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HEARING

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BEFORE THE

SUBCOMMITTEE ON THE
ENVIRONMENT AND LAND RESOURCES

OF THE

COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS
UNITED STATES SENATE

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

S. 74

A BILL TO DESIGNATE CERTAIN
LANDS IN THE ANGELES AND SAN
BERNARDINO NATIONAL FORESTS
AS THE "SHEEP MOUNTAIN
WILDERNESS"

S. 392

A BILL TO DESIGNATE CERTAIN
LANDS IN THE FLATHEAD AND THE
LEWIS AND CLARK NATIONAL FOR-
ESTS IN MONTANA AS WILDERNESS

S. 226

A BILL TO DESIGNATE THE ALDO
LEOPOLD WILDERNESS, GILA NA-
TIONAL FOREST, NEW MEXICO

S. 1391

A BILL TO STUDY CERTAIN LANDS IN
THE MENDOCINO NATIONAL FOR-
EST, CALIFORNIA, FOR POSSIBLE IN-
CLUSION IN THE NATIONAL WILDER-
NESS PRESERVATION SYSTEM

MAY 20, 1975



Printed for the use of the
Committee on Interior and Insular Affairs

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PROPOSED WILDERNESS AREAS

TUESDAY, MAY 20, 1975

U.S. SENATE,
SUBCOMMITTEE ON THE ENVIRONMENT AND LAND RESOURCES,
OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m. in room 3110, Dirksen Office Building, Hon. Floyd K. Haskell presiding.

Present: Senators Haskell, Metcalf, Fannin, and Hansen.

Also present: Thomas B. Williams, professional staff member.

OPENING STATEMENT OF HON. FLOYD K. HASKELL, A U.S. SENATOR FROM THE STATE OF COLORADO

Senator HASKELL. The hearing of the Subcommittee on the Environment and Land Resources on S. 74, S. 1391, S. 226, and S. 392 will commence.

The purpose of the hearing this morning is to receive testimony on four wilderness proposals currently pending before the subcommittee.

The bills are: S. 74—a bill to designate the "Sheep Mountain Wilderness," Angeles and San Bernardino National Forests, Calif.; S. 226—a bill to designate the "Aldo Leopold Wilderness," Gila National Forest, N. Mex.; S. 392—a bill to designate the "Great Bear Wilderness," Flathead and Lewis and Clark National Forests, Mont.; and S. 1391—a bill to study certain lands, the "Snow Mountain Wilderness Study Area," in the Mendocino National Forest for possible inclusion in the National Wilderness Preservation System.

At this point, I would like to insert in the record copies of the bills and the relevant executive communications.

[The material referred to above follows:]

94TH CONGRESS
1ST SESSION

S. 74

IN THE SENATE OF THE UNITED STATES

JANUARY 15, 1975

MR. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To designate certain lands in the Angeles and San Bernardino National Forests as the "Sheep Mountain Wilderness".

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That, in accordance with section 3 (c) of the Wilderness
4 Act (78 Stat. 890), certain lands in the Angeles and San
5 Bernardino National Forests which comprise about fifty-two
6 thousand acres and which are generally depicted on a map
7 entitled "Sheep Mountain Wilderness—Proposed", and dated
8 February 1974, are hereby designated as wilderness.

9 SEC. 2. As soon as practicable after this Act takes effect,
10 a map and legal description of the wilderness area designated

1 by and pursuant to this Act shall be filed with the Interior
2 and Insular Affairs Committees of the United States Senate
3 and House of Representatives, and such map and description
4 shall have the same force and effect as if included in this Act:
5 *Provided, however,* That correction of clerical and typo-
6 graphical errors in such legal description and map may be
7 made.

8 SEC. 3. The wilderness area designated by this Act shall
9 be known as the "Sheep Mountain Wilderness" and shall be
10 administered in accordance with the provisions of the Wil-
11 derness Act governing areas designated by that Act as
12 wilderness.



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate

May 30, 1975

Dear Mr. Chairman:

As you requested, here is the report of the Department of Agriculture on S. 74, a bill "To designate certain lands in the Angeles and San Bernardino National Forests as the 'Sheep Mountain Wilderness'."

The Department of Agriculture recommends that S. 74 not be enacted.

S. 74 would designate as wilderness certain lands comprising about 52,000 acres in the Angeles and San Bernardino National Forests, California, which are generally depicted on a map entitled "Sheep Mountain Wilderness-Proposed", dated February 1974. The area would be known as the "Sheep Mountain Wilderness", and it would be administered in accordance with the provisions of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1131-1136).

The Sheep Mountain Area was reviewed during the recent Forest Service study of all national forest roadless areas containing 5,000 acres or more. Nationwide, 1,449 national forest roadless areas containing about 56 million acres were systematically evaluated. Of this number, 136 roadless areas totaling about 3 million acres are located in California. Each of the areas was rated as to its potential wilderness quality using criteria such as scenic quality, isolation, size, and variety of potential wilderness experience. The procedure also evaluated other resource values that would be foregone by wilderness designation. Major efforts were made to involve the public in the decisionmaking process at local, State, and national levels. From the inventory of 1,449 areas, 274 areas were selected as wilderness study areas. In California, the 31,680-acre Sheep Mountain Area is one of the 22 areas totaling about 991,000 acres that was selected as a wilderness study area. The area that would be designated as wilderness by S. 74 includes the Sheep Mountain Wilderness Study Area and an additional 20,320 acres of contiguous land.

The Forest Service land-use planning process provides the basis and context for the study of national forest areas. Public involvement is an important part of that process. Of the 52,000 acres proposed in S. 74 for wilderness designation, about 47,500 acres are within the San Gabriel Planning Unit of the Angeles National Forest, and about 4,500 acres along the northeast boundary are within the Cajon Planning Unit of the San Bernardino National Forest. Inventory data has been collected within the San Gabriel Planning Unit, and we expect to file a Draft Environmental Statement analyzing management alternatives early in 1976. Inventory data collection within the Cajon Planning

Honorable Henry M. Jackson

2

Unit will begin in 1977 with a Draft Environmental Statement on management alternatives to be filed late in 1978. On both units, final management plans and final environmental statements will not be developed until the public and agency review of the draft statements have been completed.

In addition to the study of the planning units, the Sheep Mountain Wilderness Study Area will be studied in greater detail to determine its suitability or nonsuitability for possible inclusion in the National Wilderness Preservation System. Contiguous lands will also be considered. Information on minerals within the Sheep Mountain Wilderness Study Area should be available from the U. S. Geological Survey and the U. S. Bureau of Mines by the end of 1976. Preliminary recommendations concerning wilderness designation will be presented to the public for additional evaluation and comment. Upon completion of the detailed study and review of the public response, we will recommend wilderness designation for any areas we believe should be added to the National System.

During the entire study process, the Sheep Mountain Wilderness Study Area will be managed so as to protect it from activities that would change the land characteristics in such a way as to disqualify the area from wilderness designation.

We strongly recommend that the Sheep Mountain Wilderness Study Area not be designated as wilderness without the completion of detailed studies of all resource values, including wilderness values. Based on the results of the studies now underway or to be undertaken, a more deliberate, orderly decision can be made as to the desirability of adding any specific area to the National Wilderness Preservation System.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,



RICHARD A. ASHWORTH
Deputy Under Secretary

94TH CONGRESS
1ST SESSION

S. 226

IN THE SENATE OF THE UNITED STATES

JANUARY 17, 1975

Mr. DOMENICI introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To designate the Aldo Leopold Wilderness, Gila National Forest,
New Mexico.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That, in accordance with subsection 3 (b) of the Wilderness
4 Act (78 Stat. 891; 16 U.S.C. 1132 (b)), the area classified
5 as the Black Range Primitive Area, with the proposed addi-
6 tions thereto and deletions therefrom, as generally depicted
7 on a map entitled "Proposed Aldo Leopold Wilderness",
8 dated May 1972, which is on file and available for public
9 inspection in the Office of the Chief, Forest Service, United
10 States Department of Agriculture, is hereby designated as
11 the "Aldo Leopold Wilderness" within and as part of the

1 Gila National Forest, and shall comprise an area of approxi-
2 mately two hundred thirty-one thousand seven hundred and
3 thirty-seven acres.

4 SEC. 2. As soon as practicable after this Act takes effect,
5 the Secretary of Agriculture shall file a map and a legal
6 description of the Aldo Leopold Wilderness with the In-
7 terior and Insular Affairs Committees of the United States
8 Senate and House of Representatives, and such description
9 shall have the same force and effect as if included in this
10 Act; except that correction of clerical and typographical
11 errors in such legal description and map may be made.

12 SEC. 3. The Aldo Leopold Wilderness shall be admin-
13 istered by the Secretary of Agriculture in accordance with
14 the provisions of the Wilderness Act governing areas desig-
15 nated by that Act as wilderness areas, except that any ref-
16 erence in such provisions to the effective date of the Wilder-
17 ness Act shall be deemed to be a reference to the effective
18 date of this Act.

19 SEC. 4. The previous classification of the Black Range
20 Primitive Area is hereby abolished.



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

May 30, 1975

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate

Dear Mr. Chairman:

As you requested, here is the report of the Department of Agriculture on S. 226, a bill "To designate the Aldo Leopold Wilderness, Gila National Forest, New Mexico." We also wish to offer our views on S. 1011, a bill "To designate the Aldo Leopold Wilderness, Gila National Forest, New Mexico."

The Department of Agriculture recommends that S. 226 not be enacted and that S. 1011 be enacted in lieu thereof, if amended as suggested herein.

S. 226 and S. 1011 would designate, respectively, a 231,737-acre and a 151,024-acre Aldo Leopold Wilderness within and as a part of the Gila National Forest in the State of New Mexico. Both bills would abolish the previous classification of the Black Range Primitive Area.

The area that would be designated as wilderness by S. 226 contains several additions to the 188,095-acre area which the President recommended for designation as the Aldo Leopold Wilderness on February 8, 1972. The President's recommendation is substantially contained in S. 1011, and the map entitled "Proposed Aldo Leopold Wilderness" which is cited on line 7 of S. 1011 shows the 188,095-acre area proposed by the President. However, to completely embody the President's recommendation, the words "one hundred and fifty-one thousand and twenty-four acres" on page 2, lines 2 and 3, of S. 1011 should be deleted and the words "one hundred and eighty-eight thousand and ninety-five acres" should be inserted in lieu thereof. The President's recommendation for a 188,095-acre Aldo Leopold Wilderness includes 151,024 acres of the Black Range Primitive Area and 37,071 acres of contiguous lands.

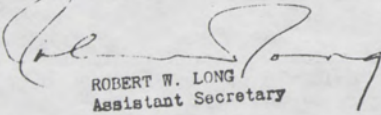
The study report which accompanied the President's recommendation describes and evaluates the additional areas contained in the 231,737-acre proposal which is represented by S. 226. These additional areas were not included in our proposal because they contain significant evidence of man's activities or because they would result in a boundary that would be difficult to identify and manage. Our reasons for not including the additional areas are also summarized in the enclosed supplemental statement.

Honorable Henry M. Jackson

2.

The Office of Management and Budget advises that there is no objection to the presentation of this report and that enactment of S. 1011, if amended as suggested herein, would be consistent with the Administration's objectives.

Sincerely,



ROBERT W. LONG
Assistant Secretary

USDA SUPPLEMENTAL STATEMENT
ALDO LEOPOLD WILDERNESS
S. 226

S. 226 would designate a 231,737-acre Aldo Leopold Wilderness. The Administration proposal would result in an Aldo Leopold Wilderness of about 188,095 acres. Both proposals are discussed in our report which accompanied the President's recommendation to Congress on February 8, 1972. This statement summarizes the major differences between the proposals.

S. 226 would include all or portions of the following areas of the Black Range Primitive Area which we recommend be excluded from the Aldo Leopold Wilderness. The acreage figures reflect only the additional area to be included under S. 226. The area numbers refer to the map on page 20 of our report entitled "A Proposal: Aldo Leopold Wilderness" which accompanied the President's recommendation. Our primary reasons for recommending these exclusions are stated for each area.

Area 1 (62 acres). This area contains the Hillsboro Peak Administrative Site improvements, including a fire lookout tower which is needed for fire protection both within and outside the proposed Wilderness. Our policy is not to include such manmade facilities within wilderness areas, and the Hillsboro Peak site could be easily removed by a minor boundary adjustment, as we have recommended. A similar fire lookout tower and associated facilities are located on Reed's Peak in the center of the proposed Wilderness. While we would prefer that these facilities not be within the Wilderness, they are needed for fire detection within and outside the proposed Wilderness. It would not be practical to exclude the Reed's Peak site through a boundary adjustment.

Area 3 (2,920 acres). Inclusion of this area would create a weak boundary and make control of motorized vehicle entry nearly impossible.

Area 4 (7,080 acres). There is much evidence of man's activities in this area, including several water developments and about three miles of partially constructed road in the Middle Diamond Creek area. Gentle terrain would make the boundary difficult to identify and manage.

Area 5 (1,110 acres). The boundary near Hoyt Creek and Turkey Run Creek would follow a line at a specified distance from the creeks, and it would be extremely difficult to locate on the ground.

Area 6 (960 acres). This area contains evidence of past logging activities, several range improvements, and a short section of old road.

Area 8 (433 acres). The boundary created by the inclusion of this area would be difficult to identify on the ground.

Area 9 (8 acres). About 3 acres of private land and a short section of road are within this area.

S. 226 would not alter our exclusion of Area 2 (78 acres) to exclude the McKnight road and Area 7 (274 acres) to place the boundary on identifiable land features.

S. 226 would also designate as wilderness the following additional areas outside the wilderness area proposed by the President. The area letters and names refer to the map on page 81 of the report cited earlier in this statement. We do not recommend these additions for the reasons stated.

Area P, Cobb Mountain - Sugarloaf Peak (10,145 acres). This area contains several water developments and about 5 miles of partially constructed roads. The boundary would be poorly located and nearly impossible to identify.

Area R, Lake Mountain (2,647 acres). There are about 4 miles of constructed road in this area. Private lands make two narrow rectangular boundary intrusions.

Area S, Apache Peak (3,013 acres). This addition surrounds a tract of private land containing 160 acres and includes its associated road access in Animas Creek. It would also result in a poorly defined boundary.

Area J, Hillsboro Peak (3,300 acres). Inclusion of Area J would result in the inclusion of the Hillsboro Peak Administrative Site discussed under Area 1. Mineral and Carbonate Creeks may contain mineralized areas of sufficient value to warrant future investigation.

Area K, Rabb Park (4,110 acres). This area exhibits many imprints of man including old dwellings, access roads, and soil erosion resulting from past overgrazing, mineral exploration, and woodcutting roads. Mechanical means of range and watershed rehabilitation are needed.

Area L, Upper East Canyon (2,750 acres). Over 80 percent of this area has been cut over by timber operations, the most recent of which occurred in 1969. A constructed road extends up East Bear Trap Canyon about 2 miles. There is also about one mile of constructed road in Quaking Aspen Canyon.

Area M, Upper North Fork of McKnight Canyon (5,105 acres). There is evidence of logging in this addition. Roads provide motor vehicle access that would be difficult to control. Stream improvement structures are needed and planned to manage Gila trout that have been transplanted in McKnight Creek.

In our judgment, the President's recommendation for an Aldo Leopold Wilderness of 188,095 acres represents the proposal that includes as much quality wilderness as possible within a practical, manageable boundary.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

JUN 3 1975

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate
3106 New Senate Office Building
Washington, D. C. 20510

Dear Mr. Chairman:

This is in response to your request of April 22, 1975, for the views of the Office of Management and Budget on S. 226, a bill "To designate the Aldo Leopold Wilderness, Gila National Forest, New Mexico."

The Office of Management and Budget concurs in the views of the Department of Agriculture in its report on S. 226, in which the Department recommends, in lieu of S. 226, the enactment of S. 1011 with an amendment. If amended as recommended by Agriculture, enactment of S. 1011 would be consistent with the Administration's objectives.

Sincerely,

James M. Frey
James M. Frey
Assistant Director for
Legislative Reference

94TH CONGRESS
1ST SESSION

S. 392

IN THE SENATE OF THE UNITED STATES

JANUARY 27, 1975

Mr. METCALF (for himself and Mr. MANSFIELD) introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To designate certain lands in the Flathead and the Lewis and Clark National Forests in Montana as wilderness.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That, in accordance with section 3 (c) of the Wilderness
4 Act of September 3, 1964 (78 Stat. 890, 892; 16 U.S.C.
5 1132 (c)), the following described lands in the Flathead
6 and the Lewis and Clark National Forests, Montana, com-
7 prising about three hundred and seventy-eight thousand two
8 hundred acres, are hereby designated as wilderness:

9 Beginning at the southeast corner, section 34, town-
10 ship 32 north, range 18 west, M.P.M. (approximate

II

1 longitude 113 degrees 53 minutes, latitude 48 degrees 29
2 minutes) (approximate elevation 4,840 feet) ;

3 thence 140 degrees for 6.5 miles to a ridgepoint on
4 the Wahoo Creek-Cascadilla Creek divide (approximate
5 elevation 6,020 feet) ;

6 thence 117 degrees for 0.9 mile to a ridgepoint on
7 the Crystal Creek-Stanton Creek divide (elevation 6,352
8 5,736 feet) ;

9 thence 156 degrees for 1.2 miles to a ridgepoint on
10 the Crystal Creek-Stanton Creek divide (elevation 6,352
11 feet) ;

12 thence northeasterly for 0.7 mile down the Crystal
13 Creek-Stanton Creek ridge to the township 31 north,
14 township 30 north line near the southeast corner of sec-
15 tion 34 township 31 north range 17 west (approximate
16 elevation 5,720 feet) ;

17 thence 90 degrees for 1 mile to the southeast corner
18 of section 35, township 31 north, range 17 west (ap-
19 proximate elevation 3,680 feet) near Stanton Creek ;

20 thence 158 degrees for 1.4 miles to a ridgepoint on
21 Grant Ridge (elevation 5,896 feet) ;

22 thence south-southwesterly for 1.1 miles up Grant
23 Ridge to a ridgepoint on the Hidden Creek—Tunnel
24 Creek divide (approximate elevation 7,100 feet) ;

25 thence 151 degrees for 2.7 miles to a ridgepoint

1 on the Pinnacle Creek-Paola Creek divide (approximate elevation 6,840 feet) ;

3 thence southwesterly for 0.6 mile to a ridgepoint
4 on the Pinnacle Creek-Paola Creek divide (elevation
5 6,703 feet) ;

6 thence 179 degrees for 1.5 miles to a ridgepoint
7 on Paola Ridge (elevation 6,666 feet) ;

8 thence 149 degrees for 0.9 mile to a ridgepoint on
9 the North Fork Dickey Creek-South Fork Dickey
10 Creek divide (approximate elevation 6,050 feet) ;

11 thence west-southwesterly for 1.4 miles up the
12 North Fork Dickey Creek-South Fork Dickey Creek
13 divide to a ridgepoint on said divide (approximate
14 elevation 6,800 feet) ;

15 thence 148 degrees for 1.5 miles to a ridgepoint
16 on the South Fork Dickey Creek-Marion Creek divide
17 (elevation 7,798 feet) ;

18 thence northeasterly for 2.9 miles along the South
19 Fork Dickey Creek-Marion Creek divide to a ridge-
20 point on said divide (elevation 5,842 feet) ;

21 thence 180 degrees for 0.5 mile to the Marion
22 Creek-Essex Creek divide (approximate elevation
23 5,200 feet) ;

24 thence southwesterly for 1.1 miles along the Marion

1 Creek-Essex Creek divide to a ridgepoint on said
2 divide (approximate elevation 7,000 feet) ;

3 thence 152 degrees for 1.7 miles to Snowshed
4 Mountain (elevation 7,525 feet) ;

5 thence easterly for 1.1 miles along the east ridge of
6 Snowshed Mountain to a ridgepoint on said ridge (ele-
7 vation 7,097 feet) ;

8 thence 86 degrees for 1.6 miles to a ridgepoint on
9 the McDonald Creek-Sheep Creek divide (approximate
10 elevation 5,520 feet) ;

11 thence 138 degrees for 0.9 mile to a ridgepoint on
12 the Sheep Creek-Java Creek divide (approximate ele-
13 vation 4,983 feet) ;

14 thence 134 degrees for 1.5 miles to a ridgepoint on
15 the Bear Creek-Edna Creek divide (approximate ele-
16 vation 4,330 feet) ;

17 thence easterly along the Bear Creek-Edna Creek
18 divide to the top of Mount Furlong (elevation 7,393
19 feet) ;

20 thence 91 degrees for 1.4 miles to Devils Hump
21 (elevation 7,667 feet) ;

22 thence northeasterly for 1.2 miles on the Bear Creek-
23 Devil Creek divide to a ridgepoint on said divide (ele-
24 vation 6,735 feet) ;

25 thence 57 degrees for 1.8 miles to a ridgepoint on

5

1 the Devil Creek-Grizzly Creek divide (elevation 6,814
2 feet) ;

3 thence 109 degrees for 2.3 miles to a ridgepoint on
4 the Snake Creek-Giefer Creek divide (elevation 7,511
5 feet) ;

6 thence southerly for 1.4 miles along the Giefer
7 Creek-Twenty Five Mile Creek divide to a ridgepoint on
8 the Twenty Five Mile Creek-Lynx Creek divide (eleva-
9 tion 7,324 feet) ;

10 thence 224 degrees for 1.4 miles to a ridgepoint on
11 the Lynx Creek-Goal Creek divide (approximate eleva-
12 tion, 7,170 feet) ;

13 thence 118 degrees for 1.9 miles to a ridgepoint on
14 the Twenty Five Mile Creek-Ear Creek divide (eleva-
15 tion 7,042 feet) ;

16 thence in a southeasterly then northeasterly direction
17 along Patrol Ridge for 1.9 miles to a ridgepoint on said
18 ridge (elevation 6,879 feet) ;

19 thence 105 degrees for 2.4 miles to a ridgepoint on
20 the Granite Creek-Morrison Creek divide (elevation
21 7,193 feet) ;

22 thence 50 degrees for 1.8 miles to a ridgepoint on
23 the northern portion of Slippery Bill Mountain (eleva-
24 tion 7,519 feet) ;

6

1 thence southeasterly for 3.1 miles along Slippery Bill
2 Mountain to the continental divide at a ridgepoint di-
3 viding Puzzel Creek and Crescent Creek (elevation
4 7,133 feet) ;

5 thence southeasterly for 3.0 miles along the con-
6 tinental divide to a ridgepoint on the North Badger
7 Creek-Elbow Creek divide (approximate elevation
8 6,810 feet) ;

9 thence north-northeasterly for 3.0 miles along the
10 North Badger Creek-Elbow Creek divide to the high-
11 est of the Bruin Peaks (elevation 7,728 feet) ;

12 thence 93 degrees for 3.2 miles to Curly Bear
13 Mountain (elevation 7,940 feet) ;

14 thence southeasterly for 0.7 mile along the South
15 Badger Creek-Lonesome Creek divide to Spotted Eagle
16 Mountain (elevation 8,070 feet) ;

17 thence 108 degrees for 2.7 miles to Scarface Moun-
18 tain (elevation 8,275 feet) ;

19 thence southeasterly for 2.3 miles along the Steep
20 Creek-Small Creek divide to the North Fork Birch
21 Creek ;

22 thence easterly for 3.1 miles along the North Fork
23 Birch Creek to the Lewis and Clark National Forest
24 boundary ;

25 thence in a southeasterly direction for 8.9 miles along

7

1 the Lewis and Clark National Forest boundary to the
2 Sheep Creek-Scoffin Creek divide;

3 thence in a southerly direction for 3.6 miles along
4 the Sheep Creek-Scoffin Creek divide then along Walling
5 Reef, crossing the North Fork Bupurer Creek, along
6 the Washout Creek-Middle Fork Dupuyer Creek divide
7 to Old Man of the Hills Mountain (elevation 8,237
8 feet) ;

9 thence 157 degrees for 2.7 miles to Mount Frazier
10 (elevation 8,237 feet) ;

11 thence 164 degrees for 1.6 miles to Mount Werner
12 (elevation 8,090 feet) ;

13 thence in a southwesterly direction for 4.3 miles
14 along the East Fork Teton Creek-Muddy Creek divide
15 then along the East Fork Teton Creek-Massey Creek
16 divide to a ridgepoint on said divide (elevation 6,547
17 feet) ;

18 thence 259 degrees for 1.5 miles to a ridgepoint on
19 a south-southeast ridge of Mount Wright (elevation
20 6,654 feet) ;

21 thence 146 degrees for 1.1 miles to a ridgepoint on
22 the West Fork Teton River-North Fork Teton River
23 divide (elevation 6,818 feet) ;

24 thence southeasterly for 2.7 miles along the Porcu-

1 pine Creek-Waldron Creek divide to Mount Lockhart
2 (elevation 8,691 feet) ;

3 thence westerly for 4.4 miles along the Olney Creek-
4 Nesbit Creek divide and along Washboard Reef to the
5 Bob Marshall Wilderness Area boundary (Continental
6 Divide) ;

7 thence northerly then westerly for 52.5 miles along
8 the Bob Marshall Wilderness Area boundary to the
9 intersection of a line 0 degrees from Limestone Peak to
10 Dean Ridge;

11 thence 0 degrees for 3.8 miles to Dean Ridge ;

12 thence northwesterly along Dean Ridge for 3.7
13 miles to the intersection of a 90 degree bearing from
14 Green Mountain ;

15 thence 270 degrees for 2.8 miles to Green Moun-
16 tain ;

17 thence northwesterly for 1.5 miles along the Twin
18 Creek-Trail Creek divide to Bent Mountain ;

19 thence 276 degrees for 5.8 miles to Beacon Moun-
20 tain (elevation 5,367 feet) ;

21 thence 318 degrees for 1.2 miles to a ridgpoint
22 on the south ridge of Crossover Mountain dividing
23 Hungry Horse Reservoir and Lower Twin Creek (ele-
24 vation 5,139 feet) ;

25 thence northerly for 4.9 miles along the Hungry

1 Horse Reservoir-Lower Twin Creek divide to Dry Park
2 Mountain (elevation 7,196 feet) ;

3 thence 321 degrees for 2.3 miles to a ridgepoint on
4 the southwest ridge of Circus Peak (approximate eleva-
5 tion 7,130 feet) ;

6 thence 344 degrees for 1.1 miles to Prospector
7 Mountain (elevation 8,105 feet) ;

8 thence 315 degrees for 2.0 miles to Baptiste Look-
9 out (elevation 6,698 feet) ;

10 thence 341 degrees for 2.7 miles to a ridgepoint
11 on the Paint Creek-Logan Creek divide (elevation
12 6,431 feet) ;

13 thence 351 degrees for 1.9 miles to a ridgepoint
14 on the Felix Creek-Unawah Creek divide (elevation
15 6,481 feet) ;

16 thence 314 degrees for 1.2 miles to a ridgepoint
17 on the Harris Creek-Felix Creek divide (elevation
18 6,853 feet) ;

19 thence 330 degrees for 2.6 miles to a ridgepoint on
20 the Clorinda Creek-Canyon Creek divide; approximately
21 0.6 mile up the ridge from the old Canyon Lookout site
22 (approximate elevation 6,960 feet) ;

23 thence 332 degrees for 2.4 miles to a ridgepoint on
24 the Murray Creek-McInernie Creek divide (elevation
25 6,890 feet) ;

1 thence 324 degrees for 0.9 mile to Mount Murray
2 (elevation 7,152 feet) ;

3 thence 340 degrees for 2.0 miles to a ridgepoint on
4 the Seagrid Creek-Riverside Creek divide (approximate
5 elevation 6,170 feet) ;

6 thence 325 degrees for 3.6 miles to a ridgepoint on
7 the Lost Mare Creek-Hungry Horse Creek divide
8 (approximate elevation 5,820 feet) ;

9 thence 359 degrees for 1.5 miles to a ridgepoint on
10 the Turmoil Creek-Lost Mare Creek divide (elevation
11 6,565 feet) ;

12 thence 340 degrees for 1.6 miles to a ridgepoint on
13 the Tiger Creek-Turmoil Creek divide (elevation 6,405
14 feet) ;

15 thence 287 degrees for 0.8 mile to a ridgepoint on
16 the Margaret Creek-Tiger Creek divide (approximate
17 elevation 6,200 feet) ;

18 thence 277 degrees for 1.2 miles to ridgepoint on the
19 Strife Creek-Margaret Creek divide (elevation 5,650
20 feet) ;

21 thence 331 degrees for 5.3 miles to a ridgepoint on
22 the Emery Creek-Kootenai Creek divide (elevation
23 7,175 feet) ;

24 thence northerly for 1.8 miles along the Middle Fork
25 Flathead River-Kootenai Creek divide to the intersec-

1 tion of the southern line of section 32 township 32 north,
2 range 18 west (approximate elevation 6,020 feet) ;
3 thence 90 degrees for 2.7 miles to the point of
4 beginning.

5 SEC. 2. The wilderness area established by this Act
6 shall be known as the Great Bear Wilderness and shall be
7 administered by the Secretary of Agriculture in accordance
8 with the provisions of the Wilderness Act governing areas
9 designated by that Act as wilderness areas, except that any
10 reference in such provisions to the effective date of the
11 Wilderness Act shall be deemed to be a reference to the
12 effective date of this Act.



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate

June 11, 1975

Dear Mr. Chairman:

As you requested, here is the report of the Department of Agriculture on S. 392, a bill "To designate certain lands in the Flathead and the Lewis and Clark National Forests in Montana as wilderness."

The Department of Agriculture recommends that S. 392 not be enacted.

S. 392 would designate as wilderness certain lands comprising about 378,200 acres in the Flathead and the Lewis and Clark National Forests, Montana. The area would be known as the "Great Bear Wilderness" and would be administered by the Secretary of Agriculture in accordance with the provisions of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1131-1136).

Most of the area that would be designated as wilderness by S. 392 was included in the recent Forest Service review of all national forest roadless areas containing 5,000 acres or more. Nationwide, 1,449 national forest roadless areas containing about 56 million acres were systematically evaluated. Of this number, 219 roadless areas totaling about 5.2 million acres are located in Montana. Each of the areas was rated as to its potential wilderness quality using criteria such as scenic quality, isolation, size and variety of potential wilderness experience. The procedure also evaluated other resource values that would be foregone by wilderness designation.

In Montana, 36 roadless areas containing about 1.6 million acres were selected as wilderness study areas. Two of the selected areas, Middle Fork Continental Divide containing 302,700 acres and Rocky Mountain Face Continental Divide containing 65,000 acres, are substantially within the area that would be designated as wilderness by S. 392. The enclosed supplemental statement summarizes the relationship between the acreage that would be designated as wilderness by S. 392 and the acreage included in our roadless area review of the Great Bear area.

The Forest Service land-use planning process provides the basis and context for the study of national forest areas. Public involvement is an important part of that process. Of the 378,200 acres proposed in S. 392 for wilderness designation, 291,800 acres are within five planning units of the Flathead National Forest and 86,400 acres are within the Rocky Mountain Division of the Lewis and Clark National Forest. Field inventory work is scheduled to begin on the Flathead National Forest planning units in 1979, and the planning process is expected to be completed in 1983. A Draft Environmental Statement analyzing management alternatives for the Rocky Mountain Division will be completed this year.

Honorable Henry M. Jackson

2.

As a part of the overall land-use planning process, a detailed study of the two associated wilderness study areas will be undertaken to determine their suitability or unsuitability for possible inclusion in the National Wilderness Preservation System. Contiguous lands will also be considered. The U. S. Geological Survey and the Bureau of Mines have completed fieldwork on a mineral survey of the two wilderness study areas within the Great Bear area. Preliminary recommendations concerning wilderness designation will be presented to the public for additional evaluation and comment. Upon completion of the detailed study and review of public response, we will recommend wilderness designation for any areas we believe should be added to the National System.

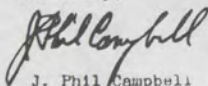
During the entire study process, the wilderness study areas will be managed so as to protect them from activities that would change the land characteristics in such a way as to disqualify the areas from wilderness designation.

The area that would be designated as wilderness by S. 392 includes 20,000 acres which were included in the Blackfeet Treaty Rights Agreement of 1895. This Agreement allows the Tribe to cut and remove timber for houses, fences, and other purposes. This area was included as a part of the Badger Creek Roadless Area in our roadless area review, but we did not select it for further wilderness study because of the commitments established under the Blackfeet Agreement. Permitted uses under the agreement would not be compatible with wilderness designation.

We strongly recommend that Congress not designate additional wilderness in the Great Bear area until studies of all resource values, including wilderness values, are completed. Based on the results of the studies now underway or to be undertaken, a more deliberate, orderly decision can be made as to the desirability of adding any specific area to the National Wilderness Preservation System.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,



J. Phil Campbell
Under Secretary

Enclosure

USDA SUPPLEMENTAL STATEMENT
PROPOSED GREAT BEAR WILDERNESS
S. 392

The following table summarizes the relationship between the acreage that would be designated as wilderness by S. 392 and the acreage included in the Forest Service roadless area review of the Great Bear area.

<u>Inventoried Roadless Area</u>	<u>Wilderness Study Area</u>	<u>Total Acreage</u>	<u>Acreage Included in S. 392</u>
Middle Fork Continental Divide	Yes	302,700	264,542
Rocky Mountain Face Continental Divide	Yes	65,000	63,688
Middle Fork	No	55,896	15,525
Badger Creek	No	72,326	17,881
Dupuyer Creek	No	10,865	3,824
Mt. Werner	No	<u>16,120</u>	<u>160</u>
Total		522,907	365,620

In addition to 365,620 acres of inventoried roadless area, about 8,000 acres of contiguous land would be designated as wilderness by S. 392. Our estimates indicate that the Great Bear Wilderness, as proposed by S. 392, would contain about 374,000 acres.

94TH CONGRESS
1ST SESSION

S. 1391

IN THE SENATE OF THE UNITED STATES

APRIL 9, 1975

Mr. CRANSTON (for himself and Mr. TUNNEY) introduced the following bill;
which was read twice and referred to the Committee on Interior and Insular
Affairs

A BILL

To study certain lands in the Mendocino National Forest, California, for possible inclusion in the National Wilderness Preservation System.

- 1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Secretary of Agriculture, in accordance with the
4 provisions of subsection 3 (d) of the Wilderness Act (78
5 Stat. 890, 892), relating to public notice, public hearings,
6 and review by State and other agencies, shall review, as to
7 its suitability or unsuitability for preservation as wilderness,
8 certain lands in the Mendocino National Forest, California,
9 which comprise approximately thirty-seven thousand acres,

1 and which are generally depicted on a map entitled "Snow
2 Mountain DeFacto Wilderness Area", dated June 21, 1971.
3 The Secretary shall report his findings to the President on
4 or before the expiration of the two-year period following the
5 date of the enactment of this Act. The President shall submit
6 promptly thereafter to the United States Senate and House
7 of Representatives his recommendations with respect to the
8 designation of such area or portion thereof as wilderness. Any
9 recommendation of the President that such area or portion
10 thereof shall be designated as wilderness and, therefore, as a
11 component of the national wilderness preservation system
12 shall become effective only if so provided by an Act of
13 Congress.

14 SEC. 2. During the review period provided by this Act
15 and for a period of four years after the recommendations of
16 the President are submitted to the Congress, the Secretary
17 of Agriculture shall manage and protect the resources of the
18 lands depicted on such map in such a manner as to assure
19 that their suitability for potential wilderness designation is
20 not impaired.

21 SEC. 3. The review required by this Act, including any
22 report and recommendations with respect thereto, shall, ex-
23 cept to the extent otherwise provided in this Act, be con-
24 ducted in accordance with the applicable provisions of the
25 Wilderness Act.

1 SEC. 4. There is hereby authorized to be appropriated
2 such amount as may be necessary to carry out the provisions
3 of this Act.



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

May 23 1978

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate

Dear Mr. Chairman:

As you requested, here is the report of the Department of Agriculture on S. 1391, a bill "To study certain lands in the Mendocino National Forest, California, for possible inclusion in the National Wilderness Preservation System."

The Department of Agriculture recommends that S. 1391 not be enacted.

S. 1391 would direct the Secretary of Agriculture to review, as to their suitability or unsuitability for preservation as wilderness, certain lands comprising about 37,000 acres in the Mendocino National Forest, California, identified in the bill as the "Snow Mountain DeFacto Wilderness Area". The review would be conducted in accordance with the provisions of section 3(d) of the Wilderness Act (78 Stat. 890, 892). The Secretary would be required to conduct the review and report his findings to the President within two years from the date of enactment. During the review period and for a period of four years after the recommendations of the President are submitted to Congress, the Secretary would be required to manage the affected area in a manner to assure that its suitability for potential wilderness designation would not be impaired.

In 1969, the Forest Service completed an intensive study to determine the best mix of natural resource uses for the Snow Mountain Area. Wilderness designation was one of the land use alternatives considered. The public was asked to comment on the alternatives and many people responded. After an analysis of resource data and public comment, we concluded that the Snow Mountain Area could serve a variety of purposes, and that no single resource use, need, or characteristic is so dominant as to warrant dedicating the entire area to one use.

The Mendocino National Forest now has a plan which provides management direction for eight sub-units of the area according to their respective capabilities. Two of the sub-units, totaling 12,860 acres, have key attributes for primitive, dispersed recreation use, and they will be managed under the plan to maintain their scenic and primitive qualities. In three other sub-units, watershed and recreation considerations will predominate followed by timber management considerations. In the three remaining sub-units, the respective management priorities by sub-unit are timber management, wildlife, and scenery.

Honorable Henry M. Jackson

2

The Snow Mountain Area was again reviewed during the recent Forest Service study of all national forest roadless areas containing 5,000 acres or more. Nationwide, 1,449 national forest roadless areas containing about 56 million acres were systematically evaluated. Of this number, 136 roadless areas totaling about 3 million acres are located in California. Each of the areas was rated as to its potential wilderness quality using criteria such as scenic quality, isolation, size, and variety of potential wilderness experience. The procedure also evaluated other resource values that would be foregone by wilderness designation.

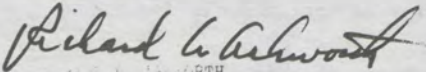
In California, 22 roadless areas containing about 991,000 acres were selected as wilderness study areas. The Snow Mountain Area is not among those selected, because we determined that in comparison with all other inventoried roadless areas, the Snow Mountain Area has a low quality rating for wilderness purposes, and its designation as wilderness would be costly in terms of resource values foregone.

Existing or planned resource management activities in the Snow Mountain Area should not be curtailed pending the outcome of a third study. Such curtailments, which could last up to six years under the provisions of S. 1391, would adversely affect our ability to provide needed resource products and services from the Mendocino National Forest. Furthermore, a requirement to restudy the Snow Mountain Area could delay our review of other areas that demonstrate greater potential for wilderness designation and management.

In summary, we strongly urge the Congress not to require a third study of the Snow Mountain Area. We have examined the area's wilderness values and other resource values during two previous studies, and we have concluded that the Snow Mountain Area should be managed to serve a broader range of resource uses than would be possible under wilderness designation.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,



RICHARD L. ASHWORTH
Deputy Under Secretary



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

JUN 11 1975

Honorable Henry M. Jackson
Chairman, Committee on Interior
and Insular Affairs
United States Senate
3106 New Senate Office Building
Washington, D. C. 20510

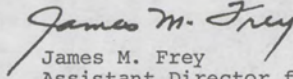
Dear Mr. Chairman:

This is in response to your requests for the views
of the Office of Management and Budget on the
following legislation:

1. S. 74, a bill "To designate certain lands in the Angeles and San Bernardino National Forests as the 'Sheep Mountain Wilderness'" (requested April 22, 1975);
2. S. 392, a bill "To designate certain lands in the Flathead and the Lewis and Clark National Forests in Montana as wilderness" (requested April 22, 1975);
3. S. 393, a bill "To provide for the study of certain lands to determine their suitability for designation as wilderness in accordance with the Wilderness Act of 1964, and for other purposes" (requested April 16, 1975); and,
4. S. 1391, a bill "To study certain lands in the Mendocino National Forest, California, for possible inclusion in the National Wilderness Preservation System" (requested April 22, 1975).

The Office of Management and Budget concurs in the views of the Department of Agriculture in its reports on these bills, and accordingly strongly recommends against their enactment.

Sincerely,


James M. Frey
Assistant Director for
Legislative Reference

Senator HASKELL. Our first witness is the distinguished Senator from California, Senator Cranston.

Senator CRANSTON. Thank you, Mr. Chairman. Senator Metcalf, I appreciate your permitting me to go first.

Senator METCALF. I am looking forward to your testimony, Alan.

**STATEMENT OF HON. ALAN CRANSTON, A U.S. SENATOR FROM THE
STATE OF CALIFORNIA**

Senator CRANSTON. I deeply appreciate your continuing interest in our California wilderness resources and your scheduling this hearing this morning.

I am very pleased to be here to testify in support of S. 74, to designate the Sheep Mountain Wilderness, and S. 1391, to designate the Snow Mountain Wilderness study area.

In previous Congresses, I have sponsored legislation to designate a 37,000 acre Snow Mountain Wilderness Area in the Mendocino National Forest, Calif.

This committee has twice held hearings on my Snow Mountain Wilderness proposal. Since there is considerable information already on record about the wilderness qualities of the Snow Mountain Area, I won't take the committee's time to enumerate them once again.

However, I would like to comment on the differences between S. 1391 and my earlier bill which provided for immediate wilderness designation of Snow Mountain.

Since I first introduced the Snow Mountain Wilderness bill in the 92d Congress, 620 acres within the area have been selectively logged and timber access roads built extending about 1.5 miles into the wilderness area.

Last year, members of this committee raised objections over the fact that no mineral survey had been made of the Snow Mountain area. In light of these facts, I have proposed a wilderness study to be made. This study would include the mineral survey.

I want to make it clear, however, that I have not changed my commitment to ultimate wilderness classification of the entire 37,000-acre Snow Mountain area.

Under S. 1391, the Secretary of Agriculture is directed to study the Snow Mountain area and submit his findings to the President within 2 years following enactment of the bill.

The bill also requires that during that review period and for a period of 4 years after, the recommendations are submitted, the Snow Mountain area be managed so as to protect its wilderness character.

This interim protection is essential if Congress is to consider seriously wilderness designation of the area.

There are no current timber sales in the Snow Mountain area and so far as I can determine none are planned. Although extension of the Pacific Crest Trail is on the Mendocino Forest transportation plan, this is a long-range proposal only.

Thus, the Snow Mountain Wilderness study would not interfere with any other plans for the area.

Mr. Chairman, as you know, the Senate passed the Snow Mountain Wilderness study bill last year. There has been no change in the status

of the area since then. Thus, I hope this committee can act on S. 1391 at an early date.

Senator HASKELL. Senator, just one question. It is my understanding of your bill this year, the boundaries are the same as the past ones, am I correct in that?

