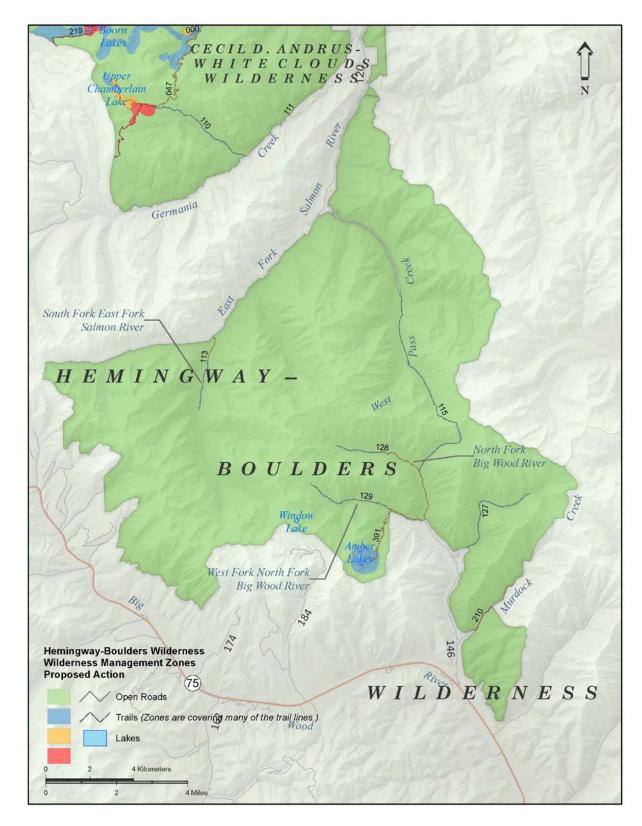


Figure 8. Hemingway-Boulders Wilderness proposed zoning

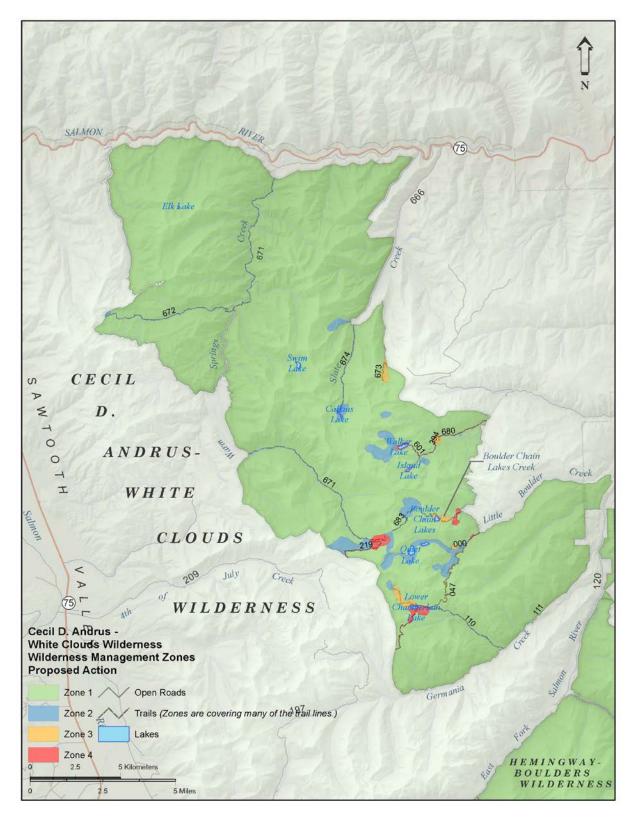


Figure 9. Cecil D. Andrus-White Clouds Wilderness proposed zoning

7.21.1. Zone 1

Desired Conditions

This zone has and is managed for the highest degree of naturalness.

Ecological processes operate naturally, with essentially no perceptible or measurable evidence of human impact or use. Management within the zone preserves the feeling of wildness for visitors.

This zone has outstanding opportunities for solitude and a primitive and unconfined type of recreation that requires self-reliance. This zone also offers challenge and risk. Encounters with other visitors are infrequent.

Visitor contacts by staff (wilderness rangers, volunteers, or other agency staff) are infrequent; however, staff may contact visitors, as needed, for education or to correct potential problems or impacts.

Pre-designation impacts may exist but are rehabilitating naturally. No recreational facilities are present.

Recreational impacts are not visible from year to year. Administrative or permitted camps are discouraged and no designated sites are established in this zone.

Goals

21163-Z1 The virtually unmodified natural environment found in this zone is preserved. This trail-less zone encompasses the lowest level of human disturbance and the highest degree of natural integrity.

Standards

- 21164-Z1 Non-historic facilities, installations, or developments are not present in this zone unless authorized through a valid existing right or grazing permit or are the minimum necessary for administering as wilderness. No NFS or BLM trails are present in this zone.
- 21165-Z1 No signs are present except in extremely rare instances for resource protection in this zone. No permanent signs are allowed.

7.21.2. Zone 2

Desired Conditions

A predominantly unmodified natural environment characterizes the zone. With the exception of the developed trail system and infrequent user-developed routes, the landscape appears largely unmodified, and no other facilities occur unless authorized through a valid existing right or grazing permit.

This zone functions as a wild place, and the expectation is that these areas are wild and unmodified. Impacts from human activity are minimized to prevent the transition from indiscernible to clearly evident.

This zone has outstanding opportunities for solitude and a primitive and unconfined type of recreation that requires self-reliance. This zone also offers challenge and risk. Encounters with other visitors are less frequent than in Zones 3 and 4.

Visitor contacts occur less frequently than in Zones 3 and 4. However, staff (wilderness rangers, volunteers, or other staff) may contact visitors, as needed, for education or to correct potential problems or impacts.

Few pre-designation impacts exist. Impacts and recreation facilities are minimized to preserve the primitive nature of the zone.

