WILDERNESS AT RISK: CITIZENS' WILDERNESS PROPOSAL FOR BLM LANDS

The noted organizations and entities submit this proposal to the BLM and DOI to represent the "crown jewels" of Wyoming's BLM Lands. Please know that years of effort to inventory, document and watchdog these areas have gone into retaining these areas for future generations to enjoy.

This proposal grew from the concern of hundreds of Wyoming citizens that these irreplaceable wild lands are being lost to development of oil, gas and mining, dirt bikes and off-road vehicle use. Man has a huge impact on Wyoming BLM lands. The BLM has over 17 million acres—an area eight times the size of Yellowstone National Park—under its trust in Wyoming. Unfortunately, 15 million acres have been developed to a point where they no longer qualify for wilderness. The Citizens' Proposal promotes wilderness designation for most of the last areas remaining undeveloped—about one and a half million acres. This modest proposal represents less than 8 % of the total of BLM lands in Wyoming. More importantly, it represents some of the most critical wildlife habitat, some of the most important archeological sites and some of the most remote and awe-inspiring recreational areas in the United States.

WILDERNESS STUDY PROCESS

The BLM began the wilderness review in accordance with the requirements of Section 603(c) of the Federal Land Policy and Management Act (FLPMA) dated October 21, 1976. This Act mandated that within 15 years the BLM would inventory and study its lands for their wilderness suitability and that based on this review, the Secretary of Interior would forward his wilderness recommendations to the President. However, in Wyoming these recommendations never moved forward. The Citizens' Proposal calls for a genuine, unbiased inventory of all Intensive Inventory lands—that first roadless review of BLM areas and did not judge based on the potential for oil and gas development or future conflict, but on the basis of the wilderness characteristics and standards described below.

Minimum standards for the evaluation of BLM-administered lands in Wyoming were set by Congress in Section 2(c) of the Wilderness Act of 1964. These standards require an area to generally appear to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; have at least 5,000 acres of land or is sufficient size as to make practicable it preservation and use in an unimpaired condition; and may also contain ecological, geological or other features of scientific, educational, scenic or historic value. In addition, each WSA was further evaluated for its multiple use value for other purposes such as mining, grazing or timber harvest. The Citizens' Proposal summary of the findings for each WSA and Citizens' area follows.

The Red Desert Areas

1. Oregon Buttes, (including Whitehorse Creek; 040-324 & 325)

Citizens' Proposal: 19,341 acres

Highlights

This area is dominated by the magnificent Oregon Buttes, which stand astride the Great Divide and rise some 1200 feet above the desert floor. Oregon Trail pioneers looked forward to passing this prominent landmark because it marked the halfway point of their long journey to the west coast. Almost 300,000 emigrants passed by the Buttes on their way west between 1843 and 1863. The Buttes are made up of steep cliffs surrounding a sagebrush plateau with pockets of limber pine on the sides and top, and small, thick isolated stands of aspen along the lower slopes. Petrified wood is abundant.

Whitehorse Creek, in the western part of the study area, embraces maze-like badlands of red, green, and gray sheer sandstone cliffs. These badlands contain petrified wood, agate beds, and fossil snails and clams. Lush meadows and groves of aspen and pine are hidden around springs within the drainage. From atop Pastel Buttes, the highest butte in Whitehorse Creek, and Oregon Buttes at 8610 feet elevation, visitors find outstanding panoramic views of Continental Peak, the Honeycombs, the Wind River Mountains, and the Great Divide Basin.

Location and Access

Whitehorse Creek and the Oregon Buttes study area lie due east of the Honeycomb Buttes, on the Fremont County line, approximately 12 miles south of South Pass City. The Buttes are only six miles from South Pass and Pacific Springs, where the trail crosses the Continental Divide, and heads "downhill" to the Pacific Northwest. Access to this area is from State Highway 28 turning south onto the "Lander Road" or from the south on a light duty road.

Wilderness Qualities

Within the Oregon Buttes proposal area, the combination of cliffs and flatlands provide prime raptor habitat and excellent nesting sites. Prairie falcons, golden eagles, sharp-shinned hawks, red-tailed hawks, and great-horned owls nest throughout the area, while bald eagles have been sighted foraging in the sloughs. The pygmy rabbits, a candidate for federal protection, were verified in the area (WNDD, 1993). Historically, peregrine falcons nested on the Buttes, but have not been sighted since 1965. A verified sighting of four black-footed ferrets (Federally Listed Endangered) in 1950 occurred around the Oregon Buttes (WNDD, 1993).

Desert Cryptantha, Payson beardtongue, large-fruited bladderpod, intermountain phacelia, and single-stemmed wild buckwheat --unique and sensitive plant species in the area of Oregon Buttes -- are identified as deserving special protection due to their rarity within the State. The large-fruited bladderpod is endemic to the northern portion of the Great Divide Basin. The Nature Conservancy has conducted a survey for this species, which is being managed as Sensitive by the Rock Springs District of the BLM. Generally, population of the bladderpod contains large numbers of individuals and can cover up to 1000 acres (Marriott, 1988; WNDD, 1993).

Wyoming's unique desert elk herd uses the area for crucial winter and summer range. It is also one of the few remaining calving areas used by the Sands Elk Herd. Pronghorn antelope, mule deer, sage grouse, bobcat, fox, and coyote live in the area as well. A 3,520-acre Area of Critical Environmental Concern (ACEC) was established within the area to protect special wildlife and historic values.

Oregon Buttes and surrounding acreage has been proposed as a National Rural Historic

Landscape, due to its proximity to the Oregon Trail. Additionally, the area contains shelter rings, fire pots, and other evidence of human occupation dating to at least 10,000 years ago (BLM, DWEIS, 1983). The study area is also a rockhounders' paradise--chips and stumps of petrified wood, spherical rock concretions, agate beds, and fossilized snails and clams.

Resource Analysis

Development potential for coal, oil shale, sand and gravel is low (BLM DEIS, pg 289, 1983). There are no existing oil and gas leases or wells in the Oregon Buttes WSA (BLM, 1992). Seven dry holes have been drilled within a 6 mile radius of the Oregon Buttes WSA. Eleven dry holes have been drilled within a 6 mile radius of the White Horse WSA. There is only one oil and gas lease on the Whitehorse Creek area. Whitehorse Creek area would contribute less than one-ten thousandth of the amount of recoverable gas reserves in the Green River Basin (BLM, EIS, 1990). The northeastern part of the area (approximately 4 sections) has been claim staked for uranium; however, no development has occurred, and none is foreseen by BLM. Gold deposits have been found north of the area, but not within it and all mining claims have been abandoned in the Oregon Buttes WSA. No claims exist in the Whitehorse WSA.

The area is currently grazed by cattle and sheep. No additional range improvements are planned. Grazing management practices would not change if the area is designated Wilderness. Some improvements may need to be maintained every 5 to 10 years.

Should the Oregon Buttes/Whitehorse Creek area not be designated the entire area would be open to oil and gas exploration, although no development is expected in the short-term. There is the potential for 11 wells being drilled along with some 8 miles of associated new road construction. Such traffic would degrade fragile soils and vegetation on several miles of existing trails. Springs crucial to wildlife and livestock could be contaminated. Hunting and other types of primitive recreation, as well as wilderness and wildlife values would be impacted to a varying extent, depending on the level of development and the use of BLM protective stipulations. The natural condition of lands surrounding the buttes and colorful escarpments, especially in the vicinity of Whitehorse Creek, would be lost. ORV use would also degrade wilderness values.

Boundary Rationale and Management Recommendations

In relation to the above decision, the Wyoming Game and Fish Department stated, "..we question why Whitehorse Creek, with its value to raptors, big game and furbearers and other species was not included in the ...Oregon Buttes Wilderness. The presence of one two-track road should not preclude wilderness status and its small size is irrelevant because it is contiguous with Oregon Buttes." (Final EIS pg. 449)

The citizens' addition of Whitehorse Creek WSA, with extensions on the north and south, is a logical extension of the Oregon Buttes landform and encompasses equally important scenic and historic terrain. Acquisition of approximately 324 acres of state land would encompass more of the cliffs surrounding Oregon Buttes, and follow geologic/topographic features more closely.

Boundaries of the study area follow a bladed road and private land on the north and east, and geographic/topographic features and two-tracks on the south and west.

2. Oregon Buttes Badlands

Citizens' Proposal: 6,494 acres

Highlights

The Oregon Buttes Badlands, immediately southeast of the Oregon Buttes WSA, is proposed by

the conservation community to be designated as wilderness. This area has not previously been designated a wilderness study area. A scenic rim of clay badlands runs through the heart of this area, while the eastern reaches are robed in vast reaches of open sagebrush steppe and the western edge sits atop an elevated sagebrush terrace. This unit is home to desert elk and pronghorn, offering outstanding opportunities for primitive hunting experiences. The western portion of the unit is considered core habitat for the Steamboat Mountain elk herd. This corner of the Red Desert is nationally known as a hunting area for pronghorn antelope, desert elk, and sage grouse. This area possesses outstanding wilderness qualities and exemplifies the wide open spaces for which Wyoming is known, but which are fast disappearing in the state.

Location and Access

This area is bordered by the Big Empty unit to the south, the Honeycomb Buttes to the northeast, and the Oregon Buttes WSA to the northwest. The Joe Hay Rim unit lies immediately to the southwest. A county road provides access for two-wheel drive vehicles along the eastern edge of the unit; four-wheel drive is needed to access other parts of the unit.

Wlderness Qualities

The naturalness of this area is unimpaired by the few vehicle ways that cross its otherwise trackless expanse. Most of these ways date from seismograph explorations that occurred in this area 30+ years ago, and most of these tracks have been completely reclaimed by native vegetation. The remaining handful are merely user-created, two-track jeep trails, worn into the landscape by the passage of vehicles. They make excellent hiking trails, and cannot be seen at a distance. All of the routes found in this area will merge with the surrounding vegetation within 30 years.

Outstanding recreation opportunities available in the Oregon Buttes Badlands are as follows: hiking, horseback riding, camping, wildlife photography and hunting, bird watching, rockhounding, and general sightseeing.

Opportunities for viewing wild horses and pronghorns are among the finest in Wyoming, and no other States offer viewing opportunities that even come close. The nearby massifs of the Oregon Buttes and Continental Peak provide spectacular scenic backdrops, and the wind- and water-carved badlands of the lower Joe Hay Rim snake through the center of the unit, offering excellent opportunities for off-trail exploration. This area also offers unparalleled opportunities for primitive hiking in wide-open spaces.

The Oregon Buttes Badlands provides outstanding opportunities for the scientific study, appreciation, and survival of a number of species. These include wild horses, which are commonly found in this area.

The vast size and rolling terrain found in the Oregon Buttes badlands provides outstanding opportunities for solitude. Among the crenelations of the lower Joe Hay Rim, it would be easy to escape the sights and sounds of any other visitor who might be in the unit. Large, open natural areas inherently possess solitude. No one can contest the solitude of the open ocean or the Great Salt Lake Desert. The wilderness experience found in the nearby areas such as Oregon Buttes is heightened by the surrounding rolling sagebrush steppes. These two differing landforms together add to the solitude of this area.

This area meets the BLM's requirements for screening in order to possess outstanding opportunities for solitude. This area possesses undulating topography with a vertical relief of over a hundred feet on the flats. A number of dry washes meander through this unit from west to east. A person walking this creek could not see visitors in other parts of the unit. The rims in the central part of the unit offer badland topography that is deeply dissected.

Resource Analysis:

G.B. Glass, in his Wyoming Geological Survey report of April 18, 1979 (WY-040-311 to 316, 319, The Pinnacles), stated that “These tracts are located within the Green River Coal Region. Because coal-bearing rocks crop out within these tracts, there is every likelihood that shallow or outcropping coals exist in the tracts. These tracts are definitely underlain by deeply buried coals as well. The quality, thickness, depth, and extent of coals in the tracts, however are unknown. Exploration drilling is needed to fully evaluate these tracts.” The area has low potential for oil and gas development based on the lack of leasing and production-related activity in the area.

The Oregon Buttes Badlands are much more valuable to the public as a protected remnant of Wyoming’s wild heritage than it is for any one-time extractive use for the production of coal, oil, natural gas, or uranium. The BLM must fully evaluate the recreation, aesthetic, and ecological values of the Oregon Buttes Badlands as well as its potential for non-renewable commodity production. While a handful of private corporations might make short-lived profits through the commercial exploitation of these public resources, the interest of the public clearly lies on the side of preserving this magnificent landscape to be enjoyed by countless future generations of Americans.

Boundary Rationale and Management Recommendations:

This unit is bounded to the east by a county road, and on the north a formerly constructed but neglected vehicle route with definite signs of past grading separates it from the Oregon Buttes WSA. To the south, a vehicle route of similar character separates the Oregon Buttes Badlands from the Big Empty unit. Protecting this area as wilderness provides a logical management option to protect the badland breaks along the Joe Hay Rim, ensure the connectivity of important elk habitat along this same feature, and maintain the viewshed of the Point of Rocks – South Pass Stage Road in a pristine condition.

3. Honeycomb Buttes, (including Harris Slough; 040-323,326)

Citizens' Proposal: 78,907 acres

Highlights

The spectacular Honeycomb Buttes is a vast maze of rainbow-colored badlands surrounding Continental Peak. The BLM considers this area "one of the best examples of multi-colored badlands topography in Wyoming". Eroded soils from the Green River Formation have been carved into grottos, caves, and twisted passages making a landscape like no other on Earth. Flats of greasewood and sagebrush, and bare areas of sheet erosion form the outwashes of the badlands.

The Honeycombs' breathtaking scenery and great remoteness give visitors an adventure that is wild beyond imagination. Those who explore the badlands can scramble over the eroded hills of the Harris Slough area, squirm through mud caves and tubes, and gaze out over the Great Divide Basin from atop Continental Peak--elevation 8,431 feet in the Honeycomb Buttes.

Fossilized alligator bones and turtle shells, agates, petrified wood, and translucent lenses of gypsum are scattered over the hills as if strewn by the hand of the Creator.

Location and Access

These areas lie adjacent to the Oregon Buttes and The Big Empty study areas, separated only by dirt roads. The Honeycomb Buttes is the center point for the Red Desert wilderness area, with the Harris Slough adjoining the north end, both lying 12 miles south of South Pass City. Harris Slough is located directly northeast of the Honeycomb Buttes WSA and 2 miles southwest of the Sweetwater Canyon

WSA. The northeast corner of the area abuts part of the Nature Conservancy's Sweetwater River Preserve along Buffalo Gulch.

Access to the Honeycomb Buttes is from the "Lander Road" on the northeast side or several jeep trails in the south. The Harris Slough area is easily accessed via the Buffalo Gulch Road in the Antelope Hills from the northwest or several jeep roads in the southern portion.

Wilderness Qualities

Pronghorn antelope, desert elk, mule deer, sage grouse, coyotes, and raptors are all common inhabitants, while mountain lions, swift foxes and feral horses may occasionally be seen. Ferruginous hawks, a federal Threatened and Endangered candidate species, prairie falcons, and golden eagles nest throughout the area. Burrowing owls and pygmy rabbits, both candidates for federal protection, are documented in the vicinity (WNDD, 1993).

The hornyhead chub, a sensitive fish species, found in a tributary that originates in the Harris Slough area, is protected by special protective status by the State (WNDD, 1993).

Honeycomb Buttes and the Harris Slough area are home to a vast array of sensitive and rare plant species. The large-fruited bladderpod, Payson beardtongue, and meadow pussytoes, all high priority plants known to occur in this area, are candidates for Federal listing for protection. The desert cryptantha, intermountain phacelia, single-stemmed wild buckwheat, and Nevada needlegrass are catalogued by the State for sensitive protective status (WNDD, 1993).

Leading Red Desert expert Dick Randall described the Honeycombs this way: "At one time, Lake Goshute covered all we are discussing. When Goshute receded, turtles, by the thousands, left their remains in the Honeycombs along with gar and other marine life. Years back, a friend found a bison skull in one of the hundreds of Honeycomb caves. Drug there by predators? Unlikely. Probably by a race who preceded us....Without question, Wyoming's Honeycomb Buttes are the best representation of remote, multi-colored badlands in the West."

At least twenty-five shelter rings and other noted archeological sites--the purpose and bounds of which are still unknown--show vast human activity in the Honeycombs. More recently, the old Point of Rocks-South Pass Stage Route, an historic freight wagon route ran through the western part of the area. This route was used to carry freight and passengers between the South Pass City gold mining district and the Union Pacific railroad from 1868 to about 1900. It was a major transportation corridor which helped settle the west. Original wagon ruts can still be found.

Marine fossils and other paleontological resources wee noted in the Honeycombs during the intensive wilderness inventory. McGrew and Bown (1976) confirm the potential for further finds in this area. In Plio-Pleistocene , the Green River flowed through the Harrris Slough (Love 1991) - it now runs some 80 miles west of the area.

Resource Analysis

About one-third of the WSA is within a coal lands withdrawal by a 1910 Executive Order. The area has a low potential for coal, sand, and gravel development, and no potential for oil shale. Oil and gas interest in the area is judged as moderate, based on a large number of unsuccessful wells in the vicinity. In the Citizens Proposal additions, there are oil and gas leases on the southern portion of the Honeycomb Buttes with all but two leases due to expire in 3 years, with the remaining two expiring in 5 years. In the Harris Slough addition, there are only 6 oil and gas leases, with no development, expiring in 2 to 7 years. There are no valid or active mining claims in the area. There were some gold mine claims in the past but the USGS considers the deposits uneconomical.

Cattle graze the western part of the area from May through November. Under Wilderness

designation, the grazing management practices would not change from those currently in place. In the spring and fall, sheep are trailed through the eastern part of the area.

Non-designation would impact the area in the following ways: Oil and gas exploration and development would lead to increased erosion of unstable soils on existing trails and an estimated 25 miles of new roads would be built. The few vital springs in the area would be endangered by migratory pollutants. Although No Surface Occupancy stipulations could protect the steep badlands, the naturalness and solitude would be lost on the surrounding flats. About 25 percent of the mule deer and 33 percent of the elk would be displaced from the area by oil and gas activity. The quality of the recreation experience would be virtually destroyed with minerals development.

Boundary Rationale and Management Recommendations

The BLM officials have approved an exchange of public lands for state lands within the Honeycomb Buttes WSA. The EA was completed and there were no adverse comments from the public on the land exchange proposal. This exchange would allow the BLM to acquire 1,280 acres of state land to "consolidate ownership" and improve public management (CST: 5-23-93).

Vehicle trails form most of the boundaries for this area. A bladed road lies along the southwest border and a pipeline to the north. There are 3 1/2 state sections in the Honeycomb Buttes which includes sand dunes and wild, open vistas that need to be assimilated into the Citizens Proposal Wilderness area as well as 2 state sections in the Harris Slough area. Including the Harris Slough in the Honeycomb Buttes proposal would complete protection of the bluff area from the Buttes and offer buffer protection for the Slough wetlands as well as enhancing wilderness recreation for the Sweetwater Canyon area only two miles to the north. The addition of the southern portion of the Honeycomb Buttes in the Citizens' Proposal would allow contiguous protection to the Big Empty which would increase the wilderness experience for the area and allow access between the two areas. The acquisition of the state land along Red Creek and a 40-acre private tract on Sand Creek would enhance manageability of the area.

4. The Big Empty, (including Bush Creek and Joe Hay Rim; 040-319)

Citizens' Proposal: 41,120 acres

Highlights

The Big Empty is big, clear, open country, broken only by a small ridge on the south end, providing solitude and quiet beyond comprehension to the urban dweller. Ecologically, this region epitomizes Wyoming's vast Red Desert of the Great Divide Basin. It encompasses the upper reaches of the Bush Creek drainage--an open expanse of high desert on the western edge of the Great Divide Basin. The area also includes Joe Hay Rim, a brightly colored slope of the Wasatch and Green River Formation. Big sagebrush, greasewood, and Nuttall's saltbush are the primary ground cover, along with areas of barren rolling bentonite hills. Springs and pockets of aspen dot the colorful bluffs of Bush Rim and Joe Hay Rim in the western portion of the area. A muddy seasonal lake forms in the northeast portion during spring rains. Oregon Buttes, The Pinnacles, Continental Peak, and other landmarks create spectacular views in the distance.

Location and Access

Located 30 miles northeast of Rock Springs in northeastern Sweetwater County, the Big Empty lies between Honeycomb Buttes and The Pinnacles/Alkali Draw study areas. Joe Hay Rim lies along the Continental Divide, draining west into Rock Cabin Creek and east into Bush Creek and the enclosed

Great Divide Basin.

Access to the Big Empty and Joe Hay Rim is from the west along a light duty road crossing Rock Cabin Creek.

Wilderness Qualities

The Big Empty's remote setting and vast expanses give visitors a great sense of solitude. A number of special features provide interesting hunting, hiking, and nature study.

The historic Freight Wagon Route from South Pass City to Point of Rocks crosses the western part of the area, and remnants of two freight wagon stations used in the late 1800s are found along the trail. Evidence of Indian camps can be found throughout the area, especially around seeps and on sand ridges. Artifacts, including a Duncan point, indicate human use of the sites during the `anti-cline'-- believed to be a period when humans were absent from the region. The layers of mud around springs in the area have yielded skulls of giant bison that once came there to drink. Fossilized fish and other invertebrates are found in the area (Love 1991).

Desert elk, deer, antelope, feral horses, and coyotes still use these springs. The area not only provides important summer and winter elk habitat but is also an important migration route for the Sands elk herd. Golden eagles, prairie falcons, and ferruginous hawks--a federal T&E candidate--forage in the area.

Golden eagles nest on Joe Hay Rim (Ritter 1991). The pygmy rabbit and mountain plover were verified in The Big Empty - both are candidates for federal protection. The burrowing owl, a State priority species for special protection, is also found in the area (WNDD, 1993). In 1972, a black-footed ferret, federally protected listed Endangered, was sighted near the area (WNDD, 1993).

Resource Analysis

Eight seismic lines and several two-tracks have impacted much of the area. There is no oil and gas development in the area, but the area is leased for oil and gas (BLM, 1992). There are no mineral claims in the area.

Should the Big Empty area not be recommended for wilderness, ORV use alone would destroy naturalness and solitude over the entire area, due to the open vastness of the area. Oil and gas exploration and other unforeseen mineral activities would also impact wilderness values across this fragile area.

Boundary Rationale and Management Recommendations

Approximately four sections of state land lie within the area and should be acquired to assure uses compatible with wilderness management. The northern boundary is due to a two track dividing the Big Empty from the Honeycomb Buttes. The western boundary includes Joe Hay Rim and the Continental Divide is marked by a two track. The eastern boundary is a jeep trail.

5. The Pinnacles, (with Parnell Creek, South Pinnacles, Bush Rim, Alkali Draw; 040-310 to 315)

Citizens' Proposal: 62,377 acres

Highlights

The Pinnacles are a well-known natural landmark of the Red Desert and are one of the last undisturbed portions of the Red Desert in the Great Divide Basin.

Two spectacular landforms dominate the area: The Pinnacles--a group of rugged clay escarpments protruding from the desert floor, and Alkali Draw--a series of purple and yellow canyons

which drain eastward from Bush Rim and Steamboat Mountain. Topography varies within the area from bluffs and steep draws on the west, to picturesque crags and rimrock rising above rolling flats on the east. Desert shrubs and bare, rocky soil cover most of the area. Painted bluffs rise above Parnell Creek, Rock Cabin Creek, and their confluence at Jack Morrow Creek. The Citizens Proposal for The Pinnacles area includes the South Pinnacles WSA, Alkali Draw WSA and Parnell Creek area.

Location and Access

This area lies south of and adjoins the Big Empty Wilderness Proposal Area. Parnell Creek contains a portion of the Continental Divide. This combined area is located in northeastern Sweetwater County about 32 miles northeast of Rock Springs. The area is easily accessed by bladed roads from the south, east and west.

Wilderness Qualities

The Pinnacles provides outstanding opportunities for solitude and a unique and stimulating desert camping experience. BLM cites this area as a relatively rare undisturbed portion of the Red Desert--an ecosystem valuable for scientific study. The most outstanding opportunities are in experiencing the extremely unique geologic formations of The Pinnacles themselves. Visitors here can explore small caves and grottos, or discover piles of unusual wind-carved rocks, and 36 million year-old fossils of snails, clams, and leaves. They also find outstanding panoramic views of Black Rock and other volcanic features in the Leucite Hills. Fossilized shells, lizard teeth and rodent bones are found in the Green River Formation. Other strange paleontological finds have been found in the area and have been documented by geologist David Love (1991).

Artifacts such as butchering tools, points, and shelter rings show human habitation in the area as long as 6000 years ago, including during the anti-cline, when humans were believed to be absent from the region. A segment of the South Pass City to Point of Rocks Freight Wagon Route, used in the late 1800s passes through a small portion of the area, and continues along the western edge of the area.

The Pinnacles area provides nesting grounds for ferruginous hawks, a federal Threatened and Endangered candidate species, sage grouse, crucial mule deer winter range, year-long range for antelope, crucial winter range for the Sands desert elk herd, and habitat for feral horses. Large prairie dog towns here may harbor endangered black-footed ferrets as there were historical sightings reported in 1972 near the area (WNDD, 1993). The pygmy rabbit and mountain plover, both candidates for federal protection, are found and verified in the area (WNDD, 1993).

Rare or sensitive plant species located in the area are the large-fruited bladderpod, intermountain phacelia, and Nelson phacelia (WNDD, 1993).

Resource Analysis

The western part of The Pinnacles area overlays a formerly producing oil field, known as the Treasure Unit. Extensive drilling near the southern boundary has shown a success ratio of 15 percent which is not indicative of high production. There are two shut-in wells inside the southwest boundary of the WSA and 2,705 acres of pre-FLPMA oil and gas leases in Alkali Draw WSA. There are no pre-FLPMA leases in South Pinnacles. A handful of dry holes have been drilled in the area. The success ratio for The Pinnacles WSA is 15%, a relatively low ratio. Parnell Creek area and a large percentage of the eastern portion of the Pinnacles is leased for oil and gas. There are no active mining claims in any of the Citizens' Proposal area (BLM 1993). Part of the area contains sodium sulfate, sodium carbonate, and coal-bearing rocks, but no mineral development is anticipated by the BLM in Alkali Draw, and no solid mineral resources are know to exist in the South Pinnacles WSA.

Both sheep and cattle graze the study area from May to December. There are no range improvements in the WSAs and none are planned. Grazing management practices would not change under Wilderness designation.

Should the area not be recommended for Wilderness, one of the last remnants of undisturbed Red Desert would be open to oil and gas exploration, vehicle use, utility corridors, and other unforeseen activities, resulting in 25 to 30 miles of new road. Naturalness and opportunities for solitude and primitive recreation would be damaged across the whole area. Cultural features could easily be damaged by development. Big game would lose habitat and be displaced on the entire unit. Total possible production of hydrocarbons would be less than one-tenth (0.07) of one percent of estimated reserves in the Green River Basin.

Boundary Rationale and Management Recommendations

Many of the two-tracks cited during the initial inventory phase--in the late 1970s--have now weathered and revegetated, and are substantially less noticeable. Therefore, consideration of these five units as one facilitates easier manageability and increased protection as wilderness.

The Pinnacles Citizens' Proposal Area includes the Alkali Draw WSA, the South Pinnacles WSA, The Pinnacles area and Parnell Creek area. All boundaries on the east, west, north and south are formed by jeep trails or two-tracks.

6. East Sand Dunes, (with Alkali Basin; 040-316 & 317)

Citizens' Proposal: 20,539 acres

Highlights

The East Sand Dunes area contains some of the most spectacular scenery of the Killpecker Sand Dunes, the largest active sand dune region in Wyoming. This region comprises a beautiful, eerie, unspoiled remnant of the Red Desert in the Great Divide Basin. Besides the barren active dunes which offer superb draws and valleys, the strange playa lakes of Alkali Basin are formed by ice-fed ponds within the dunes.

Location and Access

This combined area lies in east central Sweetwater County about 21 miles northeast of Point of Rocks. The study area is adjacent to the Red Lake area on the eastern boundary. It is directly south east of The Pinnacles Citizens Proposal Area by only a mile. It is accessed by County Road 4-21 on the east.