Senator CRANSTON. That is correct.

Senator HASKELL. Barring any surprises from subsequent witnesses, I see no reason why this bill should not go forward reasonably promptly.

Senator CRANSTON. I am delighted that is your feeling. I do not know of any bombshell witnesses.

The 52,000-acre Sheep Mountain Wilderness Area is located in the Angeles and San Bernardino National Forests, Calif. Situated at the back of the Los Angeles Basin, the Sheep Mountain area offers a wilderness experience within an hour's drive of 10 million people.

That is a particularly important reason, I think, for this measure.

It is a rugged, precipitous area, dominated by five peaks—Mount San Antonio, Dawson Peak, Pine Mountain, Mount Baden-Powell, and Iron Mountain, Sheep Mountain. Elevations reach nearly 10,000 feet. There are beautiful waterfalls, and deep pools which provide a habitat for substantial numbers of rainbow trout.

Some of the canyons, in particular the Fish Fork of the San Gabriel River, are almost inaccessible and support perhaps the best wild trout fishery in southern California.

The Sheep Mountain area also features unique Alpine flora, including ancient lumber pines.

In addition to its wilderness value, the Sheep Mountain area is important as the habitat of the Nelson bighorn sheep, now considered vulnerable to extinction. Approximately 150 of these wild animals have been spotted within the boundaries of the Sheep Mountain Wilderness area. They need the protection wilderness designation afford. The wilderness boundaries proposed in S. 74 closely correspond to the boundaries of the actual range of the bighorn sheep.

The Forest Service Sheep Mountain Wilderness study area of 31,680 acres does not cover the entire bighorn sheep range and is inadequate for protection of the bighorn herds.

I am aware that within the additional acreage I am proposing for wilderness designation are some unpaved jeep roads, some firebreaks, and about 500 acres of private lands. The dirt trails and firebreaks are not unlike those which have been included inside the boundaries of other California wilderness areas.

The addition of the private lands—including the Thompson ranch with its 2 dwellings and the Widmon ranch with its 10 cabins—is essential for the protection of the bighorn sheep.

It is the intention of the bill that the present owners continue to have access to their property via a jeep trail and that the Forest Service acquire the property when there are willing sellers.

I am also aware that within the wilderness on the north side of Shoemaker Canyon is a road and tunnel built in the 1950's as an evacuation route in the case of nuclear attack. The project was never completed and the road was blocked outside the wilderness boundaries. The road is not now being used, in fact has never been used, and is returning to a more natural state.

Some have expressed concern that wilderness designation of Sheep Mountain would affect potential ski development in the area of Mount Baldy, Mount San Antonio. Mount Baldy is not within the wilderness. Moreover, the boundaries of the wilderness area were carefully drawn to exclude the Stockton Flat area where one new ski lift is planned and for which the Forest Service has issued a permit.

I am not aware of any requests for additional permits or any other concrete development plans.

Thus, I hope the committee can move forward with S. 74 for immediate wilderness designation of the entire 52,000 acre Sheep Mountain area.

I have with me, to submit for the record, a statement by Senator Tunney who had to be elsewhere at this time.

Senator HASKELL. That will be received into the record.

Senator CRANSTON. He supports both of these bills. Also there are statements by Congressman Leggett of California and Congressman Lloyd of California, supporting the bill.

Senator HASKELL. They also will be put in the record.

[The prepared statements of Senator Tunney and Congressmen Leggett and Lloyd follow:]

STATEMENT OF HON. JOHN V. TUNNEY, A U.S. SENATOR FROM THE
STATE OF CALIFORNIA

Mr. Chairman, I very much appreciate the opportunity to comment this morning on two bills which Senator Cranston and I have introduced and which are being considered by your Committee today.

As you know, the Senate last year passed legislation directing the Forest Service to study the Snow Mountain area for possible inclusion in the National Wilderness Preservation System. Unfortunately, the House was unable to complete action on its bill prior to the end of the year so we have reintroduced the legislation again. This year's bill, S. 1391 is identical to the one the Senate has already approved and, as the status of the area remains unchanged, I feel confident that quick passage is again possible this session.

Our bill would establish a Snow Mountain Wilderness Study area in the Mendocino National Forest. Three counties, Lake, Colusa and Glenn are represented in this proposal which includes all of Snow Mountain, the Middle Fork of Stony Creek watershed, and much of St. John Mountain.

Here is a wilderness rich in native flora and fauna. Vegetation types include grasslands, mountain meadows, many chaparral types, canyon oaks, oak woodland, mixed conifers, high elevation red and white fir, and others. Rare and unusual plant species are found on 7,056 foot Snow Mountain and throughout the area. In addition, the wild Middle Fork of Stony Creek supports a fine native trout fishery.

This land was first set aside by President Theodore Roosevelt as the Stony Creek Forest Reserve in 1907. It was particularly disturbing to me to learn that the Forest Service is now planning to extend the Pacific Crest Trail to slice through the area as well as to allow timber harvesting, brush conversion, and motorized travel in much of what is wild today.

I feel that Snow Mountain is ideal for wilderness classification because of its rugged character, opportunities for solitude, very low values for timber harvest or other economic uses, and its sensitive watershed, all of which can withstand only minimum disturbance before they are irreversibly damaged.

This proposal has the active endorsement of many local groups and the Boards of Supervisors for all three counties involved are on record in support. Therefore, I hope the Committee will approve this legislation in the near future so that it can be sent on to the House for action.

The second of our two bills is S. 74 which would establish a 52,000 acre Sheep Mountain Wilderness in the Angeles and San Bernardino National Forests.

The area is one of the last remnants of wilderness in the crowded urban Southern California coastal region and serves as an important habitat for the Nelson

bighorn sheep which are now considered to be vulnerable to extinction if their ranges are not protected from development.

This is rugged, precipitous country in the San Gabriel Mountains which stand so starkly above the Los Angeles basin. Some of the canyons, notably the Fish Fork of the San Gabriel River, are almost inaccessible and support the best wild trout fishery in Southern California.

The Forest Service has proposed a study area comprising only 31,680 acres and has excluded a 4,000 acre parcel in the San Bernardino National Forest that is contiguous to the Angeles portion and is considered as part of the bighorn sheep range. This area was omitted because it is smaller in size than what the Forest Service normally considers for wilderness study. However, I feel that if we are to insure adequate protection for the bighorn sheep, the entire boundary of their range must be included, regardless of the actual acreage.

I am also deeply concerned about the possibility of development in the area if it is not afforded wilderness protection soon. While there are several hundred acres of private lands within the proposed wilderness, there are no requests presently pending before the Forest Service for construction of ski facilities or any other type of structures which would disqualify any of the land for inclusion within the National Wilderness Preservation System. While the Forest Service has issued a special use permit for a development near Mt. Baldy, this area is not included within the boundaries of our bill and should not be affected by such a designation. But if Congress delays action and the area is not brought under the protection of the Wilderness Act, I think it is likely that at some future time development will take place and that would guarantee the complete destruction of the bighorn sheep and their range.

Mr. Chairman, I think it is of vital importance that the Committee act quickly on both S. 1391 and S. 74 because it is our responsibility to make sure that these areas are preserved for the use and enjoyment of our children and their offspring in the coming years.

Thank you, Mr. Chairman.

STATEMENT OF HON. ROBERT L. LEGGETT A U.S. REPRESENTATIVE FROM THE
STATE OF CALIFORNIA

Mr. Chairman, members of the subcommittee, I want to thank you for the opportunity to be heard in support of Senator Cranston's bill to authorize a study of the Snow Mountain area for Wilderness designation. I and my colleagues, Bizz Johnson and Don Clausen, in the House, in whose districts the proposed wilderness area would fall, have cosponsored similar legislation which is currently pending before the House Committee on Interior and Insular Affairs.

There was a time, several redistrictings ago, when the entire proposed wilderness area was in my district. At that time, the Forest Service was in the process of formulating their management plan for the Snow Mountain area. Almost simultaneously, I began receiving a large number of correspondence urging my support of a wilderness classification for the area. Nevertheless, I refrained from taking a position on the issue until I had an opportunity to review all sides.

In July of 1970, I personally toured the proposed wilderness area in the air and on foot with the district ranger and, in 1971, I introduced my first Snow Mountain Wilderness bill. I would like to summarize for the committee why I came to this decision.

First, Snow Mountain is the last potential wilderness area in this portion of California. There are nearly 1 million nonwilderness acres in Mendocino National Forest. Snow Mountain is the last little bit of all this forest that is roadless and undeveloped. If established, Snow Mountain would be the closest area to the population of metropolitan San Francisco, something like 125 miles, and would be the only wilderness area in the Mendocino National Forest accessible throughout the year.

Secondly, the 37,000 acre Snow Mountain wilderness proposal has almost unanimous local support. The proposal has been cosponsored in Congress by all five Federal Representatives of the area, Senators Cranston and Tunney, and Congressmen Bizz Johnson, Don Clausen and me. It has received the official support of the Boards of Supervisors of all three counties involved, and nearly 100 percent of the mail that I have received on this matter (and it has been considerable) has been in favor of it or stronger legislation.

In the 93d Congress, we went through a rather traumatic experience with the Forest Service, a logging company known as Commander Industries, and the

State of California in connection with a contract held by Commander Industries to log a substantial portion of the proposed wilderness. While the company showed admirable restraint in its logging schedule to accommodate our efforts to preserve this area, its contract was running out, and part of the timber was cut. The remaining scheduled logging was held up by an injunction obtained by the State of California, which was in effect until Commander Industries' contract with the Forest Service expired. It was not renewed, and there is currently no claim against the timber in the proposed study area.

In view of the long struggle by local residents to protect and preserve this unique area and the unanimous agreement among the Washington representatives of those people, I hope that you will be able to act favorably on this measure.

STATEMENT OF HON. JIM LLOYD, A U.S. REPRESENTATIVE FROM THE STATE OF CALIFORNIA

Mr. Chairman, I support the creation of the Sheep Mountain Wilderness for the protection of bighorn sheep, conservation of an unspoiled wilderness and recreational uses for people.

The primary purpose in the creation of a Sheep Mountain Wilderness is the protection of some 300 Nelson bighorn sheep that have a range of about 52,000 acres in the San Bernardino and Angeles national forests, most of which is within my 35th Congressional District. These animals are an irreplaceable natural wildlife resource that must be preserved for future generations of Americans.

At the same time, I am calling for multiple utilization of these public lands. People can hike, fish, camp and ski in the sheep habitat without disturbing the animals. And, careful oversight by the Forest Service can insure the safety of the sheep, the environment and people.

I want to emphasize the importance of allowing people to have access to this area. It is one of the most unspoiled and naturally beautiful areas in Southern California. It has been protected from damage mainly by the sheer ruggedness of the terrain, so that the main method of entry is by foot.

It is important, in my opinion, that we have an area such as this where the modern-day conveniences can be left behind and we can experience the outdoors in its primal state. And, to have an area like this within easy reach of 10 million people is all the more extraordinary.

While I agree that this wilderness area is necessary for the protection of existing natural resources, I want to make sure that areas used by skiers can continue to be used for that activity. Ski areas in Southern California are scarce, and this popular sport so dependent on location and weather deserves its place in the scheme of things.

I feel that S. 74, and its counterpart, H.R. 3030, of which I am the prime sponsor, can provide the necessary elements to create a wilderness area that allows the bighorn sheep to flourish while also providing for multiple uses by people.

Senator HASKELL. It is my understanding the Forest Service has recommended 31,000 acres for the Sheep Mountain Wilderness. I guess I had better ask the Forest Service rather than you why they prefer smaller boundaries. Do you have anything you would like to add in advance of their position?

Senator CRANSTON. Not beyond what I have stated in the record. The larger area is necessary to get a full protection to the sheep and we recognize that there are firebreaks and private lands, but we account for that in the way we would proceed.

Senator HASKELL. I understand as to the firebreak situation, there is a similar firebreak in another wilderness area in California, so perhaps that does not present as much of a problem as some of the other things do.

Senator CRANSTON. I hope the others do not present too much of a problem.

Senator HASKELL. Senator Metcalf.

Senator METCALF. I have no questions.

Senator HASKELL. Thank you very much, Senator Cranston. I appreciate it very much indeed.

Senator CRANSTON. Thank you.

Senator HASKELL. Our next witness is Senator Metcalf.

STATEMENT OF HON. LEE METCALF, A U.S. SENATOR FROM THE
STATE OF MONTANA

Senator METCALF. Mr. Chairman, I know the subcommittee has several legislative items before it today but I will get right to the point.

My senior colleague Mike Mansfield and I are proposing in S. 392 that 378,200 acres in northwestern Montana be added to the Wilderness System.

Having already extolled the merits of the area in my introductory remarks on the bill, I would like to have my remarks in the Congressional Record made a part of this record.

Senator HASKELL. Certainly.

[The remarks referred to above follow:]

[From the Congressional Record]

(By Mr. Metcalf (for himself and Mr. Mansfield))

S. 392. A bill to designate certain lands in the Flathead and the Lewis and Clark National Forest in Montana as wilderness. Referred to the Committee on Interior and Insular Affairs.

Mr. METCALF. Mr. President, I am introducing today for Senator Mansfield and me a bill to extend wilderness protection to some 378,200 acres in northwestern Montana on the Middle Fork of the Flathead River. The area would be called the Great Bear Wilderness in honor of its prime resident, the grizzly bear. The bill is identical to S. 3729, which I introduced last year.

Twenty years before passage of the Wilderness Act, a number of foresighted Montana conservationists sought protection for the outstanding wilderness qualities of the Middle and South Forks of the Flathead River. Unfortunately, their efforts were unsuccessful. Since that time, man's activities have altered much of the land area and the wilderness of 30 years ago no longer exists.

There remains, however, an opportunity to preserve, for tomorrow's citizens the wild land and waters of the Flathead River's Middle Fork. And today, we have a legal means to insure protection of these resources and values, the Wilderness Act of 1964. History tells us, in clear terms, that today's values will be degraded if we ignore what may be our last opportunity to protect these lands.

The public lands and waters of the Great Bear Wilderness proposal presently provide habitat for two species of America's diminishing wilderness wildlife—the grizzly bear and the west slope cutthroat trout. The steep mountainous terrain of the headwaters of the Middle Fork shelter one of the last free-moving grizzly bear populations in the continental United States.

Grizzlies are true wilderness animals and without wild they will perish. The grizzly faces extinction mainly because man has steadily taken his habitat through logging, roading, dam construction, and other developmental activities. In this proposal we will provide a vital habitat link between Glacier National Park and the Bob Marshall Wilderness.

The west slope cutthroat trout has been reduced to threatened species status due to destruction of spawning habitat throughout its former range. There are three major forks in the Flathead River system—South, North and Middle. Dams, mining, and subdivision development have greatly reduced the water quality of the North and South Forks. The survival of this native trout species and other important sport fish in the Flathead River system is dependent on protection of the upper Middle Fork watershed. The Great Bear Wilderness will accomplish that objective.

Mr. President, there are other factors which recommend inclusion of the upper Middle Fork and surrounding wild land in the National Wilderness Preservation System. It is a starkly beautiful mountainous area which supports

populations of bear, elk, lynx, moose, mountain goat, coyote, ducks, grouse, and many nongame wildlife species. The mountains, valleys, and streams of the proposed wilderness are unexcelled for hiking, hunting, backpacking, horseback trips, fishing, ski touring, whitewater boating, photography, and other outdoor activities.

The Great Bear Wilderness proposal consists entirely of public lands unspoiled by the hand of man. Within the proposed boundary are lands where man can find solitude, gain awareness, develop his spirit of adventure, or simply renew himself. These are priceless values which are increasingly difficult to obtain.

Much of the timber resource within the Middle Fork is contained in areas classified as marginal zones by the U.S. Forest Service. A marginal zone is defined as one where logging by present methods would cause irreparable resource damage or involve costs in excess of values. The area is a de facto wilderness, presently managed much as it will be after receiving formal wilderness designation and the legal protection such designation provides.

There has been widespread citizen support expressed for preservation of this area. In the late 1960's, when plans to build roads and develop the Middle Fork threatened its wild land and water resources, citizen concern led to consideration of those values. Overwhelming support was voiced to protect not only the wilderness nature of the area, but the free-flowing river as well. Strong support has already been given by the Montana Wilderness Association, Wilderness Society, Flathead Lakers, Flathead Wildlife, Inc., National Wildlife Federation, Trout Unlimited, Guides and Outfitters, Federation of Western Outdoor Clubs, and Sierra Club. The outcome of this broad support to preserve this area and its values for future Americans is the Great Bear Wilderness proposal before you today.

Senator METCALF. I will not repeat myself at this time. We have several witnesses here from Montana today who can give the subcommittee a firsthand description of the Great Bear Wilderness.

I wish to assure the subcommittee of the widespread support for this proposal. The only major current use within its boundaries which would conflict with wilderness classification is the Schafer Meadow Airstrip because of its importance to light plane enthusiasts. I hope we can permit its use under controlled conditions. If agreement is possible, I will transmit its terms to the subcommittee before the markup of S. 392.

I would also like to state for the record that I will do what I can to reach agreement with the Power Administration to make minor adjustments on the northern border to protect future power corridor requirements. There are, along the very margin of the wilderness, provisions, areas that the Bonneville Power Administration wishes to use for a power corridor. I am sure that adjustments can be made from the description in my bill.

In other matters affecting the area, applications have been filed for oil and gas leases along the western boundary, and the Anaconda Co. has indicated that they will want to search for minerals in certain portions. Both activities are permitted under current wilderness regulations.

There are no timber sales pending.

In short, Mr. Chairman, we have presented the subcommittee with a very defensible bill for the protection of nearly 400,000 acres of the most beautiful country in North America.

Swift and prompt action on S. 392 of the Great Bear Wilderness bill is recommended. That concludes my statement, Mr. Chairman.

Senator HASKELL. These bills, I gather, Senator, are asking for a study?

Senator METCALF. No; this is asking for the creation of a wilderness.
 Senator HASKELL. I see.

Senator METCALF. I have a bill in this session, S. 393, on which we had a long hearing on May 9, 1975, for a study of several potential wilderness study areas in Montana. I feel the Great Bear Wilderness has gone past the study stage. I am asking that we create a wilderness just as we did just south of the Bob Marshall Wilderness in the Scapegoat Wilderness area.

Senator HASKELL. Do we have a mineral study by the Geologic Survey?

Senator METCALF. We have some minerals and we will talk about that. The Forest Service will talk about that when they come on.

I have a map I want to show you where the Bonneville Power Administration has under discussion plans for a power line right-of-way. I am sure we can negotiate with BPA for this. That will be done before markup of the bill, Mr. Chairman.

Senator HASKELL. Thank you very much, Senator Metcalf.

At this point, I would like to insert in the record the statement of Senator Domenici in support of his bill S. 226.

STATEMENT OF HON. PETE V. DOMENICI, A U.S. SENATOR FROM THE STATE OF
 NEW MEXICO

Thank you Mr. Chairman, and members of the committee for holding hearings on S. 226, a bill to establish the Aldo Leopold Wilderness Area. I introduced this measure in response to requests by the New Mexico Wilderness Study Committee and other concerned environmental and conservation groups.

The proposed Aldo Leopold Wilderness lies in southwestern New Mexico between Silver City and Truth or Consequences.

The area included in S. 226 comprises 231,737 acres of some of the most rugged and wild portion of the Black Range Mountains. Much of the 231,737 acres are included in the proposal submitted to the Congress by the administration. As you know, the administration's proposal calls for 188,095 acres of the Black Range primitive area to be made a part of the wilderness system.

I realize that there are those who oppose this measure and I am sure that the committee will hear from individuals who do not feel there is a need for additional wilderness in New Mexico. The committee will also hear from those who feel that the 188,095 acre Forest Service proposal should be adopted. And, still others will want to increase the amount of acreage from the areas included in S. 226. I shall look forward to reviewing the testimony presented today.

I know the committee will give all of the testimony careful consideration and in its wisdom send to the Senate a bill which includes land which is suitable for designation as Wilderness.

I would like to offer the committee a little background of the proposed Wilderness area. The crest of the Black Range Mountains runs north and south through the approximate center of the proposed wilderness. The highest point is McKnight Mountain with an elevation of 10,165 feet.

The proposed Aldo Leopold Wilderness is within a day's drive of over three million people. Major population centers such as Phoenix and Tucson, Arizona; Albuquerque, New Mexico; and Amarillo, Lubbock and El Paso, Texas, are within this distance and contain over half of the population of the circular area.

As nearby population centers continue to grow, social pressures increase, and people seek to escape these pressures, visits to the proposed wilderness will undoubtedly increase. Each year the number of visitors has increased as more people seek to make contact with wilderness. With the renewed and expanding desire of Americans to experience once again the rich heritage of the West as it was, this type of use will soon surpass all others.

The proposed area has no developed recreation sites or improvements and none are foreseen as necessary to meet future demands. In fact, the area proposed as wilderness is not considered suitable now or in the future for large

scale recreation development. The country is rugged and largely inaccessible and will always better lend itself to the individual primitive-type use characteristic of wilderness.

The area provides habitat for mule deer, white-tailed deer, elk, turkey, mountain lion, bear, bobcat and coyote. A great variety of smaller game, mammals and birds live within the area. Gila trout, and endangered species of fish, live in the headwaters of Diamond Creek at the northern end of the area.

Mr. Chairman, I have a letter which was given to me by Mr. Corry McDonald, Chairman, New Mexico Wilderness Study Committee and I would ask that it be included in the hearing record.

Again, thank you for considering this wilderness proposal.

Senator HASKELL. Our next witness will be Mr. Rexford A. Resler, Associate Chief of the U.S. Forest Service. Mr. Resler, we are pleased to have you.

STATEMENT OF REXFORD A. RESLER, ASSOCIATE CHIEF, U.S. FOREST SERVICE: ACCOMPANIED BY WILLIAM A. WORF, DIRECTOR, RECREATION AND LANDS STAFF, NORTHERN REGION, FOREST SERVICE, USDA, MISSOULA, MONT.; WILLIAM G. GRAHAM, DIRECTOR, LAND USE PLANNING STAFF, CALIFORNIA REGION, FOREST SERVICE, USDA, SAN FRANCISCO, CALIF.; JOHN WOERHEIDE, LAND USE PLANNER, GILA NATIONAL FOREST, SILVER CITY, N. MEX.; AND THOMAS R. ROEDERER, SPECIAL AREAS SPECIALIST, RECREATION STAFF, FOREST SERVICE, USDA, WASHINGTON, D.C.

Mr. RESLER. Good morning, Mr. Chairman and Senator Metcalf. I would like to introduce first, if I may, the gentlemen with me.

On my left is Mr. William Worf, director of the recreation and lands staff of our northern region headquartered in Missoula, Mont.

On my right is Mr. John Woerheide, land use planner of the Gila National Forest in Silver City, N. Mex.

Mr. William G. Graham is director of the land use planning staff from our California region.

Standing is Mr. Thomas R. Roederer, special areas specialist in our recreation staff in the Washington office, handling wilderness classifications and the like.

I want to thank you, Mr. Chairman, for this opportunity to present the views of the Department of Agriculture on S. 74, S. 226, S. 392, and S. 1391.

These bills involve either the designation of wilderness or the study of lands for possible designation as wilderness. They would affect widely separated national forest areas, and they involve many complex issues.

With the committee's permission, I will present a brief overview of our concerns and recommendations for each of the four areas in sequence. Then we will be happy to discuss any specific area or issue, as the committee desires.

The gentlemen I have with me are familiar with the areas, and we should be able to answer any questions that you have.

Beginning with the Aldo Leopold area, S. 226 would designate an Aldo Leopold Wilderness of about 231,737 acres within the Gila National Forest of southwestern New Mexico.

This area is located 35 miles northeast of Silver City, N. Mex. and 50 miles west of Truth or Consequences.

The area that would be designated as wilderness by S. 226 contains several additions to the 188,095-acre area which the President recommended for designation as the Aldo Leopold Wilderness on February 8, 1972.

The President's recommendation includes 151,024 acres of the Black Range Primitive Area and 37,071 acres of contiguous lands.

On the display map, the dashed black line is the wilderness boundary proposed by S. 226, and the solid black line is the Black Range Primitive Area boundary.

The green shaded areas represent areas outside the primitive area which we recommend for inclusion in the wilderness. The inclusion of these areas is based on our field review and public testimony.

Senator HASKELL. Excuse me, sir, that is the green-shaded area you recommend for inclusion?

Mr. RESLER. Yes.

Senator HASKELL. The outer boundary of all of that is the bill before the committee; is that correct? Thank you.

Mr. RESLER. The red-shaded areas represent those portions of the primitive area which are not, in our judgment, suitable for wilderness designation, and we recommend that they be excluded.

These areas contain roads, private lands, improvements, and other evidence of man's activities. In some cases, excluding the red areas would also facilitate our administration of the proposed Aldo Leopold Wilderness by placing the boundary on more identifiable land features.

Our study report which accompanied the President's recommendation describes and evaluates the additional areas which would be included in the 231,737-acre proposal represented by S. 226.

These additional areas are shown on the display map in a light gray color or as portions of the red areas. They are not included in our proposal because they contain significant nonconforming manmade features or because they would result in a boundary that would be difficult to identify and manage.

We believe the President's recommendation for an Aldo Leopold Wilderness of 188,095 acres represents the proposal that includes as much quality wilderness as possible within a practical, manageable boundary.

We recommend that the administration's proposal as contained in S. 1011 be enacted in lieu of S. 226. S. 1011 would require a minor technical amendment in the acreage cited to completely include the area recommended by the President.

With your permission, Mr. Chairman, I would like to proceed with the discussion of the other three areas, or if you would prefer to stop at this point, we can handle it as you wish.

Senator HASKELL. I think your testimony on this one is extremely clear. Basically the difference between the Forest Service boundaries and the bill's boundaries, are due to certain improvements and non-conformities that exist in the contiguous areas included in S. 226.

You have excluded certain areas for that reason?

Mr. RESLER. Yes, sir, that is correct.

Senator HASKELL. I think when we get to the markup, we will have

the staff look at the map in detail and work with your staff, but I think your point of view is clear at this time.

Why don't you proceed to the next one?

Mr. RESLER. Thank you. In California, S. 1391 would require the Secretary of Agriculture to study about 37,000 acres in the Mendocino National Forest to determine their suitability or unsuitability for preservation as wilderness.

On the display map, the heavy dashed line is the wilderness study boundary proposed by S. 1391. This area is known as the Snow Mountain area, and it is located about 120 miles north of San Francisco.

In 1969, the Forest Service completed an intensive study of the Snow Mountain area. Wilderness designation was one of the land use alternatives considered.

The public was asked to comment on the alternatives, and many people responded. After an analysis of resource data and public comment, we concluded that the Snow Mountain area could serve a variety of purposes, and that no single resource use, need, or characteristic is so dominant as to warrant dedicating the entire area to one use, namely wilderness.

As illustrated by the display map, the Mendocino National Forest now has a plan which provides management direction for eight subunits of the area according to their respective capabilities.

Subunits A and B, the Snow Mountain back country unit and the Middle Fork Stony Creek unit, contain 12,860 acres. They have key attributes for primitive, dispersed recreation use, and it is planned that they will be managed under the plan to maintain their scenic and primitive quality.

Motorized vehicular use is prohibited in the Back Country unit, and prohibited from the canyon zone of the Middle Fork Stony Creek unit.

Subunit C, the Pacific Crest travel zone, containing 700 acres, is located along the planned route of the Pacific Crest Highway. It will be managed to maintain a pleasing scenic landscape.

Senator HASKELL. I wonder if you could point that out. This is planned by who?

Mr. GRAHAM. This is part of a scenic highway proposed by the Forest Service.

Senator HASKELL. I see. Thank you.

Mr. GRAHAM. It is not the Pacific Crest Trail.

Senator HASKELL. Thank you.

Mr. RESLER. Subunit D, the Humming Bird-Cooper Butte unit, contains 7,300 acres. It offers the best opportunities for wildlife habitat improvement within the total area. This unit will be managed to maintain and improve plant cover for wildlife.

Subunits E, F, G, the County Line, North Ridge, and Box Springs units, include 7,900 acres. Some good stands of timber are within those units, but watershed and esthetic considerations predominate. Timber will be harvested only to the extent that the watershed and scenic values can be protected.

Subunit H, the Bear Wallow unit, contains 1,250 acres. This is a good timber-growing area, and management will be directed to growing and harvesting timber consistent with other resource requirements.

The Snow Mountain area was again reviewed during the Forest Service study of all national forest roadless areas containing 5,000 acres or more.

Nationwide, 1,449 roadless areas containing about 56 million acres were systematically evaluated. Of this number, 136 roadless areas totaling about 3 million acres are located in California.

Each of the areas was rated as to its potential wilderness quality using criteria such as scenic quality, isolation, size, and variety of potential wilderness experience.

The procedure also evaluated other resource values that would be foregone by wilderness designation. Major efforts were made to involve the public in the decisionmaking process at the local, State, and National levels.

In California, 22 roadless areas containing about 991,000 acres were selected as wilderness study areas. The Snow Mountain area is not among those selected, because we determined that in comparison with other inventoried roadless areas, the Snow Mountain area has a low-quality rating for wilderness purposes, and its designation as wilderness would be costly in terms of resource values foregone.

Existing or planned resource management activities in the Snow Mountain area should not be curtailed pending the outcome of a third study.

Such curtailments which could last up to 6 years under the provisions of S. 1391, would adversely affect our ability to provide needed resource products and services from the Mendocino National Forest.

Furthermore, a requirement to restudy the Snow Mountain area could delay our review of other areas that demonstrate greater potential for wilderness designation and management.

We strongly urge the Congress not to require a third study of the Snow Mountain area through enactment of S. 1391. We have examined the area's wilderness values and other resource values during two previous studies, and we have concluded that the Snow Mountain area should be managed to serve a broader range of resource uses than would be possible under wilderness designation.

Senator HASKELL. I see.

Senator METCALF. Mr. Chairman?

Senator HASKELL. Yes.

Senator METCALF. I am amused at the euphemisms that emanate from the bureaucracy. Would you tell me what you mean by this "dispersed recreation"?

Mr. RESLER. That means any kind of recreation or activity spread over a large area and not contained within developed recreation facilities.

Senator METCALF. Would hunting be dispersed recreation? Would fishing be dispersed recreation?

Mr. RESLER. Yes, sir.

Senator METCALF. That would be allowed in the wilderness area, wouldn't it?

Mr. RESLER. Yes, sir, but so would a number of other activities.

Senator METCALF. Would you allow the snowmobilers in the primitive areas and roadless areas?

Mr. RESLER. That might be permitted in certain areas.

Senator METCALF. I want to know whether you do or not.

Mr. RESLER. We do. I am saying in this particular—

Senator METCALF. Snowmobiling is one of those things included in dispersed recreation?

Mr. RESLER. Yes; it is a dispersed form of recreational use.

Senator METCALF. Would you allow landing strips in areas where dispersed recreation or hunting comes into these primitive areas?

Mr. RESLER. There would be a possibility for that if that was the kind of use judged appropriate for a given area, yes, sir.

Senator METCALF. You consider operation of branch facilities or hunting, permanent camps, as dispersed recreation?

Mr. RESLER. That would be quite appropriate.

Senator METCALF. You have quite a phrase there; it is all inclusive, almost.

Mr. RESLER. Senator Metcalf, the reason for using that term is because we believe in some areas the full spectrum of recreational opportunities needs to be accommodated.

Senator METCALF. That is right. We do too, but I do not think that when Congress said that the primitive areas which are created by administrative Executive order would be continued to be administered as such, we meant that you would permit a lot of activities that are not permitted in the wilderness or activities that might subsequently create a situation so that it would destroy the wilderness values involved.

Mr. RESLER. Senator. I think we are talking about two things, if I understand the thrust of your question properly.

Within the roadless areas that we have set aside for study and which we will continue to maintain in a roadless condition prior to a study determination and as to whether or not they will be included in the Wilderness System, we are permitting nothing in those areas that would change their wilderness character.

What we are talking about here is a specific area that is not so designated, an area in which a land use plan was developed and in which certain management prescriptions providing for a range of dispersed recreational opportunities were authorized by administrative authorities.

That is a little different I think than what I understand you to be saying. These are management decisions based on the land use planning process.

It does differ obviously with the proposals that are being made by Senator Cranston and others.

Senator HASKELL. Go ahead, sir.

Mr. RESLER. The next area is Sheep Mountain in California. S. 74 would designate about 52,000 acres as the Sheep Mountain Wilderness in the Angeles and San Bernardino National Forests.

This area is about 35 miles east of Los Angeles.

The area proposed for wilderness designation by S. 74 includes the 31,680-acre Sheep Mountain Wilderness study area and 20,320 acres of contiguous land. The study area resulted from the review of national forest roadless areas mentioned earlier.

On the display map, the black line is the boundary of the originally reported Sheep Mountain Wilderness study area. Shortly thereafter,

we discovered that a salvage timber sale area—shown as a green crosshatch—had been erroneously included in the study area.

Deletion of this area and other boundary adjustments resulted in the revised study area boundary shown as a green line.

The blue line is the boundary of the Sheep Mountain Wilderness proposed by S. 74.

The areas north and south of the study area contain several works of man. The yellow squares represent structures; the red lines are roads; and the purple lines are firebreaks.

Like other wilderness study areas, the Sheep Mountain Wilderness study area will be reviewed in detail to determine its suitability or non-suitability for possible inclusion in the National Wilderness Preservation System.

Contiguous lands will also be considered. Information on minerals within the Sheep Mountain study areas is expected from the U.S. Geological Survey and the Bureau of Mines by the end of 1976.

Senator HASKELL. Excuse me, I meant to ask you about the previous California area. Has any mineral study been commenced?

Mr. RESLER. No, we do not have mineral studies on Snow Mountain.

Senator HASKELL. Thank you.

Mr. RESLER. Preliminary recommendations concerning wilderness designation will be presented to the public for additional evaluation and comment.

Upon completion of the detailed study and review of public response, we will recommend wilderness designation for any areas we believe should be added to the national system.

In the meantime, the Sheep Mountain Wilderness study area will be managed so as to protect it from activities that would change the land characteristics in such a way as to disqualify the area from wilderness designation.

We strongly recommend that the Sheep Mountain Wilderness study area not be designated as wilderness without the completion of detailed studies of all resource values, including wilderness values.

Senator HASKELL. Mr. Resler, I should say that it has been the policy of this committee not to declare areas wilderness without a mineral survey. However, this policy is contingent upon the due diligence of the Forest Service in completing such things.

I just wanted to make that as an editorial remark here.

Mr. RESLER. Yes, sir, I understand. Based on the results of studies now underway or soon to be undertaken, a more deliberate, orderly decision can be made as to the desirability of adding any specific area to the National Wilderness Preservation System.

That is basically, sir, what we are proposing in this situation.

Senator HASKELL. Senator Metcalf, do you have any questions on this area?

Senator METCALF. I do not have any questions.

Senator HASKELL. I would like to ask you this. I think it was this study area that had a firebreak in it, there is also one in the Aqua Tibia Wilderness area. Has the one in Aqua Tibia given you any problems?

Mr. RESLER. May I ask Mr. Graham to respond?

Mr. GRAHAM. It has caused us to reevaluate our fire management program in the area. We have not made the decisions yet. We are in the

process of a rather extensive reevaluation of the loss in effectiveness of that particular firebreak.

There are rather important watershed values but we are not through with the study yet.

Mr. RESLER. Mr. Chairman, what we are concerned with here is a fire road rather than a firebreak in the conventional sense. Those shown here are cleared areas, widened areas, that are designed to stop the fire from spreading.

Mr. GRAHAM. That is right.

Senator HASKELL. All right. Thank you. Proceed to the Montana bill.

Mr. RESLER. The fourth bill being considered today, S. 392, would designate the Great Bear Wilderness containing about 378,200 acres in the Flathead and Lewis and Clark National Forests of Montana.

The south side of the Great Bear Wilderness would adjoin the Bob Marshall Wilderness.

Senator METCALF. Would you point that out, where the Great Bear Wilderness joins the Bob Marshall Wilderness?

Mr. RESLER. Yes.

Senator METCALF. Mr. Chairman, the oldest wilderness, as I recall, in America, is the Gila Wilderness in New Mexico.

The second is the Bob Marshall Wilderness in Montana.

Mr. RESLER. At present, there are about 1.8 million acres of designated wilderness in Montana. The President has recommended an additional 605,437 acres of national forest for wilderness designation within the State.

As a result of our roadless area review mentioned earlier, we have selected an additional 36 areas containing about 1.6 million acres in Montana as wilderness study areas.

Two of these study areas make up the bulk of the proposed Great Bear Wilderness. They are the Middle Fork Continental Divide and the Rocky Mountain Face Continental Divide Wilderness study areas.

On the display map, the solid red line is the boundary of the Great Bear Wilderness as proposed by S. 392. The solid blue line follows the boundaries of the inventoried roadless areas, and the dashed blue line follows the boundaries of the wilderness study areas.

Senator HASKELL. Excuse me, Mr. Resler, will you be able to leave these maps with us? We do not want to have them permanently but I think it would be helpful if you could leave them with us for markup.

Mr. RESLER. We will be pleased to do so, Mr. Chairman.

The blue-shaded area represents 54,000 acres under application for oil and gas leases.

The red-shaded area shows a 33-mile section of the middle fork of the Flathead River which is being studied to determine its potential for inclusion in the National Wild and Scenic Rivers System.

This portion within the wilderness study area is part of a 219-mile wild and scenic river study involving three forks of the Flathead River.

A draft environmental impact statement was issued in 1973. Our study and recommendations are scheduled to be completed this year.

The orange-shaded area contains 20,000 acres which were included in the Blackfeet Treaty Rights Agreement of 1895. This agreement allows

the Tribe to cut and remove timber for houses, fences, and other purposes.

This area was included in our roadless area review, but we did not select it for further wilderness study because of the commitments established under the Blackfeet agreement.

Permitted uses under the agreement would not be compatible with wilderness designation.

Senator HASKELL. This agreement continues?

Mr. RESLER. Yes.

Senator METCALF. Has it ever been used?

Mr. RESLER. Not in this portion, Senator. The agreement area also includes some land outside the proposed wilderness.

Senator METCALF. The Blackfeet have never come in to exercise any of their rights under the treaty in this particular area?

Mr. RESLER. That is correct.

In selecting areas for additional wilderness study, we recognized the wilderness resource as an important feature within much of the area proposed for wilderness designation by S. 392.

However, we do not have enough information about other resource values at this time to make a positive recommendation as to the best use of the area.

For example, we do not expect to have a minerals report from the U.S. Geological Survey and Bureau of Mines until early 1976.

That report will cover only the selected wilderness study areas in the Great Bear area. We believe that detailed studies should be completed before the Congress designates additional wilderness in this area.

Our studies will include full public involvement through the processes prescribed in the National Environmental Policy Act of 1969.

We recommend that S. 392 not be enacted. During the entire study process, the wilderness study areas will be protected from activities that might alter their wilderness characteristics in such a way as to disqualify from wilderness designation.

Senator HASKELL. Mr. Resler, I understand your contention that you would not like the area designated instant wilderness.

However, would you have any objection to providing for a wilderness study during a 2-year period?

Mr. RESLER. No, sir. The only problem we have with that kind of a time commitment is that it does disrupt other planning efforts.

This, we recognize, is a high priority area. May I ask Mr. Worf to respond to that? Can you accommodate a 2-year time study frame?

Mr. WORF. If we were directed by Congress, we could. It would be feasible to do it in 2 years. This would require the shifting of priorities from other planning units that have been set up to meet other resource needs on the Flathead National Forest.

Senator HASKELL. I have no further questions. I am sure Senator Metcalf may.

Senator METCALF. What is the relevance of your statement that at present about 1.8 million acres of designated wilderness exists in Montana?

Mr. RESLER. Senator, one of the determinations that we make before our recommendations, is the relationship of areas such as this to other wilderness.

Senator METCALF. Were you adopting the Hathaway theory that when there is a certain amount of wilderness, that is enough and we do not have any more acreage?

Mr. RESLER. No, sir; we do not have that philosophy but it is a consideration that we look into and we assume——

Senator METCALF. Under what justification? Do you have any consideration when there is an area of high wilderness value, whether 1.8 million acres or 2.8 million acres or no acres at all in this certain state?

Mr. RESLER. We still would be inclined to look at the need for wilderness as one of the basic criteria under the Wilderness Act.

It may be the wish of this committee not to take that into account, but we think it is pertinent information.

Senator METCALF. That is just what I am talking about. Why is it pertinent information when there is an important area in a State, whether it is in a state as large as Montana or smaller as in Utah, a State with many Federal lands as in Nevada or a lessser amount as in Montana.

What is the relevance of the wilderness already there when there are areas of proven wilderness value?

Mr. RESLER. As I said, Senator, one of these criteria we look at under the Wilderness Act——

Senator METCALF. I am challenging that criteria. I am telling you as far as I am concerned, the Forest Service has no justification for making that statement. There is no relevancy whatsoever in a statement such as that.

The other day members of this committee challenged the nominee, Governor Hathaway for Secretary of Interior, on that very proposition. He had said at times that there was enough wilderness already in the State of Wyoming and that he did not favor any further development of wilderness.

Mr. RESLER. Senator, there is obviously a difference of opinion on that question.

Senator METCALF. There is not any difference of opinion, Mr. Resler. The problem is a matter of law and the law says that when there are wilderness values, you are supposed to consider those wilderness values.

You are not supposed to consider those in a ratio of how much wilderness is in one area or another.

Mr. RESLER. Senator Metcalf, I understand exactly what you are saying.

Senator METCALF. I hope you understand it and I hope you will comply with it in the future.

Mr. RESLER. I would like to comment, however, that we have responsibilities for looking at the full array of resource uses. That is the only purpose——

Senator METCALF. With Secretary Butz in charge of your organization, I have a very dim view of the responsibilities you carry out. You do not have to respond to that. That is my own opinion of the business down in that department.

There are fine professional men in the Department of Agriculture and outstanding men in the Forest Service. But the responsibilities at the top are such that I take a very dim view of the resource management programs that you have.

I do not believe it makes any difference whether there is 1.8 million acres or 1 million acres of wilderness in the State of Montana.

If there is an area up there that is of prime wilderness value, it should be included in the wilderness system. If it is not, it should not be included.

Mr. RESLER. I understand your viewpoint perfectly, Senator.

Senator METCALF. I have already asked you a question about the Indian land. It has been there since 1895. There has not been any attempted use of it.

Mr. Chairman, we could have the Blackfeet Tribe make a statement before we have a markup.

Senator HASKELL. That would be helpful. There is a proposed Spruce Park Dam. Do you know about that?

Mr. RESLER. Yes. We have an indication from the Bureau of Reclamation that this is not considered a viable site at this time.

Senator METCALF. This is in the agreement between the Corps of Engineers and the Bureau of Reclamation that Spruce Park would be a potential Bureau of Reclamation Dam.

I will put a statement in the record on that, Mr. Chairman. The benefit cost ratio is less than 1 to 1.

