

EXHIBIT 20

Bureau of Land Management, California Statewide Wilderness Study Report, Part 4, Vol. 4, Last Chance Mountain (CDCA 112) (1990) (excerpts) (available at www.blm.gov/ca/pa/wilderness/wilderness_pdfs/wsa/Volume-3/Vol-3-TOC.pdf (last visited Jan. 16, 2007))



Bureau of Land Management

CALIFORNIA STATEWIDE WILDERNESS STUDY REPORT

1990

Part 4

Volume 3

*Contains WSA's: CA-060-025A through CA-060-029 and
CDCA-100 through CDCA-136*

Carrizo Gorge
CA-060-025A

Table Mountain
CA-060-026

Hauser Mountain
CA-060-027C

Western Otoy Mountain
CA-060-028

Southern Otoy Mountain
CA-060-029

McAfee Creek
CDCA-100

North Tip
CDCA-100A

Toler Creek
CDCA-101

Northwest Fishlake Valley
CDCA-102

White Mountain
CDCA-103

Cottonwood Creek
CDCA-104

Wyman Creek
CDCA-105

Antelope Spring
CDCA-107A

Sylvania Mountains
CDCA-111

Last Chance Mountain
CDCA-112

Piper Mountain
CDCA-115

Saline Valley
CDCA-117

Lower Saline Valley
CDCA-117A

North Death Valley
CDCA-118

Little Sand Spring
CDCA-119

Waucoba Wash
CDCA-120

Saline Dunes
CDCA-121

Inyo Mountains
CDCA-122

Hunter Mountain
CDCA-123

Cerro Gordo Peak
CDCA-124

Panamint Dunes
CDCA-127

North Coso Range
CDCA-130

Coso Range
CDCA-131

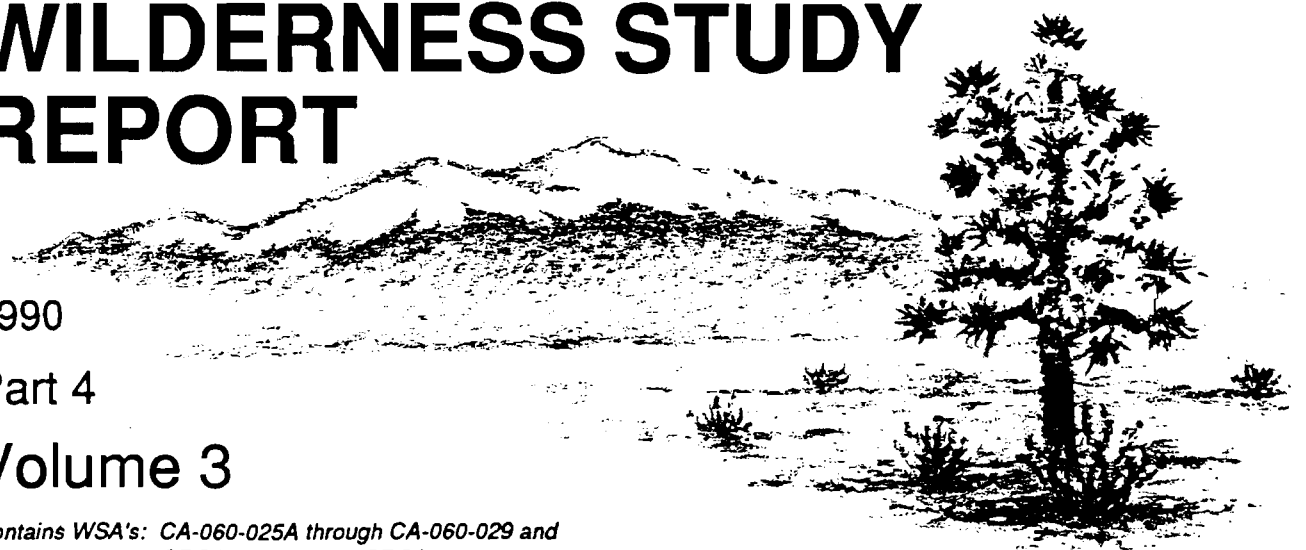
Great Falls Basin
CDCA-132

Darwin Falls
CDCA-132A

North Argus Range
CDCA-132B

Wildrose Canyon
CDCA-134

Surprise Canyon
CDCA-136



Last Chance Mountain

CDCA 112

LAST CHANCE MOUNTAIN WILDERNESS STUDY AREA (WSA)

