

Pit River Canyon

CA-020-103

PIT RIVER CANYON WILDERNESS STUDY AREA (WSA)

(CA-020-103)

1. THE STUDY AREA --- 10,984 acres

The Pit River Canyon WSA is located in the northwest corner of Lassen County, California 50 miles northwest of Susanville and 10 miles south-southwest of Bieber. The WSA includes 10,984 acres of Bureau of Land Management (BLM) lands with the mineral estate entirely in public ownership. There are no private inholdings within the WSA boundary. The WSA roughly takes the shape of an inverted triangle. The eastern boundary is defined by a Western Pacific railroad right-of-way and the interface between BLM and private land. The western boundary is defined by a BLM/private land interface for 9.25 miles and the paved Little Valley Road for the remaining 2.25 miles. The northern boundary from west to east is defined by a combination of dirt roads and BLM/private land interface (see Map 1 and Table 1).

The main feature of the WSA is a ten-mile-long canyon formed by the Pit River which traverses the unit. The canyon averages from one hundred to four hundred feet in depth with extremes to 750 feet. Either side of the canyon includes upland volcanic plateaus cut on the south by Horse Creek canyon, a major side drainage. The uplands support scattered juniper often in dense thickets on annual grasslands. Birchleaf and mountain mahogany, bitterbrush, Oregon white oak, and widely scattered Jeffrey and ponderosa pine are the major species present while the canyon bottom supports dense riparian vegetation such as willow, ash, and Carex.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Alturas Resource Management Plan/Environmental Impact Statement finalized in October, 1983. There were three alternatives analyzed in the EIS: an all-wilderness alternative, a partial-wilderness alternative designating 61% of the WSA as wilderness and a no-wilderness alternative.

2. RECOMMENDATION AND RATIONALE -
- | | |
|-------|--|
| 6,703 | acres recommended for wilderness |
| 4,281 | BLM acres recommended for non-wilderness |

The 61% partial wilderness is the recommendation for this WSA. 4,281 acres in this WSA are released for uses other than wilderness.

The all-wilderness alternative is the environmentally-preferred alternative; however, the partial-wilderness alternative will be implemented in a manner which will use all practical means to avoid or minimize environmental impacts. In addition to the Federal acreage recommended for wilderness, BLM recommends that 740 acres of private land outside the WSA boundary be

acquired and designated as wilderness. With acquisition of these adjacent private lands, a total of 7,443 acres are recommended for wilderness. Appendix 1 lists all acquisition and provides additional information on their acquisition.

Approximately 28% of the recommended area lies within the canyon rims of Horse Creek and Pit River and approximately 72% of the recommended area consists of upland areas outside the canyons. This area was found to have superior wilderness values. The naturalness in the core area is superior compared to the non-recommended portion. It bears virtually no imprints of man's presence and because of the steep topography and relative inaccessibility, the future integrity of the area is insured. Solitude is more easily attained due to the topographic features which isolate visitors from each other and from outside intrusions. The majority of recreational opportunities are due to the presence of the canyon and river. The river provides an excellent recreational fishery throughout its length and contains numerous other features such as high density raptor nesting habitat on the canyon walls, high archaeological values, and high scenic quality due to the steep canyon topography. The area has a Bailey/Kuchler ecosystem classification of Sierran Forest, Western Ponderosa Forest. This is currently represented in the National Wilderness Preservation System (NWPS) by only one small area in the Thousand Lakes Wilderness of approximately 815 acres.

Resource conflicts were not a significant issue in this area. Grazing use over much of the WSA will continue but is restricted by topography. Pit River Canyon itself is virtually ungrazed. The WSA has no known energy resources and mineral potential is considered low. There are currently only two oil and gas lease applications, no geothermal leases or lease applications, and two mining claims within WSA boundaries. The suitability recommendation will preclude use of approximately three miles of primitive motorized routes of travel.

Areas recommended as non-suitable (A,B,C,D) differ markedly from recommended suitable areas with respect to their wilderness characteristics. The nonsuitable areas contain lower quality wilderness characteristics. Conflicting land uses on adjacent private lands impair solitude and unusual boundary configurations impair manageability for wilderness values. There are approximately five miles of routes of travel including primitive ways which will be available for vehicular use. Specific rationale apply to each of four areas deleted from the recommendation.

