

Crater Mountain

CA-010-062

CRATER MOUNTAIN WILDERNESS STUDY AREA (WSA)

(CA-010-062)

1. THE STUDY AREA — 7,551 acres

The Crater Mountain WSA is located in northern Inyo County, approximately two miles south of Big Pine, California. The WSA includes 7,069 acres of BLM land and 482 acres of Inyo National Forest land. There are no State lands or private inholdings in the WSA (see Map 1 and Table 1).

The northern boundary of the WSA follows a road northeast, then heads south along a 750-KV powerline right-of-way. The boundary turns west near Fish Springs Hill and skirts around mining related surface disturbances on the hill's south and east aspects. Near the Fish Springs Hill summit, the boundary turns south and continues for a mile until it meets the Birch Creek road. The boundary follows this road west and intersects the McMurray Meadows Road. The boundary then proceeds north on this road and around private land until it meets the WSA's northern boundary road.

The WSA straddles the common edges of the Basin and Range and the Sierra Nevada geomorphic provinces. The WSA is located on Owens Valley alluvial deposition at the eastern base of the Sierra Nevada Mountains. The primary landform feature of the WSA is Crater Mountain - a volcanic cone and associated basaltic lava flows. Elevation in the unit ranges from 4,200 feet to 6,055 feet. Topographical relief is fairly uniform around the volcano. The summit of Crater Mountain reaches an elevation exceeding 6,000 feet. The southwest portion of the WSA consists of sedimentary outwash from the Sierra Nevada mountain range. Several ephemeral drainages incise this portion of the unit. The WSA is uniformly blanketed with mixed desert shrubs below the volcanic cinder cone. Plant density is low to moderate.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA). Various suitability recommendations were analyzed in the Draft and Final Environmental Impact Statements (EIS) for the Benton-Owens Valley/Bodie-Coleville Wilderness Study Areas. A summary of the area's wilderness values was included in the Final EIS. Three different suitability recommendations were analyzed in the EISs: all wilderness, partial wilderness recommending 85% of the area suitable, and no wilderness.

2. <u>RECOMMENDATION AND RATIONALE</u> —	0	acres recommended for wilderness
	7,551	BLM acres recommended for nonwilderness