(CDCA-112)

1. THE STUDY AREA --- 42,202 acres

The Last Chance Mountain WSA is located in Inyo County in the northern portion of the California Desert Conservation Area (CDCA). The nearest rural communities are Big Pine, 35 miles west, and Bishop, 50 miles northwest. The area is composed of 40,254 acres of public land under the jurisdiction of the Bureau of Land Management (BLM), 1,871 acres of State lands and 77 acres of private land. No split estate lands are located within the WSA (see Map 1 and Table 1).

The north WSA boundary follows the California/Nevada border from Cucamongo Canyon to Last Chance Canyon Road, ten miles southeast. The boundary then trends west for six miles along Last Chance Canyon Road. A cherrystemmed road branches off to the north at this point and continues into the WSA for three miles. The boundary returns to Last Chance Canyon Road following it for two miles west. At this point the boundary juts north, east, and then south for four miles, following topography to avoid areas disturbed by mining activities. The boundary meets Eureka Valley Road and follows the road to its intersection with Loretto Mine Road. The western boundary is the Loretto Mine Road and the northern boundary follows this same road east for three miles until it meets Last Chance Canyon. A cherrystemmed road juts into the WSA at this point and trends south for three-quarters of a mile. The boundary then returns to Cucamongo Canyon Road and follows it north for two miles until it meets the California/Nevada border.

The WSA contains approximately 80% mountains, 10% alluvial fans, and 10% dissected fans. The terrain is rough and mountainous throughout the majority of the WSA. The elevation varies from 3,360 feet near the west-central edge to 8,456 feet at the top of Last Chance Mountain. Vegetation in the lower elevations is mostly shadscale and blackbrush types. The higher elevations are generally mixed desert shrubs with a pinyon pine/juniper forest type vegetation.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA). Four alternatives were analyzed in the Draft and Final Environmental Impact Statements (EIS) for the CDCA Plan: protection, use, balanced, and no action. A summary of the area's wilderness values was included in Appendix III of the Final EIS.

2. RECOMMENDATION AND RATIONALE ---

0	acres recommended for wilderness
40,254	BLM acres recommended for nonwilderness

No wilderness is the recommendation for the Last Chance Mountain WSA. The entire acreage in this WSA is released for uses other than wilderness. This recommendation will be implemented in a manner which will use all practical means to avoid or minimize environmental impacts.

The Balanced Alternative is the environmentally preferable alternative as outlined in the CDCA Plan and further explained in the California Wilderness Study Overview.

While the WSA met the general criteria of wilderness as defined in Section 2(c) of the Wilderness Act of 1964, its value as wilderness is exceeded by its potential for other uses. The no wilderness recommendation is based on the following rationale: (1) in the eastern one-third of the WSA, naturalness has been reduced by past mining exploration and the construction of associated access routes; and (2) the area has high and moderate potential for minerals and significant mining interest.

Mining activity within the eastern one-third of the WSA has caused a loss of naturalness. There are approximately 12 miles of routes of travel including primitive ways, washes and other unmaintained routes of access which will remain available for vehicular use. There are ten miles of vehicle routes within this area which are associated with mining activity.

High potential exists for molybdenum on the eastern edge and moderate potential exists for tungsten, molybdenum, and rare earths in the east portion of the WSA. On the western slope of the Last Chance Range, there is moderate potential for silver and lead. The northeast portion has high potential for sulphur, gypsum, and mercury. As of December 1987, there were 251 mining claims covering over 5,000 acres of the WSA. Exploration for locatables is ongoing within the area as approved by BLM.

