

Report on
LAND-USE PROBLEMS
on the
Three Sisters Wilderness Area

Submitted to
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School of Forestry

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INTRODUCTION

Description of Area

The problem area to be considered lies on the West side of the summit of the Cascades in the Three Sisters Wilderness Area. Administratively this is in the McKenzie District of the Willamette National Forest. Physically speaking the area is the entire drainage of Horse Creek, within the wilderness area, plus all land within the wilderness area west of the drainage, a total of 60,095 acres. (see map #2)

To facilitate consideration of the area, it will be broken down into three divisions:

Area 1: East side of South Fork McKenzie River

This area, 37,571 acres, lies between the summit of the Horsepasture Mountain-Olallie Mountain Ridge and the western boundary of the wilderness area, just above the South Fork of the McKenzie River.

Area 2: West side Horse Creek drainage.

This area, 11,920 acres, lies between the Horsepasture Mountain-Olallie Mountain Ridge and Horse Creek.

Area 3: East side Horse Creek drainage.

This area, 10,604 acres, is an approximately 4-mile-wide strip extending east from Horse Creek to the head of the eastern tributaries of Horse Creek.

Proposed Uses

Two major conflicting uses of the area have been proposed. They are:

1. Leave the area in its present undeveloped state, as a wilderness area, for scientific studies.
2. Develop the area for sustained-yield timber production. These will be considered for the area as a whole, and for each of the three divisions previously mentioned. Due to the lack of an adequate cruise in the area, all land within a type is considered to have the same volume per acre. Some possible uses can be eliminated from consideration at this point.

Forage

The area is too steep or too heavily forested to provide any significant amount of usable forage.

Recreational

The area has a low recreational value, as it includes no outstanding scenic attraction. Hunting and fishing are the major recreational values of the area. The stream is not large enough to support the intensive fishing that an access road into the area might bring, and it is now relatively inaccessible to fishing except on the lower end. There is a band of Elk that winters on the western fringes of the area and migrates across it to its summer range. An access road into the area would probably not materially effect the present hunting aspects of the area.

The Forest Service, using camp fire permits as an indicator, have set the present intensity of use of the area in question at 50 people per year. Even assuming a 100% error this would be a very low use of the area as far as recreation is concerned. Recreational considerations can therefore be ignored in deciding between the two major proposed uses of the area, as they will not be materially changed by either use.

Plan I: Timber Production

The area, averaging a medium site III, is generally very well suited for timber production. The chief value of the area for timber production is the way it fits into the over-all management plan of the Willamette Forest. This area contains a very high percentage of D 3 timber, the result of a large burn 70-80 years ago. The Willamette National Forest is very short of D 3 age classes, so it would be a very valuable addition. Also, the Willamette National Forest is now supplying 26% of the yearly cut in Lane county. The county is cutting one and one half percent of its allowable cut at present, forcing the National Forest lands to accept more of the cutting load in the future if possible.

TABLE I*

Type and volume composition of the three areas.

Type	Area I		Area II		Area III	
	Area	Vol	Area	Vol	Area	Vol
D 5	360	20.2	3,680	206.0	380	21.2
D 4	40	1.9	5,320	255.5	-----	-----
D 3	16,760	755.0	680	30.6	10,000	450.0
TF&MH	3,858	77.3	960	19.2	-----	-----
L P	333	16.6	1,280	64.0	224	11.2
N C	16,220	-----	-----	-----	-----	-----
Total	37,571		11,920		10,604	

* All figures in this table are Forest Service estimates.

Area 1

Area one contains 16,760 acres of D 3 plus 360 acres of D 5. It would be developed from the South Fork of the McKenzie River side, up which there is already a Mainline road (EE standard). The development cost per acre might be higher than on the other two areas due to the 16,220 acres of non-commercial type in the area. However, this area would still be desirable for timber production, comparing favorable with similar area that being logged on the west side of the South Fork drainage.

