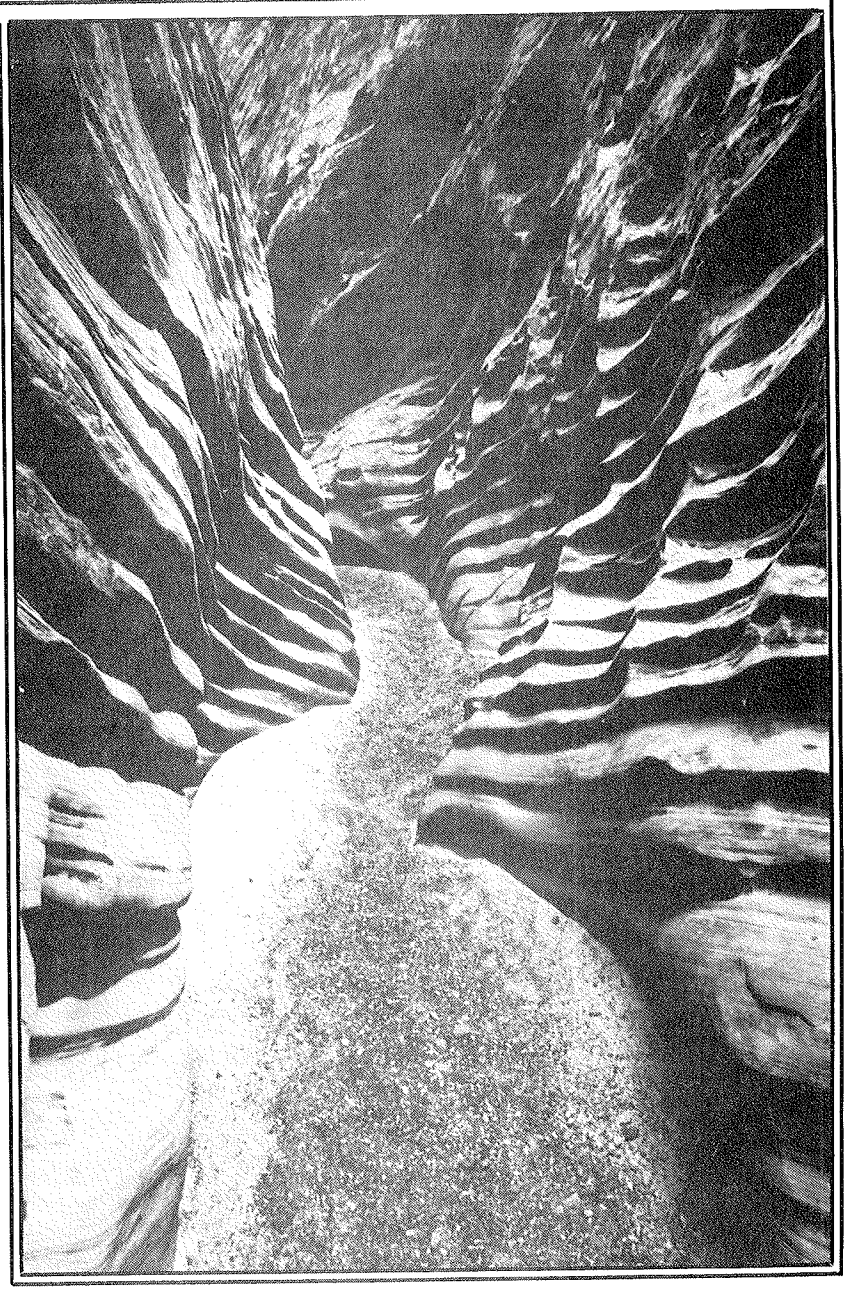
