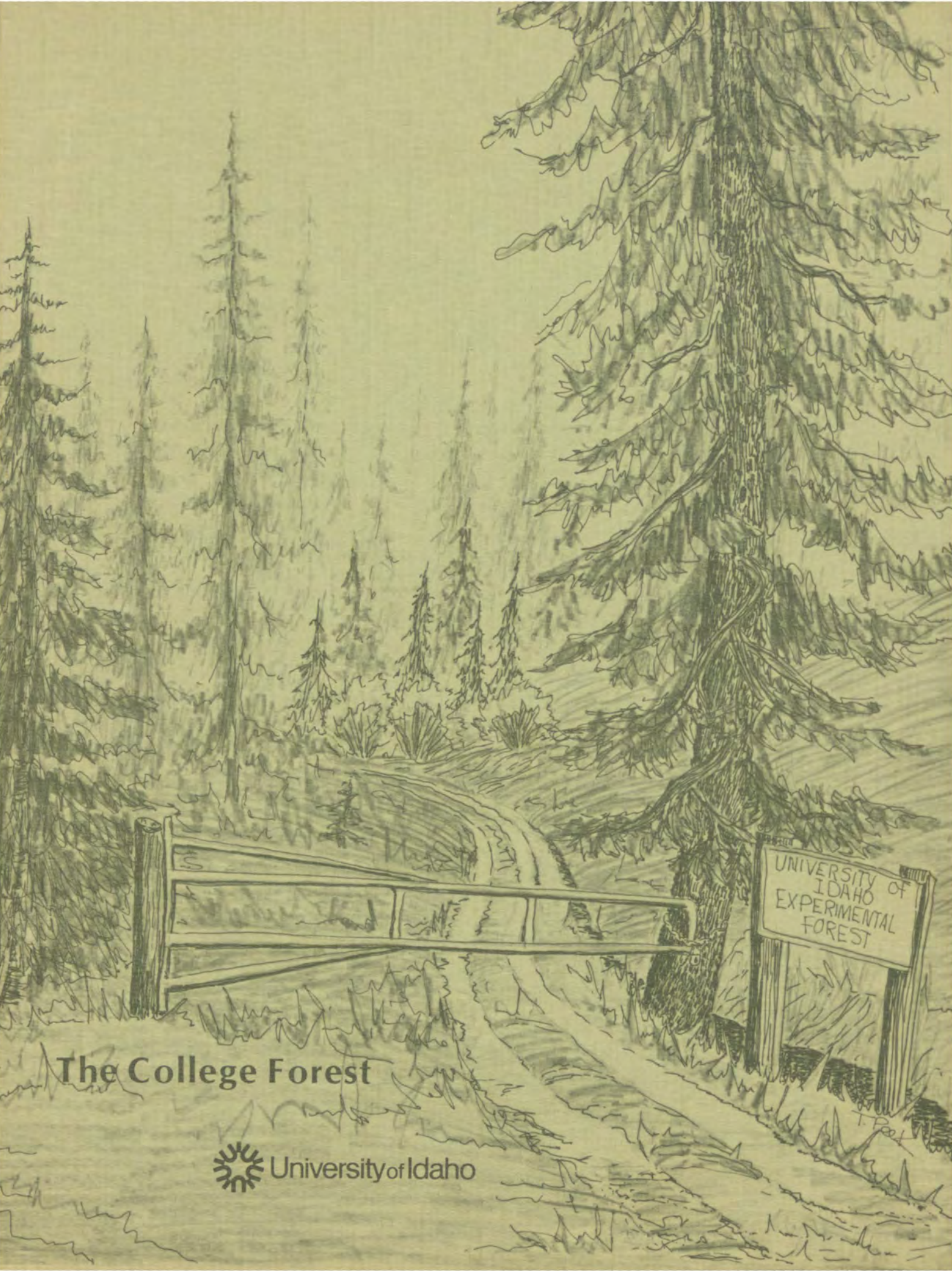

The College Forest

University of Idaho

The University of Idaho College Forest

A Forest Dedicated to Student Education, Research and Training

Franklin H. Pitkin
Forest Manager

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Dean, College of Forestry,
Wildlife and Range Sciences

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The College Forest

Franklin H. Pitkin

INTRODUCTION

This booklet has been prepared for friends of the University of Idaho, to set down the history and current status of the University of Idaho College Forest. Supporting maps are included for ease in locating various sections of the forest. The content is for informational purposes. It is intentionally brief, and not a plan for intensive management.

Seven separate units totaling 7158 acres comprise the forest, at distances ranging from 11 to 35 miles from Moscow. The land is managed as a teaching and research forest by the College of Forestry, Wildlife and Range Sciences for the State of Idaho. Forest operation places students in a training situation, where they learn methods of research and fire control, study recreation usage, and observe and work in different management systems.

Many research projects and forestry college activities are funded by timber harvest earnings, under the auspices of Professor Franklin Pitkin, forest manager.[1]

[1] This publication also has been produced entirely with forest earnings.

Student foresters learn through participation in logging and management programs.

HISTORY

When the School of Forestry was established in 1917, the idea of an experimental forest was born. Francis G. Miller, the first dean, recognized the need to obtain forest land for research and student training. For many years, the forest tree nursery and arboretum,rented school section nine, and 2440 acres of national forest land served those functions.

In 1932 Dean Miller's dream was partly fulfilled when 3630 acres of land were given to the University of Idaho Forestry School by the Forest Development Company (now Potlatch Corporation, Inc.) of Lewiston, Idaho. Although Dean Miller died in 1934 without seeing the completion of his aims, the school forest was begun.

The deanship of the Forestry School was to change hands three more times in the space of the next year. Pathologist Ernest Hubert served as acting dean after Miller's death, followed by the 1-year term of Richard E. McArdle from 1934 to 1935. Dwight S. Jeffers assumed the deanship in 1935, to serve until 1953.

During the depression, McArdle became skeptical about the number of acres the school could effectively administer. He told a faculty meeting in December 1934 that he would not accept gifts of land east of the township line running through Troy. Fortunately for the future of the College Forest, the Board of Regents later overrode his policy and accepted 320 acres in 1934 and 1265 acres the next year from the Forest Development Company. During McArdle's tenure, the U.S. Congress approved a bill granting more than 63,000 acres of timberland to the

Forestry School. The land, owned privately and by the U.S. Forest Service, was blocked out, but never formally funded. The agreement is still in effect, and the College may be able to claim some Forest Service acreage as a portion of federal land to be deeded to the State of Idaho.

Donations of land in 1932, 1934 and 1935 from the Forest Development Company totaled 6515 acres, or 94 percent of the present forest. Smaller areas have been acquired by exchange, purchase and other gifts. The Forest Development Company held and holds no reservations regarding land management or use on any of these acres. However, Mr. C. L. Billings, then president of the company, did express a desire for a liberal treatment of nearby bonafide residents with regard to the grazing of stock and gathering of fuel wood, as is consistent with good forest management.