Wilderness Qualities

This area is highly valuable for scientific study of active sand dunes, and is part of the longest chain of sand dunes in North America. No dunes of this activity level are included in the NWPS. East Sand Dunes would add a new ecosystem or landform to the National Wilderness Preservation System.

The dunes support a unique herd of desert elk, which exist almost entirely in the sagebrush desert ecosystem. The Sands elk herd occasionally inhabits the WSA during the winter months (FEIS Pg 133). Feral horses, kangaroo rats, bobcats, and numerous other wildlife species make their home in this area. The area is considered valuable yearlong habitat for pronghorn antelope (WG&F, 1991). The burrowing owl, a state priority species, is verified near Alkali Basin (WNDD,1993).

The dunes also provide habitat for unique and rare plant species. Spinyleaf milkvetch, parry sedge, and mystery wormwood have been observed near here (WNDD, 1993).

Visitors to the area may discover petrified wood, fossils of mud-wrapped nautilus shells, and

frozen lightening bolts, or fulgramites--rare blue or green glassy shards of lightening-fused sand.

Four thousand year-old points show human occupation during the anti-cline--a period when archaeologists believe the climate may have become more arid. Archaeological sites dating to this period are infrequently identified, but many seem to represent a transition to a "desert" lifeway, with a greater emphasis on plant collecting and processing. Sites in the 5,000 to 2,500 year range are more common and appear to represent a culture well-adapted to hunting a variety of big and small game and gathering a variety of plant material (BLM, DEIS, 1983).

Resource Analysis

Oil and gas may be present beneath the area, but the expected success ratio for wells is only 15 percent, and the area now contains 2 dry holes. Five dry holes have been drilled north of the WSA. There is a shut-in well on the edge of the northern boundary. There are oil and gas leases located on the southern portion of the East Sand Dunes area (BLM 1993). If hydrocarbon resources could be fully developed, they would amount to 0.15 percent of the reserves in the Green River Basin. Coal bearing rock in the area lies at depths too great for mining. No other minerals or mining claims exist in this area (BLM 1993).

There is grazing by cattle and sheep from May through December, and trailing of sheep in the spring and fall. No new range improvements are planned. Grazing management practices would not change under wilderness designation.

Should the East Sand Dunes Citizens' Wilderness Proposal area not be protected by wilderness designation, one of the last undeveloped remnants of the Red Desert would lose protection. Exploration for oil and gas, increased roading (a projected 3-5 miles of new road) and ORV use would destroy wilderness values on the entire area. Pipelines joining a nearby utility corridor could further damage the area. Fragile desert flora, especially on stabilized dunes, would be impacted and cultural resources could be inadvertently damaged by any type of development. An opportunity to diversify the NWPS would be lost.

Boundary Rationale and Management Recommendations

The northern boundary is at the north edge of the dunes, whereas the southern boundary has been extended to the checkerboard. The eastern boundary is a division road between Alkali Basin-East Sand Dunes WSA and the Red Lake WSA.

7. Red Lake (040-318)

Citizens' Proposal: 20,098 acres

Highlights

Red Lake is named for the large red playa which is ringed with bright green greasewood. During storms, the normally dry lake bed can dramatically fill with water in less than an hour. This area contains a portion of the Red Desert and some of the most magnificent portions of the Killpecker Sand Dunes, some active and some stabilized. The large dunes rising abruptly from the surrounding vegetation of sagebrush, rabbitbrush and greasewood make for striking photographic subjects as well as pure scenic beauty.

Location and Access

This study area lies in the Great Divide Basin adjacent to and due east of the Alkali Basin/East Sand Dunes. This area is located in northeastern Sweetwater County about 20 miles northeast of the

town of Point of Rocks. The area is accessed northwest from Alkali Basin or southwest from Twelvemile Gulch.

Wilderness Qualities

The Killpecker Sand Dunes, the largest active sand dune region in North America, traverse this WSA from west to east. The BLM recommended this area for primitive designation in 1975 in BLM's Sandy-Pilot Butte MFP because it contains a beautiful unspoiled remnant of the Red Desert, and is part of the largest active sand dune region in North America. Dunes of this activity type are not represented in the NWPS (BLM, DEIS, 1983).

Interdunal pools fed by melting ice produce habitat for a great number of young waterfowl and reptiles. Other wildlife, including coyotes, bobcats, raptors, and small mammals, also frequent the area. The area provides valuable year-long pronghorn antelope habitat. The burrowing owl, a state priority species, is found in the area (WNDD, 1993). The WSA is within the Divide Basin Wild Horse Herd Management Area (WHHMA). In 1982 there were 2,307 horses. Visitors to the WSA can expect to see herds in the area, especially in the summer. The area also provides range for the Sands elk herd (BLM, 1983).

Although BLM has not inventoried the area for cultural features, several are known to exist--such as points dating to 8000 years ago, Native American camps on sandy ridges, and a partially buried Conestoga wagon.

Resource Analysis

The area has low potential for oil and gas, as drilling adjacent to the WSA on the west and south has produced dry holes. The active sand dunes make oil and gas development very difficult. A well drilled north of the area was abandoned in 1960. No record of exploration occurs within the area. Coal-bearing rock lies beneath the area at non-commercial depths. No other mineral resources are known to exist (BLM DEIS, 1983).

Sheep are trailed through the area in spring and fall, and a local rancher seasonally sets up a cow camp just inside the western boundary. There are no range improvements in the WSA and none are planned.

Should the Red Lake area not be protected by wilderness designation, opportunities for primitive recreation and solitude would be lost in the entire area due to oil and gas exploration, and increased vehicle use. Exploration would result in 3-5 miles of new roads. Utility corridors could also mar the area. Cultural sites could also be inadvertently destroyed and highly vulnerable habitat for desert flora, small mammals, and reptiles would be disturbed to an unknown extent. Sand dunes not represented in the NWPS would be lost.

Boundary Rationale and Management Recommendations

The northern boundary is extended up to Luman Rim in order to include all of Red Lake and the slope that drains into it; the eastern boundary, BLM's WSA boundary was set at the district line.

8. Buffalo Hump/Boar's Tusk Sand Dunes (040-306 & 307)

Citizens' Proposal: 32,089 acres

Highlights

Buffalo Hump, fluvial rocks of the Wasatch Formation, and Boar's Tusk, the neck of an ancient

volcano, tower above the Killpecker sands and alkali flats, while other volcanic features can be seen in the distance. These two desert study areas are geographically one large expanse of sagebrush and sand dunes--part of the longest chain of dunes in North America. For miles, one sees undulating hills and valleys of white sand--originally beach sand from ancient Lake Goshute.

"Solitude. Unspoiled. Unique. Awesome. Just words. But if you have been there, on foot, with enough time to get acquainted, you realize that it would require the skills of Thoreau to describe this place, which is like no other place." said desert expert Dick Randall. He added, "Here, the track of a white-footed mouse abruptly ends, and one can read where the wing of a great horned owl brushed the sand."

Hidden among the dunes lie pools and ponds (ranging in depth from a few inches to 10 feet) of ice-melt water teeming with life. Some of these ponds support waterfowl, shore birds, and amphibians all summer long.

Location and Access

The Buffalo Hump/Sand Dunes combined area is located about eight miles east of Eden, in north central Sweetwater County about 30 miles north of Rock Springs. It is most easily accessed via Route 187, then using the Sixmile Draw road from the southwestern portion of the area.

Wilderness Qualities

This region is part of a Federal Research Natural Area and is proposed by the National Park Service for National Natural Landmark status. No sand dunes of this level of activity are represented in the National Wilderness Preservation System. The Boar's Tusk, and other volcanic features near the area, represent mafic, ultra-potassic volcanism found in only four places on Earth, and a type of rock, called maudipite that is found nowhere else in the world (Ogden 1990's).

These areas are nationally important for their unresearched scientific values. They provide ideal conditions for basic study of wind and sand deposition patterns, water quality of Eolian ice cells, ephemeral alkaline ponds, and dormancy and reactivation of dunes in relation to desertification and global warming. Although a complete floristic survey has never been done, rare and endemic plant species are known to occur in this region

Sand drains well, and so preserves bone well; while stabilized dunes, as in the western portion of Buffalo Hump, provide exceptional research conditions. Therefore, the study areas hold a wealth of archeological information.

Two very important archeological sites (Finely and Eden-Farson) have been found near the WSA. The Eden-Farson site is a late Prehistoric period habitation site which has been well documented through excavation. Several house areas were located and a large amount of antelope bone was recovered during these investigations. Portions of the site have been preserved for future investigation.

The Finley site contains evidence of some of the earliest human habitations in North America. It was an important paleo-Indian site investigated in the early 1940's. The association of Cody-complex artifacts with each other and with bones of extinct bison was first demonstrated here, and the site became well known as the type site for Eden projectile points.

Additionally, the first homestead settlement of Eden valley is a cultural site from more recent times, Washington's Place historic homestead lies on the northwestern border. It is marked by the graves of the Washington family, foundation remains and a few remnant sections of fence (BLM, DEIS, 1983).

This region receives less than 10 inches of precipitation each year, but supports an amazing variety of wildlife. Snow that is buried by sand in the winter slowly melts throughout the summer to

feed ponds which attract breeding spadefoot toads and tiger salamanders, nesting shorebirds and waterfowl. An estimated 550 ducklings are produced annually in these dunal pools. Other waterfowl and shorebirds include white-faced ibis, killdeer, snowy plover, sandpipers and avocets. Hummingbirds visit the area for less than a month during August. Whooping cranes have been observed feeding and resting in the south end of the Sand Dunes WSA. The ice also nourishes wet meadows where deer, antelope, feral horses, and a unique Steamboat Mountain-Sands herd of desert elk thrive that use the area for crucial winter habitat. Ferruginous hawks, prairie falcons, golden eagles, and red-tailed hawks nest adjacent to the area (Ritter 1991) and forage within the area. Strutting sage grouse and coyotes frequent the area, as well. Due to all these features, and crucial game winter range and fawning areas, BLM has designated an Area of Critical Environmental Concern which overlaps part of both areas.

The Wyoming Game and Fish Department, has noted, "The Sand Dunes and Buffalo Hump WSAs will provide protection for important water bird habitats." (see pg.232 of FEIS)

The Wyoming Natural Diversity Databank lists a great variety of rare animal species that inhabit the area. Those fish and animal that are candidates for federal protection are the swift fox, pygmy rabbit, roundtail chub (bonytail), and flannelmouth sucker. Those animals in the Buffalo Hump/Sand Dunes area that have a State Priority protection status are the canyon mouse, long-eared myotis (bat), golden-mantled ground squirrel, and burrowing owl. The black-footed ferret, thought extinct in Wyoming, and Listed Endangered was sighted in 1980 and in 1957 (WNDD, 1993).

The variety of rare plant species found in this dry area is interesting although little plant surveying has been done. The species protected by State Priority status are tender fleabane, tree-lined, oxytheca, parry sedge, and Wilcox eriastrum (WNDD, 1993).

Resource Analysis

Buffalo Hump and most of Sand Dunes have no potential for the occurrence of oil and gas. The edge of an oil and gas field, however, lies under the eastern portion of Sand Dunes WSA. (BLM notes that there are three producing wells located in the southeast corner of the area... the BLM skirts around these wells in their proposal. See map SD-4 in the Draft EIS for the locations.) The study areas contain no salable or locatable minerals, with the exception of sand, which is available from numerous other existing sources.

Cattle and sheep graze in the area. Livestock use would not change as a result of wilderness designation.

A large problem exists in these vast desert tracks - that of ORV use and how to manage and control the areas to exclude the off road use in some of the areas, such as the Buffalo Hump/Sand Dunes area. To accommodate dune buggy users, a 18,116-acre Sand Dunes ORV area has been designated east of the study sites.

The results of non-designation of this unique area include the increase of motorized vehicle activity on the railroad bed resulting in stress to elk, pronghorn antelope, deer, nesting killdeer and shorebirds in the vicinity. ORV use and exploration for oil and gas could disturb wildlife and mar scenic and wilderness values across the area. Development activities in the Sand Dunes WSA would destroy wilderness values on virtually the entire area. Due to predicted oil and gas development--16 producing wells, 14 dry holes, and 20 miles of road--BLM forecasts a 50 percent decline in big game populations and a 50 percent reduction in waterfowl productivity across the WSA. Designation would result in a 25 percent increase in big game populations. Actually, the "all Wilderness designation" would result in a 33% increase in wildlife populations (see page 103 FEIS.)

Although some special values within the ACEC may be protected by stipulations, those which are outside the ACEC, or are unknown (i.e. archaeologic sites, rare plants), would not be guaranteed

protection. Additionally, stipulations may not be effective enough to protect known resources due to the highly dynamic nature of dunes and pools. Because no dunes of this activity are included in the National Wilderness Preservation System, an opportunity for added diversity would be lost.

Boundary Rationale and Management Recommendations

BLM Management Decisions: Agency recommended 6,080 acres of the 10,300 acre Buffalo Hump WSA as Wilderness. The remainder is not recommended. Only 397 acres of the non-wilderness would receive ACEC designation. Of the Sand Dunes WSA, 21,304 acres would be designated Wilderness -- out of 27,109 acres. Several sections of the excluded area would still be in the Greater Sand Dunes ACEC. (see map SD-2 in Final EIS. ** Also note the discussion on the top right hand corner of page 79 re: State and Private land acquisition...2nd paragraph.**

The old railroad grade which divides Sand Dunes and Buffalo Hump Wilderness Study Areas will soon be naturally rehabilitated by blowing sand and erosion; therefore once it has been officially abandoned, the two areas can be managed as one. If necessary, the abandoned grade could be used as a cherry-stem access to a 240-acre private inholding.

Acquisition of the 240-acre private inholding, another 160-acre private inholding, and two state sections would enhance the manageability of this area. ** note on pg. 79 which speaks of 640 acres and 580 acres.

Public land around the WSA boundaries to the east of the Sand Dunes portion of the WSA has been added specifically to protect nationally important archaeologic sites, geologic features, and crucial wildlife habitat as part of the Greater Sand Dunes Recreation ACEC.

The eastern boundary follows along the powerline and gas well road and goes south to include the magnificent Boars Tusk. The western boundary includes the Buffalo Hump mountain.

BLM should use signing and public education to redirect ORV users from these wilderness study areas to the 18,166-acre Sand Dunes ORV use area.

9. Wild Cow Creek

Citizens' Proposal: 33,403 acres

Highlights

Wild Cow Creek, encompassing the drainages of both Deep Gulch and Wild Cow Creek, is proposed by the conservation community to be designated as wilderness. This area has not previously been designated a wilderness study area, and was never inventoried by BLM for wilderness qualities during its Initial Review of Wilderness Inventory Units.

The area is dominated by two deep canyons incised into the sloping sagebrush steppes, Deep Gulch and the canyon of Wild Cow Creek. A sparse mantle of vegetation covers the canyon walls, through which reddish sedimentary strata protrude in the steeper areas. In the upper reaches of each watershed, the canyons branch out onto a maze of draws, basins, and ridges. Here, islands of aspen and serviceberry dot the sagebrush steppe, particularly on north-facing slopes. Wildflower displays in May and June are so outstanding that a neighboring drainage was named "Garden Gulch." Elevations within the proposed wilderness range from a low of 6,520 feet to a high of 7,929 feet atop Cow Creek Butte. Snowdrifts persist at the heads of north-facing draws into June even in dry years, recharging aquifers that feed numerous springs and permanently-flowing stretches of stream throughout the area.

Wildlife abound in the proposed wilderness, an astonishing diversity of mammals, birds, and fishes once common throughout Wyoming's sagebrush deserts but now largely absent from most landscapes. The area offers calving/fawning grounds for elk, mule deer, and pronghorn antelope, and

most of the area is considered Crucial Winter Range by the Wyoming Game and Fish Department. The high ridges and draws form important migration corridors for game animals moving between parturition areas and winter ranges. Sage grouse are abundant on the uplands above the rims. Several active prairie dog colonies are found along the floodplains of both Deep Gulch and Wild Cow Creek. Permanent streams and springs provide habitat for native fish species that are growing increasingly scarce statewide. Raptors, including northern harriers, golden eagles, merlins, and ferruginous hawks, find ideal nesting opportunities along the canyon walls and atop the high rims. The eastern half of the unit falls within the Grizzly Habitat Management Unit, managed by the Wyoming Game and Fish Department for big game and sage grouse.

This area is the best remaining example of the transitional uplands that form the ecotone between the Red Desert ecosystem and the forest ecosystem of the Sierra Madre Range. As such, it fills an important gap in ecosystem representation within the National Wilderness System.

Location and Access:

This unit is located approximately 10 miles east of Dad along the Atlantic Rim massif, between the Cow Butte Road and the gravel route on the Wild Cow/Cherokee Creek divide, with the road below the Rendle Rim as the eastern boundary. A pipeline delineates the western boundary. Access is two-wheel drive on the north and east, with high clearance required on the south end.

Wilderness Qualities

Wild Cow Creek is predominantly natural in appearance, and human intrusions into this area are substantially unnoticeable. Intrusions that do exist (with the exception of fences) tend to be in varying stages of natural reclamation, with native vegetation encroaching on and often masking them.

A large number of two-track ways crisscross the area; most of these are abandoned and invisible to the casual observer; those that are apparent are in a primitive and at least partially re-vegetated state. Each of these routes not only fails to meet BLM's road definition, but also is a minor impact similar in all respects to vehicle ways already included within existing BLM Wilderness Study Areas. And although there are a large number of two-track ways within the proposed wilderness, the deeply dissected topography prevents the observer from seeing any more than one or two at a time, and thus cumulative impacts of these routes are not a factor. Many of the abandoned ways in the western end of the unit had their genesis as seismograph trails, and were designed to be one-time use trails and abandoned decades ago. Other ways were created by hunters and livestock permittees. A small percentage of these saw spot improvements with bulldozers at some time in the past, perhaps in conjunction with the construction of reservoirs. None, however, was maintained, and these routes soon deteriorated back into jeep trails.

Although the density of fences is not high on a per-square-mile basis, we believe that the number of fences in the proposed wilderness area is currently excessive and unduly interferes with the migrations of antelope and other ungulates. We recommend that the mileage of fences be reduced, and that remaining fences be brought into conformance with BLM standards regarding the height of the lowest strand and using smooth wire for the lowest strand.

There are two old corrals within the proposed wilderness: a collapsed sheep pen at the upper end of Wild Cow Creek and a small cattle corral at the mouth of the Middle Fork of Wild Cow Creek. Both of these structures are representative of traditional early-1900s building techniques and as such represent valuable historical resources that add to what Aldo Leopold would have called the "split-rail" value of the proposed wilderness. The Wilderness Act specifically provides for inclusion of historical features such as these within wilderness, and these structures add to the Wild West quality of

recreational experience in this area. These structures should be preserved in their original state and not be allowed to be upgraded into modern, intrusive structures.

There are natural gas wells, both active and dormant, above the mouth of Wild Cow Creek and in and above the lower reaches of Deep Gulch. These have been excluded entirely from the proposed wilderness area, along with their pipeline corridors. Sounds from the compressor station near the mouth of Wild Cow Creek do not penetrate a significant distance into the proposed wilderness. Two abandoned oil/gas wells exist within the bounds of the proposed wilderness. They are invisible except for 3-4 foot high metal posts marking the former well sites; their pads and access roads are fully revegetated. These dry holes resemble in every respect similar plugged and abandoned wells already includes within existing BLM wilderness study areas.

Our inventory identified a number of small livestock reservoirs that were originally mechanically constructed but have not been maintained. Many of these no longer hold water and are abandoned. Of those that are functioning, the vast majority have become covered with native vegetation, camouflaging them from casual observation. A few reservoirs have been constructed within the past few years, and their scars are still fresh on the landscape. But these too will receive their mantle of sagebrush and become unobtrusive within the decade. The Wyoming Wilderness Act specifically provides for livestock grazing within wilderness. Livestock ponds similar to those found in Wild Cow Creek and Deep Gulch can be found in most existing BLM Wilderness Study Areas in Wyoming, and Arizona's Galiuro Wilderness contains literally hundreds of these small stock ponds. Thus, the incorporation of these stock ponds into the proposed wilderness is not problematic.

Prescribed fire has been used in a number of spots within the proposed wilderness. The burns soon green up, and do not constitute a noticeable visual impact. We recommend that prescribed fire use be allowed even after the area becomes a WSA and also should be permitted if and when the area is formally designated as wilderness.

The outstanding recreation opportunities available in the Wild Cow Creek area are as follows: hiking, horseback riding, camping, bird and big game photography and hunting, bird watching, rockhounding, scientific and nature study, wildflower observation, and general sightseeing. Viewing opportunities for elk, deer, pronghorn antelope, prairie dogs, and raptors are particularly outstanding for the region, and wildflower displays are exceptionally diverse in this area. The deep canyons and remarkable buttes, along with the high level of topographic relief and interspersion of aspens, meadows, and sagebrush make this area perhaps the most scenic part of the broad uplift that stretches from Rawlins to the state line.

Hunting opportunities are similarly outstanding. The area is particularly known for its mule deer hunting, but also offers outstanding hunting for elk and antelope as well as sage grouse.

Wild Cow Creek provides outstanding opportunities for the scientific study, appreciation, and survival of a number of species. Biological soil crusts are particularly well developed in the uplands of this area and would make an excellent subject for study. Wild Cow Creek is currently the subject of a joint field study by Dr. Stan Anderson and the Wyoming Game and Fish Department concerning ground-truthing remote sensing data on sagebrush ecosystems.

The deep canyons and innumerable draws separated by ridges and buttes yield some of the best opportunities for solitude of any sagebrush steppe ecosystem. The folds of the landscape would allow a large number of recreationists to be absorbed into the area simultaneously without losing the sense that one is alone in a very wild place.

Opportunities for primitive and unconfined recreation, particularly hiking and horseback riding, are particularly outstanding in the Wild Cow Creek area. The maze of abandoned jeep trails, while for the most part impassable to vehicles, make excellent paths for both hiking and riding. Extended loop

trips would be easily possible; horse trips over 100 miles could easily be planned without seeing significant human imprints or crossing one's own tracks. The widespread presence of water sources makes this area uniquely well-suited to extended trips by both backpackers and horsemen, much more so than other parts of the Red Desert.

Resource Analysis

Cattle grazing occur in the western half of the proposed wilderness, and would be allowed to continue if the area is designated as wilderness. The eastern half is managed for short-duration, rest-rotation cattle grazing. Although there are a few sheep fences along the eastern end of the unit (which disproportionately block antelope movement), there was no evidence of active sheep grazing at the time of the inventory.

Active and dormant gas and oil well are found along the edges of the proposed wilderness near the mouths of Wild Cow Creek canyon and Deep Gulch. These were excluded from the proposed wilderness. The western end of the proposed wilderness has high oil and gas production potential, with one Known Geologic Structure underlying it. The eastern ¾ of the area has moderate potential for oil and gas production.

A substantial portion of the proposed wilderness is made up of lands designated as "Public Water Reserves," which has no bearing on wilderness characteristics.

Much of the proposed wilderness lies within the proposed Atlantic Rim Coalbed Methane Project, although only the western fringes are considered prospective for coalbed methane development. Initial exploration pods are sites in the basin just to the west of the proposed wilderness. Parts of the lower reaches of Deep Gulch fall within the North East Cow Creek area, identified as having potential for producing coal. This may include some lands within the proposed wilderness.

Boundary Rationale and Management Recommendations

The Wild Cow Creek unit represents an undeveloped tract of land between developed roads and pipelines where BLM inventories identified only two-track trails, but no roads. Much of the area is part of a Wildlife Habitat Management Area that has been withdrawn from future mineral leasing under the Rawlins Resource Management Plan. This is elk and mule deer crucial winter range as well as key raptor nesting habitat, which would benefit from wilderness protection.

The entire area falls within the Muddy Creek Critical Watershed, with soils prone to erosion. This problem is exacerbated by roads and livestock grazing in riparian areas. The historic Cherokee Trail once ran through this general area, although this segment was undefined as of the release of the initial Medicine Bow-Divide RMP analysis. Its course may have run just south of the proposed wilderness. Wilderness protection would prevent unnecessary erosion.

Wild Cow Creek is much more valuable to the public as a protected remnant of Wyoming's wild heritage than it is for any one-time extractive use for the production of coal, oil, natural gas, coalbed methane, or uranium.

Flaming Gorge Country

1. Adobe Town (030-401 and 040-408)

Citizens' Proposal: 180,910 acres

Highlights

Adobe Town is a remarkable expanse of high desert buttes and badlands. It is probably the most spectacular and remote set of badlands and geological formations carved by the powerful forces of water and wind in the state. Throughout the area, virtually untouched by human activity, wide patches of desert pavement and rolling stabilized sand dunes stretch across the open spaces between colorful rock formations and rugged canyons.

The site names within Adobe Town best express the expanse and beauty of the area. Adobe Town Rim looks like castles and condos made of mud and stone; Monument Valley is a smaller version of the Arizona National Park; and Skull Creek Rim is an extensive collection of multi-hued canyons and badlands. The Haystacks are an impressive spine of bare rock eroded into mazes of ridges.

Location and Access

The area is located in south central Wyoming halfway between Rock Springs and Rawlins in the middle of nowhere south of Interstate 80. Access is available via routes running east from BLM Road 4412.

Wilderness Qualities

The Adobe Town WSA is part of the BLM's Washakie Basin proposed Natural Landmark. This designation is bestowed upon areas with outstanding geological and ecological features. The spectacular landforms of Adobe Town give the area scenery like no other in North America. In 2007, the entire Adobe Town citizens' proposed wilderness was designated 'Very Rare or Uncommon by the Wyoming Environmental Quality Council to recognize its scenic, geological, wildlife, botanical, and cultural/historical features. Hikers here may explore towers, grottoes, caves, and mazes. Former Secretary of the Interior under Ronald Reagan, Don Hodel said that the "wilderness" Christ wandered into as described in the New Testament "looked like this area" which might even be "more akin to wilderness" than trees and mountains.

Adobe Town is also one of the three most important paleontologic areas in North America (Univ. of Chicago). Fossils of long-extinct mammals, reptiles, and invertebrates erode from beds throughout the area. Two of the most notable finds are of rhinoceros-like and tapir-like creatures. The paleontological resources have been almost continuously studied since the time of the Hayden Survey in the mid 1800's. Many specimens from the Washakie Basin are now in museums such as the Chicago Field Museum of Natural History. Locally, both the University of Wyoming and Western Wyoming College collect specimens from the WSA.

This area has been occupied by humans almost continuously for the last 12,000 years, as shown by an estimated 4000 cultural resource sites, including rock shelters, quarries, shelter rings, and fire pits (BLM 1987).

It is universally known for its trophy antelope and also contains trophy mule deer. It also includes Wyoming's largest herd of wild horses. Due to an abundance of jack rabbits and other prey, this unit is prime raptor habitat. Golden eagles, prairie falcons, red-tailed hawks, and ferruginous hawks - a candidate species for threatened or endangered listing - all nest in these badlands. Burrowing owls - a state Priority Species in Need of Special Management due to its rarity - use the area (Ritter 1991). A very recent USFS Region 2 Sensitive species list designates the burrowing owl as Sensitive, and BLM may want to consider this status in management planning for this area (WNDD, 1993). Horned toads, rattlesnakes and other small desert dwellers also abound.

Two plant species, both candidates for Federal threatened or endangered listing are Gibben's beardtongue and a miners candle are found in this area. Other plants of high priority classified as a State

Sensitive Species (due to the rarity of occurrence in the State), also found in the Adobe Town region are a fleabane, cowpen crownbeard, Colorado bedstraw, sheepcreek beardtongue, threadleaf rubber rabbitbrush, western hop-sage, and Torrey's desert dandelion (WNDD, 1993). The climate is very arid with only 7 to 9 inches of rainfall per year.

Resource Analysis

The fact that Adobe Town has had little successful oil and gas development is testimony to the fact that it's relative importance for oil and gas is low and difficult to access. Although there was a large number of leases inside the WSA when the area was first identified as a WSA, there remains only two leases in the area.