Trails and user-created routes are managed to retain natural appearances and preserve the primitive quality of this zone. Trail structures may exist for resource protection but are infrequent. Opportunities to escape from more developed landscapes are provided.

Some evidence of recreational use is visible. Campsites may be discernible but are few, and impacts are minimized. The potential for some soil compaction exists around the center of activity.

Goals

A high degree of wilderness integrity and the lowest level of human disturbance are found in this zone. Access in this zone is cross-country or by lesser used trails and includes some access routes to high elevation lakes. Destination areas have low use and are vulnerable to human impact. Attention is placed on protecting or improving wilderness character in this zone, as it may easily be impacted.

Standards

- 21167-Z2 The highest trail standard in this zone is Class 2, with the exception of the existing Class 3 trails in the Hemingway-Boulders Wilderness: the Upper North Fork #128 and the western end of the West Fork-North Fork #129.
- 21168-Z2 Non-historic facilities, installations, or developments are not present in this zone unless authorized through a valid existing right or grazing permit or are the minimum necessary for administering the area as wilderness.
- 21169-Z2 No signs are present except in extremely rare instances as required for resource protection in this zone. No permanent signs are allowed.

7.21.3. Zone 3

Desired Conditions

A high degree of wilderness integrity is found in this zone, with human disturbance confined to NFS or BLM trails, recreation sites, and grazing allotments.

Human impacts on vegetation, soils, and water quality are minimized in areas of concentrated

Opportunities for solitude are available throughout the year. Moderate levels of use occur within this zone. Encounters with other visitors may occur.

A primitive and unconfined type of recreation requiring self-reliance is characteristic of this zone.

Visitor contacts may occur regularly for education and/or for enforcing rules and regulations.

Recreational facilities and structures may be present in rare circumstances, such as for resource protection. This zone is managed to concentrate use into existing disturbances. (Also see standard 2116.)

Trails are moderately developed and maintained. Opportunities to escape from more developed landscapes are provided while still being able to access a trail system.

Recreation sites are limited to previously disturbed areas to minimize soil compaction and reduce loss of vegetative ground cover. Campsites density is low to moderate, and quantity is sufficient to accommodate use without establishing new sites; however, bare mineral soil may exist on sites. Campsite impacts are likely to be apparent and persist from year to year.

Goals

21170-Z3 The predominantly unmodified natural environment is preserved and impacts at popular destinations and along popular trails are minimized. This zone includes some sites that have been noticeably affected by human activity.

Standards

- 21171-Z3 The highest trail standard in this zone is Class 3.
- 21172-Z3 Signs may be present at trail junctions and, in rare cases, may be found elsewhere for resource protection.

7.21.4. Zone 4

Desired Conditions

A high degree of wilderness integrity is maintained to the maximum extent practicable.

This zone receives the majority of recreation use and contains the most developed trails within the wilderness. This zone may include recreation facilities necessary for the protection of wilderness character.

Human impacts on vegetation, soils, and water quality are minimized in high use areas.

Opportunities for solitude are available but are most likely to occur during the fall, winter, and spring seasons. Encounters with other visitors are likely during the summer season.

Visitor use is managed in a manner that preserves the opportunities for primitive and unconfined types of recreation found in this zone.

Visitor contacts may occur regularly for education and/or for enforcing rules and regulations.

Recreational facilities and structures may be present in rare circumstances, such as for resource protection. This zone is managed to concentrate use into existing disturbances. (Also see standard 2116.)

Travel in this zone occurs on developed trails. Trails are developed and maintained to standard.

Recreation sites are limited to previously disturbed areas to minimize soil compaction and reduce loss of vegetative ground cover. Campsites density is moderate, and quantity is sufficient to accommodate use without establishing new sites; however, bare mineral soil may exist on sites. Campsite impacts are apparent and persist from year to year.

Goals

21173-Z4 Non-degradation of wilderness character is emphasized by minimizing impacts from human activity. This zone includes highly popular destinations and heavily used trails within the wilderness.

Standards

- 21274-Z4 The highest trail standard in this zone is Class 3.
- 21275-Z4 Signs may be present at trail junctions and may be infrequently used elsewhere for resource protection.

8. Wilderness Monitoring

The monitoring program will provide a greater understanding of the overall and specific condition of each wilderness. Information generated in monitoring wilderness conditions will indicate 1) the current state of wilderness character; 2) how wilderness character is changing over time; 3) how stewardship actions are affecting wilderness character; and 4) what stewardship priorities and decisions would best preserve and sustain wilderness character.

As indicated above, the two agencies will follow the wilderness character monitoring framework identified in *Keeping It Wild 2* (Landres et al. 2015), in addition to the forthcoming Forest Service Wilderness Character Monitoring Technical Guide (Forest Service Technical Guide; Landres, et al. in press), or most current Forest Service direction. The Cecil D. Andrus-White Clouds Wilderness is currently one of 36 wilderness areas co-managed by more than one agency. Therefore, for consistency within the Cecil D. Andrus-White Clouds Wilderness, Forest Service protocols will be applied across the wilderness, and the Forest Service will take the lead in reporting wilderness character trends and data.

Keeping It Wild 2 (Landres et al. 2015) establishes monitoring questions and indicators for each quality of wilderness character. The Forest Service Technical Guide expands the direction from Keeping It Wild 2 (Landres et al. 2015), identifying specific measures for each indicator (e.g., index of encounters) and establishing thresholds for those indicators. The thresholds set in the "Wilderness" section above align with the Forest Service Technical Guide direction. When thresholds are exceeded, additional management actions may be necessary. Specifically, the agencies will impose or adjust visitor use restrictions if monitoring shows a substantial increase in visitor use conflicts and/or indicates visitor use is causing unacceptable impacts to resources or wilderness character. Basic recreation management actions are described in the "Glossary".