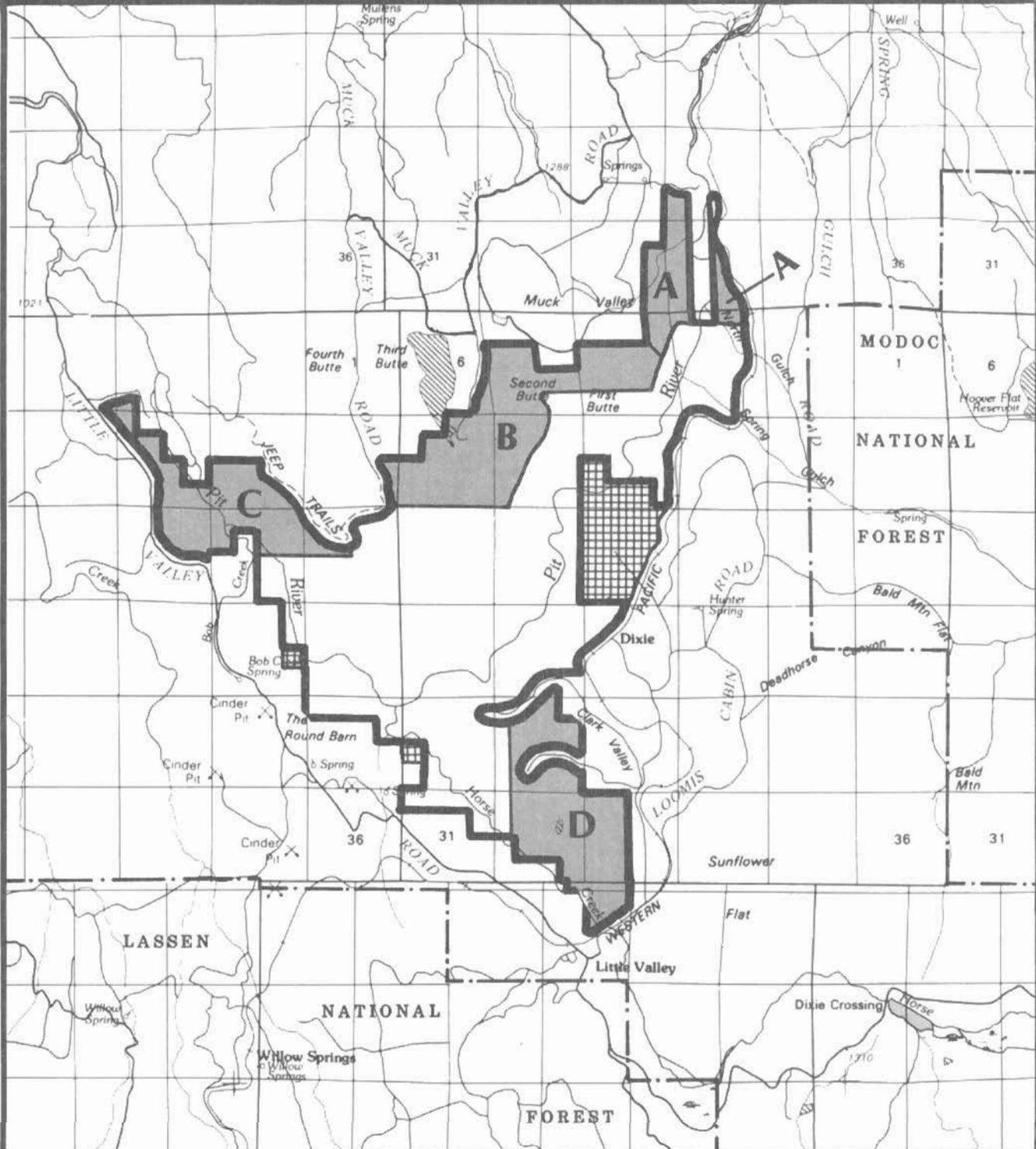
In the far northeastern corner of the WSA, the canyon is very shallow. Two narrow fingers of the WSA (denoted A) flank the shallow canyon. The canyon itself is in private ownership and could be developed at some future date. The eastern boundary is the railroad line which at this point is at canyon rim level and at some points within one-eighth mile of the river. The western boundary is private lands which are developed for agriculture. Private land activities west of the WSA boundary and within the canyon coupled with the proximity of the railroad negate opportunities for solitude in this portion of the WSA. Naturalness on the private lands is severely degraded by livestock grazing in the riparian zone. The recommended

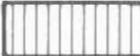
suitable boundary has been moved south to the end of the river segment of private lands to avoid this conflict zone. Natural rock barriers also deter livestock from encroaching this far downstream allowing the riparian zone to flourish and take on a natural appearance.

