

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

4000

ESTABLISHMENT REPORT

BULL RUN

NATURAL AREA



Mt. Hood National Forest
Pacific Northwest Region

DESIGNATION ORDER

BULL RUN NATURAL AREA

By virtue of the authority vested in me by Regulation U-4 of the regulations of the Secretary of Agriculture, I hereby designate as the Bull Run Natural Area the lands described in the following report by Richard O. Fitzgerald, dated January 3, 1966; said lands shall hereafter be administered as a natural area subject to the said regulations and instructions thereunder.

April 8, 1966
Date

Edward P. Cliff
Chief

ESTABLISHMENT REPORT FOR THE
BULL RUN NATURAL AREA
WITHIN THE MT. HOOD NATIONAL FOREST
IN CLACKAMAS COUNTY, OREGON

A. Principal Distinguishing Features

The Bull Run Natural Area would provide a variety of mixed stands of old growth noble fir (*Abies procera*), Pacific silver fir (*Abies amabilis*), western hemlock (*Tsuga heterophylla*), and Douglas-fir (*Pseudotsuga menziesii*). True firs are in the majority both numerically and volumewise. Douglas-fir is the least common species.

Noble fir and Pacific silver fir on the higher slopes are about 100 feet tall and average about 20 inches in diameter. At lower elevations height and diameter increase. Some specimens of noble fir are over 200 feet tall and about 50 inches in diameter.

Except for a few open rock slides and brushy glades along the creeks, the area is heavily timbered. Sunlight seldom reaches the ground and the duff and soil stays moist during most of the year. The entire area is in a natural condition with no indications that man has ever visited the area.

B. Location

The Bull Run Natural Area is located in the Bull Run Division, Mt. Hood National Forest, Clackamas County, Oregon. It is a U-shaped area around the east end of Bull Run Lake. The northwest boundary extends from a point 200 feet north of Bull Run Lake, across a prominent rock slide to the crest of the main ridge dividing the West Fork of Hood River and the Bull Run River drainages. From this point the boundary nearly matches the top of the ridge and extends in a southeasterly direction along an old firebreak to the top of Sentinel Peak, the most prominent landmark in this area. The boundary continues south from Sentinel Peak along the west side of the ridge east of Bull Run Lake. This portion of the boundary is also along the west edge of the firebreak constructed many years ago. At the point where the boundary intersects the east-west centerline of Section 34, T.1S., R.8E., W.M., the boundary turns west to the quarter corner between Sections 33 and 34, T.1S., R.8E., W.M. From this quarter corner the boundary extends north on the section line between Sections 33 and 34 to the section corner common to Sections 27, 28, 33, and 34, T.1S., R.8E., W.M., located approximately 200 feet south of Bull Run Lake. The boundary then extends around the east end of Bull Run Lake at an elevation of 3,280 feet, approximately 200 feet from the shoreline of the lake.

The area is within portions of surveyed Sections 27, 28, and 34, T.1S., R.8E., W.M.

C. Area by Cover Type

The stand varies from a Fm4=, nf, a, h on the higher slopes to Fm4=, nf, d, a, h on the middle and lower slopes. The entire 361 acres within the area boundary is S.A.F. type 226 - Pacific silver fir, hemlock, noble fir, and Douglas-fir. Ground cover is herbaceous plants and woody shrubs.

D. Physical and Climatic Conditions

This natural area is near the crest of the Cascade Mountains. Elevation ranges from 3,280 feet near Bull Run Lake to about 4,500 feet near the summit of Sentinel Peak. Slopes are moderate to steep. Average temperature during July is 57° F and in January the average temperature is 30° F. Precipitation is high. The average annual precipitation is 144 inches. About 11 inches fall during the growing season in June, July and August. About 6 to 8 feet of snow can be expected during a normal winter, but 10 or 12 feet is not uncommon.

Springs are common on the middle and lower portions of the area and steep creeks in sharp, rough canyons cut down through the area in several places. The portion of the area just below the crest of the ridge and on the upper slopes of Sentinel Peak is reasonably dry and well drained.

E. Description of Values

1. Flora and Soils

Two plant communities are found on this area. The relationship between these two communities and soil properties on the Last Chance and Jackpot soils is worthy of scientific study.

On the Jackpot soils the inside-out flower, vanilla leaf understory plant community is characterized by a predominance of herbaceous species such as inside-out flower, vanilla twisted stalk, lady fern, ginger and devil's club. The Douglas-fir site index is about 160. It is here that the noble fir is taller than any other species. The soil's parent material is glacial till and is well drained.