[Senator Metcalf supplied the following:]

ECONOMIC ANALYSIS OF SMOKY RANGE AND SPRUCE PARK

by Federal Power Commission, February 16, 1972

The only two potential developments on these reaches worthy of investigation are the Smoky Range project on the North Fork, and the Spruce Park project on the Middle Fork. Neither of these developments were found to be economically justified based on July 1971 costs and benefits, although the Smoky Range project is estimated to have a benefit-cost ratio of 0.95, and could become feasible at some future date. The Spruce Park project was found to have a benefit-cost ratio of only 0.65.

Our economic analysis assumptions and project descriptions are presented below:

The Spruce Park project would be located on the Middle Fork of the Flathead River, 50 miles above its confluence with the North Fork. The gross storage would be 610,000 acre-feet, of which 600,000 acre-feet would be usable for flood control and power generation. The rated head on the proposed plant would be 860 feet. Two 190 MW generators would provide a total installed plant capacity of 380 MW.

The total project cost is estimated to be \$280,000,000, based on July 1971 price levels. The total annual cost, based on a 5% percent interest rate, is estimated to be \$17,050,000. The project benefits shown below only include power, since flood control benefits are negligible.

SPRUCE PARK ANNUAL BENEFITS AND COSTS

Power

At-site:

Capacity—369 MW @ \$17.87 kW year	\$6,600,000
Energy—420 gWh @ 7.70 mills/kWh	3,300,000

Downstream:

Energy—175 gWh @ 6.37 mills/kWh	1,100,000
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Total annual power benefits	11,000,000
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Total annual costs	17,050,000
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From our analysis we have not found any feasible hydroelectric power potential on the reaches of the Flathead River included in the Flathead Wild and Scenic River Study, with the Smoky Range project having the highest benefit-cost ratio of 0.95. The alternative source of electric generation that would be constructed to serve the area load, in lieu of these projects, is assumed to be an oil-fired steam-electric plant.

There are no known future major transmission lines that are proposed to cross reaches of the Flathead River under study."

Senator HASKELL. I understood his statement that the Bureau of Reclamation did not feel it was a viable site.

Mr. RESLER. At this time.

Senator METCALF. When we created Glacier National Park, it was an exemption from the Glacier Dam in the future. You say it is not a viable dam at this time. There is not any potentiality for future hydro-electric development there?

Mr. RESLER. As near as we can tell at this time.

Senator METCALF. Are you familiar with the proposal of the Bonneville Power Authority to run a power line to that area?

Mr. RESLER. Through the proposed area?

Senator METCALF. Along the margin of this proposed wilderness area.

Mr. RESLER. I am aware there have been some discussions of that; yes.

Senator METCALF. Were you aware of the suggestion that the Bonneville Power Administration has asked that we carve out certain areas along the borders for use as a power line?

Mr. RESLER. This is the first time I have seen this, Senator.

Senator METCALF. Do you think that would make a difference in the administration of either a primitive or roadless area or wilderness area if Bonneville was given permission to run a line through there?

Mr. WOLF. It would have an influence on the administration. I would have to look at this in more detail on the ground to know what that effect would be, Senator.

Senator METCALF. I wonder if you would do that for us.

Mr. WOLF. We can do that.

Senator HASKELL. Perhaps you can submit your comments for the record. Would 10 days be adequate?

Mr. WOLF. That would be fine.

Senator METCALF. Can you get out there?

Mr. WOLF. I hope so. It snowed yesterday.

Senator METCALF. Some of the witnesses who came from Montana yesterday said there was a snow storm.

There is a landing strip, I mentioned it in my statement.

Would you indicate where that landing strip is? It is in the middle of the proposed area. Would you say that the controlled use of that landing strip for special purposes would destroy this wilderness area and other values?

Mr. WOLF. This is one of the questions we would like to explore more. This is the only area in western Montana where we have this kind of an opportunity to fly in. Air strips in the Bob Marshall Wilderness was closed to public traffic. They are open for only administrative purposes.

We would want to explore that a little further. It definitely does have an impact on the wilderness environment.

Senator METCALF. I want to ask you a general question now. In view of your concern for recreation, how much have you increased your budget request for recommendations for the national forest for these areas?

Mr. RESLER. Senator Metcalf, our recreation budget has been static for quite some time. The reason being that it is one of those priorities

that has suffered as a result of the President's efforts to hold down Federal expenditures.

Senator METCALF. Have you had any of your recreation money impounded by the OMB?

Mr. RESLER. Only construction items, to my knowledge.

Senator METCALF. You have not had any administration money or supervision impounded?

Mr. RESLER. No.

Senator METCALF. But you have had a consistent loss of appropriations for recreation?

Mr. RESLER. Yes; in the sense that double-digit inflation has moved us backward on a static budget, yes, sir.

Senator METCALF. I have no further questions.

Senator HASKELL. I have no further questions.

Senator FANNIN, do you have any questions of Mr. Resler?

Senator FANNIN. No questions, Mr. Chairman. I am sorry I was not here to hear his testimony.

Senator HASKELL. Thank you very much, Mr. Resler and your associates. We appreciate your coming.

[Subsequent to the hearing the Department submitted the following:]

MATERIAL FOR THE MAY 20, 1975, HEARING RECORD CONCERNING S. 74, S. 1391, AND S. 392 PROVIDED BY THE FOREST SERVICE, U.S.D.A.

PROPOSED SHEEP MOUNTAIN WILDERNESS (S. 74)

The Committee inquired as to whether the Forest Service has received an application for expansion of the Mt. Baldy Ski Area. Such an application has been received, but it does not involve any land within the proposed Sheep Mountain Wilderness.

PROPOSED SNOW MOUNTAIN WILDERNESS STUDY AREA (S. 1391)

The Committee requested photos of the Crockett timber sale area. Nine eight-by-ten-inch color photos are enclosed along with a map showing where the photos were taken. Descriptions are on the back of each photo.

PROPOSED GREAT BEAR WILDERNESS (S. 932)

1. *Timber Production Capacity.*—The Committee inquired as to the timber production capacity of the area within the Great Bear proposal and the relationship of that capacity to the total timber production capacity of the Flathead and the Lewis and Clark National Forests. The status of timber management planning on the two National Forests is different, and it is not possible at this time to make direct comparisons. However, based on the best available information, the potential yield of the Flathead National Forest portion of the Great Bear proposal represents about 7 percent of the total potential yield for the Flathead National Forest. The indicated annual allowable cut for the Lewis and Clark National Forest portion of the Great Bear proposal represents about 6 percent of the annual allowable cut for the entire National Forest, according to its 1960 timber management plan.

Recently, the Flathead National Forest timber management planning base was refined through the land use planning process and the application of the new timber land classification standards. The potential yield for the Forest, including that from the Great Bear area, is calculated to be 156.9 million board feet (MMBF). Of this amount, 10.6 MMBF, or about 7 percent, is located on the 60,000 acres of commercial forest land within the Flathead National Forest portion of the Great Bear area.

On the Lewis and Clark National Forest, the outdated 1960 timber management plan indicates a total annual allowable cut of 40.4 MMBF for the Forest. Of this amount, 2.4 MMBF, or about 6 percent, is located on the 29,500 acres of commercial forest land within the Lewis and Clark National Forest portion of

the Great Bear area. The potential yield for the entire Forest and for that portion within the Great Bear area cannot be accurately calculated until the land use planning process now underway is completed.

Two maps are enclosed which show the general location of commercial forest land within the proposed Great Bear Wilderness.

2. *Proposed Bonneville Powerline.*—We were shown a map at the May 20 hearing which showed an adjustment in the boundary proposed by S. 392 that was apparently designed to accommodate a future power transmission line by the Bonneville Power Administration (BPA). We have generally thought that one possible future study route for a BPA transmission line would generally parallel U.S. Highway 2 over Marias Pass. We are not aware, however, of a specific proposal, nor do we know the size or type of line that might be proposed. We are studying the entire Forest Service Northern Region to identify those places where power transmission corridor options must be provided over the long run. This study will take at least two more years to complete. Only then will we be able to determine the need for any boundary adjustments suggested by BPA.

The map we were shown was small scaled, but it appears that the suggested boundary is a very general one that would cut across the topography in a way that would be extremely difficult to locate on the ground. Where possible, Wilderness boundaries should be located with future administration in mind. A boundary that follows easily describable and recognizable topographic features helps the public and prevents innocent violations of the Wilderness by users of motorized equipment. Ridges or escarpments make the best boundaries because they act as a physical barrier to prohibited uses and they shield the wilderness environment from the sights and sounds of civilization outside the Wilderness. An artificial line must be marked, and the marking must be periodically maintained.

3. *Great Bear Vicinity Map.*—As requested by the Committee, we are enclosing a map which illustrates the geographic relationship among the proposed Great Bear Wilderness, designated Wildernesses, National Parks, and National Forests in the vicinity.



PHOTO 1—On vehicle control boundary between Crockett Peak and Crooked Tree Trail. Picture taken looking north through logged area.





PHOTO 2.—On north boundary of vehicle control area. Picture taken looking to the east through logged area. Crockett Peak in background.



PHOTO 3.—End of Pacific Crest Road on the Crockett subdivision looking north.



PHOTO 4.—One-quarter mile from end of Pacific Crest Road looking north. Both sides of road have been logged.



PHOTO 5.—On a small knob approximately 150 yards from Pacific Crest Road. Picture was taken looking south toward point where photo 1 and 2 were taken. Snow Mountain is in the background.



PHOTO 6.—Middle landing along side of road 18N04 looking upslope to the east. Photo 7 (left side) can be matched to the right side of Photo 6 to give a view of the entire landing area.



PHOTO 7.—Middle landing along side of road 18N04 looking upslope to the east. Photo 6 (right side) can be matched with Photo 7 (left side) to give a view of the entire landing area.



PHOTO 8.—200 yards east of the junction of 18N04 on the 24 foot section of the Pacific Crest Road looking east. Both sides of road have been logged.



PHOTO 9.—Far view of Crockett subdivision taken from Bowery Loop Road looking southwest. Entire area in the photo has been logged.

Senator HASKELL. I would like to make one announcement. Because of the number of witnesses we have, I am going to ask that each person on the panel confine their remarks to 5 minutes.

If anyone does not want to talk, they can yield their time to someone else. As far as people appearing individually, I would ask them to confine their remarks to 10 minutes which, of course, would mean if there is a lengthy statement that should be submitted for the record and they could summarize.

We will proceed with the panel: Mr. Doug Chadwick, representing Friends of the Earth and Defenders of Wildlife; Mr. Dale Burk, Missoula, Mont.; Mr. Chris Roholt, Missoula, Mont., and Mr. Arthur Sedlack, West Glacier, Mont.

Proceed in whatever order you desire.

STATEMENT OF CHRIS ROHOLT, REPRESENTING THE MIDDLE FORK OF THE FLATHEAD PRESERVATION COMMITTEE, MISSOULA, MONT.; ACCOMPANIED BY ARTHUR SEDLACK, WEST GLACIER, MONT.; DOUGLAS CHADWICK, REPRESENTING FRIENDS OF THE EARTH AND DEFENDERS OF WILDLIFE; AND DALE BURK, AUTHOR, MISSOULA, MONT.

Mr. ROHOLT. Mr. Chairman, members of the committee, my name is Chris Roholt. In this panel format, we would like to start out by giving a brief history of the bill, and Douglas Chadwick will talk about some of the habitat values of the area.

Art Sedlack will talk about recreation and habitat values. I will come back and talk about some of the timber aspects, and Dale Burk will wrap it up. Will that be satisfactory?

Senator HASKELL. That would be fine. As long as it consumes no more than a total of 20 minutes I am happy.

Mr. ROHOLT. Fine. This is a small-scale map of Montana. You can see the outline of the State with the Canadian border to the north.

This area outlined in blue is Glacier Park. The area in green is the Bob Marshall Wilderness. The Great Bear area we are talking about provides a corridor between the two.

This area has a history of attempts at preservation starting in the early fifties. However, it was not until the introduction of Senator Metcalf's and Senator Mansfield's bill that this drive for preservation of the area became formalized.

I would like, at this time, to ask Doug to talk about some of the wildlife habitat values.

Senator METCALF. Mr. Chairman, for the information of the committee, would you show us that proposed wilderness corridor down there?

Mr. CHADWICK. I will be talking about that, Senator.

Mr. ROHOLT. I might add that this includes part of Canada and also the Lincoln-Sagegoat Wilderness area south of the Bob Marshall. It is one of the largest ecosystems left in the United States which is unroaded. The Great Bear provides the link between the two ends of it.

Senator METCALF. Great Bear will complete that corridor which goes from Lincoln-Sagegoat to the Bob Marshall Wilderness and on into Glacier National Park?

Senator HANSEN. It will tie it all together; it will be a contiguous area.

Senator METCALF. The only thing that is left is mountainous and rather ideal wilderness area.

Senator HASKELL. All right, gentlemen.

Mr. CHADWICK. My name is Doug Chadwick. I am representing Friends of the Earth. I am president of the Flathead chapter of the Montana Wilderness Association.

I am a wildlife biologist presently completing my fifth year of research on the behavioral ecology of the Rocky Mountain goat in northwestern Montana.

I have conducted wildlife surveys in the Bob Marshall Wilderness and portions of the Flathead National Forest. I have studied the effects of roading and logging on the population.

I am currently stationed at Glacier National Park. Great Bear is great country. Its landforms include ice-sculpted crags, glacial lakes, limestone canyons running with wild, pure waters, and broad, open valleys.

To me it seems the very best kind of wilderness for our Nation. What I want to talk about today is not just human needs, but the needs of the wildlife, the wild creatures, and the wild land ecosystems they need to survive.

I do not want to run on too long but I would like to give a quick list of the animals inhabiting the area. They include the cutthroat trout, Dolly Varden trout, bald eagles, elk, mule deer, white-tailed deer, bighorn sheep, mountain goats, bobcats, lynx, cougar, wolverine, marten, fisher, black bear, grizzly bear, coyote and, according to some recent reports, a few timber wolves.

Several of these species are rare, threatened, or endangered within the United States.

Most of them still carry out free-ranging, dominant roles within a natural and continuous ecosystem which consists of Glacier National Park, the Great Bear to the south of it, and the Bob Marshall Wilderness to the south of that.

Such a vital and spectacular wildlife community, containing nearly every faunal species native to the northern Rocky Mountains, is found nowhere else in the Nation.

Within this vast ecosystem, such large animals still are able to conduct daily movements and seasonal migrations unimpeded. They can make use of an integrated mosaic of habitats and interact with an entire spectrum of native predator and competitors. That is why they still survive here and that is what they need to survive in the future and for future generations of people.

I am not saying this merely in support of the Great Bear. It has been shown that when you put animals in smaller, isolated ecosystems, it reduces their genetic flexibility. They are more vulnerable to depredations of man, parasitism, and can easily become static populations.

It appears that the Great Bear is geographically central and biologically essential to the Glacier Park-Great Bear-Bob Marshall Wilderness ecosystem. Available data indicate that nearly every species which I mentioned earlier has ranges which overlap at least two of these areas.

Most of the animals mentioned require not only a suitably large ecosystem in order to maintain their numbers, but one which is largely undisturbed by man throughout its length and breadth. Some of these species seem able to persevere only in wilderness habitats.

I am not sure of the procedure for this, but I have several documents relating to the grizzly bear and the timber wolf which I would like to enter into the hearing files.

Senator HASKELL. They will be so received, and retained in the subcommittee files.

Mr. CHADWICK. All right. I have some other documents which I would like the committee to look at that relate to the distribution of the grizzly bear and of the timber wolf in this whole ecosystem, which includes Glacier Park, Bob Marshall, and the Great Bear.

May I make that available to you now?

Senator HASKELL. Yes.

Mr. CHADWICK. The Great Bear wilderness takes its name from our largest terrestrial carnivore, the grizzly bear—*Ursus arctos*—the bear that walks like a man.

Once, before the coming of the white man to North America, as many as 1 million of these monumental animals inhabited the area of the Lower 48 States.

Today, less than 1,000, and perhaps less than 700, remain. This is a dangerously low number, and the U.S. Interior Department recently proposed classification of the grizzly as a "threatened" species.

Interior Department biologists stated in their report that "... the grizzly bear probably is more dependent on large tracts of undisturbed wilderness than any other North American mammal."

This is another way of saying as wilderness goes, so goes the grizzly. Outside of the Yellowstone area, grizzlies are found in the Lower 48 States only within the Glacier Park-Great Bear-Bob Marshall ecosystem.

Grizzly populations in Yellowstone are considered by many to be in considerable jeopardy. Part of the problem in the Yellowstone areas is that the park boundaries are arbitrary and much smaller than the ecosystem utilized by the grizzly and this has led to endless administrative as well as biological conflicts.

The only other place they exist in the Lower 48 States is Yellowstone. The part of the Yellowstone ecosystem which is protected is smaller than is needed by the number of bears, and there are problems resulting from this.

The document which I gave you showing a map of the grizzly range is taken from the fish and game hunting-harvest data.

It shows the grizzly bear to be well situated in not only the Bob Marshall, but there are known to be approximately 200 in Glacier, and they are widely distributed throughout the proposed Great Bear. There seems to be some available data there. This is the central part of the remaining range in the area and there is an unusually high number of animals seen around the border of Glacier Park.

There are two consequences of this, I think. One is that it points out the critical value of that corridor of the Great Bear, not only as a wilderness in its own right, not only as a scenic and rugged area, but as a corridor central to the survival of this animal.

It also supports the hypothesis by Dr. Ian McTaggart Cowan and others, that the grizzly bear may be maintained in the United States because of migration downward from Canada. The amount of bears seen in this area and killed in this area below Glacier suggests that they are coming down through there.

This has been known to be the case with the wolverine, which was nearly extinct in Montana. It survived in northern areas; it was able to survive in the preserve at Glacier Park. It then came down to what is known as the proposed Great Bear. It is now back in the Bob Marshall and extending its range into the available wilderness.

Dr. John Craighead, a well-known grizzly expert, has recorded frequent movements by grizzlies of 50 to 100 airline miles, using animals marked with radio transmitters. He has calculated that some bears may have home ranges as large as 1,000 square miles. Because the grizzly bear roams freely throughout the Glacier Park-Great Bear-Bob Marshall Wilderness ecosystem, and because this intact wilderness corridor may hold its last hope for survival in the contiguous United States, the Great Bear's wildlands and continuity must be preserved if the grizzly is to be preserved.

I urge the committee to solicit the opinion of the U.S. Fish and Wildlife Service's Office of Endangered Species as to the status of the grizzly and the significance of this proposed wilderness to its continued existence.

There is recent and exciting evidence from two scientists, Singer and Schallenberger, that Montana now has a few resident timber wolves, though these animals were previously thought to have vanished from the 48 States outside of the northern Great Lakes region. These Montana wolves are very likely members of the endangered subspecies *Canis lupus irremotus*, the northern Rocky Mountain timber wolf, an endangered species.

Along the southern and eastern boundaries of the Great Bear, the wildland corridor ecosystem may have allowed wolves to migrate into the area from Canadian populations and has since acted as a refuge and a secondary center of expansion. It is the only one in the area, possibly the last of its kind. The other map I gave you shows a high incidence of sightings.

The elk are one of the major animals of Montana; approximately 800 winter in the Bob Marshall and 200 along the waterways along the Middle Fork.

There are mountain goats, moose, and bighorn sheep in the area. Most of these animals migrate both between the Great Bear and Glacier and between the Great Bear and the Bob Marshall.

The Middle Fork of the Flathead River contains about 55 percent of the cutthroat trout remaining spawning area above the Flathead. This is our only pure stream for the cutthroat left in the area.

The Dolly Varden is also severely reduced in numbers due to exploitation of its habitats and damming of its migratory channels. It also survives primarily in the Middle Fork of the Flathead River. In the North Fork of the Flathead, the drainage is jeopardized by coal strip mining to the north in Canada, by oil and gas development, and by extensive clearcut logging and roading.

The South Fork of the Flathead has been dammed and there is no longer fish migration in the area.

This points out the importance of the Middle Fork—

Senator METCALF. Mr. Chadwick, you have used 12 minutes. I suggest you put the rest of your material on the record and yield to some of your colleagues.

Mr. CHADWICK. OK, that is all I wanted to cover.

Senator METCALF. Pardon me for interrupting then.

Mr. SEDLACK. Mr. Chairman and members of the subcommittee, my name is Art Sedlack. I come from West Glacier but I have worked the entire boundary of this area, being employed by several of the agencies in the area—the Forest Service, Park Service, and also in the hunting business. I speak for none of these people, only for myself, but I will relate some of the things firsthand I have seen and done and maybe give you a feeling of the area.

Recreation is building in this area. One of the tangible things is the increase of summer residents as well as year-round. They are from all over the United States.

The only agency, the one in Glacier Park, has people come to ask about the characteristics of the proposed wilderness area. They ask about hiking, fishing, camping, hunting, and skiing. They are backpackers, many of them, mostly from the large cities, who want to go where there is a real wilderness or on a camping trip that he or she can go on without restrictions, possibly living off the country or taking their dog along.

The increase in hunting has been high in the last few years. Many of these parties I have seen have been father-and-son teams. Many of them are from out of State.

My notes from last season show that every valley from the north end of this area was hunted—and hunted extensively. The area around Schafer Meadows, where I spent over 20 days in 1972, had up to 70 hunting parties camped around the airfield or landing strip.

At times, I have guided people from out of State—from such far-away States as New York and Pennsylvania.

The elk hunters have told me they were here for the totality of living in this area, not just to bag a trophy.

I think one of the most outstanding recreational things in this area is the increase in cross-country skiers and ski trials.

It is quite easy for a skier to tour within the boundary in 1 day. The records kept on the area just north of the proposed wilderness show that we have a 300-percent increase in touring and skiing from 1973 to 1974. My observations through February of this year lead me to believe that the wilderness area to the south is having that same level of use.

Some of the natural resources have been mentioned. Some areas where you can drive easily get right up into the valleys that have been roaded.

There is some poaching in that area that is quite out of hand. Elk also are bounced around between the little valleys like ping-pong balls because the people come in from all sides and they are poached.

The west slope cutthroat is in a perilous hold on the area because it produces about 16 pounds of fish per acre-foot.

I have seen wolverines crossing into the area, plus timber wolves. We have three good reports of where they crossed from Glacier Park into the proposed area.

The narrow valleys do not make good logging areas, from what I have seen. At times the tractors have gone right down the streambeds.

The twisted and folded rocks of ancient age primarily make for this steep, rugged country. Due to the rain conditions, the January thaws, the extreme weather, it is difficult to work year-round in this area.

Also the land is a prime watershed control. Those of us who lived through the 1964 floods know that anything you have that protects the slopes, such as the good natural system of growth that we have, would prevent such disasters.

This is the last remaining wilderness area in the north end of Montana. The bridges between the north Flathead and the Great Plains have been Blackfeet country. We do not have that much area left that we can get this developed.

Mr. ROHLF. I would like to move along and give you a few aspects of timber management as they might apply to this particular area.

Doug has talked quite a bit about the habitat and while this value cannot be overstated, nor can the recreational value, I would like to gloss over that part of my paper and get into the timber aspects.

Basically the wilderness classification can remove lands that may fall into the timber base from timber management.

The Great Bear area comprises approximately 320,000 acres on the Flathead side of the Continental Divide. However, only 60,000 of these acres, that is about 20 percent, are commercial timberland, about one-fifth.

In contrast, for the rest of the Flathead Forest not reserved in the wilderness, the figure is about two-thirds. I think this gives an idea of the commercial forest land concentration in the area. I might also add that it has spread randomly through the area, so that access problems would entail roading much of the area to get to spotty little portions of the better timber sites.

More important than commercial timberland, in fact, is what is called standard commercial timberland. Standard commercial timberland provides two-thirds of the harvest.

By this criterion, the Middle Fork portion of the Great Bear area is 4 percent standard commercial timberland and the rest of the Flathead is 45 percent. That is, the Flathead part of the Great Bear area is only about one-tenth as concentrated in standard commercial timberland, which is the best of the various types of timberlands that the Forest Service uses.

We see that it is even worse by the standard. I just wanted to go on and say that the suggestion that the Forest Service has made, that there be a total of 20 million board feet of harvest, there is an error in their report.

On the Flathead side, it is 10.6, which we more or less accepted. It might range from 7 up to 12 on the east side of the Lewis and Clark. I think they state 8.3 million. We believe it is closer to 1 million. My paper elaborates a little bit on that.

Just one last aspect on this. A reduction in the timber base can mean a reduction in the allowable annual cut. This is what most people are concerned about. The figure of 7 man-years of industry employment for each million board feet of timber—as Maxine Johnson of the business bureau of the University of Montana, who developed this said—it may range from 3 to 7.

We see the potential impacts. I do not claim there is no potential for employment in the area. It could range anywhere from 30 to 70 man-years of employment in just timber production.

In contrast, there may be several dozen guides in the area. Other things are lost in this area if it is managed for timber, so the tradeoffs are pretty close.

I might also say that the real value of timber harvests is not realized until the timber is sold. At this time, of course, this is a real problem.

I might also add that as regeneration thinning, commercial thinning, commercial pitting are employed, the more marginal areas, of which the Great Bear area is one, will become less and less pertinent to good timber management.

We are in favor of timber management for the best hope of preserving some of these wilderness lands. The potential of the Great Bear Wilderness to be preserved would be enhanced if good timber management is practiced on the remainder of the forest.

These seem to be the trends. I will wind that up and give the details in my paper.

Senator HASKELL. Certainly.

Mr. BURK. My name is Dale A. Burk. I live in Stevensville, Mont. I would like the record to show that I am not a member of any conservation organization and I am on this panel today, I guess, because there are four Montanans together.

I speak for myself. I am a writer who deals in environmental and political issues. I have written extensively of this particular area.

My first visit to the area in question was made while I was in grade school. Since that time, I have backpacked in the area, fished its marvelous trout waters, floated its magnificent wild water, covered much of the area by horseback, flown over it, and literally come to love it as one of the greatest wild-land resources in this country.

While we are here today to discuss hard subjects such as wilderness law, wildlife, biological interrelationships, and the like, we might also examine this bill in a much more basic context—that of a philosophical sense, for in many ways this proposal to create the Great Bear Wilderness embodies potentialities that challenge the very spirit of what it means to be human.

From Biblical times to the present, man has had a basic spiritual and physical relationship to wilderness, though it has only been since 1964 that we have had the legal machinery, through the Wilderness Act, to protect the timeless heritage wilderness represents.

How we look at wilderness, and specifically how we look at this proposal to create the Great Bear Wilderness, tells us not only who and what we are, but what we might be—not only in an intrapersonal sense but in regard to the relationship we have to the Earth and those creatures with whom we share the God-given gift of life.

We, as humans, have the power to literally grant or deny life to several endangered forms of wildlife in the Great Bear area, including the noble grizzly, wolverine, the timber wolf, and the native west slope cutthroat trout in its vital spawning tributaries of the upper Middle Fork of the Flathead River.

It is, ultimately, not a political decision we face, nor an economic one, but a moral decision. Throughout the long process of studying and pushing for official designation of the area's incomparable wilderness qualities, it has been emphasized time after time that the lands

encompassed in this proposal are essential—indeed vital—to the present and future welfare of wildlife species whose margins of survival have consistently and persistently been destroyed by man.

Now, there is no new frontier in which to push them. This is their last stand, their last hope, our last hope to do what is morally right by them.

Senator HASKELL. Gentlemen, I am sorry but your time has expired. All of your statements will be reproduced in full in the record.

Mr. BURK. I am from a logging family. I have comments in here showing that it would be much better to invest public money on high-yield sites rather than the marginal areas.

Senator HASKELL. I will look forward to reading it, sir.

Now I am going to ask members of the committee to exercise restraint since we have asked the witnesses to, to confine our questioning to 5 minutes and then we can rotate if we have further questions.

I would like to ask one question. The bill sets up an instant wilderness. I think you were present when the Forest Service was here.

It has been the policy of the subcommittee not to go directly to an "instant" wilderness designation because we feel there should first be a formal wilderness study. In particular, we feel that a mineral survey should be made in an area before it is designated as wilderness.

In this particular case, it appears that most of the studies, except the mineral survey, have been done.

Do you see any objection, any of you, to making this a study wilderness area with a 2-year time limit?

Mr. BURK. May I answer that, Senator?

Senator HASKELL. You certainly may.

Mr. BURK. I do not believe that a change to calling it a study bill will make one jot of difference as to how the bill is handled.

Congress, in every wilderness that I have been involved in, has insisted on a thorough evaluation of all of the resources involved in the area before it is classified.

I would like to use the precedent of the Lincoln-Scapegoat area that Senator Metcalf mentioned earlier. The same requirements of the wilderness designation require a mineral survey.

In this case, the mineral survey will be public within a few months. Whether we call it a study area or leave the bill as it is, it is the same process that would take place.

I do not see where we accomplish anything, because you or the House are not going to act on the bill until the information is in hand.

Senator HASKELL. It would not be my intent to act on the bill until it is in hand but I do not think—I would not feel responsible in recommending the bill be reported out as an instant area absent a complete mineral survey. I would, however, feel responsible reporting out the measure as a study bill with a time limitation for completion of the study. I wondered if you had any objection to that course of action?

Mr. BURK. I do not have any objection to it. Some of the information in here and some of that Mr. Roholt has will indicate that the mineral survey, with the exception of the small portion of the area, was to be completed by early next year.

Perhaps 12 months would be sufficient rather than 2 years.

Senator HASKELL. That is pushing them a little hard and they will squeal. If the mineral survey is done before that time, we can proceed.

Mr. CHADWICK. I want to say that it may be an instant wilderness, for our people in northwestern Montana have been working on this area for 18 years.

Senator HASKELL. I understand.

Mr. CHADWICK. I know that there are no existing patented mineral claims in the area. There have been some recent leases.

Mr. BURK. That is in my testimony.

Mr. ROHOLT. To more fully answer your question, Senator Haskell, we are representing actually quite a few conservation groups in Montana.

I think they would consider this a substantial change in our mission here. Perhaps we can refrain from answering that for some time—until perhaps after we get back. As Doug and everyone else has said, this area has really been the No. 1 area in Montana. I think most Montana preservationists would consider that a compromise, but again I am not going to speak to that.

Mr. CHADWICK. May I?

Senator HASKELL. Yes, sir.

Mr. CHADWICK. I would like to request that you solicit the opinion of the Department of the Interior, Office of Endangered Species, as to the significance of this area to the immediate protection and survival of the grizzly bear and the timber wolf.

Senator HASKELL. I will ask staff to direct an inquiry to them and ask them to respond in 2 weeks.

Mr. CHADWICK. Thank you.

Senator HASKELL. If I still have any time left—apparently I have 30 seconds and I do not think I can do it in 30 seconds. I may do it the next time around.

Senator Hansen?

Senator HANSEN. Let me yield you 30 seconds.

Senator HASKELL. All right, sir. Would you point out—as I understand it, this connects a chain of areas that is necessary for the species but I would like to see it again on the map.

Senator METCALF. Be sure and point out the Lincoln-Scapegoat, too.

Mr. ROHOLT. We just put two of the five areas involved on here. We will submit a better map for the record. The boundary, as you can see, fits more or less—that is probably a little bit out of scale.

Senator HASKELL. It does not quite connect up though.

Mr. ROHOLT. Yes; that is true but it is much closer than it shows here.

Senator HASKELL. The Forest Service is still here. I wonder if the Forest Service would prepare us a map which shows the existing national park, the existing wilderness area, and this proposed wilderness area so that we can see the geography of it.

Mr. WOLF. We can do that.

Senator METCALF. The Bob Marshall Wilderness, the Glacier National Park and the proposed wilderness area.

Senator HASKELL. Thank you. Senator Hansen, now it is your turn.

Senator HANSEN. Thank you, Mr. Chairman. I have two questions. Mr. Sedlack, as you know, in Wyoming there has been comment on the management of wilderness areas that has intrigued me.

Apparently the focus of attention that the designation brings to an area results in a much heavier impact of use than may have been the situation before such a designation.

I have talked with some Forest people, with some Game and Fish people, and the problems they encounter are that seemingly, and this is true exclusively in the summertime, as you might easily understand, a lot of people come in and it is a difficult thing insofar as the game and fish personnel go in trying to monitor such fishing and killing of small birds and that sort of thing.

The forest people say that it is really a pretty tough job given the personnel they have trying to do the job of enforcing regulations, sanitation, and that sort of thing.

Do you anticipate that this would be a problem in this area?

Mr. SEDLACK. Yes, sir, it is a problem. The way to alleviate that problem is proper management ahead of time. Luckily I have been in some of the planning sessions, basically on the field level, for 2 to 3 years in the ranger subdistrict north of this area.

Therefore, I have worked on this preplanning problem. We feel we are moving ahead but this automatically means that people are going to move into that area since Glacier Park is, in a sense, opening it.

I have worked with Forest Service personnel on some small recreational projects. I have had many occasions to go into that land on firefighting, emergency rescue, and some law enforcement.

The only way to protect these areas is to have a more unified, organized system.

Senator HANSEN. Mr. Roholt, you spoke about the timber management. We have had very interesting, ongoing controversy south of this area in Wyoming in the Grand Teton National Park just last summer.

The Park Service tried out a concept of letting the fires burn, trying to duplicate nature before man came onboard. I defended the Park Service.

It seemed to me that if you are going to try to perpetuate the characteristics that are typical of pristine wilderness, you have to let fire burn. But the reaction of people in the immediate area was at times almost violent. Certainly there was a world of objection.

What is your idea as to the control of insects and disease over mature timber stands and that sort of thing? Would you appeal this concept of letting those fires that naturally occur burn themselves out as the best one to avoid or what would you recommend?

Mr. ROHOLT. The policy of our committee has been for many years to suggest that, with reservations, this is a good policy.

As you know, the Forest Service, for years, had an unstratified fire policy. Each and every fire was put out as soon as it was discovered. We had all sorts of fuel buildups. This compounded the difficulty of continued fire prevention.

Conversely now, some of these areas in the Wilderness Act are being managed in a more natural fashion. To go backward is a more difficult problem, as I am sure you understand.

To briefly or simply answer your question, I would say we do support this with some reservations. That is, not perhaps let each and every fire burn totally, but with some, apply a much lower intensity of firefighting, with perhaps some prescription for the area.

I might add that this program is being developed primarily in the Bitterroot Selway area and other areas in Idaho. I think the results there are encouraging.

Senator HANSEN. Thank you, Mr. Chairman.

Senator HASKELL. Senator Metcalf.

Senator METCALF. I want to get back to the question that the chairman asked. I think a most impressive part of your testimony was the discussing of wildlife in this area.

I do not think that any place in North America, except Alaska, has a more diversified wildlife than this area. Why couldn't, under the outline of the administration that was given to us by the Forest Service, those endangered species be taken care of by the present administration or by a study bill?

Mr. Chadwick? Mr. Burk?

Mr. BURK. By a study bill? I believe they probably would be, Senator. I am not personally opposed to the idea that Senator Haskell advances here.

My concern is that I do not believe—

Senator METCALF. We are not advancing the idea, we are just inquiring.

Mr. BURK. I think it would not accomplish anything more than what we have got. This bill is not instant wilderness until it is passed by both Houses of Congress and signed by the President.

I do not believe, as with Lincoln-Scapegoat, this is going to, very frankly, get through both Houses of Congress and be signed by the President until we have completed that mineral survey.

I feel the same thing will be accomplished either way. That is my feeling.

Senator METCALF. So we would not have more endangering of the grizzly bear and the timber wolf and those species that are almost unique to this area if we adopted the recommendation of the Forest Service?

Mr. BURK. If this committee will emphasize to the U.S. Forest Service that it uphold a statement it made before this committee today, that it will protect the wilderness qualities of that area. It has not always done so, particularly in terms of intrusions into ranges by snowmobiles, particularly in terms of trail bike problems and some erosion, that sort of thing.

There are aspects of the wilderness character of the area that have not been protected by the Forest Service.

Senator HASKELL. The Senator would yield, please?

Senator METCALF. Surely.

Senator HASKELL. It is my understanding if we put this as a study area, the Forest Service, as a matter of law, would have to protect it. I stand to be corrected but that is my understanding of the law.

Mr. BURK. One of the problems, Senator, is that the Forest Service, I believe in 1970, made a statement that it was doing this.

I was on a trip in which I took a number of national conservation leaders into the area to show them particularly the wild river qualities. We ran into a Forest Service trail crew doing maintenance with trail bikes in an area where no trails were supposed to be admitted.

I have had some reservations in believing them about that sort of thing since then.

Senator HANSEN. Would you yield just on that?

Senator METCALF. I would be delighted to yield.

Senator HANSEN. One of the points made by the Forest Service from time to time is that if personnel could be permitted to use chain

saws in trail clearing, it would really affect great savings that would otherwise be the cost of clearing and that sort of thing.

Do you think that there could be an exception or an allowance granted for that sort of use and not do violence to the concept?

Mr. BURK. No; I do not.

Senator HANSEN. Thank you, Mr. Chairman.

Senator METCALF. The second thing, Mr. Chairman, I detect a difference in allowable cut and impact on the timber harvest.

Could we ask the Forest Service to identify on the map the commercial timber areas, the potential timber areas?

Senator HASKELL. Yes. If a member of the Forest Service would step forward.

Mr. WOLF. I do not have the detailed information.

Senator METCALF. Could you give us a map that will have the information? They say they are dispersed. Can you make little slots of where the commercial timber lies so that we can see?

Mr. WOLF. Yes; we can provide a map which will give you a picture of the timber areas.

Senator HASKELL. Do you have anything further, Senator Hansen? Would you have further questions?

Senator HANSEN. Just one further general question. I direct it to no one in particular. One of the user groups that is becoming increasingly vocal in Wyoming is the snowmobilers.

I know that there have been a number of people who in the past have been accused of pursuing game animals or wildlife of any kind in the winter and undoubtedly it would be fair to say that there would be a continuance on occasion of this type of abuse because it seems to make pretty good sense that one person by himself does not go out on a snowmobile for pretty obvious reasons; if you break down, you would have to wallow through snow very far and that is a very foolish thing to do.

These groups—we have gotten a number of letters in my office saying that they would hope if more wilderness areas were established that some recognition of the desirability of permitting over-the-snow-type of vehicular use in the wintertime would not do great violence to the concept, if reasonably monitored.

They think it opens up experience for a great many people who could not get into those areas otherwise. Would anyone care to comment on that?

Mr. ROHOLT. I believe we all would.

Mr. CHADWICK. I wanted to say first that—do we have a percentage on the areas that are not available for snowmobilers?

Mr. ROHOLT. I will answer this as briefly as possible. We did a 2-year study about 3 years ago and concluded that the opportunities for snowmobile use in this area are not particularly high, although there is some snowmobile use on the area—600 visitor-days per year.

The areas are very high and steep-walled. There is soft snow which you can sink in. There are no roads in the area. Furthermore, as far as damage is concerned, most of the snowmobilers are on river bottoms which are—maybe I had better let Mr. Sedlack comment on that.

Senator HANSEN. Fine.

Mr. SEDLACK. I would like to comment on the thought of snowmobilers. I use snowmobiles in my work and I use them for recreation. They

often skim through an area, maybe get into high, barren country for the fun of it, for the scenery, to enjoy it, and not to disturb anything.

Keep in mind, when you skim through these areas, you are going right where the elk are, you are disturbing the elk and they have to fight through deep snow during the critical periods in Montana in mid-February through March. The sunshine is out but the elk cannot move in the crusted snow. The snowmobile goes very fast over it. It forces the elk to move and disturbs his energy level where he can die from it.

They are disturbing something there. An interesting thing is, at what level would you disturb the land or better yet, the flora on the land?

A report by Dr. J. Pruitt of the University of Manitoba, points out that when you disturb the crust level, particularly the lower level, you have disrupted the growth both in animals and plants.

These are things we do not normally see because they are subtle, but it has changed the area. Compaction from running a snowmobile through it as well as breaking up this normal living zone, a zone that is alive all winter long, will destroy some of the plants in that area as well as the animals.

Mr. CHADWICK. The disturbance of the snowmobile raises the stress level in many of these animals, which in turn leads to a more rapid consumption of energy reserve that they need to get them through the winter.

Mr. ROHOLT. I might just add, for opportunities of snowmobiling, there is an average of $1\frac{1}{2}$ miles of road per square mile in the Flat-head Forest; that is an average.

Having run a snowmobile very little myself but in talking to people—I cannot honestly speak for them but nevertheless—indications seem to be that there are better opportunities elsewhere in the forest which are almost as scenic, and even in some areas of Glacier Park, that do seem to be used more intensely.

That is the best we can do on that particular question.

Mr. BURK. That was my point, Senator. There are hundreds of miles of roads.

Mr. CHADWICK. There was an estimated 600 visitor-days in that area. But in the little town of Essex, right here at the edge of Glacier Park in the Middle Fork—it is a remote town and has hardly any population around there—there were some 1,600 people who showed up for cross-country ski lessons in the area. I think in Montana this is the most rapidly increasing sport.

This is something that can be done in the wilderness while snowmobiling can be done throughout the whole area.

Senator HANSEN. Let me ask you. What is the relative degree of compaction from cross country skiing as compared with snowmobiling?

Mr. SEDLACK. Of course there is certain mathematical data. I believe, outside of the study I mentioned earlier, it is only obvious observation that the skier will float on the top. The essence and mechanics of skiing is the floating quality. The machine, of course, would often cut through. Where many times we have had to do some rescue, we have to use tandem machines and make sure we cut through the snow crust.

Senator HANSEN. Would it be quite accurate to say that the snowmobile causes substantial damage in cross-country skiing? Is it a matter of degree? Does that seem reasonable?

Mr. SEDLACK. You asked earlier about the people use of the area, the recreation, the esthetics of the area, that is good for our makeup, our personality. Obviously the less from machines, noise and large groups, the more we can have this psychological retreat.

Senator HANSEN. I was not trying to get into the issue of desirability of people use but rather just to address the one point.

Does the snowmobile do damage and the skier no damage?

Mr. SEDLACK. I think there is no question that "Yes" is the answer. There is much more damage from the sheer weight and pressure of the snowmobile.

Senator HANSEN. Thank you, Mr. Chairman.

Senator HASKELL. Senator Metcalf.

Senator METCALF. No questions.

Senator HASKELL. Thank you, gentlemen, we appreciate your being here.

[Subsequent to the hearing Mr. Roholt submitted the following:]

SUPPLEMENTAL STATEMENT BY CHRIS ROHOLT, REPRESENTING MIDDLE FORK OF
FLATHEAD PRESERVATION COMMITTEE

The Middle Fork of the Flathead Preservation Committee questions annual allowable cut figures for the contribution of the Great Bear as provided by the United States Forest Service. As I previously stated at the S. 392 hearings, the 18.9 mmbf per year figure is composed of 10.6 mmbf per year from the Flathead National Forest and 8.3 mmbf from the Lewis and Clark National Forest. While we believe both figures are high, the major disagreement is with the 8.3 mmbf per year from the L. & C.N.F. Using linear interpretation of RARE data for each inventoried roadless area partially or wholly contained in the Great Bear boundary, we estimate the Lewis and Clark contribution is about 1mmbf. Furthermore, a preliminary draft sheet (USFS/R-1/undated) stated that there was NO commercial forest land in the Lewis and Clark portion. This would imply that the annual allowable cut contribution of the L. & C.N.F. portion is 0 mmbf per year.