Specific protocols for gathering data, including protocols for data collection, analysis, and storage in a national database, and threshold for change are provided in the Forest Service Technical Guide. Baseline data will be established in the *Recreation Site Plan* and *Solitude Monitoring Plan* developed for these two areas.

9. Plan Implementation

9.1. Activities Associated with Plan Implementation

The following list reflects the implementation actions identified in this WMP. Actual implementation would be subject to staff and funding availability outside the control of this WMP.

9.1.1. Ongoing Activities

Ongoing activities include actions that are ongoing or would be implemented upon adoption of the WMP:

- Install and maintain wilderness boundary signs
- Enforce visitor use restrictions
- Provide visitor information and education
- Monitor wilderness character
- Maintain trails
- Manage outfitter permits
- Manage wildfires
- Manage grazing permits
- Treat invasive non-native plants

9.1.2. Future Activities

Some actions may require further planning and public scoping not covered by this WMP, such as those prompted by changing resource conditions. These actions may require an MRA and/or site-specific NEPA analysis. Below is a summary actions that may require further analysis:

- Restoration activities
- Rehabilitation
 - o Undesirable or highly impacted campsites, social trails, or stock areas
 - o Unauthorized vehicle impacts
- Removal of unnecessary non-historic developments or structures. National Historic Preservation Act protocols will be followed.
- Control of infestations of noxious weeds and non-native invasive plant species
- Recreation management actions in response to exceeding thresholds identified in this WMP
- Warm Springs Fence identified in the Record of Decision for the East Fork Allotment

10. Plan Evaluation

This WMP will be revised when management direction no longer meets wilderness management objectives or when a change in the existing situation warrants revised management. The need for revision would be reviewed as conditions warrant and if the decision is made to revise this WMP, revision would be accomplished with public participation. Minor revisions, such as typographical or cartographical errors or terminology changes, may be made by inserting an errata sheet.

11. Glossary

Assigned Outfitter Camp

A location authorized for use and occupancy by an outfitting and guiding permit and for which a fee is paid.

At Risk

This term originates from BLM protocols used to assess grazing impacts, namely properly functioning conditions. 'Functional—At Risk' is defined as riparian-wetland areas that are in functional condition, but that have an existing soil, water, or vegetation attribute that makes them susceptible to degradation.

Cache

Equipment, personal property or supplies stored and left unattended for 16 consecutive days on National Forest lands or 14 days on BLM lands.

Campsite Condition Index

The impact index/condition class is the sum of nine weighted parameters including vegetation loss, mineral soil increase, tree damage, root exposure, stock evidence, development, cleanliness, social trails and camp area. The range of the impact index is divided into four condition classes (light impact through extreme impact).

Camp Encounters

The daily (8-hour period) mean number of camping groups visible or audible from a visitor's campsite during the primary use season.

Cherry-stem

A route that is excluded from the designated wilderness by a non-wilderness corridor having designated wilderness on both sides. This is called a "cherry-stem," since the road bears some resemblance to a cherry-stem jutting into the wilderness area.

Clean Water Act

An Act of Congress which establishes policy to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

Climate Change

Climate change refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

Climate Variability

Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes) of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).

Commercial Enterprise

Any use or activity undertaken for the purpose of sale of products or services, for the generation of funds or revenue, or for the promotion of a product, individual or business, regardless of whether the use or activity is intended to produce a profit, including any use or activity where an entry or participation fee is charged. (BLM Manual 6340)

FSH 2709.14, section 53.1e - Commercial Use or Activity. Any use or activity on National Forest System lands:

- 1. Where an entry or participation fee is charged, or
- 2. Where the primary purpose is the sale of a good or service and, in either case, regardless of whether the use or activity is intended to produce a profit (36 CFR 251.51).

Desired Condition

A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed.

Developments

Anything made by humans and is left behind when the builder leaves the wilderness. Per the Wilderness Act (Section 2c) "An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation..."

Installation. Anything made by humans that is not intended for human occupation and is left behind when the installer leaves the wilderness. (BLM Manual 6340)

Structure. Anything made by humans that is intended for human occupation and is left behind when the builder leaves the wilderness. (BLM Manual 6340)

Permanent Improvement. A structural or nonstructural improvement that is to remain at a particular location for more than one field season. Permanent improvements include such items as trails, toilet buildings, cabins, fences, tent frames, fire grills, and instrumentation stations. (FSM 2320.5)

Temporary Structure. Any structure that is easy to dismantle, that could be removed completely from a site between periods of actual use, and that must be removed at the end of each season of use if the non-use period is greater than 30 days. (FSM 2320.5)

Specific to Commercial Services:

Forest Service policy is to not authorize any development, improvements, or installations in wilderness areas for the purpose of convenience to the holder or the holder's clients; caches in wilderness areas; and permanent structures, improvements, or installations in

wilderness areas unless they are necessary to meet minimum requirements for administration of the area for the purposes of the Wilderness Act (16 U.S.C. 1133c). (FSH 2709.14, 53.1c (3))

Approve only temporary structures and facilities for outfitter and guide operations necessary to properly meet their public service in a manner compatible with the wilderness environment.... Ensure that outfitters remove all equipment and material, other than structures authorized to remain such as dismantled structure frames and poles made of native material, from the wilderness at the end of each season. (FSM 2323.13g)

Cease uses and activities and remove existing structures not essential to the administration, protection, or management of wilderness for wilderness purposes or not provided for in the establishing legislation. (FSM 2320.3 (4))

Dispersed Campsite

Camping anywhere on National Forest or BLM lands outside of a designated campground. Dispersed camping means there are no toilets, no picnic tables, no trash cans, no treated water, and no fire grates.

Drop Camp

Camp whose location is either of the client or outfitters choosing to which the client is packed in and dropped off. The camp components may be provided either by the client or the outfitter. The outfitter provides no guiding services.