In contrast, the Last Chance soil has a huckleberry understory plant community composed primarily of shrub species. Blue huckleberry, rusty menziesia, rhododendron, mountain ash, bunchberry, dogwood, bear grass, and dwarf salal are a few of the plants found here. The Douglas-fir site index drops to 110 on the Last Chance soils. A greater percent of the stand is Pacific silver fir and noble fir, but the trees are shorter and smaller than on the Jackpot soils. The soil's parent material is the same glacial till.

2. Geology

The rocks of this area are of volcanic origin and are primarily basalts and andesites of the Cascade Andesite formation. Cirques at the southern end of Bull Run Lake are evidence of the glaciation that once took place here. At least two advances of glaciers are evident. Bull Run Lake lies behind a fine example of a terminal moraine. Compacted glacial till, assumed to have been compacted by ice, is present in several places.

3. Fauna

A few deer, bear, rock rabbits, mice, grouse and small birds inhabit the area. Occasionally a bobcat or cougar will travel through the area.

4. Minerals

As rocks on the area are of volcanic origin with little or no metamorphism, there is little chance of commercial minerals being present. Also, the Bull Run Watershed is closed to mining.

5. Recreation

The area is not well suited for recreation because of steep slopes (60 to 90%). Also, management of the Bull Run Watershed excludes recreational use.

6. Water Use

This land is now managed to protect the water resource. A natural area would not conflict with this objective.

7. Other Uses

Timber harvesting is not recommended because of questionable soil stability on steep slopes above Bull Run Lake. No power lines or other uses are planned on this area.

F. Accessibility and Effect of Administration of Adjacent Forest Land

The easiest way into this area is by boat across Bull Run Lake. Two trails go near the area. The Hiyu Mountain trail provides access to within one-half mile of the southeast corner of the area. This trail is steep. The Skyline Trail is one-half mile over the ridge to the east, but the steep, brushy climb to the top of the ridge will discourage people from trespassing into the Bull Run Watershed this way.

This natural area will not interfere with the planned transportation system for this area.

G. Administration and Protection

Land adjacent to the area can be administered without conflict. The area is now, and can remain, under the administration of the District Ranger, Columbia Gorge Ranger District. Scientists who wish to study the area may do so by obtaining a Bull Run entry permit from the District Ranger, Columbia Gorge Ranger District, Springdale, Oregon.

H. Public Sentiment

Several groups have expressed interest in establishing a natural area in the Bull Run Watershed. The logging industry will not be losing much volume and will be gaining an area for research. The establishment of a natural area is in complete harmony with watershed management objectives in the Bull Run. PES

I. Recommendations

We recommend the Bull Run Natural Area be established for the following reasons:

1. It is a good example of a mixed stand with some fine specimens of noble fir.
2. The area has not been influenced by man.
3. Two plant communities can be studied and compared on different soil types.
4. The natural succession of a true fir and a mixed true fir, Douglas-fir stand can be studied under natural conditions.
5. Soil is not stable on portions of the area. Logging and road construction could cause serious problems.
6. The establishment of this natural area will not conflict with other uses.

[Handwritten signature]
Acting, NTA

1-3-66

Date

Richard O. Fitzgerald

Timber Management Assistant

Approved:

1-3-66

Date

Donald H. Smith

District Ranger

CEO

1/25/66

Date

Gary G. Green

Forest Supervisor

3/24/66

Date

J. Herbert Stone

Regional Forester

3/23/66

Date

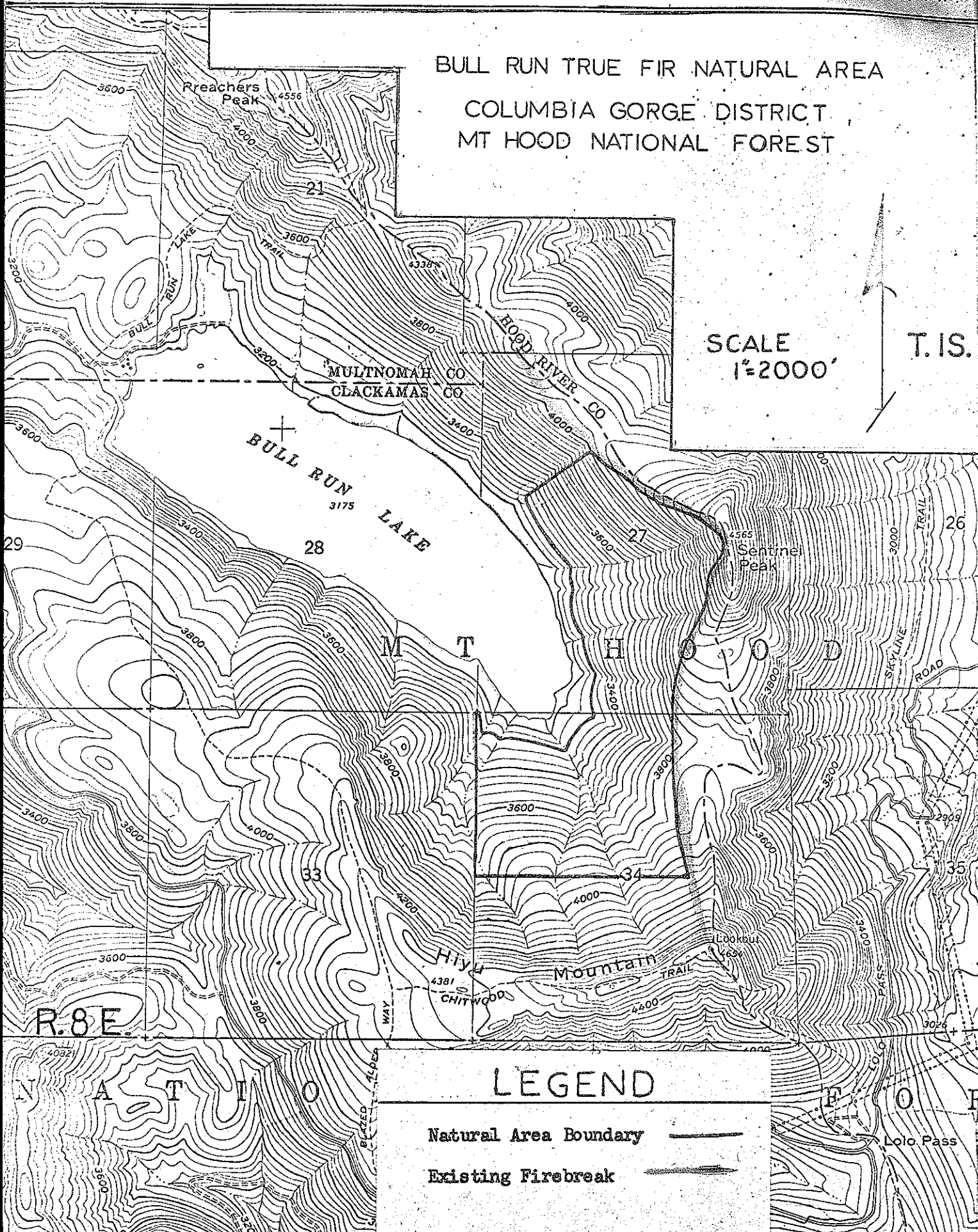
Philip H. Buehler

Director

BULL RUN TRUE FIR NATURAL AREA
COLUMBIA GORGE DISTRICT
MT HOOD NATIONAL FOREST

SCALE
1"=2000'

T.I.S.