A second zone (denoted B) deleted from the suitable recommendation extends along the northern boundary from just northeast of First Butte westerly to the extreme southern end of Fourth Butte. Agricultural activities such as plowing and harvesting outside the WSA in Muck Valley impair solitude on the north-facing slopes of First and Second Buttes. Four ways and a water development on the open, flat terrain southwest of Second Butte render this area less natural than the canyon and river complex recommended as suitable. The recommended suitable boundary has been moved south to a more recognizable boundary which is the ridgeline between First and Second Butte and from Second Butte south along a ridgeline to the section line between section eight and seventeen. The boundary follows this section line west to the WSA boundary.

A third zone (denoted C) deleted from the suitable recommendation includes the northwestern corner of the WSA. The river canyon opens up into meadows and braided channels which are privately owned and heavily grazed. The public lands are outside the canyon and are restricted by the private lands to the east and the paved Little Valley road to the west. The public lands are relatively flat annual grasslands with insufficient visual screening to provide opportunities for solitude. The boundary has been pulled back in this area to an east-west line through the common quarter corner of sections 13 and 14.

A fourth zone (denoted D) deleted from the suitable recommendation includes the southern end of the WSA just north of the town of Little Valley. A subdivision flanks the east side of the WSA in this area. Naturalness is not as high quality as the recommended suitable area and evidence of man's presence is more apparent due to cherry stem roads, fencing, and livestock water developments. The boundary has been moved back to a north-south line through the common west-sixteenth corner between sections 29 and 32. At this point terrain has restricted vehicle and livestock encroachment and the natural character of the land remains intact.



- | | | | |
|---|---|---|--------------|
|  | RECOMMENDED FOR WILDERNESS |  | SPLIT ESTATE |
|  | RECOMMENDED FOR NONWILDERNESS |  | STATE |
|  | LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS |  | PRIVATE |

**Pit River Canyon
Proposal
MAP-1**

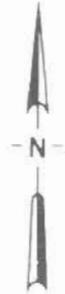


TABLE 1 - Land Status and Acreage Summary of the Study Area

<u>Within Wilderness Study Area</u>		<u>Acres</u>
BLM	(surface and subsurface)	10,984
Split Estate	(BLM surface only)	0
Inholdings		
	State	0
	Private	0
	Total	<u>10,984</u>

Within Recommended Wilderness Boundary

		<u>Acres</u>
BLM	(within WSA)	6,703
BLM	(outside WSA)	740
Split Estate	(within WSA)	0
Split Estate	(outside WSA)	0
	Total BLM Land Recommended for Wilderness	<u>7,443</u>
Inholdings		
	State	0
	Private	0

Within Area Not Recommended for Wilderness

		<u>Acres</u>
BLM	(surface and subsurface)	4,281
Split Estate	BLM surface only)	0
	Total BLM Land Not Recommended for Wilderness	<u>4,281</u>

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATIONS

A. Wilderness Characteristics

1. Naturalness: The Pit River Canyon WSA is predominantly natural with negligible human imprints. There are nine small stockpounds less than one acre in size and seven miles of ways which detract from the natural condition in some areas. Section 2, Recommendation and Rationale details these impacts and their effects on portions of the WSA. Visual screening and topography isolate the recommended suitable area which is virtually pristine in character. Livestock grazing impacts are negligible in the recommended portion due to topographic barriers. Water quality in the Pit River is low as the flow is totally adjudicated to upstream users and in the summer mainly consists of return flow from agricultural diversions. Water quantity in the Pit River varies from high spring flow of 5-10,000 cfs to less than 1 cfs

in late summer. Minimum flows have been adjudicated by the California State Water Resources Control Board. Working with the California Department of Fish & Game, it was determined that a minimum flow of 50 cfs was needed when the flow exceeded that level in spring and summer to maintain wildlife and riparian values. Water is being diverted around the Pit River Canyon for a small hydro-electric power project. The project is passing 50 cfs and during high flow periods the project can only divert a maximum of 700 cfs so the high spring flows are also continuing.