Our committee believes that the Flathead National Forest figure of 10.6 mmbf per year for their portion of the Great Bear is too large and that impacts of classification on the woods products industry are overstated. Our belief is based on several points.

1. In the only Planning Unit Final Environmental Impact Statement that has been completed (Spotted Bear FEIS) of the six that contain portions of the Great Bear, substantial reductions occurred in both commercial forest lands and (to a lesser degree) in the annual allowable harvest. It is not possible to sort out any particular percentage, but we believe there would be similar reductions on each of the remaining five planning units.

2. There are other alternatives for increasing the annual allowable cut on the Flathead National Forest. In the short run roading and logging the Great Bear is simply not possible as the "bad times" are too long. (2-5 years). In the longer term both technology and funding can increase the raw materials available on the remainder of Flathead National Forest.

- (a) Technologies of utilization and production will allow less than the current 50% of the cellulose being left on the logging site. Trees of less than seven inches diameter are currently in the unregulated class and as such are not in the annual allowable harvest volumes. (Flathead National Forest Ten-year Timber Management Plan EEIS-1974). Logs of smaller size are currently being processed in Montana and trends indicate that 4"-2" top diameter may eventually become economically feasible.

- (b) Technologies can be applied to the harvest or production aspects, then higher more sensitive sites may be logged in an ecologically sound manner. However, in this event, much of this technique could be used on the non-Great Bear portions of the Flathead Forest to increase the annual allowable harvest. If it

occurs in the production aspect of the woods products industry, then the importance of the Great Bear as a cellulose producer will remain about what it is today—small. While a mixture of the two technologies will occur through time, the latter is more likely.

(c) There are currently 24,700 acres of reforestation backlog and 161,800 acres of pre-commercial thinning backlog on the Flathead N.F. (ibid—Appendix #5). This reforestation backlog alone has the potential to increase the annual allowable harvest by 11 mmbf—a figure greater than estimated to be the contribution of the Great Bear. Pre-commercial thinning is scheduled at a rate of 8100 acres per year—assumedly over the next twenty years. If none of this is accomplished, then the annual allowable harvest would be reduced by 2.5 mmbf. Conversely, some increase in the annual allowable harvest might be expected if this program were accelerated.

(d) In 1971 about 89% $\left(\frac{132.2}{149.1} \cdot 100\right)$ of Flathead National Forest timber was processed in Flathead County. And 78% $\left(\frac{132.2}{167.8} \cdot 100\right)$ of the U.S. Forest Service

timber processed in Flathead County came from the Flathead National Forest. (A descriptive analysis of Montana's Forest Resources USDA-Int. #11, pg. 43.) However, (in 1976) only about 61% (Flathead N.F.—10 year plan 1968 pg. 17) of the timber processed in Flathead County is obtained from any National Forest. Thus, only about 48% $(61\% \times 78\%)$ of the timber processed in Flathead County is obtained from the Flathead National Forest. This suggests that impacts in the Flathead woods products industry are less than even

the 6.7% $\left(\frac{10 \text{ mmbf}}{150 \text{ mmbf}}\right)$ as suggested by simple percentages of the Flathead Na-

tional Forest harvest. If a larger area than just Flathead County and the Flathead National Forest is considered then the 10.2 mmbf figure should more properly be compared to 300-500 mmbf per year.

(e) There was considerable controversy concerning the conversion period for the Flathead National Forest. If the current 50 year period were shortened for some portions of the Forest then some increase (less than proportioned by area) of the 30 mmbf per year that was arithmetically obtained by using a 34-year period might occur.

3. Even some timber industry spokesmen (Dennis Swift—20 May Senate hearings) assert that some of the Great Bear proposal should be wilderness. Any commercial forest land contained in those areas would diminish the annual allowable harvest (theoretically).

4. Most of the commercial forest land in the Great Bear is and has been deferred since 1970. This means that classification would not diminish the present annual allowable harvest.

The aspect of commercial forest land reservation that most involve the woods products industry concern employment impacts. The relationship in the short run between employment and commercial forest land or even the annual allowable cut is difficult to determine. Johnson quantified the relationship between the employment level and the timber harvested annually in western Montana. (Montana Business Quarterly—Spring, 1972) She arrived at a figure of between 3 and 7 man years of employment per million board feet of timber harvested. Three alternatives were considered of the effect of a reduction in the annual allowable harvest on employment. However, assumptions had to be made between annual allowable harvest levels and timber harvested. Her predictions were rather bleak for 1972-75. In fact employment was solid and production in 1973 was the highest in history. The explanation is simple. Timber sales in the short run respond much more to national market conditions than to the annual allowable harvest. Currently, about 10-20% of the sales in Montana National Forests are unsold.

If the conservative and unreasonable assumption is made that stumpage is now a constraint and that Great Bear timber could be harvested immediately, then the

employment potential is about 50 woodworkers. $\left(05 \frac{\text{man-years}}{\text{mmbf}} \cdot \frac{10 \text{ mmbf}}{\text{year}}\right)$.

This is about 2% of the Flathead areas wood products workers. This fallaciously assumes that employment is caused by annual allowable harvest levels. The

assumption has been made that the Lewis and Clark National Forest annual allowable harvest is 0. Considering that the woods products industry has and will continue to be a cyclical and volatile industry, it is more realistic to consider that the annual allowable harvest is a constraint or bottleneck only 20-40% of the time. Also, the Great Bear would only be able to augment the annual harvest only incrementally as some of it is deferred until 1981. So it would not be unreasonable to assume that the impact of classification might be only 10-30 man years. This is about 1% of the Flathead area woodwork and related forces.

Admittedly this provides only a crude estimation, because even in the next 10-year definitions of commercial forest land, and harvesting and cellulose processing technologies will change. However, we believe that changes in all three of these factors will be neutral or lessen the relative importance of the Great Bear as a cellulose source.

Finally, we have discussed only the potential negative impacts of wilderness classification. Just as a minimum example there are about 20 man years of commercial guiding in the areas—

(7000 man days
360 days/year USFS-R1 fact sheet).

Their livelihood depends on the continued wilderness qualities of the Great Bear. The evidence of other work suggests that the values of this type which are not technologically augmentable will rise faster than the values (lumber) which are technologically augmentable (Baumol or Krutilla-Hells Canyon revisited).

At the local level then, the opportunity cost of classifying the Great Bear as wilderness are close to zero especially when changing values through time are considered. At the National level the opportunity cost is probably negative for this is the largest remaining roadless area in the most strategic location of any in the lower 48 states, the timber values of which are minute.

Senator HASKELL. Our next witnesses are Mrs. Lynn Lietz, of Columbia Falls, Mont. and Mr. Dennis Swift, Columbia Falls. I would point out, that if you have written statements you may submit them for the record or read them, but there is the 5 minutes each to be divided as you wish and then followed by questions.

Who wants to go first?

STATEMENT OF LYNN LIETZ, COLUMBIA FALLS, MONT.

Mrs. LIETZ. Mr. Chairman and members of the subcommittee my name is Mrs. Lynn Lietz. I am representing Women Opposed to Official Depression, WOOD, and I am also a wife and a mother of two boys. My husband and I own and operate a small logging operation in Columbia Falls, Mont.

I hope to impress upon you the impact that S. 392, the Great Bear Wilderness Act, will have on the local economy of Flathead County.

The timber industry is currently in a depression. The current unemployment rate in northwest Montana is in excess of 16 percent. This is almost twice the national rate. If you pass the Great Bear Wilderness Act, you are in effect eliminating approximately 140 jobs in logging and milling, and 250 jobs indirectly in our business community.

For a family of four, this would mean that 1,596 people in our area alone would be affected by this action.

Also, the Flathead is nationally noted for its recreational areas. Tourism is a major business. Many businesses are heavily dependent upon tourism for their very livelihood, but many of these businesses cannot survive without loggers and millworkers like my husband.

Some people have suggested that recreation jobs can replace them. Maxine Johnson, director of business and economic research at the

University of Montana, in her publication "Wood Products in Montana," says:

One frequently hears the suggestion, especially in recreation-oriented western Montana, that increased employment in industries oriented toward travel and tourism may well offset the loss of industrial jobs.

To suggest that jobs in such businesses as eating-and-drinking places, with average annual earnings per worker in 1970 of \$2,653, hotels and motels, average year earnings \$2,744, or service stations, \$3,769, are satisfactory substitutes for jobs in an industry such as wood products where the typical worker earned \$7,635 in 1970, is to reveal a limited understanding of Montana's economic problems . . . the State needs jobs which pay well and which will help increase our lagging per capita income.

I know my family cannot live on \$3,000 per year and I know very few who can unless they live on food stamps and other Government programs.

The recreational opportunities offered by wilderness, for the most part, are not used by the average American or his family.

My husband and I have two young boys, and although the wilderness is available to us, as it is to all citizens, it is not practical recreation for us.

It seems to me that you have to be in good shape and fairly well-to-do to enjoy wilderness. I am not saying that there should not be wilderness for recreation, but I think that we should try developing roaded recreation sites, wherever possible, for the average American family, the elderly, and the handicapped.

My suggestion is to strongly urge you to reject S. 392. The Great Bear area should be managed as a multiple use area, as suggested by the U.S. Forest Service in their Flathead multiple-use plan of 1969.

The preservation organizations have said that the Great Bear Wilderness area is needed to preserve nature and wildlife.

As a wife of a logger and a mother who feels an obligation to help feed her family, I believe the timber that can be cut should be cut in the future. If we do not harvest this timber, it would be like going to the store, buying a package of hamburger, and letting it rot rather than eating it.

I say we do not need this area designated wilderness so we may preserve jobs, may preserve incomes, may preserve our livelihoods, and may preserve an area in which we can live with our families and raise our children with the thought of free open land for use by all, not just a few.

It is my understanding that the Montana delegation to Washington, D.C., has received a great deal of public opposition to S. 392.

As representatives of the people, I feel they should not take lightly or even ignore the many phone calls and letters they have received. I feel they should indeed vote with the people of northwest Montana and vote "No."

The time has come, gentlemen, when we need votes for the truly endangered species—the lower and middle class working American!

Thank you for this opportunity to testify before you today on this important matter.

Senator HASKELL. Mr. Swift.

STATEMENT OF DENNIS SWIFT, COLUMBIA FALLS, MONT.

Mr. SWIFT. Mr. Chairman, members of the subcommittee, my name is Dennis Swift. I am with the F. H. Stoltze Land and Lumber Co.,

Columbia Falls, Mont. The Stoltze Co. has produced lumber products in the Flathead Valley of western Montana for construction and housing needs for some 42 years.

As a forester, I love the land, the outdoors and trees. This is one reason I, like others, have chosen forestry as a profession.

As an individual, I know there is a need for wilderness. I enjoy wilderness. Over the past years, I have had the privilege of visiting the Bob Marshall Wilderness, which adjoins the Great Bear proposal, on numerous occasions.

However, region 1 of the U.S. Forest Service has adopted a very purist type of management philosophy in managing wilderness. This may sound good in theory or on paper, but it does not always work very well on the ground. Camping areas become filthy with toilet paper and human waste, because toilets are not allowed.

Trees are damaged, destroyed, or the ground beaten out around them because permanent hitch racks are not allowed in these camping areas.

The Forest Service allows temporary hitch racks, ones that are put up and taken down at each campsite, but what does one do until racks can be constructed? Horses are tied to a tree, and the next outfit that comes along does the same. Often the temporary hitch racks are not constructed and the horses remain tied to trees.

Many people who actually use wilderness have had second thoughts about the adoption of new wilderness areas. They feel that perhaps a back-country classification, which allows some minimum facilities such as toilets and hitch racks, is more practical.

A back-country classification allows for measures to protect and correct problems arising from human visitations, where often these protection measures are not practiced under region 1 management policy for wilderness.

The Great Bear Wilderness proposal covers a big country, 378,000 acres. I am sure that part of this area is suitable for wilderness. But I feel that part of this is better suited for a back-country classification. I also feel that portions of this area should permit other multiple users such as timber management and harvest, management of wildlife, and recreational considerations for a wider range of people.

The finger of land in the northwest portion of this area is basically high, scenic country. But the area is long and narrow and surrounded by man's influence, which is plainly visible from much of this area. Also there are three telephone reflectors and one electronic radio repeater scattered along the crest of this finger of land.

Much of this area is better suited to a back-country type of management with consideration given to other multiple uses on the more readily accessible portions.

This Great Bear area should be studied to determine the extent and effects of man's past influence on the area such as previous logging, some road construction, cabins, patented and unpatented mining claims, and reflector and repeater stations as previously mentioned. Also there are applications for gas and oil leases, hydroelectric considerations, and even a Blackfeet Indian Treaty on 20,000 acres which dates back to 1895.

The loss of commercial timberland is a burden on the local communities in the form of lost jobs and income. Since 1969 the Flathead National Forest has had a drop of 43 million board feet per year in

its annual allowable cut. This is from 194 million board feet in 1969 to 151 million board feet for their latest estimate. This means a loss of a lot of jobs in an area that is continually plagued with high unemployment.

Some of this loss is justified to assure sustained yield management, but much of the reduction in timber harvest is not justified, and it is imperative that sincere considerations be given to the economic consequences before any further withdrawals are made.

It would be premature and unwise to classify this area as wilderness until it has been thoroughly studied and input has been received by the public and from those knowledgeable and concerned with the area.

Gentlemen, I urge you to recommend that a complete study be made of the Great Bear area before any action is taken on land classification. This should be a study where all considerations are brought out in the open, public input is received, and hearings are held in Montana.

Thank you for this opportunity to appear before you today.

Senator HASKELL. Thanks to both of you. Do either of you have an estimate of the percentage existing in the proposed wilderness area of the total annual allowable cut in the Flathead and Lewis and Clark National Forests?

Mr. SWIFT. Only what the Forest Service figures reveal, which I believe was updated to almost 19 million per year on the two forests. That is the total in the Great Bear area.

Senator HASKELL. What I am really looking for is the percentage that this area represents, in other words, the ratio of this area to the total in the two forests.

I can ask the Forest Service and I will because probably you do not have it. I see the gentleman from the Forest Service is still here. Can you provide that information for the record?

Mr. WOLF. Yes; we can provide that.

Senator METCALF. Mr. Chairman, there is some disparity between the testimony of the former panel and the Forest Service testimony as to the amount—

Senator HASKELL. Perhaps we could also ask the former panel to provide their views on this. I see one of them back there.

Mr. ROHOLT. Yes; we will.

Senator HASKELL. Yes. Thank you very much indeed. Perhaps the Forest Service and the former panel could provide it within 2 weeks. Would that be adequate time?

Mr. ROHOLT. Yes, sir.

Senator HASKELL. I have no further questions; Senator Hansen.

Senator HANSEN. When Mr. Dale Burk was testifying, we were skimming through his statement, and on page 3, he says:

While there has been overwhelming support in the past for designation of the wilderness area—over 90 percent at hearings held locally 2 years ago—there will be some opposition to the proposal from minority groups who would, if they could get away with it, ignore the area's overriding value as wilderness for wildlife and its recreational watershed and its scenic values.

I would ask each of you to comment. How do you assess the support or lack of support for this proposal now? I think according to the statement I have just read of Mr. Burk, this was his estimate of the situation 2 years ago. Has that changed?

What is the situation now?

Mr. SWIFT. At this time, economics in our area are particularly poor. I am certain at this time you would get considerable support from industry people, people working for industry who have their jobs at stake, this sort of thing, at these public hearings.

I think it depends a lot on who gets the most out. A lot of these hearings are extremely one sided but sometimes the silent majority is not heard because the other side does not have the people out.

Senator HANSEN. Would you care to comment?

Mrs. LIETZ. I believe what Dennis said is true on our part. Economics is a big part right now.

Senator HANSEN. When the Forest Service was testifying, I think they made, although I did not get to hear their statement, some reference to this back-country classification.

Would you be inclined, generally, to agree or disagree with the proposal that was made by the Forest Service with respect to this back-country designation?

Mr. SWIFT. I would have a tendency to support that. I feel a lot of this particular area is basically more of a back-country type, although portions of it are certainly wilderness.

Mrs. LIETZ. That is true. Portions of it are wilderness areas. Portions are for back country and portions are for timber harvests. Portions are for multiple-use purposes.

Senator HANSEN. Thank you, Mr. Chairman.

Senator HASKELL. Senator Metcalf?

Senator METCALF. I have no questions.

Senator HASKELL. Thank you both for appearing here. I appreciate your testimony.

Mr. SWIFT. Mr. Chairman, I do have a statement to submit for the record from Howard McDowell, who is the executive vice president of Inland Forest Resource Council.

Senator HASKELL. That will be reproduced in the record following this discussion.

[The prepared statement of Mr. McDowell follows:]

STATEMENT OF HOWARD McDOWELL
on S. 392
before the
SUBCOMMITTEE ON THE ENVIRONMENT AND LAND RESOURCES
COMMITTEE ON INTERIOR, U.S. SENATE
May 20, 1975

My name is Howard McDowell. I am a professional forester and executive vice president of the Inland Forest Resource Council, headquartered in Missoula, Montana. I am here to testify in opposition to S. 392, the Great Bear Wilderness Bill.

The Inland Forest Resource Council is an association of forest products companies with operations in Montana, northern Idaho, and northeastern Washington--essentially the boundaries of Forest Service Region One. Our members harvest timber from private, state, and federal lands, and their 15,000 employees convert them into lumber, plywood, particleboard, pulp and paper, and a wide range of useful products.

The Council was established for the purpose of securing a sustained supply of timber, using good resource management principles and techniques. This will keep the land productive, the plants running, and our people employed.

The unique values of wilderness, and the need for some areas to be retained in a primitive state is recognized by the forest industries. It is part of the multiple-use concept which we endorse and support. It is the balance of uses with which we are concerned.

The nation needs these untrammelled areas as it needs the benefits that flow from planned resource use. The benefits from the managed forest:

the timber, water, forage, wildlife and accessible forest recreation. And as it needs the jobs that make recreation possible for most people.

Decisions to set aside lands for wilderness must be made only after careful studies have been made to determine what resource benefits will be forgone in exchange for Wilderness classification. The public must then be informed of the tradeoffs involved for alternative uses, or non-uses. A well-informed public given time to deliberate on the alternatives, will then be in the best position to intelligently advise the land managers and the Congress.

We are opposing S. 392 because the proper decisionmaking process just described has not been followed. We believe the introduction of S. 392 to be premature.

One of the tradeoffs that must be given a searching analysis is the loss of commercial forestlands that provide for the basic employment in many rural western Montana communities. These lands are not among the most productive forestlands in the nation, but they are there, and no more is going to be made. These lower site lands will have longer rotations and lower volumes per acre; but they are, and can continue to make their contributions to the nation's increasing wood demand (temporarily slowed down) and perhaps more important in a social sense as a job-producing resource. According to recent Forest Service data, about one-fifth of the Great Bear proposal is commercial forestland with a potential yield of approximately 19 million board feet per year. A recent University of Montana

study on the wood products industry revealed that approximately 21 direct and indirect jobs are generated in the harvest and manufacture of one million board feet of logs (Scribner Scale). For that potential yield of 19 million board feet, we have a corollary potential for about four hundred (400) jobs--no minor item in small, urban communities like Kalispell and Columbia Falls, which are the adjacent wood-processing centers. The study notes that: "In 1969 something like 43 percent of total employment and 51 percent of total personal income in western Montana came either directly or indirectly from the wood products industry." (And this was before the introduction of the first two particle board plants, which operating on residues from manufacturing, without harvesting a single additional tree, created 260 more jobs in Montana.)

Another valuable resource that must be considered is water. I would like to submit for the record a copy of a recent editorial in the Hungry Horse News (Columbia Falls). The well known and eminently respected editor, Mel Ruder, discusses the energy crunch. He quotes from remarks by Senator Metcalf before the Senate Appropriations Subcommittee concerning the potential of additional power from existing dams. Towards the close of the editorial, Mr. Ruder discusses the 20-year old Middle Fork diversion study. He says: "In view of the energy crunch, there may be a question that the Middle Fork diversion, apparently not feasible 20 years ago, has merit today. This should be answered before the Great Bear Wilderness is established. No dams should go in wilderness. Considerable land between the Bob Marshall Wilderness and Glacier National Park is well suited for wilderness expansion.

Creation of the Great Bear is the subject of a Congressional hearing to be underway shortly in Washington, D.C." He concludes his editorial: "In the ways of government, the proposed wilderness will get considerable study and review." We have great hopes that Mr. Ruder's faith in the process will be justified, since that is what we are asking for--"considerable study and review."

Along the same "energy crunch" lines, there are applications pending for oil and gas lines on 54,000 acres within the proposed boundaries of S. 392. The potential new sources of these vital energy producing raw materials are becoming more valuable with the passing of each day. We can and we must conserve energy, but we cannot overlook our basic national needs for oil and gas. Known domestic supplies are at the critical level and shrinking rapidly. The Canadians are curtailing their sales of natural gas to the Pacific Northwest, including Montana, and have tripled their prices just recently. Our economy cannot withstand the huge outflows of cash paid for foreign oil. We in the forest products industry realize that we must conserve energy. We are fortunate in that many of our plants are largely energy self-sufficient using wood wastes as fuel.

Within the Great Bear, there are deposits of coal, copper and silver, and these resources must be weighed also.

Wildlife values are extremely important. Among the large mammals, the major wildlife species found are grizzly bear, mountain goat, elk, and moose. Both summer and winter range are available. (Hunting ranks as the major recreation activity.)

Members of our Council who have flown over the area describe it as largely rugged and scenic. And, of course, this draws the horseman (person) and backpacker seeking the scenic back country recreation experience. They are joined by their perhaps more affluent compatriots who fly into the Schafer airstrip. Other motorized use is light. According to Forest Service accounts, only about four percent (4%) of the recreation visitor days are snowmobile or trail bike oriented.

There are other non-conforming uses or signs of past use within the proposed boundaries: two recently completed logging operations and their access roads, four electronic installations, a few scattered cabins and look-outs, and Schafer Work Center complex adjacent to the airstrip. In addition, approximately 20,000 acres of the proposal are part of a treaty rights agreement with the Blackfoot Tribe, allowing members to cut and remove timber for "agency and school purposes, and for their personal uses for houses, fences, and all other domestic purposes."

All of the foregoing complexities of optional land use point up the need for, as Mel Ruder puts it, "considerable study and review." Ms. Maxine Johnson, Director of Business and Economic Research at the University of Montana, closed her special report "Wood Products in Montana" with these comments: "Insofar as choices exist consistent with proper management and conservation of the National Forests, the potential economic consequences, particularly as reflected in jobs and income, deserve to be one of the criteria in the decisionmaking process."

It is evident that the Great Bear Wilderness proposal is more than a simple land classification matter. There are many complex issues involved that need careful study. The Congress has authorized the Forest Service, through the Secretary of Agriculture, to conduct such studies, and we believe the Forest Service should have the opportunity to carry out its assigned duties. The total gamut of public input should be run when these plans are being developed and analysed.

If the Committee believes the planning timetable is too extended, perhaps it can convince the Congress to appropriate additional funds to speed up the work on these planning units.

I would like to close by again requesting that the Committee take no further action on S. 392, the Great Bear Wilderness Bill, until the proper studies are completed and the public informed. When this has been done, field hearings should be held in Montana, so that interested Montanans who find it difficult to travel to Washington may have the opportunity to personally present their views to this Committee.

2 — HUNGRY HORSE NEWS, FRIDAY, MAY 16, 1975

Will Energy Crunch Change Attitudes?

Canada is reducing its exports of natural gas and petroleum along with raising prices.

The result will have considerable impact in Montana.

This comes at a time when Montana which has coal is concerned with rape of land that results from inadequate reclamation where strip mining takes place.

In this energy crunch, hydroelectric power shows as a favorable alternate. Water power utilizes a renewable resource as compared to fossil fuels. Yes, silting can fill a reservoir but it's a long-time process. Manufacture of aluminum is dump power use of electricity. We'd not favor another dam if its use is to make more aluminum. Question is will electricity be needed to heat homes?

Montana should give thought to hydroelectric developments, and noted are remarks by Senator Lee Metcalf dated May 7 before the Senate Appropriations Subcommittee on Public Works.

Metcalf said: "It is now six years since I obtained from the Public Works Committee authority for the Corps of Engineers to study additional hydropower in the Missouri Basin. The Corps had come to me, in 1969, and told me that more than a million kilowatts of valuable peaking power could be obtained by installing additional generating units at existing dams." (Note its existing dams, not new dams.)

The Metcalf release continued: "The Public Works Committee quickly granted the authority. The Congress, thanks to your Subcommittee voted the money. The study was to have

been completed in 1973. Now in 1975, the study is not completed, because of revisions and diversion of funds and personnel, some of these delays being attributed to the Office of Management and Budget." (and the long release continued).

The Hungry Horse News opposes a North Fork Dam. There is a national park involved, and Americans will not stand for flooding a portion of a national park.

About 20 years ago there was foundation drilling up the Middle Fork (outside Glacier) in the Spruce Park vicinity six miles from U.S. 2. Proposed was a relatively small dam with a seven-mile tunnel that would divert spring flood waters to Hungry Horse Reservoir. There would be a power plant at the end of the tunnel.

Opponents said it was a plan to justify Hungry Horse, but Hungry Horse has done a creditable job proving itself.

In view of the energy crunch, there may be a question that the Middle Fork diversion, apparently not feasible 20 years ago, has merit today. This should be answered again before the Great Bear Wilderness is established. No dams should go in wilderness.

Considerable land between the Bob Marshall Wilderness and Glacier National Park obviously is well suited for wilderness expansion. Creation of the Great Bear is subject of a congressional hearing to be underway shortly in Washington, D.C.

In the ways of government the proposed wilderness will get considerable study and review.

Senator HASKELL. Our next witness is Mr. James Eaton, of the Sierra Club of Vallejo, Calif. Mr. Eaton, I do not know whether you were in the room when we announced the 10-minute limit or not.

STATEMENT OF JAMES EATON, REPRESENTING THE SIERRA CLUB AND THE WILDERNESS SOCIETY

Mr. EATON. Thank you, Mr. Chairman. I am Jim Eaton from Vallejo, Calif. I am representing the Sierra Club and the Wilderness Society. Due to the length of my statement, I will be happy to submit the statement for the record and briefly comment.

Senator HASKELL. The statement will be reproduced in full.

Mr. EATON. Thank you. The Sierra Club and the Wilderness Society strongly support the establishment of a 37,000-acre Snow Mountain Wilderness.

Due to the longstanding nature of this wilderness proposal, including public meetings and hearings held by both Congress and the Forest Service, we feel that additional studies on the suitability of the Snow Mountain area for wilderness designation are not necessary. The two questions most often raised in regard to the proposal are the available mineral resources and the impact the logging has had on a portion of the area. We would like to address these two points.

If I may, Mr. Chairman, we have a model, prepared by the students of the University of California, of this area. I will point at the area that was logged.

Senator HASKELL. Certainly.

Mr. EATON. The Snow Mountain Wilderness proposal is outlined in white. And here are two areas that were part of the timber sale and active timber sale within the wilderness boundary, one portion on the west and one portion in the east, called the Pocket portion. As a result of a compromise in litigation with the State of California versus the Forest Service, the Forest Service agreed to cancel the timber sale in the Pocket portion.

Since they have already completed road construction and right-of-way timber harvesting, this portion of the timber sale in the Crockett Peak Area was harvested. Due to the location of the logging that did occur in the Crockett Peak section and since it involves only about 2 percent of the wilderness proposal, we would like to see that area included in the Snow Mountain Wilderness and allowed to be there.

The land is important because it contains a significant part of virtually untouched watershed of the Middle Fork of Stony Creek. It is now also being used by the off-road vehicle enthusiasts. The other part of the area we would like to see protected as part of the wilderness.

The second question that has been brought up is the lack of a mineral study on the Snow Mountain area. We would like the committee to consider the fact that the Forest Service has reported to date there are no discoveries which have been made which would indicate economic mineral deposits.

Experience in this portion of the coast range indicates little likelihood of future discoveries. This statement is confirmed by the available literature which is incorporated in the California Division of Mines, "Geologic Reconnaissance of the Northern Coast Ranges and Klamath Mountains, Calif. With a Summary of Mineral Resources,"

published in 1960. In addition, section 4(d)(2) of the Wilderness Act requires that areas designated as wilderness be studied on a recurring basis by the U.S. Geological Survey and the Bureau of Mines. If Snow Mountain is so designated, it will be studied under that program.

The remainder of my written statement responds to objections to the Forest Service regarding wilderness quality, economic costs, and public opinion.

I would also like to submit for the record comments from several botanists. One of these researchers has called the Snow Mountain area botanically amazing.

That is the conclusion of my testimony, Mr. Chairman. I will be happy to answer any questions.

Senator HASKELL. Thank you very much. I think it is going to be a little bit difficult to include that Crockett area in the wilderness if the logging is as recent as you indicate.

I think it would be helpful to get some pictures of the area. I do not know whether you could provide those for us or not. Maybe the Forest Service can. If the logging took place in the last couple of years, it would be rather difficult to include it.

Mr. EATON. It is not of the clear-cut type or some of the other major disturbance types of logging. It was more selectively cut. The Forest Service did an excellent job of cleanup, probably due to the public concern over the area.

Senator HASKELL. We might ask the Forest Service to submit some pictures of that area. Senator Hansen, do you have any questions?

Senator HANSEN. I have not had a chance to read your entire statement, Mr. Eaton. Just for my orientation, is this area in northern California?

Mr. EATON. Yes; it is in the coastal range of northern California. It is one of the last high mountains in the coast range.

Senator HANSEN. How far is this from the southern border of Oregon?

Mr. EATON. Quite a distance, sir, several hundred miles. It is closer to San Francisco than to the Oregon border.

Senator HANSEN. I see. I have no further questions, Mr. Chairman.

Senator HASKELL. I have one further question. Mr. Williams is going to put up a map of this proposed area. It is my understanding that the State of California has had plans for a scenic highway in this area. It goes smack dab through it. Do you have any comments on how far along those plans are?

Mr. EATON. Part of the timber sale did occur involving some reconstruction of existing roads in the area outside of the wilderness proposal to the high standards for highways.

There is an existing road which goes to the west of the entire area. In fact, most of the western boundary of the proposed wilderness is along this road which is currently the access route, north and south.

Senator HASKELL. I am talking about the red area there [indicating.] What is the status of that, do you know?

Mr. EATON. The Forest Service has not made any further commitments to building that road. They have a high-standard road coming down to about this point and a road coming up to about this point [indicating]. At the present time, the road goes around. They would like to link it up.

Senator HASKELL. I see.

Mr. EATON. They did state this morning that it was a plan of the Forest Service and both the counties had approved it. The three local counties are in support of this wilderness proposal. I doubt if they will support the building of this highway.

Senator HASKELL. In other words, there is an existing road around the border? The Forest Service has some kind of tentative proposal to put a road in that red strip down the middle?

Mr. EATON. Yes, sir.

Senator HASKELL. Do you have any questions, Senator Hansen?

Senator HANSEN. Yes; I have one more question. Mr. Eaton, I believe you were in the room when I asked earlier witnesses what their position was with respect to timber management.

Do you favor a policy of letting the fires burn if they are set by lightning or how do you think they should be handled?

Mr. EATON. I would have to say on the fire management policy in general, I would support a study on an area-by-area basis of determining the proper fire management. In this part of the coast range, lightning is not as frequent as it would be perhaps in the Sierra Nevada, so natural fires would not be occurring as often.

The second question would be what kind of management to apply to fires started by man, either a camper or started fire by nearby roads. I think they would probably have to make a greater analysis of what such a fire might do to resources outside the area, so I could not give you a blanket response.

However, on natural fire, I think I would be more toward supporting it be allowed to burn.

Senator HANSEN. Thank you, Mr. Chairman.

Senator HASKELL. Thank you very much, Mr. Eaton. I appreciate your being here. Your full statement will be included in the record.

[The prepared statement of Mr. Eaton follows:]

STATEMENT OF JAMES EATON, REPRESENTING THE SIERRA CLUB AND THE
WILDERNESS SOCIETY

I am Jim Eaton, from Vallejo, California. I am representing the Sierra Club and The Wilderness Society.

The Sierra Club and The Wilderness Society strongly support the establishment of a 37,000 acre Snow Mountain Wilderness. Due to the longstanding nature of this wilderness proposal, including public meetings and hearings held by both Congress and the Forest Service, we feel that additional studies on the suitability of the Snow Mountain area for wilderness designation are not necessary. The two questions most often raised in regard to the proposal are the available mineral resources and the impact the logging has had on a portion of the area. We would like to address these two points.

With regard to the logging that occurred last year, only about 600 acres of the proposed wilderness were affected. As a result of the lawsuit filed by the State of California, the Forest Service allowed the logging of the Crockett Peak section of the Nye Timber Sale while cancelling the Pocket portion.

Fortunately, the land that was logged was selectively cut, and a thorough cleanup of slash and debris was done. As a result, this logging operation is much less noticeable than areas harvested by clearcut and similar methods.

It is regrettable that this logging occurred within the proposed wilderness, but this section is important to the whole area. A portion of the Middle Fork of Stony Creek watershed is within the logged area, and we feel it necessary to protect as much as possible of the headwaters of this wild stream.

In addition, motorcycles and jeeps are using this area, causing soil erosion in some areas. This is an important trailhead to the interior of Snow Mountain and should not be a finger of off-road vehicle use inside the proposed wilderness. We therefore recommend that this disturbed area, less than 2% of the total proposal, be included within the designated wilderness.

Geologically, the Snow Mountain area is markedly different from that of many of California's wildernesses and parks that are carved out of granite masses. There are no granitic rocks present at Snow Mountain. Much of the mountain is composed of sedimentary rock of various types uplifted from a shallow ocean floor. Serpentine intrusions are found along the north and middle forks of Stony Creek, and lava flows are present on the north side of Snow Mountain.

There are no known deposits of commercial-grade material. The Forest Service reports that "to date no discoveries have been made which would indicate economic mineral deposits. Experience in this portion of the Coast Range indicates little likelihood of future discoveries." (Report on Snow Mountain Study Area, 1969.) This statement is confirmed by the available geologic literature, the California Division of Mines "Geologic Reconnaissance of the Northern Coast Ranges and Klamath Mountains, California, with a Summary of the Mineral Resources," 1960.

In addition, Section 4(d)(2) of the Wilderness Act requires that areas designated as wilderness be studied on a recurring basis by the U.S. Geological Survey and the Bureau of Mines. If Snow Mountain is so designated, it will be studied under that program.

Other objections to the suitability of Snow Mountain for wilderness designation have been raised by the Forest Service. These items include the timber resource, the scenic quality of the area, the economic values to be foregone, and public opinion.

The actual timber resources of the Snow Mountain region are difficult to determine as each Forest Service report offers new figures. In their 1969 report the Forest Service stated that 187,693 million board feet of timber would not be available for harvesting under wilderness classification for the 27,317 acre study area, causing a reduction in the overall sustained allowable cut on the Mendocino National Forest equalling 1-2 MMBF per year (the current allowable cut on the entire forest is 90.5 MMBF). It should be pointed out, however, that the report showed that 25% of this timber is located in the Crest Zone (and is therefore not available for harvesting under current management plans), 31% was said to be inoperable under present methods, and of the remaining 44% of timber, 2% was unclassified for operability that was located on the rugged west face of St. John Mountain. Assuming that only 42% of the timber in the area is operable, the total volume is then reduced to 78.9 MMBF.

When Congressman Leggett submitted a 30,000 acre preliminary wilderness proposal to the Forest Service for evaluation, Deputy Chief M. M. Nelson stated that the timber volume in the original 27,317 acre study area was 137.175 MMBF and that the enlarged area made the total 205.193 MMBF. The additional commercial forest land in the enlarged proposal was said to be 1500 acres. This computes to a timber volume of 68 MMBF for the 1500 acres, or a volume in excess of 45,000 board feet per acre. This is a ridiculously high volume for this area as it is more than twice the volume of timber growing on adjacent lands.

The Roadless Area Review reports a timber volume of 78.9 MMBF for the Forest Service's 30,000 acre roadless area (note that this figure is identical to the figure computed above for a 27,317 acre study area). So it remains unclear as to how much timber is actually in the Snow Mountain region.

Nor is there any discussion of the road costs in the admittedly steep and unstable terrain that could render the harvesting of the timber uneconomical. Since most new timber roads will be put to bed after use they cannot be legitimately claimed as capital investments.

Three of the criteria used by the Forest Service in determining the suitability of the Snow Mountain area for a wilderness recommendation are their Quality Index, Total Opportunity Costs, and Public Involvement. We have analyzed their reports on these factors and found them to be not applicable, misleading, or just plain wrong.

The Forest Service states that Snow Mountain received a low-quality rating for wilderness during their Roadless Area Review and Evaluation study, scoring 93 out of a total of 200 possible points. While many citizens find it hard to believe that Snow Mountain could receive such a low rating, even using the given Forest Service criteria, the main objection to this Quality Index is that it is almost totally biased towards certain subjective recreational aspects of wilderness use, ignoring the ecological, geological, scientific, educational, and historical values of wilderness.

This Quality Index is now being used by the Forest Service as a major factor in evaluating the suitability of a roadless area for wilderness designation recommendation. On page 390 of the Final EIS for the Selection of Final New Wilderness Study Areas it is stated that: "The intent (of the Quality Index)

was to identify the major factors that would differentiate Roadless Areas." It goes on to state that: "It does not include *all* possible factors." (Emphasis in original.) In fact, it pays little attention to the most germane factors.

The primary purpose of the Wilderness Act is to preserve and protect lands in their natural condition [Section 2(a)], and to allow and foster recreational, scenic, scientific, educational, conservation, and historic uses [Section 4(b)] consistent with that purpose. Yet out of 60 possible points in the unweighted Quality Index, 23 points are for considerations of potential for traditional ideas of wilderness recreation; 20 points are used to measure scenic beauty, an irrelevant criterion for wilderness classification unless it is directed to those components of scenic beauty which depend upon the wildness of the area, which the Index does not do; 4 points are used to dispose of considerations of scientific or educational value by measuring potential for recreation related to scientific or educational study; 3 points are used to dispose of wildlife considerations by measuring potential recreational use of wildlife; and the remaining 10 points get at the primary purpose of wilderness, to preserve lands in their natural condition, in a rather oblique way by measuring size of the area and whether the area is similar or dissimilar to surrounding non-wilderness lands (even here, the measurement is backwards—it gives low points to a roadless area when it is an untouched representative of an otherwise disturbed landscape type surrounding it; yet, preserving representative pieces of otherwise developed landscapes is a prime purpose of the Wilderness Act!).

In addition to measuring the wrong things, most of the Quality Index criteria require highly subjective judgments to be made by the reviewer, due to the lopsided consideration given to experimental aspects (recreation and perceptions of scenic beauty) of the roadless area, rather than the more objective physical and biological aspects, in determining "wilderness quality." It is thus legitimate to ask whether the Quality Index actually measures any innate qualities of the land, or merely the biases and prejudices of the reviewer.

It is also significant to note that despite the emphasis in the Quality Index upon trying to measure aspects of the area which would attract recreationists and provide a high quality recreation experience, present recreational use of classified Northern California Wilderness Areas shows only a minimal relationship to the Quality Index assigned to those same areas. A linear regression of visitor days per acre per year (V) upon the Quality Index rating ($Q.I.$) for the classified Wilderness Areas yields the following equation:

$$V + .0074(Q.I.) = .4444; R^2 = .0873$$

Thus, an increase in the Quality Index rating provides only a very slight increase in visitor use, and only about 9% of the variance in visitor use figures can be accounted for by a relation between visitor use and Quality Index. Thus the Quality Index is a failure even at measuring the things it is most biased towards!

Another of the suitability criteria used by the Forest Service in rejecting the Snow Mountain area for wilderness study is their "Total Opportunity Costs." The total costs for Snow Mountain are \$1,084,000, \$84,000 above an arbitrary cut-off point for the review of non-selected roadless areas receiving significant public support.

I have been able to obtain specific cost analysis on only two of the items used in reaching the Total Opportunity Costs for the area (the other items would require a computer run), but these two factors are quite interesting when examined in detail.

Private land acquisition costs are listed at \$364,000. This figure was later reduced to \$182,000, but no corresponding adjustment was made of the Total Opportunity Cost.

According to Ed Davis, publisher of the Willows Daily Journal, the Forest Service valued 320 acres of privately owned, isolated, almost inaccessible land at \$570 per acre—more than 10 times the county valuation of \$50 per acre.

Secondly, the estimated timber road costs, valued at \$320,000, are listed as an asset rather than a liability in the determination of the economic values forgone by wilderness classification. This appears to be totally backwards. It would seem to me that the cost of timber harvest roads (to be paid for by the public) should be deducted from the value of commercial timber in the area so that a net timber value could be determined.

If these two factors alone were corrected, the Total Opportunity Costs for Snow Mountain would drop from \$1,084,000 to about \$100,000, a figure far below the one million dollar cutoff point for reconsideration of a wilderness study.

There is longstanding public support for the proposed Snow Mountain Wilderness as expressed by Forest Service public meetings, hearing records, and the backing by elected representatives.

The public had its first opportunity to comment on a wilderness proposal for Snow Mountain in December, 1969. An analysis of the public meeting record shows that over 360 letters were received supporting wilderness classification, with most of these comments coming from private citizens, many residing outside the local area. About 60 letters were received opposing wilderness designation, with many of these statements coming from various timber companies throughout California.

A second opportunity to comment came during the May, 1972 meetings held by the Forest Service as part of their Roadless Area Review and Evaluation study. An often repeated summary of public input to these meetings states that "About 23 percent of the comments received supported more wilderness. . . . About 69 percent said that California had enough wilderness or commented that the full range of multiple uses would best serve the public interest."

This summary by itself is misleading because it does not specify the types of inputs that were received to arrive at these totals. What has been added for this "69 percent opposed to Wilderness" figure are total signatures in the hearing record. Inputs to this record, however, came in many varied forms: public testimony, individual letters, form letters, and petitions. Each of these types of inputs indicated differing degrees of personal commitment and effort in expressing opinion. Decision makers are quite interested in this breakdown as the interest indicated by a person attending a public meeting or writing a detailed letter is quite different from that of someone simply signing a form letter or petition.