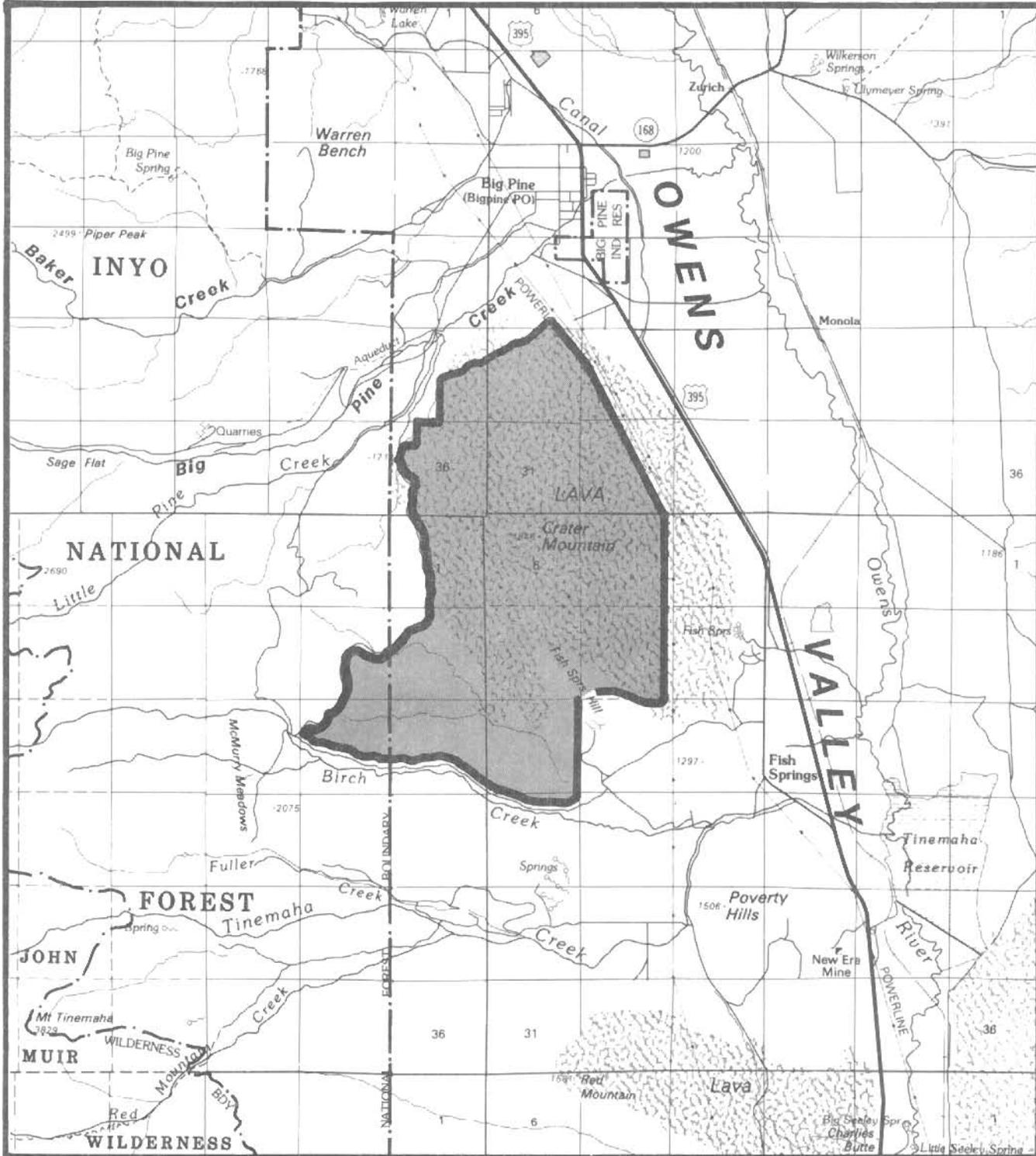
No wilderness is the recommendation for this WSA. The entire acreage in this WSA is released for uses other than wilderness. The all-wilderness alternative is considered to be the environmentally-preferred alternative as it would result in the least change from the natural environment over the long term. The no-wilderness alternative will be implemented in a manner which will use all practical means to avoid or minimize environmental impacts.

The WSA is recommended non-suitable because its potential for mineral occurrence outweighs the area's wilderness values. In addition, manageability was a strong consideration in the non-suitable recommendation.

Resource conflicts in the WSA include moderate potential for geothermal resources throughout the WSA. Additionally, the southeast portion of the WSA is considered to have a moderate potential for gold. The area has recently been determined to also contain moderate potential for silver and copper. Thirty-eight unpatented mining claims are located in this area. There is a low to moderate probability that mining claims in this area would result in valid existing rights. Development of mining claims which are found to have valid existing rights could impair the area's wilderness values with or without wilderness designation.

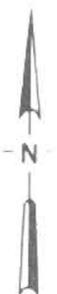
A primary manageability problem which contributed to the non-suitable recommendation is the unit's physiographic landform and lack of vegetative screening which limit outstanding opportunities for solitude in major portions of the WSA. Additionally, the potential determination of valid existing rights related to mining claims in the WSA may further hinder manageability.

There are approximately four miles of primitive ways which will remain available for vehicular use in the WSA.



- NONE RECOMMENDED FOR WILDERNESS
- RECOMMENDED FOR NONWILDERNESS
- LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS

- SPLIT ESTATE
- STATE
- PRIVATE



**Crater Mountain
Proposal
MAP-1**



010-062
JUNE, 1988

TABLE 1 - Land Status and Acreage Summary of the Study Area

<u>Within Wilderness Study Area</u>		<u>Acres</u>
BLM	(surface and subsurface)	7,069
Split Estate	(BLM surface only)	0
USFS	(surface and subsurface)	482
Inholdings		
State		0
Private		0
Total		<u>7,551</u>
<u>Within the Recommended Wilderness Study Boundary</u>		<u>Acres</u>
BLM	(within WSA)	0
BLM	(outside WSA)	0
Split Estate	(within WSA)	0
Split Estate	(outside WSA)	0
Total BLM Land Recommended for Wilderness		<u>0</u>
Inholdings		
State		0
Private		0
<u>Within the Area Not Recommended for Wilderness</u>		<u>Acres</u>
BLM	(surface and subsurface)	7,069
Split Estate	(BLM surface only)	0
USFS	(surface and subsurface) ¹	482
Total BLM Land Not Recommended for Wilderness		<u>7,069</u>
Total USFS Land Not Recommended for Wilderness		482