Endangered Species Act

An Act of Congress intended to protect species and subspecies of plants and animals that are of "aesthetic, ecological, educational, historical, recreational, and scientific value."

Geomorphic Integrity

An assessment and comparison of existing soil-hydrologic conditions with historical conditions that existed before Euro-American settlement. Upland, riparian, and stream conditions are assessed to determine how their integrity and resilience may have changed due to effects from past or current human-caused (e.g., road construction, timber harvest, livestock grazing) or natural (e.g., wildfire, floods) disturbance.

Goals

A plan may include goals as plan components. Goals are broad statements of intent, other than desired conditions, usually related to process or interaction with the public.

Guidelines

A guideline is a constraint on project and activity decisionmaking that allows for departure from its terms, so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

Management Area

An area with similar management objectives and a common management prescription, as described in the Forest Plan.

Management Prescription Category (MPC)

MPCs are broad categories of management prescriptions that indicate the general management emphasis prescribed for a given area.

Minimum Requirements Analysis (MRA)

The process by which allowances for one of the eight prohibited uses described in Section 4(c) of the Wilderness Act are analyzed to determine if they are "necessary to meet minimum requirements for the administration of the area for the purpose of [the Wilderness] Act." May also be known as the Minimum Requirements Decision Guide (MRDG), which is the document used to perform the analysis. Also see http://www.wilderness.net/MRA for more information, and a copy of the current form.

National Environmental Policy Act (NEPA)

The National Environmental Policy Act of 1969 requires environmental analysis and public disclosure of federal actions.

National Wilderness Preservation System

All lands managed under the Wilderness Act and subsequent wilderness designations, irrespective of the department or agency having jurisdiction.

Natural

Area appears to have been primarily affected by the forces of nature and are substantially free from the effects of modern civilization.

No Trace Campfires

Campfires that leave no trace of occurrence, such as scorched vegetation and soils, blackened earth and wood, charcoal and ashes. A campfire that leaves no trace occurs on a firepan or fire blanket, which protects the earth (vegetation and soil) from the burning and sterilization effects of a campfire. Effective firepans and fire blankets are carried in and out of the wilderness by users, whom disperse the cold/wet charcoal/ashes away from the camp, thus leaving no trace of its occurrence.

Objectives

A concise statement of actions or results designed to help achieve goals. Objectives form the basis for project-level actions or proposals to help achieve goals. The time frame for accomplishing objectives, unless otherwise stated, is generally considered to be the planning period. More specific dates are not typically used because achievement can be delayed by funding, litigation, environmental changes, and other influences beyond the agency's control.

Other Features of Value

Area may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. Though not required of any wilderness, where they are present they are part of that area's wilderness character and must be protected as rigorously as any of the other four required qualities.

Outstanding opportunities for solitude or a primitive and unconfined type of recreation

Area provides outstanding opportunities for people to experience solitude or primitive and unrestricted recreation including the values associated with physical and mental inspiration, challenge, self-reliance, self-discovery, and freedom.

Permanent Improvement

A structural or nonstructural improvement that is to remain at a particular location for more than one field season. Permanent improvements include such items as trails, toilet buildings, cabins, fences, tent frames, fire grills, and instrumentation stations. (FSM 2320.5)

Priority Use

Authorization of use for up to 10-years, based on the holder's past use and performance and applicable programmatic or project decisions to allocate use. Except as provided in 36 CFR Part 251, Subpart E, authorizations providing for priority use are subject to renewal (sec. 53.1m). (FSH 2709.14, section 53.1e.)

Progressive Camps

A series of camps used during trips through an area. Duration of use is usually 1-2 nights per location. These camps are not set up in advance of arrival and are removed as the party moves on.

Recommended Wilderness

In developing a proposed new land management plan or proposed plan revision, the FS is required (FSM 1923) to "identify and evaluate lands that may be suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any such lands for wilderness designation." (36 CFR 219.7(c)(2)(v)) Management of a recommended area must protect and maintain the social and ecological characteristics that provide the basis for wilderness recommendation.

Recreation Management Actions

Actions for managing recreational use fall into one of three categories: engineering, education and enforcement. Engineering includes site design, construction and maintenance; for example, providing, removing or relocating facilities (stock ties, trails), or using vegetation or other physical barriers to direct visitor use. Information and education (**indirect management**) is most commonly employed to modify visitor behavior, adjust visitor attitudes and expectations, and alter the spatial and temporal distribution of use. Common examples include the Leave No Trace program, signs, and visitor contacts. Regulations with enforcement (**direct management**) can be used to implement all management strategies. Examples include restricting or prohibiting access to specific locations, access at particular times, certain types of behavior, particular activities, equipment or modes of travel, length of stay, and group size. For more information see the Visitor Use Management Framework (Interagency Visitor Use Management Council, 2016).

Recreation Site

A place where visible impacts to vegetation or soil are documented as a result of recreational use, may include campsites, viewpoints, or day use areas.

Range Improvement

(FSM 2240) Any activity or program on or relating to rangelands which is designed to improve production of forage; change vegetative composition; control patterns of use; provide water; stabilize soil and water conditions; and provide habitat for livestock and wildlife.

Restore or Restoration

Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

Service Day

An allocation of use constituting a day or any part of a day on National Forest System lands for which an outfitter or guide provides services to a client. The total number of service days is calculated by multiplying each service day by the number of clients on the trip. (FSH 2709.11, Chapter 41.53d)

Spike Camp

A temporary camp generally located in a more remote location, with bare necessities and fewer occupants than other types of camps. Spike camps are generally supplied from a base camp.

Special Provisions

Legislated exceptions to the 1964 Wilderness Act Section 4(c) prohibitions against commercial enterprise, permanent roads, motor vehicles, motorized equipment, aircraft landing, mechanical transport, structures and installations. Occasionally referred to as "non-conforming uses."