However, since no such breakdown was available for this public comment, local wilderness advocates have looked through the complete hearing record of the May, 1972 public meetings. Our analysis shows that the 69 percent of the comments opposed to additional wilderness classification represented approximately 2,800 signatures, 2,400 of which were either form letters or petitions (there were more than 75 "modified form letters," letters which contained almost identical wording, were typed on the same typewriter, and mailed from the same city on the same date). The 23 percent of the comments supporting wilderness study represented 912 signatures, with about 100 names on petitions. If the form letters and petitions are considered separately, this leaves about 400 letters opposing additional wilderness and 800 letters supporting more wilderness.

Any impartial evaluation would indicate the types of input received in reporting the public comment analysis, for a decision maker needs this information in determining the quality as well as the quantity of public opinion. The fact that 85% of the comment received in opposition to wilderness were form letters or petitions indicates that a signature gathering campaign was actively pursued. This is not to say that these types of inputs should not be counted, but that they should be recognized as different from personal testimony and letters.

Also as a result of these public meetings, Snow Mountain was placed in a "clearly divided" public opinion category. I was able to discover that any area receiving one or more letters opposed to study was declared to be a "clearly divided" issue. Snow Mountain was listed as having received 10 letters for study and two against.

My own analysis of the record showed 22 letters specifically recommending wilderness study for Snow Mountain, as the analysis did not include those who spoke in favor of Snow Mountain at the public meeting, for no record was made of oral statements given.

Another important gauge of public opinion came during the filing of the Draft Environmental Impact Statement on the Roadless Area Review and Evaluation. Since Snow Mountain was not selected as a "tentative candidate new study area," many citizens wrote to ask that it be so studied. The Forest Service's analysis of the record shows that letters received on Snow Mountain totaled:

	Enlarge and study	Study	Don't study
Signatures.....	4 (1.1%)	349 (98.3%)	2 (.6%)
Inputs.....	4 (2.6%)	148 (96.1%)	2 (1.3%)

As a result of this overwhelming public support for a study of Snow Mountain, the area was identified as one with "significant public interest for addition." However, due to the low Quality Index and high Opportunity Cost earlier deter-

mined by the Forest Service; Snow Mountain was rejected for further study.

The real indicator of public support, however, is the overwhelming sponsorship of the proposed Snow Mountain Wilderness by our elected representatives. Senators Alan Cranston and John V. Tunney support this proposal, as well as Congressmen Robert L. Leggett and Don Clausen. All three County Boards of Supervisors are on record favoring the establishment of a 37,000 acre wilderness.

In view of this support and the past decade of close public scrutiny the Snow Mountain area has received, the Sierra Club and The Wilderness Society urge the immediate designation of a 37,000 acre wilderness at Snow Mountain.

Thank you.

Senator HASKELL. Our next witness is Dr. Dee Trent, professor at Citrus College, California.

STATEMENT OF DR. DEE TRENT, PROFESSOR, CITRUS COLLEGE, CALIFORNIA

Dr. TRENT. I am Dr. Dee Trent, geologist, on the faculty at Citrus College in Azusa, Calif. I am also a member of the Sheep Mountain Task Force of the Sierra Club. My testimony represents the views of the Sierra Club.

I wish to submit for the record copies of resolutions of eight communities and copies of letters written by various members of the faculty which also support our feelings. There have been 4,000 letters written. I do not have copies of those.

The San Gabriel Mountains form an impressive 60-mile backdrop along the northern edge of the metropolitan area of Los Angeles.

The most rugged and spectacular part of the range is in the eastern portion, where the highest peak, Mount San Antonio with an elevation of over 10,000 feet, looms impressively above the lowlands. The Forest Service estimates that some 5,000 people each summer hike to the summit of Mount San Antonio.

The boundaries we are proposing for wilderness enclose approximately 52,000 acres and include the highest and most rugged part of the range in the Mount San Antonio area. Paved roads skirt the area which allow the motorist several excellent views of the high part of the range, but no paved roads exist within our boundaries.

The primary basis for selecting our boundaries is the known range of the Nelson bighorn sheep as determined from Government agencies' reports, from personal conversations with biologists, and from our own firsthand observations in the field.

Boundaries in two parts of the area are beyond the actual range of the bighorns and these were selected for one, the wilderness quality of that part of the areas, and two, the need of a buffer between the bighorn habitat and increasing human activity. Where possible our boundaries follow ridge crests and valley bottoms.

Coincident with that part of the San Gabriel Mountains that exhibit wilderness qualities is the habitat of a herd of Nelson bighorn sheep. The number of surviving Nelson bighorn is so low that the International Union for Conservation of Nature and Natural Resources has officially designated this subspecies as "vulnerable" to extinction. The herd, referred to here as the East Fork herd, that lives in the area of our wilderness proposal has apparently been decreasing in numbers.

The present estimate of 150 animals in the East Fork herd is significantly less than the count of 200 some years ago. There are two other herds with similar numbers in the San Gabriels and there is ram migration between all of them.

Little hard data was known about the range and habits of the Nelson bighorns in the San Gabriels until 1969. In that year scientific investigations of the bighorn were undertaken in order to determine whether or not further expansion of ski lift development would conflict with the vitality of the herd. The main report resulting from these studies was published in 1972 by the State of California Department of Fish and Game, written by Richard W. Weaver, Jerry L. Mensch, Wesley Timmerman, and John M. Hall.

Pertinent quotations from this report are:

One, the East Fork herd, although secure at present, might be vulnerable if land use were to change; two, Stockton Flats: Recreational Plans for this area should be revised in light of current knowledge gained during present investigations.

Three, proposed development of a gondola ski lift and a complex of supporting facilities from the Stockton Flat area to near the summit of Mt. Baldy . . . would have a decidedly detrimental effect on sheep . . . could virtually eliminate bighorn use. . . . The area is receiving heavy bighorn use and is essential if the present number of bighorn is to be maintained.

Four, increasing hiker use can be expected to decrease sheep utilization of areas adjacent to the trails; five, improved campgrounds in or adjacent to key bighorn area, constitutes a type of use incompatible with sheep use.

There is evidence sheep will be displaced from areas within direct line-of-sight of developments, which have a more or less continuous disturbance by firearms discharge, motorcycles, dogs, children, and other sounds civilization brings with it.

Primitive campsites, hike-into camps, should be allowed only in canyon bottoms and away from known watering sites of sheep.

In addition to the bighorn our proposed wilderness boundaries include a variety of small animals and birds, golden eagles, a few bear, coyote, fox, clear flowing streams with native trout, impressive stands of various coniferous trees, and lush riparian zones along stream bottoms, all of which add to the overall wilderness character of the region.

I recall vividly one perfect wilderness experience that occurred one cold and stormy January afternoon in the heart of our proposed wilderness.

After a steep all-day climb of Iron Mountain, with a gain in elevation of over 5,000 feet, the clouds suddenly parted and revealed a breathtaking view of the freshly snow-covered summit of Mount San Antonio standing 6,000 feet above the narrow forested valley below.

The view came with such suddenness that I was caught off balance and had to jam my ice axe into the snow to hold myself on the steep slope.

Here I was, with a few companions, only a few miles from the heart of Los Angeles and yet I was realizing in that situation all of the characteristics of true wilderness: primeval beauty, remoteness, adventure, solitude. In such a spot, it is easy to raise one's thoughts above the mundane activities of the world and ponder the deeper meaning of our existence.

I have hiked, backpacked and climbed in the Sierra Nevada, the mountains of Wyoming, Colorado, Utah, Arizona, and on the glaciers of Alaska but that experience on the side of Iron Mountain ranks as highly as any similar wilderness experience in what seemingly might be more exotic localities.

I sincerely hope that we can preserve this area so close to Los Angeles that future generations will have the same opportunity for exhilarating wilderness experiences as I have had.

The task force decided after considering the various options for classification of the area that the most suitable designation would be

as a wilderness. Such a classification offers the public an opportunity for wilderness adventure, hiking, fishing, photography, the enjoyment of scenic grandeur, and solitude.

At the same time such classification provides security against further reduction of prime habitat of the bighorn by our burgeoning human population.

There are some 500 acres of private lands within our proposed boundaries. Two parcels of about 50 acres each are ranches which are for sale and we recommend their purchase by the Forest Service.

There are some patented placer mining claims along the East Fork of the San Gabriel River of doubtful economic value, of which we also recommend acquisition. A lode mining property, the Big Horn Mine of about 200 acres, is an area of historical interest and this property should be purchased.

A developed ski resort exists just outside our northeastern boundary. We purposely placed our boundary around the presently developed area and also around a proposed ski lift for which the permit was issued 3 years ago but no construction has begun. In this manner, we hoped to eliminate any conflict of interests, even though the proposed new chair lift would cross prime bighorn habitat.

Any further development in the northeastern area near the present resort area is totally unacceptable in light of this general area being critical to bighorn rutting in the fall, ram pasture in the summer, and lambing area in the spring as reported by Weaver et al.

We commend Senator Cranston for sponsoring and Senator Tunney for cosponsoring the Sheep Mountain Wilderness bill, S. 74. We urge the committee to act soon on this legislation.

Thank you for this opportunity to express our views, and I would be happy to answer any questions.

Senator HASKELL. Thank you, Dr. Trent. This bill that Senator Cranston has introduced is what we call instant wilderness. You have heard me state before it has been the policy or it is the policy of the subcommittee to assure that we have mineral surveys and the like before we designate an area as wilderness. The study classification really holds the land as it is until the study has been completed.

What is your reaction to my suggestion that this be a study wilderness rather than an instant wilderness?

Dr. TRENT. We really feel that the area has been pretty thoroughly studied. There have been two published reports on the condition of the bighorn for instance. One was done by the Forest Service and was published 2 years, in which they had recommendations. Incidentally, the mineral survey, I understand, is in progress. I also understand that is the slowest part of the whole process. How long exactly that is going to go on, I am uncertain.

If you check with the Forest Service, it may be that we are considerably closer to having the mineral survey completed than I am aware of, so we may be so close that it would not be necessary to make any other study. The Forest Service has already set it up as a study area of about 32,000 acres. The map is undoubtedly over there somewhere.

Senator HASKELL. I understand the bill introduced by Senator Cranston is 52,000.

Dr. TRENT. Yes; the Forest Service study area is about a mile wide

so it is practically cut right in two, and the canyon that they avoided is a prime ram pasture. It is important that be included.

It is also where one of the ranches is. Funds would be available for purchase of that property and, according to the Wilderness Act, people living there would have the same access they have at present.

Senator HASKELL. Thank you for appearing. Senator Hansen.

Senator HANSEN. I am not certain I caught all the question that was asked by the chairman but I would like to ask you when Mr. Resler, the Associate Chief of the Forest Service, was testifying, on page 6 of his testimony, he said, "In the meantime, the Sheep Mountain Wilderness study area will be managed so as to protect it from activities that would change the land characteristics in such a way as to disqualify the area for wilderness designation."

If this same sort of commitment were to be made on Snow Mountain, would that change your position in not objecting to the sort of study that I think Senator Haskell was talking about?

Dr. TRENT. Senator Hansen, I am a little bit confused by what you say. You say it would disqualify the area from protection until the studies are completed?

Senator HANSEN. Let me read it again. I read it very poorly. "In the meantime, Sheep Mountain Wilderness study area will be managed so as to protect it from activities that would change the land characteristics in such a way as to disqualify the area."

I probably read it very poorly. However, I think the thrust was that the Forest Service with respect to the Sheep Mountain Wilderness area, says they would manage it in a manner so as not to disqualify it from wilderness designation.

Dr. TRENT. Certainly.

Senator HANSEN. My question is, we would like to see if the Forest Service were to give the same assurance on this—I guess they have said essentially the same thing on this area—would that—

Dr. TRENT. We would like to see an instant wilderness, of course, but if that does not seem possible, we would certainly appreciate the Forest Service handling it in the manner you have just suggested.

Senator HANSEN. Thank you, Mr. Chairman.

Senator HASKELL. Thank you very much for coming. We appreciate it.

The next witness is Mr. Chuck Morse, executive director, Far West Ski Association.

STATEMENT OF CHUCK MORSE, EXECUTIVE DIRECTOR, FAR WEST SKI ASSOCIATION

Mr. MORSE. My statement is very lengthy and I would like to have it entered in total in the record.

My name is Charles A. Morse. I am executive director of the Far West Ski Association with offices in Los Angeles, Calif.

The U.S. Ski Association and its nine divisions are chartered to create, develop, promote and maintain the sport of skiing and its community of interests in the United States. To serve the needs of the skiing public, to study, develop, and promote careful and proper utilization of environmental resources in meeting the needs of the skiing public are some of our goals. The FWSA/USSA is the recognized governing body for skiing in the United States.

I am here today representing the 32,000 members of the Far West Ski Association, the 130,000 members of the U.S. Ski Association and on behalf of 6 million skiers in the United States who wish to express concern and opposition to S. 74 and related bills.

S. 74, Sheep Mountain Wilderness, designates lands in the Los Angeles and San Bernardino National Forests to be wilderness. This bill does not include any boundary description of the proposed 52,000 acres and if passed would be like signing a blank check.

Rough maps do show inclusion of an area where the snow pack is deepest and the potential growth for ski development greatest.

We do not oppose wilderness and our interest in it is concerned with our Nation's resources and environment as anyone else is. Most of all, if this bill were passed, it would preclude the overall development of the Mount Baldy ski complex, one of if not the last remaining high altitude Alpine areas in southern California. The Mount Baldy winter sports area first developed in 1952, has expanded numerous times in an effort to keep pace with the number of skiers in southern California.

Less than 5 percent of the natural topography of the United States can be utilized for winter sports. Of all the land within southern California, 47 percent is owned by the Federal Government.

Of these millions of acres, 4.7 million are above 7,000 feet. Only 20,000 acres are presently being utilized for winter sports recreation.

This is about 0.1 percent. While the annual user percentage as a group is one of the highest, research by the National Skier's Association shows that 55 percent of its member areas have all or portions of their facilities on public lands, generally the U.S. Forest Service on multiple use-multiple lease spaces.

Most of the Nation's primary ski resorts such as Aspen, Colo., Sun Valley, Vail, Squaw Valley, and Mammoth Mountain are all or in part on public lands. Management of these resorts pays the Government a fee based on the portion of lift tickets sold. Hence the skier is unlike most recreational land users and must pay for the privilege.

Over the past two decades, skiing has been one of the fastest growing participation sports with a growth rate at 10 to 15 percent annually. The growth is reflected in retail purchases of winter ski sports equipment; by 1970 the figure had grown to \$88.4 million and is projected to be \$183.9 million by 1975.

National recreation demand for skiing in national forest land is projected to increase 37 percent by 1990. In southern California, estimates in the area of 150,000 skiers are projected, some have even estimated as high as 200,000.

Winter sports usage has increased in the last 10 years so extensively that the demand is outdistancing the supply. As far back as 1965, ski industries of America stated that southern California is one of the most important marketing areas in the Nation. That statement has come to even more validity since it is now professed that the Los Angeles area has more skiers concentrated than anywhere in the United States.

To a southern California skier, a trip to northern and central California ski areas implies relatively high transportation costs, meal costs, lodging, and lift fees. Further a 350-mile one-way trip means a total of 14 hours spent in transportation. The benefits he receives are likely to be longer ski runs, more challenging slopes, better snow and a longer ski season.

Mount Baldy in the new development will bring these benefits to the southern California skier. Southern California skiers would not be able to make—would be able to make the round trip in less than 100 miles, thus saving millions of gallons of fuel and untold amounts of energy both mechanical and human.

The California recreation demand levels are high. The California Parks and Recreation Department indicates that the recreation demand in the State for all activities will double by 1980.

The major centers generating recreation demand are southern California and the bay area. In relation to these projected increases, the 1972 California outdoor recreation resources plan states:

U.S. Forest Service, National Forest Service, the Bureau of Land Management and the Bureau of Outdoor Recreation should jointly study the development of major national recreational areas and national seashores in southern California giving first emphasis to the deficiencies in southern California.

I direct your attention to the Mount Baldy area. The Mount Baldy expansion project is within the Greater Los Angeles area.

We as skiers and wintertime users of our mountains would like to keep this recreation open for further development. The present ski lift facilities are located on the south side of the mountain being exposed to more sunshine in the winter months. The snow is less reliable and melts more rapidly. Further studies show that the bighorn sheep do not use this area while there is snow on the ground. The presence of the ski lifts will have little effect if any on the bighorn if they come into the area to graze when the snow is gone.

Winter use, while there is snow on the ground, would not cause a problem. Watershed values, including erosion control, protection of sub-Alpine vegetation, safety of the user, sanitation are presently being studied and considered by the U.S. Forest Service.

The slopes in the area are covered primarily by mantles of surface rock. By eliminating the use of mechanized equipment in construction and maintenance work on the steep slopes, this rock can be kept in place thus avoiding soil disturbance and subsequent soil loss.

The developer of Mount Baldy has made agreements with the U.S. Forest Service that the proposed ski lift will not be used during the summer and that major lift construction will be during the months of November through May, winter months, when the sheep are not in the area.

This fact alone has to be recognized that the developer will do all that is necessary to preserve the sheep habitat. Building a ski lift in the dead of winter will be a major undertaking and concession and no gondola development is planned by the developer or any midstation amenities.

The U.S. Forest Service spokesmen state that if this came about, the foot traffic by campers, hikers, and outdoorsmen would increase a hundredfold and at a time when the sheep are in the area, thus raising the possibility of increased disturbance to the sheep. The sheep are not in the ski area during the winter and therefore are not in danger. It can therefore be assumed that the sheep would be more in danger from the hikers than from the skiers.

Bill S. 74 does not define the territories. If and when these boundaries are defined, we respectfully request that they not include the area for potential winter development of winter recreation area, an area that is the last hope for a ski sport in southern California. Thank you.

Senator HASKELL. Thank you. I have to go over and vote. I will be back, Mr. Morse. I might have a question or two of you.

Mr. MORSE. Thank you.

[A brief recess was taken.]

Senator HASKELL. We will reconvene. Mr. Morse, the only question I have is on the Mount Baldy ski area. It is all outside the wilderness area, as I understand it.

I guess the thrust of your testimony is you want to leave some land open for expansion but have they filed for additional Forest Service permits within the boundaries of the proposal of this area?

Mr. MORSE. I believe they have.

Senator HASKELL. OK. Maybe you could tell us exactly where—is the Forest Service man still in the room?

I asked this gentleman, Mr. Morse, whether the ski area had filed an application for additional permits within the boundaries of the proposed wilderness area. He says he believes they have. I wonder if you could submit a statement for the record either confirming that fact or not confirming it.

Mr. MORSE. The reason I say I believe so is that about 3 years ago when they came up with the master plan, the ski development presently is right here and the extension would be proposed to come over here into about 300 acres.

All we are talking about is this corner right here. This shelf on the north side of the Devil's Backbone has the biggest potential for high Alpine skiing of any place in this area. The proposed gondola which has now been eliminated, this access would be by one or possibly two chair lifts in this area, in this corner [indicating].

Senator HASKELL. Thank you very much. The Forest Service will supply for the record the clarification of this one.

Thank you, Mr. Morse, for appearing here. That is the only question I have.

Mr. MORSE. Thank you.

[The prepared statement of Mr. Morse follows:]

FAR WEST SKI ASSOCIATION

A Division of the United States Ski Association



S.74

Subcommittee on Public Lands

FLOYD K. HASKELL, CHAIRMAN

~~JUNE~~ 20, 1975
~~MAY~~

Senator Haskell, distinguished committeemen, my name is Charles A. Morse. I am Executive Director of the Far West Ski Association, a division of the United States Ski Association, with offices in Los Angeles, California and Denver, Colorado, respectfully.

The United States Ski Association and its nine divisions are chartered to create, develop, promote, and maintain the sport of skiing and its community of interests in the United States. To serve the needs of the skiing public, to study, develop and promote careful and proper utilization of environmental resources in meeting the needs of the skiing public. The FWSA/USSA is the recognized governing body for skiing in the United States.

I am here today representing the 32,000 members of the Far West Ski Association, the 130,000 members of the United States Ski Association and on behalf of six million

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SUBCOMMITTEE ON PUBLIC LANDS

June 20, 1975

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skiers in the United States who wish to express concern and opposition to S. 74 and related bills.

S. 74, "Sheep Mountain Wilderness" designates lands in the Angeles and San Bernardino National Forests to be wilderness. This bill does not include any boundary description of the proposed 52,000 acres and if passed would be like signing a blank check. The ski associations are not opposed to wilderness and are as interested and concerned with our nation's resources and environment as anyone. We do oppose wilderness for wilderness sake. Most of all, if passed, this bill would preclude further development of the Mt. Baldy ski complex, one, if not the last, remaining high altitude alpine areas within Southern California. Public interest has been generated by a proposal to expand the winter sports facilities located on National Forest land on Mt. San Antonio (Old Baldy). There are those who contend that the highest use of this land is to serve the winter sports enthusiasts. Wrong. Others maintain that this use would be detrimental to the Bighorn Sheep who inhabit this range. Wrong again.

The Mt. Baldy winter sports area, first developed in 1952, has expanded numerous times in an effort to keep pace with the growing number of skiers.

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Less than five percent of the natural topography of the United States can be utilized for winter sports. Of all the land within the state of California, 47 percent is owned by the Federal Government. Of this 20 million acres, 4.7 million acres are above 7,000 feet. Of this total, 2.6 million acres are within parks, wilderness or game preserves. Of the remaining 2.1 million acres, only 30,000 acres are presently utilized for winter sport recreation. This is about one-tenth of one percent, while the annual user percentage, as a group, is one of the highest.

Although there are numerous demographic and psychographic explanations given for the popularity of snow skiing, there are three universal factors cited.

Skisport is an extremely active and exhilarating sport which has been demonstrated to contribute significantly to the participant's physical fitness, especially muscle development, cardiovascular system, blood oxygenation, breathing and coordination. After research, Continental Assurance was able to offer a group life insurance policy to members of the U.S. Ski Association without a medical examination.

Skiing is a sport that encourages family participation because

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of its broad appeal to all ages, sexes and levels of ability. It allows families to participate as peers, where the youngest and weakest can ski with the oldest and strongest and share a common experience.

Ski competition is one of the most demanding sports, mentally and physically, available to American youngsters. Many parents encourage their children to participate in local competition programs to develop physical and mental discipline, a sense of individual resourcefulness, sportsmanship and the strength of character that will stay with them through their adult lives.

The majority of American snow skiers are devotees of alpine skiing, using mechanical uphill transportation as access to varying degrees of downhill terrain.

Research by the National Ski Areas Association shows that 55.4 percent of member areas have all or a portion of their facilities on public lands, generally United States Forest Service land, on multiple-year multiple-use lease basis. Most of the nation's premier ski resorts, such as Aspen, Sun Valley, Vail, Squaw Valley and Mammoth Mountain, reside all or in part on public lands leased

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from the government. The management of these resorts pays the government a fee based on a portion of lift tickets sold. Hence, skiers, unlike most classes of recreational public land users, pay for the privilege.

It has long been a contention of ski area developers and management consultants that the only real potential for the growth of ski facilities resides in selected small portions of the nation's public lands.

Approximately 6.5 million U.S. citizens, 4.3 percent of the nation's population over the age of 10, claim to be snow skiers. Of these 3.7 million (2.4 percent) claim to ski 0 2 days annually, and 946,000 (0.6 percent) report skiing 10 days or more a year.

Over the past two decades, skiing has been one of the nation's fastest-growing participant sports, with a present net growth rate estimated at 10 to 15 percent annually. As you well know, the nation's first family are skiers.

The growth is reflected in retail purchases for winter ski sports equipment. In 1955, \$9.9 million was spend on retail purchases of winter sports equipment. By 1970, the figure had grown to \$88.4 million. It is projected to be \$183.9 million in 1975.

National recreational demand for skiing on National Forest lands is projected to increase 37 percent from 1970 to 1990.

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In Southern California alone the estimates are in the area of 150,000. Some have even estimated as high as 250,000. Winter sports usage has increased in the past ten years so extensively that the demand is outdistancing the supply. As far back as 1965, Ski Industries of America, stated that the Southern California area is one of our most important marketing areas and has become the largest concentrated ski market in America. This statement has now come to be even more valid since it is now professed that the Los Angeles area has more skiers concentrated here than anywhere in the western states.

We must have room to grow. When the entire matter in controversy is viewed objectively, and without all the emotional arguments on either side, certain propositions seem clear and irrefutable. These are: (1) This area is public domain. It belongs to all citizens. It belongs as much to those that ski as to those who enjoy hiking and camping. Neither has a prior right or preference. (2) The new Mt. Baldy area will be developed in such a manner that it may be used and enjoyed by the greatest number of citizens over the greatest period of time and should not be preserved as the exclusive domain of the few. In this connection, it should be emphasized that the wintertime recreational use for skiing at Mt. Baldy is totally compatible with Bighorn Sheep and there is no evidence that development of similar ski areas has in fact been detrimental to lambing grounds for the sheep or the perpetuation

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of wild life. Opponents of Mt. Baldy claim that the wild flowers would be destroyed and that the animals and birds and particularly the sheep would be pushed out of the area. Nothing is further from the truth, as anyone who has travelled to our many National Parks can testify. You can see more wild life in these parks than you can see at Mt. Baldy right now. As for the vegetation, flowers, etc., we have now for many years during the winter skied on the snow and not the flowers of the ski areas. We are often told that we do not need any more ski areas. All of you who ski know that this is so far from the truth that it is inconceivable that anyone would make this statement. (3) To a Southern California skier, a trip to Northern and Central California ski areas implies relatively high transportation costs, meal costs, lodging costs, and lift fees. Further, a 350 mile one-way trip means a total of 14 hours will be spent in transportation, and the skier will be faced with making at least a two-day commitment of time. The benefits he receives are likely to include longer ski runs, more challenging slopes, better snow, longer ski season, and some intangibles inherent in the high Sierra skiing. Mt. Baldy and the new development will bring these benefits to the Southern California skier. A Southern California skier would be able to have a round trip of less than 100 miles. He need not incur any lodging and meal costs. Lift fees may well be less, and the time commitment may be shortened to one day. Thus saving millions of gallons of fuel and untold amounts of energy, both mechanical and human. Some people

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are fortunate enough to live near the ski areas. However, in Southern California, a six to eight-hour drive to a major ski area is almost a must. Moreover, much of this driving must be done under winter conditions. These overnight drives and winter conditions have proved fatal to a goodly number of skiers.

In California, recreational demand levels are higher. The California Parks and Recreation information system indicates that outdoor recreational demand in the state for generally all activities will double from 1960 to 1980. The major centers generating recreation demand are Southern California and the San Francisco Bay Area.

In relation to these projected increases, the 1972 California Outdoor Recreation Resources Plan states:

"The U.S. Forest Service, the National Park Service, the Bureau of Land Management, and the Bureau of Outdoor Recreation should jointly study the development of major national recreation areas and national seashores in California, giving first emphasis to the deficiencies in Southern California and, second, to areas near San Francisco."

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I direct your attention to the Mt. Baldy Area.

The Mt. Baldy expansion project is within the greater Los Angeles area. We as skiers and wintertime users of our mountains want this area open for recreation for the benefit of all outdoor enthusiasts. There are approximately 150,000 skiers in Southern California, and Southern California needs a ski area with a longer season. Skiers spend millions of dollars on ski equipment that can be enjoyed only a small part of the year.

Recreational facilities in Southern California are crowded beyond the enjoyment limit because of the population explosion and tremendous influx of people in our state. We need expansion of our recreational facilities. Money that is now being spent out of state and in other areas could be spent in Southern California.

The present ski lift facilities are located on the south side of the mountain. Being exposed to more sunshine in the winter months, the snow is less reliable and melts more rapidly. The north slope will provide a longer skiing season for the Southern California skiers. The ski lift extension will cross a part of a Bighorn range which is used at certain seasons of the year. Current studies show that the Bighorn do not use this area while there is snow on the ground. The presence of the ski

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lift will have little effect, if any, on the Bighorn if they come into the area to graze when the snow has gone. Winter use while there is snow on the ground would not cause a problem.

In 1958 the Forest Service made field surveys and developed a plan in preparation for an expansion from Mt. Baldy into Stockton Flats. In 1963 the Forest Service approved the Stockton Flats Recreation Area Plan which included this proposed winter sports development. In 1966 the San Bernardino County Board of Supervisors issued the County's Regional Parks Master Plan which likewise provided for the development.

The current Multiple Use Management Plan for the Stockton Flats Unit of the High Country Zone calls for the development of the area for expanded winter sports development.

Watershed values including erosion hazards, wildlife values, protecting the environment, protecting sub-alpine vegetation, safety of the user, sanitation, and wilderness aesthetics, are the main elements being considered in the United States Forest Service evaluation. Forest Service teams consisting of soil scientists, hydrologists, wildlife biologists, landscape architects, and foresters have been studying the area closely for several years.

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The slopes in the area are covered primarily by a mantle of surface rock. By eliminating the use of mechanized equipment for construction and maintenance work on steep slopes this rock can be kept in place, thus avoiding soil disturbance and subsequent soil loss.

The developer of Mt. Baldy has made agreements with the United States Forest Service that the proposed ski lifts will not be used during the summer, and that lift construction will be during the months of November thru February, winter months when the sheep are not in the area. This fact alone has to be recognized that the developer will do all necessary to preserve the sheep habitat. Building a ski lift in the dead of winter will be a major undertaking and concession.

I would like to point out that there is a tramway in the Sandia Mountains near Albuquerque, New Mexico, which passes over Bighorn feeding area. The Bighorn in this instance are the Rocky Mountain variety which were introduced into the area. They have become quite accustomed to the thousands of people that ride overhead each month throughout the summer. The Bighorns are seen almost daily in the ski complexes of Mt. Waterman and Kratka Ridge of the Angeles National Forest. The Bighorn in the San Gabriel Mountains are native to the area. Their behavior patterns, the topography, and their general habitat may be somewhat different than

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the sheep of the Sandia Mountains. Until more is learned about the sheep, the Forest Service believes a studied analytical approach is necessary. A team of State and Federal biologists are studying these Bighorn and their habitat.

Dependable snow areas in Southern California are limited to the higher elevations in the San Gabriel, San Bernardino and San Jacinto mountain ranges. The summits of these three ranges are Mt. Baldy, 10,064'; Mt. San Gorgonio, 11,502'; and San Jacinto Peak, 10,831'. The north facing slopes of these mountains receive and retain more snow than any other mountains in Southern California. All of San Gorgonio above 7,500' is in the National Wilderness system which precludes ski lifts or other mechanized forms of transportation. San Jacinto Peak is within the State Wilderness Park. Of the undeveloped high country areas with major winter sports potential, outside of formally classified Wilderness areas; the upper slopes of Mt. Baldy, above Baldy Notch and Stockton Flats provide the most dependable snow conditions.

There are presently six Wilderness areas in Southern California.

San Jacinto - 21,955 gross acres	San Rafael - 74,990 gross acres
San Gorgonio - 34,718 " "	San Gabriel - 36,000 " "
Cucamonga - 9,022 " "	Agua Tibia - 25,995 " "

These total to 202,680 acres. Bill S. 74 would add an undefined additional 52,000 acres.

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The present United States Forest Service permit to Mt. Baldy does not indicate total acreage of the Mt. Baldy Ski Area. It is estimated at about 8 to 10 acres are under direct permit. The skiable area is less than 300 acres. The expansion project would be less than 400 acres. Rough figures then indicate that with present and planned up-hill lift capacity, about 8,000 skiers at-one time could utilize Mt. Baldy's 800 acres. In the summer many back packers and day trail hikers utilize the existing ski lifts. The question of balance is asked as why 100,000 acres are needed to support less than 300 sheep and tens of thousands of winter recreationalist are restricted to 800 acres.

United States Forest Service spokesman state that if the Sheep Mountain Wilderness proposal came about that the foot traffic by campers, hikers and outdoorsmen would increase a hundred-fold, and at a time when the sheep are in the area, thus running the possibility of increased disturbance to the sheep. The sheep are NOT in the ski site area during the winter and therefore are not endangered. It can therefore be assumed that the sheep are in more danger from hikers than from skiers.

Several years ago preservationists and opponents to ski area developments vigorously opposed the development of San Geronio, now a wilderness. At this same time, they voiced enthusiasm over

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the possible development of Mineral King, which they are now opposed to. Now we have opposition to Trail Peak, Moses/Maggie Mountains, and now to Mt. Baldy. Let me say again that we skiers want proper utilization and development of this area and we understand the concerns of the preservationists, and we are in sympathy with certain phases of this. The Society for the Preservation of Big Horn Sheep stated that we have pushed our wild life to its limit from its habitat . I conclude that we also are pushing our recreationist to his limit, and we have no place to expand in Southern California, except to Mt. Baldy. It is time the conservationists tried to understand our side of the picture, and that is the ecology of human rights. We as skiers have the right to ski on our mountains.

Senator HASKELL. The next witness is Mr. James Stowe who is appearing on behalf of the Sierra Club and the Gila Wilderness Committee.

**STATEMENT OF JAMES STOWE, ON BEHALF OF THE SIERRA CLUB
AND THE GILA WILDERNESS COMMITTEE**

Mr. STOWE. Thank you, Mr. Chairman. I am also appearing on behalf of the Southwestern Audubon Society of New Mexico.

I am a resident of Silver City and represent those organizations named. The Gila Wilderness Committee, I would like to explain, is an ad hoc committee of persons who are concerned about the future of the Black Range and the Gila primitive area under the Wilderness Act of 1964 and who banded together in the late 1960's to coordinate the activities of other concerned citizens and to work for the preservation of the wilderness character of those areas. The other organizations are well known, I am sure, to all of you.

I am going to summarize most of what I have here to make some of what I consider to be important points.

The first point I want to make is that the conservation proposal, I believe, is a sound one. It was based on personal knowledge of the boundary throughout, based upon personal knowledge of one or more persons who have been in the field to observe.

In drawing the boundary, we have made every effort to avoid resource conflict in so much as possible. Most of the mining that had been taking place in known mineralized areas were not included in the boundary. We have subsequently discovered an error in that, or maybe the discovery was subsequent. There is an area near Bald Hill, where some areas have been discovered and are being worked.

The boundary, I believe, should be revised around that. Otherwise, we have excluded these conflicts.

Grazing has been permitted in this area under the inhibitions, if that is the word, of its being a classified primitive area for many decades. I am not sure of the exact date to which this primitive area goes back but it is many decades, as we see it. The grazing will, of course, continue under the Wilderness Act of 1964, and the wilderness classification would not change the manner in which it is administered.

There are some differences, as you can see from that map, between our proposal and the Forest Service proposal. I do not see these differences as being those of principle. We both used the same criteria, mainly those contained in the Wilderness Act, in evaluating the various study units for wilderness qualifications.

The difference rather is one of application. It seems to me that the Forest Service has an unnecessarily strict interpretation of the Wilderness Act based on concepts of purity. That is not entirely in accordance with the intent of the act. Some examples are their interpretation of the effect of timber cutting which, to them, totally disqualifies an area for consideration as wilderness.

To us, we look at the impact and if the impact is such as to meet the criteria of the act, namely that the imprint of man's work is substantially unnoticeable, then we look at other aspects in this qualification.

Senator HASKELL. This is a difference of opinion that is shared between this committee and the Forest Service.

Mr. STOWE. I have noticed that in your reports. Roads are also another aspect of past impact with which we differ from the Forest Service.

Of course, roads per se are prohibited in wilderness areas, but there have been mistakes in the past in permitting roads to intrude in primitive areas, and many of them, we hope, will revert to native. Our boundaries were generally drawn to eliminate the roads that were intrusive in character.

There is one additional difference between us and the Forest Service. That is, we had a concept of possibly accepting a unit of something less than pristine wilderness quality, if its inclusion is necessary to the integrity of the geographic, topographic or biological unity of the entire wilderness area.

There has been opposition to the Black Range primitive areas being classified as the Aldo Leopold Wilderness area from the mining industry, as we will hear, I am sure. We have, as I mentioned before, attempted to exclude known mineralized areas and current workings or even past workings that could be worked again.

The opposition has, as far as I understand it, based its opposition on the speculative grounds that under the approximately 3,000-foot deep volcanic rock blanket underlying the Black Range, there may some day arise a technology that will permit exploration, and who knows what mineral wealth may be found?

I do not see this speculation as a valid argument against classifying this area as a wilderness. Such classification will not prevent such exploration or subsequent exploitation if the national need is sufficient to warrant it. What it will do is remove that decisionmaking from the board room of a mining corporation and put it in the hands of the Congress.

I am content that the decision should be made that way because I feel that my voice would be heard more through that process. Additionally, what Congress has done, it can undo, so I do not see the concept of "looking up" resources important to the Nation.

The timber resources are not significant. There is some operable timber in there but there is no reason to exploit it at this time.

Much of the present Black Range primitive area is in the original Gila area as delineated by Leopold in 1924. I, and the organization for which I speak, strongly urge passage of S. 226 to create the Aldo Leopold Wilderness, honoring his effort on behalf of the wilderness concept and of this area in particular, and worthy of Senator Anderson, the father of the Wilderness Act and an honored citizen of the State of New Mexico.

Before closing my testimony, I would like to mention that since the drawing up of the boundaries of the citizens' proposals for the Aldo Leopold Wilderness and the public hearings held by the USFS, the field work in the Black Range has continued and much new information is now available.

There are unfirm recommendations coming from our groups for additional areas to be included in the Aldo Leopold Wilderness.

There is some work being done in the Raab Park, Hendricks Peak area. This is in the southwest corner of the wilderness near area A, and work is continuing in the Skillet Mesa-Shephard Canyon areas.

In the northwest, there was a large exclusion in the Diamond Creek area in the Forest Service and in ours.

Senator HASKELL. Thank you, Mr. Stowe. We would—at least as you have heard me say before—the policy of the committee is that we would put this in a study category unless there has already been a mineral survey.

Mr. STOWE. There has been.

Senator HASKELL. I think it is important that we know what is inside the proposed wilderness area. We set the bill up as an instant wilderness.

Mr. STOWE. A mineral survey has been completed in accordance with the Mineral Act, the Wilderness Act.

Senator HASKELL. I think that is only in the primitive area. I do not think the mineral survey has been completed on that red part or the green part but that is whatever it is, that is all.

Thank you, Mr. Stowe. I appreciate very much your appearance.

Mr. STOWE. Thank you, Mr. Chairman.

Senator HASKELL. Our next witness is Mr. Woodville J. Walker, senior staff geologist, Phelps Dodge Corp.

STATEMENT OF WOODVILLE J. WALKER, SENIOR STAFF GEOLOGIST, PHELPS DODGE CORP.

Mr. WALKER. Mr. Chairman, my name is Woodville J. Walker. I am senior staff geologist for the western exploration office of Phelps Dodge Corp., the second largest copper producing company in the United States.

Phelps Dodge Corp. operates four large mines in southern Arizona and southwestern New Mexico. Another large mine is under development in southeastern Arizona.

I am going to abstract—

Senator HASKELL. Your statement will be reproduced in full.

Mr. WALKER. Thank you.

Before proceeding with a discussion of the mineral potential of the Aldo Leopold Wilderness area, I will take a few minutes to illustrate the geological concept of the formation of porphyry-copper-type ore bodies.

Please understand that ore bodies of other types frequently occur with the porphyry copper deposits, but in the interest of time, I am going to illustrate the formation of only a porphyry copper ore body because these ore bodies are the most important.

In the region in which the proposed wilderness area follows, porphyry copper ore deposits are formed within the crust of the earth by the emplacement of an intrusive mass of molten rock into older formations. The intrusive mass must be rich in copper to form an ore body. During cooling of this mass, copper-bearing solutions within the mass migrate to the upper portions, forming copper ore both within the cooling intrusive mass and within parts of the older formations that have been invaded.

The depths at which these ore bodies are formed ranges from a few thousand feet for the upper portions to more than 10,000 feet for the bottoms. The bottom is marked by a very rapid decrease in the amount of copper present.

The porphyry copper deposits range in size from small with diameters of 1,000 feet or so, and ore thicknesses of a few hundred feet, to large deposits, with diameters in excess of 10,000 feet and

thicknesses in excess of a thousand feet, sometimes up to several thousand feet.

Small deposits may have 50 million or so tons of ore containing perhaps 500,000 tons of metallic copper and large deposits may have in excess of $2\frac{1}{2}$ billion tons of ore containing perhaps 25 million tons of copper.

For our illustration, picture a cross-section of the Earth's crust, with the most ancient rocks being covered by flat-lying sedimentary rocks. For some unknown reason, igneous activity commences, and is evidenced on the surface by volcanoes and the deposition of volcanic rocks. This volcanic process is fed by an advancing intrusive mass of molten rock. This volcanic activity releases much of the energy of the intrusive mass and it begins to cool. As it cools, the copper rich hydrothermal fluids migrate to the upper part of the intrusive column and into parts of the adjacent host rocks, forming a porphyry copper ore body if sufficient copper is present in the intrusion.

Erosion may subsequently expose the ore body. Still later the ore body may be covered by younger formations, which are termed post-mineral because they are younger than the ore body.

Subsequent erosion may again expose the ore body so that it is easily found. Those ore bodies preserved beneath the postmineral cover can be found by well-conceived exploration programs.

Two major porphyry copper deposits, Tyrone and Santa Rita, are shown on the map which accompanies my submittal. Attention is called to the great number of smaller but still significant ore occurrences in the general vicinity.

Northwest of Santa Rita is the Pinos Altos district, where recent exploration work has disclosed the presence of important copper ore bodies in limestone. These important new deposits extend beneath the postmineral volcanic rocks to the north. These postmineral volcanic rocks are of the same geologic age as the postmineral volcanic rocks in the proposed Aldo Leopold Wilderness area.

West of Silver City is Chloride Flat, where silver was mined in limestone many years ago. North of Santa Rita is the Hanover-Fierro area, where much copper mining has been done in limestone, and where recent exploration work shows the continuation of these ore bodies beneath the volcanic postmineral cover.

This postmineral volcanic cover is also of the same age as that in the proposed Aldo Leopold Wilderness area. The Georgetown district lies to the northeast of Santa Rita.

This occurrence and that at Hanover-Fierro generally appear to be peripheral to the major Santa Rita district. When taken together with it, and with the Tyrone and other districts, they constitute a mining region of exceptional size. Note how these occurrences are present right to the edge of the postmineral cover, particularly to the north and northeast of the district.

The point I want to make here is that the mining region itself should be expanded to include these areas underneath the postmineral cover to the north and northeast, which in this instance includes the Aldo Leopold area.

In the proposed Aldo Leopold area lying to the northeast, we should note the ore occurrences that lie to the east and south of the proposed area. To the northeast is the Chloride district, then the Hermosa district south of Chloride and east of the Aldo Leopold area. Southeast

of the area is the Kingston district, and the Carpenter district lies to the south. The Hillsboro district, which contains a small porphyry-copper-type deposit, is east of Kingston.

These districts, along with the previously mentioned districts adjacent to the Santa Rita deposit, indicate that the same type of mineralization probably is present within the proposed Aldo Leopold Wilderness area, beneath the postmineral cover.