LEGEND

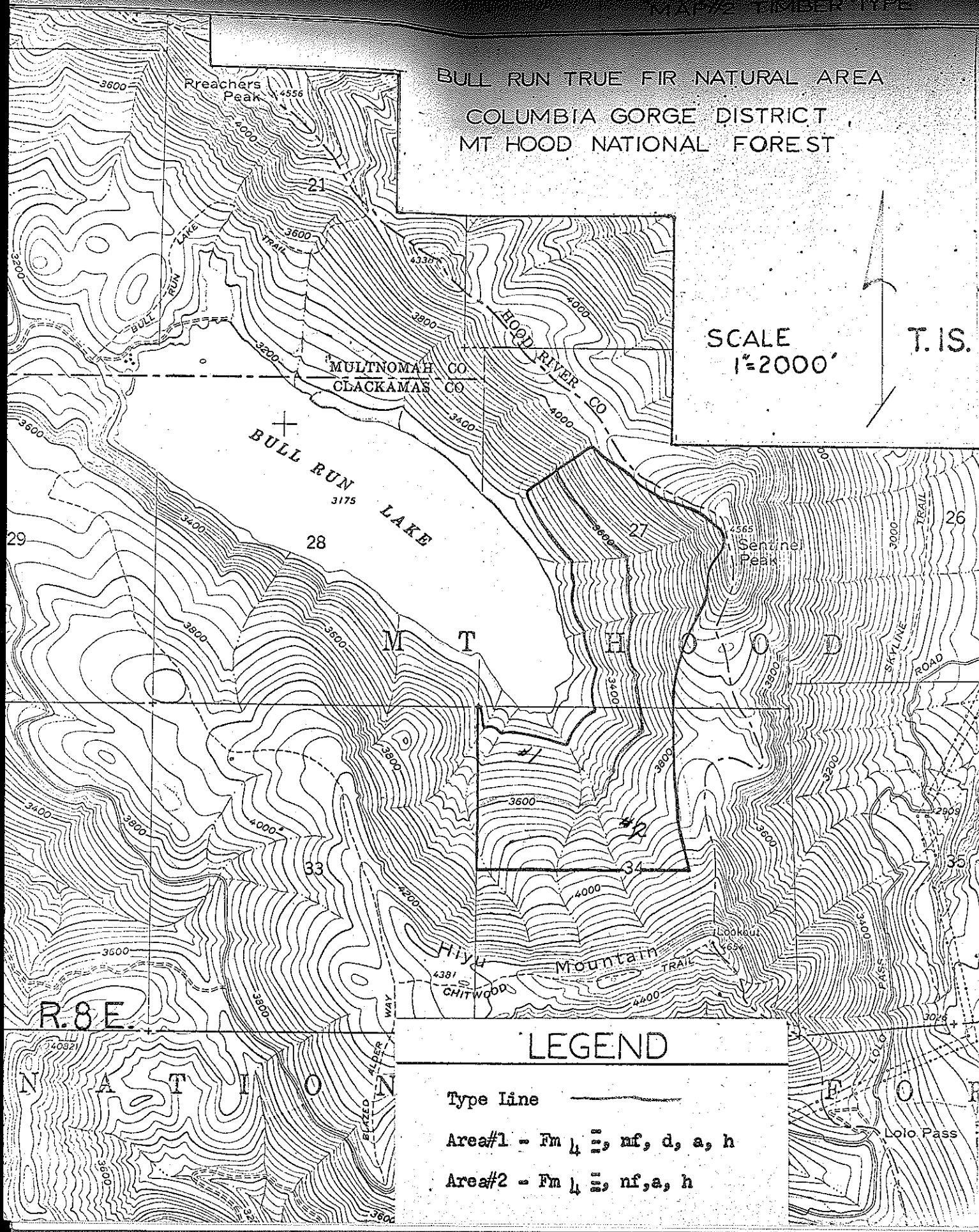
Natural Area Boundary

Existing Firebreak

BULL RUN TRUE FIR NATURAL AREA
COLUMBIA GORGE DISTRICT
MT HOOD NATIONAL FOREST

SCALE
1"=2000'

T.I.S.