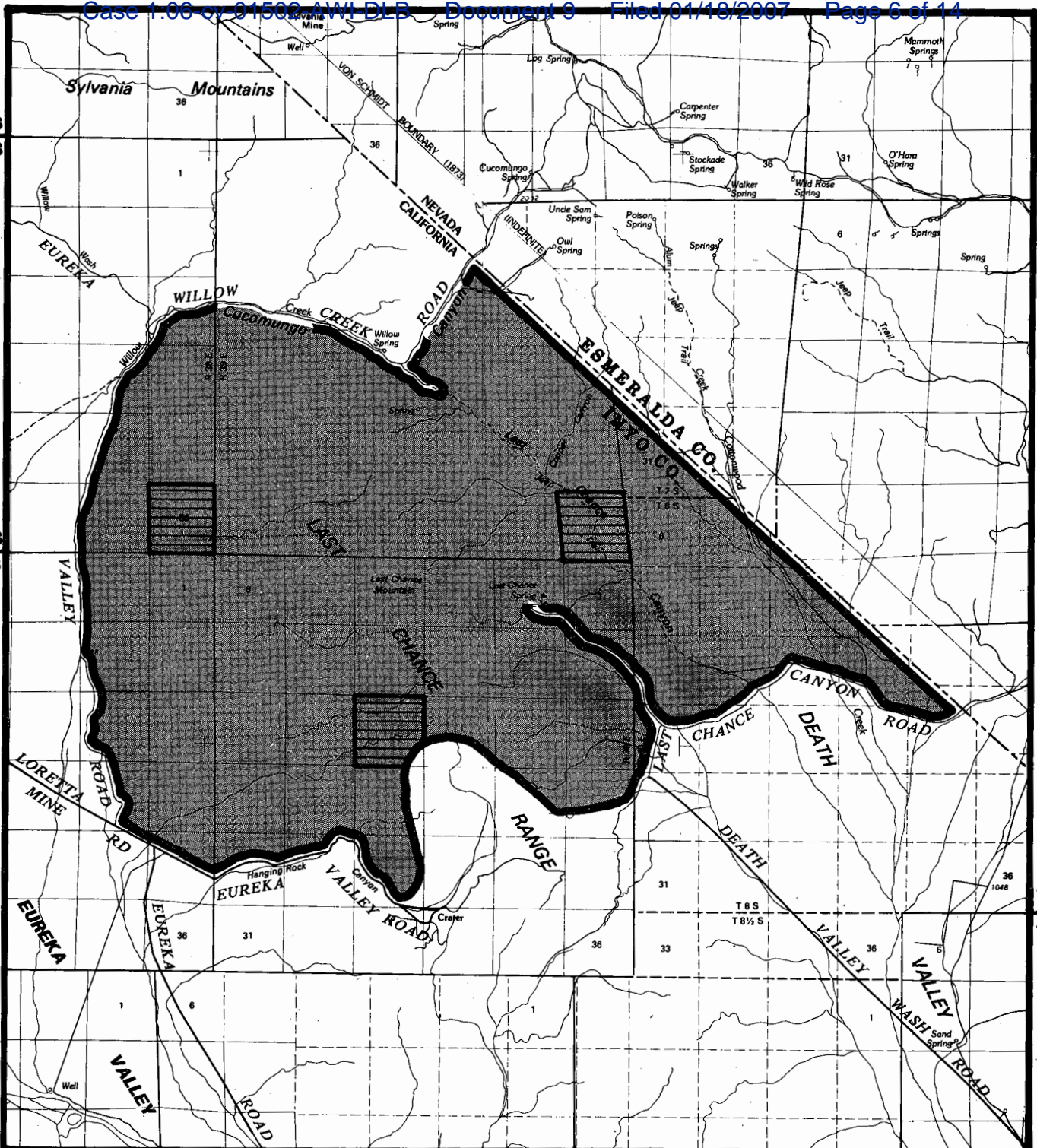
Motorized access to traditional Panamint Shoshone pinyon nut gathering places would be restricted if the area were to be designated as wilderness.




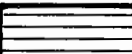


The WSA supports the Last Chance Grazing Allotment and a herd of wild burros. Management of wild burros would be complicated by the restrictions on the use of mechanized equipment if the WSA were designated wilderness.