Although estimates for the area's natural gas are one to two trillion cubic feet, reserve depths of 12,500 to 18,500 feet make drilling very expensive and commercial possibilities low. In light of the current glut on the natural gas market, and numerous reserves of higher development potential elsewhere in the state, the Adobe Town region is not a prime area for oil and gas development. Several abandoned wells lie within the study area. No mineral claims exist in the area (BLM, 1992).
Should Adobe Town not be protected by wilderness designation, wilderness values would eventually be destroyed on the entire study area due to oil and gas exploration, although no activity is expected in the short-term (BLM 1987). ORV use and utility corridors would impair naturalness on a portion of the unit. Important archeological and paleontological sites would likely be destroyed inadvertently by development activities.

Ferruginous hawk nest success rates would likely drop significantly and success rates for golden eagle and prairie falcon nests would decrease (BLM 1987). Mule deer would be displaced from half to all of the acreage, (BLM 1987). Antelope would be stressed on a portion of their winter range.

To summarize, the wilderness attributes of this area would most likely be virtually destroyed if it is not protected as wilderness.

Boundary Rationale and Management Recommendations

The Wyoming Natural Diversity Database notes that the BLM maintains an exclosure for protection of the Gibben's Beardtongue near Cherokee Rim in the region of Adobe Town (WNDD, 1993).

Nearly all of Adobe Town's boundaries are vehicles ways, with the exception of a few short segments of bladed road, old pipeline, and private land. The citizens' addition on the north encompassed The Haystacks up to an active gas pipeline, including both checkerboard and non-checkerboard lands. The Citizen's addition on the eastern border of the WSA encompasses impressive bluffs and badlands along the Willow Creek Rim and the badlands to the east, and pristine open tracts. The Citizen's addition southwest of Monument Valley has been added to include an area up to a well-used two track. Citizens' additions to the southeast and south encompass open lands that represent key viewshed areas for visitors to the Skull Creek Rim, inside the WSA.

We recommend land swaps to acquire private checkerboard holdings in the Haystacks area and consolidate lands with wilderness character in this area under BLM ownership.

According to BLM, seven abandoned gas wells lie within the WSA--and we recommend reclamation of any unreclaimed well sites.

2. Kinney Rim South

Citizens' Proposal: 125,562 acres
Highlights:

One of two roadless units along Kinney Rim, divided by County Road 19, proposed by the conservation community to be designated as wilderness. Although this area meets the BLM's official definition of roadless:

> "**roadless:** refers to the absence of roads which have been improved and maintained by mechanical means in insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road"

(BLM Handbook H-8550-1 at Glossary, p.3), and also meets the size criteria required for wilderness, this area was never identified for possible inventory by BLM, and thus was neither recommended for further study nor dropped from consideration during BLM's wilderness Intensive Inventory process during the late 1970s and early 1980s. At the heart of the roadless unit, the massive monocline of the Kinney Rim rises above a sea of sagebrush. This area possesses outstanding primitive qualities and exemplifies the wide open spaces for which Wyoming is known, but which are fast disappearing in the state.

Together, the Kinney Rim North and South units comprise an important habitat connection between the Great Divide Basin and the high deserts of western Colorado. According to the Adobe Town Horse Management Area Plan, this unit is home to active ferruginous hawk and golden eagle nest sites. The eastern part of the unit includes antelope crucial winter range. There is a high concentration of wild horses on the "Sheepherder Plain," which encompasses the eastern two-thirds of the unit. The historic Cherokee Trail runs across the western side of the unit.

Location and Access:

This unit lies approximately 35 miles southeast of Rock Springs, with County Road 19 forming its northern boundary and extending slightly into Colorado in the south. The Kinney Rim South unit is bordered by the Kinney Rim North unit to the north, while the Adobe Town WSA and citizens' proposed wilderness shares part of its eastern boundary. Several substantial units have been proposed for wilderness by other citizens' groups in the Vermillion Basin of Colorado, which lies just south of the Kinney Rim South unit.

Wilderness Qualities

This area is crisscrossed with a number of jeep trails, maintained solely by the passage of vehicles, and abandoned seismograph lines. None of these routes meets the BLM's definition of a "road," which requires original construction, maintenance, and regular vehicle use. Almost all of these routes are in varying states of abandonment and natural reclamation. Across such a vast sweep of empty country, these routes merge with the overall landscape, and do not constitute significant impacts to the naturalness of the area, either individually or cumulatively.

Recreation opportunities available in the Kinney Rim South unit are as follows: hiking, horseback riding, camping, wildlife photography and hunting, bird watching, rockhounding, and general sightseeing. The wide-open spaces and primitive and undeveloped landscape of this area is one of its prime assets--it is easy to lose oneself amid the vast stretches of open country, and opportunities for solitude are consequently outstanding.

Large, open natural areas inherently possess solitude. No one can contest the solitude of the open ocean or the Great Salt Lake Desert. The wilderness experience found along the Kinney Rim is heightened by the undulating sagebrush steppes that surround it. These two differing landforms together add to the solitude of this area.

This area meets the BLM's requirements for topographic screening in order to possess outstanding opportunities for solitude. This is a large area with undulating topography with a vertical relief of over a hundred feet on the flats. Shell Creek meanders over 20 miles through this unit. A person walking this creek could not see visitors in other parts of the unit. The canyons at the southern end of the unit offer badland topography that is deeply dissected.

Resource Analysis

Formations bearing potential reserves of natural gas at shallow to moderate depth include the Wasatch, Ft. Union, Lance, and Lewis formations, and the Mesa Verde group of the Almond formation. Deep gas reservoirs potentially occur in the Frontier, Dakota, Entrada, and Nugget formations between 13,000 and 15,000 feet deep. Parts of the Vermillion Basin Natural Gas Project intrude into this roadless area. Some well pads and access roads for the planned wells already have been constructed. Other active wells from previous oil and gas development projects can be found along the western boundary of the roadless unit.

There are a number of stock reservoirs and plugged and abandoned well sites that also fall within the boundaries of the proposed wilderness. Some 25 of the reservoirs catalogued in our inventory held water, while an additional 14 reservoirs did not hold water and are in varying stages of deterioration. All of these reservoirs are less than one acre in size, and most have dams which have become covered in native vegetation. These are comparable to reservoirs which have been included in existing WSAs. Cow Creek Reservoir is larger than 100 acres in size, and might constitute a significant impairment to the naturalness of the landscape, and consequently it has been excluded from the proposed wilderness.

Almost all of the plugged well sites to date have been abandoned for 25 years or more, and these sites are marked only by a 4-foot metal pipe which blends into the landscape completely at distances greater than 100m. Reclaimed well sites like these are not considered as significant impacts to the naturalness of a landscape, and are commonly included within WSAs. More recent abandoned well sites have been recontoured and planted in vegetation, and will not constitute visible impacts in 20 years' time. In addition, a handful of abandoned corrals fall within the proposed wilderness; these are in varying stages of disrepair

Several routes constructed recently as part of the Vermillion Basin Natural Gas Project have also been included within the boundaries of the proposed wilderness. Although these routes meet BLM's definition of a "road," they will be required to be obliterated upon abandonment, and thus are analogous to similar roads determined to be "temporary intrusions" and included within existing Wilderness Study Areas such as Adobe Town. In addition, the Vermillion Basin Natural Gas Project was predicated on a defective EA that violated NEPA.

From a watershed perspective, the basin of Shell Creek was rated as a "problem area" in the 1974 Overland Land Use Decisions document. Because Shell Creek is one of the few waterways in the Red Desert that carries water throughout much of the year, this watershed is of particular ecological interest and concern.

Boundary Rationale and Management Recommendations

Improved gravel roads, mostly associated with oil and gas development, form the boundaries of this unit. Excluded are active oil and gas drilling areas, some of them fairly recent in origin, and these should be excluded and form the boundary of the area. Within the unit itself, only two-track trails and plugged and abandoned gas wells occur. The Kinney Rim is much more valuable to the public as a protected remnant of Wyoming's wild heritage than it is for any one-time extractive use for the

production of coal, oil, natural gas, or uranium. The BLM must fully evaluate the recreation, aesthetic, bequest, and ecological values of the Kinney Rim as well as its potential for non-renewable commodity production. While a handful of private corporations might make short-lived profits through the commercial exploitation of these public resources, the interest of the public clearly lies on the side of preserving this magnificent landscape to be enjoyed by countless future generations of Americans.

3. Kinney Rim North

Citizens' Proposal: 128,000 acres

Highlights

The northernmost of two roadless units along Kinney Rim, divided by County Road 19, are proposed by the conservation community to be designated as wilderness. Although this area meets the BLM's official definition of roadless:

> "**roadless:** refers to the absence of roads which have been improved and maintained by mechanical means in insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road"

(BLM Handbook H-8550-1 at Glossary, p.3), and also meets the size criteria required for wilderness, this area was never identified for possible inventory by BLM, and thus was neither recommended for further study nor dropped from consideration during BLM's wilderness Intensive Inventory process during the late 1970s and early 1980s. At the heart of the roadless unit, the massive monocline of the Kinney Rim rises above a sea of sagebrush. This area possesses outstanding primitive qualities and exemplifies the wide open spaces for which Wyoming is known, but which are fast disappearing in the state.

Together, the Kinney Rim North and South units comprise an important habitat connection between the Great Divide Basin and the high deserts of western Colorado. According to the Adobe Town Horse Management Area Plan, this unit is home to active ferruginous hawk and golden eagle nest sites. The eastern part of the unit includes antelope crucial winter range. There is a high concentration of wild horses on the "Sheepherder Plain," which encompasses the eastern third of the unit.

The historic Cherokee Trail runs across the western side of the unit. Additionally, the Pine Butte area was once proposed as an ACEC and possesses unique geological and habitat values.

Location and Access

This unit is located 30 miles southeast of Rock Springs, with State Highway 487 marking part of its western boundary and County Road 19 running along its south boundary. The Kinney Rim North unit is bordered by the Kinney Rim South Unit to the south.

Wilderness Qualities

This is a landscape that is natural in appearance. This area is crisscrossed with a number of jeep trails, maintained solely by the passage of vehicles, and abandoned seismograph lines. None of these routes meets the BLM's definition of a "road," which requires original construction, maintenance, and regular vehicle use. Almost all of these routes are in varying states of abandonment and natural reclamation. Across such a vast sweep of empty country, these routes merge with the overall landscape, and do not constitute significant impacts to the naturalness of the area, either individually or cumulatively.

There are a number of stock reservoirs and plugged and abandoned well sites that also fall within the boundaries of the proposed wilderness. Some of the reservoirs catalogued in our inventory

held water, while other reservoirs did not hold water and are in varying stages of deterioration. All of these reservoirs are less than one acre in size, and most have dams which have become covered in native vegetation. These are comparable to reservoirs which have been included in existing WSAs.

Almost all of the plugged well sites to date have been abandoned for 25 years or more, and these sites are marked only by a 4-foot metal pipe which blends into the landscape completely at distances greater than 100m. Reclaimed well sites like these are not considered as significant impacts to the naturalness of a landscape, and are commonly included within WSAs. More recent abandoned well sites have been recontoured and planted in vegetation, and will not constitute visible impacts in 20 years' time. In addition, a handful of abandoned corrals fall within the proposed wilderness; these are in varying stages of disrepair.

Several routes constructed recently as part of the Vermillion Basin Natural Gas Project have also been included within the boundaries of the proposed wilderness. Although these routes meet BLM's definition of a "road," they will be required to be obliterated upon abandonment, and thus are analogous to similar roads determined to be "temporary intrusions" and included within existing Wilderness Study Areas such as Adobe Town. In addition, the Vermillion Basin Natural Gas Project was predicated on a defective EA that violated NEPA, and routes constructed under the aegis of this illegal document may well be required to be decommissioned and obliterated as a result of ongoing legal actions.

Recreation opportunities available in the Kinney Rim North unit are as follows: hiking, horseback riding, camping, wildlife photography and hunting, bird watching, rockhounding, and general sightseeing. The wide-open spaces and primitive and undeveloped landscape of this area is one of its prime assets--it is easy to lose oneself amid the vast stretches of open country, and opportunities for solitude are consequently outstanding.

Large, open natural areas inherently possess solitude. No one can contest the solitude of the open ocean or the Great Salt Lake Desert. The wilderness experience found along the Kinney Rim is heightened by the undulating sagebrush steppes that surround it. These two differing landforms together add to the solitude of this area.

This area meets the BLM's requirements for topographic screening in order to possess outstanding opportunities for solitude. This is a large area with undulating topography with a vertical relief of over a hundred feet on the flats. Many draws and ravines dissect the landscape and provide, along with distinct features like Rife's Rim and Kinney Rim. The landscape is large and intricate, and there is no shortage of isolation and adequate topographic screening.

Resource Analysis

Formations bearing potential reserves of natural gas at shallow to moderate depth include the Wasatch, Ft. Union, Lance, and Lewis formations, and the Mesa Verde group of the Almond formation. Deep gas reservoirs potentially occur in the Frontier, Dakota, Entrada, and Nugget formations between 13,000 and 15,000 feet deep. Parts of the Vermillion Basin Natural Gas Project intrude into this roadless area. Some well pads and access roads for the planned wells already have been constructed. Other active wells from previous oil and gas development projects can be found along the northeastern boundary of the roadless unit.

Boundary Rationale and Management Recommendations

The boundary for this unit is delineated by paved and improved gravel roads as well as the Pine Butte communication site at the north end of the unit. Checkerboard lands make up much of the wilderness-quality landscape here, and we recommend land swaps to consolidate lands in BLM

ownership to protect this wilderness character. The Kinney Rim is much more valuable to the public as a protected remnant of Wyoming's wild heritage than it is for any one-time extractive use for the production of coal, oil, natural gas, or uranium. The BLM must fully evaluate the recreation, aesthetic, bequest, and ecological values of the Kinney Rim as well as its potential for non-renewable commodity production. While a handful of private corporations might make short-lived profits through the commercial exploitation of these public resources, the interest of the public clearly lies on the side of preserving this magnificent landscape to be enjoyed by countless future generations of Americans.

4. Red Creek Badlands, (including the Tepee Mountains; 040-406)

Citizens' Proposal: 34,335 acres

Highlights

The Red Creek Badlands are highly scenic, and embrace fragile watersheds and valuable wildlife areas. Its carved and highly eroded red shales and sandstones of the Wasatch Formation form steep-sided mazes which are brightened by patches of greenery - juniper, mountain mahogany, and greasewood, and is thought to contain the northeastern most stands of pinyon pine in the United States. Lush pockets of grass grow in alcoves around clean-water springs. Douglas fir and limberpine line the cool canyons.

Telephone Canyon, in the eastern portion, is a steep, solitary little canyon producing a tributary of Red Creek. Tepee Mountain wilderness study unit is adjacent to this area on the southwest side. Together with Tepee Mountain, the area's 2,300 elevation variation--that rises to over 8,800 feet. The area is similar in geologic and biological features to the Red Creek Badlands, and contains many deeply incised canyons--with several walls over 500 feet high some of which contain remnants of fossil flamingo rookeries 50 million years old.

Location and Access

The area is located east of Flaming Gorge National Recreation Area about 5 miles north of the Utah border. Red Creek Badlands is approximately 35 miles south of Rock Springs. Access to the area is from State Highway 373 and on to a county road that serves as the western boundary or from a county road that goes along the eastern boundary turning south at Tittsworth Gap.

The Tepee Mountains are immediately southwest and adjacent to the Red Creek Badlands are near the border of Utah, approximately 40 miles south of Rock Springs.

Wilderness Qualities

This study area is part of an important, fragile watershed, and lies within the much larger Red Creek Area of Critical Environmental Concern. Pinyon pine stands, which are rare in Wyoming, grow within the unit and provide one of the few places where pinyon-juniper forests can be found in the state. Scott Canyon, located in the southeastern portion of the Tepee Mountains, is considered by the BLM to be a unique and highly scenic geologic formation deserving special recognition (BLM WSA 1980).

Tepee rings, fire pits, bison remains and other Indian artifacts found along the ridge tops show human use of the area from long ago (several commenters in BLM FEIS 1990). Modern-day visitors find fossil mollusks in the Green River Formation (Love 1991), and interesting rock hoodoos and crevices to explore.

The study area provides crucial winter range for mule deer, and year-long range for elk (WG&F, 1991). Pronghorn antelope, coyote, red-tailed hawks and many species of small mammals are common in the area. Prairie falcons and golden eagles nest within the area (Ritter 1991). Cliff chipmunk, pinyon

mouse, canyon mouse, Merriam's shrews, Great Basin pocket mouse, Wind River golden-mantled ground squirrel (WNDD, 1993) and ringtail - all state Priority Species in Need of Special Management, due to their rarity in Wyoming - may inhabit the area's grasslands, shrubs and barren sites (Luce 1991).

Red Creek, which flows through the proposal area, is Colorado River Cutthroat Trout habitat, a rare native fish species that is a candidate for federal endangered species protection. The trout was present throughout the headwaters in Red Creek Badlands historically. The decline of the species is due to habitat degradation from livestock and removal of beaver from area (still present but low in numbers). The riparian habitat needs restoration to ensure survival and reintroduction to the historical habitat (WNDD, 1993).

The extensive juniper habitat within the Badlands is designated as crucial habitat for juniper-dependent nongame birds (WGFD letter on DEIS 1/89). The area also contains sage grouse nesting, brooding and wintering areas, and strutting grounds (WGFD 1/83).

Unique and rare State priority plant species found in the Red Creek Badlands are: a balsamroot, a miners candle, Uinta draba, crispleaf wild-buckwheat, Colorado bedstraw, little-leaf mock-orange, two-needle pinyon pine, Utah violet, Payson beardtongue and green mormon tea (WNDD, 1993).

Dr. J.D. Love states that there is a fossil flamingo rookery located in the area (conversation, 1993).

Resource Analysis

Mineral values within the area, including oil and gas, are non-existent, with the exception of low development potential for oil shale and non-commercial subbituminous coal. Only four oil and gas leases are located in the western portion of the Citizens' Proposal addition. There are no mining claims in the area (BLM, 1993).

According to BLM, designation of wilderness would result in decreased sediment and salt loading into the Colorado River system; therefore non-designation would result in a lost opportunity to improve water quality and fisheries in the Green and Colorado River.

The WGFD has expressed concern that the ACEC status may not provide enough protection for crucial mule deer winter range, and argues that wilderness designation, with some prescribed buring, would provide better maintenance of wildlife values and offer the potential for habitat improvement (WGFD 1/89).

ORV use or unforeseen activities could result in greatly increased erosion, and a loss of wilderness values on a portion of the unit.

Boundary Rationale and Management Recommendations

The western portion of the north border follows topographic features, and the western edge follows a pipeline. The remaining boundaries are formed by two-tracks or bladed roads. The citizens' addition to BLM's WSA encompasses erosive features that provide outstanding scenery and recreation opportunities, and which should be protected from disturbance.

The western boundary of the Teepee Mountain area follows a pipeline, and the remaining boundaries are formed by two-tracks or bladed roads.

5. Devil's Playground, (with Twin Buttes, Anvil Wash and Butte Creek; 040-401, 402, 403, 404)

Citizens' Proposal: 51,935 acres

Highlights

Devil's Playground is a highly eroded maze of green and gray badlands surrounding Black

Mountain. Barren hills, canyons, and eerie rock hoodoos carved by water and wind make up much of the area. In the south part, the magnificent mesas of Twin Buttes tower 700 feet above the outlying sagebrush steppe. Fleeting creeks flow down canyons on the eastern side of this area into the rocky, braided stream course of Anvil Wash, and on through the Anvil Wash Wilderness Study Area. Steep to rolling hills, deep draws lined with juniper, and a section of badlands called Haystack Buttes characterize the Anvil Wash area.

The National Park Service found the area to contain "very interesting geologic and cultural resources" that would be attractive to persons seeking a wilderness experience (NPS ltr. on DEIS, 1988).

Location and Access

Located just 1 mile west of Flaming Gorge National Recreation Area, Devils Playground is located in Sweetwater County, approximately 28 miles south, southwest of the city of Green River and 8 miles north of Manila, Utah. The Anvil Wash unit lies next to the southeastern boundary of Devils Playground and directly adjacent to the Flaming Gorge National Recreation Area. Local access is from hwy 530 on the western boundary.

Wilderness Qualities

Visitors here may explore miles of remote badlands and discover many unusual geologic features, such as mud `croquet balls'--concretions, deposits of tiger chert and fossils of Eocene mammals. The Anvil Wash wilderness proposal area contains the central portion of Anvil Wash, and Butte Creek which drains from Twin Buttes and Black Mountain. These two areas compliment the boundaries of Devils Playground study area encompassing a more complete geologic area.

Wilderness designation of this area would add to the ecosystem diversity currently in the NWPS. Devils Playground/Twin Buttes is representative of the Sagebrush steppe ecosystem in the Wyoming Basin Province ecoregion and is the only example of badlands located west of the Green River in southwest Wyoming.

Numerous artifacts throughout the area show human occupation for at least 9,000 years. One campsite is eligible for the National Register of Historic Places for Archeological Sites. The area also contains many shelter rings--which are unusual in southwest Wyoming and are significant cultural resources. The potential exists for discovery of other important archeological sites, as well. Existing cultural resource data support the conclusion that the WSA is a sensitive area of highly significant values.

In more recent history, Devil's Playground was the site of the famous Cope/Marsh publishing feud in 1900's. These two men found enormous quantities of 45-50 million year-old vertebrate fossils, many of which are now in museums around the world (Love, 1991).

Deep canyons in the area contain thick stands of 300 to 400 year-old juniper. A herd of 10,000 antelope utilize the entire area as crucial winter range and as year round range. The area is also crucial winter range for mule deer. Sage grouse and raptors forage here year-round. Cliff chipmunk, pinyon mouse, canyon mouse, Merriam's shrews, Great Basin pocket mouse, ringtail, northern tree lizard and the long-eared Myotis--all state Priority Species in Need of Special Management--may inhabit the area's grasslands, shrubs, canyon walls and barren sites (Luce, 1991)(WNDD,1993). Bald eagles are sighted using the area for winter habitat (WNDD, 1993). Golden eagles and ferruginous hawks forage in the area, while burrowing owls--a state Priority Species in Need of Special Management--have been documented in the area (Ritter, 1991).

A great variety of rare and unique plant species have been found in the Devil's Playground. All flora species are State priority species: the two-needle pinyon pine, Watson's prickly-phlox, little-leaf

mock-orange, Sheepcreek beardtongue, Gordon's wild-buckwheat, Eastwood-plant, Torrey's desert dandelion, desert cryptantha and western hop-sage (WNDD, 1993).

Resource Analysis

There is no potential for oil and gas reserves in the area, and twelve dry holes have been drilled within 6 miles of the area. There are numerous oil leases within the Citizens' Proposal addition with no drill sites (BLM, 1993). The study unit has a low potential for low-grade oil shale, and is under an oil shale withdrawal by Executive Order, 1930. Uranium, phosphates, coal, sand, gravel deposits also have low development potential. Potential for sodium (trona) development in the area is considered moderate, but the beds are thin, deep mixtures of sodium and halite. Better quality sodium reserves in the region are sufficient for market demands. There are no mining claims in the area (BLM, 1993).

Grazing use of the area is primarily for summer cattle and winter sheep.

Should the area not be designated wilderness and although no development is expected, ORV use, new utility or pipeline corridors, or mineral exploration--which has impacted the area in the past, could destroy wilderness values across the entire unit. Cultural resources would not be protected from unauthorized or inadvertent damage. The National Park Service recommended wilderness designation for the area, acknowledging the potential for ORV impacts if not so protected (NPS ltr. 1988).

Boundary Rationale and Management Recommendations

The Citizens' Proposal calls for combining two BLM's WSAs into one area and adding a central section which has naturally rehabilitated since the original inventory. The two-track which runs between these areas is barely passible. Acreage added on the western WSA border affords increased protection to a special archaeologic site and important spring.

The eastern border of the Anvil Wash/Butte Creek area is formed by a pipeline and a state highway. The other borders follow two-tracks or bladed roads.

Bridger Country Areas

1. Raymond Mountain, (with Little Muddy Creek and Coal Creek; 040-221, 222, & 223)

Citizens' Proposal: 52,769 acres includes 10,880 NF

Highlights

Raymond Mountain, the Little Muddy Creek and Coal Creek areas are included within the Sublette Range, named for famed explorer Bill Sublette, rising east of the Bear River. The Sublette Range is like an island mountain range comprised of steep rocky canyons, forests of subalpine and Douglas fir, open parks, surrounded by a sea of big sagebrush. Many steams, including Raymond, Little Muddy, Coal, and Huff Creeks originate in the area and provide wetlands habitat for many of the animals in the area. Panoramic views from Sublette Mountain and other peaks feature the Salt River Range, the Tunn Range, and the Bear River Valley.

Location and Access

The Raymond Mountain Citizens' Proposal area is located in Lincoln County near Wyoming's western border, about 60 miles south of Grand Teton National Park. Legal access is from the north on State Highway 89 in Salt Canyon, or from the south near Quealy Reservoir or from the northern region of Coal Creek off of State Highway 89. Other accesses require crossing private land which to date has not been a problem. The access utilized most by the locals is from State Highway 89 to Raymond Creek Canyon at the central western area.

Wilderness Qualities

The Raymond Mountain WSA encompasses the 13,530-acre Raymond Mountain Area of Critical Environmental Concern, which was designated to protect special wildlife values, including streams which contain a genetically pure strain of Bonneville cutthroat trout. This rare and sensitive species is a candidate for threatened and endangered status and is found in at least three of the tributaries originating from the Sublette Range. Other fish species found in the creeks, especially from the Coal Creek, Salt Creek, Raymond Creek, and Little Muddy Creek tributaries are the Leatherside chub (a candidate for federal listing), and the Bluehead sucker, a unique species recognized by the Nature Conservancy as rare in the State (WNDD, 1993).

Most of Raymond Mountain WSA is crucial winter range for moose, elk, and mule deer, while the northeastern half of Coal Creek is an elk calving ground. Adjacent to the Little Muddy Creek Citizens addition area in the Bridger Teton National Forest, there were seven sightings of the North American Lynx, a candidate for federal listing for endangered/threatened species (WNDD, 1993).

Many birds, including ruff and blue grouse, sandhill cranes, goshawks, Cooper's hawks, and ferruginous hawks - another Endangered/threatened candidate species - nest in the study area. Huff Lake and numerous beaver ponds support nesting pintail ducks, gadwall, widgeon, teal, and other waterfowl. Just south of the Raymond Mountain WSA is the National Bear River Wetlands Wildlife Refuge where habitat is provided for many critical bird species such as: the long-billed curlew, snowy egret, black-crowned night-heron, white-faced ibis, Forster's tern, and the federally listed Endangered whooping crane (WNDD,1993).

Bald eagles (listed endangered/threatened) forage and use for area for winter habitat (WNDD,1993), and peregrine falcon have potential nesting sites on the cliffs. Rock walls and grottoes within the area may provide habitat for five Priority Species: Townsend's big-eared bat, Yuma myotis, California myotis, Keen's myotis, and fringed myotis (Luce 1991).

In addition to excellent wildlife viewing, visitors here find great botanical diversity. Unique or rare plant species found in the area and the Citizens' Additions include: the small-flower fiddleneck, Wasatch biscuitroot, Payson's milk-vetch, and Williams conimitella (WNDD, 1993). Magnificent scenery and unusual geologic formations such as rock spines and towers add delight to the hiker.

Resource Analysis

Most timber in the area is not harvestable due to extremely steep slopes and poor access (Storbo et. al. 1991). About 50 acres could be harvested for sawtimber, and 50 acres for firewood.

Small coal reserves may be present in the study area, but development potential is low and there are much more extensive and accessible deposits elsewhere in Wyoming.

189 acres of a Phosphate lease (Tenneco) lie on the western edge of the unit [have checked this, and should we redraw or boundary to exclude, if necessary. BLM Minerals person (Kemmerer RA) said Tenneco is looking to get out of the lease quickly and doesn’t think that any development has been done in the area. Should they withdraw from the lease it probably would not be reissued due to WSA (G. McMillan, BLM, 6-22-93). No activity has occurred on the lease since 1990’s, and the likelihood of development is low.

Recoverable reserves of natural gas are estimated to total 81 BCF, which is less than 0.6 percent of reserves in the Thrust Belt (Storbo et. al. 1991).