Area 2

Area two is probably the best for timber production, especially for immediate logging, as it contains 3,680 acres of D 5 and 5,320 acres of D 4. The topography is also suited for a staggered setting layout.

Area 3

Area three is also very well suited for timber production, supporting 10,000 acres of D 3 and 380 acres of old growth. It too has favorable topography for a staggered setting plan.

Summary

All three of the areas are well suited for timber production. Area one would be a good logging unit by itself, however areas two and three would be best used together, as one main line road would serve both areas.

If all three areas were brought into the management plan of the forest it would mean an increase of 16 million feet in the National Forest's annual allowable cut, or an additional \$240,000 of stumpage annually. This would also contribute \$300,000 annually to the economy of the county in wages and capital expenditures.

Plan II: Wilderness Area

The chief value of the area in the wilderness state is that of a scientific study ground. As was stated before the recreational value of the area is a very minor consideration.

This area is the only one in Oregon, and perhaps in the Douglas-fir region where range from 10,000 to 1,900 feet of altitude can be found in one undisturbed drainage system. It is also conveniently located in respect to the two major research centers in Oregon, Oregon State College and University of Oregon.

Area 1

Practically all scientists interested in the area agree that the West slope of the Horsepasture Mountain-Olallie Mountain Ridge, with the exception of a small buffer-zone just below the summit, is of relatively little importance to their studies, and could be excluded from the Wilderness Area for their purposes.

Area 2

Area two, between Horse Creek and the Horsepasture Mountain-Olallie Mountain Ridge, is of secondary, but still great, importance to the scientists. The creek is the boundary between part of the older Miocene Cascades, now the Horsepasture Mountain-Olallie Mountain Ridge, and the new Pleistocene Cascades which are on the east side of the creek. There are around fifty known species of plants found on the older west side of the creek that are not found on the east side. This is a field of study which has hardly

been touched. This then is a valuable study area to be used in conjunction with the east side of the creek. (area 3)

Area 3

Area three, the east side of Horse creek, is considered to be the most important of the three by a great majority of the scientists. It is this area in conjunction with the rest of the wilderness area to the East that gives the scientists the great altitudinal range, practically undisturbed, except in spots by fire, ~~since~~ the cooling of the lava flows. This is valuable to them as study area for altitude transitions and zones, and also as a check area for comparisons of the effect of man on the flora and fauna in the region.

Summary

The scientific use of the area would permit Area 1 being excluded from the protected Wilderness Area. It would, however, strongly advocate retention of the complete water shed, as ridges tend to be a much better natural boundary for plants and animals than streams. Scientists believe that any logging activity in Area 2 would materially alter Area 3.

SUMMARY AND CONCLUSIONS

It is impossible to assign a monetary value to the future scientific and recreational use of the area, therefore it will be very hard to make any concrete comparison between the two major proposed uses of the area.

Area 1

Due to the relatively small prospective scientific or recreational value of this area, timber production seems to be the best use.

Area 2

This area has a definite scientific value, which without a great deal of further study will be hard to evaluate in concrete terms. The area does, however, contain a fairly large amount (32% of area) of old-growth Douglas-fir, which unless utilized in the fairly near future, will begin to degenerate. Present knowledge of the area indicates that timber production would probably be the best use; however a more complete study of the situation would be necessary before any final plans are made.

Area 3

This area definitely has a high scientific value, again not measurable in concrete terms. The timber on the area is concentrated in the younger age classes (94% in D 3) so it seems that any cutting on the area could be deferred for an indefinite period, and perhaps, with further knowledge of the area, forever.

REFERENCES

Al Wiener Willamette National Forest Headquarters Conference

Dr. R. M. Storm (zoology) Asst. Professor Natural Resources Conference

"Three Sisters Wilderness Area" Pamphlet USFS

Lyle F. Watts Letter to Herbert Stone distributed by Sierra Club

J. Herbert Stone Letter to Mr. Richard M. Leonard, President Sierra Club