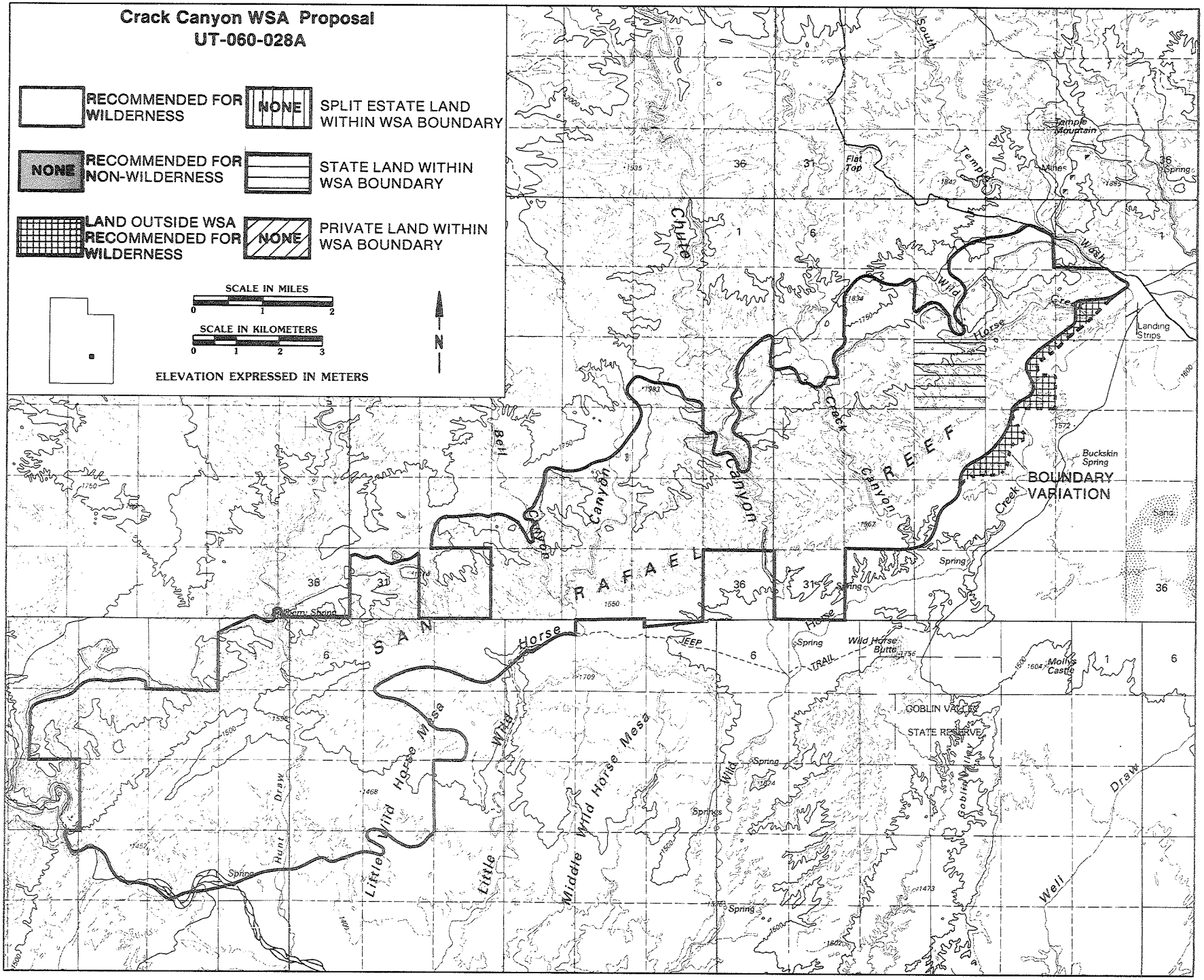
Crack Canyon WSA