Special-Use Permit

A special-use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System lands or facilities for specific purposes, and which is both revocable and terminable. For example, research, outfitting and guiding.

Standards

A standard is a constraint on project and activity decisionmaking, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

Stock

Recreational Stock—Includes all stock used for recreation, including horses, mules, goats and llamas.

Packstock—Domestic animals used to transport people or equipment from one location to another (not including dogs).

Subwatershed Vulnerability

An assessment of a subwatershed's sensitivity to disturbance and its resiliency or natural ability for restoration.

Tree Saver Device

A strap or webbing used to protect trees from damage. When using a tree as an anchor point for a stock containment system, wrapping cable, rope or chain around it causes damage to the tree. Using webbing can help eliminate the risk of damaging or 'ringing' the bark.

Temporary Structure

Any structure that is easy to dismantle, that could be removed completely from a site between periods of actual use, and that must be removed at the end of each season of use if the non-use period is greater than 30 days. (FSM 2320.5)

Temporary Use

Short-term, non-renewable outfitting and guiding use that is authorized in increments of 50 service days, up to a maximum of 200 service days in a 180-day period. (FSH 2709.14, section 53.1e.)

Temporary Use Pool

A pool of service days or quotas in a use area that are reserved for short-term, non-recurring, seasonal distribution during an open season to qualified applicants who do not hold a priority use permit in that use area, and thereafter may be distributed to all qualified applicants on a first-come, first-served basis. (FSH 2709.14, section 53.1e.)

Total Maximum Daily Load (TMDL)

A regulatory term in the U.S. Clean Water Act, describing a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

Travel Encounters

The mean number of other groups (or people) seen per 8-hour day while in wilderness during the primary use season.

Undeveloped

Area is essentially without permanent improvements or the sights and sounds of modern human occupation, and it retains its primeval character.

Untrammeled

Area is unhindered and free from intentional actions of modern human control or manipulation.

User-Developed Routes

These routes are unplanned, unauthorized trails or roads that have not been designated and managed as a trail by the federal agency. In wilderness, trails are generally created by the repeated passage of people heading to the same destination; sometimes called social trails.

Water Quality Integrity

An assessment and comparison of existing water quality conditions with historical conditions that existed before Euro-American settlement. Physical, chemical, and biological water conditions are assessed to determine how their integrity and resilience may have changed due to effects from past or current human-caused or natural disturbance.

Wilderness

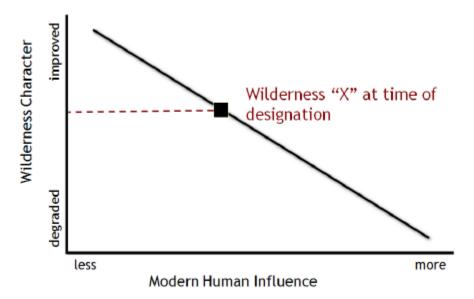
Wilderness is a legal designation designed to provide long-term protection and conservation of Federal public lands designated by Congress as part of the National Wilderness Preservation System. Wilderness is defined by the Wilderness Act of 1964 as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain...Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Wilderness Character

The central mandate of the Wilderness Act is to preserve wilderness character, a concept that distinguishes wilderness from all other lands. The four managing agencies have defined it as "A holistic concept based on the interaction of 1) biophysical environments relatively free from

modern human manipulation and impact, 2) personal experiences in natural environments relatively free from the encumbrances and signs of modern society, and 3) symbolic meanings of humility, restraint, and interdependence that inspire human connection with nature." Statutory language of the Wilderness Act, Section 2(c), is used to identify five qualities of wilderness character: Untrammeled, Natural, Undeveloped, Outstanding Opportunities for Solitude or a Primitive and Unconfined Type of Recreation, and Other Features of Value.

The following graphical representation of the primary goal of wilderness management—to preserve wilderness character—is shown here. Wilderness managers must fulfill the congressional mandate to "preserve wilderness character" and not to allow the black square to slide down the diagonal line. For more information see FSM 2320 or BLM Manual 6340.