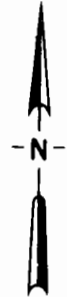
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- | | | | | |
|---|-------------|---|---|--------------|
|  | NONE | RECOMMENDED FOR WILDERNESS |  | SPLIT ESTATE |
|  | | RECOMMENDED FOR NONWILDERNESS |  | STATE |
|  | | LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS |  | PRIVATE |



**Last Chance Mountain
Proposal
MAP-1**



CDCA-112
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)	40,254
Split Estate	(BLM surface only)	0
Inholdings		
State		1,871
Private		77
Total		<u>42,202</u>
<u>Within the Recommended Wilderness 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)	40,254
Split Estate	(BLM surface only)	0
Total BLM Land Not Recommended for Wilderness		<u>40,254</u>

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATIONS

A. Wilderness Characteristics

1. Naturalness: Approximately two-thirds of the area has been affected primarily by natural forces, with man's imprints substantially unnoticeable. The eastern one-third of the area has been impacted by mining activity. Along the southern boundary a vehicle route enters Last Chance Canyon for two miles. Another vehicle route enters the WSA from the California/Nevada border and parallels the eastern boundary for four miles and then exits into Nevada. A short spur route enters the WSA from this route and divides into two routes.

2. Solitude: The majority of the area contains opportunities for solitude. Solitude is degraded along one-half of the southern boundary by noise from traffic using the road system which is the north access to Death Valley National Monument. Traffic noise along Eureka Valley Road causes a loss of solitude along the western boundary of the area.

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 varied topography and vegetation, along with the mountains, provide for unconfined movement and opportunities for a primitive type of recreation. Deep canyons of the Last Chance Range provide opportunities for primitive and unconfined recreation. Primitive recreation activities which occur within the area include backpacking, hiking, camping, painting, hunting, and photography.
4. Special Features: The Last Chance Range provides habitat for a small population of desert bighorn sheep.

The higher elevations of the Last Chance Range have been traditionally used by the Panamint Shoshone Indians for collection of pinyon pine nuts and other plant materials.

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 40,254 acres of the Intermountain Sagebrush/Juniper-Pinyon ecosystem. Wilderness designation of the Last Chance Mountains would not increase the diversity of the types of ecosystems represented in the NWPS. This ecosystem is already well represented in the NWPS, and in other areas recommended for wilderness.

Table 2 - Ecosystem Representation

<u>Bailey-Kuchler Classification Domain/Province/PNV</u>	<u>NWPS Areas</u>		<u>Other BIM Studies</u>	
	<u>areas</u>	<u>acres</u>	<u>areas</u>	<u>acres</u>
<u>NATIONWIDE</u>				
Intermountain Sagebrush/ Juniper-Pinyon Woodland	4	81,301	74	2,111,049
<u>CALIFORNIA</u>				
Intermountain Sagebrush/ Juniper-Pinyon Woodland	3	61,701	18	325,579

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 two 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

<u>Population Centers</u>	<u>NWPS areas</u>		<u>Other BIM Studies</u>	
	<u>areas</u>	<u>acres</u>	<u>areas</u>	<u>acres</u>
<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 seven BIM WSAs recommended for wilderness designation. The closest designated wilderness area is the John Muir Wilderness, managed by the Inyo National Forest 30 miles away.

C. Manageability

The Last Chance Mountains WSA is manageable as wilderness. However, with over 250 mining claims and high potential for molybdenum, sulphur, gypsum, and mercury; and moderate area potential for tungsten, copper, silver, lead, and rare earths, mineral exploration and development of any valid claims would seriously affect the WSA's wilderness values (see Energy and Minerals Resource Values).

Management requirements for livestock grazing within the Last Chance grazing allotment would not seriously affect manageability of the WSA.