A purchase of 160 acres in 1934, a trade of 160 acres and purchase of 40 acres in 1941, a 3-acre donation in 1947, and a 40-acre donation in 1948, brought the total acquisition to 7158 acres.

The 160 acres purchased in 1934 were used for a Civilian Conservation Corps (CCC) headquarters. This area in the Big Meadow Creek unit is approximately 4 miles from Troy, Idaho. The CCC maintained a camp until 1938 that provided quarters for about 200 men. Their activities included road and trail building, felling snags from a 1932 fire in the area, and construction of ponds on Big Meadow Creek. In 1967, under a federal grant, a recreational area was built on the headquarters site.

DESCRIPTION

The College Forest includes parts of two townships of the Boise Principal Meridian, and lies in the Palouse Mountain Range of the Northern Rocky Mountain Province. Although the total acreage exceeds 7000, the forest is made up of individual units of 3, 40, 160, 800, 1231, 2159 and 2765 acres, respectively (Table 1, Figs. 1-5).

Table 1. University of Idaho College Forest units.

Name	Number on map	Acreage
Idlers Rest Creek	*	3
Flannigan Creek	1	160
Big Meadow Creek	2	840
East Hatter Creek	3	1231.41
West Hatter Creek	4	2158.80
Flat Creek	5	2764.81
	Total	7158.02

* Not shown on map

MOSCOW, IDAHO, TUESDAY, MAY 15, 1934

Congress Grants Timberlands To The U. of I.

INTERFRATERNITY COUNCIL CHANGES NEW DATE CARDS

Unofficial Word Causes Group to Provide for Fraternity House Guests

SANGER IS PRESIDENT

Uncertainty Shrouds Actions In Drastic Last Minute Revision of gains

MUSICIANS PLAY FOR LAST TIME

Eleven Graduating Pep Band Members Make Last Appearance at Kiwanis Banquet

VIOLIN TRIO GOES OVER BIG ON KHQ PEARCE PROGRAM

Ames, Olsen, and Edwards May Join Pearce's Gang

AL GREATLY PLEASED

Final Judgment of Audition will be Given Within Next Three Weeks

President Signs Bill Increasing the Idaho School of Forestry's Demonstration Laboratory to 63,655 Acres

SENIORS NOTICE

DEAN MESSENGER SPEAKS TO CLUB

Discusses Spirit of Fellowship in Talk to Cosmopolitan Group

IDAHO STUDENTS

Timberlands granted to the School of Forestry in 1934 made headlines, but were never funded for inclusion in the College Forest.

On the Big Meadow Creek Unit, the site which served as a Civilian Conservation Corps (CCC) headquarters in the 1930's, above, was turned into a recreation area in 1967, below.

Prize logs leave the forest, right, but many stands of old-growth timber remain, below.

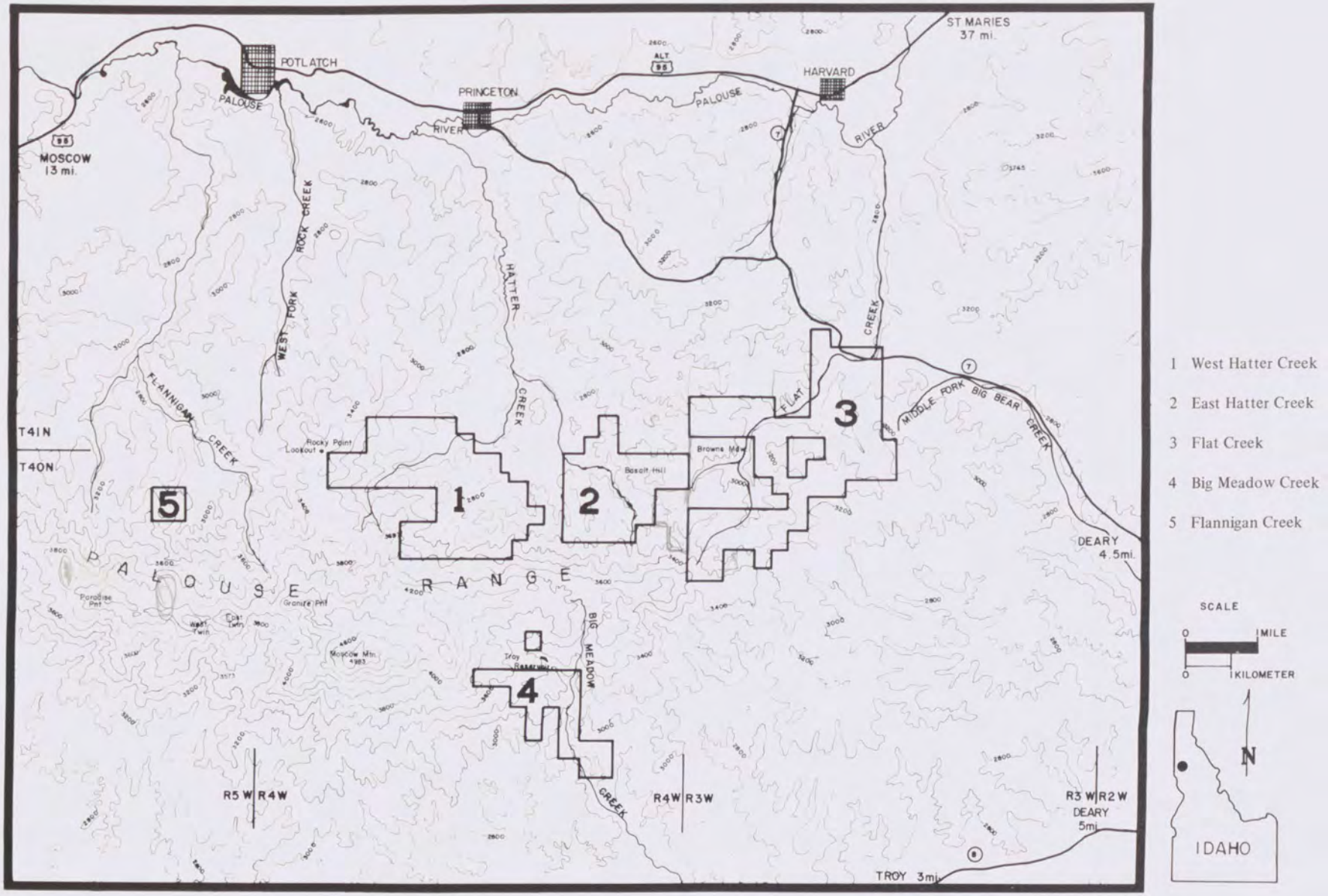
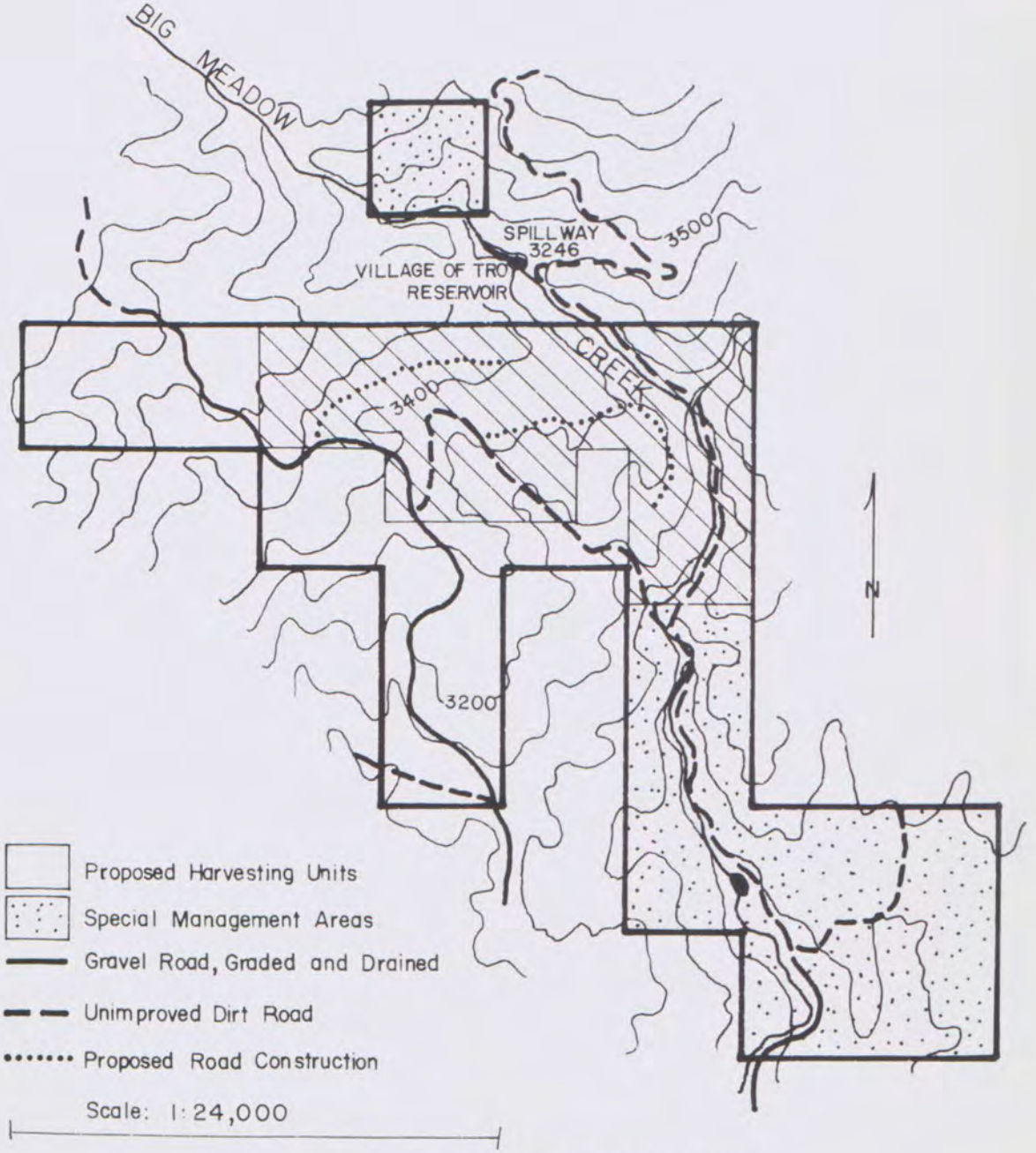