2. Solitude: The rugged nature of the topography of Pit River entrenched in high canyon walls with numerous twists and bends provide many outstanding opportunities for solitude. The area has the capacity to isolate visitors from the outside world as well as from other visitors to the area. The eastern boundary of the WSA is a Western Pacific railroad right-of-way. Throughout most of its length, however, the railroad is from four hundred to one thousand feet above the canyon floor and from one-quarter to one mile away from the canyon rim. The impact of the railroad along most of the eastern boundary does not significantly impact solitude. Solitude is impacted in some parts of the WSA due to topography, elongated boundary configurations, and non-conforming uses on adjacent lands. Solitude is impacted in the northeast and northwest corners and along the northern boundary where the Western Pacific railroad line is directly adjacent to the WSA, where activities on adjacent private lands conflict with wilderness management, and where the paved Little Valley Road flanks a narrow finger 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 diversity of the area coupled with its rugged terrain and the presence of Pit River and Horse Creek, two perennial watercourses, provide outstanding opportunities for primitive and unconfined types of recreation. Canyon rims and bottoms provide scenic vistas and wildlife observation opportunities to cross-country hikers. The river itself is generally unsuited to white-water sports. Outside the recommended suitable area (canyon complex) opportunities for primitive and unconfined recreation are more limited due to flat terrain featuring minor relief features and common scenery.
4. Special Features: Pit River is noted for its high-density raptor nesting habitat on the high cliff walls which make up the canyon. Golden eagles and prairie falcons are the most notable species but red-tailed hawks, American kestrels, great horned owls, and barn

owls also utilize this habitat. The canyon provides an outstanding opportunity for the reintroduction of the endangered American peregrine falcon.

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 10,984 acres of the Sierran Forest/Western Ponderosa Forest ecosystem. Wilderness designation of this WSA would add a large area to an ecosystem with only a single small area in the NWPS. There are presently only 815 existing wilderness acres in this ecotype. The vegetation in the WSA does not actually manifest itself as a true Western Ponderosa Forest but as a ponderosa forest/sagebrush steppe/oak woodland ecotone with much open annual grassland, brushland, and juniper woodland. Pine occurs in isolated enclaves. There are two other units in this ecotype which have been studied by the Redding Resource Area of the Ukiah District, Timbered Crater WSA (CA-030-201) and Lava WSA (CA-030-203) that have been given unsuitable recommendations.

TABLE 2 - Ecosystem Representation

Bailey-Kuchler Classification Province/PNV	<u>NWPS Areas</u>		<u>Other BLM Studies</u>	
	areas	acres	areas	acres
<u>NATIONWIDE</u>				
Sierran Forest/Western Ponderosa Forest	1	815	2	28,666
<u>CALIFORNIA</u>				
Sierran Forest/Western Ponderosa Forest	1	815	2	28,666

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 six major metropolitan areas. Table 3 summarizes the number and acreage of designated areas and other BLM 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>				
Sacramento	46	5,001,817	87	2,479,541
Redding	14	1,236,503	11	344,633
Chico	16	1,286,873	13	430,822
Marysville-Yuba City	44	4,951,805	85	2,459,500
<u>Nevada</u>				
Reno	39	4,647,230	175	6,904,809
<u>Oregon</u>				
Medford	31	2,440,081	21	730,038

3. Balancing the geographic distribution of wilderness areas: There are three existing units of the National Wilderness Preservation System within fifty miles of the Pit River Canyon WSA. These areas include one National Park Service unit, Lassen Volcanic National Park and two U.S. Forest Service areas, Caribou and Thousand Lakes wilderness areas. There is one other recommended suitable BLM WSA within fifty miles of Pit River Canyon.

C. Manageability

The entire WSA is manageable as wilderness. However, there is a significant difference in ease of manageability between the portion recommended for wilderness and the portion recommended for non-wilderness.

The recommended suitable portion can be easily managed as wilderness due to the ruggedness of the terrain which naturally limits vehicular access. The boundaries are easily recognizable and thus are easily managed.

The recommended nonsuitable portion is difficult to manage because of cherrystem roads and the presence of ways. Due to the flat, open terrain in this area, the roads provide off-road access at any point along their length. This off-road use impacts solitude. The lack of restrictive features to limit vehicular access makes these access routes difficult to close and impairs manageability.

The WSA contains no private inholdings; however, due to the configuration of the boundary there are three private parcels that, although outside the WSA boundary, project into the canyon. The WSA

boundaries are not easily recognizable in these areas. Two of these parcels extend to the canyon bottom crossing the river, creating potential trespass problems which could restrict through-canyon access and ultimately recreational activities such as hiking and fishing through the canyon. The parcels comprise 740 acres recommended for acquisition through land exchange with willing owners.