October 1991

CRACK CANYON WILDERNESS STUDY AREA

1. THE STUDY AREA: 25,335 acres

The Crack Canyon Wilderness Study Area (WSA) (UT-060-028A) is in Emery County, about 15 miles north of Hanksville, Utah, and directly west of Goblin Valley State Park. The study area is oriented along a nearly east-west axis, and extends for about 16 miles from northeast to southwest and is as much as 3 miles from northwest to southeast. The WSA includes a portion of the southeastern San Rafael Reef, where the Reef trends nearly east-west. Roads and State lands define the boundaries of the WSA (see Map).

Approximately 13 miles of county, BLM, and unmaintained roads are used as boundaries, as well as 18 miles of 9 State section lines. The San Rafael Reef WSA (UT-060-029) is about 1 mile northeast of this WSA, and the Muddy Creek WSA (UT-060-007) is 1 mile northwest of the western end. The Crack Canyon WSA contains 25,315 acres of public land administered by the Bureau of Land Management (BLM). An additional 250 acres of public land outside the east boundary of the WSA are part of BLM's recommended area and 230 acres of the original inventory unit were deleted, bringing the total area studied to 25,335 acres.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA[a]

WITHIN THE WSA	ACRES
BLM (surface and subsurface)	25,315
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	640
Total	25,955
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	25,315
BLM (outside the WSA)	20
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	25,335
In-holdings (State, private)	640
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

Source: BLM File Data

[a] The Appendix is a detailed table of in-holdings included within the portion of the WSA recommended for designation.

There is one State section (640 acres) inheld in the study area (see Table 1).

The study area includes colorful badlands of eroded soils, cliffs, and rock monuments, including fins which form a sawtooth sandstone ridge, and knobs, caves, and arches. Canyons from 200 to 500 feet deep cross the Reef and the WSA, narrowing in places to clefts with bottoms constantly in shadow. Elevations range from 4,700 feet along the southern margin to 6,000 feet in the northeastern part of the WSA. Desert shrub and saltbush are the dominant vegetation, but most of the WSA is barren.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the BLM Utah Statewide Wilderness Environmental Impact Statement (EIS) finalized in November 1990. Two alternatives were analyzed in the EIS: an all wilderness alternative, which is the recommendation in this report, and a no wilderness (no action) alternative.

Subsequent to publication of the Utah BLM Statewide Wilderness Final EIS, the Utah State Director approved the San Rafael Resource Area Resource Management Plan (RMP). The plan includes 22,640 acres of the Crack Canyon WSA in the San Rafael Reef (south portion) Area of Critical Environmental Concern (ACEC) to protect scenic values. Special management requirements now in effect within the ACEC include limiting off-highway vehicles (OHVs) to designated roads and trails and management of the area to meet Class I visual resource management (VRM) guidelines, where consistent with valid existing rights.

2. RECOMMENDATION AND RATIONALE:
   25,335 acres
   (recommended for wilderness)
   0 acres
   (not recommended for wilderness)

The recommendation for this study area is to designate the entire area as wilderness. Designation of the entire area is the environmentally preferable alternative as it would result in the least change from the natural environment over the long term. The recommendation will further apply to any additional inholding acreage acquired through purchase or exchange with willing owners. The Appendix lists all in-holdings and provides additional information on acquisition.

All of the study area meets the naturalness criterion and has outstanding opportunities for primitive recreation. More than 99 percent of the study area has outstanding opportunities for solitude. Scenic, geologic, archaeological, and wildlife features and values are exceptional. The narrow, incised, twisting canyons are the most notable visitor attractions.

Uranium exploration has occurred in the area in the past and uranium resources may have long-term future development potential. Uranium deposits may be found in the same geologic formations near the WSA, however, and the Crack Canyon area probably would not be significant for future supplies of uranium.

BLM recommends that the boundary along the south side of the Temple Mountain Road be set back approximately 200 feet to the south side of South Temple Wash, (see Map) to allow traditional camping use to continue and for road maintenance.

Use of vehicles is popular in the bottoms of narrow canyons in the WSA. Wilderness values take precedence over off-highway vehicle (OHV) use at Chute Canyon and Wild Horse Creek.

Approximately 22,640 acres of the area recommended for wilderness designation are in the San Rafael Reef ACEC where restrictions on OHVs and management for protection of scenic values would continue to be administratively applied if the area is released from wilderness consideration and protection of wilderness characteristics is not a management objective.

The BLM notes that designation of the WSA could result in restrictions on future water consumptive developments on Muddy Creek and its tributaries, with resultant impacts on the economy of Emery County. Because of the uncertain nature of the impacts, BLM recommends that the WSA be designated wilderness with special provisions for protection of potential water uses upstream of the

WSA. No other significant conflicts exist with other resource uses.

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

A. Naturalness

Naturalness is defined as an attribute in which the evidence of man is substantially unnoticeable to the average visitor and where minor imprints of man exhibit no cumulative impact that is substantially noticeable. Imprints in the WSA cover a total of about 506 acres (2 percent of the WSA). The remaining 24,829 acres can be considered pristine. The entire 25,335 acres meet the criterion of naturalness for areas under wilderness review.