Fig. 1. Location of units comprising the College Forest.



BIG MEADOW CREEK UNIT

Fig. 2. Big Meadow Creek Unit timber harvest and roads map.

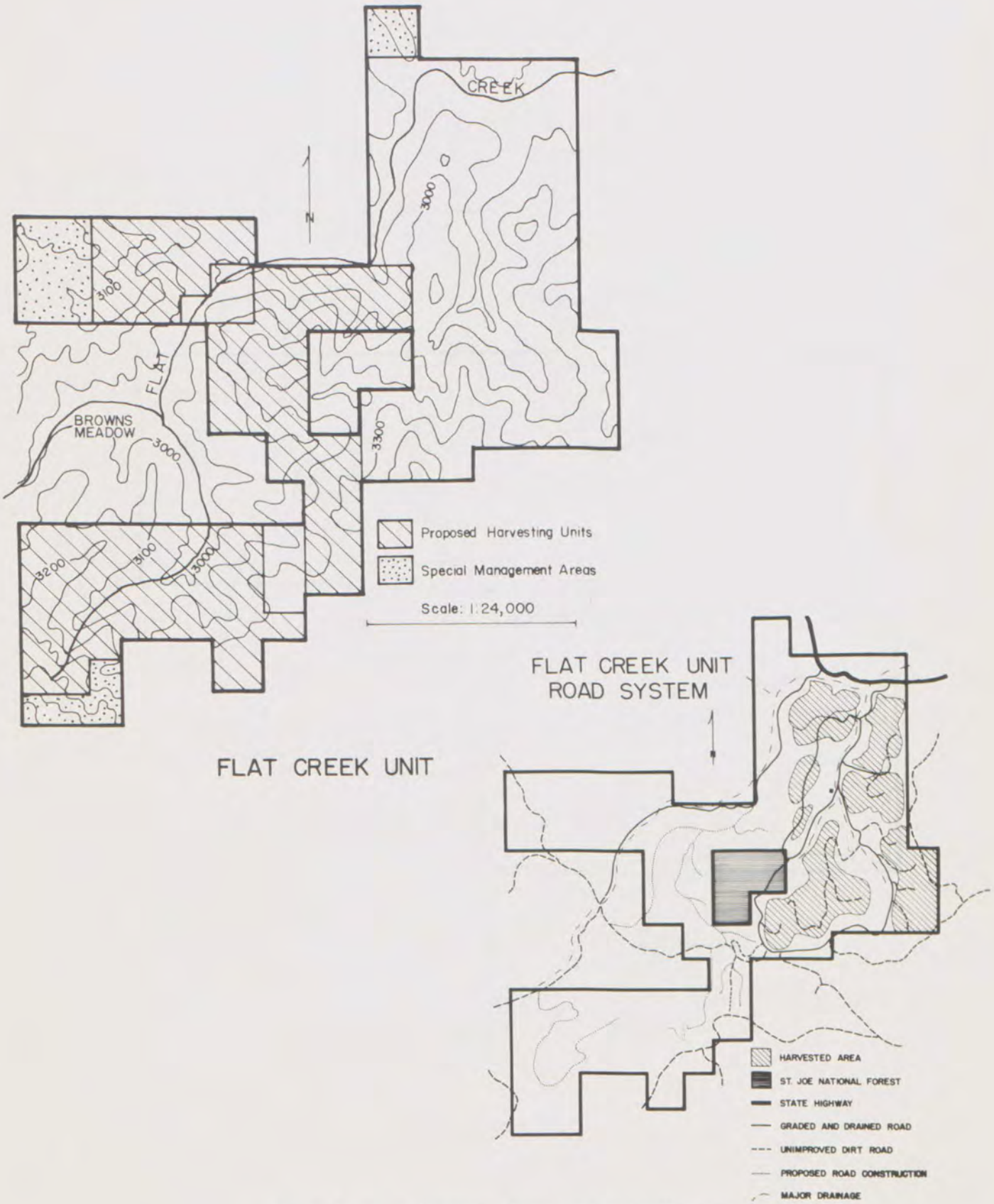


Fig. 3. Flat Creek Unit timber harvest and road system maps.

