

CHAPTER 3

AFFECTED ENVIRONMENT

APPENDICITIS HILL

General Characteristics

The Appendicitis Hill WSA is generally triangular in shape, containing 21,900 acres of public land with a 640 acre state inholding. The WSA is located five miles northwest of Arco, Idaho.

The WSA lies between the Antelope Creek and Big Lost River drainages and contains several intermittent streams. The area is mountainous, with Crawford Peak rising to 8,523 feet, 2,900 feet above Antelope Valley. Lower elevation hills are generally rounded with a vegetative cover consisting of sagebrush and grass. Several canyons contain impressive rock outcrops and caves. High, north facing slopes support concentrated stands of Douglas fir; chokecherry and mountain mahogany can be found on south slopes and canyon walls. Stands of aspen accompanied by willows grow in Newman and Chokecherry Canyons.

Wilderness Values

Naturalness. The most apparent changes to the WSA's natural character are vehicle ways and livestock watering sites. Eighteen miles of roads and ways enter the WSA from all sides, while 14 water developments (troughs, springs, and ponds) are distributed throughout. Visitors would encounter these human-caused imprints as they travel into 15 of the WSA's canyons.

The WSA's large size and good topographic and vegetative screening tend to decrease the overall effects of impacts to naturalness. While essentially retaining its natural character, most human-caused imprints in the WSA are located along routes a visitor would normally travel.

Solitude. Two factors contribute to the WSA's outstanding opportunities for solitude. First, the WSA's 21,900 acres is of a size sufficient to offer a visitor space and distance from others. Second, 90 percent of the WSA is steep and dissected with intermittent drainages that provide seclusion, and contributes to a visitor's chances of avoiding others.

Primitive and Unconfined Recreation. The Appendicitis Hill WSA offers outstanding primitive recreation opportunities including hiking, back-packing, hunting, wildlife observation, photography, and sightseeing. The steep and rugged terrain makes these recreation activities challenging. Both day and overnight trips can be taken among the canyons, peaks, and other points of interest. Scenic views of the surrounding mountain ranges, valley floor, and lava plain are excellent from the WSA's high ridges and peaks. Large and small mammals and numerous bird species also offer attractions to the primitive recreationist. The WSA lacks any significant feature which would be a focal or destination post for visitors.

Special Features. The WSA's most important special feature is the presence of crucial winter range for approximately 1,200 mule deer and 100 elk.

Recreational Off Road Vehicle Use

Recreational ORV use in the Appendicitis Hill WSA is estimated to be 50 visitor days annually, generally associated with hunting. The Big Lost MFP restricts ORVs to existing roads and ways. The number of these travel routes into the WSA (12 roads and ways totaling 18 miles) allows for vehicle access into the major drainages of the WSA, including Newman Canyon and Chokecherry Canyon.

Energy and Mineral Resources

Except for the 640 acre state inholding, all surface and mineral estates in the WSA are in federal ownership and are open to mineral entry and leasing.

The Appendicitis Hill WSA has been classified as having moderate favorability for oil and gas (BLM GEM, 1983). The basis of this classification is the structural setting of the WSA including excellent potential for the development of traps, indications of subsurface structures from private geophysical data, the presence of potential hydrocarbon source and reservoir beds in the stratigraphic section, and a favorable thermal history of the source rocks. All but the most eastern portion of the WSA is covered by oil and gas leases granted after 1976.

Most of the Appendicitis Hill WSA is rated as being unfavorable for geothermal resources (BLM GEM, 1983). This classification is based on analogy with similar areas in the Idaho Basin and Range geothermal province and the high elevations present, combined with the absence of major faults or lineaments. The portions of the WSA along Antelope Creek and Lost River Valleys are classified as having low favorability for geothermal resources. This classification is based on proximity to the northern margin of the Snake River Plain, the existence of a range-boundary fault along the east side of the WSA, and the presence of a major lineament along Antelope Creek.