The major imprints surrounding the Crack Canyon WSA were excluded during the BLM Intensive Wilderness Inventory in 1980. Of note are a 0.5 mile of fence, approximately 2.25 miles of ways, a stock reservoir, one water well, and an exploratory well.

The fence, stock reservoir, and water well are all used for livestock purposes, and are located along the southern boundary of the WSA. They are substantially unnoticeable and do not detract from the area's naturalness. A well drilled by Union Carbide in the 1950's is located adjacent to the northern boundary near Temple Mountain, and is also substantially unnoticeable.

Ways totaling approximately 2.25 miles area located near Hunt Draw, Muddy Creek, and between Wild Horse Creek and Crack Canyon. Motorcycling and some 4-wheel vehicular traffic occurs on these ways. Flooding and erosional processes are slowly eliminating these imprints in Hunt Draw and Muddy Creek. Motorcycle use on the way between Crack Canyon and Wild Horse Creek however, consists of a distinct 3-foot to 4-foot wide trail.

No surface-disturbing activities have occurred since the wilderness inventory.

B. Solitude

In over 99 percent of the study area (25,300 acres), the opportunities for solitude are considered outstanding during most of the year.

The many incised drainages through the San Rafael Reef provide passages for users to experience seclusion and isolation. The twisting canyons and up-to-1,000-foot cliffs effectively shorten lines of sight and suppress sounds. Off-site intrusions and influences are virtually nonexistent within the canyons.

The higher parts of the WSA, consisting of sandstone knobs, solidified dunes, and the San Rafael Reef's jutted fins, are generally open and provide great vantage points for viewing the surrounding desert to the east, the badlands of Robber's Roost to the south, and the inner drainage system of the San Rafael Swell to the north-northwest. Vegetation cover is limited and does not effectively screen visitors, but the rolling, incised terrain fosters the feeling of seclusion. The expansiveness of the surroundings provides the user with a feeling of remoteness. From specific points within the WSA, the traffic on Highway 24 (8 miles east) and within Goblin Valley State Park may be seen. These outside elements do not necessarily intrude upon the visitor's solitude. During the Easter and Memorial Day weekends, when OHV use adjacent to the WSA is greatest, solitude may be less than outstanding. Motorcycle riding in two canyons of the study area has a negative effect on solitude when it conflicts with primitive recreation.

C. Primitive and Unconfined Recreation

Several outstanding recreation opportunities allow the entire study area (25,335 acres) to meet the outstanding criterion set for areas under wilderness review.

Educational groups use the WSA. Their trips involve hiking and backpacking the intricate canyon drainages through the Reef.

Historic, prehistoric, and geologic features in the area are observed and studied and survival techniques are taught.

During the spring and early fall, recreationists flock to the desert to enjoy the warm weather. OHV use is their main recreational activity, and many use the area adjacent to the WSA. Due to the restrictive character of the terrain, recreationists explore the WSA mostly by foot. Outstanding opportunities for hiking, backpacking, rock scrambling, photography and scenic viewing await these explorers.

Muddy Creek is used for tubing, including negotiating rapids, during the early spring when high water is present. During the drier periods, the drainage is used for hiking and motorcycling.

After rain storms, many isolated pools of water provide an element of surprise and contrast to the dry, desolate character of the WSA. The dramatic nature of the Reef with its sheer-walled cliffs, pinnacles, knobs, twisted canyons, valleys of color, and prehistoric remnants all contribute to a high quality recreational experience.

D. Special Features

The canyons of the WSA expose geologic strata and arches, caves, and narrow, twisted and textured passageways. Many of the features are unique to the San Rafael Reef. The upper reaches provide dramatic views of the San Rafael Reef and its many fins and folds.

The entire WSA is rated outstanding for scenic quality.

The three archaeological sites that have been recorded include small pictograph or petroglyph panels and small habitations in rock shelters.

Considerable evidence of old mining activity surrounds the north, west, and south boundaries of the WSA. Shacks, cabins, and mine shafts adjacent to the WSA provide striking contrast to the color, beauty, and magnitude of the WSA and surrounding land.