Seven outfitters use the Sublette Range areas for big game hunting, and sheep and cattle graze the area from May through October. The Kemmerer district manager Darrell Short said that the Raymond Mountain area is overgrazed (BLM, Kemmerer, 6-22-93).

Gas-related activity and snowmobile use would disturb wildlife on critical winter range, and displace animals to adjacent agricultural lands, resulting in damage to private stockyards and haystacks, should the area not be designated as wilderness (BLM 1990b). Big game numbers in Raymond Canyon WSA would be reduced by 10 to 20 percent, and reduced by a lesser percentage in the other two areas. Hunter use would be reduced by 25 percent over the next ten years, and the quality of fishing experiences would be decreased. Livestock and ORV use in streambeds would continue to degrade habitat of the Bonneville cutthroat trout, and construction associated with gas development would increase sediment loading into trout streams.

Wilderness values would be lost, primarily outside of the Raymond Mountain ACEC plan area, due to gas exploration and development, timbering, and ORV use. Naturalness and solitude within the ACEC would also be impacted by timbering on 50 acres and by 10 gas wells.

Boundary Rationale and Management Recommendations

The peripheral bounds of the Sublette Range study area are set by private and state land ownership patterns, except on the northern portion of USFS land where Highway 89 and geographic features set the boundary. This area is divided into three study units by vehicle ways. The I-GO Speedway road had deteriorated into a 4wd track and could be further rehabilitated to become trail access to add Little Muddy Creek to Raymond Canyon (Storbo, Short, 1993). Although BLM recommends only the largest of the three units--Raymond Mountain--for Wilderness, the other two units are equally wild. By adding the Little Muddy Creek and the Coal Creek area, this wilderness proposal area would include high National Forest lands down to bottom lands. The additions would provide a natural compliment to Raymond Mountain by encompassing a complete geographic and ecological area.

Regardless of designation recommended, livestock pressure on habitat for Bonneville cutthroat trout should be decreased (BLM, 1991). No fencing should be allowed to manage for grazing but reduction of grazing is recommended (Storbo, 1993). The BLM is presently pursuing a land exchange with the State for the two-160 parcels and the 40 acre parcel in the Raymond Mountain WSA (R. Short, BLM, 1993). The BLM plans to pursue the acquisition of the private land in the future which would enhance manageability of the area. The cherry-stem road was the result of a verbal agreement between the Wyoming Game and Fish and the BLM to do fisheries enhancement in 1983 and has not been used for this purpose since then. The road should be closed and rehabilitated to become a trail to Huff Lake (Storbo, 1993). In particular, acquisition of the 160-acre private tract on Huff Creek would, also, allow closure of the way which runs beside and across the stream, resulting in improved water quality and habitat for the Bonneville cutthroat trout.

2. Elk Mountain (040-327)

Citizens' Proposal: 9,550 acres

Highlights

Elk Mountain, at 7882 feet, rises steeply some 800 feet above the rolling Big Sandy River country. Sagebrush communities with a grassy understory cover the mountain, and juniper, limber pine, aspen, and mountain mahogany stands are scattered across the slopes. Several springs provide water in the otherwise dry landscape. Tabernacle Butte, the highest point in the Big Sandy River valley, is known for its world class fossil discoveries.

Views from the area include the Big Sandy River, Wind River Mountains, Jack Marrow Hills, and Prospect Mountains. Oregon Trail immigrants passed by this landmark on their way west.

Location and Access

Elk Mountain is located 22 miles north of Farson in Sublette County. Access is from the main State Highway 187 to County Road 28 to the east to an improved road just east of Farson following Little Sandy Creek to the eastern boundary of the area.

Wilderness Qualities

Tabernacle Butte, within Elk Mountain proposed wilderness area, is renown as a one-of-a-kind fossil site due to the abundance and beautiful preservation of 45-50 million year old vertebrate fossils (BLM, KRA-DEIS).

Elk Mountain provides crucial mule deer winter range for much of the herd which ranges north to Prospect Mountain and the foothills of the Wind River Mountains in the summer. During bad winters, the Mountain is one of the best range that deer have in the area (BLM WSA 1980). It also provides important summer habitat for antelope. The area is historical elk habitat but now with feeding grounds located a few miles to the east, the elk do not make the traditional migration (WG&F, Christensen, 1993).

Prairie falcons and golden eagles nest within the area (Ritter 1991). Sage grouse, prairie dogs, badgers, weasels and possibly one or more cougars also inhabit the area (BLM WSA 1980).

Several species of rare and unusual fish reside in the tributaries that flow from the Elk Mountain area. The bluehead sucker, flannelmouth sucker and the roundtail chub are candidates for federal protection (WNDD, 1993).

Payson Beardtongue, a flora candidate for Federal Endangered and Threatened status, has been verified in the boundary area (WNDD, 1993).

Paul O. McGrew's report, publication by Geo. G. Simpson who collected fossils here for the American Museum of Natural History [Vesuvian blue scoria of unknown origin (Love 1991)]. Agatized fossil wood and petrified wood make the area popular for rock hounds (BLM WSA 1980). The area also provides a multitude of recreational opportunities for hiking, horseback riding and camping; its sheer cliffs are ideal for rock climbing.

Resource Analysis

The southern portion of Elk Mountain is leased for oil and gas. There are no wells or active mining claims in the area.

In 1979, the Wyoming Game and Fish Department recommended wilderness designation for this area, which it reiterated to the BLM again in 1983 and 1989 (WGFD letter 3/83 listed in EIS. Dave Lockman, WG&F, 1993). Yet the BLM has not designated the area for any special resource protection.

Big game habitat is scarce to the area and crucial for winter survival of area deer. It could be lost through ORV disturbance of Elk Mountain. Oil and gas exploration and development would devastate the habitat for wildlife.

Boundary Rationale and Management Recommendations

A bladed county road forms the eastern boundary of this unit, while two tracks form most of the remaining area boundaries. One parcel of private land adjoins the western border. Tabernacle Butte, on the northwestern edge of the unit, was added specifically for unique fossils values--and the boundary there follows topographic features.

3. Lake Mountain (040-110)

Citizens' Proposal: 14,826 acres

Highlights

Lake Mountain is named for a small natural lake on the mountaintop which is fed by melting snow. The study area contains canyons and steep talus slopes, open sagebrush grasslands, and thick forests of spruce, subalpine fir and aspen at elevations of 7400 to 9600 feet. Several cool, clear streams flow through the area into LaBarge Creek, on the southwestern border. Rock Creek, in the central part of the WSA, contains a population of Colorado Cutthroat Trout, which is a candidate Threatened and Endangered species. High points in the area offer outstanding distant views of the Commissary Ridge country and the Little Colorado Desert.

Location and Access

The Lake Mountain area lies in the Wyoming Range bordering the Bridger-Teton National Forest about 12 miles west-northwest of LaBarge in Sublette County. It is accessed from the State Highway 189 via the La Barge Creek Road on the southwest, or the Deadline Ridge Road on the eastern boundary.

Wilderness Qualities

Rock Creek, lying in the heart of the area, contains a sensitive, genetically pure population of Colorado River cutthroat trout, which is found in only five other streams in the state and is a candidate for Threatened and Endangered listing. The Rock Creek Area of Critical Environmental Concern covers the watershed and a portion of the unit.

Calving grounds and crucial winter range for one of the last naturally wintering elk herds (approximately 2,500 head) in the Upper Green River Basin cover the entire study area. The area provides crucial winter range and fawning grounds for deer, as well.

Visitors here find rugged terrain, secluded campsites, and outstanding scenery along with excellent opportunities to observe moose, black bear, blue and ruff grouse, pikas, beaver and other wildlife. They may also find a stone circle left by native peoples, or a large prehistoric site.
The possibility of the Sublette Cut-off of the Oregon Trail, or some other cut-off that went over to the Smith's Fork--Witherspoon Hill, which has yellow-painted gravestones, and a covered wagon that was once on LaBarge Creek may be in in the area.

Resource Analysis

The area could produce .9 MMBF [plus a little more if we expand boundaries] of conifer timber over the next 20 years. In comparison, the adjacent Bridger-Teton National Forest produces about 4 mmbf over a 20-year period.

Coal and phosphate rock [look at Cokeville or LaBarge geologic quad] occur within the area, but they are of no commercial interest. Copper claims were staked on the southwestern boundary in the 1940s, and relinquished in 1963. There is presently no economic interest in copper within or near the study area. 195 acres of the area contain lichen-covered sandstone, which is used in decorative construction, but other outcrops of "moss rock" are plentiful in the region.

This area has a high potential for occurrence of natural gas. It contains pre-FLPMA leases on 600 acres held by production well. Total reserves underlying the WSA range are estimated at 5 TCF (BLM 1991).

There is an isolated 40 acre parcel of private land that has been subdivided into four ten-acre parcels. One summer home has been constructed. The access road is cherry-stemmed into the parcel.

Naturalness, solitude, and primitive recreation opportunities would be lost on all but 7000 acres of the area (BLM 1980’s) due to timber harvest, gas exploration, moss rock removal, and about ten miles

of new roads should the area not be designated as wilderness. Twenty to twenty-five percent of the wintering elk would avoid the area.

Boundary Rationale and Management Recommendations

The Lake Mountain study area is bounded by vehicle ways and geographic features on the north, east, and west, and by a bladed road and short private segment on the south. The BLM should acquire or exchange for a 40-acre private inholding, and close the jeep trail leading to it. BLM should continue to work toward alleviating the impacts of livestock to cutthroat trout in the vicinity--by fencing, exchanges of AUMs on nearby lands, or other means.

4. Silver Creek Falls/Scab Creek (040-101 & 105)

Citizens' Proposal: 10,076 acres

Highlights

Silver Creek Falls offers opportunities for primitive recreation, rock climbing, and nature and geologic study that are truly outstanding. Silver Creek Falls encompasses the 6,680-acre Scab Creek Primitive Area, plus adjacent federal and state lands. BLM designated the Scab Creek Primitive Area in 1975 to protect its wilderness character. The U.S. Forest Service Bridger Wilderness borders this area on the east and north; South Soda Lake and an elk winter feeding ground run by the Wyoming Game and Fish Department lies just west of the area, supporting about 300 elk. Silver Creek sports a spectacular waterfall in the southern part of the area, while Scab Creek cascades through the northern portion.

The area contains many glacial moraines and a cluster of glacial ponds. Sagebrush grasslands, meadows and conifer forests, and steep granite bluffs comprise the area's rugged, high country terrain.

Location and Access

The Silver Creek Falls area lies along the western slope of the Wind River Mountains in Sublette County about 20 miles southeast of Pinedale. The area can be accessed from State Highway 353 to a trailhead along Scab Creek road.

Wilderness Qualities

The Silver Creek Falls/Scab Creek areas in conjunction with the Bridger Wilderness would provide the unique opportunity to study a wide variety of life zones in the continuum of ecosystems from 7,400 to 12,500 feet (BLM 1991). Within the area the life zones vary from dry sagebrush basin to wet grassy mountain meadows, from bare rocky slopes to dense timber stands, and from dry creek beds to steep fern-covered canyon walls.

Adjacent to this area is an elk feedground that supports about 300 elk. The elk are fed by means of a team of horses and sleigh in the winter. The area also provides for valuable calving areas for the elk as well as summer-fall habitat. The study area also supports a great variety of wildlife, including black bear, mountain lion, bobcat, coyote, golden eagle, prairie falcons, moose, and mule deer. Two animal species identified by the US Fish and Wildlife Service as endangered may occur within the Scab Creek Study Area. The bald eagle has been reported in the area several times and nesting habitat exists. The peregrine falcon has also been reported in the area and nesting habitat also exists in the large rocky cliffs associated with lakes and small ponds. The Canadian lynx and wolverine (listed as "rare" by the Wyoming Game and Fish) have been sighted in the area (DEIS-Scab Creek, BLM, 1981). The streams and lakes have cutthroat, rainbow, brook, and brown trout in them.

Cultural values within the WSA portion of the area include four historic trappers' cabins, and a number

of prehistoric sites aged at 2500 to 800 years old. The Citizens' addition contains one prehistoric site, an historic cow camp, a trapper's grave, and an old sawmill (Bogle 1991). Nine archeological sites dated to 7,000 years ago were located within the area. Scab Creek derived its name from a bull lost by one of the local ranchers. It was found at the head of this creek infected with scabies, hence the name of Scab Creek (BLM, 1981). [see geologic map by Ron Worl, about 1988 or 89, on Bridger Wilderness area for interesting geology]

Resource Analysis

Silver Creek Falls WSA contains both conifers and aspen that are available for timber management. Additional forested acreage is already withdrawn from potential harvest within the Scab Creek Primitive Area. The area is rated as having a moderate potential for oil and gas reserves (Bogle 1991). There are no oil and gas leases or mining claims in the area (BLM 1993).

631 AUMs are allotted for livestock grazing in the unit, but actual use is one-third to two-thirds less than allocated due to steep terrain and limited access (Bogle 1991). Four outfitters use the area for hunting, rock climbing, cross country skiing, or summer packing.

The results of non-wilderness recommendation for the Silver Creek area would cause soil erosion through off road vehicle use; therefore, would result in continued erosion and sediment loading into streams. Water quality would not improve, and would prevent streams in the area from being designated Class I (an exceptional stream and fisheries category) by the State of Wyoming (BLM 1991).

Boundary Rational and Management Recommendations

This area is bounded on the north and east by USFS Wilderness and on the south and west primarily by private land, with the exception of a BLM campground. The Citizens' Proposal adds 1360 acres of BLM land, 1240 acres of state land, and about 200 acres of USFS land to BLM's proposal--extensions which border the Bridger Wilderness and encompass equally wild land.

5. Bridger Wilderness Additions
Mill Creek (040-335)

Citizens' Proposal: 2,322 acres

Highlights

Mill Creek is dominated by a large canyon through which the Sweetwater River flows. This canyon is heavily forested with lodgepole and limber pine intermingled with quaking aspens. Between the forest and large sagebrush parks provide important forage habitat for elk and deer. Cool quiet streamside glens and nooks are interspersed with rumbling cascades, all surrounded by high jagged canyon cliffs. This pristine addition to the Bridger Wilderness Area system would greatly enhance the primitive recreation experience as well as protect a beautiful ecosystem within the reaches of the Sweetwater River.

Location

Located on the far western boundary of Fremont County on the western boundary of the Bridger National Forest in the Wind River Mountains, Mill Creek is about 30 miles north-northeast of Farson. Access is from the Lander Creek Road.

Wilderness Qualities

In spite of the small size of the Mill Creek proposed area, the topographic and vegetative features provide an outstanding opportunity to experience solitude and a primitive recreation experience including big game hunting, trout fishing, rock climbing on jagged granite cliffs, nature and wildlife photography, plus hiking, horseback riding, backpacking, camping and cross country skiing. Great camping is found in the lush meadows perched beside pristine creeks. Approximately 6000 visitors access the Wilderness through Mill Creek yearly.

The area is crucial elk calving range as well as summer and fall range for elk, mule deer, pronghorn antelope, black bear, cougar and other animals. Among the numerous trout species, a State Priority Species, the hornyhead chub, inhabits the rivers and tributaries of the Mill Creek area (WNDD, 1993).

Rare and unique plant species found in the area include small rockcress, dense-leaf whitlow-grass and Brewer's monkey flower (WNDD, 1993).

There are numerous old sites and artifacts showing the past historical use by man. An old logging camp lies on a small bench a few feet about the Sweetwater River. Two old cabins still stand at the site called Mandill's Camp, built as fishing and hunting camp about the turn of the century abandoned 50 years ago.

Resource Analysis

There are no oil and gas leases are in the area, nor mining claims. The old cabins do not detract from the wilderness qualities of the area.

The northern part of the area (about 500 acres) burned in 1978 but has been replanted by BLM to native tree species.

Boundary Rationale and Management Recommendations

5. Bridger Wilderness Additions
East Fork (040-106)

Citizens' Proposal: 2,721 acres

Highlights

Located within the foothills of the Wind River Mountain Range, East Fork offers a great diversity of topographic and vegetative characteristics. From steep forested slopes scattered among the massive granitic outcroppings to gentle rolling sagebrush slopes this area presents complete ecosystems up to the Wind River Mountains. Rugged, challenging cliffs and rock formations, perennial streams, diverse vegetation all contribute to outstanding recreation opportunities.

Location

Located at the southwestern tail of Wind River Mountains, East Fork is approximately 6 miles east of Big Sandy (in Sublette County) on State Highway 353. The area is accessed from State Highway 353 via a surfaced road just north of Big Sandy.

Wilderness Qualities

East Fork, bordering on the edge of the Bridger National Forest is only about 3 miles from the Bridger Wilderness Area. This addition completes a vast ecosystem for flora and fauna protection and quality recreation. The terrain varies from river bottom to bare granitic towers, with vegetation ranging from open sagebrush slopes to dense forest cover. Activities for which recreational opportunities exist

include hunting, fishing, hiking, camping, rock climbing and sightseeing.

This area provides excellent pronghorn antelope, sage grouse, elk, and fish habitat. Two rare and unique species have been found in the area that are candidates for federal protection: the spotted frog and the North American lynx. A few plant species whose rarity grants them Priority Status with the state are: William's rockcress, three-leaf bitterroot and black and purple sedge (WNDD, 1993).

Resource Analysis

There are no oil and gas leases, nor mining claims in the East Fork area (BLM, 1992).

There is a small road to the boundary of the southeast corner that some were using for firewood cutting. No other logging is expected due to the rocky and steep terrain in the area.

Boundary Rationale and Management Recommendations

Wind River Basin Areas

1. Dubois Badlands (030-109)

Citizens' Proposal: 4,793 acres

Highlights

The striking red cliffs and pinnacles of Dubois Badlands provide an exceptionally scenic backdrop along the Wind River. Within the area, flat, grassy ridge tops break away into mazes of red soil and tan rimrock. The braided streams in Mason, Carson, and Byrd Draws flow through the area during spring run-off and nourish the adjoining cottonwoods. The stark badlands face southwest toward the high snow-capped peaks of the Wind River Range.

Location and Access

The Dubois Badlands is located in Fremont County, about 2 miles east of the town of Dubois. Access is from a county road on the western boundary.

Wilderness Qualities

The beautiful badland formations and winding secluded passageways of the Dubois Badlands provide outstanding recreation opportunities, including hiking and hunting. The BLM has designated the Dubois Badlands as an Area of Critical Environmental Concern (ACEC).

Visitors may also fish for a variety of trout in the Wind River, rated as Class II by the Wyoming Game and Fish. Rainbow, Brown and Snake River cutthroat trout are found in the Wind River 1/2 mile from this area (G&F, Dufec, 1993). Scouting for a great variety of wildlife can include bald and golden eagles, prairie falcons, osprey, great blue heron, river otter, and a small isolated herd of bighorn sheep that produces trophy rams. Crucial winter range is provided here for pronghorn antelope and mule deer and in severe winters, some elk use the WSA instead of winter range further to the north. This great winter habitat is due to the relatively low elevation and low snow depths resulting from the south-facing aspect (EIS -BLM, 1990). Endangered peregrine falcons nest in the region and forage within the study area (Oakleaf 1991).

Other animal species requiring high priority management due to their rarity in Wyoming are found in this area: North American lynx, and the boreal western toad, both candidates for Federal Threatened and Endangered listing. The fisher, extremely rare in Wyoming has been sighted in the area. The common loon inhabits riparian areas nearby. The red bat (with its "peril" status uncertain), and the

rare river otter are reported in the area. The boreal owl (a State priority species) is observed in the area. And the endangered black-footed ferret was last sighted in the Dubois Badlands in 1973 (WNDD, 1993).

The area includes crucial winter range for antelope, elk, and mule deer (WG&F, 1991) which complements the Wyoming Game and Fish Department's East Fork Big Game Winter Range and Spence and Moriarty Wildlife Management Unit.

The dubious milkvetch, nuttall townsend-daisy, bun milkvetch, Wyoming point-vetch, Weber's saw-wort, Jones' columbine, arromatic pussytoes, William's rockcress and sweet-flowered rock jasmine - all are rare or sensitive plant species - have been observed and recorded in the last 5 years (WNDD, 1993).

The badlands contain numerous fossil remains of primitive forms of horses, camels, rhinoceros and many others that are unique to Wyoming. These fossils and geologic formations have long attracted groups from educational institutions from the American Museum of Natural History to Central Wyoming College and the Audubon Camp of the West.

Although the study area has not been thoroughly surveyed for archaeologic sites, artifacts occur from the valley floor to high peaks and represent human occupation over thousands of years, possibly beginning as long as 12,000 years ago. The Sheepeaters hunted game in the badlands and found shelter in caves there (Love, 1991).

Resource Analysis

No mining claims or mineral leases occur in the study area. ORV encroachment continues because the BLM has been unable to enforce an ORV closure for the area. ORV tracks traverse the steep canyon walls defacing the beauty of the badlands and increasing the erosion of the sandstone formations. Public testimony has repeatedly indicated that an ORV closure should be enforced in the area, regardless of designation, and we concur.

Boundary Rationale and Management Recommendations

Boundaries for the Citizens' study area are the same as those for BLM's WSA, with the addition of two small State land parcels on the southwestern boundary. The rest are set by surrounding private land. The western boundary is a two-track public land. The Citizen's Proposal additions on the south western boundary will allow the inclusion of river frontage and access from the main highway.

BLM states that four fences within the WSA are not authorized BLM projects. We, along with the Wyoming Game and Fish Department, recommend that these fences be removed or modified to big game fencing specifications.

2. Whiskey Mountain (030-106, 107, 108, 110)

Citizens' Proposal: 6,060 acres

Highlights

Whiskey Mountain is best known for its bighorn sheep herd which is routinely tapped for reintroduction programs across the nation. The terrain is rough and mountainous and a natural extension of the USFS Fitzpatrick Wilderness Area with stands of limber pine, Douglas-fir, and burnt snags. Due to an annual rainfall of 8-12 inches, only sparse vegetation covers the slopes. The Whiskey Mountain study area, named for a cache of the liquor once made on its slopes, is comprised of four areas.

Location and Access

The four parcels of the Whiskey Mountain are located 5-10 miles south and southeast of Dubois on the north slopes of Whiskey and Arrow Mountains in Fremont County. Access is off of State Highway 287 using the Torrey Creek Road.

Wilderness Qualities

These areas provide exceptional hunting and viewing of the largest herd of bighorn sheep in the contiguous United States. The herd averages over 1,000 animals annually (WGFD Completion Report 1991). They are dependent on these primary wintering areas within the Whiskey Mountain areas. The Wyoming Game and Fish Department traps the animals just outside the boundary for extensive translocation programs.

Each study area compliments wilderness values on the adjacent Forest Service wilderness and would be logical extensions of those boundaries. The eastern-most area contains land recently acquired by The Nature Conservancy and traded to the BLM for protection of big game habitat.

Whiskey Mountain is frequently used by horsepackers and visitors to observe wildlife amid outstanding vistas of the Wind River Valley, Dubois Badlands, and Absaroka Range. The area is home to bald eagles, and provides winter and year long habitat for elk and mule deer (WG&F, 1991). Important nesting sites exist for endangered peregrine falcons, but are unoccupied at the present (Oakleaf, 1991). Other rare or unusual animals occurring in the area are the North American lynx, fisher, red bat, river otter and common loon (WNDD, 1993).

The fisherman will find a large variety of cold stream fisheries in the area. Torrey Creek supports rainbow and brook trout. Ring and Trail Lakes on Game and Fish land contain rainbow, brook and brown trout, while Blue Hole Creek has brook trout (G&F, Dufec, 1993).

Rare or unique plants found in the Whiskey Mountain area are as follows: dubious milkvetch, pygmyweed, Weber's saw-wort, sweet-flowered rock jasmine, and jones' columbine - all species recognized by the State in need of special protection (WNDD, 1993).

While complete archeological surveys have not been conducted, a number of petroglyphs and artifacts--including a sheep trap--have been found in the immediate vicinity. Cultural history in the area is generally believed to have begun at least 12,000 years ago, when the first human groups entered this region and appears to have continued basically uninterrupted up to the present time, and the potential exists for the discovery of additional sites.

Geologically, the area is interesting in that it contains 600,000 year-old layers of volcanic ash from Yellowstone. This is the only known ash deposit in the northwest part of the Wind River Basin (Love 1991).

Resource Analysis

The Wyoming Game and Fish Department believes that the highest priority for the management of the area is the bighorn sheep herd and is concerned that the flexibility to manage these areas continues.

We agree and believe that a wilderness designation will best accomplish this goal. First, the area will be permanently off limits to ORVs and any developments which will harm the habitat such as mineral development.

Second, the flexibility to manage the bighorn sheep herd inside of the wilderness boundary exists. The National Forest portion of Whiskey Mountain designated wilderness in 1984 contained language allowing the Game and Fish to continue to manage for bighorn sheep. Thus burning and other such activities for bighorn sheep management have continued unimpeded.

Potential for oil and gas and locatable minerals in the area are low. All four units have been

closed to mineral entry since 1970 in order to protect sheep habitat. Timber in the area is not merchantable.

The largest problem in not designating the area for wilderness is controlling the ORV use. The Town of Dubois said they would like to see no ORV use on Whiskey Mountain and that it be managed for protection of the bighorn sheep. Although BLM states that NSO stipulations would be applied to Unit #110, the area could be leased for oil and gas that would adhere to No Surface Occupancy by using helicopter exploration or slant drilling techniques - all disruptive to wildlife management. BLM's mineral withdrawal for all four units (due to the bighorn sheep use) was challenged internally in 1990, and though upheld, could be overturned in the future--opening the area for mineral exploration. Although development is not now anticipated, wilderness, wildlife, and other values would not be guaranteed long-term protection from ORV use, mineral exploration, or oil and gas development.

Boundary Rationale and Management Recommendations

Boundaries on the three eastern units are set by private and USFS lands. The Citizens' proposal recommends only the western half of the western unit--BLM's WSA--due to the presence of a radio tower and maintenance trail.

3. Lysite Badlands (030-115)

Citizens' Proposal: 14,093 acres

Highlights

The Lysite Badlands surprise the roadside observer by the discovery of lands carved by water and strange rock forms sculpted by wind within the area. The most striking features are the vast sagebrush grassland plains which suddenly fall away into extremely wild and rugged badlands. David Love, Wyoming's foremost geologist, has characterized the area between the Badwater River and Poison Creek as, "one of the most poisonous areas in North America....."(Love, 10/6/92) due to the alkalinity content of the creeks.

This area provides the visitor with the uncommon opportunity to experience the wild, wide-open spaces of Wyoming's high desert plateau, most of which has already been destroyed by development outside the proposed area.

Location and Access

Lysite Badlands is located in Hot Springs County, approximately 25 miles east of the town of Shoshoni. Access is from the south from the town of Moneta on State Highway 20/26 via the Moneta Lysite Road.

Wilderness Qualities

The wild grassland-badland-sand dune country of the Lysite Badlands provides outstanding opportunities for solitude and unconfined primitive recreation.

The unique fossilized bones and teeth found throughout the sandstone cliffs provide important specimens for the Smithsonian Institute, American Museum of Natural History and Carnegie Museum of Natural History.

Porter's sagebrush (*Artemisia porteri*), a rare endemic not represented in the wilderness preservation system, is found on the edge of the area. The Nature Conservancy recommended that this area have special management status due to the many occurrences of this sagebrush (WNDD, 1993).

Golden eagles and Ferruginous hawks - a candidate species for Federal threatened and

endangered status - nest on cliffs in the area (Ritter 1991). Burrowing owls, turkey vultures and antelope forage throughout the entire area, while the northern portion is classified as crucial mule deer winter range (WG&F, 1991).

Resource Analysis

The area has producing fields lying to the north and east and is leased for oil and gas. Several wells have been drilled on adjacent state lands, and most are dry holes. The proposal contains no active mining claims or pumping wells (BLM 1991). South of Lysite area are plans for a large drilling project, making what's left that is north of the highway all the more important for balanced development.

According to BLM, grazing allotments have not been stocked to capacity due to drought, poor soils and low forage levels. Big game and many small mammals also compete with livestock for limited forage in the area.

Should the area not be designated as wilderness, oil and gas exploration would ruin wilderness values on the entire unit, while ORV use, pipelines, or powerlines could destroy naturalness on part or all of the unit. Porter's sagebrush and ferruginous hawks, both sensitive species, would not be guaranteed protection and could be extirpated from the area. A vegetative type not represented in the NWPS would be lost.