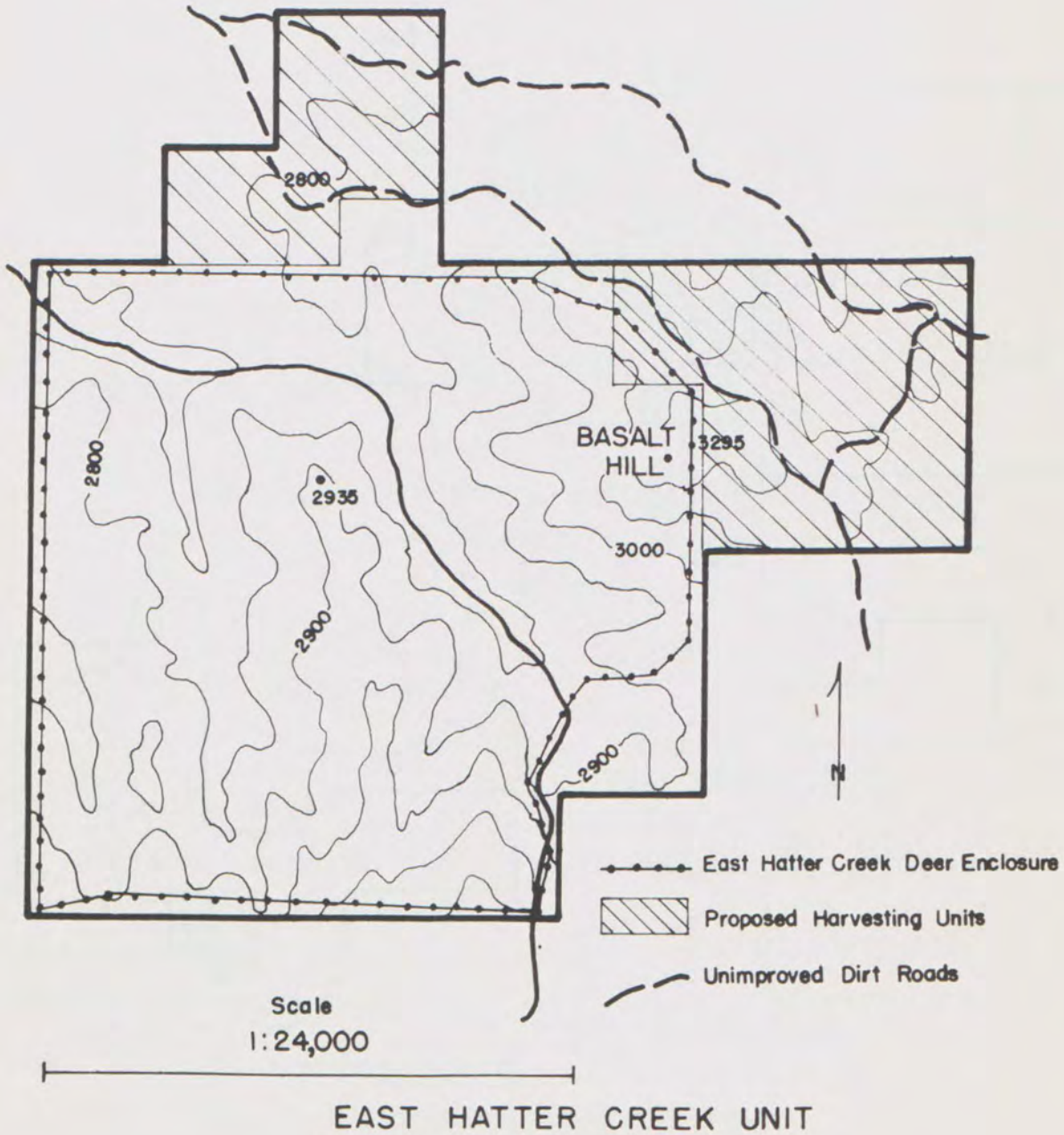


Fig. 4. East Hatter Creek Unit timber harvest and roads map.