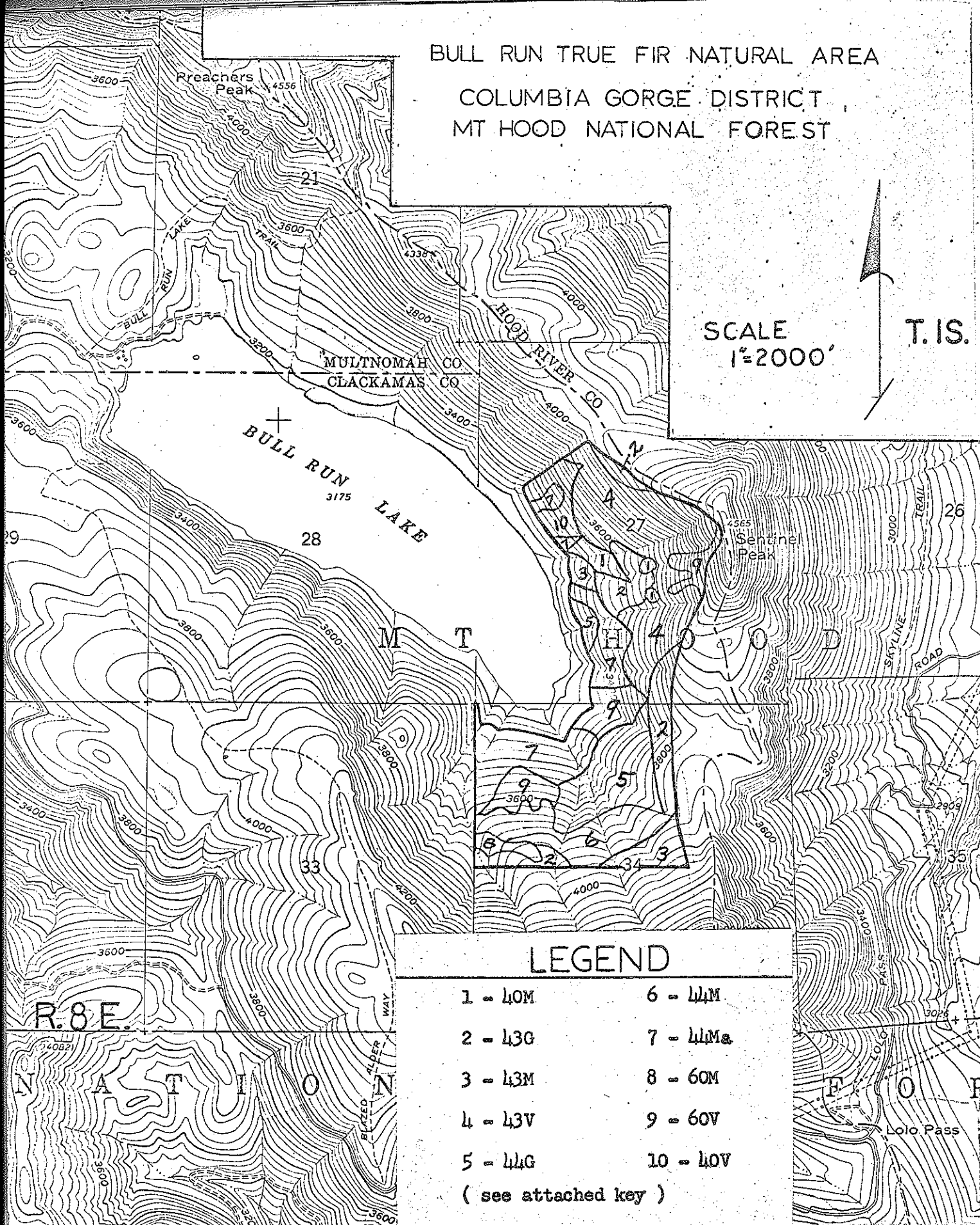
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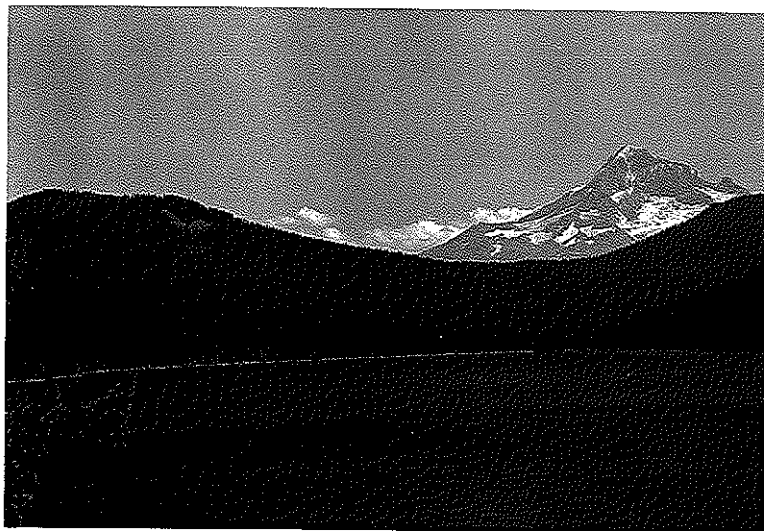
- Type Line ———
- Area#1 - Fm 1/4 =, nf, d, a, h
- Area#2 - Fm 1/4 =, nf, a, h

KEY TO MAP #3: SOIL TYPE

- 1 = 40M: Glacial Plucked Land, 30-60% slope
- 2 = 43G: Last Chance Stony Loam, 0-30% slope.
- 3 = 43M: Last Chance Stony Loam, 30-60% slope.
- 4 = 43V: Last Chance Stony Loam, 60-90% slope.
- 5 = 44G: Jackpot Gravelly Silt, 0-30% slope.
- 6 = 44M: Jackpot Gravelly Silt, 30-60% slope.
- 7 = 44Ma: Jackpot Gravelly Silt, dissected 30-60% slope.
- 8 = 60M: Rubble Land, 30-60% slope.
- 9 = 60V: Rubble Land, 60-90% slope.
- 10 = 40V: Glacial Plucked Land, 60-90% slope.