The WSA is classified as having low favorability for other leasable resources, including phosphate, bitumen, and asphalt. The lack of known occurrences in, and the generally unfavorable geologic environment of the WSA leads to the low classification.

The Appendicitis Hill WSA is rated as having low to moderate favorability for metallic minerals, including lead, zinc, silver, and copper (BLM GEM, 1983). The low rating is assigned because of the low level of detail of published geologic mapping and the lack of geochemical and geophysical data. Within the WSA, there are three mineral occurrences, consisting of prospect pits or shafts. The mineral content of these occurrences is unknown.

Lastly, the Appendicitis Hill WSA is classified as having moderate favorability for common varieties of limestone, with potential for building stone and aggregate production. There are 11 known occurrences of sand and gravel on the border of, or just outside the WSA. Use of these areas as sources of sand and gravel is localized; use occurs primarily in conjunction with county road maintenance.

Mule Deer Winter Range

Winter range of mule deer is an important wildlife value within the Appendicitis Hill WSA. There are about 1,200 mule deer inhabiting the area during winter months. The deer concentrate in the southern slopes and feed mainly on mountain mahogany and sagebrush. Mountain mahogany is a tree-like shrub growing to an average height of 7 feet, valuable as winter forage because its leathery, gray-green leaves contain a high level of protein. New growth on the trees is most desirable, due to its palatability. Most of the mahogany stands are overmature with older growth being over-utilized and with little production of new growth.

Forestry Resources

The Appendicitis Hill WSA has 2,100 acres of forested land of which 870 acres are classified as commercial timber. The main commercial tree is Douglas fir. The average age of these trees is over 250 years and average diameter is 15 inches. Spruce budworm and Douglas fir bark beetle are infecting all stands. The commercial timber is located to the southeast of Crawford Peak with the remaining acreage of noncommercial timber in small stands scattered throughout the WSA.

WHITE KNOB MOUNTAINS

General Characteristics

The White Knob Mountains WSA contains 9,950 acres of public land located five miles northwest of Arco, Idaho. There are no state or private inholdings in the WSA. The area is mountainous with the highest point being 7,955 feet above sea level and 2,000 feet above the valley floor. Many well defined drainages with southward orientations feed Cherry and Antelope Creek. These drainages are intermittent in nature, carrying water only during the early spring as the winter's accumulation of snow melts. While the majority of the unit supports a sagebrush-bunchgrass complex, scattered and concentrated stands of Douglas fir occur at higher elevations. None of the Douglas fir is considered of commercial value in this WSA. Mountain mahogany is often found between the sage-to-Douglas fir transition zone or on the tops and slopes of lower hills with cooler aspects. Several pockets of aspen and willow surround moist spring areas in upper Waddoups Canyon.

Wilderness Values

Naturalness. The most apparent changes to the WSA's natural character are vehicle ways and livestock watering sites. Seven unimproved vehicle trails totaling six miles are found in the area. Six livestock

watering sites are located near springs. Trampling is evident in the area immediately surrounding each site; however, the impact on naturalness is lessened by good vegetative and topographic screening. While the WSA does essentially retain its natural character, there are human-caused imprints which visitors would encounter.

Solitude. The WSA's size and configuration combine with sufficient topographic and vegetative screening to create outstanding opportunities for solitude. Visitors to the area would be able to avoid the activities of other people and find a secluded spot in this fairly rugged area. Seven major canyons distributed throughout the WSA offer places to avoid the sights and sounds of other people.

Primitive and Unconfined Recreation. Outstanding primitive recreation opportunities in the WSA include hiking, camping, hunting, wildlife observation, and sightseeing. The steep and rugged terrain makes these activities challenging. Both day and overnight trips can be taken among the canyons, high ridges, and other points of interest. Scenic views of the surrounding mountain ranges and valley floors are excellent from the higher elevations in the WSA. Large and small mammals and numerous bird species also offer attractions to the primitive recreationist. The WSA lacks any significant feature which would be a focal or destination point for visitors.

Special Features. The WSA provides important, but not crucial, habitat for mule deer and elk.

Recreational Off Road Vehicle Use.