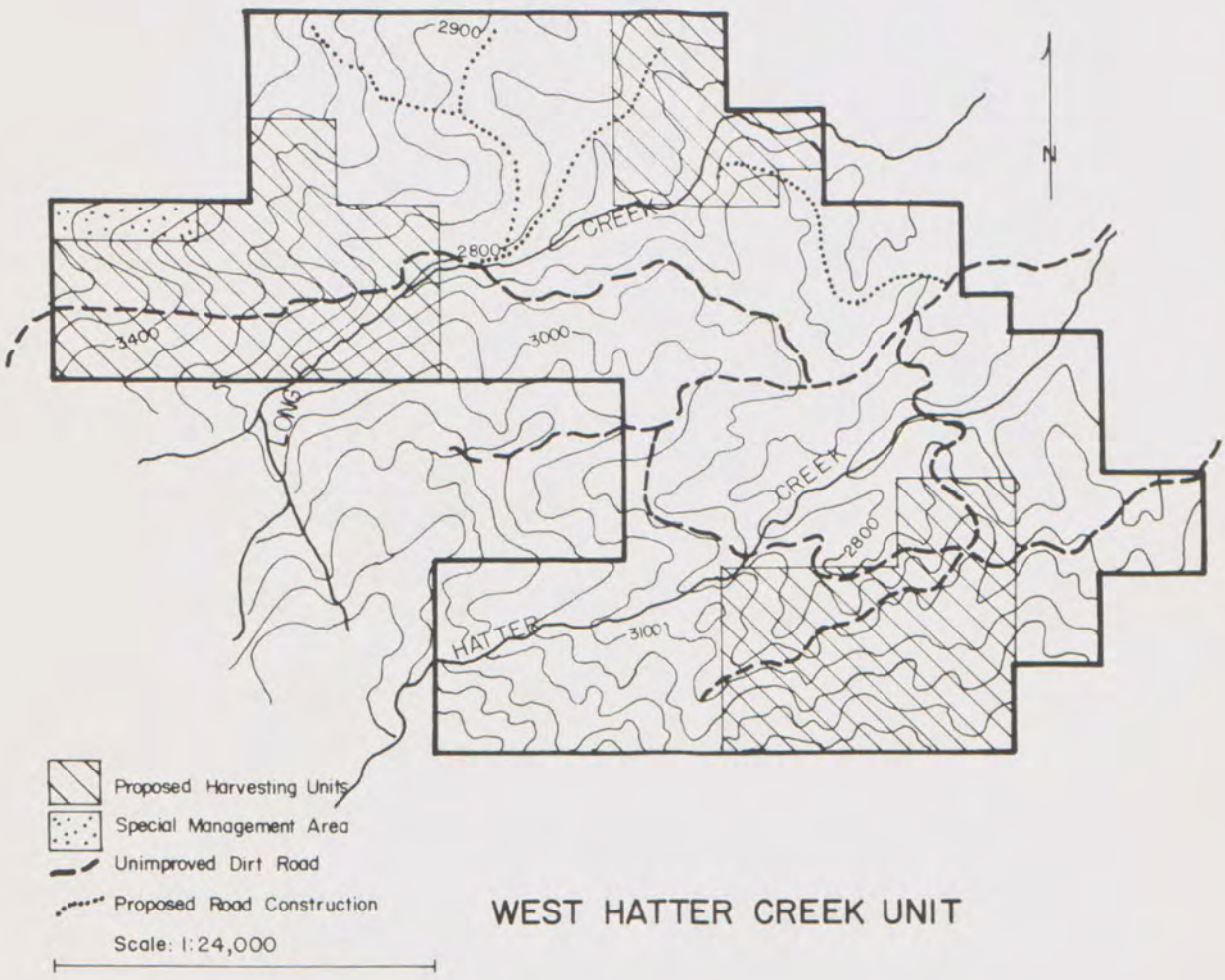


Fig. 5. West Hatter Creek Unit timber harvest and roads map.

The units range between 2600 and 4000 feet in elevation. Rainfall varies from 25 to 35 inches per year, with a predominance of moisture during the winter season.

Geology and Soils

In general, the formation of the Palouse area is a result of Columbia River basalt deposits. The Palouse range is a granitic outlier of the Idaho Batholith. This granitic protrusion is also called the Thatuna Batholith, and granodiorite is the chief rock constituent. Also present are ademellite, tonalite and granite.

Soil development on the College Forest is a combination of rock decomposition, loess and volcanic-ash fallout. Loess deposits were put down in the Pleistocene era, to depths of from 2 to more than 10 feet.

The volcanic eruption of Mt. Mazama, forming Oregon's Crater Lake approximately 6500 years ago, left an ash deposit over the entire Palouse region. Most ash has eroded except in areas of western redcedar (*Thuja plicata*)/pachistima (*Pachistima myrsinites*) habitat type. The depth is from 10 to 20 inches throughout the forest.

Seven soil series are found on the forest including Carlinton series, Grano series, Helmer series, Porrett series, Santa series, Uvi series and Vassar series. These series occur over the forest in small to large bodies depending upon the complexity of the area (Table 2, Figs. 6-8).

Table 2. Forest soil series of the College Forest.

Series	Soil Color	Major Parent Material Influence	Texture	Slope	Natural Vegetation	Habitat Type
Carlinton	Light	Loess with minor volcanic ash influence	Silt loam surface, silty clay loam, lower horizon	0-35% usually 5-20%	Grand fir, Douglas-fir, lodgepole pine, western larch, western whitepine, ponderosa pine	Grand fir/ pach.
Grano	Dark	Loess, some granodiorite residuum	Loam throughout	10-50%	Douglas-fir, ponderosa pine, lodgepole pine	Douglas-fir/ ninebark
Helmer	Light	Volcanic ash over loess with minor granitic influence in lower horizon	Silt loam, silt loam to silt clay in lower horizon	1-40% usually 1-15%	Lodgepole pine, Douglas-fir, western larch, ponderosa pine, western whitepine, western redcedar, grand fir	Western redcedar/ pach.
Porrett	Light brownish gray	Loess	Silt loam, silt clay lower horizon	Less than 3%	Englemann spruce, subalpine fir, grand fir, lodgepole pine, Scouler willow	Subalpine fir/pach.
Santa	Grayish brown	Loess	Silt loam, light silt clay lower horizon	0-35% usually 1-15%	Grand fir, Douglas-fir, western larch, lodgepole pine, western whitepine, ponderosa pine	Grand fir/ pach.
Uvi	Slightly dark	Granodiorite residuum some loess influence	Loam throughout	10-50%	Grand fir, Douglas-fir, ponderosa pine, western larch, lodgepole pine	Grand fir/ pach.
Vassar	Light	Loess-volcanic ash, minor granite residuum	Silt loam, sand loam in lower horizon	0-65% usually 33-65%	Western redcedar, lodgepole pine, grand fir, western larch, Douglas-fir, western whitepine	Western redcedar/ pach.

MAJOR SOIL SERIES KEY FOR MAPPING UNITS

Cn2	From 60 to 80 percent of this mapping unit is composed of Carlinton silt loam, 5 to 20 percent slopes. Santa silt loam, 5 to 20 percent slopes. Uvi silt loam, 0 to 20 percent slopes.
Cn3	Carlinton silt loam, 20 to 35 percent slopes, makes up 50 to 65 percent of this mapping unit. Uvi and Santa silt loams, 20 to 35 percent slopes.
Go2	Grano silt loam, 20 to 35 percent slopes, comprises 65 to 75 percent of this mapping unit. Uvi silt loam, 20 to 35 percent slopes, may occupy up to 25 percent of this unit.
Hr1	Helmer silt loam, 0 to 20 percent slopes, occupies 50 to 75 percent of this area. Vassar silt loam, 0 to 20 percent slopes. Porrett silt loam, 0 to 3 percent slopes, occurs in narrow drainages between slopes.
Hr2	Helmer silt loam, 20 to 35 percent slopes, occupies 50 to 75 percent of this unit. Vassar silt loam, 20 to 35 percent slopes.
Pt1	Porrett silt loam, 0 to 3 percent slopes, occupies 50 to 70 percent of this area. Santa and Carlinton silt loams, 0 to 5 percent slopes, and Helmer silt loam, 0 to 20 percent slopes.
Sa1	Santa silt loam, 0 to 5 percent slopes, occupies 60 to 80 percent of this area. Carlinton silt loam, 0 to 5 percent slopes. Santa silt loam, 5 to 20 percent slopes.
Sa2	Santa silt loam, 5 to 35 percent slopes, occupies 50 to 75 percent of this area. Carlinton silt loam, 5 to 20 percent slopes. Porrett silt loam, 0 to 3 percent slopes.
U 12	Uvi silt loam, 0 to 20 percent slopes, occupies 55 to 65 percent of this area. Santa silt loam, 5 to 20 percent slopes. Grano silt loam, 20 to 35 percent slopes.
U 13	Uvi silt loam, 20 to 35 percent slopes, occupies 60 to 75 percent of this area. Carlinton silt loam, 5 to 20 percent slopes.
U 14	Uvi silt loam, 35 to 65 percent slopes, occupies 30 to 50 percent of this area. Vassar silt loam, 35 to 65 percent slopes.
Va1	Vassar silt loam, 0 to 20 percent slopes, makes up 50 to 75 percent of this area. Helmer silt loam, 0 to 20 percent slopes.
Va2	Vassar silt loam, 20 to 35 percent slopes, comprises 50 to 75 percent of this area. Up to 30 percent of this area may consist of Vassar or Helmer silt loams, 0 to 20 percent slopes.
Va3	Vassar silt loam, 35 to 65 percent slopes, comprises 50 to 75 percent of this area. Vassar silt loam, 20 to 35 percent slopes and Uvi silt loam, 20 to 35 percent slopes.
Va5	Vassar silt loam, 20 to 35 percent slopes, eroded, occupies 65 to 80 percent of this area. Up to 30 percent of the area may consist of Uvi silt loam, 20 to 35 percent slopes; non-eroded phases of Vassar silt loam, 20 to 35 percent slopes. Grano very rocky loam, 0 to 35 percent slopes. Porrett silt loam, 0 to 3 percent slopes.