¹The USFS has agreed to allow these lands, located in the Inyo National Forest, to be reported as part of BLM's WSR. When Congress acts, the lands will be managed in accordance with the current approved management plan.

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATIONS

A. Wilderness Characteristics

1. Naturalness: The Crater Mountain WSA generally appears natural. The WSA consists of Crater Mountain, a large volcanic mountain surrounded by rough black lava flows. Lack of soil development on the crater and associated lava flows has greatly limited the vegetation, creating a stark contrast between the volcanic landform and its surroundings, including the Owens Valley and the High Sierra. The mountain rises more than 2,000 feet above the Owens Valley floor - reaching an elevation of 6,055 feet. It is considered one of the largest volcanoes in the region.

This WSA supports a uniform composition of mixed desert shrubs around the base of the cinder cone. Goldenbush, ephedra, buckwheat, and desert needlegrass are found in the WSA.

A few man-made features do exist in the unit but are considered visually insignificant amid the lava rubble that pervades the WSA. These features include approximately four miles of primitive vehicle routes, a drift fence, pipeline, earth-tone painted livestock water troughs, and isolated inactive mining claims. The rugged volcanic features of the crater and associated lava flows in the WSA discourage most forms of development activity. An electric transmission line parallels the eastern boundary just outside the WSA.

2. Solitude: Outstanding opportunities for solitude are available within the WSA. The unit's size and its jagged, boulder-strewn terrain provide a screening effect which enhances one's opportunity to find isolation. Additionally, the small caves and lava tubes in the WSA provide some additional opportunities for sub-terranean seclusion. However, the unit's rounded, open landform and a lack of sufficient vegetation limits opportunities for solitude in the eastern and northern portions of the WSA. Solitude in the eastern portion of the WSA is somewhat degraded by the visual presence of U.S. Highway 395 located approximately one mile outside the WSA. The community of Big Pine as well as the eastern boundary transmission power line can be seen from the northern and eastern portions of the WSA.

This WSA is periodically overflowed by military aircraft as part of the national defense mission taking place in approved military operating areas and flight corridors. The visual intrusions and associated noise create periodic temporary effects on solitude which are deemed necessary and acceptable as a part of the defense preparedness of the nation.

3. Primitive and unconfined recreation: The WSA provides several opportunities for primitive and unconfined types of recreation. These opportunities include hiking, hunting, photography, historical sightseeing and appreciation, geological sightseeing, horseback riding, and others. Spelunkers periodically visit several caves and lava tubes in the WSA. The WSA is a very popular chukar hunting area with valley residents. Local school field trips are commonly held in the WSA. In addition, the area provides opportunities for scientific and Native American research activities.
4. Special features: The Crater Mountain cinder cone and lava flows are the dominant and most significant features of the WSA. They lend a high scenic quality, as well as intriguing geological values to the WSA. Additional features of special interest include cultural resource values, such as temporary hunting camps, petroglyphs, seed collecting and processing sites; and crucial winter habitat for the Goodale mule deer herd, which relies on this habitat for forage requirements during the harsh Sierra high-country winters.

B. Diversity in the National Wilderness Preservation System (NWPS)

1. Assessing the diversity of natural systems and features as represented by ecosystems: This WSA contains 7,551 acres of the Intermountain Sagebrush/Great Basin Sagebrush ecosystem. The Crater Mountain WSA would not increase the diversity of the types of ecosystems represented in the NWPS.