Boundary Rationale and Management Recommendations

The BLM should manage livestock levels to alleviate severe over-grazing and to improve conditions for Porter's sagebrush and wildlife. Twelve sections surrounding the proposed wilderness should be designated as an ACEC, [as recommended by The Nature Conservancy?]. Although there are a few intrusions which prevent these sections from meeting wilderness criteria, they should be protected for the integrity of the proposed wilderness unit and for Porter's sagebrush habitat.

The study area is bounded by private land and a powerline on the south, the Moneta-Lysite Road on the east, two-track ways on the north, and private land on the west. An "Evaluation of the Lysite Badlands as a Potential Area of Critical Concern" is available for review (TNC bb 12-8-92). This area was recommended for National Natural Landmark by the USPS (Kirk Koepsel, 1991).

4. Copper Mountain (030-111)

Citizens' Proposal: 6,858 acres

Highlights

Steep canyons and rocky slopes dominate the Copper Mountain area. Extensive faulting along the front of Copper Mountain has produced sheer cliff faces, narrow slots of granite and rock exposures. Sagebrush grasslands sparsely cover the hillsides, while dense patches of deep green juniper line the reddish draws.

Located near the popular Boysen Reservoir and Boysen State Park, this area offers outstanding opportunities for primitive recreation. The fascinating topography of drainages, peaks and outcropings ensure visitors seclusion and solitude as well as presenting exceptional recreational challenges. Spectacular views of the Wind River Basin and Wind River Range are sure to entice the visitor into the area.

Location and Access

The Copper Mountain Wilderness Study Area lies just west of Wind River Canyon and borders the Wind River Indian Reservation. It is in Fremont County about 10 miles north of the town of Shoshoni.

Access to the area is via a county road on the eastern boundary off of State Highway 20.

Wilderness Qualities

Copper Mountain provides nesting sites for endangered peregrine falcons (Oakleaf 1991), bald eagles (WNDD, 1993), and crucial winter range for mule deer and pronghorn antelope (WG&F, 1991). Some elk may wander into the area in the summer. Townsend's Big Eared Bats--a State Priority Species--have been observed hibernating in the Copper Mountains. A variety of other wildlife, including chukars, bobcats, coyotes and red foxes also roam over Copper Mountain.

Two plant species, owl creek miners candle, and Hapeman's sullivantia, are candidates for Federal listing requiring special management are recorded in this area. Balsmorhiza X tomentosa, hairy prince-plume, and Watson's prickly-phlox are plant species in the area that are listed as rare or sensitive by the State (WNDD, 1993).

No cultural resource inventories have been completed in the study area, but the region has been occupied by humans for at least 12,000 years. Inventories conducted near the area have identified historic and prehistoric sites, potential for similar sites within the area are high. The Birdseye Pass Stage Line ran along the eastern boundary of the study area from the 1880s to the early 1900s.

Resource Analysis

USGS has rated oil and gas potential in the Copper Mountain area as low. Where oil and gas occurs, tremendous depths of reserves make development impractical. Several dry holes are located near the study area. BLM predicts that only four wells along the southern boundary will ever be drilled. The International Geologic congress guidebook #328, 1990 states it's dry for gas.

There are no mining claims in the Citizens proposal area (BLM, 1991). Deposits of iron ore in the unit are high quality, but of insufficient quantity to be mined (Hausel et al, 1985). Uranium potential is moderate for the area, but many more marketable deposits are found elsewhere in the region.

Rugged terrain already necessitates stock management by foot or horseback.

Should the area not be protected by wilderness designation, additional exploration or unforeseen impacts, such as utility corridors, would mar wilderness values there.

Boundary Rationale and Management Recommendations

The WSA is bounded on the west by the Wind River Indian Reservation, on the south by private land and a powerline, on the east by a county road, powerline, and state land, and on the north by private and state lands. The Citizens' Proposal recommends a slight alteration on BLM's southern WSA boundary to exclude a dry hole.

5. Fuller Peak (030-114)

Citizens' Proposal: 10,278 acres

Highlights

Fuller and Greer Peaks dominate the steep and rugged terrain of this area. Clear streams cascade through granite walls and form pools or "bathtubs" in the stone. The only level terrain in the area is found on the eastern border and along Schoening Creek near the southern boundary.

Location and Access

Fuller Peak is located in Fremont County, about 30 miles east of the town of Shoshoni. It lies about 10 miles north of Lysite Badlands. Access is from the south on the Badwater Road from the town

of Lysite.

Wilderness Qualities

The precipitous and jagged terrain of the Copper Mountain range ensure that hikers, horsepackers and other recreationalists who frequent this wild area find solitude and naturalness in abundance. Spectacular views of Fuller and Greer Peaks can be found along the windblown ridge tops.

Nesting ferruginous hawks--a federal Threatened and Endangered candidate species--have been documented near the area (Ritter 1991) and likely forage and nest within the area, as well. A rare recording of the Allen's 13-lined ground squirrel was collected in the area in 1938, a candidate for Federal listing (WNDD, 1993).

Rare plants have been surveyed in the vicinity. Of high priority in this are two candidates for federal listing: Porters sagebrush and Owl Creek miners candle. A rare plant requiring special State protective status found is the bun milk-vetch (WNDD, 1993).

Resource Analysis

Although uranium has been mined in the area in the past, reserves are limited and of little economic interest (Hausel 1985). There is only one oil and gas lease in the boundary area. There are no active mineral claims in the proposal area (BLM, 1991).

Should the area not be protected by wilderness designation, additional exploration or unforeseen impacts, such as utility corridors, would mar wilderness values there.

Boundary Rationale and Management Recommendations

This area's northern and western boundaries are set by private land. The eastern and southern boundaries are set by the Point-of-Mountain Road.

6. Lysite Mountain

Citizens' Proposal: 10,219 acres

Highlights

Lysite Mountain is one of nature's most beautiful flower gardens in the middle of never-never land. The spring blooms in this off-the-beaten track of wild land are full of unusual varieties. The colorful green and white cliffs with black bands of coal and oil shale give the appearance of a tiger striped mountain. This badland canyonland hosts five springs and the Lysite Creek and a vast array of wildlife.

Location and Access

Lysite Mountain is located about 12 miles north of the wee town of Lysite in Fremont County or 20 miles from State Highway 20-26. It is accessed from Lysite along the Lysite Creek Road. The Nowood Road comes within 2 1/2 miles from the eastern boundary.

Wilderness Qualities

Lysite Mountain is truly a wilderness experience due to its remoteness. Solitude and isolation combined with the area's steep cliffs make this area ideal for recreation for the off-beat explorer.

Geologically, Lysite Mountain is one of the most significant areas in the state because it is the only place where the late Cenozoic record is preserved. The one-thousand-foot display of rock contains remnants of the fill that has been removed from the Wind River and Bighorn Basins (Love 1991). The well-preserved younger beds house abundant fossils of vertebrates, invertebrates, and leaves (Bay

1969).

Resource Analysis

There are no active mineral claims in the Proposal area (BLM 1991), but potential for low grade uranium may be in the area. But the rather large gas development proposal (2011) located south of the highway will make the Lysite Mountain area all the more important to protect as a remnant of this geologic type.

Boundary Rationale and Management Recommendations

Lysite Mountain boundaries are determined by private property holding on three and 1/2 side - the west, north and east with the western portion of the southern boundary. The southern boundary was extended down to the 2-track at Sagebrush Draw to provide public land access to the area.

Bighorn Basin Areas

1. Cedar Mountain (010-222a & b)

Citizens' Proposal: 26,975 acres

Highlights

Cedar Mountain is an imposing juniper-studded rock escarpment towering over the Bighorn Basin. Steep drainages, slick rock, and hoodoos and goblins of stone make this a big exciting area to explore. On the western boundary, grotto covered-bluffs drop sharply to the Bighorn River. The sagebrush and grass slopes are interspersed with cottonwoods lining the streambeds, and junipers which grow in belts and pockets along the hillsides.

This wilderness area is a rare example of a dry "cold" desert badland which borders a large river.

Location and Access

Cedar Mountain is just 8 miles southwest of Worland in Washakie County situated on the east side of the Bighorn River. A good access is from County Road 172 to County Road 23 (Cowboy Springs Road) to enter the southwestern boundary area.

Wilderness Qualities

This high desert site offers a variety of outstanding recreation opportunities, including hunting and trapping, horseback riding, rockhounding, fishing and canoeing from the river front. BLM's Bighorn River Special Recreation Management Area encompasses the western half of Cedar Mountain, while the BLM has recommended the southern half of the area for wilderness designation.

Two to three hundred mule deer use crucial winter range and yearlong habitat here (WG&F, 1992). The Wyoming Game and Fish supported the area for wilderness designation because of its natural condition and its importance as year round deer and pronghorn antelope habitat.

Bald eagles (listed endangered/threatened under the Endangered Species Act) forage along the western edge of the area, and are observed nesting and incubating in riparian areas there (BLM 1990; WNDD, 1993). Merlin falcons and Richardson's merlin falcon, both rare and unique species as determined by the State, have been observed in the area (WNDD, 1993). Golden eagles, prairie falcons, and several hawk species nest throughout the area, while great blue herons have a riverside rookery just outside the boundary. Sage grouse strut and nest in the eastern portion.

Cedar Mountain provides habitat for many other species such as bobcats, chukar and gray partridge. Rock walls throughout the area provide habitat for Townsend's big-eared bats and for the pallid bat--two State priority species due to their rarity (WNDD, 1993).

The Bighorn River provides aquatic habitat for two unique and rare State Priority species of fish - the Western silvery minnow and the Mississippi silvery minnow (WNDD, 1993). This section of the Bighorn River is rated Class III (of Regional Importance) by the Wyoming Game and Fish. Some of the game fishery the river contains include stocked and wild rainbow, Yellowstone cutthroat, Snake River cutthroat, Bear River cutthroat, brown, walleye, sauger and linge cod.

Because of Cedar Mountain's vantage point over the Bighorn River, it was undoubtedly much used by native people. The area also contains a wealth of reptile and mammal fossils ranging from 65 to 80 million years old, as well as petrified wood.

Resource Analysis

Cedar Mountain is not likely to have oil and gas reserves. USGS has determined that Cedar Mountain only has low to moderate potential for the occurrence of oil and gas. The WSA contains three dry holes, and of about 20 wells drilled within 3 miles of the WSA boundary, only three have produced--one is now plugged, and two are shut-in for economic reasons. The closest producing oil well is 3 miles east of the WSA at the western edge of a field. The southern area of the wilderness proposal has oil and gas leases extended to the year 2001, but there is no production in the area. Coal beds under the area are very deep and of such marginal quality that they will never be mined. The Cedar Mountain wilderness proposal has low potential for locatable and salable minerals, with no current or historic mining claims.

Should Cedar Mountain not be protected by wilderness designation the following could occur: Although no producing wells are expected, exploration would increase roading and sediment loads in the Bighorn River and stress to wildlife (BLM 1990). Nesting success of eagles, falcons, and other raptors would be reduced by an unknown amount due to increased human disturbance. Other activities, such as a recent proposal to dam the Bighorn River and develop a resort in place of Kirby, could destroy special values on most of the study area. According to BLM (1990), development over the long term would result in a total loss of all wilderness values.

Boundary Rationale and Management Recommendations

This area is bordered by private lands and a vehicle way on the northwest and southwest, roads or ways on the south and east, and on the southeast. The Citizens' Proposal excludes part of the WSA in which BLM allowed plowing and construction of a powerline. Wild lands additions could enlarge this WSA on the southeastern which encompasses pristine lands on the south flank of Cedar Mountain.

2. Buffalo Creek (010-220)

Citizens' Proposal: 27,081 acres

Highlights

The undulating plains and deep draws of the Buffalo Creek Area with awe inspiring views of the Bighorn Mountains truly represent the open range that is so unique to Wyoming. The proposed wilderness includes portions of Buffalo Creek, Buffalo Springs Creek, and Blue Bank Draw, which drain to the Nowood River. As the name suggests, bison once roamed in vast herds over the wide open spaces here.

Location and Access

The Buffalo Creek area is located just southeast of the Honeycombs and 8 miles south of Tensleep in Washakie County. Access is from the southern Nowood River road from Tensleep (State Road #434).

Wilderness Qualities

Visitors to Buffalo Creek discover remote open spaces, and wide vistas of the Nowood River country and Bighorn Mountains. Large white cliffs of the Chalk Cliff area are surrounded by badland plains. Wildflowers are abundant in the spring.

Buffalo Creek provides crucial and year-round mule deer and pronghorn antelope winter range (Berry and Goldbach 1991; WGFD Completion Report 1991). Small mammals also inhabit the area, and all provide a prey base for large numbers of golden eagles. While reviewing this study area, volunteers saw a group of seven eagles circling together, and another eagle nesting.

Survey work for rare plants or animals has not been done for the Buffalo Creek area (WNDD, 1993).

Resource Analysis

The Buffalo Creek Wilderness Proposal area is mostly leased for oil and gas for the next two to six years, however there are no producing wells in the area. There are no active mineral claims within the proposal boundary. The BLM has limited vehicle travel in the area to designated roads and trails due to the highly sensitive and erodible soils. Thus conflicts with off-road vehicles have been minimized.

With the extensive oil and gas leasing in the area, exploration would ruin Buffalo Creek as habitat for elk, eagles, and other unique species should the area not be protected as wilderness.

Thirty-two outfitters have permits for hunting in the general area.

Boundary Rationale and Management Recommendations

This study area is bounded by bladed roads and private land on the west and south, and by vehicle ways on the north and east.

3. Honeycombs (010-221)

Citizens' Proposal: 52,764 acres

Highlights

The stunning badlands of the Honeycombs is one of the most spectacular areas in Wyoming. The area mesmerizes its visitors with a kaleidoscope of pastel orange hills, tan rock mushrooms, and red-, white-, and purple-striped cliffs. Situated to the west of Castle Gardens, the area exemplifies the biblical notion of wilderness as an area for contemplation and spiritual renewal, even to the non-devout. Sagebrush and grasslands are interspersed through the array of unusual pinnacles, spires, and buttes, while greasewood and rabbitbrush grow along the winding canyonlands. With only 7-10 inches of rainfall per year, this area is a pristine high desert badlands landscape at its best.

Location and Access

Located just six miles southwest of Tensleep in Washakie County, the Honeycombs is accessed from State Highway 16 on the Blue Bank Road.

Wilderness Qualities

Opportunities for solitude and primitive recreation are truly outstanding. Visitors may lose themselves in a maze of vivid badlands or watch the full moon rise over a place that looks much like a moonscape.

The Honeycombs provide year-round and crucial winter range for 100 mule deer, and 200 to 300 pronghorn antelope, as well as nesting areas and crucial winter habitat for sage grouse. Golden eagles, great-horned owls, and other raptors also nest in the area and forage there year-round (Ritter 1991). Bobcats and coyotes roam the Honeycombs, as well. The black-footed ferret, a federally listed endangered species, was found in the area in 1974 (WNDD, 1993). The Wyoming Game and Fish Department has found the area to possess outstanding natural qualities and superb wildlife habitat and has recommended it for wilderness designation.

In addition to dramatic scenery and unique geologic features, this area is known for fossil deposits of large Tertiary mammals and reptiles. An archaeologic survey has not been conducted in the area, but scrapers, points, and other stone artifacts are commonly found.

Resource Analysis

The area has no salable minerals. There are no mineral leases within the boundary area (BLM, 1992). Coal reserves will probably never be leased due to their poor quality and high development costs (BLM 1990). The area has potential for occurrence of titanium and other metals, but these are mined more economically elsewhere. Although the area has been rated as having moderate potential for the occurrence of oil and gas, it is considered to be on the nonproductive side of a facies change in the Phosphoria formation (Love 1991). According to BLM, one well was drilled in the boundary area and was abandoned in 1982. Oil and gas leasing occurring within the western and southern boundary area are due to expire in one to nine years (BLM 1992).

Periodic access for maintenance of water sources, fences, and use of a cow camp just inside the boundary could continue as in the past.

Should the Honeycombs not be protected as wilderness, mineral exploration, ORV use, and other surface-disturbing activities would result in a loss of most, if not all, wilderness values (BLM 1990). The terrain and its associated soils are not conducive to motor vehicle or bicycle use. Paleontology resources could be destroyed through incomplete mitigation. Sediment loading into the Bighorn River would increase slightly and wildlife would be displaced. This area would represent a geologic type not included in the national Wilderness Preservation System.

Boundary Rationale and Management Recommendations

The citizens' proposed additions to the WSA are necessary to protect equally wild and scenic badlands topography. BLM should acquire the acres of state land within the study area for enhanced manageability. Boundaries for this area are roads, trails and private land on the north and east, and vehicle ways on the south and west.

4. Alkali Creek (010-241)

Citizens' Proposal: 17,117 acres

Highlights

Alkali Creek is an odd mix of high desert pastel plains sloping quickly downward into a tight cottonwood canyon surrounded by hoodoo sandstone pinnacles. It lies in a transition zone below the Bighorn Mountains, and offers spectacular views of the Bighorn Basin. Gradual slopes and rough

canyons of red Chugwater soil contrast with pockets of blue-green juniper and light green sagebrush, while monoliths of Tensleep sandstone jut up above the grasslands. Lemonade berries and cottonwood grow around springs and along the drainages. Elevations range from 4850 to 7000 feet.

This area has many unchartered aboriginal sites and provides a haven for wintering elk migrating from the Bighorn Mountains.

Location and Access

Alkali Creek is located in Big Horn County, 7 miles north of Hyattville. On the eastern boundary, the Red Gulch National Scenic Byway (along the west face of the Bighorn Mountains) easily accesses the area.

Wilderness Qualities

The Alkali Creek area holds a wealth of prehistory dating back at least 12,000 years. A cultural inventory of about one percent of the study area yielded ten sites, five of which were eligible for the National Register of Historic Places. Two other known sites are also eligible. This indicates that the area contains a very high number of important archaeologic sites (BLM 1990). Known features include pictographs, petroglyphs, rock shelters, tepee rings, chert collecting areas, and stone tools. These and other undiscovered cultural resources will probably lead to listing of the area as an Archeological District as more studies are completed.

A great variety of wildlife use the area. More than 300 elk and many mule deer find crucial winter range. There are at least two sage grouse strutting grounds in the WSA and golden eagles nest here. Other desert creatures, such as pronghorn antelope, bobcats, chukar partridge, prairie falcons, and horned toads abound.

The area is unique in habitat that supports several plant species. Branched fleabane lives in the generally sparsely vegetated juniper and mountain mahogany communities is federally protected (rated 3c) as well as Cary beardtongue - a penstemon - (a candidate for federal listing). In the survey for rare plant communities, the Alkali Creeks supports two worthy of special protection - that of the "mountain big sagebrush/Idaho fescue community" and the "narrow-leaf cottonwood/chokecherry community" (WNDD, 1993).

Alkali Creek WSA is located within the West Slope Special Recreation Management Area and affords visitors access to remote, wide open spaces. It is also bordered on the east and north by the Red Gulch National Scenic Byway, and is described in BLM Byway publications as a place where one can "get away from it all" (BLM undated). The BLM has recommended most of the WSA for wilderness.

This site is also geologically important in that it contains unique outcrops of ancient eolian sandstones. [see VerPlough's bulletin on the Tensleep tar sands; WG Pierce did the USGS quads for the area; Eargle did the Worland-Hyattville quads]

Resource Analysis

Low potential for oil or gas occurs in the area. The two oil and gas leases occur in the far eastern area and will expire in 1993 (BLM, 1992). The potential for tar sands is moderate. A low to moderate potential exists for minor silver sulfides and other metals, and potential for the occurrence of uranium is moderate--as is the case for most of the region. There are no mineral claims active in the boundary area. Gypsum beds in the area are too thin, discontinuous, and of too poor quality to be developed (BLM 1990). The BLM has designated lands in the region of Alkali Creek accessible to motorized vehicles only on designated roads and trails, making the conflicts with off road vehicles minimal.

Three outfitters have day-use permits for hunting in the area.

The entire Alkali Creek area would be open for mineral exploration and leasing, and these activities could destroy wilderness values on a substantial portion of the area (BLM 1990) should the area not be designated as wilderness. Crucial game wintering areas, eagle nesting use, special archaeologic resources, and other values could be inadvertently damaged or lost.

Boundary Rationale and Management Recommendations

The Citizens propose excluding the northeast corner of BLM's WSA due to private land there; however, the 680-acre private inholding could be acquired if the landowner is agreeable, and the entire WSA designated as wilderness. BLM should acquire the acres of state land for a more manageable southern border. Boundaries of the area are set by a backcountry byway on the north, east, and southeast, and by private land and ways on the northeast, west, and southwest.

5. Medicine Lodge (010-240)

Citizens' Proposal: 16,654 acres

Highlights

Medicine Lodge is one of the most spectacular canyons on the western slope of the Bighorn Mountains. Sheer cliffs of Madison limestone stair-step down over 1000 feet to a clear, cascading stream. A shallower canyon on Captain Jack Creek enters from the south, while orange Tensleep sandstone crops out on the shrubsteppe away from the canyon. The study area supports many types of vegetation: alder and chokecherry line the water courses, Douglas fir and other conifers blanket higher parts of the steep north-facing slopes, mountain mahogany and juniper grow on the southern aspects and shrubsteppe, and sagebrush grasslands cover the canyon rims. Wildflowers and berries abound.

Location and Access

This wilderness study area is located in Big Horn County, 5 miles northeast of Hyattville along the western slope of the Bighorn Mountains. Medicine Lodge is easily accessed from the south utilizing the Cold Springs Road from Hyattville.

Wilderness Qualities

Visitors to Medicine Lodge make their way through wild, rugged terrain and thick vegetation to find excellent hunting and fishing. Superb nature and geology studies are provided by pristine ecological conditions and an abundance of fossils from the Lower Mississippian Age. Additionally, they can explore the passages of P-Bar Cave--which swallows up Medicine Lodge Creek every spring when the water is high.

Medicine Lodge is situated within the BLM's West Slope Special Recreation Management Area of the Bighorn Mountains, and is a scenic backdrop for the Red Gulch National Scenic Byway.

The BLM has included much of the Medicine Lodge Canyon in its Spanish Point Karst Area of Critical Environmental Concern and has recommended much of the area for wilderness designation. The ACEC was designated to protect important groundwater sources, while about half of the area is cooperatively managed as a Wyoming Game and Fish Department Habitat Management Area.

Nearly the entire area is crucial elk winter range--over a thousand may be present at one time--and a portion is crucial winter range for several hundred deer. Black bear, mountain lion, chukar and gray partridge, and nesting raptors, including American kestrel, prairie falcon, golden eagle, and red-tailed hawk (Ritter 1991), also call this area home. Harlequin duck and North American lynx, both candidates for Federal listing for endangered/threatened status, are found in the Medicine Lodge

canyon area (WNDD, 1933). Sage and blue grouse strut and nest in the northern part of the area. In the winter, up to 20 bald eagles - federally listed as endangered - have been counted roosting in cottonwoods along the streams. Habitat occurs for spotted bats - federal threatened and endangered candidate species, and five state Priority Species of other bats - Townsend's big-eared bats, Yuma myotis, California myotis, Keen's myotis and fringed myotis - in the extensive cliffs within the area (Luce 1991). The long-legged myotis which has been observed in the Medicine Lodge Canyon area, is a rare State Priority species of bat (WNDD, 1993).

This lush deep canyon habitat in the transition zone on the very edge of the Bighorn Mountains is host to an array of rare plant species - blanched fleabane, Cary beardtongue, soft aster, and Hapeman's sullivantia have been identified in the area.

The multitudes of Medicine Lodge Canyon's diverse, rare plant communities listed demonstrate that this area's uniqueness is not only worthy of wilderness protection but a requirement for this area. The rare plant communities the area supports are: mountain big sagebrush/Idaho fescue community, bluebunch wheatgrass-Hood's phlox potential community, boxelder/bedstraw potential community, chokecherry/bedstraw potential community, Utah juniper/bluebunch wheatgrass community, curl-leaf mountain mahogany/bluebunch wheatgrass community, Douglas fir/heartleaf arnica community, Douglas fir/common juniper community, lodgepole pine/whortleberry community, prickly currant/bluebells potential community, narrowleaf cottonwood/chokecherry community, chokecherry/bedstraw potential community, mountain big sagebrush/Idaho fescue community, and limber pine/common juniper community.

Medicine Lodge Creek, which was named for a Native American ceremonial sweat lodge, flows by a wall of petroglyphs just outside the study area in Medicine Lodge State Park. Although an archaeologic survey has not been done for the study area, it is expected to contain a great diversity of sites, some of which would be eligible for the National Register.

Resource Analysis

Three commercial outfitters use the area for big game hunting. 558 AUMs of grazing occurs in the area south of the canyon. Livestock use north of the canyon has been eliminated by agreement with the permittee and the Wyoming Game and Fish Department because of competition for forage on elk winter range.

The study area contains less than 500 acres of commercial forest land and 170 acres of woodland--a very small percentage of the timber in the region. Most of this is not suitable for logging due to steep slopes and natural barriers [this may change with additions].

There are no oil and gas leases in the area and no active mineral claims within the Citizens' Proposal boundary (BLM, 1992). This area has no potential for oil, gas, tar sands, or limestone. It has low potential for silver, base metal sulfides, rare earth elements or occurrence of uranium. The BLM has limited motor vehicle use to designated roads and trails in the region around Medicine Lodge Canyon, thus minimizing conflicts with off-road vehicle use. The citizens' proposed additions, including the Dry Medicine Lodge Canyon, would further protect and enhance the complete ecosystem and alter a two-track to a trail.

If not designated as wilderness, mineral exploration and leasing activities could destroy naturalness, special values, and vast arrays of transition zone plant life. Wildlife would lose the long-term benefit of improved habitat security.

Boundary Rationale and Management Recommendations

The northern and western citizens' additions are designed to include the Dry Medicine Lodge

Canyon allowing the track to become an eventual trail. This area is bordered by a bladed road on the south, private land and vehicle ways on the southwestern corner, and with the Medicine Lodge roadless area in the Bighorn National Forest on the east.

6. The Paint Rock Creek Canyons (010-236a, 239a)

Citizens' Proposal: 11,558 acres

Highlights

The Paint Rock and South Paint Rock Creek areas offer beautiful open, slanting meadows, leading to steep canyon walls of the Paint Rock Creek Canyons. The area is excellent habitat for mule deer, elk, songbirds, raptors includes great wild fisheries. The Citizens' Proposal combines the two areas by adding State land to the Proposal and offering a complete ecosystem for protection. The areas are adjacent to the Bighorn National Forest and within 8 miles of the Cloud Peak Wilderness Area. Joining the Paint Rock Creek Canyon areas to the Cloud Peak Wilderness would diversity, expand and add to the wilderness recreation experience of the Bighorn National Forest.

Location

Bordering the Bighorn National Forest on the west side, Paint Rock and South Paint Rock Creek Canyon areas are located in Washakie County 5.5 miles northeast of Hyattville. Public access to the Paint Rock Canyon area has become a concern of recreationists since 1970. Although the area is not landlocked by private lands, public entry would have to be made through steep terrain (BLM, 1978). Access is from Hyattville to the Cold Springs Road to the Lone Tree Trail through the Hyatt Ranch and access from US Forest Service is abundant with at least 6 trails leading to the area.

Highlights

Paint Rock Canyon is a large narrow canyon that cuts through the lower west slopes of the Bighorn Mountains. The canyon begins where Paint Rock Basin narrows 1.5 miles below the Bighorn National Forest boundary. The canyon extends westerly for nearly five miles. It enters Paint Rock Valley just above the Hyatt Ranch. South Paint Rock Creek, a tributary, completes the canyonland ecosystem. The rims of the canyons tower 400 to 1000 feet above Paint Rock and South Paint Rock Creeks. Numerous canyons of varying size intersect the main canyons. Most of the canyon is cut into limestone rock of the Madison and Big Horn Formations, resulting in cliffs and extremely steep, near vertical slopes.