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 Last Chance Mountain WSA is in the BLM Last Chance Range Geology-Energy-Mineral (G-E-M) Resource Area (GRA). BLM G-E-M data in the wilderness section of the CDCA Plan EIS (Volume B, Appendix III), stated in 1980 that the WSA has a potential for the occurrence of metallic minerals, sulphur, gypsum, uranium, dolomite, limestone, barite, sand, gravel, clay, and oil and gas. Approximately 300 unpatented mining claims, located in the extreme eastern portion of the WSA along the California-Nevada border, were recorded with BLM on December 12, 1979.

The BLM GRA file data in 1980 supports the G-E-M evaluation statement in the EIS. The 1980 GRA file data classified the eastern portion of the WSA along the California-Nevada border as having a high potential for the occurrence of molybdenum. The area was under claim and was being developed as the Cucomungo molybdenum deposit. To the west of the Cucomungo deposit and east of the crest of the Last Chance Range, an area was classified by the BLM GRA report and file data as having a moderate potential for the occurrence of lead, silver, tungsten, copper, molybdenum, and rare earth mineralization. The 1980 BLM GRA report based the size of the area on anomalous geochemical values for rare earth, silver, lead, copper, and tin (base metals), beryllium, lithium, and a favorable geologic environment for mineral deposits.

The BLM GRA report and file data classified two areas on the western slope of the Last Chance Range in the southern and central portion of the WSA as having a low potential for the occurrence of lead and silver. The geochemical anomalies associated with these areas were significantly higher than other areas sampled in the study area. The 1980 GRA report also states that the geologic environment in these area is very favorable for the occurrence of localized, high grade deposits of base metals.

A small area within the WSA northeast of Crater was classified by the 1980 BLM GRA report as having a high potential for the occurrence of sulphur, gypsum, and mercury. The BLM GRA report states that the Crater claim group, which extends into the WSA, has produced approximately 12,000 tons of sulphur and an unknown quantity of mercury. The BLM GRA report also states that gypsum is in association with the sulphur deposits located on the Crater claim group.

Data from the 1980 BLM GRA file was insufficient to classify the WSA for nonmetallic mineral potential. However, the BLM GRA report stated that rock types favorable for the occurrence of commercial limestone and dolomite and anomalous geochemical values for barite exist in the WSA. A very small isolated area in the southwest portion of the WSA north of Hanging Rock Canyon was classified by the BLM GRA report as having a low potential for the occurrence of uranium, based on a reported occurrence documented in the file data and a favorable structural environment. The remainder of the WSA was not evaluated for uranium potential due to lack of sufficient data.

The extreme southern portion of the WSA was classified by the BLM GRA report as having a low potential for the occurrence of oil and gas. The low potential classification was based primarily on speculative geological modeling for overthrust trapping of oil and gas deposits in association with the Last Chance Thrust Fault. The BLM GRA report did not classify the WSA for the occurrence of sodium and potassium mineralization due to insufficient data.

2. Summary of Significant New Mineral Resource Data Collected Since the Preliminary Suitability Recommendation Which Should be Considered in the Final Recommendation: No U.S. Geological Survey or U.S. Bureau of Mines (BOM) mineral survey has been conducted for the WSA since it is recommended nonsuitable for wilderness designation. The California Division of Mines and Geology has completed a Mineral Land Classification of the WSA. Results of the study have not been made public, but the report is expected to be released in February, 1988.

Since 1980, one plan of operations for the drilling of 14 deep exploration holes on the western slope of the Last Chance Range on the Hermit Creek claim group was approved by the BLM in August, 1984. The mineral exploration company indicated that an extensive geological mapping and geochemical sampling program had defined a possible mineralized target area located in an area designated by the 1980 BLM GRA report as having anomalous geochemical values for silver and lead mineralization. Based on this new evidence and existing data, an enlarged area on the western slope of the Last Chance Range in the south-central portion of the WSA has been classified as having moderate potential for the occurrence of precious metal mineralization under the BLM classification system (see Map 2).

In 1987, U.S. Borax identified potential borate deposits in the extreme southwestern portion of the WSA on the Eva claim group, north of Loretto Mine Road and east of Eureka Valley Road. An exploration drilling program was approved by the BLM in July, 1987 and drilling was conducted in December, 1987. Results have not been made public, nor has the area's potential been classified by BLM.