Table 2 - Ecosystem Representation

Bailey-Kuchler Classification Domain/Province/PNV	<u>NWPS Areas</u>		<u>Other BIM Studies</u>	
	areas	acres	areas	acres
<u>NATIONWIDE</u>				
Intermountain Sagebrush/ Great Basin Sagebrush	1	32,407	55	1,198,207
<u>CALIFORNIA</u>				
Intermountain Sagebrush/ Great Basin Sagebrush	0	0	19	213,741

2. Expanding the opportunities for solitude or primitive recreation within a day's driving time (five hours) of major population centers: The WSA is within a five-hour drive of seven major population centers. Table 3 summarizes the number and acreage of designated areas and other BIM study areas within a five-hour drive of the population centers.

Table 3 - Wilderness Opportunities for Residents of Major Population Centers

Population Centers	NWPS Areas		Other BLM Studies	
	areas	acres	areas	acres
<u>California</u>				
Anaheim-Santa Ana	25	2,823,534	153	5,703,515
Bakersfield	32	4,071,358	128	3,998,548
Los Angeles-Long Beach	27	2,876,234	135	4,958,751
Oxnard-Ventura	23	2,195,198	85	2,703,260
Riverside-San Bernardino	22	2,031,054	205	7,658,649
<u>Nevada</u>				
Las Vegas	46	3,507,293	311	11,186,463
Reno	39	4,647,230	175	6,904,809

3. Balancing the geographic distribution of wilderness areas:
 The WSA is within 50 air miles of six BLM WSAs recommended for wilderness designation. Sequoia-Kings Canyon National Park and the John Muir Wilderness, seven and 13 miles to the west, respectively, are the nearest designated wilderness areas. These wilderness areas are administered by the National Park Service (NPS) and the Inyo National Forest, respectively. Other nearby non-Bureau wilderness areas include the Golden Trout Wilderness and the Ansel Adams Wilderness which are managed by the Inyo National Forest.

C. Manageability

The Crater Mountain WSA would be difficult to manage as wilderness, and under certain circumstances, unmanageable. Although natural and cultural features are available for effective boundary management, the outside sights and sounds of Big Pine, a 750-kV powerline and Highway 395 would limit effective management of the area as wilderness. The rounded, open landform and a lack of vegetative screening leaves opportunities for solitude vulnerable to adjacent sights.

Although the probability is low to moderate, a determination of valid existing mineral development rights in the southeast portion of the WSA may completely impede effective wilderness management in this section. Wilderness values of naturalness, solitude, and opportunities for primitive recreation experience could be permanently impaired if this area was actively mined.

Some signing and fencing would be required in portions of the unit to protect its integrity. Periodic patrols would also be required.

Military overflights in this WSA must be considered to maintain the integrity of the existing and future national defense mission as well as the wilderness resource.

D. Energy and Mineral Resource Values

1. Summary of information known at the time of the preliminary suitability recommendation: The Crater Mountain WSA is within the BLM Big Pine Geology-Energy-Minerals (G-E-M) Resource Area (GRA). The G-E-M data in the Affected Environment section of the 1987 BLM Wilderness Recommendations, Benton-Owens Valley-Bodie-Coleville Study Areas, Final EIS indicates that the WSA has a moderate potential for the occurrence of gold and geothermal resources; a low occurrence potential for non-metallic minerals, uranium, thorium and metallic minerals other than gold; and no potential for oil and gas. The moderate potential for gold was identified in a small area in the southern portion of the WSA. As of the spring 1986, 59 unpatented mining claims were located within the WSA, according to BLM records. Ten of these were millsites, 25 were lode claims and 24 were placer claims. In the northern portion of the WSA there were six mill sites. There were 25 lode, 24 placer, and four mill site claims for a total of 53 claims in the southern part of the WSA.

The G-E-M report for the Crater Mountain GRA does not specifically analyze the area near the Crater Mountain WSA. However, it discusses the area in general terms. Supplementary G-E-M data collected by BLM prior to the suitability recommendation supports the EIS (BLM Internal Report, Dec. 1983, "Analysis of Management Situation," WSA file #CA-010-062).