The physical nature of the canyon and its elevation present an vegetative ecosystem from the stream banks dominated with grasses, woody plants, and shrubs to the rim of the canyons exhibiting mountain mahogany and sagebrush. Conifers, mahogany, and sage are found on the canyon's south rim. This magnificent example of canyons on the west face of the Big Horn Mountain holds unique habitat for flora species. With its varied soils from redbeds to limestone cliffs, many rare and sensitive plants are found in the area including: Williams waferparsnip, soft aster, Nuttall Townsend-daisy, Brandegee's Jacob's-ladder, Branched fleabane and Hyattville milkvetch (WNDD, 1993).

The area includes an outstanding trout fishery particularly Yellowstone cutthroat trout, which provides the opportunity for the most important recreational activity undertaken in the canyon. The area is managed as a wild trout fishery by the Wyoming Game and Fish and is used to collect stock of the Yellowstone cutthroat.

Habitat is also provided for Bighorn sheep, coyote, eagles, numerous species of small mammals, reptiles, and songbirds. The canyon is an important wintering area for elk and deer. The Bald eagle,

listed as an endangered species, and the Northern goshawk, a candidate for federal protection, are found in the Paint Rock and South Paint Rock Creek areas. Also sighted in the area is the sensitive species, the common loon and the long-legged myotis (WNDD, 1993).

Many archeological sites eligible for inclusion in the National Register of Historic Places have been discovered in the Paint Rock Canyon area with occupation by groups at least 9,000 to 11,000 years ago. Thirty nine archeological sites in the Paint Rock Canyon have been catalogued. The sites recorded represent several types: rock shelters, stratified open sites, and quarry sites, thus provide excellent opportunities for scientifically investigating these hunting and gathering societies (BLM, 1978).

Resource Analysis

The area is recommended as being withdrawn from all forms of appropriation under the public land laws, from location and entry under the mining laws, and from mineral leasing (BLM, 1978). The area has no oil and gas leases, no mining claims, and no commercially valuable timber (BLM, 1978).

Grazing is limited to the Hyatt Ranch. The current facilities in the upper canyon, including the wire fence, bridge and coral, are the only visual intrusions in the natural setting of the canyon (BLM, 1978).

The BLM is allowing some mountain bike use in the South Paint Rock Canyon. Hunting is limited due to the steep terrain.

Should the area not be protected as wilderness, the water quality in the canyons would continue to decline from ORV use and possible gravel quarry activity. A very valuable wild trout fishery would be lost. Road maintenance will disturb the cultural resources and alter the canyon's pristine appearance.

Boundary Rationale and Management Recommendations

The Paint Rock Creek Canyons proposed area is bordering on US National Forest lands on the eastern boundary and surrounded by public lands on the western boundary following the Wapiti Trail. The Citizens' Proposal boundaries have increased protection for the Paint Rock Canyon ecosystem and included 1320 acres of State land to combine South Paint Rock with Paint Rock. Our inclusion of the extended lands allow for consistent ecosystem management of a wilderness area and future inclusion with the Cloud Peak Wilderness Area. The areas were dropped in 85 because of their small size and the politics of the time. Although not protected by WSA status, the BLM has not allowed motor use since 1978 and the areas are in good primitive condition.

7. Trapper Canyon (010-242)

Citizens' Proposal: 7,200 acres

Highlights

Trapper Canyon encompasses beautiful limestone cliffs that plunge over 1200 feet to a crystal clear stream, and several hanging canyons that drop off sharply with waterfalls into Trapper Creek.

This area represents a unique transition zone between mountains and basin exhibit sheer canyon walls towering above steep talus slopes and stands of Douglas fir, juniper and mountain mahogany. Cottonwood, chokecherry and wild currant throng the stream sides, while sagebrush and grass dominate on the canyon rim. The riparian vegetation is some of the most pristine and lush found anywhere in Wyoming.

Location and Access

Trapper Canyon lies on the west slope of the Bighorn Mountains, about five miles southeast of Shell, Wyoming. Although surrounded by private land on three sides, the BLM has an easement across private property. An access is from Shell southeast on Trapper Creek Road, staying straight - making no turns, to the southeast boundary. Four-wheel drive is recommended.

Wilderness Qualities

The ruggedness of this canyon is penetrated only by game trails. Those who venture into the canyon find wild, secluded travels and ideal conditions for geologic and ecologic studies. This area has been proposed for National Natural Landmark status because of its pristine riparian and forest habitat. Another special feature is the lower entrance to Great Expectations Cave--the third deepest cave in the nation. More caves probably lie undiscovered along Trapper Creek. This WSA is located within BLM's West Slope Special Recreation Management Area, and about 1200 acres of the area fall within the Spanish Point Karst ACEC. Trapper Canyon is also a featured site nestled between two National Scenic Byways - the Red Gulch National Scenic Byway and the Big Horn Scenic Byway.

The Wyoming Game and Fish Department considers the area suitable for wilderness designation. The area supports a hardy population of native cutthroat trout, wintering bald eagles, crucial winter range and calving grounds for 400-500 elk, crucial winter range for 200-300 mule deer, mountain lion, black bear, and nesting areas for golden eagle, prairie falcon, and several upland game species. Endangered peregrine falcons forage here in spring and summer (BLM 1990), but nesting habitat is presently unoccupied. A nesting occurrence of harlequin duck has been reported from this area. This area is historical range for the North American lynx. Both the lynx and duck are candidates for federal threatened/endangered listing. The wood frog also appears in this area and it is suspected that populations of wood frogs are declining statewide, though the survey is incomplete (WNDD, 1993).

The canyon has habitat in the extensive cliffs for spotted bats--federal threatened and endangered candidate species--, and five state Priority Species of bats --Townsend's big-eared bats, Yuma myotis, California myotis, Keen's myotis and fringed myotis (Luce 1991).

Trapper Creek Canyon is a magnificent example of the transition zone plant life - blanched fleabane, Hapeman's sullivantia and Cary beardtongue have been listed in many areas of Trapper Canyon.

The many and varied plant communities exhibit the urgency of protecting this area as wilderness. Starting on the gentle slopes at the head of the canyon one finds the mountain big sagebrush/Idaho fescue community; in the canyon is the red-osier dogwood/bedstraw community and the prickly currant/bluebells potential community; up on the canyon rim is the Douglas fir/heartleaf arnica community; higher up is the Douglas fir/common juniper community; still higher on steeper slopes one finds the Englemann spruce/heartleaf arnica community, along with chokecherry/bedstraw potential community, limber pine/spike fescue community, mountain big sagebrush/Idaho fescue community; then from the canyon rim to the creek is the Douglas fir/mountain ninebark community; along the canyon walls is the blue-bunch wheatgrass-Hood's phlox potential community and the curlleaf mountain mahogany/bluebunch wheatgrass community; and into the riparian areas of the canyon one finds the narrow-leaf cottonwood/chokecherry community.

Trapper Canyon is also eligible for registration in the National Register of Archeological Sites.

Resource Analysis

Seven outfitters have permits for hunting trips in the area.
Some of the private land surrounding the canyon is used as hunting camps for commercial outfitting operations.

The proposed wilderness has no potential for oil, gas, coal, uranium or salable minerals, and no valid mineral claims nor oil and gas leases (BLM, 1990). It has low potential for occurrence of tar sand, silica sand, and a few other locatable minerals, but none in commercial quantities. High purity limestone occurs in the area, but remoteness and rugged terrain make development unlikely.

This area contains a very small amount of commercial forest land but most of the commercial timber cannot be logged due to steep slopes and natural barriers.

The BLM has limited motorized vehicles to designated road and trails in region around Trapper Canyon minimizing the conflicts with off-road vehicle use.

If the area is not designated as wilderness, the greatest threat to this pristine area would be from mineral development. There are two active mineral leases just outside the Wilderness Proposal boundary (BLM, 1992). Mineral exploration and leasing could occur on up to 6000 acres, although surface occupancy restrictions, if enforced, would protect some specific resources. While no development is expected, wildlife and special values would not have long-term protection. The impacts from logging in the Trapper Canyon area would be road building, clearcuts, wildlife habitat reduction, and the resulting stream sedimentation.

Formations included in the study area supply groundwater to wells in the Bighorn Basin, and must be protected from contamination by outside toxins, including drilling products, salinity, pesticides, and fire retardants.

Boundary Rationale and Management Recommendations

According to BLM (1990), the area's high quality plant communities are being degraded by heavy livestock use. Notwithstanding wilderness designation, the BLM recommended that in order to prevent further invasion of undesirable species, erosion of stream banks, and forage taken at the expense of wildlife, livestock use be eliminated from the canyon, and drift fence be built at the east end of the WSA to stop unauthorized grazing. We concur with this recommendation. Boundaries of the WSA are set primarily by adjacent private lands, and by vehicle ways and roads. All inventoried roadless lands on the upper flanks of Trapper Canyons should be added to enhance the protection and wilderness experience.

8. Bobcat Draw Badlands (010-126)

Citizens' Proposal: 28,153 acres

Highlights

The Bobcat Draw Badlands is embraced by a rugged western landscape with uniquely eroded rock mushrooms, spires, arches, goblins, castles and mud caves. Rich colors of orange, purple and red are layered throughout the broken, eroded topography of this Willwood geologic formation. Along streams in the east and north parts of the area, badlands breaks give way to broad, grassy bottoms, while high plateaus dominate the southwest corner.

Location and Access

This area is located in Big Horn and Washakie Counties, 24 miles west-northwest of Worland in the Fifteenmile Creek drainage, and in the vicinity of Red Butte and Sheep Mountain WSAs. Access to the Bobcat Draw Badlands is either from the south on State Hwy 431 and a couple of unimproved roads, or from the north on a two track along Fifteen Mile Creek.

Wilderness Qualities

These colorful badlands are among the most spectacular in Wyoming. Weathering by wind and water has carved layers of clay, sandstone and ancient volcanic ash into mazes and hoodoos striped with red, orange, bright purple, blue, green and grey. The National Park Service has identified some of these formations as potential National Natural Landmarks. Additionally, it includes several vegetation classes of the Wyoming Basin Province Ecoregion, which is not currently represented in the National Wilderness Preservation System.

The brightly colored Willwood formation within the area contains the most comprehensive vertebrate fossil zonation of any rock in the world (Bown and Kraus 1983). Fish, crocodiles, turtles, early Eocene mammals, and many other types of fossils are found in the area (Rohrer and Gazin 1965).

The site is home to pronghorn antelope, wild horses, mule deer, bobcats, fox, coyotes, and chukars. It provides crucial habitat for wintering mule deer (WGFD, 1991), golden eagles, and nesting sage grouse. Burrowing owls (a state Priority Species in Need of Special Management) have been documented in the area (Ritter 1991). Survey work for rare plants and animals has not been undertaken.

Resource Analysis

Potential for oil and gas occurrence is low to moderate, but development is improbable due to the great depth of reserves and to No Surface Occupancy stipulations on steep slopes over nearly all of the area. There are only two oil and gas leases within the proposed Wilderness boundary area. Likewise, the depths of possible coal deposits preclude any economic interest. No other minerals are known to occur in commercial concentrations (BLM, 1990a). No mining claims are in the area (BLM, 1992).

At present, less than 20 percent of the area is being grazed by sheep, although more of the area was used historically. Most of the area is not suitable for cattle grazing, and no range improvements are planned (BLM, 1990a).

Due to disturbance from gas exploration, wilderness and special values would be eliminated or impaired on parts of the area, sediment loading into the Bighorn River would increase slightly, and the mule deer population would be reduced by 10 to 15 percent (BLM, 1990a) should the area not be protected as wilderness. Elsewhere, these values would not be assured long-term protection from ORV use or unforeseen development. An ecoregion that is not represented in the National Wilderness Preservation System would be lost.

Boundary Rationale and Management Recommendations

Paradise Alley, south of the WSA boundary, and Squaw Teats, to the southwest, hold exceptionally scenic badlands, and few intrusions, and should also be included as Wilderness.

The study area is bounded almost completely by roads or two-tracks, with the exception of short segments of private land on the northern and southern borders, and a portion of the southeastern border which follows geographic features. The Fifteenmile valley is intact and should be combined with Red Buttes and Sheep Mountain WSAs to form a large area of protection for wildlife and wilderness quality experience.

9. Sheep Mountain (010-130)

Citizens' Proposal: 24,615 acres

Highlights

Sheep and Tatman Mountains dominate the landscape, while deeply cut badlands and highly eroded red-hued soils flank the mountain peaks, creating a maze of irregular landform patterns. Outcrops of the Willwood and Tatman formations provide colorful, rugged vistas throughout the area.

The sharply incised drainages fan out from the mountains to become broad, soft, grassy bottoms along the perimeter of the area.

Location and Access

This area lies 18 miles west of the town of Basin, and 5 miles northeast of Bobcat Draw Badlands WSA. It adjoins the Red Butte Citizens Wilderness Proposal, to the southeast. Access is from an improved road from the north, or from the Fifteenmile road access from the east.

Wilderness Qualities

Some of the most striking and unspoiled badlands in Wyoming are found here. Additionally, several vegetative classes of the Wyoming Basin Province Ecoregion, which is not included in the NWPS, are in the area (BLM, 1990a).

The area contains early Eocene fossils of world renown. At least 77 genera and 140 species of mammals, including the ancestors of tapirs and pigs, can be found in the area (Bown and Kraus 1983).

Present day mammals include mule deer and pronghorn antelope which depend upon the crucial winter range the area provides (WGFD, 1991). Wild horses, transient bighorn sheep, bobcats, and coyotes are also in the proposed Wilderness area. Hawks, falcons, and strutting sharp-tailed grouse and sage grouse can also be found here (BLM, 1990a). At least 15 bald eagles (federally listed endangered/threatened) are observed roosting in the area during the winter (WNDD, 1993).

Resource Analysis

The study area has a moderate potential for occurrence of deep gas, and low potential for the occurrence of oil in the area. Due to the depths of possible reserves, development is not economically feasible (BLM, 1990a). n addition, slopes in excess of 25 percent cover most of the area, so surface disturbance would be prohibited. There are oil and gas leases in the northern section of the Wilderness Proposal due to expire within three years. There are no producing wells or mineral leases within the boundary area (BLM, 1992). Coal and other minerals are not present in commercial deposits.

Grazing use in the area is less than half of the apportioned AUMs. Boundary roads provide access for livestock management, and range improvements are neither feasible nor planned (BLM, 1990a).

Should the Sheep Mountain proposed wilderness area not be protected, special values would be eliminated or impaired on parts of the area, sediment loading into the Bighorn River would increase slightly, and the mule deer population would be reduced by 13 to 20 percent because of disturbance from gas exploration. An ecoregion that is not represented in the National Wilderness Preservation System would not be added, therefore diversity of the NWPS would not be increased.

Boundary Rationale and Management Recommendations

Citizens' additions of acreage on the north and south borders of the WSA encompass equally wild terrain, form more manageable boundaries, and result in the Sheep Mountain area being adjacent to the Red Butte area.

Most of the study area boundaries are formed by roads or two-tracks, with the exception of segments of private land on the north and west. See comment on Fifteenmile in the Bobcat Draw description.

10. Red Butte (010-131)

Citizens' Proposal: 23,685 acres

Highlights

Red Butte is characterized by bare, red badlands and sharply cut drainages. The Butte towers over the surrounding terrain, while several ephemeral creeks head up at its base. The northeastern part of the area has badlands intermixed with terraces overlooking the flat bottom of Fivemile Creek. In the western portion, steep ridges flatten out to broad drainages and rolling plains. Plant cover varies across the area from sagebrush grasslands to saltbush to bare, eroded rock and mudstone.

Location and Access

This study area is located 12 miles northwest of Worland and directly southeast of Sheep Mountain WSA, in the Fifteenmile Creek drainage. Access is from either from the east using US Hwy 16-20 and turning west via the Dobie Creek drainage road, or from the north, from Basin using State Hwy. 20 and cutting south along the Sandstone ditch and onto a two-track to Sheep Mountain. Four- wheel drive vehicles are recommended.

Wilderness Qualities

The Red Butte area is typified by unusually beautiful and solitary badlands scenery--red ridges, purple and tan hills, as well as spires and hoodoos of brown sandstone. Outcrops of the Willwood formation within the area contain internationally significant paleontological resources, including specimens of an extremely rare arctocyonid, an ancestor of hoofed mammals (Rohrer and Gazin, 1965). Vegetation here is classified in the Wyoming Basin Province Ecoregion, which is not represented in the NWPS.

Red Butte provides undisturbed habitat for wild horses, trophy-sized mule deer, pronghorn antelope, mountain lions, bobcats, and nesting golden eagles, sage and sharp-tailed grouse. Ferruginous hawks, a candidate for federal protection under the Endangered Species Act, and burrowing owls (a state Priority Species in Need of Special Management) have been documented in the area (Ritter, 1991). Merriam's shrew, another Priority Species, may occur here, as well (Luce, 1991).

Survey work for rare plant species has not been completed in this area.

Resource Analysis

There is a moderate potential for the occurrence of deep gas, and low potential for the occurrence of oil in the area; however the great depth of these possible reserves makes exploration uneconomical (BLM, 1990a). The Citizens' Proposal additions to the north and west are lightly leased for oil and gas. There are no active mineral claims in the area (BLM, 1991). Additionally, surface disturbance would be prohibited on over half of the area, where slopes exceed 25 percent. For the past several years, grazing use has been less than 40 percent of the AUMs allotted.

Should the Red Butte area not be designated as wilderness, several vegetative classes of the Wyoming Basin Province Ecoregion would not be added to the National Wilderness Preservation System, so NWPS diversity would not be increased. Deep gas exploration could occur on nearly half of the area, although development would likely produce only a small amount of gas or oil. These activities would result in loss of wilderness values on the disturbed portion of the area, slightly increased sediment loading into the Bighorn River, and reduction of the area's deer population by 15 to 20 percent (BLM, 1990a). On the other half of the area, wilderness and special values would not be assured long-term protection from ORV use or other activities.

Boundary Rationale and Management Recommendations

All boundaries of the area are set by roads or ways. An unreclaimed well site is cherry-stemmed out on the area's eastern border.

The Citizens' Proposal includes additions of federal land north and west of the BLM WSA to protect equally wild and scenic landform, extending north across Elk Creek to the blufftops above. This provision allows the Red Butte area to adjoin the Sheep Mountain area. BLM should acquire the split-estate land in Section 16 and small state acreage on the northern border for uniform management of the area.

See comment on Fifteenmile in the Bobcat Draw description.

11. McCullough Peaks (010-335)

Citizens' Proposal: 74,000 acres

Highlights

This WSA embodies pink badlands on the slopes of the solitary McCullough Peaks. The vein-like drainage patterns of the deeply eroded gullies and extreme terrain variation within the area provide the visitor with a natural maze to explore. There are numerous drainages, including Deer Creek and Whistle Creek, that branch into small, winding badland canyons of exceptional beauty with outstanding views. The citizens' western addition consists of spectacular breaks which drop sharply to the Shoshone River. Elevations vary from 6400 feet atop McCullough Peaks to 4000 feet along Roan Wash.

Location and Access

The McCullough Peaks are located 10 miles northeast of Cody, with the northern boundary about 2 miles from Ralston in Park County. The area is accessed from US Hwy 14a turning west onto State Hwy 295 to the northern boundary.

Wilderness Qualities

The National Park Service has identified this area as a potential National Natural Landmark where visitors find exceptional scenery, such as winding badlands canyons, vividly colored ridges, and panoramas of dendritic drainages and distant mountain ranges. This area offers outstanding opportunity for solitude.

The larger area contains many important archaeologic sites (Berry and Goldbach 1990). Outcrops of Willwood formation, along with those in a handful of other WSAs in the Bighorn Basin, provide the most comprehensive vertebrate fossils of any rock in the world (Bown and Kraus 1983).

Three to four hundred deer--both trophy mule deer and white-tailed deer--winter in the area; while sage grouse, golden eagles, merlin, prairie falcons, and many other raptors nest and forage here (BLM 1990a). Pronghorn antelope, wild horses, mountain lion, coyotes, foxes and jackrabbits can also be seen in the area. Merriam's shrews (a state Priority Species in Need of Special Management) may inhabit the area's grasslands and barren areas (Luce, 1991). A small herd of wild horses inhabits the badlands and the grassland to the south. Just south of McCullough Peaks, a very rare, verified occurrence of the endangered whooping crane was noted (WNDD, 1993). The common loon has been observed many times on the Shoshone River as well as nesting colonies of Franklin's gull, both State Priority species due to their rarity in the State. The Yellowstone cutthroat trout has been verified in the Shoshone River, a rare species (State Priority status) (WNDD, 1993).

Resource Analysis

ORV use accounts for about 300 visitor days per year. In the event of wilderness designation,

ORV users could easily use other public lands in the region, while hunters and rockhounders would access the area on foot or horseback. Additionally, extrapolations of BLM predictions indicate an increase of 500 visitor days per year in wilderness use. With designation the area would be enjoyed by a greater number of people with far less impact on the site.

Localized coal zones in the area have little or no development potential. No other locatable or salable minerals exist.

There is a decent potential for the occurrence of deep gas at 4,500 to 20,000 feet. Considering the depth and surface restrictions due to steep slopes, development potential is low, and much of the area is too steep and erodible to support well field infrastructure.

The western boundary of the Citizen's Addition is leased for oil and gas. The very southeastern corner has one oil and gas lease along the northern boundary line are four oil and gas leases, but may be expired. A small oil and gas exploratory unit in the eastern part of the unit was recently abandoned following the failure of an exploratory well.

Should this area not be protected, special pristine recreation values could be impaired on over 25,000 acres in the event of oil and gas exploration. Sediment discharged into the Shoshone River would increase slightly and 25 mule deer would be displaced from the area.

Wilderness values on the remainder of the area would not be assured, and could be impacted or destroyed by ORV use or unanticipated activity. New vegetative classes of the Wyoming Basin Province Ecoregion would not be added to the NWPS, and the system's diversity would not be increased.

Boundary Rationale and Management Recommendations

Citizens' additions to BLM's recommendation include a major fossil site and breaks along the Shoshone River, as well as the upper drainage of Whistle Creek. Boundaries of the area are set by the Shoshone River on the west, a powerline on the north, the Whistle Creek Road on the east, and ways, private land, and topographic features on the south.

12. Owl Creek/Castle Rocks
(010-104 a,b,c & 010-unnumbered)

Citizens' Proposal: 8,985 acres

Highlights

Geologically, this site is known as the Castle Rocks Chaos. It is a jumble of volcanic debris representing a unique geologic event which occurred during the Eocene period (Sundell 1982). Both the Owl Creek section and the Castle Rocks are distinguished by high (elevation of 9,000 to 10,900 feet) alpine tundra with windswept slopes and mountainous cliffs scattered with erratic dense patches of conifer, and aspen. The bare rocky soil along lower draws and ridges and sagebrush grasslands along wide creek bottoms enhance this mountain transition area. All tracts border the Washakie Wilderness Area of the Shoshone National Forest. These wild areas are logical extensions of the Washakie Wilderness.

Location and Access

This area is comprised of three separate tracts in Owl Creek and two larger areas in the Castle Rocks area located at the southeast end of the Absaroka Mountains. The area is landlocked by private ranches and access is difficult. Access to Owl Creek/Castle Rocks can be from the National Forest trail system to the northern boundary or from the south of Owl Creek by paying access fees to the Wind River Indian Reservation to use their trails.

Wilderness Qualities

The Owl Creek/Castle Rocks proposed Wilderness area features similar primitive recreation opportunities, such as hiking, backpacking, and study of alpine ecology. The local geology offers excellent opportunities for studies of tertiary volcanics, and two archaeologic sites in the area are important for the study of native peoples who once lived at high altitudes.

Two of the area's streams are important fisheries for rainbow, brook, and Yellowstone cutthroat trout. The area also provides crucial habitat for bighorn sheep, moose and mule deer, crucial winter range and calving grounds for elk, and migration routes for elk and bighorn sheep (WG&F, 1992). Raptors, pronghorn antelope, mountain lions, and black bears use the area, and grizzly bears have been observed nearby. A high priority in this area is the occurrence of the harlequin duck a category two candidate for federal listing (WNDD, 1993). Dwarf shrews and montane vole--two state Priority Species in Need of Special Management--may inhabit Owl Creek's grasslands and conifer forests (Luce, 1991; WNDD, 1993).

Several rare plant species have been found in the area - Evert's waferparsnip, shoshoea, Rocky Mountain twinpod, yellow spring-beauty, sweet-flowered rock jasmine, and the nuttall townsend-daisy (WNDD, 1993).

Resource Analysis

Although the potential for oil and gas occurrence is relatively high, development potential is very low due to protective stipulations for surface water, wildlife, and surface use restrictions on at least 92 percent of the area where slopes exceed 25 percent. One oil and gas lease exists within the Citizens' proposed additions to the area as of 1993. There is no known potential for coal, or locatable or salable minerals in the area, and no mining claims (BLM 1990a).

Approximately half of the area has timber cover, but harvesting is highly unlikely (Berry and Goldbach, 1990) due to inaccessibility and steep slopes. Livestock grazing will continue at current levels of 90 AUMs. A few outfitters are permitted for day use of the area (Berry and Goldbach, 1991).

Should the area not be designated wilderness, long-term protection would not be assured for elk and bighorn sheep migration routes, elk calving areas, bighorn sheep winter and spring range, and other wildlife uses, as well as wilderness qualities.

Boundary Rationale and Management Recommendations

The Wyoming Game and Fish Department has identified the Castle Rocks section as a potential bighorn sheep reintroduction site. Therefore, BLM should maintain the required habitat.

Livestock exclusion fences along portions of Rock Creek and the South Fork of Owl Creek should be maintained to protect the excellent water quality, and new fences should be constructed around four springs in the South Fork of Owl Creek, as recommended by BLM. This would result in a three-fold increase in fish populations over the next fifty years (BLM, 1990). A vehicle barrier may be necessary at the area boundary where a jeep trail winds along the South Fork of Owl Creek.

The boundaries of these areas are dictated by neighboring USFS, private, state, and tribal lands. The eastern border of the eastern-most area of Owl Creek adjoins the Castle Rocks addition divided only by a two-track way. One vehicle trail dictates the far eastern boundary of Castle Rocks.

13. Pryor Mountains (067-206, 207, ___, ___)

Citizens' Proposal: 40,032 acres (4,432 in Wyoming)

Highlights

Erosive forces have incised deep canyons through the limestone uplift of the Pryors, reminiscent of the Southwest canyon country. The Pryor Mountains proposed wilderness is a multi-agency proposal that includes adjacent wildlands. Three areas comprise the Pryor Mountains study area: Bighorn Canyon - managed by the National Park Service and BLM, Burnt Timber Canyon - managed by the BLM, and Lost Water Canyon - managed by the Forest Service. Most of the proposed wilderness is in Montana, due south of the Crow Reservation. Appropriate protection for the Pryor Mountains can only be achieved through an ecosystem approach of which this northern Wyoming BLM section would complete.

The Pryor Mountains contain tremendously varied terrain. A hiker may traverse desert plateau, red and gray canyons, white limestone cliffs and pinnacles, explore multitudes of caves, and mountain forests in a single day. Within a space of a few miles, you can travel through a great diversity of habitats, from arid desert to scattered spruce and lodgepole stands and finally into a dense forest of Douglas fir amidst multi-colored limestone cliffs.

Location and Access

Only the southern tips of Burnt Timber Canyon and Bighorn Canyon areas lie in Wyoming, about 15 miles north of Lovell. Access is from State Highway Alt. 14 north to County Road 37, crossing Crooked Creek and taking jeep trails to the southern boundary.

Wilderness Qualities

Extensive recreation opportunities in the Pryor Mountains include exploring ice caves, rock climbing, studying nature and geology, Spectacular vistas from cliffs and ridges within the area overlook Bighorn Canyon--etched over a thousand feet deep in the desert plateau. Well-preserved vertebrate and invertebrate fossils have been found in the study area. The Crooked Creek National Natural Landmark, of which 160 acres are within the area, is a site for vertebrate fossils.

Numerous prehistoric sites, including tepee rings, a rock shelter, lithic scatters, and petroglyph panels, are within the Pryor Mountains. A portion of the study area is within the boundaries of the Demi-John Archeological District, which is listed on the National Register of Historic Places. This district contains over 230 stone circles and stone alignments, and is significant for its large size and abundance of features (BLM, 1990).