Currently, there is exploration activity proposed and being conducted within and at the borders of the WSA. Further mineral interest in the WSA is indicated by the following BLM unpatented mining claim records dated December 1987.

Table 4 - Mining Claims

TYPE	NUMBER			ACRES		
	SUITABLE	NONSUIT.	TOTAL	SUITABLE	NONSUIT.	TOTAL
MINING CLAIM						
Lode	N/A	249	249	N/A	4,980	4,980
Placer	N/A	2	2	N/A	80	80
Mill Site	N/A	0	0	N/A	0	0
Total	N/A	251	251	N/A	5,060	5,060

E. Summary of Environmental Consequences of the Proposed Action

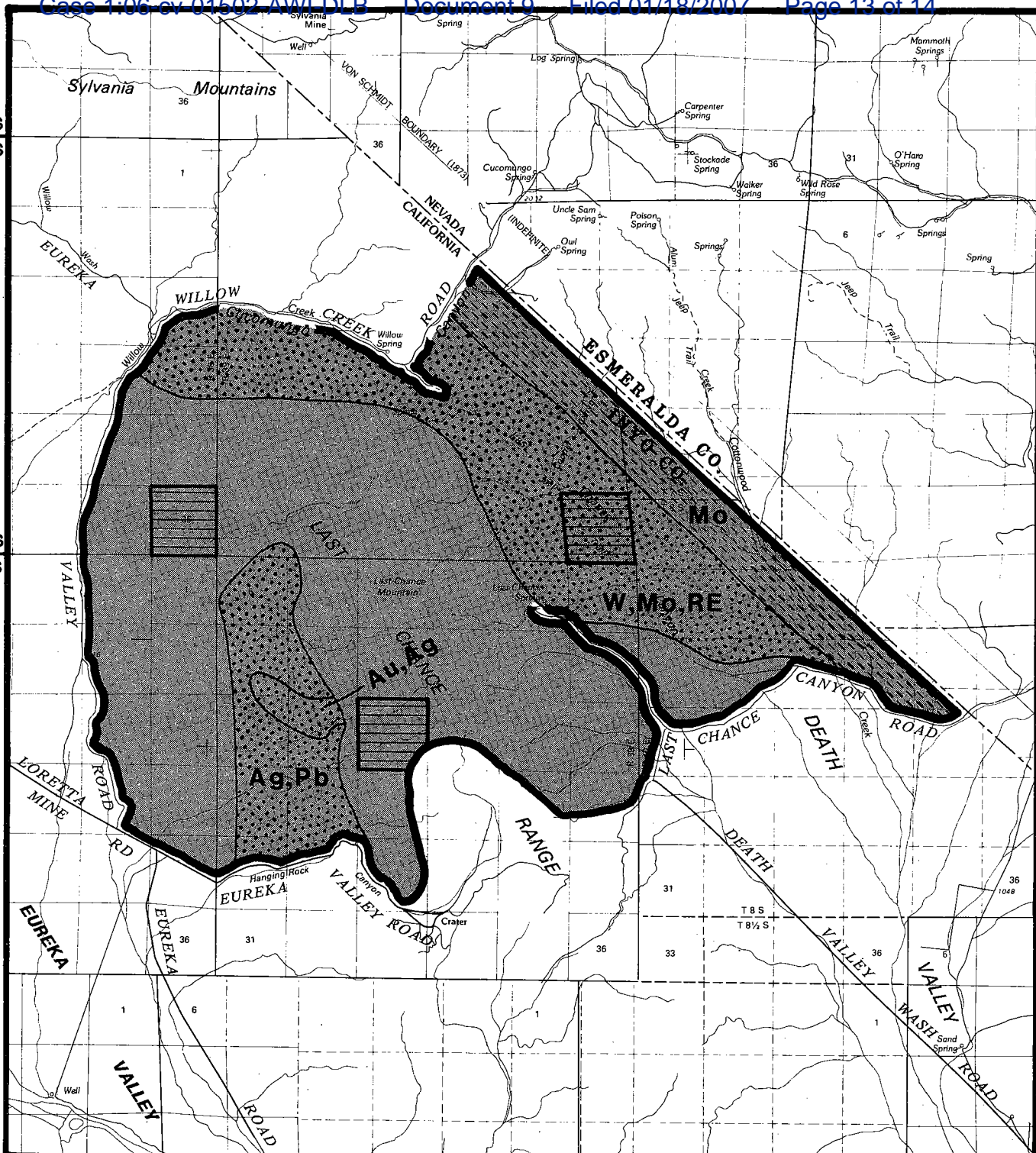
1. Impact on Wilderness Values: Noise, surface disturbance, and access requirements for mineral development and off-highway vehicle recreation, could have moderate to high adverse impacts on naturalness, solitude, and opportunities for primitive and unconfined recreation. Impacts would be most severe within the areas of high to moderate mineral potential.
2. Impact on Locatable Mineral Exploration and Development: Opportunities for exploration and development would continue to be available within the area subject to applicable laws and regulations and guidelines in the CDCA Plan.
3. Impact on Motorized Recreation: Opportunities for motorized recreation on designated routes would continue to be available within the area.
4. Impact on Native American Values: Opportunities for access by Native Americans would not be hindered by the proposed action. Traditional pinyon and plant fiber gathering areas would remain accessible by motorized vehicle.