Some flow of water through the canyon is necessary to maintain the aesthetic value of running water and pool reflections in the canyon. It is also needed for maintaining the wildlife and riparian habitat that provides the contrast of lush green vegetation in the canyon bottom. The flow does virtually cease during late summer months, however the scenic river pools are maintained throughout this period. This summer flow regime of less than 1 cfs had been occurring prior to October 1, 1976. A flow of 50 cfs fills the present channel through the canyon. It is needed to maintain wilderness values whenever water is flowing at or above the 50 cfs rate of flow.

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 Time of Preliminary Suitability Recommendation:

The geology and mineralization of the Pit River WSA is described in the Alturas Resource Management Plan (RMP) completed December 5, 1983. BIM data in the Affected Environment section of the RMP EIS indicate the WSA is underlain by basalt and alluvium. There are no known occurrences of mineral resources. No oil and gas or geothermal leases have been filed in the WSA, and no mining activity has been observed.

The Pit River Canyon WSA EIS also references the absence of any potential mineral resources or previous mining activity.

2. Summary of Significant New Mineral Resource Data Collected Since Suitability Recommendation Which Should be Considered in the Final Recommendation: In May and June of 1984 the U.S. Geological Survey (USGS) and the U.S. Bureau of Mines conducted mineral surveys of the suitable portion of the WSA. The results of the mineral surveys were published in 1986 in USGS Bulletin 1706-E. That report indicates that the Pit River Canyon WSA contains no identified mineral resources. Geochemical stream sediment sampling and analysis did not show anomalous concentrations of any element indicative of mineralized rock in the drainage area. Geophysical surveys showed the area to be typical continental

basaltic terrain. No mines or prospects were observed in the area, and rock types that typically host metal deposits are absent. The report summarizes the potential of the area for the occurrence of gold, silver, diatomite, oil and gas, and geothermal energy as low.

There is basalt suitable for aggregate and fill, but the same type of material is abundant closer to potential markets.

As of January 13, 1988 there were no unpatented mining claims on record located within the Pit River WSA. Because of the low potential for mineral resources, no mineral potential map was prepared for this document.

E. Impacts on Resources

Table 4 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION PARTIAL WILDERNESS	ALL-WILDERNESS ALTERNATIVE	NO-WILDERNESS ALTERNATIVE
Wilderness Values	<p>Wilderness designation of 6,703 acres within the Pit River Canyon WSA would result in slight positive benefits to the wilderness values particularly naturalness and solitude due to the prohibition of motorized recreation use (100 visitor days). Development of three AMPs for livestock grazing would result in a slight benefit to naturalness due to establishing a rest-rotation grazing system to prevent overuse of pastures. The perception of naturalness would be impaired on a total of 200 acres from construction of a pit reservoir and a spring development. However, impacts would be highly localized and would not result in any significant impacts to solitude in relation to the entire WSA. Acquisition of 740 acres along the Pit Canyon and rim area would result in a slight benefit to naturalness and primitive unconfined recreation as well as special features such as raptor nesting habitat and scenic quality.</p>	<p>Wilderness designation would have a slight positive benefit on wilderness values particularly in the upland areas where motorized recreation use has diminished the perception of naturalness and sense of solitude. Development of three AMPs for livestock grazing would result in a slight benefit to naturalness due to establishing a rest-rotation grazing system to prevent overuse of 1300 acres along the canyon areas would benefit naturalness and primitive and unconfined recreation as well as special features including raptor nesting sites and scenic quality. Additionally, long-term protection from unanticipated future actions that could result in potential adverse impacts would be provided.</p>	<p>Continued motorized recreation use and livestock grazing would only diminish the wilderness values, primarily naturalness and solitude. Construction and maintenance of a proposed livestock project as well as maintenance of existing projects would result in highly localized minor impacts, with the perception of naturalness and the sense of solitude impaired on a total of 200 acres. Development of three AMPs for livestock grazing would result in a slight benefit to naturalness due to establishing a rest/rotation grazing system to prevent overuse of pastures. Opportunities for primitive and unconfined recreation would be slightly impaired in the upland areas, although the opportunities in the canyon areas would be retained. Acquisition of 740 acres along the Pit River Canyon would slightly benefit special features.</p>