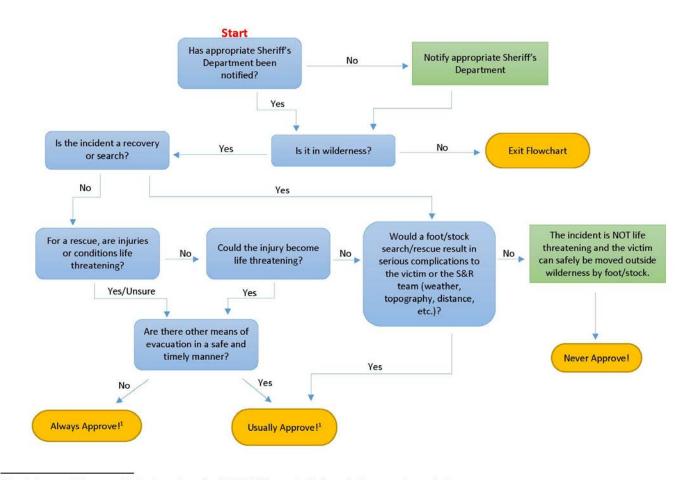


12. References

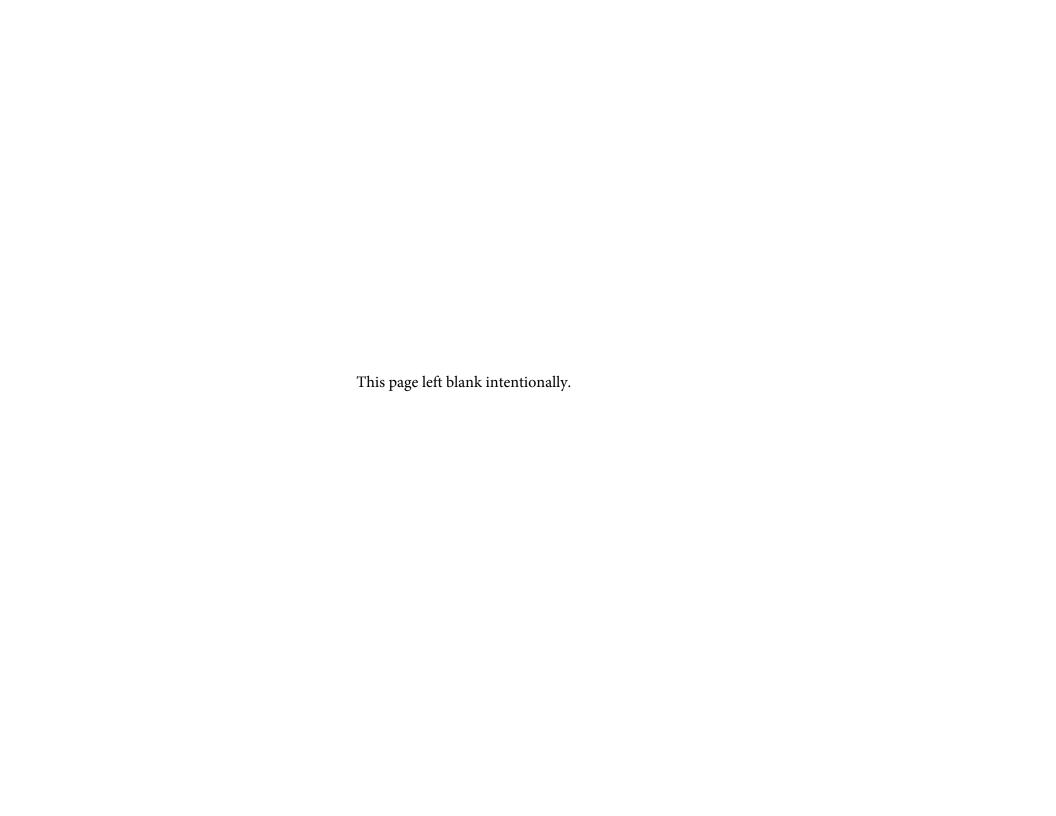
- Copeland, J.P., K.S. McKelvey, K.B. Aubry, A. Landa, J. Persson, R.M. Inman, J. Krebs, F. Lofroth, H. Golden, J.R. Squires, A. Magoun, M.K. Schwartz, J. Wilmot, C.L. Copeland, R.F. Yates, I. Kojola, and R. May. 2010. The bioclimatic envelope of the wolverine (*Gulo gulo*): Do climatic constraints limit its geographic distribution? Can. J. Zool. 88:233–216
- Hahn, B. and P., November 2017. <u>Supplement to Minimum Requirements Analysis/Decision</u>
 <u>Guide: Evaluating Proposals for Ecological Intervention in Wilderness</u>. Aldo Leopold Wilderness Research Institute. Available at: https://www.wilderness.net/restoration
- Hann, W.J., and D.L. Bunnell. 2001. Fire and land management planning and implementation across multiple scales. International Journal of Wildland Fire 10:389–403.
- Idaho Department of Fish and Game (IDFG). 2017. Idaho state wildlife action plan. Prepared for: U.S. Fish and Wildlife Service. Boise, ID: IDFG.
- Ingersoll, G.P., D.C. Miller, K.H. Morris, J. A. McMurray, G. Port, and B.S. Caruso. 2016. Changing regional emissions of airborne pollutants reflected in the chemistry of snowpacks and wetfall in the Rocky Mountain region, USA, 1993–2012. Water Air Soil Pollution 227:94–112.
- Interagency Visitor Use Management Council (IVUMC) 2016. Visitor use management framework: A guide to providing sustainable outdoor recreation. Edition One. Available at: http://visitorusemanagement.nps.gov/
- Landres, P., S. Boutcher, E. Mejicano, technical editors and compilers. In press. Wilderness character monitoring technical guide. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Landres, P., ed. 2010. A framework to evaluate proposals for scientific activities in wilderness. General Technical Report RMRS-GTR-234WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Available at: http://www.wilderness.net/science
- Landres, P., C. Barns, S, Boutcher, T. Devine, P. Dratch, A. Lindholm, L. Merigliano, N. Roeper, and E. Stimpson. 2015. Keeping it wild 2: An updated interagency strategy to monitor trends in wilderness character across the national wilderness preservation system. General Technical Report RMRS-GTR-340.
- Mebane, A., and J. Gurrieri. 2006. Water chemistry review: Sawtooth Wilderness lakes monitoring. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Regional Office.
- Memorandum of Understanding Between the USDI, Bureau of Land Management and Idaho Outfitters and Guides Licensing Board and the USDA, Forest Service Northern, Intermountain and Pacific Northwest Regions. 2016-MU-11046000-035.
- Mote, P.W., A.F. Hamlet, M.P. Clark, and D.P. Lettenmaier. 2005. Declining mountain snowpack in western North America. Bulletin of the American Meteorological Society. Jan. 2005, 39–49

- National Interagency Fire Center (NIFC). 2017. Interagency standards for fire and fire aviation operations. Boise, ID: Interagency Standards for Fire and Fire Aviation Operations Group, NIFC.
- St. Clair, L.L. Re-inventory of the lichen bio-monitoring program and baseline for the Sawtooth National Recreation Area, Sawtooth National Forest. Provo, UT: Brigham Young University, Department of Plant and Wildlife Science.
- UC Davis IMPROVE Report. 2014. Interagency monitoring of protected visual environments.
- USDA Forest Service. 2012. Proposed Forest Plan amendments, 2011 Wildlife conservation strategy, Phase 1: Forested biological community environmental assessment. Twin Falls, ID: USDA Forest Service, Sawtooth National Forest.