F. Local Social and Economic Considerations

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

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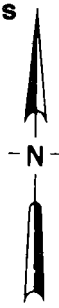


T8S
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	NONE	Recommended for Wilderness
		Recommended for Non Wilderness
		Land outside WSA Recommended for Wilderness
		Split Estate
		State
		Private

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	
Au	Gold
W	Tungsten
Mo	Molybdenum
Ag	Silver
Pb	Lead
RE	Rare Earth



Last Chance Mountain Mineral Resource Potential



**MAP-2
CDCA-112**

G. Summary of WSA - Specific Public Comments

Public comments were solicited throughout all phases in the development of the CDCA Plan, finalized in 1980. Issues raised by the public during the Inventory and Study Phase were taken into account during development of the Draft Plan Alternatives and Proposed Plan. The following is a summary of all comments received. Inaccuracies that are known to exist are noted in parentheses.

1. Inventory Phase: Comments supported the findings and also pointed out the varied recreational opportunities.
2. Study Phase: Twelve of the 17 comments received on the WSA, Last Chance Canyon WSA, favored wilderness designation. Outstanding scenic quality was the most common reason given. Other values mentioned were wildlife, vegetation, historic resources, and particularly, the spectacular geology and educational opportunities of the "badlands" area, with its eroded sandstone and multi-colored rocks. Recreation activities, including hiking, camping, backpacking, climbing, photography, and painting were highly recommended in this area. Rockhounding was also popular.

Two letters agreed with the deletion of the southern portion of the WSA, the mining area saddling the mountains near the origin of Hanging Rock Canyon.

Three comments opposed wilderness designation. One mining company stated that the area has high potential for molybdenum. Another said there were too many roads present, and a third wanted vehicular access to permit rockhounding and family camping.

Five letters were received in response to the Public Input Workbook (3/15/79). All favored wilderness because of the outstanding natural beauty of the area, the rare plants and outstanding botanical habitats of the Bonanza King formation, and the easy accessibility. (There has never been any rare or endangered plant species found within the WSA).

3. Draft Plan Alternatives: No public comments specific to this WSA were received in response to the Draft Plan Alternatives. However, this WSA was one of those opposed by the National Outdoor Coalition, a coalition of mining, rockhounding, and off-highway vehicle groups. A large number of club members sent in printed coupons supporting this position. Conservation organizations and their members wrote many letters recommending wilderness designation for all WSAs within the CDCA. The Inyo County Board of Supervisors opposed wilderness designation for the area.
4. Proposed Plan: There were no specific comments on this particular WSA in response to the proposed plan. Motor vehicle organizations and conservation groups maintained the same positions stated for the Draft Alternatives, as did the Inyo County Board of Supervisors.