The geological probabilities are high that there are one or more major porphyry copper deposits in the proposed Aldo Leopold Wilderness area.

The purpose of showing these illustrations is to demonstrate that extensive exploration work is presently being done through post-mineral cover on the basis of geological projections.

There is no geological reason to declare that any area lacks mineral potential when results of surface sampling of postmineral rocks are negative. What must be considered is the mineral potential of the underlying premineral rocks. In the proposed Aldo Leopold Wilderness area, this potential is large, with the geological probability of the existence of one or more porphyry copper deposits being high.

Some consideration should be given to the relationship between this area and the Southwest Copper Belt, which includes southeastern Arizona and southwestern New Mexico. According to "USGS Professional Paper 820," this is probably the richest copper province in the world. Also, according to the same source, it appears that the present rate of discovery is just about keeping pace with current production. The opportunities of finding new ore bodies are probably 10 times greater in the Southwest Copper Belt than in any similar sized area in the United States, and perhaps in the world.

However, a large part of this area has been deeply eroded and possible deposits removed, and other parts have not been subjected to the intrusive activity associated with the porphyry copper deposits. It is therefore very important not to arbitrarily remove areas from exploration that do permit projection of favorable rock types and conditions.

Each porphyry copper deposit is a major factor in the production of copper in the United States. The New Mexico copper production is derived largely from Tyrone and Santa Rita. In 1973, this amounted to 207,987 tons of copper. It is probable that similar deposits exist beneath the postmineral cover to the northeast, north, and northwest of the Santa Rita deposit. Based on current knowledge, the probability of finding new ore deposits in New Mexico is higher in this general region than anywhere else in the State.

Additional emphasis to the importance of not withdrawing areas with a high mineral resource potential can be deduced from the report "Mineral Resources and the Environment," by the National Research Council. Copper was the only metallic commodity studied. Worldwide distribution of copper is discussed on page 135 of this report as follows:

Geographical Distribution: Copper Provinces, Pellissonnier demonstrated that the concept of metallogenic provinces is definitely meaningful with regard to the distribution of copper deposits around the world.

Ninety-eight percent of the copper inventoried by Pellissonnier is contained in 11 copper provinces, which cover only a small part of the continental crust.

These 11 provinces are listed in Table Five and shown in Figure Seven. Thus, the distributions of copper deposits, with regard to metal content, geologic type,

location, and geologic environment, i.e., geologic province, demonstrate patterns which might be used in resource appraisal.

This knowledge allows extrapolation as to what may be found in unexplored areas and under cover of barren rocks.

From the table, the North American Cordilleran contains 22.7 percent of porphyry coppers in the world.

About three-fifths of the known resources of copper in the North American Cordilleran Copper Province is in the so-called Porphyry Copper Belt of southern Arizona and southwest New Mexico. This is about 13½ percent of the total copper resources of the world. It seems obvious that it is unreasonable to withdraw from exploration large areas in such a favorable belt.

Mr. Ferguson is going to give me a few minutes of his time.

Mr. FERGUSON. I yield 2 minutes of my time.

Mr. WALKER. The report also emphasizes the need for and costs of copper discoveries, as follows:

Additional production needed to satisfy the U.S.B.M. demand forecast is equivalent to putting onstream, each year, an operation processing 36,000 tonnes, 40,000 tons, per day of ore, averaging .6 percent copper.

Assuming a minimum economic life of 20 years, at a high production rate of five percent of reserves per year, this is about equivalent to a 230 million tonne, 250 million ton, deposit, i.e., a Class #3 deposit.

In addition, just to stay even on its current ore reserves, the U.S. must discover each year a 230 million tonne, 250 million ton, deposit containing .8 percent copper, or a 300 million tonne, 330 million ton, deposit containing .6 percent copper, i.e., another Class #3 deposit.

Exploration effort consists of surface prospecting which results in discovery of outcropping deposits.

The second generation exploration effort consists of geological mapping and instrumental, geochemical, geophysical, airborne, et cetera, surveys around known deposits, or known metal showings, resulting in discovery of new deposits in known mineralized districts.

One other point I would like to make, the publication I just referred to comes up with a very desirable way of explaining exploration.

This has been the source of much of our new copper in recent years.

The third generation exploration effort consists of using geological occurrence models, sometimes with genetic content, of deposits and of their settings. A substantial amount of copper is now being mined from deposits found as a result of the application of this type of effort.

This, of course, is the type of effort we are talking about when we are speaking about something like the Leopold Wilderness Area which is covered with postmineral rocks.

I have attached to the report a chart on total resources which I have taken from a publication—

Senator HASKELL. Your whole statement will be introduced. I would like, Mr. Walker, to get this in context. I understand, I believe, your theory.

Are you asking that the entire area not be set aside as a wilderness or are you asking that the additions shown in color not be added to the primitive area?

Mr. WALKER. I am asking that the entire area not be set aside as wilderness.

Senator HASKELL. Basically what you are doing is taking issue with the USGS study of the primitive area a few years back?

Mr. WALKER. No, not really. The USGS agrees with many of my conclusions in their report. I have them cited in here if you are interested.

Senator HASKELL. I will look at them. I do not really have to ask this question. Obviously Phelps Dodge has not filed any claims in the area.

Mr. WALKER. No.

Senator HASKELL. What have you done?

Mr. WALKER. We have done nothing in this particular area. It is still, as far as we are concerned, far enough in the future that we are not interested in trying to stake claims in this particular area.

We are looking in areas with higher priority.

Senator HASKELL. If copper occurred, at what depth, in your opinion, would it occur?

Mr. WALKER. 2,000 or 3,000 feet perhaps.

Senator HASKELL. 2,000 or 3,000 feet. Basically what you are saying is from formations in other parts that are actually under active development now, there exists—the geological inference could be drawn that it might be porphyry copper at that depth. Is that basically what you are saying?

Mr. WALKER. That is essentially correct. The probabilities are high that the copper that exists elsewhere could exist here. I think the same statement could be made about the Gila and the Blue Ridge. These all fall within the same belt.

Senator HASKELL. You are aware, of course, that the Wilderness Act permits the filing of claims as far as 1984?

Mr. WALKER. Yes.

Senator HASKELL. If copper existed, obviously at that depth, it would be a lot of money.

Mr. WALKER. Right.

Senator HASKELL. I see you indicated it would be about 1 percent copper, if it exists.

Mr. WALKER. This seems to be the general tenure of that kind of deposit.

Senator HASKELL. Has any mining—is there any ongoing mining at that depth for copper which is taking place where the recovery is roughly at 1 percent now?

Mr. WALKER. We are developing a mine where the mining depth is about 2,500 feet. Kerr-McGee is developing—

Senator HASKELL. Looking for 1 percent copper?

Mr. WALKER. Yes. Kerr-McGee is developing a mine or talking about 2,500 feet. Kerr-McGee is developing—

Senator HASKELL. Looking for 1 percent copper?

Mr. WALKER. Yes. Kerr-McGee is developing a mine or talking about developing it, I do not think they have started it yet, in Arizona.

The top of the ore body that was encountered was at 2,500 feet, the bottom at about 5,500 feet.

Senator HASKELL. Again about 1 percent copper?

Mr. WALKER. Again; looking at about 1 percent copper.

Senator HASKELL. All right, sir. We will, of course, have another—I personally will oppose putting this aside as an instant wilderness area.

Certainly the exterior boundaries have been studied. We will ask the USGS at the same time to dust off their 2- or 3-year-old studies and we will get the benefit of that.

Mr. WALKER. I have included quotes from their book which I think agrees with my position.

Senator HASKELL. I would like the counsel for the minority to ask a question.

Mr. CRAFT. Mr. Chairman, Senator Fannin is from Arizona and Phelps Dodge is a large employer. I was wondering for record purposes whether there was any area in the 231,700 acres which were proposed which you would deem to be suitable at all for wilderness designation in the proposed areas?

You made a statement on page 14 which is the reason I asked that. You say the proposed wilderness area will probably be tested in the foreseeable future and yet you cannot say when the foreseeable future is, nor if Phelps Dodge is going to be willing to do that particular function in the foreseeable future.

We are just trying to ascertain whether or not there is anything in that entire proposed area which you could go along with as being suitable for inclusion, or whether or not you want to just say that it all falls into the area of undiscovered category and therefore, all of it ought not to be?

Mr. WALKER. Let me answer that by a little explanation.

In the first place, I think I would prefer to see that it remain, not a wilderness, but the first step of an exploration of an area of this size would be by geophysics.

The USGS has done some geophysics. It is not of the quality that we do but this would be a step which would select the areas that would receive the most immediate attention.

We have not gone that far yet and we do not intend to probably for another several years. There are other areas where we are working where we think our chances are better.

Mr. CRAFT. What is the foreseeable future?

Mr. WALKER. I would guess within the next 10 or 15 years. The rate of use of copper is moving so fast that these deposits where the exploration cost is high are going to become more and more attractive to people looking for deposits.

I had in my statement also, since 1950 the costs of finding a deposit has increased from 0.6 percent of the value of the deposit to 2 percent of the value of the deposit.

Mr. CRAFT. Thank you, Mr. Chairman.

Senator HASKELL. We will take this under consideration. It is very difficult. I realize that you have a geological theory that we consider acceptable.

On the other hand, some geologists that I know do not want any part of the country put in the wilderness area, so we have to weigh the likelihood and wait to see what the USGS says.

Mr. WALKER. I think one of the problems is the Wilderness Act itself. There are time limitations and the lack of concern or the lack of recognition of the fact that there is a considerable exploration time involved in finding anything.

Senator HASKELL. I know that.

Mr. WALKER. This I think is a major problem, one reason why I will probably be here again some time on another one of these.

Senator HASKELL. I see. Thank you very much, Mr. Walker.

Mr. WALKER. Thank you, sir.

[The prepared statement of Mr. Walker along with a subsequent letter follows:]



Western Exploration Office, Drawer 1217, Douglas, Arizona 85607 • (602) 364-8414

May 9, 1975

The Honorable Floyd K. Haskell
Chairman
Subcommittee on Environment and Land Resources
Committee on Interior and Insular Affairs
United States Senate
Washington, D. C. 20510

Re: Proposed Aldo Leopold Wilderness Area

Mr. Chairman, Members of the Sub-Committee:

My name is Woodville J. Walker. I am Senior Staff Geologist for the Western Exploration Office of Phelps Dodge Corporation, the second largest copper producing company in the United States. Phelps Dodge Corporation operates four large mines in southern Arizona and southwestern New Mexico. Another large mine is under development in southeastern Arizona.

Before proceeding with a discussion of the mineral potential of the Aldo Leopold Wilderness area, I will take a few minutes to illustrate the geological concept of the formation of porphyry copper type orebodies. Please understand that orebodies of other types frequently occur with the porphyry copper deposits, but in the interest of time I am going to illustrate the formation of only a porphyry copper orebody because these orebodies are the most important.

In the southwestern United States, most of the porphyry copper ore deposits are of the same geologic age and have generally similar geologic histories.

Porphyry copper ore deposits are formed within the crust of the earth by the emplacement of an intrusive mass of molten rock into older formations. The intrusive mass must be rich in copper to form an orebody. During cooling of this mass, copper bearing solutions within the mass migrate to the upper portions, forming copper ore both within the cooling intrusive mass and within parts of the older formations that have been invaded. The depths at which these orebodies are formed ranges from a few thousand feet for the upper portions to more than ten thousand

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feet for the bottoms. The bottom is marked by a very rapid decrease in the amount of copper present.

The term "porphyry" simply refers to the texture of the rock and has nothing to do with whether or not copper is present.

The porphyry copper deposits range in size from small, with diameters of one thousand feet or so, and ore thicknesses of a few hundred feet, to large deposits, with diameters in excess of ten thousand feet and thicknesses in excess of a thousand feet, sometimes up to several thousand feet. Small deposits may have 50,000,000 or so tons of ore containing perhaps 500,000 tons of metallic copper and large deposits may have in excess of 2,500,000,000 tons of ore containing perhaps 25,000,000 tons of copper.

For our illustration, picture a cross section of the earth's crust, with the most ancient rocks being covered by flat lying sedimentary rocks.* For some unknown reason, igneous activity commences, and is evidenced on the surface by volcanoes and the deposition of volcanic rocks. This volcanic process is fed by an advancing intrusive mass of molten rock. The volcanic activity releases much of the energy of the intrusive mass and it begins to cool. As it cools, the copper rich hydrothermal fluids migrate to the upper part of the intrusive column and into parts of the adjacent host rocks, forming a porphyry copper orebody, if sufficient copper is present in the intrusive.

Erosion may subsequently expose the orebody. Still later the orebody may be covered by younger formations, which are termed postmineral because they are younger than the orebody.

Subsequent erosion may again expose the orebody so that it is easily found. Those orebodies preserved beneath the postmineral cover can be found by well conceived exploration programs.

Let us now consider the known deposits in this region. The geologic setting for the deposits presently being mined in southeastern Arizona at Morenci, and in southwestern New Mexico at Tyrone and Santa Rita, is like the model described above. Similar geological conditions are probably present in the proposed Aldo Leopold Wilderness area, except that here the postmineral cover is still present. The principal difference between the environment of ore deposits presently being mined and those that may be present in the proposed Aldo Leopold Wilderness area

* Porphyry copper deposits often occur in volcanic or metavolcanic rocks as well as sedimentary rocks.

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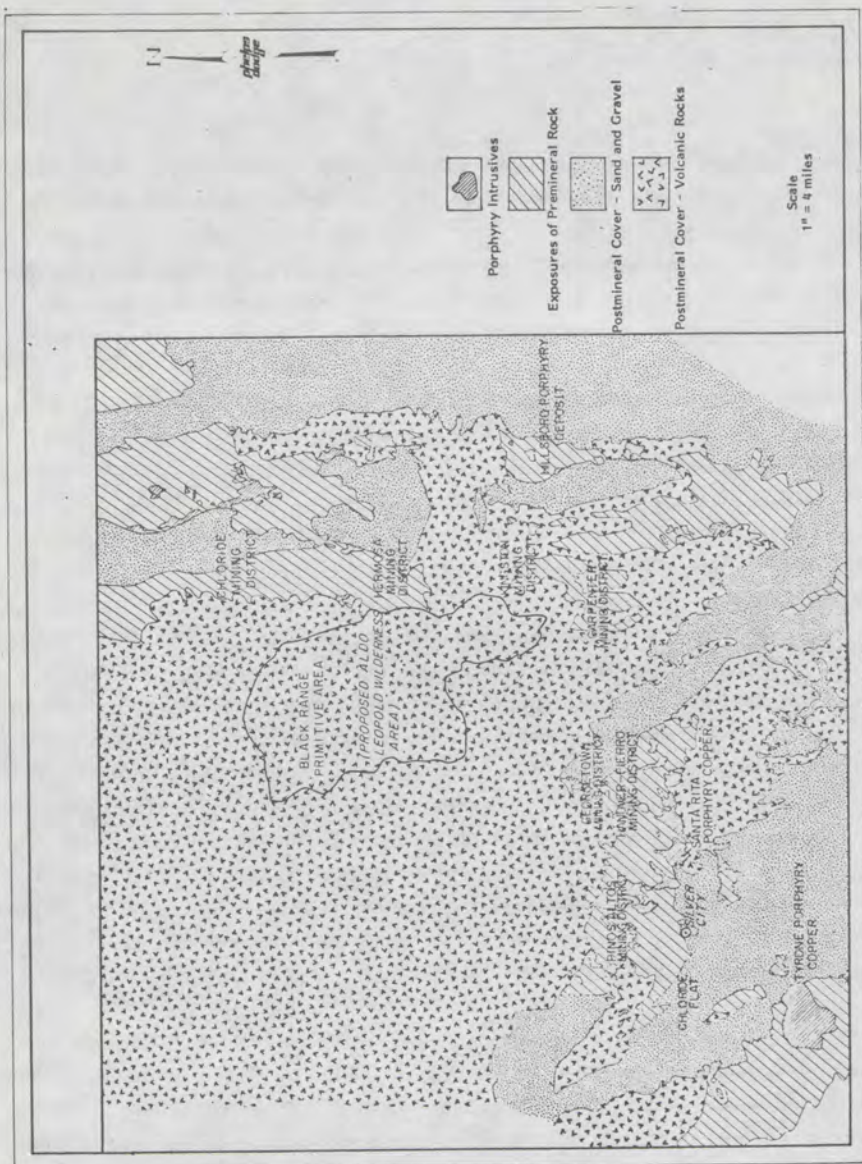
is the presence of postmineral cover in the latter. Postmineral cover refers to those formations that have been deposited over the host rocks for the ore deposits, after these ore deposits were formed.

This presentation will emphasize the geological significance of this cover. It will also summarize the geological evidence that leads to the conclusion that significant ore deposits are probably present in the proposed Aldo Leopold Wilderness area.

The conclusion reached in this presentation is that the best interests of the people of the United States, now and in the future, will be best served by retention of this area in the Cila National Forest, and not as a wilderness. Continuing this classification will permit the orderly exploration of this area under such reasonable rules and regulations as may be required by the United States Forest Service. It should be noted that the mineral potential of the area is in host rocks deeply buried by postmineral rocks. It is unlikely that exploration work will be attempted by any but the most competent and responsible mining and oil companies.

The general regional geologic setting of the Aldo Leopold Wilderness area is shown on Figure 1; taken from the State Geologic Map of New Mexico. Intrusive rocks related to the most important period of mineralization are shown in a left to right hatched pattern. It should be noted that only a fraction of the known intrusive masses are associated with porphyry copper deposits. Others are associated with different types of ore deposits, but most are barren. They all indicate a high degree of intrusive activity in this exceedingly important mineralized region. Premineral host rocks, exclusive of the intrusives, are shown with a right to left hatch pattern. Postmineral rocks - those deposited subsequent to the most important ore forming period - are shown in a stippled pattern (gravel, etc.), or with a "V" pattern (volcanic rocks).

Two major porphyry copper deposits, Tyrone and Santa Rita, are shown. Attention is called to the great number of smaller but still significant ore occurrences in the general vicinity. Northwest of Santa Rita is the Pinos Altos district, where recent exploration work has disclosed the presence of important copper orebodies in limestone. These important new deposits extend beneath the postmineral volcanic rocks to the north. These postmineral volcanic rocks are of the same geologic age as the postmineral volcanic rocks in the proposed Aldo Leopold Wilderness area.



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West of Silver City is Chloride Flat, where silver was mined in limestone many years ago. North of Santa Rita is the Hanover-Fierro area, where much copper mining has been done in limestone, and where recent exploration work shows the continuation of these orebodies beneath the volcanic postmineral cover. This postmineral volcanic cover is also of the same age as that in the proposed Aldo Leopold Wilderness area. The Georgetown district lies to the northeast of Santa Rita. This occurrence and that at Hanover-Fierro generally appear to be peripheral to the major Santa Rita District. When taken together with it, and with the Tyrone and other districts, they constitute a mining region of exceptional size. Note how these occurrences are present right to the edge of the postmineral cover, particularly to the north and northeast of the district.

It should be borne in mind that the mining region described above has been exposed by accidents of erosion, and there is no geological reason why a similar pattern may not be present to the north and northeast.

The proposed Gila Wilderness area lies to the north. This is not the subject of this hearing and will not be discussed.

The proposed Aldo Leopold area lies to the northeast. Note the ore occurrences that lie to the east and south of the proposed area. To the northeast is the Chloride district, then the Hermosa district south of Chloride and east of the Aldo Leopold area. Southeast of the area is the Kingston district, and the Carpenter district lies to the south. The Hillsboro district, which contains a small porphyry copper type deposit, is east of Kingston. These districts, along with the previously mentioned districts adjacent to the Santa Rita deposit, indicate that the same type of mineralization probably is present within the proposed Aldo Leopold Wilderness area, beneath the postmineral cover.

The geological probabilities are high that there are one or more major porphyry copper deposits in the proposed Aldo Leopold Wilderness area. However, the exploration problems are formidable.

Three illustrations have been prepared to show the relationship between presently known districts and the postmineral cover. Exposure of the Tyrone and Santa Rita ore deposits by erosion is illustrated on Figure 2. The top part, "A", is a diagrammatic section of the region drawn through the Tyrone, Santa Rita, and Hillsboro deposits. It should be emphasized that only the upper portions of the pro-

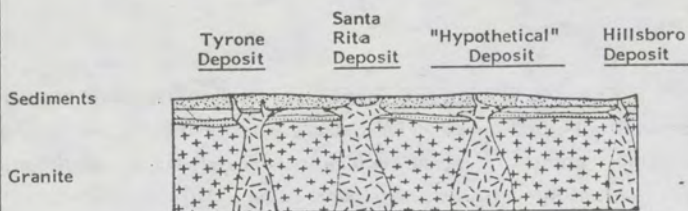


Figure 2-A

The productive intrusives penetrate the granite and the sediments. Ore is formed in the upper part of these intrusives.

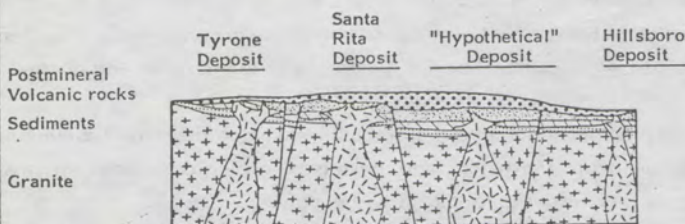


Figure 2-B

The same section as "A", after extrusion of the postmineral volcanic rocks, which thereby conceal the ore deposits.

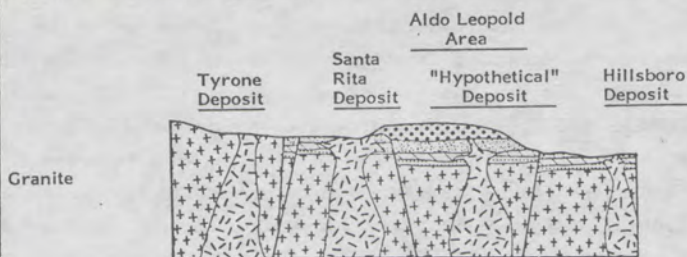


Figure 2-C

The section at the present time, showing the "Hypothetical" intrusive still concealed by the younger postmineral volcanic rocks. Note the preserved postmineral cover in the Aldo Leopold area.

Figure 2

Diagrammatic Geological Sections through Tyrone - Santa Rita - Aldo Leopold Areas, New Mexico.

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ductive porphyries is ore, the balance represents the remainder of the intrusive from which this ore is derived. The formations into which the porphyries are intruded are granite overlain by sediments. The sediments are represented by the nearly horizontal formations. The section illustrates the conditions after emplacement and after considerable erosion.

The middle part, "B", of Figure 2, shows the conditions after faulting and extrusion of the volcanic postmineral cover.

The lower part, "C", shows present day conditions. Erosion has accidentally exposed the ore deposits. In the case of Tyrone, none of the volcanic rocks have been preserved. At Santa Rita, the volcanic postmineral cover is present immediately south and southeast of the deposit. Two or three square miles of uneroded volcanic rock would have concealed this deposit.

The next illustration, Figure 3, shows the situation in the Safford-Morenci area, about 75 miles northwest of the Aldo Leopold Wilderness area. Figure 3 is a generalized diagrammatic cross section through the Safford and Morenci districts, extending into the Blue Range Primitive area, where a hypothetical deposit is shown. The top part, "A", of Figure 3 shows the situation after emplacement of the intrusives in the host rocks. The intrusives are shown cutting across the formations. It should be remembered that only the upper part of the intrusives is ore.

The middle part, "B", of Figure 3 shows the situation after being covered by younger volcanic rocks. These rocks are postmineral in age relative to the orebodies.

The lower part, "C", of Figure 3 shows the situation at present, with the Safford orebody barely exposed by erosion of the postmineral rocks. The deep Kenecott orebody is exposed only in an area about the size of an ordinary desk; it is a tiny window in the postmineral rock. This orebody contains more than 500,000,000 tons of ore containing more than 2,500,000 tons of copper. Discovery of the outcrop was the result of painstaking search in extremely difficult terrain by well trained geologists.

The exposed area at Morenci is large compared to those at Safford, yet even here the 40 square mile outcrop area is surrounded on all sides by postmineral cover.

The Blue Range deposit shown under postmineral cover east of Morenci

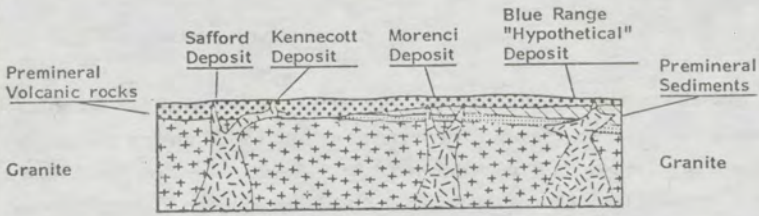


Figure 3-A

Diagrammatic section showing the relationship between the intruding porphyry and the intruded granite and flat-lying sedimentary and premineral volcanic rocks. It should be remembered that porphyry ore occurs only in the upper part.

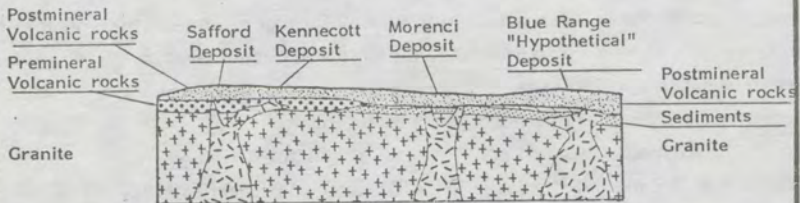


Figure 3-B

The same section as 3-A, after erosion and after deposition of the post-mineral volcanic rocks.

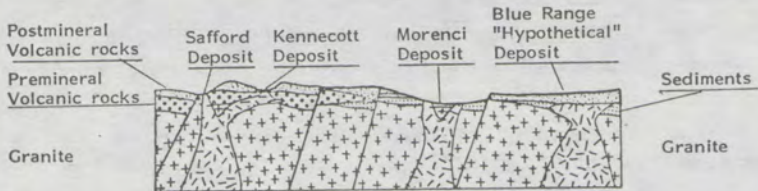


Figure 3-C

This diagrammatic section illustrates the situation at the present time. The Safford and Kennecott ore bodies have been barely exposed by erosion. In fact, the Kennecott ore body outcrop is only about as large as an office desk.

Figure 3
Diagrammatic Sections through the Safford and Morenci Districts, Arizona

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is purely hypothetical, yet knowledgeable exploration geologists will unanimously agree that one or more porphyry deposits are probably present in this region. The Safford region itself is currently one of the most active areas for exploration in the United States and probably in the world.

A different type of orebody with a different type and age of postmineral cover is shown on the next illustration, Figure 4. This is the United Verde mine in the Jerome district in Arizona, about 250 miles northwest of the proposed Aldo Leopold Wilderness area.

The upper part, "A", shows the situation after formation of the orebody, and after the orebody and its host rocks had been folded and eroded. The orebody and the enclosing rocks are about 1,800,000,000 years old.

Part "B" of Figure 4 shows the situation after the orebody had been covered by postmineral younger rocks, the lowermost units being 500,000,000 years old. These are far older than the host rocks for the porphyry copper deposits discussed previously in this paper.

Part "C" of Figure 4 illustrates the present situation, with the ancient orebody being accidentally exposed by erosion. The faulted portion of the orebody, shown in part "C", was found by the application of sound geological reasoning and the expenditure of a large sum of money. It is the famous United Verde Extension mine, a very profitable mine, now exhausted.

Recognition of the fact that the massive sulfide ore occurs at a definite horizon in the host rocks has reawakened interest in this district and generated new exploration activity. The type of target sought may be compared to the situation prevailing in illustration "B" of Figure 4. There are no surface exposures of the host rocks. All information is obtained by drilling and by geophysical work. During its period of operation, the United Verde mine produced 1,650,000 tons of copper from about 33,000,000 tons of ore. The United Verde Extension orebody, which was the down faulted portion of the United Verde orebody, produced nearly 4,000,000 tons of ore that yielded 400,000 tons of copper.

The purpose of showing these illustrations is to demonstrate that extensive exploration work is presently being done through postmineral cover on the basis of geological projections. There is no geological reason to declare that any area lacks mineral potential when results of surface sampling of postmineral rocks

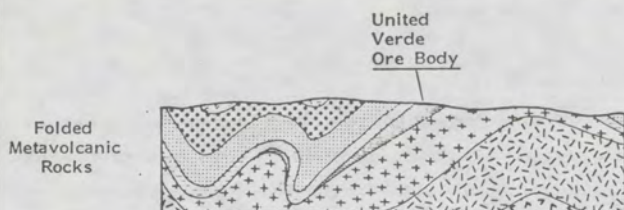


Figure 4-A

Diagrammatic cross section of the Jerome district after formation of the ore body, and after folding of the ore body and the host rocks, and exposure through erosion. The ore body and host rocks are 1,800,000,000 years old.

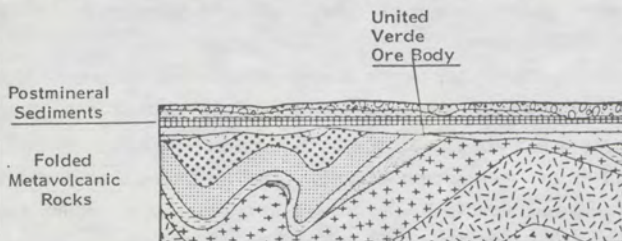


Figure 4-B

The same as above, after deposition of the younger postmineral rocks, the lowermost being 500,000,000 years old.

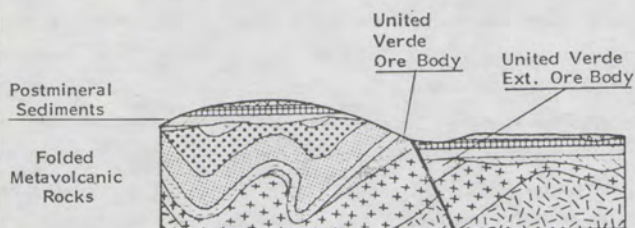


Figure 4-C

Diagrammatic section showing the situation today after erosion, following the faulting, has exposed the United Verde ore deposit.

Figure 4

Diagrammatic cross sections of the Jerome District, Arizona

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are negative. What must be considered is the mineral potential of the underlying premineral rocks. In the proposed Aldo Leopold Wilderness area, this potential is large, with the geological probability of the existence of one or more porphyry copper deposits being high.

Emphasis in this presentation has been on the proposed Aldo Leopold Wilderness area. Some consideration should be given to the relationship between this area and the Southwest Copper Belt, which includes southeastern Arizona and southwestern New Mexico. According to U.S.G.S. Professional Paper 820, this is probably the richest copper province in the world. Also, according to the same source, it appears that the present rate of discovery is just about keeping pace with current production. The opportunities of finding new orebodies are probably ten times greater in the Southwest Copper Belt than in any similar sized area in the United States, and perhaps in the world. However, a large part of this area has been deeply eroded and possible deposits removed, and other parts have not been subjected to the intrusive activity associated with the porphyry copper deposits. It is therefore very important not to arbitrarily remove areas from exploration that do permit projection of favorable rock types and conditions.

This presentation would be incomplete without calling attention to the size and importance of the known copper deposits in this region. The Morenci deposit, in Arizona, has produced about 4,000,000 tons of copper from 500,000,000 tons of ore. The Santa Rita deposit, which has been in production as a porphyry copper mine since 1911 has produced about 2,400,000 tons of copper from about 300,000,000 tons of ore.

Each porphyry copper deposit is a major factor in the production of copper in the United States. The New Mexico copper production is derived largely from Tyrone and Santa Rita. In 1973, this amounted to 207,987 tons of copper. It is probable that similar deposits exist beneath the postmineral cover to the northeast, north, and northwest of the Santa Rita deposit. Based on current knowledge, the probability of finding new ore deposits in New Mexico is higher in this general region than anywhere else in the state.

Arizona produces about 54% of the total U.S. copper, and New Mexico more than 12%, all from the Southwest Copper Belt. Production in tons of copper is shown below for the years indicated.

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	1968	1969	1970	1971	1972	1973
Arizona	617,961	801,363	917,918	820,171	897,888	931,128
New Mexico	90,769	119,956	166,278	157,419	167,951	207,987
Total U. S.	1,204,621	1,544,579	1,719,657	1,522,183	1,642,764	1,726,934

The formidable problems posed by the thick postmineral volcanic cover can only be overcome by well planned and well financed programs. It is unlikely that more than a fraction of the area will be subjected to exploration activities at any one time. Orderly exploration will reduce the visual impact of activities. Proper restoration work will largely eliminate evidence of exploration activity.

Any orebody found beneath the postmineral volcanic rocks will have to be mined by underground methods. Exploitation of such orebodies will affect only a small portion of the area, probably less than ten square miles for each one found. This is a very small fraction of the area proposed for withdrawal as the Aldo Leopold Wilderness area.

The proposed Aldo Leopold Wilderness area lies within the Southwest Copper Belt. The geological evidence indicates that favorable host rocks are present beneath the postmineral volcanic cover. Ore deposits can only be mined where they occur. They are relatively scarce and areas where the geological probabilities are high should not be set aside as wilderness. The probabilities are high in the proposed Aldo Leopold Wilderness area. It is in the best national interest to retain this area within the Gila National Forest so that exploration work can be done, subject to the reasonable rules and regulations of the U.S. Forest Service.

One additional point needs to be made. This is in connection with the following incorrect statement appearing on page 6 of the Forest Service's 1970 brochure on the Aldo Leopold Wilderness proposal:

"Indications resulting from the U.S. Geological Survey's study of the area are that there is no significant mineralization in the area proposed for wilderness."

That statement is not just misleading--it is untrue as can be established by the Geological Survey's report taken as a whole, and by the following extracts therefrom:

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"The primary objectives of our investigations were to determine whether mineral deposits exist at or near the surface in or near the Black Range Primitive Area . . ." (p. F10) (underlining added)

" . . . mineable mineral deposits occur in the early Tertiary andesite sequence that underlies the Datil and in Paleozoic and Precambrian rocks in nearby areas, and similar deposits may occur in these rocks beneath the Datil volcanic rocks in the primitive area." (p. E2) (underlining added)

"Many lead, zinc, copper, and silver deposits occur in the pre-Datil rocks--early Tertiary volcanic rocks, Paleozoic sedimentary rocks, and Precambrian igneous and metamorphic rocks--along the eastern and southern sides of the map area." (p. E48)

"Because these older rocks contain noteworthy mineral deposits near the primitive area, it is assumed that similar deposits might occur in them beneath the Datil Formation in the primitive area." (p. E48) (underlining added)

The Datil Formation is the postmineral volcanic cover of this presentation.

"An evaluation of the potential for concealed mineral deposits in early Tertiary and older rocks where they are covered with the Datil volcanic rocks can be made only by inference from the regional pattern of mineralization. The Black Range Primitive Area is about 15 miles northeast of the Silver City-Santa Rita area, one of the major mining districts of the Western United States. The Chino copper deposit, which is near the eastern side of this district, is a huge low grade disseminated copper deposit that is presently a major copper producer." (p. E 49) (underlining added)

These extracts show agreement with the information presented herein.

Our emphasis on the probabilities of ore occurrences in the area reflect the industry concern with exploration, and with the belief that improved geophysical tools will be developed to further facilitate work in this type of terrain.

Additional emphasis to the importance of not withdrawing areas with a high mineral resource potential can be deduced from the report "Mineral Resources and the Environment", by the National Research Council. Copper was the only metallic commodity studied. Worldwide distribution of copper is discussed on page 135

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of this report as follows:

"Geographical Distribution: Copper Provinces

Pelissonnier demonstrated that the concept of metallogenic provinces is definitely meaningful with regard to the distribution of copper deposits around the world. Ninety-eight percent of the copper inventoried by Pelissonnier is contained in 11 copper provinces, which cover only a small part of the continental crust. These 11 provinces are listed in Table 5 and shown in Figure 7. Thus, the distributions of copper deposits, with regard to metal content, geologic type, location, and geologic environment (i.e., geologic province) demonstrate patterns which might be used in resource appraisal. This knowledge allows extrapolation as to what may be found in unexplored areas and under cover of barren rocks."

TABLE 5 Main Copper Provinces of the World
 Percent Distribution of Copper Metal (after Pelissonnier, 1972)*

Copper Provinces (Pelissonnier, 1972)	Percentage of Copper in All Provinces	Main Types of Deposits
Andean	28.8	Porphyry coppers
North American Cordilleran	22.7	Porphyry coppers
South Central Africa	19.3	Strata-bound
North American Great Lakes	8.2	Massive sulfides, strata-bound, and basic rocks.
Northern Europe	8.5	Strata-bound and massive sulfides
Ural-Kazakstan	4.1	Porphyry coppers, massive sulfides, and strata-bound
East Mediterranean	2.2	Massive sulfides and porphyry coppers
Huelva, Spain	1.8	Massive sulfides
Philippines	1.3	Porphyry coppers
Japan	1.9	Massive sulfides
Eastern Australia	1.2	Strata-bound and massive sulfides
	100.0%	

* This represents 98% of copper inventoried in the world by Pelissonnier.
 (Underlining added)

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About three-fifths of the known resources of copper in the North American Cordilleran Copper Province is in the so-called "porphyry copper belt" of southern Arizona and southwest New Mexico. This is about 13½ percent of the total copper resources of the world. It seems obvious that it is unreasonable to withdraw from exploration large areas in such a favorable belt.

The Report also emphasizes the need for and costs of copper discoveries, as follows:

"Need for Copper Discoveries

Additional production needed to satisfy the U.S.B.M. demand forecast is equivalent to putting on stream, each year, an operation processing 36,000 tonnes* (40,000 tons) per day of ore, averaging 0.6 percent copper. Assuming a minimum economic life of 20 years (at a high production rate of five percent of reserves per year), this is about equivalent to a 230 million tonne (250 million ton) deposit, i.e., a Class #3 deposit. In addition, just to stay even on its current ore reserves, the U.S. must discover each year a 230 million tonne (250 million ton) deposit containing 0.8 percent copper, or a 300 million tonne (330 million ton) deposit containing 0.6 percent copper, i.e., another Class #3 deposit. In other words, to maintain its position and avoid future depletion by maintaining a steady state of reserve readiness, the U.S. alone needs to find two Class #3 deposits each year, or one Class #2 (giant) deposit, the equivalent of 530 million tonnes (580 million tons) of 0.6 percent copper ore containing 3.2 million tonnes (3.5 million tons) metal. To achieve the same reserve readiness, the world must discover each year a billion ton ore deposit containing 0.8 percent copper, i.e., a large Class #2 (giant) deposit. The record indicates this has not been achieved in the U.S. In recent years through known new discoveries. Reserve development has largely been in areas of old discoveries. As discussed, deposits have limits to their sizes, and it is becoming more prevalent to test a body completely before mining starts. Future maintenance of production must depend to an increasing extent on new discoveries. It is clear from the following discussion that the cost of discovery is high."

* "tonne" means metric ton. The equivalent in tons of 2,000 pounds is shown in brackets.

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"Cost of Mineral Discovery

Copper is one of several mineral commodities which are used in sufficient volume, and the reserves of which are so limited, that discovery-oriented exploration programs for it by industry and/or government are economically justified."

"Exploration Phases

In any given area containing, or judged to be favorable to the occurrence of copper deposits, the search effort over time follows an evolution pattern including three generations (or phases) of exploration.

The first generation exploration effort consists of surface prospecting which results in discovery of outcropping deposits. This has been, to date, the most productive approach for copper as well as for most other metal commodities. For instance, the major part of the pre-1960 porphyry coppers was found through prospecting.

The second generation exploration effort consists of geological mapping and instrumental (geochemical, geophysical, airborne, etc.) surveys around known deposits, or known metal showings, resulting in discovery of new deposits in known mineralized districts. During that phase the extrapolation is pragmatic, rather timid, and with limited conceptual content. This approach, however, results in substantial increases in reserves. For instance, as shown in Figure 18, the reserves created by 21 years of second-generation exploration of porphyry coppers in North America during the period 1950-1971 amount to 40 million tonnes (44 million tons) of metal contained in 39 deposits, as of 1971. This can be compared with reserves, as of the same year, of 41 million tonnes (45 million tons) in 17 deposits found before 1950, in the same area.

The third generation exploration effort consists of using geological occurrence models (sometimes with genetic content) of deposits and of their settings. Such models allow the formulation of predictions about mineral provinces and mineral occurrences in the absence of mineralized outcrops and in the absence of anomalies resulting from instrumental surveys. This conceptual approach has not yet produced many reserves, but it is expected that it will in the future, thanks to the major improvements in recent times in the conceptual, genetic content of the science of ore deposition. This approach is essentially geological remote sensing. It is followed, of course, by geological and instrumental field surveys.

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For each generation, the first discovery in any province is usually followed by a surge of new discoveries. Then this generation (or phase) ends slowly, with a few more discoveries which show a continued increase in time and money for each new discovery.

The discovery cost per deposit, or per unit of commodity is negligible during the first generation effort. It increases considerably during the second generation effort. As shown in Table 10*, this cost (including all expenditures previous to development as defined for tax purposes) during the 20-year period, 1951-1970, increased in Canada, from 0.6 percent to two percent of the gross value of metals contained in the discoveries. During the 15-year period, 1955-1969, it increased in the western U.S., from one percent to 2.2 percent of the gross value of metals discovered. The year 1950 marks approximately the transition throughout the world from first to second generation exploration efforts. (underlining added)

* Table 10 not incorporated in this presentation. See the Report cited.

The concept of three generations of exploration effort has real merit. Future exploration efforts in the proposed Aldo Leopold Wilderness area falls mostly within the definition of coverage by second generation efforts and to a lesser degree within the definition of third generation efforts. The proximity to known districts, the presence of known mineralization beneath postmineral rocks of similar age and type in adjacent areas, and the location of the area in the "porphyry copper belt" of southwest New Mexico and southern Arizona justifies the rating.

Although the Report covers the increasing costs of exploration, and this necessarily includes the increasing amounts of time involved as more and more exploration falls in the second and third generations, no mention is made of the following factor of great importance.

As more and more exploration work falls in the second and third generation categories, the gathering of incremental factual data becomes more important. In prospects that fall within the definition of first generation exploration efforts, factual information can be obtained by geological mapping, by drilling, and by sampling at a relatively small cost. As exploration costs increase in terms of both time and money in the second generation efforts, and at a much greater rate in programs that fall in the third generation exploration effort, the gathering and compilation of data obtained by others, either governmental agencies, or competitors, be-

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comes of great economic importance. Also involved, of course, is the reevaluation of data obtained during the execution of an exploration program. It frequently happens that results obtained by one program, or even in the initial phases, indicate that the geological premises upon which the program was based are incorrect. However, the data obtained frequently support an alternative hypothesis, and further work may lead to a discovery, or perhaps to the development of still another model upon which to base further work. The fact that discoveries made as a result of second and third generation efforts are increasingly dependent on the incremental acquisition of information is a principle point in opposition to the belief that wilderness areas can be opened for exploration when the need for metals arises.