Crater Mountain is composed primarily of Pleistocene basalt and cinders intruding and overlying a Cretaceous granitic pluton. The WSA is highly faulted, with major faults trending in a northwest direction, parallel to the general trend of Owens Valley. Granitic rocks crop out through the overlying Pleistocene volcanics in several places, but most prominently along the southeastern boundary of the WSA. This outcrop of granite is the area of moderate potential for the occurrence of gold. Fifty-three unpatented mining claims are located in this area. This area has been mined in the past at the Cleveland Mine and the Cometti Mine (sections 7, 17, and 18, T. 10 S., R. 34 E., MDM). The earliest documentation of this deposit is in 1893. The deposit was mined intermittently until 1949. Total production is reported to be 2,677 ounces of gold, 2,000 ounces of silver and 1,551 ounces of copper (BLM, URA 3 for Owen's Valley, updated 1988).

The deposit is described as free gold in a series of narrow, nearly parallel quartz veins in Cretaceous granite. Free gold occurs with pyrite and chalcopyrite.

Sorted ore carried three to 11 ounces of gold per ton. The granite host rock extends into sections 7, 8, 17, and 18. This area, therefore, was rated as having moderate potential for gold, silver and copper.

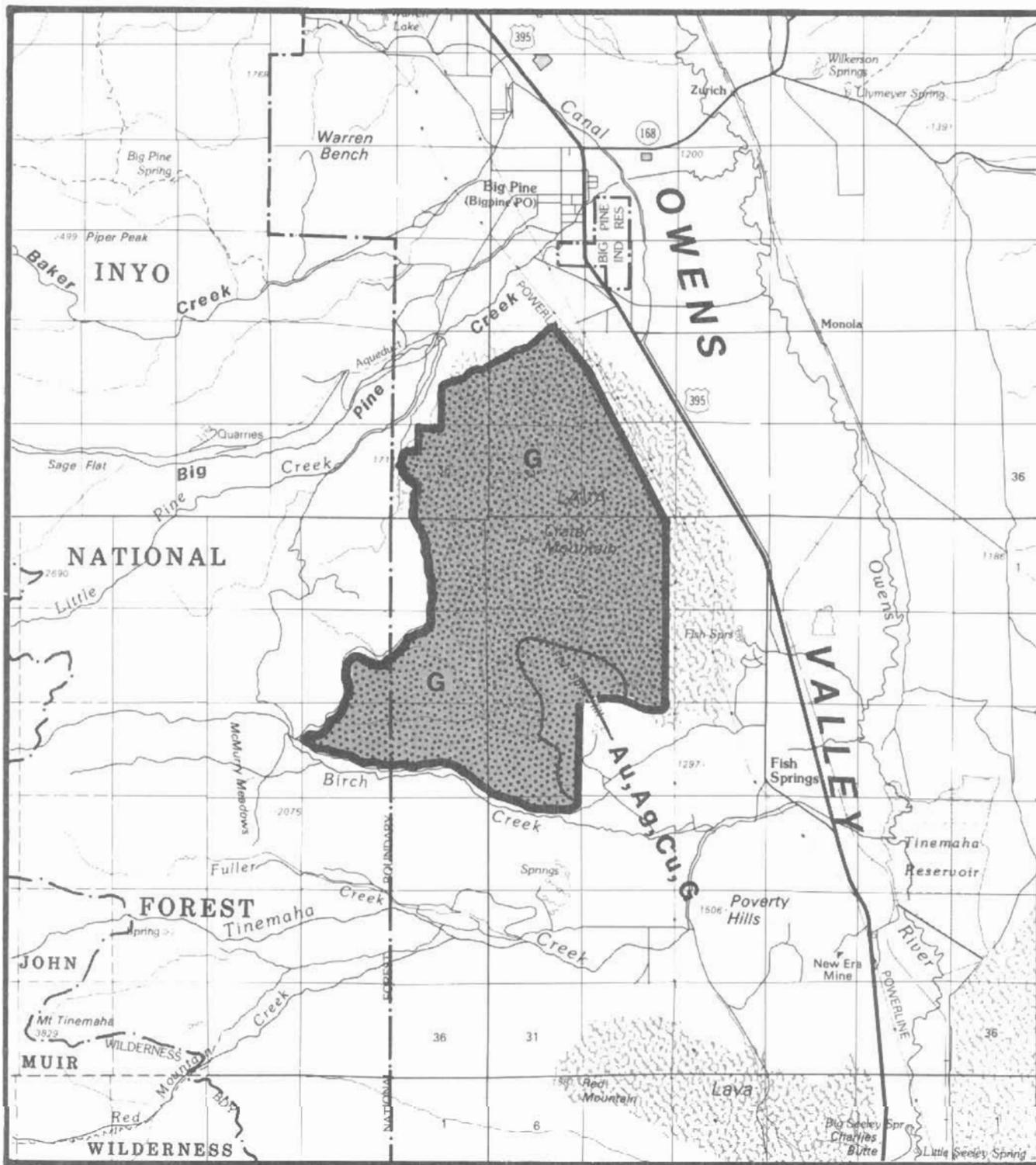
The entire WSA was rated as having a moderate potential for geothermal resources. This rating is based on the following three factors: the existence of surface hot springs in the vicinity; the presence of youthful Pleistocene volcanic centers indicative of magmatic heat at shallow depths; and the fractured nature of the terrain which could allow for migration and convection of hydrothermal fluids.