Appendix 1—Approval Guidelines for the Use of Motorized and Mechanized Equipment or Vehicles for Search and Rescue



¹ Permission can only be granted by the Forest Supervisor/BLM Field Manager (or his/her acting) on a case-by-case basis.



Appendix 2—Direction Crosswalk

The following table summarizes the direction brought forward from the pre-existing management areas (MA 03 and MA 04) into the wilderness management plan. The direction listed under the Proposed Action indicated with an asterisk (*) has been carried forward, generally *with modifications*, to be in compliance with the Wilderness Act.

Direction Crosswalk

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
Sawtooth NRA	Standard	Manage both federal and private lands to ensure the preservation and protection of the natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the associated recreational values in accordance with Public Law 92-400.	0301: Manage both federal and private lands to ensure the preservation and protection of the natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the associated recreational values in accordance with Public Law 92-400.	0401: Within the Sawtooth NRA, manage both federal and private lands to ensure the preservation and protection of the natural, scenic, historic, pastoral, and fish and wildlife values and to provide for the enhancement of the associated recreational values in accordance with Public Law 92-400.

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
	Standard	Management, utilization, and disposal of natural resources on federally owned lands (such as timber, grazing, and mineral resources) shall be allowed only insofar as their utilization does not substantially impair achievement of the purposes for which the recreation area was established. (As a management approach, "Substantial Impairment" is defined as that level of disturbance of the values of the Sawtooth NRA that is incompatible with the standards and guidelines of the Forest Plan (contained in this document). The proposed activities shall be evaluated as to: 1) the period of impact; 2) the area affected; and 3) the importance of the impact on the Sawtooth NRA values. Use process guidance in Appendix I to assist in determining compliance with this standard.)	of natural resources on federally owned lands (such as timber, grazing, and mineral resources) shall be allowed only insofar as their utilization does not substantially impair achievement of the purposes for which the recreation area was established. "Substantial Impairment" is defined as that level of disturbance of the values of the Sawtooth NRA that is incompatible with the standards and guidelines of the Forest Plan (contained in this document). The proposed activities shall be evaluated as to: 1) the period of impact; 2) the area affected; and 3) the importance of the impact on the Sawtooth NRA values. Use process guidance in Appendix I to assist in determining compliance with this standard.	0402: Within the Sawtooth NRA, management, utilization, and disposal of natural resources on federally owned lands (such as timber, grazing, and mineral resources) shall be allowed only insofar as their utilization does not substantially impair achievement of the purposes for which the recreation area was established. "Substantial Impairment" is defined as that level of disturbance of the values of the Sawtooth NRA that is incompatible with the standards and guidelines of the Forest Plan (contained in this document). The proposed activities shall be evaluated as to: 1) the period of impact; 2) the area affected; and 3) the importance of the impact on the Sawtooth NRA values. Use process guidance in Appendix I to assist in determining compliance with this standard.
Eligible Wild and Scenic Rivers	Standard	Manage the eligible Wild and Scenic River corridors to their assigned classification standards, and preserve their ORVs and free-flowing status, until the rivers undergo a suitability study and the study finds them suitable for designation by Congress or releases them from further consideration as Wild and Scenic Rivers.	0313: Manage the eligible Wild and Scenic River corridors to their assigned classification standards, and preserve their ORVs and free-flowing status, until the rivers undergo a suitability study and the study finds them suitable for designation by Congress or releases them from further consideration as Wild and Scenic Rivers.	0413: Manage the eligible Wild and Scenic River corridors to their assigned classification standards, and preserve their ORVs and free-flowing status, until the rivers undergo a suitability study and the study finds them suitable for designation by Congress or releases them from further consideration as Wild and Scenic Rivers.

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
Eligible Wild and Scenic Rivers	Guideline	Wildland fire (prescribed fire and/or wildfire) may be used as management tools in any river corridor as long as ORVs are maintained within the corridor.	0315: Prescribed fire and wildland fire may be used as management tools in any river corridor as long as ORVs are maintained within the corridor. (Modified as part of the 2012 Forest Plan amendment)	0415: Prescribed fire and wildland fire may be used as management tools in any river corridor as long as ORVs are maintained within the corridor. (Modified as part of the 2012 WSC amendment)
Eligible Wild and Scenic Rivers	Guideline	The full range of fire suppression strategies may be used to manage wildfires. Emphasize strategies and tactics that minimize the impacts of suppression activities on the river classifications and ORVs.	0316: The full range of fire suppression strategies may be used to manage wildfires. Emphasize strategies and tactics that minimize the impacts of suppression activities on the river classifications and ORVs.	0416: The full range of fire suppression strategies may be used to manage wildfires. Emphasize strategies and tactics that minimize the impacts of suppression activities on the river classifications and ORVs.
Soil, Water, Riparian, and Aquatic Resources	Objective	Within the Germania Creek subwatershed, projects or activities must provide for protection of habitat for the isolated bull trout population above the falls on Germania Creek.	0326: Maintain the endemic bull trout population in the Germania Creek subwatershed above the falls on Germania Creek.	
	Objective	Reduce effects to fish habitat and water quality from livestock grazing within the tributaries of the East Fork Salmon River, and Slate Creek subwatersheds. The Upper East Fork Salmon subwatershed is the priority.	0330: Reduce adverse grazing effects to fish habitat and water quality from livestock grazing within the tributaries of the East Fork Salmon River, Slate Creek, French-Spring, and Sullivan-Clayton subwatersheds. The Upper East Fork Salmon and French-Spring subwatersheds are the priorities.	
Soil, Water, Riparian, and Aquatic Resources	Objective	Protect spawning and rearing areas within streams and rivers during critical spawning and incubation periods. The Upper East Fork Salmon subwatershed is the priority.	0331: Maintain spawning and rearing areas during critical spawning and incubation periods. The Muley-Elk, Beaver-Peach, and Upper East Fork Salmon subwatersheds are the priorities.	
Botanical	Objective	Manage fire suppression tactics, livestock grazing, mining activities, recreational stock use, dispersed camping, firewood collection for personal use, or trail construction and maintenance to minimize impacts to whitebark pine.	0351: Consider the impacts to whitebark pine from suppression of high-elevation fires when developing Fire Management Plans and strategies. (Modified as part of the 2012 Forest Plan amendment)	