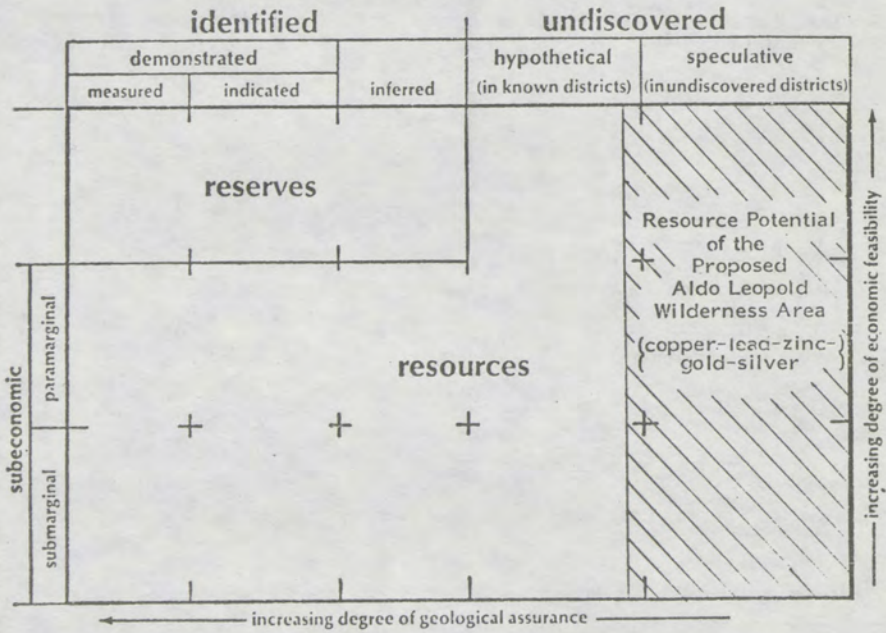
In order to meet the future mineral needs of the United States, and of the world, increasing reliance must be placed on discoveries made as a result of second and third generation efforts. The time required to make a discovery becomes an important factor. It is estimated that it may take ten times as long to make a discovery in programs that fall within the third generation exploration effort than within the second. The needs of the future can only be met by exploration now. The proposed Aldo Leopold Wilderness area will probably be tested in the foreseeable future as exploration of areas of easier access, with better defined targets, and with less formidable obstacles are tested.

It may be of interest to you and the Sub-Committee to consider some sort of rating for the resource potential of the proposed Aldo Leopold Wilderness area. In 1974 the U.S. Geological Survey and the U.S. Bureau of Mines agreed on definitions for resources. A chart was prepared for Total Resources. Use of the chart permits a direct comparison of opinions of the resource potential.

On the following chart I have shown where the potential resources of the proposed Aldo Leopold Wilderness area fall. The entire area falls in the "Undiscovered" category because of the proximity of known districts to the margin - in some cases being immediately adjacent to the margin - a portion falls in the "hypothetical" class but primarily it falls within the "speculative" class. Although the thrust of this presentation has been principally directed to the potential for copper resources, which are very large, the chart also covers the potential for substantial lead and zinc deposits related to the porphyry copper potential, and for gold and silver deposits possibly unrelated to the porphyry deposits.

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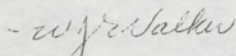
TOTAL RESOURCES



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I want to thank the Chairman and the Committee for the opportunity to present these remarks.

Very truly yours,



W. J. Walker
Senior Staff Geologist

WJW: s

cc: J. A. Lentz
W. K. Brown
R. W. Pendleton, Jr.
M. P. Scanlon
A. M. Hauck
J. L. Haggard
J. K. Richardson



Western Exploration Office, Drawer 1217, Douglas, Arizona 85607 • (602) 364-8414

May 28, 1975

The Honorable Floyd K. Haskell
Chairman
Subcommittee on Environment and Land Resources
Committee on Interior and Insular Affairs
United States Senate
Washington, D. C. 20510

Re: Proposed Aldo Leopold Wilderness Area

Mr. Chairman, Members of the Subcommittee:

I want to thank the Subcommittee again for the opportunity of appearing before it on May 20. I trust that these supplemental remarks, offered in response to questions by the Chairman, will also be included in the record.

The Chairman asked about the thickness of the postmineral volcanic cover in the proposed wilderness area. Upon the reply that it was probably from 2,000 to 3,000 feet, he asked if anyone was mining copper ore of less than 1% copper content from this depth. Two deposits were mentioned in the response, the Kerr McGee deposit near Patagonia, Arizona, (which is being considered for production), and the Phelps Dodge deposit at Safford, which is being developed for production. The San Manuel deposit, which is in production, was not mentioned. These are all, or will be, underground mines.

Kerr McGee, Patagonia, Arizona

The economic top of this orebody is 4,000 feet below the surface. About one hundred million tons of material averaging 0.8% copper has been reported. It is being studied for development.

Phelps Dodge, Safford, Arizona

This orebody is being prepared for mining. The development level is 2,500 feet below the surface. The ore grade is 0.75% copper.

San Manuel, Arizona

This underground operating mine is currently in production. In 1973 it operated at the rate of 61,553 tons per day. The ore grade was 0.72% copper. The present operating level is 2,400 feet below the surface. The lowest development level for this orebody is reportedly 3,600 feet. The development level for the adjacent Kalamazoo orebody (of similar grade) will be at a depth of 4,500 feet.

The Honorable Floyd K. Haskell

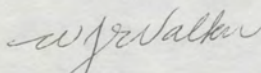
May 28, 1975

Page Two

These illustrations show that the depth below the surface does not pose problems of too serious a nature. The San Manuel mine produces copper at costs that are competitive with that produced from open pit mines. The chances of finding porphyry copper orebodies that can be mined by open pit methods are getting smaller rapidly. Exploration efforts are being directed constantly to deeper targets, usually under postmineral cover. The future will undoubtedly show more and more development of underground mines.

Thank you for the opportunity of presenting these supplemental remarks.

Very truly yours,



W. J. Walker
Senior Staff Geologist

WJW:s

cc: J. A. Lentz
W. K. Brown
R. W. Pendleton, Jr.
M. P. Scanlon
A. M. Hauck
J. L. Haggard
J. K. Richardson

Senator HASKELL. Our next witness is Mr. Fred E. Ferguson of the American Mining Congress.

STATEMENT OF FRED E. FERGUSON, ON BEHALF OF THE AMERICAN MINING CONGRESS

Mr. FERGUSON. My name is Fred E. Ferguson, Jr. I am a member of the Phoenix, Ariz. law firm of Evans, Kitchel & Jenckes, which has had a long and close association with the mining industry in Arizona.

I am appearing here today on behalf of the American Mining Congress, a national association of U.S. companies that produce most of the Nation's metals, coal, and industrial and agricultural minerals.

It has been AMC's position in the past to support wilderness designations where there has been a mineral survey by the USGS or the U.S. Bureau of Mines which has indicated that there is little likelihood of the discovery of commercial minerals within the area.

However, it has also been the AMC's position to oppose wilderness designations where there have been inadequate or insufficient mineral investigations or where that investigation has indicated that there is a likelihood for the discovery of potentially commercial minerals.

In this instance, the American Mining Congress opposes the enactment of S. 226 which would designate the Black Range Primitive Area and contiguous lands in New Mexico as the Aldo Leopold Wilderness.

As Mr. Walker has indicated, the potential for mineralization is at depth and that can only be detected by very expensive, very time-consuming techniques and processes and procedures which include drilling and other underground geophysical techniques.

He has also indicated the proximity of this area—

Senator HASKELL. Let me interrupt you. Geophysical, maybe I should ask you—that is not so expensive. It is the core drilling that is expensive. Is the geophysical technique—let me ask Mr. Walker.

Senator HASKELL. Well, yes, sure, and then how many core drills do you have to put down before you are sure?

Mr. WALKER. You have to explain the anomalies and unfortunately perhaps 10 or 15 percent of the anomalies are the only ones that are productive. It costs just as much to test a nonproductive as to test the productive.

Senator HASKELL. Excuse me, go ahead.

Mr. FERGUSON. One of the aspects of the wilderness bill is that it imposes a cutoff date for further exploration of mining rights in wilderness areas, which was established December 31, 1980.

Even if the right to explore in primitive areas, prior to their becoming wilderness areas, had been administered as was originally intended by the Congress, the time is not sufficient to permit an adequate evaluation of the mineral potential such as the Black Range Primitive Area. Again, it is covered by a thick volcanic cap, deep exploration is required, and the expenses involved and the priorities which must be assigned to these types of areas are necessarily pushed into the future.

It is my opinion that by designating the Aldo Leopold Wilderness at this time, it will effectively preclude a thorough mineral investigation of the area.

This conclusion is supported by the experience of one mining company in the Blue Ridge Primitive Area which is located in Arizona approximately 80 miles west of the Black Range Primitive Area. There, beginning in 1970, Phelps Dodge undertook a three-drill-hole exploration program beginning in 1970.

The delay due to administrative processing for a similar project conducted on Forest Service lands outside a designated primitive area could have been expected to be from 4 to 6 weeks—the time it ordinarily takes to obtain a Forest Service use permit.

The cost of the project was originally anticipated to be \$16.50 per foot of drilling. However, by virtue of Forest Service administrative procedures and requirements, the administrative delay for drilling the three holes was extended to a total of 29 months and the cost was increased to \$43 per foot from \$16.50 per foot. This increase in cost was due in large part to a Forest Service order denying access to two of the drill sites by ground vehicle and requiring the use of helicopter transport and special drilling equipment that could be transported by helicopter and reassembled at the drill site.

The prospect of these kinds of administrative delays and increased costs must, necessarily, in the decisionmaking of the people in the exploration business, push these kinds of targets into the future.

When you impose on these delays and these costs, the prospect or the fact of the deadline at which time they will no longer be able to pursue exploration and a timing in which they may not have discovered commercial mineralization but may have in fact intercepted some encouraging mineralization, all that has gone on before then will come to an abrupt halt and they will not be able to in effect capitalize on the investment that has been made.

I think that those are the problems as viewed by the explorationists and become almost insurmountable.

Another factor which should be considered, which I believe Senator Haskell you mentioned earlier, was how do you set off the desire for preservation of wilderness values and at the same time protect the country's economic resource or the resource base?

I think there is a tool available at this time in the form of a Forest Service regulation of mining activities that were adopted last fall which give the Forest Service a great deal of control over the manner in which mining activities will be conducted within forests, not only in primitive areas but in regular old run-of-the-mill forests.

These kinds of controls and regulations are going to permit a good deal of protection and preservation of wilderness values.

However, at the same time, they would not totally preclude or exclude mineral exploration. I think that is one of the tradeoffs that should be considered.

We are well aware of the crisis that is upon us as far as fuels are concerned. There are a number of studies which have been conducted within the last 5 years that have concluded that a metals crisis may be imminent unless exploration and development of domestic resources is encouraged and promoted.

Senator HASKELL. I do not want to argue with that but how come copper dropped in half?

Mr. FERGUSON. I am not familiar with the economic aspect of that.

Senator HASKELL. As I understand it, the copper price just fell about 3 months ago to one-half. Am I right Mr. Walker?

Mr. WALKER. That is right. That also ties in with the building industry, the automobile industry. We move our copper directly to the consumer. If there are no products being sold, the price is going to go down.

Senator HASKELL. I realize the short-term market is not exactly the answer.

Mr. FERGUSON. The studies that I referred to look to the long run we are talking about, our position by the end of the century. They project that unless domestic sources are developed and encouraged, there is going to be an increase, a substantial increase in the net import of metals and industrial minerals.

There necessarily is a time lag between the exploration phase and the development phase. When you talk about there is plenty of time to open up these areas—if we lock them up now—should the economic situation demand it. I think these studies indicate that our economic situation is going to be such that by the end of the century we are going to have to have this resource available. Unless they remain open to exploration at this time, they will not be available. Thank you.

Senator HASKELL. Thank you, Mr. Ferguson. The difficult problem here, as I understand your viewpoint, I think that economics arguments of availability of metals is very real. I also think that setting aside areas for wilderness is a very real national need.

I think they are both national needs and sometimes it is a little difficult to know what to do. I think in this particular case the—unquestionably we should have an updated USGS study on it because I suspect that some of your clients would like not to have any wilderness areas because my geologist friends make the argument that surely there may be something under the particular area and they do not want it locked up.

However, we cannot buy that argument. On the other hand, obviously we cannot ignore areas where there is some real potential.

I think in this particular bill what we will probably have to do is make it a study bill to get the USGS survey.

Mr. FERGUSON. I would hope that the funds would be made available to the USGS so that they could make the type of survey that we feel is necessary.

Senator HASKELL. I see. You cannot core drill all over the United States. You cannot do that.

Mr. FERGUSON. That is a very expensive proposition.

Senator HASKELL. We have to rely on the judgment of the professionals in the USGS to give us what they think is a metal.

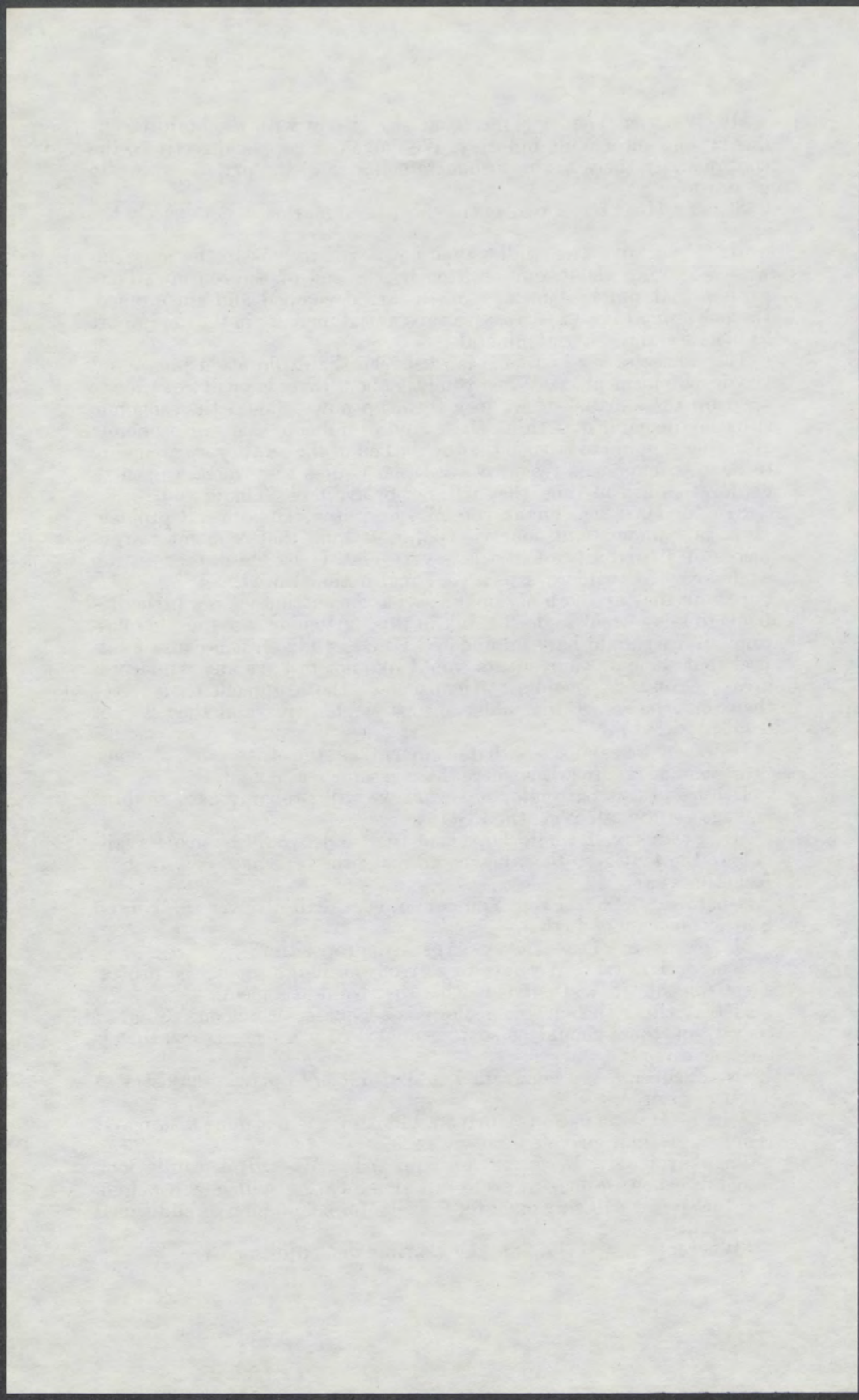
If they think the surface geology is adequate, that is one thing. If they think there should be some geophysical work necessary, that is another thing.

Mr. FERGUSON. We hope you would also look to private industry as a source of others.

Senator HASKELL. So far private industry has not done a thing. It is only a gleam in private industry's eye.

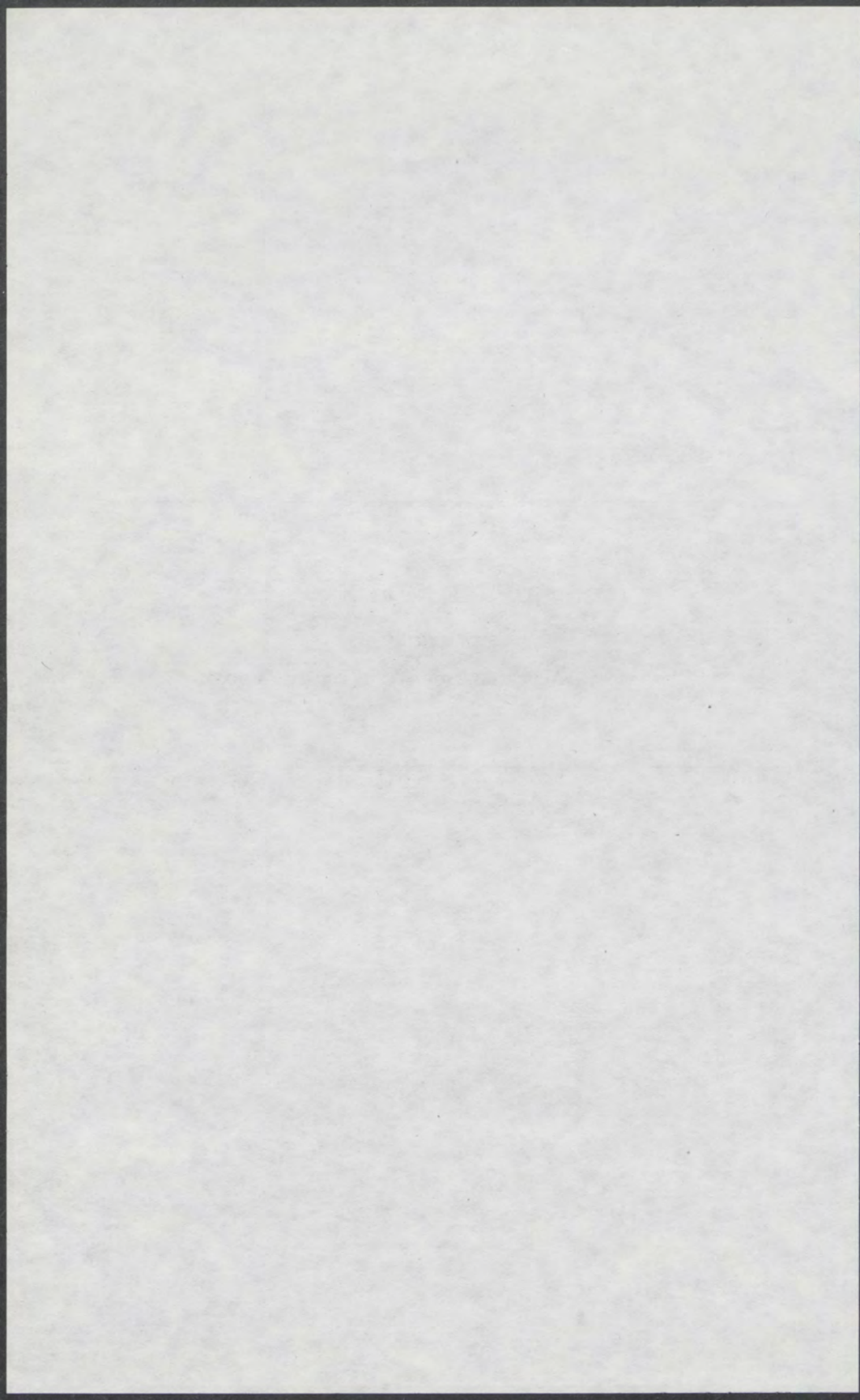
Thank you, Mr. Ferguson, for appearing. We will certainly look into this when we mark up the bill. The hearing will now conclude and the record will stay open for 2 weeks for submission of additional material.

[Whereupon, at 1:35 p.m., the hearing was adjourned.]



APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD



STATEMENT OF GEORGE ALDERSON, DIRECTOR OF FEDERAL AFFAIRS,
THE WILDERNESS SOCIETY

I am George Alderson, Director of Federal Affairs for The Wilderness Society. I appreciate this opportunity to appear before the subcommittee today. The Wilderness Society is a national non-profit conservation organization of citizens, actively engaged in educational programs to acquaint Americans with the need for wilderness and a quality environment. Our offices are at 1901 Pennsylvania Avenue, N.W., in Washington, D.C.

It is a pleasure to present The Wilderness Society's full endorsement of S. 74. We commend Senators Cranston and Tunney for their initiative toward protection of the Sheep Mountain area in the Angeles and San Bernardino National Forests in southern California.

S. 74 would designate a Sheep Mountain Wilderness of 52,000 acres in the highest, most spectacular part of the San Gabriel Mountains, only 35 miles east of Los Angeles. The Sheep Mountain Wilderness would be contiguous with the existing Cucamonga Wilderness, a 9,022-acre area which was placed in the National Wilderness Preservation System by the parent Wilderness Act in 1964. The Cucamonga Wilderness was first designated in 1931 as a primitive area.

The Sheep Mountain area has never had the same protection as the smaller area adjoining it. Indeed, even now the Forest Service has placed only 31,680 acres in the Sheep Mountain Wilderness Study Area, omitting 20,320 acres that are covered by S. 74.

Citizen conservationists have studied the Sheep Mountain area intensively. Our conclusion is that it is well qualified for designation as wilderness, under the criteria of the Wilderness Act of 1964. Its extraordinary wildlife values, its proximity to the southern California megalopolis, and its predominant wilderness make Sheep Mountain a prime candidate for wilderness designation. The scattered evidences of man's work that exist in the area meet the Wilderness Act's requirement of being "substantially unnoticeable."

The proposed wilderness is vital as habitat for the vulnerable Nelson bighorn sheep, and the boundaries were drawn to include principal areas of this sheep's range. Wildlife scientists have indicated that these bighorns, numbering possibly 300 to 400 in the proposed wilderness, could be jeopardized by further incursions by roads, intensive ski developments, campgrounds, or heavy human visitation. The sheep obviously need the protection against development that comes with wilderness designation.

The proposed wilderness contain lands of varied topography, from 10,000-foot Mt. San Antonio (Mt. Baldy) and mountain conifer forests down to the stream-side habitats at lower elevations. Among the animal life of the Sheep Mountain wilderness are the golden eagle, black bear, coyote, fox, native trout, and many small birds and mammals.

The several small tracts of private land in the proposed wilderness can be included, following the precedent of various other national forest wilderness areas which contain private inholdings.

The wilderness boundary in S. 74 has been drawn to avoid the adjoining Mt. Baldy ski area and the proposed new chairlift. We support this boundary. Any further concession to the advocates of continually expanding development would represent a serious blow to the future of the Nelson bighorns. Their range has already been reduced by the Mt. Baldy development. We believe the time has come to draw the line, and preserve the remaining wild land as wilderness.

In conclusion, The Wilderness Society is heartily in support of S. 74 as written, and we recommend that it be enacted.

STATEMENT OF GEORGE ALDERSON, DIRECTOR OF FEDERAL AFFAIRS,
THE WILDERNESS SOCIETY

I am George Alderson, Director of Federal Affairs for The Wilderness Society. I appreciate this opportunity to appear before this committee today.

The Wilderness Society is a national non-profit conservation organization of citizens who are actively engaged in educational programs to acquaint Americans

with the need for wilderness in a quality environment. Our offices are at 1901 Pennsylvania Avenue, N.W., in Washington, D.C.

On behalf of The Wilderness Society, I am pleased to appear here today to testify in favor of an Aldo Leopold Wilderness in New Mexico.

Aldo Leopold was, of course, one of the first exponents of the wilderness concept. It was through his keen insight and inspiring efforts that the heart of the Black Range, along with adjoining wild country, was set aside by the Forest Service in 1924 as the Gila Wilderness.

The Gila was the first wilderness area to be designated by the Forest Service and consisted of over a half-million acres of Federal land. Later, the unit was divided into three separate parts, and in the process, many thousands of acres of irreplaceable wilderness were destroyed.

The Black Range, prehistoric home of the Apache Indian, rises from the hot, dry desert and semidesert of southwestern New Mexico. Abrupt canyons penetrate the range from the east, west, and south, until they are lost among the lofty peaks which form a part of the Continental Divide. Elevations vary from 6,300 feet at Animas Creek to 10,165 feet on McKnight Mountain. Within this bioclimatic and geological span flourishes a rich variety of plant and animal life unusual to the Southwest. Permanent streams, virgin pine, fir, and spruce forests, aspen groves, wildflower meadows, big game, and numerous species of birds are found here.

Wildlife of the area includes elk, mule deer, white-tailed deer, bear, mountain lion, bobcat, coyote, turkey, bald and golden eagles, and a host of smaller mammals and birds. The only known population of the endangered Gila trout is found in the Diamond Creek drainage in the northwestern part of the area.

For scientists and educators, the area is truly an unspoiled biological reservoir that must be preserved for study. It offers exceptional opportunities for substantial high quality outdoor recreation.

Members of The Wilderness Society and other conservation groups have carefully investigated the wilderness character of the Black Range, its resources, and attributes. As a result of these investigations and studies, we favor S. 226, which will include 231,737 acres in the Aldo Leopold Wilderness.

S. 226 includes several areas that are not included in the Administration proposal. The specific details on these follow:

Addition J, Hillsboro Peak, approximately 3,300 acres. This inclusion adds several miles of the important Black Range crest to the wilderness. The mere possibility of mineral development should not prevent its wilderness protection. The fire lookout tower in this area is an administrative installation and would not disqualify this area as wilderness.

Addition K, Raab Park, approximately 4,110 acres. This area qualifies for wilderness protection. The limited evidence of man's activities in this area is "substantially unnoticeable."

Addition L, East Canyon and Aspen Canyon, approximately 2,750 acres, and Addition M, Powdermen Canyon and McKnight Canyon, approximately 5,105 acres. The addition of these areas adds several miles of permanent streams to the wilderness, valuable assets in this arid region. The small amount of selected tree cutting which took place in these areas many years ago should not prevent them from being included in the wilderness. Most of this cutting was done fifty or more years ago and the land remains affected "primarily by the forces of nature."

Addition N, Rocky Canyon, approximately 2,920 acres. This area is of wilderness quality. Differences of opinion have to do with the selection of a boundary. Loss of wilderness lands should not be allowed simply to make future management slightly easier.

Addition T, Middle & East Diamond Creeks, approximately 7,080 acres. This addition is only a portion of the Forest Service proposed exclusion from the Black Range Primitive Area. This area does qualify for wilderness, and its boundaries were chosen to avoid many of the problems seen by the Forest Service in this exclusion. This area contains neither any "private land tracts" nor "motorized wells," which were mentioned by the Forest Service as reasons to exclude the larger area.

Addition O, Turkey Run, approximately 1,095 acres. We recommend inclusion of this area; any differences of opinion are based primarily on boundary selection.

Addition P, Tom Davis & Moccasin John, approximately 10,145 acres. This area is of wilderness quality. Problems associated with boundary selection should not allow this wilderness land to be lost. The inclusion of Byers Run in this area adds significant riparian woodland zones.

Addition Q, Morgan Creek, approximately 960 acres. This area is extremely valuable for wilderness classification. The minor logging which occurred around the turn of the century should not disqualify this area as wilderness. A recent field investigation could locate only a few stumps in the entire area.

Addition R, Lake Mountain, approximately 3,080 acres, and Addition S, Flagpole Mountain-Magnum Peak, approximately 3,013 acres.

Additions P, Q, R & S would broaden the diversity of the wilderness by significantly increasing the lower elevation acreage containing pinyon-juniper and riparian woodlands, the latter being poorly represented in the Administration's wilderness proposal.

A half century ago, Aldo Leopold and the Forest Service decided that the highest and best use of the Black Range was as wilderness. We feel this is still true and that an Aldo Leopold Wilderness of 231,737 acres should be established, as proposed in S. 226.

STATEMENT OF STEWART M. BRANDBORG, EXECUTIVE DIRECTOR OF THE WILDERNESS SOCIETY

I am Stewart M. Brandborg, Executive Director of The Wilderness Society, a national non-profit conservation organization dedicated to preserving for the American people an enduring resource of wilderness. Our offices are at 1901 Pennsylvania Avenue, N.W., in Washington, D.C.

I welcome the opportunity to appear on behalf of The Wilderness Society in support of S. 392, introduced by Senator Lee Metcalf, to establish the Great Bear Wilderness in Montana.

For a quarter of a century, through our Montana members and cooperators, The Wilderness Society has been closely associated with citizens' efforts to gain lasting protection for this magnificent wild area.

Among the many organizations and agencies which also support the objectives of this legislation are the Montana Wilderness Association, Montana Wildlife Federation, Flathead Wildlife, Inc., Montana Fish and Game Department, Sierra Club, and Friends of the Earth.

One of the few undeveloped areas remaining in the Flathead National Forest, the proposed 378,200-acre wilderness is located principally in the Upper Middle Fork of the Flathead River drainage in northwestern Montana. It is situated between Glacier National Park and the Bob Marshall Wilderness. The Continental Divide runs through the southeastern edge of the area. Here, on the Pacific slopes of the Continental Divide, the wild Middle Fork of the Flathead River is formed, to wind its way northward for nearly fifty miles through the proposed wilderness. The unit is as wild and rugged as any area on the North American continent.

As the name implies, the area encompasses a major part of the remaining unprotected grizzly bear habitat in Montana. The grizzly is now listed by the Department of the Interior as threatened with extinction in the state. For the grizzly, the proposed wilderness provides a vital link between the natural sanctuary of Glacier National Park and the Bob Marshall Wilderness. This noble animal epitomizes the wilderness. In fact, the grizzly cannot survive without it. A wilderness designation of the area involved in this legislation would assure lasting protection of the big bear's wild habitat and help prevent the magnificent animal from becoming extinct in Montana.

The proposed wilderness abounds in other wildlife and is noted for its quality big game hunting. Other wild creatures found here included elk, moose, mountain goats, bighorn sheep, deer, black bear, mountain lion, wolverine, and many others.

The upper Middle Fork of the Flathead which flows through the proposed area is Montana's finest example of a wilderness river. The Middle Fork is the last stronghold of the indigenous and endangered westslope cutthroat trout. The large Dolly Varden trout, ranging up to 20 pounds, is also a native of the cold, clear Middle Fork and the source of a fisherman's delight. These two species of trout are entirely wild, not produced in any fish hatchery, and require essentially an undisturbed aquatic environment to prosper. The Forest Service has recommended the upper Middle Fork of the Flathead for a National Wild River classification. But a river can only be as wild as the drainage which forms it. A wilderness designation for the area under discussion here today would protect the Middle Fork's upper drainage from development for several miles on each side of the river and greatly enhance a National Wild River classification.

Much of the proposed wilderness consists of steep slopes and thin soils which

are easily eroded when disturbed by man's works.

The area is reported to be lacking in commercially operable minerals. As a result of large forest fires which occurred around the turn of the century, the amount of timber in the area is extremely limited, and very little of it is merchantable.

Because of a lack of forage, no cattle or sheep graze the area. With the exception of a small landing field at Shafer Meadows and one or two cabins located throughout the area, no structures exist in the proposed wilderness, and the evidence of man and his works are seldom observed. In the scenic unit, opportunities for solitude and a high quality, unconfined wilderness experience are excellent. The area supports a substantial guiding and outfitting industry. Thousands of citizens use the area each year for wilderness camping, hunting, fishing, horseback packtrips, backpacking, sightseeing, photography, and scientific research. Wilderness use is increasing rapidly in the area.

Despite an apparent lack of commodity resources, periodic proposals and attempts have been made through the years by Forest Service officials and others to build roads into the proposed wilderness and otherwise develop it. Plans to road and log the area were put forth by the Forest Service in the 1950's. In that period, the Montana Legislature unanimously passed a resolution asking the Secretary of Agriculture to designate the area as wilderness.

Subsequently, the Bureau of Reclamation proposed a major dam and diversion for the Middle Fork of the Flathead within the proposed wilderness at Spruce Park. A few years later, disastrous logging authorized by the Forest Service on the Morrison Creek tributary threatened the Middle Fork and reduced the potential wilderness.

In each instance, the overwhelming sentiment of the Montana people rejected these plans and projects.

In 1973, the Chief of the Forest Service listed a part of the area for wilderness study as one of the "new study areas." While this represents a step at last in the right direction, it is inadequate and unacceptable to the many interested Montana citizens and to The Wilderness Society for five basic reasons. They are:

1. The area listed for wilderness study by the Forest Service is minimal, leaving out much potential wilderness that should have been included.

2. The potential wilderness left out of the Forest Service study area is without interim protection and may be developed at any time and its wilderness value destroyed.

3. In the present planning units process being applied by the Forest Service to a new study area, such as part of the area under consideration today, the Forest Service will not inform the Congress in the event the agency decides against a wilderness recommendation, so that Congress can help make the basic land allocation decision. Development of the study area by the Forest Service can proceed in 60 days following release of the final environmental impact statement.

4. The many interested Montana citizens and others have repeatedly over 25 years fought off all schemes to develop the proposed wilderness and demonstrated their strong support for a wilderness designation. They desire that the proposed wilderness be designated by Congress without further delay. How many more ill-advised projects that would destroy this great wilderness resource must be stopped? The local citizens are tired of waiting.

5. No conflicting uses or other justifiable reasons preclude immediate designation of the proposed wilderness.

In summary, Mr. Chairman, I believe that the Montana citizens have made a strong and convincing case for prompt passage of S. 392 and immediate establishment of the magnificent Great Bear Wilderness.

Thank you.

DENVER, COLO., May 31, 1975.

HON. FLOYD K. HASKELL,
Chairman, Subcommittee on Environment and Land Resources, Committee
on Interior and Insular Affairs, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: Please include this letter in the hearing record for S. 74, the Sheep Mountain Wilderness bill. I favor enactment of this bill. The bighorn sheep need every acre of habitat which they now have in order to survive, and wilderness classification will offer the best protection of this habitat. California residents also need protection of the remaining acres of wild land in

the Coast Range, much of which is privately owned and developed. Thank you for your attention.

Sincerely,

AMY MAZZA-SCHOLL.

SILVER CITY, N.M., May 28, 1975.

HON. FLOYD HASKELL,
Chairman, Public Lands Subcommittee, Committee on Interior and Insular Affairs, Senate Office Building, Washington, D.C.

DEAR SENATOR HASKELL: I would like the following testimony included in the official hearing record of S. 226 (Senator Pete Domenici's Aldo Leopold Wilderness bill).

I am Kent Robert Carlton. My occupation is writer/photographer, and I live in Silver City, New Mexico. I am presently completing a major book on the Gila/Aldo Leopold Wilderness Areas entitled "The First Wilderness." I have spent many months in the Aldo Leopold Wilderness in the past four years; I know the area as well or better than any single person living in southwestern New Mexico.

The proposed Aldo Leopold Wilderness is without doubt one of the most significant proposed additions to our National Wilderness Preservation System. This area has been continuously protected as a wilderness resource since 1924 . . . first as the eastern flank of the first wilderness to be established in our nation, the Gila Wilderness . . . and following 1933 and the construction of a forest access road, as the Black Range Primitive Area. In short, the proposed Aldo Leopold Wilderness has in fact been a protected wilderness for no less than fifty-one years! On this ground alone, the area warrants formal inclusion in our National Wilderness Preservation System.

However, the proposed Aldo Leopold Wilderness is significant in its own right. This area includes an entire mountain range of incredible beauty and challenging ruggedness . . . a mountain range that constitutes one of the wildest portions of the entire continental United States. This is a wilderness of startling diversity, gentle beauty, harsh form . . . a land that possesses the striking contrasts of life itself.

For the past four years I have been working on a book on the Gila and proposed Aldo Leopold Wilderness Areas. My extensive field work has therefore given me a rather unique opportunity to not only see first hand the proposed Aldo Leopold Wilderness, but also to evaluate the Forest Service administration bill) and the joint-conservationist (Senator Domenici's bill) proposals for an Aldo Leopold Wilderness. The best that can be said for the administration proposal is that it is extremely conservative in size. This proposal deletes up to 120,000 acres of prime wilderness lands for superfluous and even at times apparently untruthful reasons. For example, the Hillsboro Peak addition in Senator Domenici's bill was described by the Forest Service as roaded and highly mineralized. In fact, however, not only are there absolutely no roads in this addition, there are no active mining claims either . . . in this day and age a sure indication that near-surface mineralization is absent.

I therefore urge you to please look very closely at all Forest Service objections to the proposed additions to the Aldo Leopold Wilderness as contained in Senator Domenici's bill. The actual reason, to continue the example, that the Forest Service has deleted the Hillsboro Peak addition is that they have plans to construct a totally unnecessary road to the summit of Hillsboro Peak . . . a road no one desires, and one which would destroy the wilderness value of one of the most beautiful mountains in the proposed Aldo Leopold Wilderness. When considering Forest Service objections to the Aldo Leopold Wilderness as proposed by the joint-conservationists, do some independent checking on your own . . . if at all possible.

Further, I would like to urge you to take a close look at the opposition of the Phelps Dodge Mining Company to the establishment of the Aldo Leopold Wilderness. Not only is this opposition unwarranted, it is incomprehensible . . . unless we assume that Phelps Dodge wishes to use the Aldo Leopold Wilderness proposal as a Congressional test of their ability to obviate the Wilderness Act of 1964.

The entire Aldo Leopold Wilderness proposal is overlaid by one to ten thousand feet of sterile volcanic rock in which mineral is never found. Any hypothetical mineral deposit . . . and geologically such a deposit is possible . . . lies buried beneath this heavy volcanic overlay. By Phelps Dodge's own admission, even exploration would not be feasible for at least thirty years, let alone any mining

development. Further, if a mineral deposit were located that warranted economic development, the depth of the volcanic overlay would require underground mining methods and thus entry to the deposit could be effected . . . given twenty first century technology . . . from outside the proposed wilderness boundary. Thus, in a time when both minerals and wilderness will be infinitely more valuable than they are today, we will be able to have our cake and eat it too.

Also, need I further remind you that wilderness status does not preclude mining development, and therefore Phelps Dodge's opposition to this wilderness proposal is in fact even more perplexing. Unless, as I mentioned earlier, this company wishes to use the Aldo Leopold Wilderness, which has been protected for over half a century, as a Congressional test case. The precedent will be clear if they can block the enactment of the fifty one year old Aldo Leopold Wilderness: they will be able to do the same with any proposed Wilderness Area.

For all of the above reasons I strongly urge you to issue a favorable report on the Aldo Leopold Wilderness as proposed by the joint-conservationists (Senator Pete Domenici's bill . . . S. 226). Thank you for your consideration.

Sincerely,

KENT ROBERT CARLTON.

NEW MEXICO MINING ASSOCIATION,
Santa Fe, N.M., May 8, 1975.

HON. FLOYD K. HASKELL,
Chairman, Subcommittee on Environment and Land Resources, Interior and
Insular Affairs Committee, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: On behalf of the members of the New Mexico Mining Association, I would like to express our strong opposition to S. 226, a bill which would designate the Aldo Leopold Wilderness in New Mexico. This proposed addition to the wilderness system is in an area in southwestern New Mexico where there is already 433,916 acres of land in wilderness—the Gila Wilderness.

New Mexico has approximately 680 thousand acres set aside for this very limited and selective single purpose use already and to add a significant amount of additional land for this purpose is unwarranted. There is a growing need for developed and accessible recreational facilities which can be provided compatibly with many other uses, such as mining, timbering, grazing and others. The multiple use concept can and should be used for the area which is included in S. 226.

The land which is proposed to be set aside for the exclusive use of a very few people by this bill is in an area which we believe has high mineral potential since it is adjacent to areas which are now producing significant mineral values. Since mineral deposits are limited in both size and number, and can only be extracted from location in which they occur, we believe that this area should not be "locked up" before anyone has an adequate opportunity to determine whether some of the mineral resources which are so urgently needed for our country's economic well-being occur in this area or not. If mineral deposits of economic value are disclosed, they should be produced for the economic benefit of the state and the country. If no such deposits are found, there will be no effect on the scenic beauty of the area.

Again, we strongly oppose the passage of S. 226 and ask that this statement be placed in the record of the hearing scheduled for May 20, 1975.

We thank you for this opportunity to express our views on this matter.

Sincerely,

WILLIAM F. DARMITZEL,
Executive Director.

LAS CRUCES, N. MEX., May 19, 1975.

Public Land Subcommittee of the Interior, Senate Office Building,
Washington, D.C.

It would be a terrible waste to make the Aldo Leopold area a wilderness. Please return it to regular forest where the multiple use can prevail.

Mr. and Mrs. DAVID GIRAUD.

ALBUQUERQUE, N. MEX., May 16, 1975.
Environment and Land Resources Subcommittee, Room 3106 Dirksen Senate
Office Building, Washington, D.C.

This is an assertion of our views on the proposed designation of the Black Range Primitive Area as the Aldo Leopold Wilderness, as delineated in S. 226.

The livestock industry is not opposed to the wilderness areas that have been

established that fully meet the intent and criteria set forth in Public Law 88-577.

It is felt by our industry that the vast acreages in New Mexico already in wilderness areas are in excess of the needs of the limited numbers of users of these wildernesses. Furthermore, the area in question, consisting of 231,737 acres, has been logged, and lies in the middle of an intense recoverable mineral belt.

This area obviously does not and will not represent true wilderness. If there were no wildernesses in the area, one could look at this proposal in a more favorable light. Even though it does not meet the criteria for a true wilderness, its proximity to the gila wilderness and the locking up of many valuable resources, so vital to the Nation's economy, render this wilderness superfluous.

It is a very productive range livestock area, and has been compatible with the multiple use concept of several types of uses: Extractive, renewable resources, esthetic, and recreation.

In view of the present emphasis on the use of range forage for the production of livestock for human consumption, these areas should be reconsidered and reevaluated with expansion of this production in mind.

Under wilderness use regulations, meat production would be drastically reduced and finally end, due to the restriction of range and livestock management practices that require use of mechanized equipment.