Recreational ORV use in the White Knob Mountains WSA is estimated to be 50 visitor days annually, and is generally associated with hunting. With seven vehicle ways into the WSA's canyons, ORV users have relatively easy access into the inner reaches of the WSA. The pattern of use is such that a hunter will drive up a way in a canyon, park at some likely-looking spot, hunt for several hours, and then return to his vehicle and drive out of the WSA the way he came in.

Energy and Mineral Resources

All mineral estates in the White Knob Mountains WSA are in federal ownership and open to mineral entry and leasing.

The WSA has been classified as having moderate favorability for oil and gas (BLM GEM, 1983). The basis of this classification is the structural setting of the WSA including excellent potential for traps, indications of subsurface structures in private geophysical data, the presence of hydrocarbon source, reservoir beds in the stratigraphic section, and the favorable thermal history of the source rocks. All of the WSA except for the southern most portion is covered by oil and gas leases granted after 1976 or by lease application.

All of the White Knob Mountains WSA is classified as being unfavorable for geothermal resources. This is based on analogy with similar areas with the Idaho Basin and Range geothermal province. Negative factors include generally high elevations and an absence of major faults or lineaments.

The WSA is classified as having low favorability for other leasable resource, including phosphate, bitumen, and asphalt. The basis of this classification is the lack of known occurrences in the area and the generally unfavorable geologic environment of the WSA.

The White Knob Mountains WSA is classified as having low to moderate favorability for metallic mineral resources (lead, zinc, silver, and copper; BLM GEM, 1983). Two groups of lode mining claims held by the Espinosa family of Burley, Idaho, involve lands within the WSA. One claim group includes two claims in the center of the west half of the east half oil Section 23, T.S.N., R. 24 E., and the other is of 10 claims in the center of Section 25, T.S.N., R. 24 E. Only one prospect has been developed by the Espinosa's so far, just inside the WSA boundary in Section 25. Assay work done in 1981 revealed silver, copper, and titanium values.

Lastly, the White Knob Mountains WSA is classified as having moderate favorability for common varieties of limestone. The dominance of carbonate rocks in the stratigraphic section provides the basis of this classification.

BURNT CREEK

General Characteristics

The Burnt Creek WSA contains 24,980 acres of public land with a 640 acre state inholding. The WSA is located at the head of the Pahsimeroi Valley, approximately 35 miles north-northwest of Arco, Idaho. The WSA is contiguous with the U. S. Forest Service RARE II Area 4-210 Borah Peak.

The WSA contains portions of four perennial streams - the Upper Pahsimeroi Creek, Burnt Creek, Short Creek, and Dry Creek. All but Short Creek support native rainbow and Dolly Varden trout populations. The WSA offers excellent scenery, from the sublime majesty of the Lost River Range to the south to the anomalies of the Rock of Ages and Squawtit. It is a mountainous area with the highest points well over 9,000 feet in elevation, 4,000 feet above the valley floor. The eastern and northern portions of the WSA are characterized by open sagebrush-grass covered hills. The southern and western portions are steeper with scattered pockets of Douglas fir and juniper.

Burnt Creek Lake lies near the headwaters of Burnt Creek. It is located in a narrow, rocky canyon surrounded by Douglas fir and mountain mahogany. Being a shallow lake, it freezes solid during the winter so no fish inhabit it. The remnants of an old dam can be seen on Dry Creek. Still found on maps, the old Dry Creek Reservoir was built in 1925 and inundated about 100 acres. In 1956, nature took its course and washed the concrete dam downstream. Today, the remains of the dam stand as a vivid reminder of nature's power against the works of man.

Wilderness Values

Naturalness. The WSA, as a whole, appears in a natural condition. The Burnt Creek and Short Creek roads are constructed improvements intruding into the WSA. Eight miles of unimproved but noticeable vehicle ways are concentrated in the eastern end of the WSA. The remains of an old dam can be seen on Dry Creek. Five developed springs and eight miles of grazing allotment fence exist in the WSA, but remain subordinate to the area's natural character.