Cougar and desert bighorn sheep, which are wildlife species associated with wilderness, may occasionally visit the WSA. In 1983 a group of bighorn sheep was seen just northwest of the WSA. Bighorn sheep occupied the area before uranium mining occurred. There are also wild horses within the WSA. Black-footed ferrets, peregrine falcons, and bald eagles, all of which are listed as endangered species, and nine additional animal species considered sensitive, may occur in or near the WSA.

Two endangered plant species, Maguire daisy (Erigeron maguirei var. maguirei) and Wright fishhook cactus (Sclerocactus wrightiae) may occur near or within the WSA. Two threatened species, the Jones Cycladenia (Cycladenia humilis var. jonesii) and the Last Chance Townsendia (Townsendia aprica), and five other plant species that are considered sensitive may occur in the WSA.

Refer to Appendix 4 and the Affected Environment, Vegetation and Wildlife Including Special Status Species sections of the Utah BLM Statewide Wilderness Final EIS for additional information.

Diversity in the National Wilderness Preservation System (NWPS)

A. Expanding the Diversity of Natural Systems and Features as Represented by Ecosystems

Wilderness designation of this WSA would add a combination of potential natural vegetation (PNV) ecosystems not presently represented in the NWPS.

PNV is the vegetative type that would eventually become climax vegetation if not altered by human interference, and is not necessarily the vegetation that is currently present in an area.

The WSA is in the Colorado Plateau Province/Ecoregion. The PNV in the WSA is galleta-threeawn shrubsteppe (7,614 acres) and saltbush-greasewood (17,721 acres).

The saltbush-greasewood PNV is represented in the NWPS only in Utah. The galleta-threeawn shrubsteppe PNV is not represented in the NWPS at all. Both types of PNV are represented in other BLM study areas, but in Utah only.

This information is summarized in Table 2 from data compiled in December 1989.

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	**AREAS**	**ACRES**	**AREAS**	**ACRES**
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Galleta-Threeawn Shrubsteppe	0	0	10	183,112
Saltbush-Greasewood	1	20,000	17	376,282
UTAH (COLORADO PLATEAU PROVINCE)				
Galleta-Threeawn Shrubsteppe	0	0	10	183,112
Saltbush-Greasewood	1	20,000	17	376,282

Source: BLM File Data

B. Assessing the Opportunities for Solitude or Primitive Recreation within a Days Driving Time (5 Hours) of Major Population Centers

The WSA is within a 5-hour drive of the Salt Lake City-Ogden, Utah and Provo-Orem, Utah standard metropolitan statistical areas. Table 3 summarizes the number and acreage of designated wilderness and other BLM study areas within a 5-hour drive of the population centers.

C. Balancing the Geographic Distribution of Wilderness Areas

The Crack Canyon WSA could contribute significantly to balancing the geographic distribution of wilderness areas within the NWPS.

As of January 1987, the NWPS included 44 areas comprising 3,443,330 acres in Utah and in Colorado, the adjacent state nearest the WSA.

A Crack Canyon Wilderness would supplement the NWPS in the Canyonlands Section of the Colorado Plateau where there are just two established wilderness areas totaling 70,751 acres.

There are three designated wilderness areas within 100 miles of the WSA. To the northwest is the 28,000-acre Mt. Nebo Wilderness (U.S. Forest Service [FS]), to the southeast is the 45,000-acre Dark Canyon Wilderness (FS), and to the southwest is the 25,751-acre Box-Death Hollow Wilderness (FS).

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	**AREAS**	**ACRES**	**AREAS**	**ACRES**
Salt Lake City-Ogden, Utah	11	1,099,962	78	2,234,340
Provo-Orem, Utah	11	721,793	90	2,761,533

Source: BLM File Data

Manageability (The area must be capable of being effectively managed to preserve its wilderness character.)

The entire WSA can be managed as wilderness to preserve values now present in the area. Current uses such as livestock grazing and maintenance of rangeland developments would continue with little or no effect on wilderness values. A herd of about 5 to 15 head of wild horses would continue to use part of the WSA, where management actions would continue as at present.

There are no mineral leases in the WSA, and new leases would not be issued. There are 7,440 acres of mining claims in the WSA. Because there is some potential for uranium deposits in the WSA, it is expected that a portion of these and future claims existing at the time of designation will be explored and possibly developed. It is projected that uranium exploration and development would disturb approximately 28 acres in the northwest portion of the WSA following wilderness designation, but this would not affect the overall manageability of the study area. The presence of a State in-holding (640 acres) in the study area could create additional manageability problems because BLM would be required to provide reasonable access to State land and would have no control over activities on State land. Because there is some potential for uranium in the WSA, it is projected that in the foreseeable future uranium exploration and development on State land could reduce wilderness values in a small portion of the recommended wilderness.