BULL RUN TRUE FIR NATURAL AREA
COLUMBIA GORGE DISTRICT
MT HOOD NATIONAL FOREST

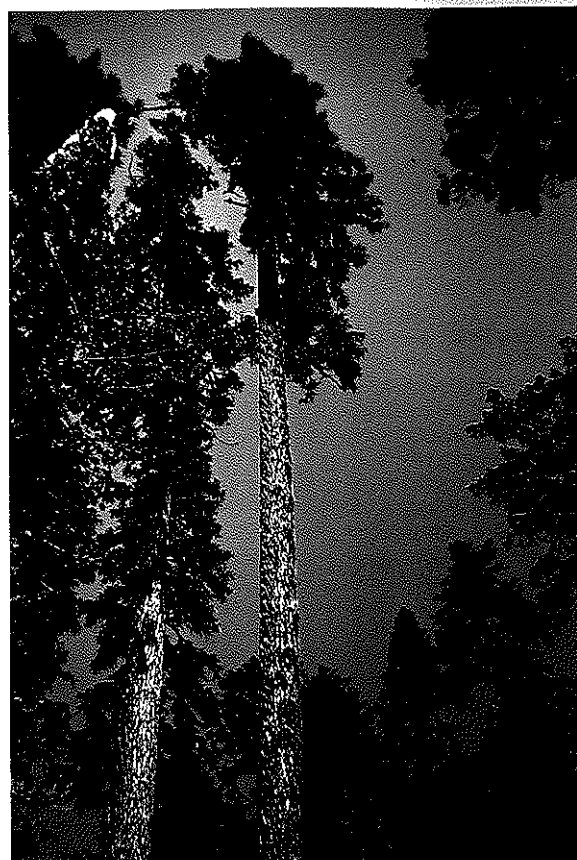
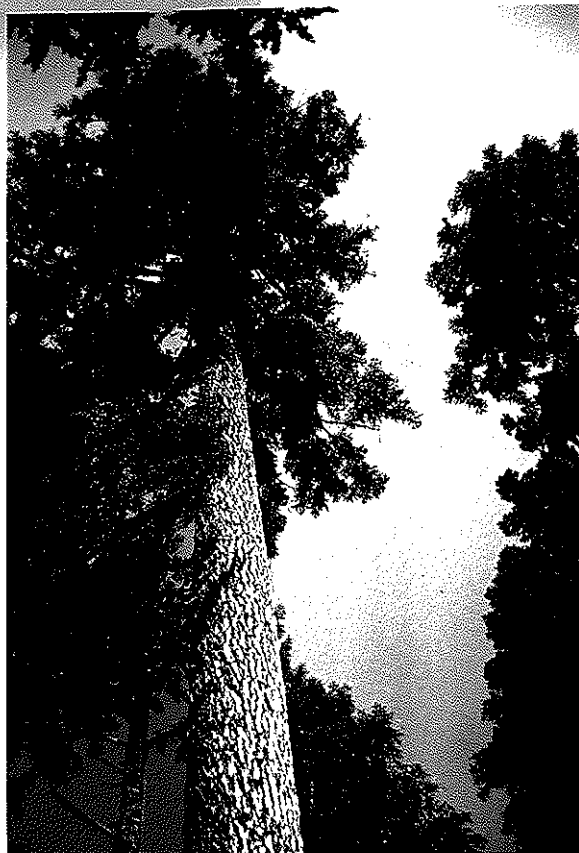




No. 1 - View of the Bull Run Natural Area from the west end of Bull Run Lake. Mt. Hood in the background.



No. 2 - Rock slide is northwest boundary of Bull Run Natural Area. Photograph taken from boat on Bull Run Lake.



Nos. 3 and 4 - Photographs show excellent specimens of noble fir in the Bull Run Natural Area.



No. 5 - Firebreak on ridge, located between the West Fork of Hood River and the Bull Run River drainages, is the east boundary of the area.