Solitude. Outstanding opportunities for solitude exist in the WSA due to its large size, topographic relief, vegetative screening, and the remoteness of the area. Visitors would be able to avoid the sights and sounds of others in any of the WSA's many canyons. Vehicle use on the Burnt Creek and Short Creek roads would lessen the outstanding opportunities for solitude on the lands adjacent to the roads.

Primitive and Unconfined Recreation. Outstanding opportunities for primitive recreation in the WSA include hiking, backpacking, fishing, hunting, camping, wildlife observation, and sightseeing. There are no continuous barriers or man-made developments which limit recreation activities. Both day and overnight trips can be taken among the canyons, high ridges, and other points of interest. Scenic views of the Lost River Range to the south are excellent. Large and small mammals and numerous bird species also offer attractions to the primitive recreationist. Burnt Creek, Dry Creek, and Upper Pahsimeroi Creek are considered focal points for visitors to the WSA.

Special Features. The WSA contains interesting geologic features and archaeological sites. Geologic features are predominantly basalt of the Challis Volcanics. The archaeological sites are mainly implements of stone and other durable materials; most perishable goods have been lost. While such resources do add interest to the WSA, neither the geologic features nor the archaeological sites are any more significant than those found on adjacent non-WSA lands. The WSA offers quality hunting because of a wide diversity of big game species.

Recreational Off Road Vehicle Use

Recreational ORV use in the Burnt Creek WSA is estimated to be 100 visitor days annually and is generally associated with hunting. With roads up Burnt Creek and Short Creek, and with vehicle ways above the old Dry Creek Reservoir, ORV users have relatively easy access into the three major drainages of the WSA. The Ellis-Pahsimeroi MFP limits ORV use in the Burnt Creek WSA to existing roads and ways. The rugged terrain also naturally limits ORV use to existing routes, which are generally found in the canyon bottoms.

Energy and Mineral Resources

Except for the 640 acre state inholding, all mineral estates in the Brunt Creek WSA are in federal ownership and open to mineral entry and leasing.

The WSA has been classified as being moderately favorable for the accumulation of oil and gas (BLM GEM, 1983). The regional geologic environment is favorable, and both potential source and reservoir rocks occur in the subsurface of the WSA. All of the WSA except for that portion in T9N, R24E and T9N, R24 1/2E, is covered by post-1976 oil and gas leases or lease applications.

Dry Creek Valley and the northern edge of the WSA are classified as having low favorability for geothermal resources. These areas comprise the lower elevations in the WSA which might lie along major lineaments or range-boundary faults. The remainder of the WSA is classified as unfavorable for geothermal resources because the area is topographically high.

All of the Burnt Creek WSA is classified as unfavorable for other leasable commodities (BLM GEM, 1983). No rocks known to contain other leasable commodities underlie the WSA.

The Burnt Creek WSA is classified as having low favorability for metallic minerals (lead, zinc, silver, copper; BLM GEM, 1983). The area is almost entirely underlain by basaltic and andesitic Challis Volcanics; no prospects or occurrences are reported in these rocks in the region.

Similarly, the WSA has low favorability of the accumulation of saleable materials such as sand and gravel (BLM GEM, 1983). A few small areas of facial and alluvial material can be found in the WSA, but similar deposits outside the WSA are much more extensive and more accessible.

Wildlife Use

The WSA provides both year-round and seasonal habitat for elk, bighorn sheep, mule deer and antelope. Elk and bighorn sheep utilize the higher elevations adjacent to the Challis National Forest in summer and retreat to the lower valley edges of the WSA in winter. Mule deer and antelope are primarily summer and fall visitors preferring the lower valley area away from the WSA during winter. Few if any animals remain in the 8,300 acres recommended for wilderness during the winter due to deep snows and a lack of forage. The Idaho Fish and Game Department indicated that the 8,300 acres recommended suitable in the Draft EIS has high wildlife value for bighorn sheep, elk, mule deer, and antelope and provides a high quality hunting experience.