2. Summary of significant new mineral data collected since the suitability recommendation which should be considered in the final decision: Because this WSA was recommended non-suitable by BLM, no U.S. Geological Survey or U.S. Bureau of Mines mineral surveys were conducted. Personal communication with the present claimant (Mr. King Ives) of the Cometti Mine has revealed the following: He is currently evaluating the old workings in section 17. He has an assay from a three-foot-long channel sample across the face of one of the underground drifts, which ran approximately three ounces of gold per ton. The veins run roughly east-west with variable dips. A cyanide separation gold mill was in operation at the Cleveland Mine approximately 15 years ago.

BLM records dated May 4, 1988, show that 38 mining claims continue to exist in the WSA. No mineral leases or mineral material sales contracts/ permits were identified. The distribution of unpatented mining claims is summarized in the table below:

Table 4 - Mining Claims

TYPE	NO.			ACRES		
	SUITABLE	NONSUIT.	TOTAL	SUITABLE	NONSUIT.	TOTAL
Mining Claims						
Lode	0	17	17	0	340	340
Placer	0	20	20	0	800	800
Mill Sites	0	1	1	0	5	5
Total	0	38	38	0	1,145	1,145



- NONE Recommended for Wilderness
- Recommended for Non Wilderness
- Land outside WSA Recommended for Wilderness
- Split Estate
- State
- Private

- Explanation**
- High Potential for the Occurrence of Energy and/or Non-energy Minerals
 - Moderate Potential for the Occurrence of Energy and/or Non-energy Minerals
 - M** Moderate Mineral Potential Location in a High Mineral Potential Area
 - H** High Mineral Potential Location in a Moderate Mineral Potential Area

- Commodity Symbols**
- Ag** Silver
 - Au** Gold
 - Cu** Copper
 - G** Geothermal



**Crater Mountain
Mineral Resource Potential**



**Map-2
010-062**

E. Impacts on Resources

The following table summarizes the effects on pertinent resources for all alternatives considered including designation or non-designation of the entire area as wilderness. (For a full explanation of this summary, refer to the Benton-Owens Valley/Bodie-Coleville Wilderness - Final Environmental Impact Statement.)