* Field work by Soil Conservation Service.

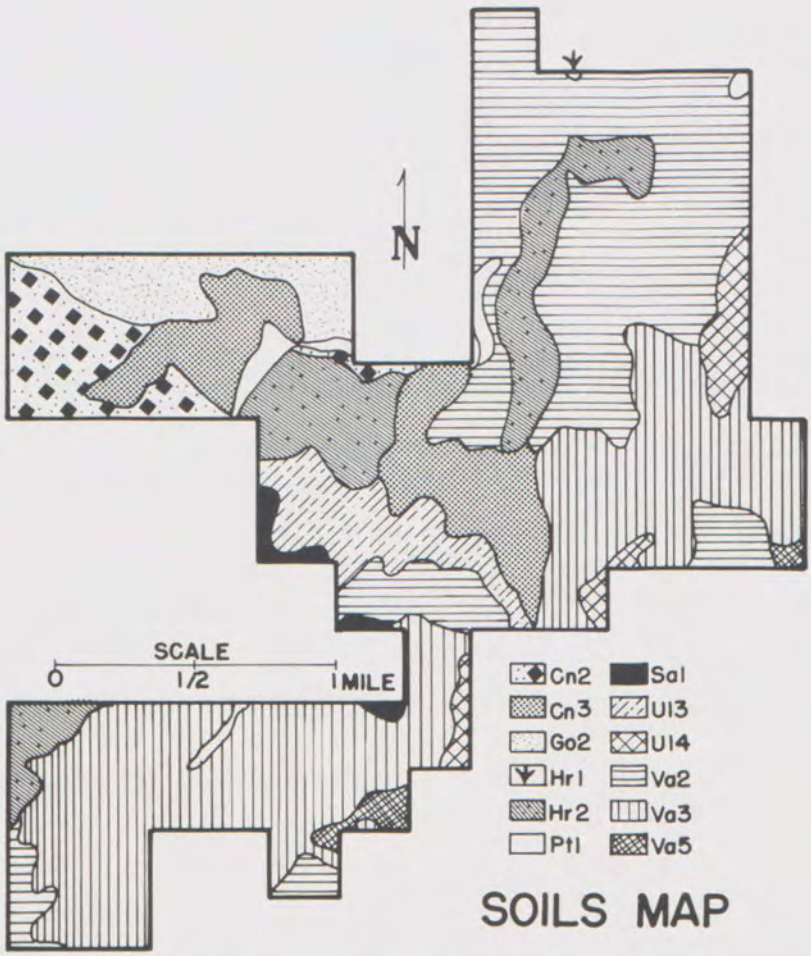
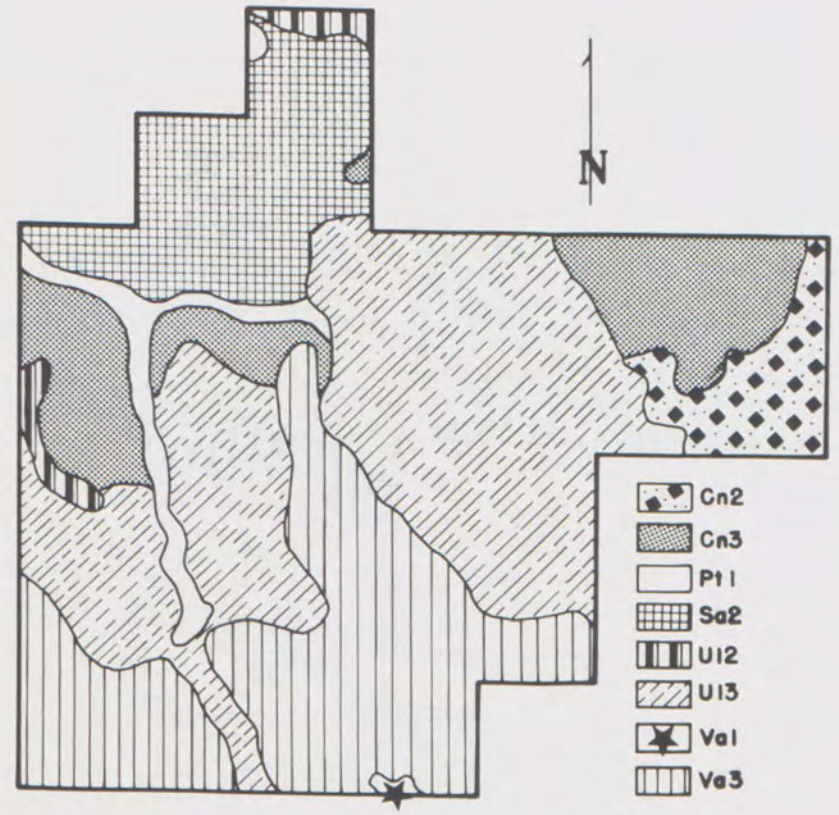


Fig. 6. Flat Creek Unit soils map.



SOILS MAP

EAST HATTER CREEK UNIT

Fig. 7. East Hatter Creek Unit soils map.