Table 4 - Comparative Summary of the Impacts by Alternative (Cont'd)

ISSUE-RELATED RESOURCES	PROPOSED ACTION NO-WILDERNESS/NO ACTION	ALL-WILDERNESS ALTERNATIVE	NO-WILDERNESS ALTERNATIVE
Wilderness Values (continued)	<p>In the non-designated portion of the WSA, wilderness values would be only slightly diminished due to the continued and projected motorized recreation use (650 visitor days) as well as continued maintenance of existing livestock reservoirs.</p>		
Motorized Recreation Use	<p>There would be only negligible impacts on motorized recreation use as three miles of primitive vehicle routes would be closed with 100 visitor days foregone within the 6703 acres designated wilderness. There are other opportunities outside the WSA for motorized recreation use that are similar as well as continued access opportunities resulting from cherrystemmed roads, boundary roads and existing primitive vehicle routes within the non-designated portion of the WSA where use is projected at 650 visitor days.</p>	<p>The entire WSA would be closed to motorized recreation use, eliminating 700 visitor days of vehicle use. However, the majority of this use is associated with vehicle access for hunting which would continue to use boundary roads and existing cherry stem roads. Only minor adverse impacts are anticipated due to the overall low level of use.</p>	<p>There would be no impacts on motorized recreation use in the WSA. The current 700 visitor days would remain stable with the existing eight miles of primitive vehicle routes open for use.</p>

F. Local Social and Economic Considerations

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

G. Summary of WSA - Specific Comments

1. Inventory phase: A large number of comments supported the designation of the area as a WSA. Others addressed extending the boundaries as a buffer zone for protecting the canyon and wildlife. A few letters favored multiple-use management, livestock management, and general recreation.
2. Study phase: A total of 67 comments were submitted, both oral and written, on the Alturas Resource Area draft resource management plan and environmental impact statement during the 90-day public comment period which ended July 15, 1983. Of the 67 comments, 55 made some reference to the wilderness portion of the RMP. A formal public hearing was held on May 23, 1983, in McArthur, California. The hearing was announced through a news release, personal communication and the Federal Register on April 20, 1983.

Of the 55 written and oral comments received for the record, four indicated approval of the BLM DEIS Preferred Alternative in whole or part. Forty-seven recommended the all-wilderness alternative. One response recommended the no-wilderness alternative. Two comments proposed boundary modifications for the Pit River Canyon WSA. One comment took no position but questioned the overall adequacy of the entire document including wilderness.

Most of those favoring wilderness designation believed there are not enough areas being protected to preserve their wilderness values. Following are the more common reasons given in support of wilderness designation for Pit River Canyon: It will provide maximum protection of vegetation, including riparian areas; it provides habitat for mammal and raptor species; archaeological sites will be protected; lack of resource conflicts; the areas add diversity to the California Wilderness System; and it preserves primitive recreational opportunities.

Those supporting the preferred alternative believe the concerns for resources, local economic, and wilderness are in proper balance.

No comments on the draft EIS were received from other government agencies which pertained to wilderness.

APPENDIX 1
 ESTIMATED COSTS OF ACQUISITION OF NON-FEDERAL HOLDINGS WITHIN
 AREAS RECOMMENDED FOR DESIGNATION
 PIT RIVER CANYON WSA (CA-020-103)

PARCEL No.	LEGAL DESCRIPTION				TOTAL ACREAGE	NUMBER OF OWNERS	TYPE OF OWNERSHIP BY ESTATE		PRESENTLY PROPOSED FOR ACQUISITION	PREFERRED METHOD OF ACQUISITION	ESTIMATED COST OF ACQUISITION	
	TWNSHP	RNG	SEC	MERIDIAN			SURFACE ESTATE	SUBSURFACE ESTATE			LAND COSTS (\$1000)	PROCESSING COSTS (\$1000)
1	36N.	7E.	9&16	MDM	660	1	PRIVATE	PRIVATE	YES	EXCHANGE	N/A	9.3
2	36N.	7E.	30	MDM	40	1	PRIVATE	PRIVATE	YES	EXCHANGE	N/A	6.2
3	36N.	7E.	23	SBM	40	1	PRIVATE	PRIVATE	YES	EXCHANGE	N/A	6.2

These figures were derived from Bureau Land Records and provide for more detail than GIS estimates and therefore may differ from acreage summaries in Table 1.