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
Recreation	Objective	Manage dispersed campsites and recreation activities to prevent them from expanding or deteriorating beyond a point where impacts to riparian and aquatic resources cannot be effectively addressed.	0338: Manage dispersed campsites along the primary recreation corridors of the Salmon and East Fork Salmon Rivers, and backcountry lakes, to prevent them from expanding or deteriorating beyond a point where impacts to riparian and aquatic resources cannot be effectively addressed.	
Recreation	Objective	Manage vehicle access points to prevent unauthorized vehicle use by posting appropriate boundary signage and blocking or rehabilitating unauthorized routes.	0365: Rehabilitate or physically barrier roads or routes that are closed to vehicle or ORV use. Barriers are to be rustic in design and appearance.	0461: Physically close or barrier roads or routes that are closed to vehicle or ORV use. Barriers are to be rustic in design and appearance.
	Standard	Manage winter recreation to minimize conflict with high elevation wildlife species, including mountain goats and wolverine.	0375: Restrict or modify winter recreation activities where conflicts exist with mountain goats and/or wolverine.	0471: Restrict or modify winter recreation activities where conflicts exist with mountain goats and/or wolverine.
	Standard	Prohibit constructing new trails, unless determined to be the minimum necessary to protect wilderness character.	0306: Do not construct new trails within trailless areas of the Boulder/White Cloud recommended wilderness area, unless trails are determined to be necessary to prevent resource damage.	0406: Trail-less areas within the Boulder/White Cloud recommended wilderness area will remain trail-less, unless trails are determined to be necessary to prevent resource damage.
Fire	Objective	Identify areas where lightning caused wildfires can restore or maintain natural vegetative conditions; account for spatial and temporal changes in vegetation and fuels that affect the relative risk of wildfire impacting urban interface and other fireaffected values both within and outside of wilderness.	03117: Identify areas appropriate for Wildland Fire. Use wildland fire to restore or maintain desired vegetative conditions and to reduce fuel loadings. (Modified as part of the 2012 Forest Plan amendment)	O4119: Identify areas appropriate for Wildland Fire. Use wildland fire to restore or maintain desired vegetative conditions and to reduce fuel loadings except in Sun Valley-Trail, Elkhorn Creek, Lake Creek, Eagle Creek, Fox-Leroux, Adams-Big Wood, Triumph-Milligan, Easley-Headquarters outside Sawtooth NRA boundary, east portion Barr Gulch-Rooks, Warfield-West Fork Warm Springs, Greenhorn Creek, Deer-Quigley, Wolftone-North Fork Deer Subwatersheds. (Modified as part of the 2012 Forest Plan amendment)

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
Fire	Guideline	Coordinate across agencies and with wilderness specialists for FS and BLM, and other adjacent landowners, as appropriate, to develop compatible wildland fire management strategies.	Objective 03119: Coordinate with adjacent land managers to develop compatible wildland fire suppression strategies and coordinate plans for wildland fire management (Modified as part of the 2012 Forest Plan amendment)	Guideline 04121: Coordinate with adjacent land managers to develop compatible wildland fire suppression strategies and coordinate plans for wildland fire management (Modified as part of the 2012 Forest Plan amendment)
Range	Objective	Provide for high-quality mountain goat and bighorn sheep habitat by reducing summer and fall forage competition between domestic livestock where allotments overlap mountain goat and bighorn sheep habitat.	Objective 0359: Provide high-quality mountain goat forage by reducing summer and fall forage competition between domestic livestock where allotments overlap mountain goat habitat.	Objective 0454: Provide high-quality mountain goat forage by minimizing or reducing summer and fall forage competition between domestic sheep in the tributaries to the North Fork Big Wood River, Baker Creek, Prairie Creek, Trail Creek, and Owl Creek.
Range	Standard	For FS-administered allotments, livestock fences must provide for biggame passage.	03110: Livestock fences must provide for big-game passage.	
	Standard	For FS-administered allotments, forage utilization for riparian areas will not exceed 30% use of most palatable forage species or must retain a minimum 6-inch stubble height of hydric greenline species.	03109: Forage utilization for riparian areas will not exceed 30% use of most palatable forage species or must retain a minimum 6-inch stubble height of hydric greenline species.	

MPC/ Resource Area	Direction	Wilderness Management Plan	Management Direction Description – 03	Management Direction Description – 04
Education	Objective	Provide educational information on areas that are susceptible to weed invasion and measures to help prevent nonnative, invasive plant establishment and spread.		Objective 0469: Evaluate and incorporate methods to help prevent weed establishment and spread from recreation and trail use in the Fox-Leroux and Sun Valley-Trail subwatersheds. Methods to consider include annual weed inspection and treatment of trailheads and other high-use areas; and posting educational notices in these areas to inform the public of areas that are susceptible to weed invasion and measures they can take to help prevent weed establishment and spread.
	Objective	Enhance public awareness and support through educational programs about the role of fire in the ecosystem and fire's role in maintaining wilderness character.	0345: Enhance public awareness of natural processes, including fire regimes and insects and disease, through interpretive and education programs.	
	Objective	Coordinate with tribal communities and others to provide public interpretation of American Indian sites.	Objective 0393: Coordinate with tribal communities and others to provide public interpretation of American Indian sites.	