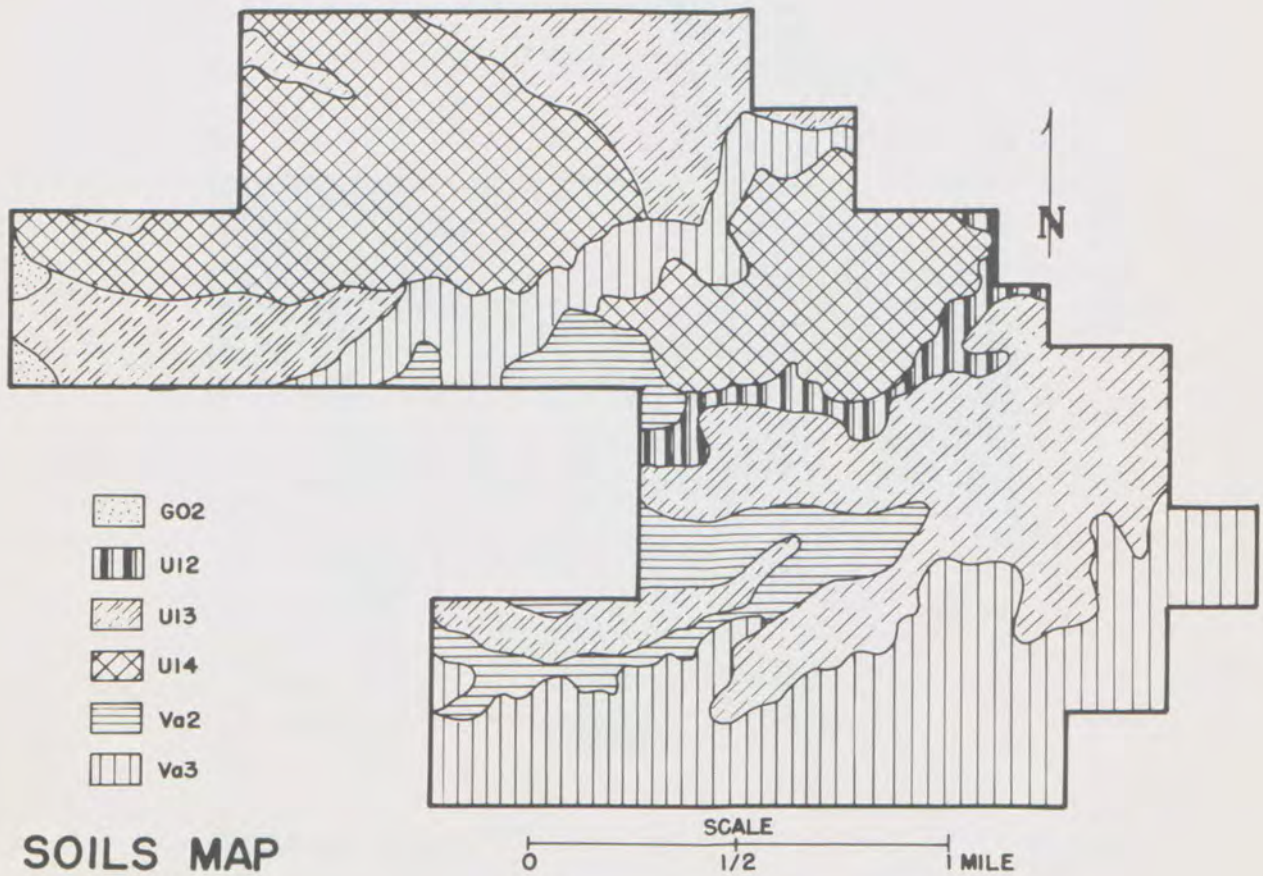


Fig. 8. West Hatter Creek Unit soils map.

Vegetation and Habitat Types

There are four habitat types represented on the forest. Grand fir (*Abies grandis*)/pachistima (*Pachistima myrsinites*) occurs extensively. The second most common is western redcedar/pachistima. Douglas-fir (*Pseudotsuga menziesii*)/ninebark (*Physocarpus malvaceus*) is found occasionally on drier slopes or on ridgetops. The final type, subalpine fir (*Abies lasiocarpa*)/pachistima (*Pachistima myrsinites*), is rare and found usually in stream bottom "frost pockets."

The forest area as a whole is well stocked. Whitepine and easily accessible Douglas-fir and cedar have been logged, but many stands of old-growth timber remain. Gross board foot volume on the forest is well over 121 million (Table 3, Fig. 9).

Table 3. College Forest gross volumes by species.*

Species	Boardfoot Volume
Grand fir	46,238,528
Douglas-fir	27,582,250
Western redcedar	15,531,476
Ponderosa pine	11,844,352
Western larch	8,221,290
Lodgepole pine	7,466,782
Western whitepine	2,327,586
Other conifers	2,484,182
Total	121,710,682

* Based on 7158 acres

Much of the area's vegetation has followed disturbance by fire, logging and/or disease. Tree species include ponderosa pine (*Pinus ponderosa*), Douglas-fir, western larch (*Larix occidentalis*), grand fir, lodgepole pine (*Pinus contorta*), subalpine fir, western redcedar, western whitepine (*Pinus monticola*), Engelmann spruce (*Picea engelmannii*), and Pacific yew (*Taxus brevifolia*). Major understory species include pachistima, prince's pine (*Chimaphila umbellata*), ninebark, oceanspray (*Holodiscus discolor*), twin flower (*Linnaea borealis*), and false solomon seal (*Smilacina racemosa*).

Wildlife

Animal activities on the forest are interesting for both experimental and recreational reasons. Approximately 30 mammals can be found, including coyotes, ground squirrels, red squirrels, snowshoe hares, beaver, mule deer, white-tailed deer, American elk and black bear.

Birds likely to be found include black-billed magpies, red-tailed hawks, ruffed grouse, gray partridge, flickers, pileated woodpeckers, song sparrows, common crows and mountain bluebirds.

White-tailed deer and grouse have been the major species studied because suitable habitat is found throughout the forest. An 800-acre deer enclosure was erected on the East Hatter Creek unit in 1949 by the University of Idaho in cooperation with the Idaho Fish and Game Commission. The Commission paid for construction costs