The same situation applies to development of potential mineral resources, so vital to all Americans.

With this area completely designated as wilderness, it would extend from the eastern boundry of Arizona to the center of New Mexico, leaving only a small corridor of land between it and the White Sands military installation that would not be under the tremendous restrictions of Federal use regulations.

CHARLIE T. LEE, President,
N. Mex. Cattle Growers Association.

NEW MEXICO WILDERNESS STUDY COMMITTEE,
May 20, 1975.

SUBCOMMITTEE ON PUBLIC LANDS OF THE SENATE INTERIOR AND INSULAR AFFAIRS
COMMITTEE,
U.S. Congress, Washington, D.C.

GENTLEMEN: Senator Domenici introduced S. 226 on January 17, 1975, to designate the Aldo Leopold Wilderness in the Gila National Forest, New Mexico. The boundaries delineated in that bill contain approximately 231,737 acres whereas the most recent administration bill of 188,179 acres would eliminate a considerable area of highly qualified wilderness.

The New Mexico Wilderness Study Committee continues to recommend your designation of those 231,737 acres (93853 hectares). In the interim, continued re-examination of our boundary proposal has been made. These examinations have not only reconfirmed our original intentions but have identified additional areas of equal or higher quality. Our field studies have indicated that about 86,000 acres (30% more than those defined in S. 226) are possibly well qualified additions. Your scheduling of your hearings precluded our finishing our field work in time to appear with a revised recommendation. Our work should be culminated by the start of the Second Session of the 94th Congress.

In conclusion, if you chose to act during the remainder of the First Session, the area depicted in S. 226 is our recommendation. If the Committee does not act until the Second Session, we should have additional facts for your consideration. Meanwhile, if any Member wishes to make a personal inspection of any of the areas or boundaries under consideration, we will be happy to provide highly qualified guide service at no cost on location.

Sincerely,

G. CORRY McDONALD,
Chairman.

MONTANA PILOT'S ASSOCIATION,
GREAT FALLS, MONT., *May 30, 1975.*

HON. FLOYD HASKELL,
Chairman, Subcommittee on Environment and Land Resources, Committee on Interior, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: On behalf of the Montana Pilots Association, I am submitting the following comments concerning S. 392—the Great Bear Wilderness Act.

We oppose classification of this area as wilderness. There are many significant land use decisions to be made in this area. No decisions should be made without

adequate study and considerations of the many alternatives. This proposal is definitely premature.

Consider the following economic considerations:

There has not been an adequate mineral study. There is one patented mining claim and approximately 90 claims have been filed since 1970 in the area.

The potential timber yield is approximately 18.9 MMBF which is needed by a badly depressed timber industry within the state.

Applications for oil and gas leases on 54,000 acres are pending.

On the Lewis and Clark National Forest portion of the area, 20,000 acres are involved in the Blackfeet Treaty Rights Agreement of 1895 allowing Indians of the tribe to remove timber for agency, school and personal uses.

There are three radio passive repeater sites under a 25-year easement to the Mountain States Telephone Company and a radio-repeater site for Burlington Northern Inc.

The potential of additional power from existing dams—as pointed out by Senator Metcalf exists and would require diversion of Middle Fork water.

These are some of the important questions which should be answered concerning the economics of Montana before the area is committed to wilderness status.

However, if one views wilderness primarily as a recreational opportunity there are equally important questions to be considered before there is final commitment to a land use policy.

In 1974, the area had a total of 25,500 visitor days of diverse types of recreation. These included snowmobiling, trail bike riding, horseback riding and packing, backpacking, cross-country skiing, and the largest single use is hunting. Trails on the North and South Forks of Birch Creek provide access to the Bob Marshall Wilderness. There are approximately 400 miles of trails.

Of these uses, snowmobiling (serving 600 visitor days a year) and trail bike riding (serving 50 visitor days a year) would be eliminated with wilderness status. The airstrip at Schafer Airfield would be a management decision as to whether to continue its use.

The airfield which was constructed in 1935 and lengthened in 1961 to 3,300 feet includes two campgrounds, corrals, eight buildings and a water system. It commonly handles aircraft the size of Cessna 182's and is capable of handling DC-3 aircraft. In 1974, flights served 5,200 visitor days—25.9% of the total year's use. This was only from July 1 to November 1. Of the 626 flights into year, 75% were by private parties; 10% were by commercial guided parties and 15% were for administrative uses. Whether the area is eventually classified wilderness or not, the airfield should certainly be continued as serving an important use in the area.

The airfield at Meadow Creek enjoys a very similar amount of use. There is an existing agreement concerning maintenance and administration between the Montana Forest Service, Montana Aeronautic Association and Montana Pilots Association.

Still, we would like to see the area managed to serve both the diverse economic and recreational interests of the area. Since the huge Bob Marshall Wilderness and Glacier National Park are available in the same area to provide wilderness values of the same character, we do not believe additional acreage should be committed without a full understanding of the other values which would be lost. Additionally, we believe any hearings concerning classification or management of the area should be held in Montana for the greatest local involvement and a better understanding of the locale and citizen's desires by committee members.

Sincerely,

Dr. J. MILTON SMALL,
President.

ENGLEWOOD, COL., May 27, 1975.

HON. FLOYD HASKELL,

Chairman, Subcommittee on Environment and Land Resources, Senate Office Building, Washington, D.C.

DEAR SENATOR HASKELL: Please add this letter to the hearing record on S. 392, to establish the proposed Great Bear Wilderness in northwestern Montana.

I am very familiar with this magnificent undeveloped national forest area. I lived in northwestern Montana for 17 years and visited the area often to investigate and evaluate its natural resources.

As a result of these extensive reviews, I worked through Montana conservation organizations in the 1950's to encourage the Secretary of Agriculture to add the area to the Bob Marshall Wilderness. In that era, the Montana Legislature unanimously passed a joint memorial requesting the Secretary to take such action.

Unfortunately, this step was not taken, although several ill-advised schemes to road and log portions of the area and to build the proposed Spruce Park Dam on the Middle Fork of the Flathead River in the center of the unit were defeated by the overwhelming sentiment of the local citizens.

Except for a small airplane landing field at Shafer Meadows, the area is pristine and represents some of the finest potential wilderness in America. It is the home of the threatened grizzly bear and endangered cutthroat trout, both of which need essentially a wilderness environment to survive. Other wildlife is found in abundance in the unit.

Most of the area was burned over around the turn of the last century and offers little or no opportunities for timber production. Moreover, slopes are extremely steep and unstable in much of the area and should never be developed.

The wild reach of the Middle Fork of the Flathead has been recommended by the Forest Service for wild and scenic river designation, but such classification would not protect enough of the undeveloped drainage. Thus, the need for wilderness protection.

No known operable minerals exist in the area, and no cattle or sheep graze the unit. It fully qualifies as wilderness under the 1964 Wilderness Act.

I believe that the citizens of Montana have waited long enough to gain wilderness protection for this superb piece of wild, mountainous Montana, and I respectfully urge that your Committee act favorable upon S. 392.

Sincerely,

CLIFTON R. MERRITT.

MONTANA WILDLIFE FEDERATION,
MISSOULA, MONT., June 9, 1975.

Hon. FLOYD E. HASKELL,
Senate Interior and Insular Affairs Committee, Dirksen Building, Washington, D.C.

DEAR SENATOR HASKELL: I wish to have the hearing record on S. 392, the Great Bear Wilderness Bill, show support by the Montana Wildlife Federation.

It is difficult to see how the men of vision who created the Bob Marshall Wilderness failed to include this contiguous drainage. It is even more important now that Hungry Horse Dam has blocked the natural spawning runs of native trout and Dolly Varden, and it will become essential to the Flathead Lake fishery if the North Fork becomes polluted from coal development in Canada.

Located between the Bob Marshall and Glacier Park is critical habitat for another of our diminished wildlife, the grizzly bear. Recent sightings of the endangered wolf are further justification for managing this area under the Wilderness Act.

Roading and logging these fragile soils to obtain marginal timber could be critical to each of these threatened or endangered species. Wilderness protection will assure the ecosystem that supports them.

Sincerely,

DONALD ALDRICH,
Executive Secretary.

DENVER, COLO., May 31, 1975.

Hon. FLOYD K. HASKELL,
Chairman, Subcommittee on Environment and Land Resources, Committee on Interior and Insular Affairs, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: Please include this letter in the hearing record for S. 392, the Great Bear Wilderness bill.

This area has long been recognized as prime wilderness country by Montana conservationists. It offers important habitat for the grizzly bear, mountain goat, wolverine, and cutthroat trout. Steep and rugged, the Great Bear is not timber cutting or off-road vehicle country. I urge passage of S. 392. Thank you for your consideration.

Sincerely,

AMY MAZZA-SCHOLL.

Hon. FLOYD HASKELL,
Chairman, Subcommittee on Environment and Land Resources, Interior and Insular Affairs Committee, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: I am writing concerning Senate Bill 392, which is scheduled before your subcommittee on May 20, 1975.

This bill will create a new Wilderness Area of 378,200 acres covering most of the undeveloped area between the Bob Marshall Wilderness Area and Glacier National Park.

I am opposing this legislation for the following reasons.

1. This area was withdrawn from multiple use classification in 1970 by administrative action of the Forest Service for the purpose of studying the area. To date there has not been any studies done in this area to determine alternate uses or benefits to the public from this area. The public needs facts, which only a detailed study can produce, in order to make objective value judgments as to the highest and best use for the area.

2. In 1957 The Bureau of Reclamation applied for the reservation of 20,000 acres on the Middle Fork of the Flathead for a dam and reservoir at Spruce Park. This proposal was for a storage dam and a tunnel through to Hungry Horse Reservoir in order to divert a portion of the flow of the Middle Fork for additional capacity at Hungry Horse dam. Considering our present energy problems, I do not think we can afford to overlook possible uses of this nature for the area.

3. When this area was withdrawn from multiple use status in 1970; the Forest Service reduced the annual allowable cut on the Flathead Forest 13 million board feet. They presently are saying that the allowable cut on the whole area is 10.6 million feet. I personally consider both of these figures to be low, as they are based on a non-managed forest. It is relatively easy to double growth rates in this area by intensifying forest management practices.

4. Twenty thousand acres of this area are included in Blackfeet Treaty Rights of 1895. This issue needs to be resolved before final designation of the future status of the area.

5. Mineral potential is relatively low for this area; however, there are mining claims in the area and there are applications on file for 87,000 acres of gas and oil leases.

6. Recreation potential for this area is high. Much of this area is high spectacular mountain country and fully qualified for Wilderness status. In this area I know many people, myself included, who feel that a portion of this area should be managed as a back country area without Wilderness designation. Wilderness classification under the 1964 Wilderness Act is so strict that the managing agency does not have any leeway to resolve problems which arise in a Wilderness area. Problems such as sanitation in heavily used camping areas, damage from picketing horses, needed bridge construction etc. can only be resolved by keeping people out of the Wilderness area. A back country management designation would give the managing agency the authority to take action on problem areas without restricting use by people.

Considering the above reasons and the fact that there has not been local public hearings, I urge that your subcommittee recommend that a detailed study be made prior to any action, that Congress appropriate special funds for this study, that the written study be widely circulated and that local hearings be held after the study and prior to any designation by Congress.

I would like to request that this letter be included in the May 20, 1975 hearing record for S-392.

Thank you for the opportunity of commenting on this proposed action.

Sincerely,

ROYCE SATTERLEE.

OREGON PILOTS ASSOCIATION,

June 2, 1975.

HON. FLOYD HASKELL,

Chairman, Subcommittee on Lands and Resources, Committee on Interior and Insular Affairs, Senate Office Building, Washington, D.C.

DEAR SENATOR HASKELL: Per S.B. 392 Great Bear Wilderness Area. We of Oregon Pilots Association are concerned that this proposed action will affect our forest areas adversely. We oppose any land use decisions at this time because they would be premature without the alternatives being considered first.

The hearings should be held in Montana or Oregon or wherever the area of concern is located in order to obtain the most factual and pertinent input. The people who stand to benefit the most are better qualified to provide testimony rather than some remote stand-up source. The following items should be on your agenda for consideration:

1. Shafer and Meadow Creek landing strips should be retained and maintained. Shafer was lengthened to 3300 feet in 1961, has two camp grounds, corrals, 8

buildings and a water system. Airplanes are least polluting of any mode of transportation. Fire protection, an important airstrip function in remote areas. Light aircraft up to DC3's use Shafer and up to Cessna 182's use Big Meadow. In 1974, 5,200 visitor days were spent in the area via aircraft which was 29% of the total area use between July 1st and Nov. 1st. Of 126 flights, 75% were private, 10% commercial and 15% administrative. We believe these as significant statistics and should be considered whether the area becomes a wilderness or remains as is. The use agreement with Montana Dept. of Aeronautics, Montana Forest Dept. and Montana Pilots Association is a good working relationship. Please don't lock out the future by depriving Montanans and others the use of their aircraft in these areas.

2. Locking up 18 million plus acres in addition to Glacier National Park and the huge Big Marsh area which already are set aside for a similar use is redundant and unreasonable.

3. Resources to be considered are 18.9 million feet of timber, pending gas and oil leases, 25 year easements for Burlington Northern and Mountain States Telephone Co., Indian rights because of the Black Tree Treaty, potential power sights, e.g. Flat Head River diversion, numerous mining claims.

4. There are 400 miles of access roads and trails in the Bob Marshal Wilderness alone. In 1974 there were 25,500 visitors days spent backpacking, packing, horseback riding, snowmobiling, motor bike riding, cross-country skiing, hunting and camping.

Therefore, we believe that to establish this area as solely a wilderness area is unrealistic and not in the best interest for most of the people in this beautiful land. We also believe this can be done and yet retain its virgin appearance.

Respectfully yours,

LELAND F. VAN ALLEN, *President.*

DENVER, COLO., May 31, 1975.

HON. FLOYD K. HASKELL,

Chairman, Subcommittee on Environment and Land Resources, Committee on Interior and Insular Affairs, U.S. Senate, Washington, D.C.

DEAR SENATOR HASKELL: Please include this letter in the hearing record for S. 1391, the Snow Mountain Wilderness bill.

I strongly urge you to act favorably on this long-awaited Snow Mountain Wilderness issue. As a native northern Californian and member of the student group Active Conservation Tactics while at the University of California, Davis, I have been working for a Snow Mountain Wilderness since 1969 and have taken many day hikes and overnight trips to the mountain. Snow Mountain has a wonderful sense of being a "wilderness sky island" to me. When its hot in the Central Valley, you may still hike in snow and find icicles on Snow Mountain! It offers an important retreat from civilization.

The Forest Service's plans will not protect the resource values of Snow Mountain and are really not multiple use. Most of the Mendocino National Forest, except the Yolla Bolly Wilderness to the North, is presently roaded and dedicated to logging. Snow Mountain has remained wilderness and I believe this is its best use, as do many local citizens and elected officials.

Thank you very much for your consideration.

Sincerely,

AMY MAZZA-SCHOLL.

May 28, 1975.

THE CHAIRMAN,

Subcommittee on Environment and Land Resources, Interior Committee, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: I should like to submit, for the hearing record, my observations of the Snow Mountain Wilderness Study Bill (S. 1391) presented May 20, 1975 before the Subcommittee on Environment and Land Resources.

First, I feel, as Senator Cranston, that ultimate wilderness classification is essential. I urge that this wilderness designation should be made immediately rather than undertaking another repetitious study of the area. I understand that the study is being made on the pretense that a mineral survey is needed, however, this is provided for in the Wilderness Act.

Secondly, with the skyrocketing public interest in Wilderness adventure, the location of the Snow Mountain area to urban centers is advantageous. The cost

of fuel and its apparent shortage is an important factor to us who desire to escape the pressures of city living for a backpacking excursion. Snow Mountain is about 150 miles from the Bay Area and is accessible the year around.

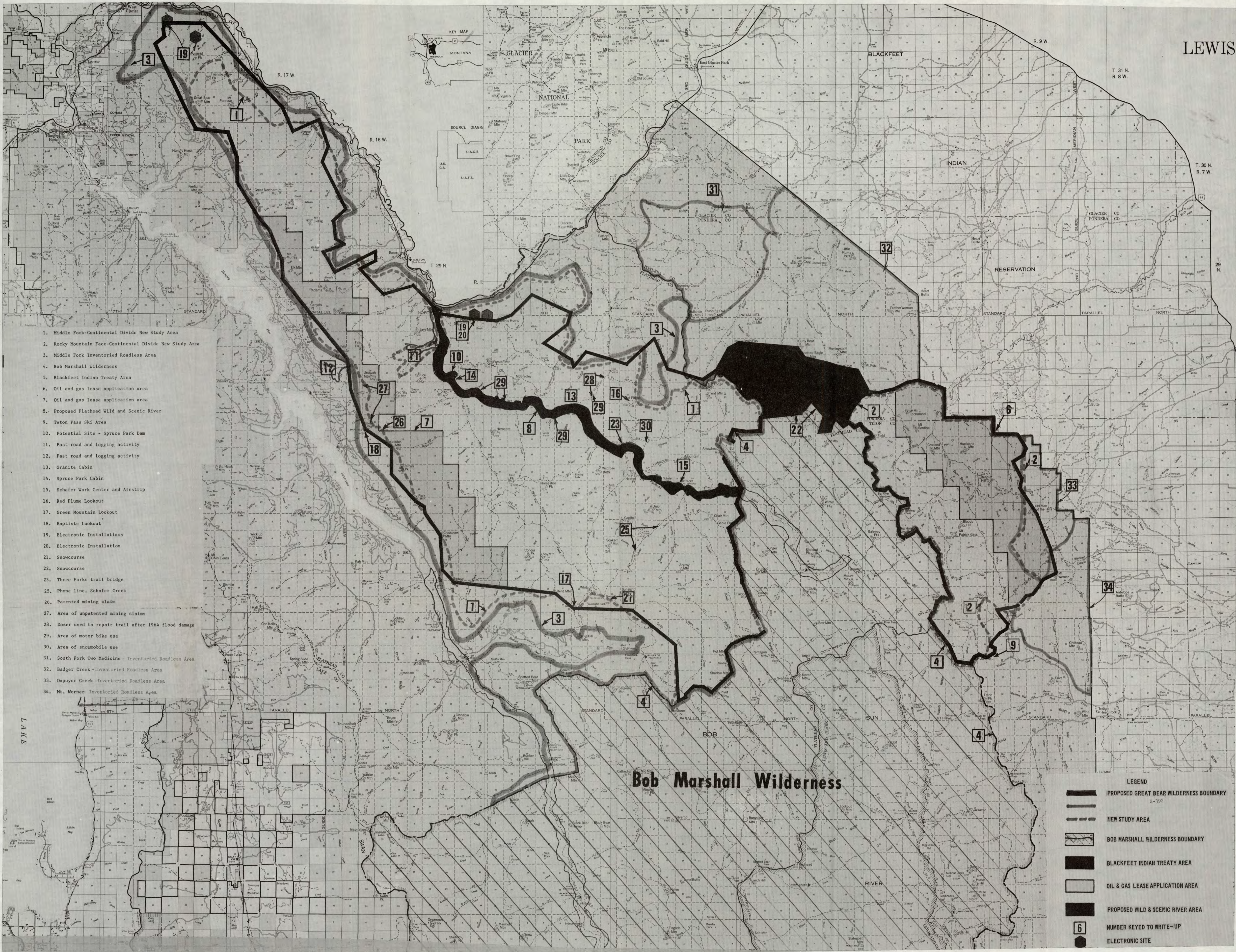
Thirdly, aside from the acreage in the Yolla Bollys set aside for Wilderness and not accessible throughout the year, this is the last roadless area in the Mendocino National Forest. It has very little timber within the proposed boundaries that can be cut, I believe, without causing tremendous erosion and siltation problems to the Stony Creek and Eel River drainages.

In the interest of my generation and those in the future, I urge you to preserve this beautiful, rugged and scenic area as wilderness or in the interim provide for the protection of its wilderness qualities until Congress renders a final decision.

Respectfully yours,

NANCY UPHAM,
Mill Valley, Calif.

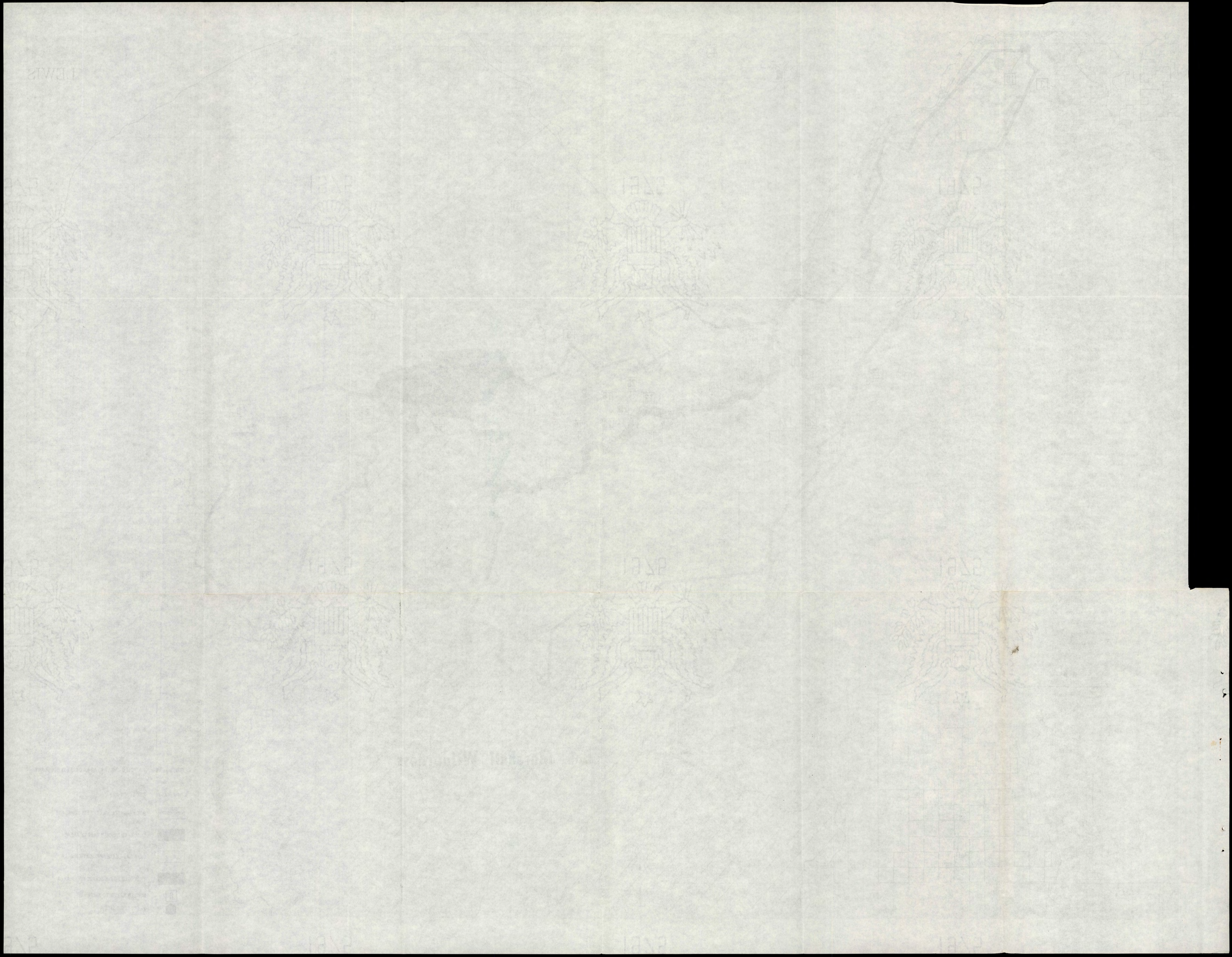


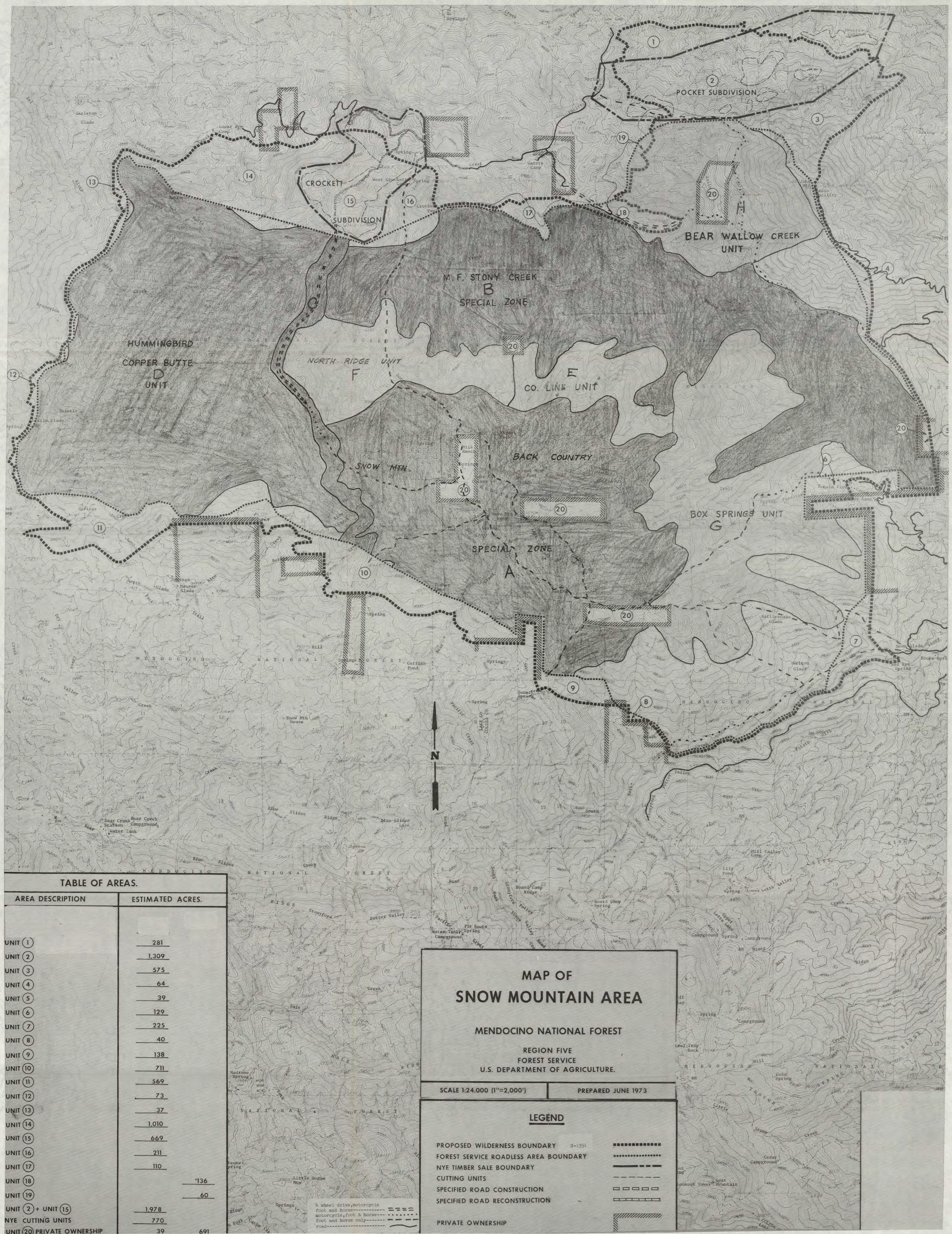


1. Middle Fork-Continental Divide New Study Area
2. Rocky Mountain Face-Continental Divide New Study Area
3. Middle Fork Inventoried Roadless Area
4. Bob Marshall Wilderness
5. Blackfoot Indian Treaty Area
6. Oil and gas lease application area
7. Oil and gas lease application area
8. Proposed Flathead Wild and Scenic River
9. Teton Pass Ski Area
10. Potential Site - Spruce Park Dam
11. Past road and logging activity
12. Past road and logging activity
13. Granite Cabin
14. Spruce Park Cabin
15. Schafer Work Center and Airstrip
16. Red Plume Lookout
17. Green Mountain Lookout
18. Baptiste Lookout
19. Electronic Installations
20. Electronic Installation
21. Snowcourse
22. Snowcourse
23. Three Forks trail bridge
24. Phone line, Schafer Creek
25. Patented mining claim
26. Area of unpatented mining claims
27. Dozer used to repair trail after 1964 flood damage
28. Area of motor bike use
29. Area of snowmobile use
30. South Fork Two Medicine - Inventoried Roadless Area
31. Badger Creek - Inventoried Roadless Area
32. Dupuyer Creek - Inventoried Roadless Area
33. Mt. Werner - Inventoried Roadless Area
34. Mt. Werner - Inventoried Roadless Area

Bob Marshall Wilderness

- LEGEND
- PROPOSED GREAT BEAR WILDERNESS BOUNDARY
 - NEW STUDY AREA
 - BOB MARSHALL WILDERNESS BOUNDARY
 - BLACKFOOT INDIAN TREATY AREA
 - OIL & GAS LEASE APPLICATION AREA
 - PROPOSED WILD & SCENIC RIVER AREA
 - NUMBER KEYED TO WRITE-UP
 - ELECTRONIC SITE





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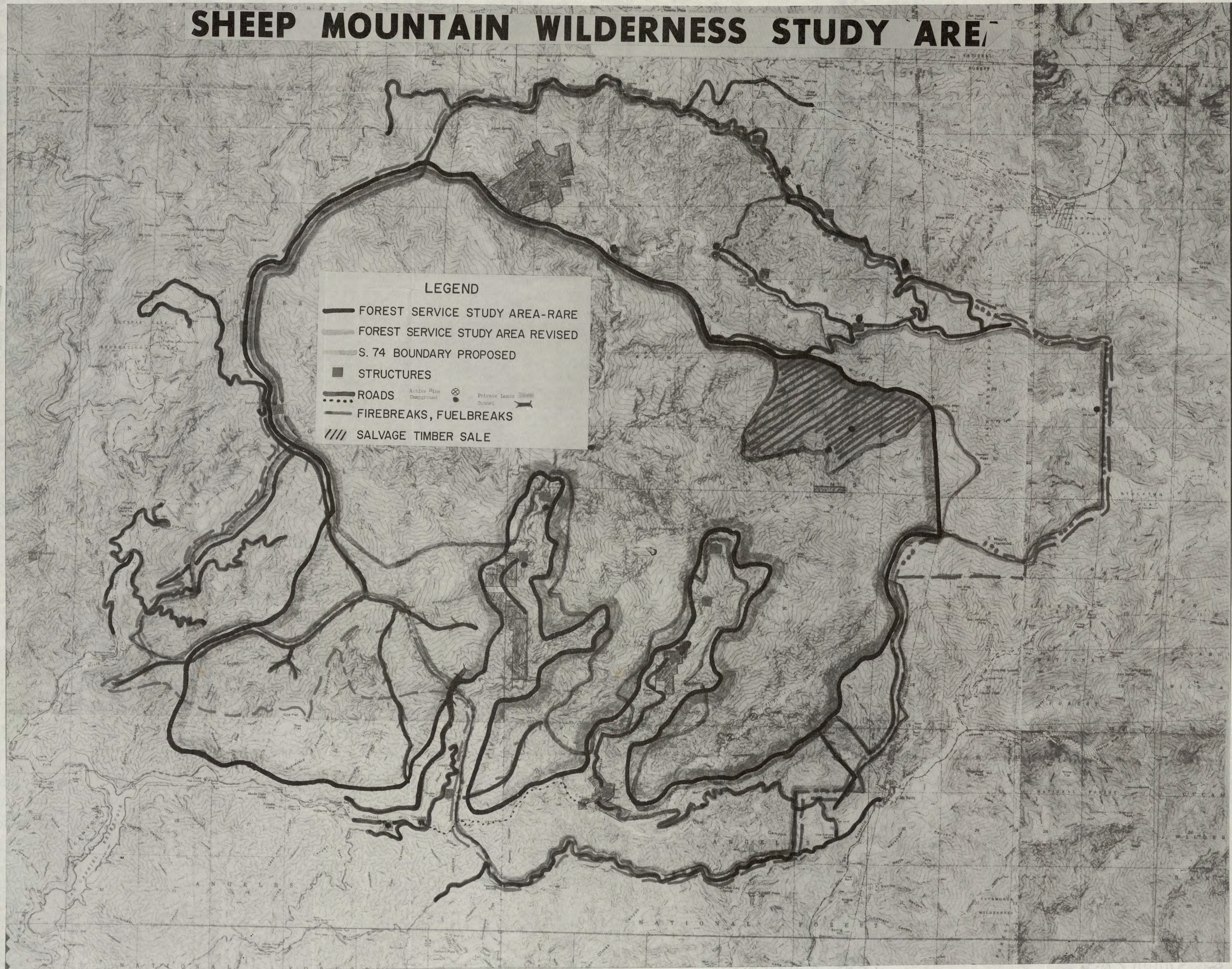
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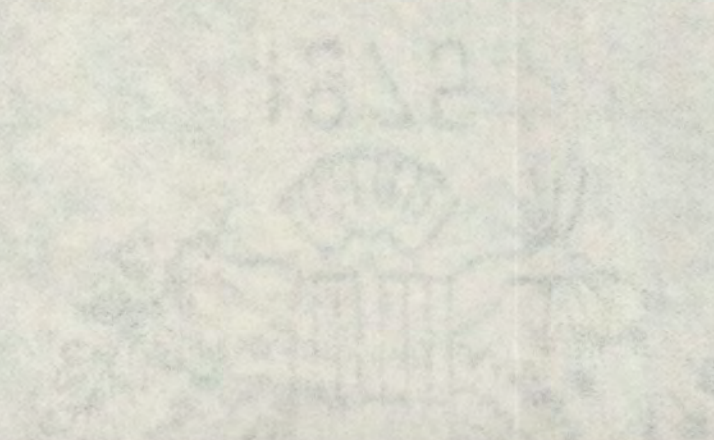
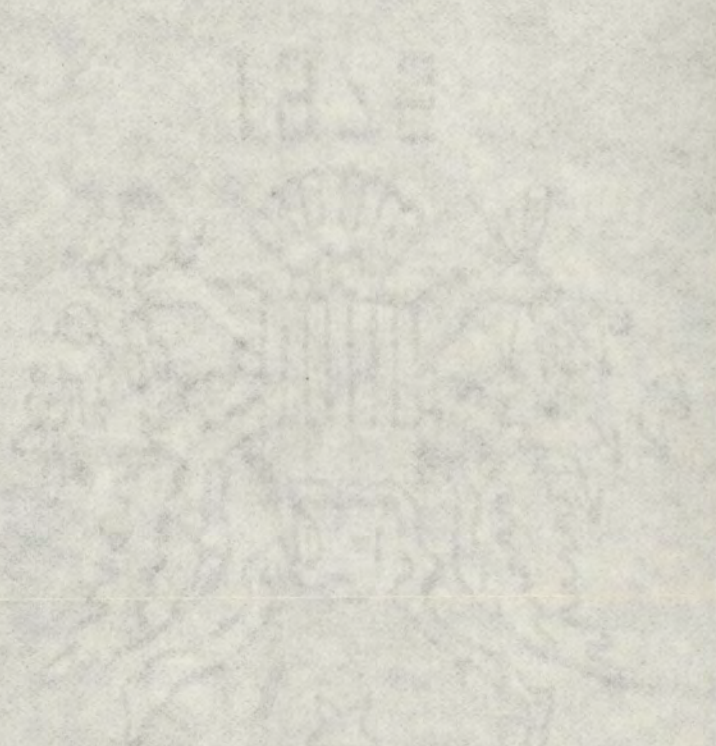
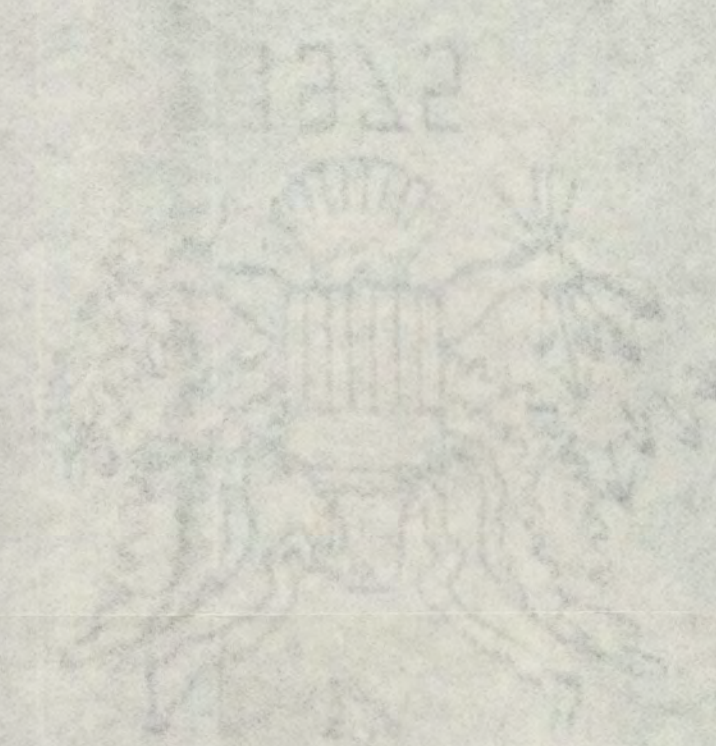
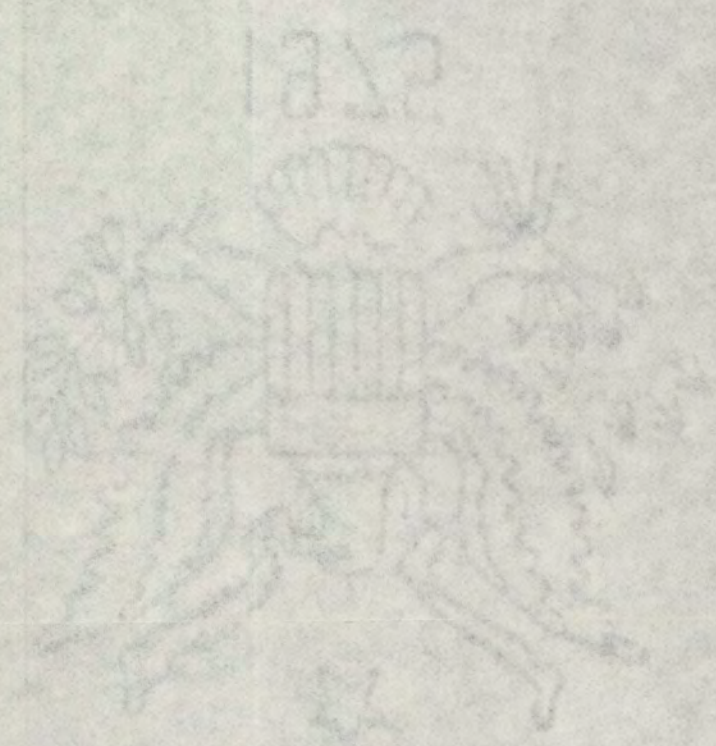
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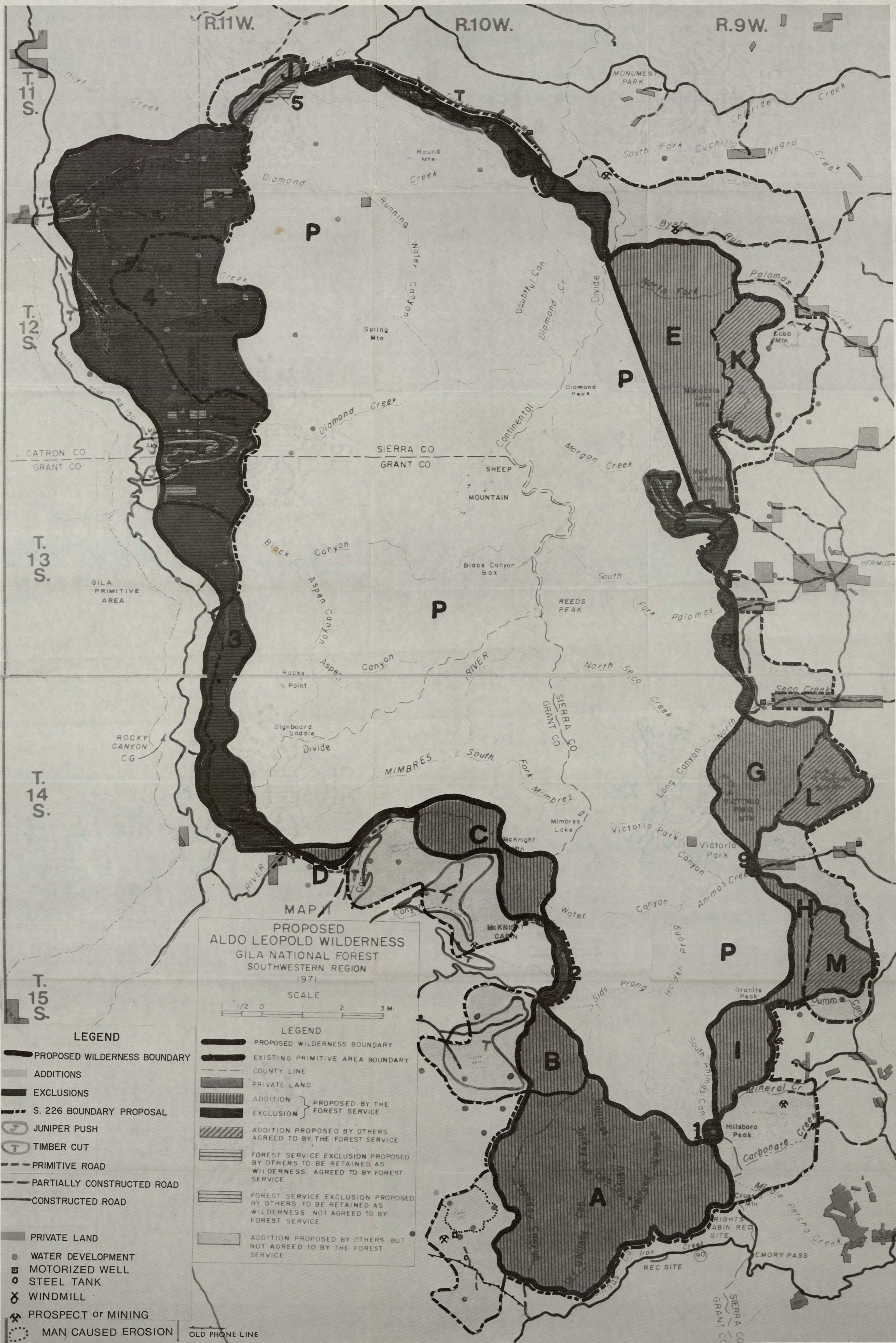
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SHEEP MOUNTAIN WILDERNESS STUDY AREA



SHEEP MOUNTAIN WILDERNESS STUDY AREA





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REPORT OF THE
COMMISSIONER OF THE
GENERAL LAND OFFICE
OF THE UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON, D. C.
1880