Wildlife within the area includes bighorn sheep, mule deer, black bear, scorpions, and rattlesnakes. The wild mustangs of the Pryors survived in this rugged, broken canyon country until the Pryor Mountain Wild Horse Range was established, the first of its kind in the nation. The herds are now managed by the Bureau of Land Management. The extensive caves and canyon walls within the Pryor Range provide excellent sites for bats to raise young and hibernate. At least ten species, including spotted and Townsend's big-eared bats (federal threatened and endangered candidates), and pallid bats (listed as a species of special concern by the Montana Natural Heritage Program and a Priority Species by the Wyoming Game and Fish Department), have been documented (Worthington, 1991; WNDD, 1993). Other state Priority Species in Need of Special Management, such as Yuma myotis, California myotis, Keen's myotis, and fringed myotis, may also inhabit the area (Luce, 1991). Extensive nesting habitat for endangered peregrine falcons exists in the area, but is unoccupied at the present recovery level (Oakleaf, 1991).

Three rare plant species are observed in the area: persistent sepal yellowcress, hairy prince-plum, and wild buckwheat (all State Priority species) that have less than 20 populations known in Wyoming (WNDD, 1993).

Resource Analysis

No oil or gas leases nor mining claims currently exist in the area. Potential is considered to be extremely low. There are no suitable timber lands within the proposal area. Uranium prospecting in the 1950s left wheel tracks along most major ridges of the Pryors. BLM officials can continue to manage the Pryor Wild Horse Range under wilderness management. The Pryors are also used by members of the Crow Nation for religious purposes (MWA, 1993).

Boundary Rationale and Management Recommendations

Each area is administered by a different federal agency, but should be managed as one wilderness area, because they are geographically as well as ecologically one. This Citizens Proposal boundary would be an important addition to preserving an unusual and complete ecosystem of the Pryor Mountains. Within Wyoming, the boundaries of Lost Water Canyon and Bighorn Canyon areas are formed by roads, ways and private land.

Powder River Country Areas

1. Fortification Creek, (WY-060-204)

Citizens' Proposal: 23,749 acres

Highlights

Home to a rare herd of plains elk and roosting bald eagles, the Powder River Breaks contains an eerie mix of numerous ephemeral drainages carving a landscape of narrow, sharp ridges or "breaks" and intimate valleys for several miles, just east of the Powder River. Austere hills and red rock cliffs contrast with sagebrush, grass, and juniper to give the traveller the feeling of being in one of the most remote areas of the world.

These unique badland hills represent the only chance to protect the last remaining wild lands in the Powder River drainage system and are surrounded by some of the most extensive coal mining in the country.

Location and Access

The Powder River Breaks lie about 30 miles northwest of Gillette in Campbell County in northeastern Wyoming. Two possible accesses exist: to reach the eastern boundary via Arvada use the Echeta Rd.(a well-maintained gravel road) to Schoolhouse Draw, walking about a mile crossing a bit of private land; or traveling north on the Fortification Rd., cross a small portion of private land to reach the southern boundary - either way an access would have to be negotiated with private land owners.

Because the area is surrounded by private land, no place exists where the public could reach this unit solely on federal land. BLM needs to acquire public access to the area or secure the landowners consent.

Wilderness Qualities

Site vegetation represents the Sagebrush Steppe ecosystem/Great Plains Shortgrass Prairie province--an ecosystem not represented or administratively endorsed for inclusion in the NWPS. This is one of the very rare chances to designate such an area. Nearly all of the area is crucial yearlong and winter range for about 300 elk, and 760 acres provide important calving grounds (BLM, 1986). This elk herd is unique in that it is one of the last remaining elk herds to occupy a plains habitat in the nation.

The herd was established in the 1950s with elk from Yellowstone National Park.

The Powder River Breaks provides roosting habitat for wintering populations of federally protected (Listed Endangered/Threatened) bald eagles (WNDD, 1993). The area also features migrant peregrine falcons, strutting sharp-tailed and sage grouse, coyotes, bobcats, and important deer winter and yearlong range. Visitors here find excellent deer hunting amid rugged dramatic scenery. Swift fox--a federal threatened and endangered species candidate-- likely occurs in the unit's grasslands. The endangered black-footed ferret was last observed in 1975 in the area (WNDD, 1993).

The Powder River near the Breaks region provides aquatic habitat for sturgeon chub, a federally protected fish species, and is one of the main strongholds for the silvery minnow in the entire State (WNDD, 1993). Other fish species include the shovelnose sturgeon, channel cat, sauger, goldeye, and walleye (WG&F, McDowell, 1993). A state priority plant species, slender bulrush, has been observed in the area (WNDD, 1993) in moist, sandy/clay soil.

Resource Analysis

This area contains no commercial forestland. Although the area overlies 50 million tons of coal, it is rated as low interest in the area. The prohibitive depth of the coal bed, the inaccessibility to the area and the No Surface Occupancy stipulations for wildlife and endangered raptors in the WSA would make the area unsuitable for coal leasing (BLM, Dolger, 1993).

Potential for oil and gas occurrence is considered high, due to numerous producing wells within fifteen miles southeast of the area, and BLM (1986) estimates 100,000 to 4.4 million barrels of oil and 260 mcf to 39.6 mmmcf of gas might be produced. However, at least ten wells within a mile of the WSA have been abandoned as unproductive, and estimated reserves are only less than 1% of those in the Powder River region (BLM, Dolger, 1993). Leases exist only in the western Bull Creek addition to the WSA. All of these leases will be expiring within the next two years.

Four outfitters use this area. Fall and winter grazing for cattle on the unit is allotted at approximately 1950 AUMs.

Should the Powder River Breaks area not be protected by wilderness designation, an ecosystem not currently represented in the NWPS would be lost. Naturalness, opportunities for solitude and primitive recreation, and the high quality of hunting would be irretrievably lost for the entire area due to intensive oil and gas exploration and the accompanying construction of 10 to 37 (or more) miles of road (BLM 1986). Oil and gas activity would result in a 10 percent decrease in livestock production in the short-term, and a 1 percent decrease after initial production and reclamation (Pomerinke and Schiche, 1991). The coal potential could decimate the area should it be mined in the far distant future. Loss of habitat would result in reductions of up to 20 percent of the deer population and 33 percent of the elk population (BLM 1986).

Boundary Rationale and Management Recommendations

Former Governor Ed Herschler suggested a land exchange for the 640-acre state inholding, should the area become wilderness. Governor Freudenthal's Land Board removed the inholding from leasing. The citizens' proposal supports this acquisition, and designation of BLM's WSA acreage. Boundaries for the WSA are dictated largely by private land, and by roads and ways on portions of the southeastern border.

2. North Fork of the Powder River (060-202)

Citizens' Proposal: 16,766 acres

Highlights

From the eastern front of the Bighorn Mountains, flows one of the best trout streams in Wyoming. The North Fork of the Powder River winds through a treacherous canyon, then courses from old-growth ponderosa pine and Douglas-fir forests to arid red hills, creating a wilderness fisherman's dream.

Deep, rugged Pass Creek Canyon also supports excellent fishing, while Packsaddle Canyon offers spectacular scenery. Elevations rise from 5800 feet in the foothills to 8000 feet on the highest limestone and sandstone cliffs. Canyon depths vary from 300 to 1000 feet.

Location and Access

Located about 30 miles southwest of Buffalo in Johnson County, the North Fork of the Powder River wilderness proposal area is surrounded by private land. Access to the area is difficult.

Because much of the area is surrounded by private land, legal access is possible only across a few narrow strips of state and BLM land. Routes suggested by the BLM (1993) for consideration are via the Slip Rd, crossing private land at Mud Spring, or from the Dull Knife Reservoir, following the North Fork, pending landowners approval. BLM (1986) is planning to develop easier legal access efforts outside the area, whether or not the area is designated wilderness, however, landowners do not support this effort. The Citizens Coalition would support the access if it would be assured to be on foot. Appropriate signage, easements or land exchanges by the BLM should ease the trespass problem.

Wilderness Qualities

Plentiful rainbow, brown, and some brook trout offer unparalleled fishing in the area. The North Fork of the Powder River is managed by the Wyoming Game and Fish for wild trout and is rated as Class II trout stream - a red ribbon fishing stream of State importance. A Wyoming State Priority Species, Goldeye, is found in one of the tributaries of the Powder River - Crazy Woman Creek (WNDD, 1993).

Canyon bottoms and lands above the rims provide crucial winter range for elk, an important antelope migration route, and habitat for black bear, blue grouse and 250-350 mule deer. Mountain lion, North American lynx, also reside in the area (WNDD, 1993).

The cliffs support peregrine, merlin, and prairie falcons, golden eagles, and many other raptors. In fact, the threatened bald eagle also nests in the area (WNDD, 1993). Lewis' woodpeckers --another Priority Species--may nest within the unit, as suitable habitat exists and nesting concentrations in the state is nearby (Ritter 1991).

The North Fork of the Powder River habitat supports many rare or sensitive plant species, rated S1,S2 or S3 (meaning there are no more than 20 populations of these plants known in Wyoming). Williams waferparsnip (found in Packsaddle Canyon), moonwort grape-fern, and the nuttall townsend-daisy are dependent on the limestone rock outcrops and sandy soil in the cliff area.

Although the area has not been surveyed, cultural values are considered moderate to very high (Pomerinke and Schiche, 1991).

Resource Analysis

Commercial old growth forestland in the area could produce a miniscule amount of timber in the WSA, about .017 percent of what is currently produced in the Buffalo Resource Area. Woodlands in the unit could yield 75 to 350 cords of posts and firewood per year. The EIS (p.74) says that designation will result in an annual reduction of 20% of the resource area's timber harvest?

The area has a very small potential for the occurrence of oil and gas on the eastern edge of the area (BLM 1986), with no existing leases or mineral claims (BLM, 1992). There is low potential for

quarrying sand, gravel, building stone, and decorative stone (Pomerinke and Schiche, 1991) - all resources that are not in short supply and are better accessed in other areas (Queen, 1993).

Landowners receive income by charging access fees to reach this unit of public land, and one or two outfitters use the area. An estimated 1600 AUMs are allotted for cattle in the study area.

Should the area not be protected by wilderness designation, exploration for oil and gas would be permitted on nearly all of the unit, and would eventually destroy the area's wilderness character; however, it is not likely that oil or gas would be produced due to low potential (BLM 1986). In the event of non-wilderness, BLM also plans to develop a campground, and parking area and allow a small amount of timbering which would degrade naturalness and solitude at those sites. Timber harvesting, road construction, and oil and gas exploration would displace elk and mule deer across the unit; the seriousness of displacement would depend on the scale of these activities.

Timbering and increased vehicle traffic to the campground would increase sediment loading by a small amount, while planned trail developments would result in a 200% increase in fishing pressure and a 10 to 20 percent reduction in the Pass Creek fish population.

Boundary Rationale and Management Recommendations

Borders of the citizens' study area were set largely by surrounding private and state land, with the exception of short segments of two-tracks on the northeast and southwest. One two-track that goes into the west central part of the area should be closed and rehabilitated. The citizens propose additional acres of federal land on the WSA's northeastern border to protect cliffs, tributary streams, and crucial elk winter range northeast of the North Fork WSA. An addition of the acres of state land along the unit's western and southern boundaries would make a border that follows the canyon topography more closely, and a 160-acre private inholding could be acquired or exchanged if the landowner agrees. A 160-acre state tract on the south side of Horseshoe Canyon which is surrounded on three sides by the WSA should be acquired by BLM for a more manageable southern boundary.

3. Gardner Mountain (Dull Knife Pass and Red Fork; 060-201)

Citizens' Proposal: 18,785 acres

Highlights

The proposed Gardner Mountain wilderness area, tucked away at the far southern tail of the Bighorn Mountains, supports a vast array of wildlife and rare recreational experiences. Both the Red Fork of the Powder River and Beartrap Creek are considered "Class III fishery --important trout waters--fisheries of regional importance" by the Wyoming Game and Fish Department. Gentle grassy slopes at 5700 feet rise to sheer canyons and steep, forested ridges of 7800 feet. Extensive stands of mountain mahogany supply important browse for big game, while juniper and old-growth Douglas-fir and ponderosa pine provide cover.

Adjacent to the infamous Dull Knife Battlefield, the area has a wealth of history. The Dull Knife Battlefield, listed on the National Register of Historic Places, is the scene of battle between the U.S. Calvary and Cheyenne Indians in 1876, was the first major defeat of Native Americans after the Battle of the Little Bighorn.

Location and Access

Gardner Mountain is approximately 70 miles northwest of Casper in Johnson County. The area lies a few miles south of the North Fork of the Powder River Wilderness Study Area, where foothills meet the Bighorn Mountains.

Legal access is currently available on state and federal lands bordering the unit. If trespass becomes a problem for adjacent private landowners, BLM could sign the public access clearly and construct a horse and hiking trail into the unit across public lands to enhance non-motorized access and to minimize trespassing on private lands.

Suggested access routes to Gardner Mountain's north boundary from Kaycee take the Mayoworth/Slip Road parking at the Ice Cave and walking to the area on the BLM corridor. Or one may access (with the landowner's consent) the rugged southwestern boundary via the Barnum and the Barnum Road which also accesses the Dull Knife Battlefield.

Wilderness Qualities

The area offers excellent trout fishing, and recreation for wildlife. Gardner Mountain provides crucial winter habitat for 50-100 elk, important winter range for up to 700 mule deer (WG&F, 1992), yearlong range for both species and habitat for mountain lion and black bears. Turkeys, blue grouse, golden eagles, red-tailed hawks, and prairie falcons nest in the area, while bald eagles and peregrine falcons forage here seasonally. Great blue herons have used the middle fork of the Powder River for a rookery (WNDD, 1993). The Red Fork of the Powder River and Beartrap Creek are managed as a wild fishery (no stocking needed) for rainbow and some brook trout (WG&F, McDowell, 1993).

Several state priority plant species have been found in the area - Williams waferparsnip, Cusick's alkali-grass, Barr's milkvetch, and Nuttall townsend-daisy. There are no more than 20 populations of each known in the state (WNDD, 1993).

[BLM says this vegetation type is already represented in the NWPS, but our researcher thinks otherwise--check, especially mountain mahogany]

The area is unsurveyed for archaeologic sites, but has important heritage values for the Northern Cheyenne. Both historic and prehistoric cultural values are assumed to be high (Pomerinke and Schiche, 1991).

Resource Analysis

750 acres of commercial forestland in old growth Douglas-fir and ponderosa pine could yield only 55 thousand board feet (MBF) per year. Additionally, a minor amount of firewood could be harvested per year from 980 acres of woodland. Limited logging by local ranchers has been allowed on the north eastern portion of Gardner Mountain.

The area has a very minimal potential for oil and gas, and no current leases or mineral claims (Pomerinke and Schiche, 1991). There is some potential for quarrying of sand, gravel, building stone, and decorative stone - all resources that are not in short supply and could be better exploited elsewhere (Queen, 1993).

Twenty percent of the study area is too rocky and steep to be grazed, while about 1500 AUMs of sheep and cattle forage are available on the remainder of the area. Nearby private land owners also receive some income by charging access fees of public land users. One outfitter currently uses the area.

Timbering and related road construction would severely impact outstanding scenery in Arch Creek and other areas, and wilderness values on part of the area should Gardner Mountain not be designated as wilderness. In the event of firewood cutting on the unit's woodlands, scenery, wilderness qualities and increased sediment loading into the area's creeks would occur. The associated increase in road building would result in a 500 percent increase in visitor use, and a 30 percent reduction on some fisheries populations.

Boundary Rationale and Management Recommendations

The Citizens' Proposal includes the entire BLM WSA--which was labeled `Gardner Mountain' but lies well west of Gardner Mountain--and an eastern area that takes in much of the mountain. BLM should acquire state section 16, an inholding which contains Fraker Mountain, and 380 state acres on Gardner Mountain.

The Wyoming Wilderness Coalition has been working with the BLM to assist in the building of a recreation trail (mostly placing markers) to assure that recreational users will not trespass on the neighboring rancher's land.

Boundaries for the larger Gardner Mountain area follow private land on the northwest, east, and west; ways, topography and private land on the south, and a two-track on the northwest.

4. South Fork of the Powder River

Citizens' Proposal: 28,404 acres

Highlights

A roadless unit along the South Fork of the Powder River, east of Notches Dome, is proposed by the conservation community to be designated as wilderness. This area meets the BLM's official definition of roadless:

> "**roadless:** refers to the absence of roads which have been improved and maintained by mechanical means in insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road"

(BLM Handbook H-8550-1 at Glossary, p.3), and also meets the size criteria required for wilderness.

This area was never identified for possible inventory by BLM, being south of the Hackett Unit and southeast of the Cottonwood Unit, which was part of BLM's Initial Review of Wilderness Units in the 1970s. Thus, this area was neither recommended for further study nor dropped from consideration during BLM's Wilderness Intensive Inventory process during the late 1970s and early 1980s.

This unit is typified by grassland breaks and basins, with wooded domes rising at its western edge, near the foothills of the Big Horn Mountains. This area possesses outstanding primitive qualities and exemplifies the wide open spaces for which Wyoming is known, but which are fast disappearing in the state. It would fill a void in the national wilderness preservation system, inasmuch as there is no representation of short-grass prairie habitats among current wilderness areas or even BLM Wilderness Study Areas in Wyoming.

Location and Access

This unit is located approximately 15 miles north of the settlement of Powder River, west of Casper. The best public access is via the Notches Dome Road, which runs along its western boundary.

Wilderness Qualities

This area contains a number of jeep trails, maintained solely by the passage of vehicles, as well as several fence lines, and a single-strand power or telephone line traverses the western end of the unit. None of these routes meets the BLM's definition of a "road," which requires original construction, maintenance, and regular vehicle use. Almost all of these routes are in varying states of abandonment and natural reclamation. Across such a vast sweep of empty country, these routes merge with the overall landscape, and do not constitute significant impacts to the naturalness of the area, either individually or cumulatively.

There are a number of stock reservoirs and several plugged and abandoned well sites that also fall within the boundaries of the proposed wilderness. Some of the reservoirs catalogued in our inventory held water, while other reservoirs did not hold water and are in varying stages of deterioration. All of the active reservoirs are less than one acre in size, and most have dams which have become covered in native vegetation. These are comparable to reservoirs which have been included in existing WSAs.

Many of the plugged well sites date have been abandoned for 25 years or more, and these sites are marked only by a 4-foot metal pipe which blends into the landscape completely at distances greater than 100m. Reclaimed well sites like these are not considered as significant impacts to the naturalness of a landscape, and are commonly included within WSAs. More recent abandoned well sites have been recontoured and planted in vegetation, and will not constitute visible impacts in 20 years' time. In addition, a handful of abandoned corrals fall within the proposed wilderness; these are in varying stages of disrepair.

Overall, the area possesses a natural appearance, and visitors experience broad vistas uninterrupted by roads or other human intrusions.

Outstanding recreation opportunities available in the South Fork of the Powder River unit are as follows: hiking, horseback riding, hunting, photography, nature study, camping, wildlife and bird watching, rockhounding, and general sightseeing.

The wide-open spaces and primitive and undeveloped landscape of this area is one of its prime assets—it is easy to lose oneself amid the vast stretches of open country, and neighboring private lands are similarly remote and undeveloped (with the exception of two neighboring small oil developments along the southwest boundary). Opportunities for solitude are consequently abundant and outstanding.

Large, open natural areas inherently possess solitude. No one can contest the solitude of the open ocean or the Great Salt Lake Desert. The wilderness experience found in the South Fork of the Powder is heightened by the undulating grasslands that surround it. The topographic relief of bluffs and draws adds to the solitude found in the area.

This area meets the BLM's requirements for topographic screening in order to possess opportunities for solitude. This is a large area with undulating topography with a vertical relief of over a hundred feet on the flats. A number of watercourses meander through this unit, separated by hills and bluffs. A person walking these waterways could not see visitors in other parts of the unit.

Resource Analysis

Small oil domes border the potential wilderness, but due to geological constraints it is unlikely that these largely depleted units would be expanded into the proposed wilderness. Livestock production occurs throughout the unit, and this commercial use of the land would be compatible with wilderness designation and wilderness values should the area receive protection.

Boundary Rationale and Management Recommendations

Boundaries for the unit are set along improved gravel roads on the west and along private property boundaries elsewhere. The South Fork of the Powder represents perhaps the only true shortgrass prairie potential wilderness in Wyoming (and perhaps the West), and as such is much more valuable to the public as a protected remnant of Wyoming's wild heritage than it is for any one-time extractive use for the production of coal, oil, natural gas, or uranium. The BLM must fully evaluate the recreation, aesthetic, bequest, and ecological values of the South Fork of the Powder as well as its potential for non-renewable commodity production. While a handful of private corporations might make short-lived profits through the commercial exploitation of these public resources, the interest of

the public clearly lies on the side of preserving this magnificent landscape to be enjoyed by countless future generations of Americans.

This area is part of the Hole in the Wall core area recommended for long-term conservation protection by the Northern Plains Conservation Network, with 16 members including Biodiversity Conservation Alliance, Denver Zoo, the Sierra Club, Center for Native Ecosystems and World Wildlife Fund.

The proposed wilderness is also an area where the white-tailed prairie dog comes out onto the Great Plains, making it a potentially important mixing zone between white-tailed and black-tailed prairie dogs. In addition to the active prairie dog colony on Cactus Flats, which we identified during our inventory, there has also been a confirmed mountain plover record within this unit (Wyoming Natural Diversity Database 2006). In addition, there are records of additional BLM Sensitive Species from the lands immediately bordering the unit, including burrowing owl, ferruginous hawk, tiger salamander, sage thrasher, golden eagle, sage grouse, sage sparrow, Brewer's sparrow, loggerhead shrike and Nelson's milkvetch (Ibid.). It is likely that these species also are present within the proposed wilderness unit, but have yet to be recorded due to a lack of survey effort.

Platte River Country Areas

1. Sweetwater Canyon (030-101)

Citizens' Proposal: 9,056 acres

Highlights

Vast, rolling plains drop away to the high desert oasis of Sweetwater Canyon. The Sweetwater River winds through rugged granite cliffs, nearly 500 feet below the canyon rim. Pockets of aspen, willow, and birch thrive along the river bottom and in many draws leading into the canyon. Juniper and sagebrush cover the steep rocky hillsides.

This study area lies between two portions of The Nature Conservancy's "Sweetwater Preserve". The wilderness study area, Conservancy preserve, and additional private lands with conservation easements cover more than 25 miles of the river. The Conservancy also owns Lewiston Lakes, on the northern border of the WSA.

Location and Access

Just south of the Oregon Trail and about 15 miles east of South Pass City, the Sweetwater Canyon is located in Fremont County. The area is accessed south from Atlantic City (following the Oregon Trail) on South Pass road, following Rock Creek, through the Bullion Mine on Strawberry Creek, up to Radium Springs to the State section on the northern boundary.

Wilderness Qualities

In addition to dramatic scenery and wildlife, the Sweetwater Canyon has important cultural, historical, geological, and ecological values. Prehistoric peoples left at least thirteen campsites. In the winter of 1824, heavy snows prevented Jedediah Smith and his band of trappers from crossing South Pass. Smith's party spent almost three weeks camped in an aspen grove in the canyon.

The Oregon Trail forms part of the northern boundary. Two decades after Smith's encampment, thousands of pioneers traversed the area in search of gold and new homelands. Many of these travelers

ventured into the canyon. Captain Howard Stansbury visited the Sweetwater in 1849 and wrote that... "a narrow bottom occasionally gave room for some fine groves of large aspens, the sight of which, after our long and dreary ride without a particle of shade, was truly refreshing. The bed of the river was filled with large boulders and fragments of rock which had fallen from the cliffs above, among which the waters foamed and fretted with a gurgling murmur, which, when contrasted with the flat, silent waters of the Platte, was very pleasant to the ear...Sage hens, a species of grouse, were seen in great numbers, and the men shot as many as we could conveniently carry" (Wolf 1980).

Pony Express riders rode right through canyon in the 1860's. The Pony Express route was just north of the boundary. Overland Stage Line ran on the same route, and Mark Twain took the stage and wrote about his stop at Pacific Springs ("Roughing It").

The National Wild and Scenic Rivers System was created by Congress in 1968 to preserve selected rivers in natural, free-flowing conditions. The American Rivers Outstanding Rivers List (1988) identified the Sweetwater River as possessing outstanding ecological, recreational, natural, cultural, or scenic value. The Sweetwater River was also listed in the National Park Service's Nationwide Inventory (1982) as being potentially eligible for inclusion in the Wild and Scenic River System. The Wild and Scenic River Study for the Sweetwater River (1979) found a 9.5-mile segment of the Sweetwater River (the exact boundaries of the WSA) from Wilson Bar to Spring Creek ineligible for inclusion in the Wild and Scenic Rivers System based on the 25-mile minimum length criteria. The minimum length criteria have since been eliminated for all rivers. Seven segments of the Sweetwater River upstream from the WSA have been determined to be potentially suitable for inclusion in the Wild and Scenic Rivers System.

The Sweetwater Canyon Wild and Scenic eligibility is likely to be revisited in the upcoming Resource Management Plan (BLM, 1993).

The Sweetwater Canyon is the most important fishery in the Lander Resource Area and is noted as a popular fishery for wild brook, brown, and rainbow trout. Wyoming Game and Fish Department has classified this fishery as being of regional importance and manages the river for wild fisheries (no stocking). The Wyoming Department of Environmental Quality rated these waters as "Class I" -- the highest quality and most important in the state.

Many wildlife species thrive here, including beaver, mule deer, antelope, bobcats, red fox, blue grouse, yellow warblers, rock wrens, and waterfowl. The ferruginous hawk, the thirteen-lined ground squirrel, and the boreal western toad, are candidates for consideration for federal endangered/threatened listing, are found in the area. (WNDD, 1993). Golden eagles, prairie falcons and red-tailed hawks are common summer residents. The canyon is crucial winter range for moose, and elk (WG&F, 1991).

Plant species, unique or rare in Wyoming, are found in this area. Habitat for the meadow pussytoes (a candidate for federal endangered/threatened listing), is centered only in the Sweetwater River drainage in Wyoming. There are occurrences of meadow pussytoes in Idaho and in Nevada, but the only occurrences in Wyoming are found in this area. Other plant species listed by the State for special management due to their rarity in the state are: Nevada needlegrass, bun milk-vetch, single-stemmed wild-buckwheat and Wyoming point-vetch (WNDD, 1993).

Wilderness designation of the WSA would add one ecosystem not presently represented in the National Wilderness Preservation System and would add another represented by only one NWPS unit in Wyoming. The area recommended by BLM for Wilderness are ecologically diverse representing two transition zones, the Wyoming Basin/Wheatgrass-Needlegrass Shrub Steppe, and the Wyoming Basin/Douglas-Fir Forest ecosystem (BLM, 1991).

Resource Analysis

There is no potential for oil and gas occurrence. An historic gold mining region lies just west of

the study area, however, the low placer concentrations and small amounts of gold bearing rock within the area have not been economically feasible for mining according to the USGS, Bureau of Mines, and BLM (BLM, Gary Long, 1993). There are three small mining claims in the Proposal area but they are not active mines (BLM 1991). The USGS has assigned a low potential for the discovery of tin and tungsten.

There are two grazing allotments in the area. The BLM has suggested a preferred action for grazing in the Sweetwater Canyon to give the canyon a five-year rest, followed by short-duration use every other year afterward. The plan would include fencing off the canyon and building water sources outside the area. The WSA status does not affect the grazing decision. Even the local rancher admits the canyon has been hit hard the last few years by the drought and intensive grazing (Sheridan Press, 4/9/93).

There is no commercial timber in this proposal. There is a limited amount of ORV use in the area. Most of this use remains above the canyon rim -- with the exception of the Strawberry Creek crossing.

Should the Sweetwater Canyon not be designated as Wilderness, intrusions such as powerlines and pipelines, ORV use, and hard-rock mineral exploration would impact important sites near Sweetwater Canyon. Activity has been known to occur periodically on existing gold claims. Because of the small amount of gold bearing rock, and low concentrations in river gravels, this annual assessment work would result in insignificant impacts on natural values. Past dredging of the river bottom left behind large amounts of garbage and junk could decimate the quality of the fisheries, should mining be allowed to continue. About 300 visitor days of ORV use, would continue to degrade the wilderness character of the area.