About 122 acres of public water reserve withdrawals would be compatible with wilderness management and would remain in effect following wilderness designation.

Energy and Mineral Resource Values

The U.S. Geological Survey (USGS) and the U.S. Bureau of Mines (USBM) prepared a mineral assessment report for the San Rafael Swell WSAs, including the Crack Canyon WSA (USGS Bulletin 1752, Susan Bartsch-Winkler, et al., N.D.). Commodities evaluated include uranium, geothermal energy, gypsum, limestone, oil and gas, sand and gravel, sandstone, semiprecious gemstones, sulfur, petrified wood, and tar sand.

The Crack Canyon WSA contains parts of the Delta, Temple Mountain, and Little Wild Horse mining districts. Between 1950 and 1973, about 472 tons of uranium oxide were produced from 10 mines in districts within or adjacent to the study area, and about 414 tons were produced from 2 mines within the study area.

The mineral resource potential is high for localized, thin tar sands of variable grade in the WSA. The report indicates that within and near the WSA is about 221,000 tons of identified subeconomic uranium and vanadium resources. An identified subeconomic resource of about 20 million tons of gypsum is in the Summerville Formation in the WSA. The resource potential for gypsum on the surface is high in the southern and southeastern part of the WSA. The Crack Canyon WSA has high resource potential for uranium and vanadium in the Chinle Formation. The resource potential for uranium and vanadium in the Morrison Formation is low in the southern part of the WSA. The resource potential is moderate for oil and gas, geothermal energy, and carbon dioxide and helium gases. The resource potential is low for metals other than uranium and vanadium, including gold and copper. The resource potential for bentonite in the Chinle Formation on the surface and in the subsurface is low in the WSA, and is also low for bentonite with minor zeolite in the southernmost part of the WSA.

Impacts on Resources

The comparative impact table (Table 4) summarizes the effects on pertinent resources for alternatives considered including designation or nondesignation of the area as wilderness.

Local Social and Economic Considerations

Over the long term, the recommended wilderness designation would cause a slight change in local economic conditions from those that would occur with the No Action/No Wilderness Alternative. Approximately 80 fewer jobs would be provided by locatable mineral activities with this alternative. This is

equivalent to about 1.2 percent of the projected Emery County employment in the year 2010. Recreation-related expenditures could contribute up to $18,040 annually at the end of 30 years. Livestock grazing would continue to contribute $14,540 annually in livestock sales and $1,120 in Federal revenues. Up to $50,670 in Federal and State lease revenues would be foregone each year.

An unquantified but potentially significant adverse effect on the Emery County economy could result from restrictions on consumptive use of water on Muddy Creek and its tributaries upstream of the WSA.

Summary of WSA-Specific Comments

Public involvement has occurred throughout the wilderness review process. Comments received during the early stages of the EIS preparation were used to develop significant study issues and alternatives for the ultimate management of the WSA.

During formal public review of the Draft EIS, a total of 317 inputs specifically addressing this WSA were received from 973 commenters, including oral statements received at 17 public hearings on the EIS. Each letter or oral testimony was considered to be one input. Duplicate letters or oral statements by the same commenter were not counted as additional input or signature. Each individual was credited with one signature or testimony regardless of the number of inputs. In general, 70 commenters supported wilderness designation for part or all of the WSA, while 452 commenters were opposed. Four hundred and fifty-one commenters addressed the relative merits of the EIS but took no formal position on wilderness designation.

Those favoring wilderness commented on the special features of the WSA. The majority of those commenting in favor of wilderness were from other states and rural Utah. Of particular concern was the need to protect the wilderness values in the WSA from OHV use and preserve the area for future generations.

Those opposing wilderness were concerned that wilderness would preclude mineral exploration and development and restrict public access and livestock management, harm local and State economies, cause a Federal regional air quality designation to be more restrictive, and commented that enough wilderness exists already and there is no need for more. Most of those opposing wilderness designation were from rural Utah.