Table 5 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Wilderness Values	<p>The primary impacts to wilderness values would originate from mining activities in the southeast portion of the WSA associated with development of an underground gold mine. These impacts would result in the loss of naturalness on 90 acres, and the perception of naturalness and sense of solitude would be impaired on approximately 1,200 acres.</p> <p>Impacts from continued motorized recreation use, livestock operations and maintenance of existing livestock facilities, as well as construction and maintenance of a proposed chukar water facility would generally be localized and insignificant due to the infrequent nature of these activities and low level of use.</p> <p>Impacts to wilderness values would predominantly only occur in the southern portion of the WSA and not affect the majority of the 7,551 acres within the WSA.</p>	<p>Wilderness designation would result in low positive benefits to all-wilderness values throughout the WSA, particularly in the southwest portion of the WSA due to the elimination of 675 visitor days of motorized recreation use.</p> <p>Should valid existing rights not be proven, mining activities would be precluded. Wilderness values would be retained on 90 acres and within 1,200 acres in which the perception of naturalness and the sense of solitude would not be impaired due to mining. However, should mining claims in the southeast portion of the WSA prove valid, existing rights, mining activity would result in a loss of naturalness on 90 acres and impair the perception of naturalness and the sense of solitude on 1,200 acres.</p> <p>Impacts resulting from livestock operations and construction and maintenance of</p>	<p>Wilderness designation would result in a low positive benefit to all-wilderness values within the 6,418 acres designated wilderness, particularly in the southwest portion of the WSA due to the elimination of 600 visitor days of motorized recreation.</p> <p>Mining activity in the southeast portion of the WSA not designated wilderness would result in a loss of naturalness on 90 acres and the perception of naturalness and sense of solitude impaired on 1,200 acres.</p> <p>Impacts resulting from livestock operations and construction and maintenance would generally be localized and insignificant as described under the All Wilderness Alternative.</p>

Table 5 - Comparative Summary of the Impacts by Alternative (Cont'd)

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Wilderness Values (continued)		a chukar water facility would generally be localized and insignificant with negligible benefits as a result of restricting three vehicle trips per year.	
Motorized Recreation Use	There would be no impact on motorized recreation use. The entire WSA would remain open for motorized recreation use with the current 675 visitor-days expected to remain stable.	There would be only minor impacts on motorized recreation use. Closure of the WSA would result in 675 visitor-days of motorized recreation use foregone.	There would be only minor impacts on motorized recreation use. Approximately 600 visitor-days of motorized recreation use would be foregone.
Mineral Development	There would be no impact on mineral development. The entire WSA would remain open to mineral entry. However, the only potential development anticipated would be an underground gold mine in the southern portion of the WSA.	There would be only a minor impact on mineral development as a result of wilderness designation. Opportunities to explore and develop the WSA's generally low potential for mineral resources would be foregone. Should discovery occur within an area of moderate mineral potential in the southern portion of the WSA, a determination of valid existing rights would most likely result in development.	There would be only minor impacts on mineral development. Exploration and development of mineral resources could occur within the non-wilderness portion of the WSA particularly in an area of moderate potential. In the designated portion, no anticipated development of minerals would be foregone due to the low mineral potential.
Cultural Resources	There is a potential for adverse impacts to cultural resources within the WSA however these impacts would be avoided or minimized through monitoring, protection efforts and mitigation measures for projected mining activities.	There would be a positive benefit to cultural resources as a result of wilderness designation. The threat of impact-causing activities such as mining and continued motorized recreation use would be eliminated or reduced.	There would be a positive benefit to cultural resources as a result of wilderness designation of 6,418 acres within the WSA. There would not likely be any impacts to cultural resources on the 1,133 acres not designated due to the lack of predicted values.

F. Local Social and Economic Considerations

No local social or economic considerations were identified in the Final EIS. Therefore, no further discussion of this topic will occur in this document.

G. Summary of WSA - Specific Public Comments

During the inventory phase, a few comments were received pertaining to the area's mineral values, wildlife values, and transmission-line corridor expansion opportunities.

After the inventory, comments were received during the wilderness study process. A few comments were received which pertained to influences from outside sights and sounds, access needs, and mineral values. A few individuals wish to see the WSA permanently protected; one of these individuals noted the area's scenic values. One comment noted the area's geological values.

During the study phase, a public meeting and public hearing were held in association with the draft EIS for the WSAs within the EIS area. The public meeting was held in Markleeville, California, and the public hearing in Bishop, California. Comments were received both orally through the hearing, and in writing during the 90-day public review period. A total of 83 written and oral comments were received. Thirty-four comments supported the Bureau's no-wilderness recommendation. Forty-two comments supported the all-wilderness alternative. Seven comments supported the partial-wilderness alternative.

No Federal or State agency comments were received specific to this WSA.

The Inyo County Board of Supervisors has passed a resolution opposing any additional wilderness areas in Inyo County.