Boundary Rationale and Management Recommendations

The Citizens Proposal would include all studied acres to provide protection from off-road vehicles, and protect rim areas for wildlife. The BLM's recommendation would only include the "core area" of the canyon, deleting some of the rim area. Pursuit of the Wild and Scenic River designation should be a top priority for the BLM.

Borders of this area are formed by private land or two-tracks. About 2.5 miles of the river lie on BLM and state lands upstream from the WSA, and below The Nature Conservancy's Preserve. This tract should be managed for complete protection of riparian values.

2. Sweetwater Rocks
(Lankin Dome, Split Rock, Miller Springs, Savage Peak; 030-120, 122, 123a &b)

Citizens' Proposal: 53,785 acres

Highlights

Sweetwater Rocks boldly rise above the surrounding flatlands like stark islands in a desert sea. They are the core of an ancient range, the Granite Mountains, which now tower some 1,800 feet above a silt-filled basin. These four areas encompass gigantic domes and slabs of smooth pink granite which harbor lush spring-fed pockets of grass, aspen and juniper. Oregon Trail pioneers knew the Rocks as important landmarks along the fabled Sweetwater River. Modern-day visitors find the area essentially unchanged.

This study area offers dramatic scenery, outstanding rock climbing, excellent antelope hunting and bird watching, and fascinating geologic features. These large expanses of bare granite, which are not found elsewhere in central Wyoming, form a natural and highly scenic backdrop for the Sweetwater

River valley, an area that played an important role in the history of the exploration and early settlement of the west (BLM, 1991).

Location and Access

The Sweetwater Rocks are a contiguous set of mountain peaks located at the southwestern corner of Natrona County, about 13 miles east of Jeffrey City. Although physical and legal access exists to the WSA, more direct routes to the major attractions lie on private lands (BLM,1991). The only legal access to the Rocks is from US Highway 287 approximately 7 miles east of Jeffrey City, turn north on to Agate Flats Road (BLM Road #2404), to the far western boundary of the Lankin Dome. There is a rancher's agreement to use this road for accessing Split Rock WSA by going to the north to Sage Hen Creek, turning south to the Lankin Dome northern boundary, then to Miller Pocket for access to the Split Rock WSA.

Wilderness Qualities

During the 1840s and 50s, some 40,000 emigrants per year trekked past Sweetwater Rocks on their way to Oregon, California, and Utah. The ruts made by their wagon wheels wind along in plain view from the south face of the Rocks. Split Rock National Historic Landmark, which lies near the center of the study area, was named for a notched monolith that could be seen from the slow-moving ox trains for a whole day before it was reached, and for two days afterward. Martin's Cove, on the edge of the area, memorializes a handcart company of Mormon pioneers under the leadership of Edward Martin that suffered 145 fatalities due to cold and starvation in November of 1856 (Beebe 1973). The monument there states that "toward the end, every campground became a graveyard". Pony Express riders also blazed by the Rocks in 1860 and '61, until the first telegraph lines were strung.

In the far eastern portion of the rocks, the Sweetwater River boils through a chasm called Devil's Gate. In the early 1860s, an 18-year-old woman wandered away from her wagon train and fell into the gorge (Beebe 1973). She was buried there and her headboard reads:

Here lies the body of Carolyn Todd
Whose soul has lately gone to God,
Ere redemption came too late
She was redeemed at Devil's Gate.

BLM now maintains two popular interpretive sites--"Split Rock" and "Devil's Gate"--which lie near the study area along major tourist highway routes. An estimate 30,000 visitors stop every year to view Sweetwater Rocks as a scenic backdrop for the Oregon Trail and Pony Express (BLM 1989).

Sweetwater Rocks house numerous archaeologic features, including hunting camps dating to 12,000 years ago, and fields of arrowhead and scraper chippings. At one buffalo jump and butchering site, modern visitors may picture the ancient people crouching behind rock cairns and herding bison toward juniper fences which still exist just below the cliff top.

The Rocks represent a complex intertwining of rock and vegetation. The areas provide crucial antelope winter range, winter-yearlong range for mule deer (WG&F Completion Report, 1991), and habitat for bald and golden eagles, prairie falcons, red-tailed hawks, sage grouse, bobcats, coyotes, and many other species. Wintering bald eagles have been observed along the Sweetwater River near Devil's Gate.

Bighorn sheep inhabited Sweetwater Rocks historically, although none have been observed there since the 1970s. The area still contains adequate habitat to support a bighorn population.

Two historical references for rare or unique species in the Sweetwater Rocks WSA are as follows: the silver-haired bat was collected a Split rock in 1909; and the gray wolf was collected in near Split Rock three separate occasions in 1920, 1916, and 1894 (WNDD, 1993). Nesting habitat for endangered peregrine falcons exists in the Rocks, but is unoccupied at present recovery levels (Oakleaf 1991).

Three rare plant species that are listed as candidates for federal protection are found in the area are devil's gate twin pod, Payson beardtongue, and many-stemmed spider-flower. Wyoming point-vetch, slender seepweed, small-flower fiddleneck, brandegee's Jacob's-ladder, wild buckwheat, parry sedge, and bun milk-vetch are all rare or unique plants found in this area that the State has identified as in need for special management (WNDD, 1993).

Wilderness designation of the Sweetwater Rocks would add to the ecosystem diversity of the National Wilderness Preservation System, that of the Dry Domain/Wyoming Basin and Province/Grama-Needlegrass Wheatgrass ecosystems.

Resource Analysis

The Rocks themselves provide very little forage for cattle, but sheltered pockets within the WSAs are winter feeding sites.

The study area has no potential for oil, gas, or commercial timber. And there are no oil and gas leases in any of the Sweetwater Rocks WSA's (BLM, 1992). There are no mineral claims in the Proposal area.

Recreation values are very significant. Although use levels are low, people come from all over the country to visit the Rocks. There are several guide and outfitting permits issued for the area, and the National Outdoor Leadership School uses the area approximately eight times a year for rock climbing camps - an activity in harmony with wilderness designation. The Sweetwater Rocks have a rock climbing history which dates back to the 1950's and has been featured in national magazines such as Summit. ORV use is limited and is a minor portion of overall recreational activities.

Should the Rocks not be designated as Wilderness, ORV use would impact the naturalness and solitude of the area. In the past, powerline proposals, pipeline corridors, military artillery practice, and mineral exploration have threatened wilderness, wildlife, scenic, and historic values within the Rocks. These or other unforeseen development activities could destroy wilderness values.

Boundary Rationale and Management Recommendations

Boundaries on the four Citizens' study units were set primarily by public/private landownership patterns, because private land lies at the base of much of the Rocks. The eastern border of the area is set by Frontier Pipeline. Public access should be clearly marked so that access across private lands will not occur against the landowners' will.

Citizens' additions of federal land were made on the eastern WSA in order to encompass more of Sweetwater Rocks plus the important landmark--Devil's Gate. Acquisition of the acres of state inholdings would allow the four units to be contiguous. A land exchange to acquire additional acreage at Miller Pocket, where lake deposits of the Moonstone formation lap against pre-Cambrian granite [cite USGS Prof. Paper 492-C] would insure protection of this site which is geologically unique, but has little grazing or water value.

3. Ferris Mountains (030-407)

Citizens' Proposal: 33,382 acres

Highlights

In the fall of 1905, Ethel Waxham Love gave this description of the Ferris Mountains as she headed north from Rawlins on a stagecoach: "Mountains were far away ahead of us, a range rising from the plains and sinking down again into them. Almost all the first day they were in sight..." (McPhee 1986).

Her initial view of this range--which was named for settler George Ferris--would have included prominent white limestone cliffs on the southern flank, red hogbacks, and thick strips of conifers. Had she wandered up those slopes, she would have found high meadows, secluded rugged canyons, and thick forest cover as well as panoramic views of the Ferris Sand Dunes, Seminoe and Green Mountains, Sweetwater Rocks, and the broad Sweetwater valley.

Elevation in the study area ranges from 6,580 feet near Whiskey Gap to 10,037 feet on Ferris Peak, and provides for a great diversity of plant and animal life. The Ferris Mountains provide habitat to herds of Bighorn Mountain Sheep and elk.

Location and Access

The Ferris Mountains are located in northwestern Carbon County, about 40 miles north of Rawlins.

Wilderness Qualities

Designation of the Ferris Mountains as wilderness would add an ecosystem not currently represented in the wilderness system - that of the Wyoming Basin/Douglas Fir Forest ecosystem. Sagebrush grasslands, creeks lined with birch and cottonwood, and patches of Douglas-fir, limber pine and lodgepole pine dominate the lower ranges, while Englemann spruce and subalpine fir join the pines and Douglas-fir on the higher slopes. Rugged and varied terrain makes this area excellent country for hiking, hunting, mountaineering, and studying nature.

The Ferris Mountains provide crucial habitat for elk and mule deer (WG&F, 1991), and is also home to antelope, pine marten, mountain lion, coyote, and occasional white-tailed deer. Historical sightings were verified of the gray wolf in 1913 and the black-footed ferret in 1975, both federally listed as endangered species, in the Ferris Mountain area (WNDD, 1993). A wide spectrum of birds, including golden eagles, prairie falcons, mountain bluebirds, green-tailed towhees, yellow-rumped warblers, ruby-crowned kinglets, and blue grouse nest in the secluded canyons, meadows, and steep limestone crags. The northern goshawk, a candidate for federal endangered/threatened listing is verified to be nesting in the area (WNDD, 1993). Calls of the poorwill and trills of the hermit thrush echo across the mountain slopes on summer evenings.

Sixty head of Rocky Mountain bighorn sheep were released in the area in 1985. Due to poor lamb survival, Wyoming Game and Fish Department has recommended controlled burning. Once the improvements are complete, the agency will release additional bighorns in an effort to reestablish this important part of the native fauna. In this instance, the Citizens Coalition supports their efforts reestablishing the herd using controlled burning. Historically, bighorn sheep inhabited the Ferris Mountain and the surrounding plains, but they were extirpated in the late 1800s. A reintroduction of desert bighorns in the 1940's failed.

Unique and rare plants in the Ferris Mountain habitat include several species that are listed as candidates for federal protection such as a miners candle and devil's gate twin pod. Smooth goosefoot is considered most rare or threatened and is considered to extremely vulnerable to extinction in the State and is found in the sand dunes near the Ferris Mountains. Other plant species worthy of State protection due to their rarity are Bandegee's Jacob's-ladder, Wyoming point-vetch, and bun milk-vetch

(WNDD, 1993).

The Ferris Mountains are the source of some thirty watersheds. The undisturbed upper elevation watersheds provide high quality water to lower elevation ranchlands.

The Ferris Mountains are a geologists' playground. The Madison Formation is a particularly unique large limestone outcrop. This formation is a series of large limestone fins protruding from the south side of the Ferris Mountains and extends nearly the entire length of the WSA. The Madison formation can be seen for many miles away and contributes to the WSA's status as a state and regional landmark (BLM, 1991). Rock layers display 3 billion year-old red granite, black and green schist, geodes, and non-commercial amounts of corundum, malachite, and nephrite jade (BLM, 1987), as well as fossil sponges, squid, and fish scales (Love, 1991). Legend tells that Spanish Conquistadors once mined gold on the east end of the range. Small amounts of gold and copper were taken from the Babbs mine, which is still visible to the sharp eye, until the early 1950s (Raymond, 1991). This scar has been reclaimed and no longer represents an intrusion into the area's natural appearance.

Native Americans collected chert for tool-making in the area, and left some evidence of their occupation. They also must have harvested abundant wild edible and medicinal plants, such as biscuitroot, yampa, current, Oregon grape, and alumroot. In more recent times, stagecoach robbers used a hideout of small caves near Young's Pass (Beebe, 1973).

The peaks of Ferris were the center of a fervent search effort in April of 1958 (Beebe 1980). A light plane skimmed the top of the range during a spring storm, and plunged into snowbanks on the south face. Although the pilot died the first night, his wife survived for 17 days. When a stockman from the Buzzard Ranch found her, she told of watching bands of sheep and the ranch lights far below her for all those long frigid days and nights. A few metal scraps from the plane still lie at the top of Bluebell Canyon.

Resource Analysis

This study area has no potential for coal, oil, gas, uranium, and thorium. Gold, silver, copper, lead, several other metals, silica, and limestone, occur in small amounts, but none in commercial quantities (Reynolds and Neubert, 1988). Two mining claims exist in the eastern portion of the area, and an active silver mine is located on the edge outside of the eastern boundary in Miners Canyon (BLM, Newman, 1993). There are three oil and gas leases on the very eastern section of the Citizen's proposed boundary due to expire within 8 years. The Ferris Mountains contain a timber resource that is unlikely to have any commercial value is the foreseeable future (BLM, 1991).

Cattle graze the area from May to October, and herding within the core of the Ferris is done on motorcycle and horseback. Range improvements are limited to fences along the lower slopes of the WSA. There six allotments associated with the WSA, but only small portions of the allotments are within the WSA. Sheep also forage on the southeast end of the range (BLM, 1987).

Should the Ferris mountains not be protected as wilderness, roads, and other associated intrusions would result in loss a of wilderness values. Assessment work on existing lode claims would impair naturalness on 100 acres in the long-term (BLM, 1987). Important elk and bighorn sheep habitat and wilderness values would not have long-term protection, and could be impacted by developments such as radio towers or hard rock mineral prospecting.

Boundary Rationale and Management Recommendations

BLM Management Decisions: All of the WSA was proposed for Wilderness. They did not select the "enhanced Wilderness" alternative, which would have proposed acquiring (via exchange or purchase) 1,800 acres of state and private inholdings.

Ferris Mountain supports a fire-dependent ecosystem in which fire has been artificially suppressed; therefore, the Citizens support prescribed burns within the study area to reestablish historic vegetative diversity and to improve habitat for bighorn sheep.

BLM is currently negotiating a land exchange to acquire 540 acres of private inholdings. We support this action, and advocate acquisition of the acres of state land, as well, in order to establish a wilderness boundary that more closely follows topographic features. Borders of the area are determined by vehicle ways, topography, and private land patterns. The citizens have made slight changes from BLM's proposed boundary in order to follow topography, rather than section lines, and to exclude several small car-camping areas.

4. Pedro Mountains (030-305)

Citizens' Proposal: 12,345 acres

Highlights

Due east of Pathfinder Reservoir lies a giant-size fortress of pink granite boulders of the Pedro Mountains. Granite domes and slickrock rise sharply over 1000 feet above the surrounding plains. Pockets of pine and aspen grow hidden in moist draws, while cactus and sagebrush spring up in sandy crevasses. From Iron Springs, to The Chimneys, to Pyramid Peak, the Pedro Mountains harbor astounding scenery and a mystical feel of primeval land.

Location and Access

The Pedro Mountains are located in north central Carbon County, about 40 miles northeast of Rawlins. It is accessed from the north on County Highway #291, the Leo-Hanna Road, which touches the southeastern foot of the Citizen's boundary.

Wilderness Qualities

The Pedro Mountains are an island of biodiversity and rocky, mountainous terrain amidst the surrounding plains. Visitors to the Pedro Mountains discover an unmistakable feeling of ancient secrets hidden deep within the rocks.

Although the area has not been thoroughly inventoried for archaeologic sites, evidence exists along the former North Platte River, on the area's western boundary, of human habitation as long as 10,000 years ago. And about 1934, a group of WPA workers found a tiny mummified adult human near the area (Barber, 1947).

The Pedro Mountains are unusual in that they provide winter roosting areas for approximately 20 bald eagles. This makes the Pedros an ideal place for research of winter habitat for bald eagles.

The Pedro Mountains provide crucial winter and year long habitat for about 800 elk (WG&F, 1991). The Wyoming Game and Fish states, "This is a quality elk herd which provides a significant amount of recreational use and public benefit." They also provide habitat for a wide variety of wildlife, including antelope, mule deer, and nesting poorwills, and golden eagles and other raptors. Nesting habitat for endangered peregrine falcons exists in the area, but is unoccupied at the present time because of the low numbers of peregrines (Oakleaf, 1991).

The Pedros border a BLM National Back Country Byway and Watchable Wildlife Route, and overlook the Pathfinder National Wildlife Refuge.

Ridges, draws, and rugged terrain provide screening which, along with the remoteness of the area, give visitors a tremendous sense of solitude. While geographic features do not follow public/private boundary lines, visitors can hike, camp, and explore exemplary portions of the Pedro

Mountains in a free and unconfined manner without crossing onto deeded land.

Resource Analysis

Conoco, Inc. appealed BLM's designation of the Pedro Mountains Wilderness Study Area in 1981 on the premise that the area did not contain outstanding opportunities for solitude and primitive, unconfined recreation due to its narrow configuration. However, we agree with numerous public comments during the inventory phase - over 2500 citizens responded in favor of designating Pedro Mountains a WSA - that opportunities for solitude and primitive, unconfined recreation are outstanding in the area. At the time of its appeal, Conoco held uranium claims in the Pedro Mountain area, but these and all other mineral claims have now expired. Although there is local uranium mineralization, development would probably never be profitable, and much more accessible deposits exist in adjacent parts of Wyoming (Love 1991). There are no oil and gas leases in the area.

Cattle graze the area lightly in the spring, summer, and fall (Bye-Jech et. al. 1992).

Although development potential is almost non-existent, mineral exploration could mar the scenic and wilderness values of the site should the area not be designated as wilderness. Long-term protection would not be assured for an important bald eagle winter roost, nor for big game and other wildlife habitat.

Boundary Rationale and Management Recommendations

Boundaries for the study area are dictated almost entirely by patterns of private or Bureau of Reclamation lands, with the exception of a few segments which follow topographic features, and the eastern tip, which is bordered by a Backcountry Byway and vehicle way. The Citizens' additions on the northeast and southeast of BLM's inventory area are irregular in shape, but encompass the core of the rocks--which are not uniformly shaped. One private tract of 160 acres should be acquired, or left out of the area through a cherrystem, if acquisition is not possible.

5. Bennett Mountains (030-304)

Citizens' Proposal: 10,219 acres

Highlights

East of the North Platte River's Miracle Mile, the Bennett Mountains lift abruptly from the prairie. Sheer layered cliffs of limestone, red beds and other sedimentary rock face south overlooking Seminoe Reservoir, while steep canyons and gulches cut the more gradually-sloping north flank of this section of the Seminoe Mountains. The area ranges in elevation from 6600 to 8000 feet and features a variety of plant cover, from cushion plants and gnarled juniper, to sagebrush, to thick grassy meadows and draws of chokecherry, willow, and aspen.

Location and Access

The Bennett Mountains are located just northeast of the Seminoe Reservoir in north central Carbon County, 35 miles northeast of Rawlins. The mountains can be accessed from the Leo-Hanna Road from the north on County Hwy #291 coming from the Pedro Mountains area. Anyone using BLM Road 3159 on the southern boundary, which crosses private land on the south side of Bennett Mountain, should ask permission from the local landowner.

Wilderness Qualities

This area offers visitors spectacular scenery and isolation. Views from the top feature the Pedro

Mountains, Ferris, Sand Dunes, Seminole Reservoir, and mountain ranges of Wyoming and Colorado in the distance to the south. The Bennetts are also in clear view of BLM's National Back Country Byway.

Plant diversity in the area is unusually high, providing for outstanding botany studies. One may roam over wide alpine-type plateaus, or wander down damp draws shrouded with trees. Alpine fever-few and persistent sepal yellowcress are two plant species that are candidates for federal endangered/threatened listing that are found close to the area (WNDD, 1993).

The area provides good summer habitat and crucial winter range for elk (WG&F Completion Report: 1991). Riparian zones in the area provide forage for deer. Pika, marmots, golden eagles, and other raptors, also call the area home. Historical verification of the federally listed endangered black-footed ferret was sighted in 1972 and 1979 in the area (WNDD, 1993).

Although a thorough archaeologic survey has not been completed, shelter rings and flint chips show that Native Americans came to these mountains. A pit house and other sites along the old river course west of the area indicate occupation dating to 10,000 years ago (Eakins, 1991).

Resource Analysis

Potential for minerals, such as uranium, oil, and gas, is low with negligible chances for development. There are no mineral leases in the area (BLM, 1991). A small amount of ORV use occurs illegally inside the WSA boundaries.

Should the Bennett Mountains not be designated for wilderness, off-road vehicle use would degrade the primitive recreation opportunities. Even though the potential for development is very low, mineral and oil and gas exploration could impair wilderness values over the long term.

Boundary Rationale and Management Recommendations

Additions of public land and 640 acres of state land on the east and south of BLM's WSA would offer added protection to the area's wilderness resources. The citizens' study area is bounded on the north and east by private land, on the south by a road and powerline, and on the west by a two-track.

6. Encampment River Canyon (030-301)

Citizens' Proposal: 7,355 acres

Highlights

Encampment River and its tributary, Miner Creek, course through spectacular gorges cut in the foothills of the Sierra Madre Mountains. Steep talus slopes, rock outcrops, and patchy pine forests give this area a rough, wild nature and provide habitat for a great variety of wildlife. This area comprises a unique ecological zone which contrasts sharply with the forests to the south and the desert to the north.

Location and Access

The Encampment River Canyon lies two miles south of the town of Encampment in southern Carbon County, and is contiguous to the US Forest Service's Encampment River Wilderness. Access is from the town of Encampment, south on County Road #353 (to the western boundary) or to BLM Road #3407 (to the northern boundary to the canyon).

Wilderness Qualities

The Encampment River Canyon with its unique transition zones provide habitat for many species. It provides a lambing area and crucial winter range for a herd of bighorn sheep. The Encampment River Canyon boundary area also provides crucial winter range for the Baggs elk herd, as

well as supporting at least 160 other species, including moose, antelope and nesting prairie falcons. This area is known for its concentration of raptors. The northern goshawk and the bald eagle have been verified to be nesting in the Encampment area. Both are rare species - the bald eagle is Listed Endangered/Threatened species and the northern goshawk is a candidate for federal protection (WNDD, 1993). Other unique or rare animal species in the area include the boreal western toad, the boreal owl, fisher, Colorado River cutthroat trout, black-crowned night-heron, and the great gray owl. Historical sightings of the Listed Endangered black-footed ferret were verified north of the area in 1972, 1974 and 1975 (WNDD, 1993).

The Encampment River Canyon Trail parallels the canyon providing access to its entire length as well as outstanding opportunities for fishing, hunting, spring kayaking, backpacking and wildlife viewing. The Encampment River is classified as very good trout waters of statewide importance, and further upstream is proposed for Wild and Scenic River designation. A portion of the study area is being considered for designation as a National Natural Landmark, and the Encampment River Canyon Trail joins the Continental Divide Scenic Trail.

Plant species of rarity have been found in the Encampment River Canyon area. Western trillium is found in Wyoming only in the Sierra Madre. Other unique or rare species found in the area are clustered lady's-slipper, ciliolate-toothed monkey-flower, rosy pussy-paws, Wallace's wooly-daisy, and white checker-mallow (WNDD, 1993).

The canyon contains several interesting old cabins, mines, prospecting pits and a wooden water sluice from turn-of the -century copper mining. Visitors here may hunt, fish, backpack, watch wildlife, ride horses, kayak, or pan for gold.

Resource Analysis

Although silver and gold are present in low quantities, neither they nor any other minerals occur in commercial amounts. No active mining claims exist in the area, although there has been interest in the past, they will probably never be developed. There are no oil and gas leases in the area and the area is rated as having low potential for any oil and gas (BLM, 1990). Forested slopes in the area contain no merchantable timber (Bye-Jech et. Al, 1992).

Bighorn sheep have already suffered drastic population fluctuations due to disease, intrusions from ORVs and livestock grazing conflicts. Should the area not be protected as wilderness under proposed management, ORV use would only be restricted for half the year and vehicles would cause stress to bighorn sheep and ruin wilderness values on at least 500 acres. The Baggs elk herd will be under severe pressure from oil and gas development and other developments (according to the BLM Resource Management plan).

Non-designation would allow mineral exploration that could result in loss of wilderness values across the area over the long term. Relics from the early mining era and the proposed National Natural Landmark would not be assured long-term protection.

Boundary Rationale and Management Recommendations

Visitors now cross a state section between this study area and the USFS Wilderness boundary via a permanent legal foot trail access. Acquisition of this section would enhance the unit's wilderness qualities. Extensions of BLM land and USFS land on the WSA's southern boundary would include additional natural areas and provide for a joint boundary with the Encampment River Wilderness. Borders of the study area are determined primarily by two-tracks, and several short segments of private land. Our SW addition has old mining activity, so may need to check boundary to follow blade trail and avoid powerline.

Grazing impacts on the local bighorn sheep herd and in riparian areas should be alleviated by trading AUMs on nearby USFS land. This would remove cattle from canyon riparian zones, and reduce grazing competition with bighorns on a site that burned in the late 1980s.

7. Prospect Mountain (030-303)

Citizens' Proposal: 5,676 acres

Highlights

Prospect Mountain encompasses a needed ecological addition to the Platte River Wilderness Area in the Medicine Bow National Forest. This area's steep canyon/mountain terrain, dense stands of lodgepole pine, and pockets of golden mountain aspen contrast sharply with the adjacent high, dry pastel desert. A large herd of bighorn sheep and about 200 elk are dependent on Prospect Mountain for their survival.

Location and Access

Prospect Mountain is situated in the North Platte River Canyon territory on the western flank of the Snowy Range, 16 miles southeast of Encampment, Wyoming in southern Carbon County. Prospect Mountain Citizens Proposal area is complemented on its eastern border by the Platte River Wilderness Area in the Medicine Bow National Forest. The area is accessed from a much used two-tract from the north side.

Wilderness Qualities

The area offers high quality mule deer and elk hunting along with exceptional scenic vistas. Adjacent nationally-renown portions of the North Platte River are popular with anglers and river runners. Outstanding botanical attributes and interesting geological features make the area important from a scientific and educational standpoint (BLM, 1980's).

Up to 200 head of elk from the Snowy Range elk herd use the Prospect Mountain WSA year round. The northern half of the WSA is part of a large crucial winter range that is considered essential for the survival of the herd (WG&F Completion Report: 1991). This area contains yearlong range for mule deer and riparian habitat for numerous species of wildlife. This distinctive area provides for a large, unique herd of approximately 130 bighorn sheep for crucial habitat throughout the year (WG&F, 1991). Rock walls and grottoes within the area may provide habitat for a federal Threatened and Endangered species candidate, the Townsend's big-eared bat.

This area is known for its concentration of raptors. Bald eagles are found to be nesting in this area, a species which is Listed Endangered/Threatened. The peregrine falcon also occurs here and is Listed Endangered. Other high priority animals due to their rarity are the Northern goshawk and the Boreal western toad (candidates for federal listing for protection). The wolverine and the black-crowned night-heron are unique species found near the Prospect Mountain area (WNDD, 1993).

Several unique or rare plant species are found in this area. Listed by the State of Wyoming for protection are mountain muhly, Colorado tansy-aster, park milk-vetch, and Ward's goldenweed (WNDD, 1993).

Prospect Mountain provides excellent opportunities for other uses of the area including hunting, rock hounding, camping, hiking, boating, and sightseeing. As an addition to the 23,000 acre Platte River Wilderness makes Prospect Mountain an exciting recreational area.

Resource Analysis

The timber volume in this area is minuscule - over the next 60 years the timber in this area that could be harvested is less than one tenth of one percent of the total volume harvested on public lands in south central Wyoming. According to BLM [1990], the unit's potential timber harvest is insignificant in view of long-term local mill needs.

There are no commercial deposits of oil, gas, or minerals, although gold, silver, and copper occur in small, low grade amounts. There are no mining claims or oil and gas leases in the Prospect Mountain boundary area (BLM, 1992).

Should the area not be designated wilderness, ORV use and timber cutting could stress and displace big game, and result in the loss of wilderness and scenic values over the long term on part or all of the area.

Boundary Rationale and Management Recommendations

This area's eastern boundary adjoins the USFS Platte River Wilderness. Vehicle ways form the other boundaries. The northern border is a very rough, but much-used two-track that BLM plans to improve and maintain in order to control multiple tracks and erosion near a creek (Bye-Jech et. al, 1992).

Literature Cited

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