One Federal agency, the USBM, commented on the Draft EIS for this WSA. The USBM expressed no opinion regarding wilderness designation but stated that BLM underestimated the petroleum potential of the WSA.

No comment letters were received on the Final EIS.

There is one section (640 acres) of State land within the WSA. In commenting on the Draft EIS, the State of Utah expressed general opposition to wilderness designation, but did not take a definite position regarding this WSA. The State commented that the WSA has both moderate wilderness values and conflicts compared to other WSAs in the San Rafael Swell Region. The State cited uranium resources, high OHV use, and potential water developments as the major conflicts, and noted that there are also wilderness values and wildlife habitat in the WSA which would benefit from wilderness management. Specific State comments dealt with an error in the geology section of the EIS and noted that designation of this area as a WSA in the late 1970's precluded adequate evaluation of the uranium potential.

The Crack Canyon study area is in Emery County, Utah. The Zoning Resolution of Emery County classified the WSA as potential future mining and grazing land. The Emery County Commission is opposed to wilderness designation for the WSA and has endorsed the Consolidated Local Government Response to Wilderness that opposes wilderness designation of BLM lands in Utah. In commenting on the Draft EIS, the Commission noted that the

shape of the WSA is not conducive to those qualities sought in wilderness areas and wilderness designation could lead to more restrictive standards on air and visual quality that would have a significant adverse impact on present power generation and mining operations as well as future development in the County.

CRACK CANYON WSA

Table 4
Comparative Summary of Impacts of Alternative[a]

Issue Topic	Alternatives: Recommendation All Wilderness (25,335 Acres)	Alternatives: No Action/No Wilderness
Impacts on Wilderness Values	Wilderness designation would preserve overall the wilderness values in the WSA. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 29 acres because of uranium exploration and development on valid mining claims and construction of access to State in-held lands. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to an additional 760 acres. Special features would be preserved overall, although Class A scenery would be reduced in quality in the disturbed and surrounding areas.	Wilderness values would not be protected by wilderness designation and loss would occur as intrusions increase. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 94 acres because of uranium exploration and development and construction of access to in-held State lands. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to 2,533 acres. Special features would generally not be significantly affected by mineral-related disturbance, although Class A scenery would be reduced in quality in the disturbed areas. Vehicular use of ways, future mining access roads, and other vehicular access would detract from naturalness and opportunities for solitude and primitive recreation in the WSA. OHV use would also disturb wildlife associated with wilderness.
Impacts on Vegetation	Vegetation types and threatened, endangered, and other special status plant species would be protected by this alternative because the potential for surface disturbance would be reduced from 94 to 29 acres and OHV use would be eliminated. Appropriate inventories, clearances, and consultation with FWS would be completed prior to surface disturbance.	Populations of threatened, endangered, or other special status plant species would not be significantly affected. The 94 acres of projected surface disturbance would affect less than 0.4 percent of the WSA. OHV use would be limited to designated roads and trails, which would avoid populations of threatened, endangered, or other special status species.
Impacts on Water Resources	In the long term, future water diversions and new consumptive uses in the Muddy Creek system upstream of the WSA may be restricted or precluded. Potential upstream uses include irrigation, cooling water for coal-fired generation of electricity, coal mining, and municipal use.	This alternative would not significantly alter present or future water quality or uses. Only 0.4 percent (94 acres) of the WSA would be disturbed and there would be no restrictions imposed by wilderness management.
Impacts on Mineral and Energy Exploration and Production	Wilderness designation would limit potential exploration and development opportunities for locatable minerals known to occur in the WSA to those under valid mining claims at the time of designation. Although some production would occur, an unknown portion of the uranium in the WSA would be foregone. No other significant locatable or leasable mineral production would be foregone because the probability of development is low even if the area is not designated wilderness.	Mineral and energy exploration or production would not be significantly affected because mineral leasing, location of mining claims, and mineral development would not be restricted for protection of wilderness values.

CRACK CANYON WSA

Table 4 (Continued)
Comparative Summary of Impacts of Alternative

Issue Topic	Alternatives: Recommendation All Wilderness (25,335 Acres)	Alternatives: No Action/No Wilderness
Impacts on Wildlife Habitat and Populations	Wilderness designation would protect all wildlife species and provide additional solitude over the short and long term. Approximately 0.1 percent (29 acres) of the wildlife habitat in the WSA would be disturbed.	About 0.4 percent (94 acres) of the wildlife habitat in the WSA would be directly disturbed and OHV use would continue. Populations of bighorn sheep, raptors, and special status species could be affected. Monitoring and enforcement of protective measures would be necessary.
Impacts on Cultural Resources	Very little impact to cultural resource is expected under this alternative because potential disturbance would be reduced from 94 to 29 acres and OHV use would not be allowed. Cultural resource management may be limited in scope and execution due to wilderness management in order to preserve other wilderness values.	All sites, including three recorded sites, would continue to be protected under existing laws. Inadvertent loss or damage to archaeological sites may occur due to surface development and/or continued OHV use. Impacts from development would be minimal because only 0.4 percent of the WSA would be disturbed and mitigation would be required. Intentional vandalism and artifact collection may increase due to increased activity and accessibility. Cultural resource management would continue without regard for protection of other wilderness values.
Impacts on Recreational Use	Primitive recreational opportunities would be protected, and primitive recreational use would increase at a rate of 2 to 7 percent annualy over the next 30 years. The quality of primitive recreational use would be directly reduced on 29 acres and indirectly reduced on up to an additional 3 percent (760 acres) of the WSA. Up to 8,720 visitor days of motorized use per year would be precluded at the end of 30 years. About 75 percent of the present recreational use is based on vehicular access and overall recreational use would decline following wilderness designation.	The quality of primitive recreation would be reduced on and near OHV-use areas and areas where other surface-disturbing activities occur. This could occur directly on 94 acres and indirectly on up to 10 percent (2,533 acres) of the WSA. Both primitive and motorized recreational use would increase by 2 to 7 percent annually over the next 30 years.
Impacts on Local Economic Conditions	Over the long term, wilderness designation would cause a slight change in local economic conditions from those what would occur with the No Action/No Wilderness Alternative. Approximately 80 fewer jobs would be provided by locatable minerals activities with this alternative. This is equivalent to about 1.2 percent of the projected Emery County employment in the year 2010. Recreation-related expenditures could contribute up to $18,040 annually at the end of 30 years. Livestock grazing would continue to contribute $14,540 annually in livestock sales and $1,120 in Federal revenues. Up to $50,670 in Federal and State lease revenues would be foregone each year. An unquantified but potentially significant adverse effect on the Emery County economy could result from restrictions on consumptive use of water on Muddy Creek and its tributaries upstream of the WSA.	Present economic conditions would not be affected. Locatable mineral activity could increase employment in Emery County by 2.4 percent (160 jobs) by the year 2010. Recreation-related expenditures could contribute up to $53,972 annually to the local economy by the year 2020. Livestock grazing would continue to contribute $14,540 annually in livestock sales and $1,120 in Federal revenues. Future oil and gas leases could generate up to $50,670 annually in Federal and State revenues.

[a] The BLM San Rafael RMP was approved following publication of the BLM Utah Statewide Wilderness EIS. The analysis of impacts summarized here has been modified to reflect the more restrictive resource management practices established by the RMP.

CRACK CANYON WILDERNESS STUDY AREA

Appendix
Estimated Costs of Acquisition of Non-Federal Holdings Within Areas Recommended for Designation [a]

Legal Description (Prior to any Subdivision)	Total Acreage	Number of Owners (If Parcel has been subdivided)	Type of Ownership by Estate (Federal, State, Private, Other) (Surface Estate)	(Subsurface Estate)	Presently Proposed for Acquisition (Yes, No)	Preferred Method of Acquisition (Purchase, Exchange, Other)	Estimated Cost of Acquisition (Land Costs)	(Processing Costs)
T. 25 S., R. 11 E., Sec. 16	640.00		State	State	No	Exchange		$2,000

[a] The estimated costs listed in this appendix in no way represent a Federal appraised value of the land or mineral estate, but are rough estimates based on sales or exchanges of lands or mineral estates with similar characteristics to those included in the WSA. The estimates are for purposes of establishing a range of potential costs to the government of acquiring non-Federal holdings and in no way represent an offer to purchase or exchange at the cost estimate included in this appendix.