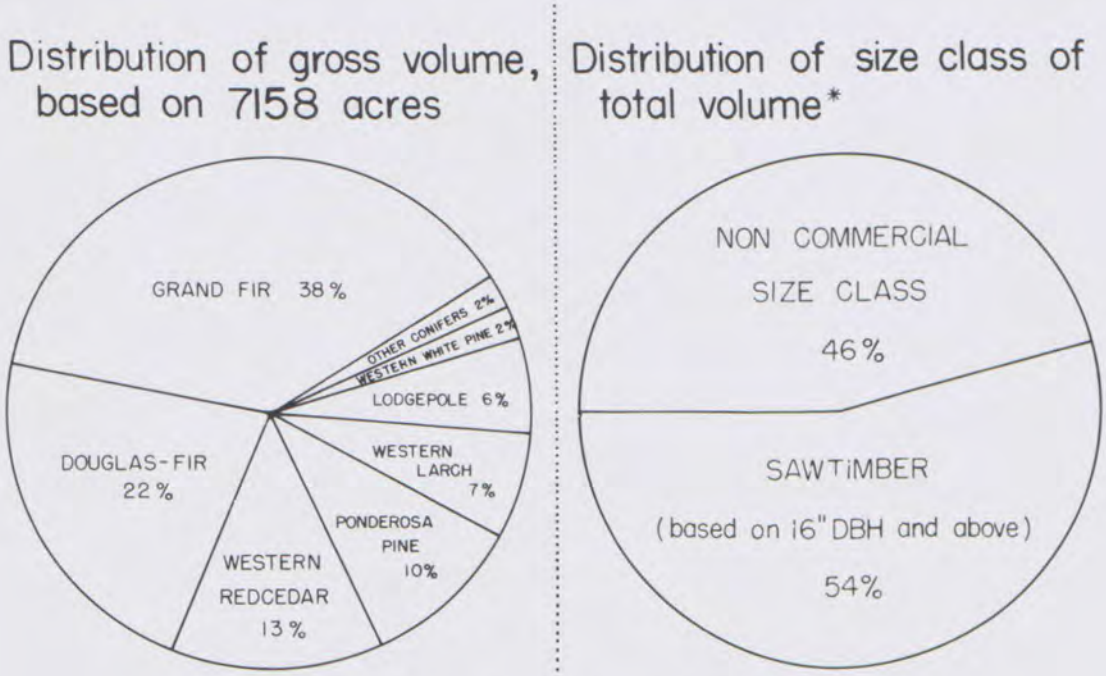


Fig. 9. Volumes and size classes of trees on the College Forest.

Logs from the College Forest, left, provide working capital for research and management projects. Forest vegetation is healthy and abundant on the Hatter Creek Unit, shown below.

and 15 years of fence maintenance. Approximately 5 miles of 8-foot wire netting and barbed wire were used in the construction. Many research projects were conducted in the enclosure in its early years. More recently, the structure has deteriorated so far that its dismantling is planned for the near future so a more productive use can be made in this area.

Once the site of a number of wildlife research projects, this deer enclosure will be dismantled to make way for other forest use of the area.

GRAZING AND RANGE MANAGEMENT

Since 1943 the Flat Creek-Hatter Creek Cattleman's Association has used portions of the College Forest for the grazing of cattle. This privilege allows local cattlemen access to summer range relatively close to their headquarters. Overgrazing is always problematic on leased land, but careful management has kept it to a minimum.

Presently the Cattleman's Association leases approximately 16,200 acres in the Moscow Mountain area near the College Forest. Of this total acreage, 4860 acres are contributed by the College Forest. The total estimated carrying capacity is 1270 animal unit measures (AUMs), of which 352 AUMs are furnished by the forest (Table 4).

The current permit allows 324 cattle to graze from 1 June to 1 October, depending on the condition of forage and soil.

Plans for the future include two drift fences across the Flat Creek unit. Upon completion, these should regulate cattle grazing closely.

Table 4. Flat Creek-Hatter Creek "Cattleman's Association" allotments.

Acres	Cattleman's Usage
16,215	Total local area leased for grazing
10,558	Usable for grazing (65%)
9,916	Secondary range – 12 AUMs (61%)
642	Primary range – 2-5 AUMs (16%)
4,860	Total acreage leased from College Forest

FIRE PROTECTION

Control of fire on the forest always has been a principal concern. Two roads through the Big Meadow Creek unit make it the most accessible of all units for fire control. Flat Creek, East and West Hatter Creek units have been, until recently, quite inaccessible. However, in the past 3 years, approximately 15 miles of permanent fire roads have been constructed in the Flat Creek and West Hatter Creek units. East Hatter Creek remains the least accessible because no permanent roads have been constructed into the 800-acre deer enclosure.

Kendrick Forest Protection District (KFPD) has responsibility for protection of the forest complex. The College of Forestry pays 18 cents per acre yearly to maintain this security. Excellent cooperation exists between the College and KFPD in the control of fire on the College Forest.

Portions of the College Forest are opened to cattle grazing for approximately five months each year, during the growing season.

In this thinning operation, horses were used to skid trees and brush to the road, where machines could take over.

TIMBER MANAGEMENT

College forest management practices include timber harvesting as a prescribed procedure. In the past, very little timber was sold, and funds from sales went for maintenance of forest facilities. A new policy decision in 1972 changed these practices. The administration decided that by harvesting the forest with student help, several objectives could be accomplished: improvement of stand quality, instruction in logging techniques, and creation of a partially self-supporting forest operation.

Because the forest has been cut sparsely, we were losing mature trees to age or disease. For example, 70 percent of the total volume of ponderosa pine was above 14" dbh (Table 5). Under the new system, we employed over-story removal to harvest mature trees and realize a relatively uniform stand. Profits from timber sales have financed research studies on the forest (Table 6). A prime management consideration includes introduction of logging techniques, logging equipment operation, thinning projects, road construction and maintenance, forest fertilization and other management tools to future foresters. Through this exposure students become keenly aware of the problems facing logging companies in a way that can be accomplished only by working in the industry. After graduation such individuals can use this experience realistically when working for a federal or state agency or private industry.

Table 5. Commercial timber on the College Forest.*

Species	Millions of Bd/Ft Volume
Grand fir	25.675337
Douglas-fir	16.888166
Ponderosa pine	8.241932
Western redcedar	7.473900
Western larch	5.147737
Lodgepole pine	0.749525
Western whitepine	0.710376
Other conifers	1.364520
Total Volume	66.251496

* Merchantable volume computed as a tree with 16" dbh and above.

Classroom demonstration has been another consideration. Students unable to secure a summer job on the forest still have a chance through field trips to be exposed to harvesting methods. We also demonstrated changes in the environment caused by logging. Slash disposal, watershed changes, influences on animal habitat, and compaction can be observed.

RECREATION

The College Forest has dedicated an area in the south portion of the Meadow Creek unit as a recreation site. This area is located in a partially forested site typical of the transition zone between mountainous forested regions and the hilly Palouse country of Idaho.

The acreage is a scarce dual-purpose resource exhibiting educational as well as recreational benefits. The estimated recreation use of the area for a 1-year study period was 14,628 visitor-hours. The College is faced with the problem of making the site a more economically viable enterprise. The final solution must reflect the University's efforts in teaching, research, and public service, all of which are conducted at this site.

Studying forest vegetation in the field gives students an appreciation for the subtle differences of growth forms under a variety of conditions.

EDUCATIONAL USE

Educational benefits of the College Forest are derived differently for individual people. The student who wanders through the forest on weekends may derive as much educational benefit as one on a required field trip. Students working for pay on logging operations receive practical experience. Classes can be considered direct benefits, whereas other contacts are of indirect benefit to student education.

Direct usage continuously changes because of efforts of progressive instructors. It is difficult and, we believe, impractical at this time to develop a static long-range management plan because of changing objectives for educational and research needs. Silvicultural field trips have taken on greater meaning with the recent establishment of plots demonstrating silvicultural cutting practices. Logging, engineering and harvesting classes have utilized areas to develop proposed management plans with road and harvesting designs.

Our most direct educational use of the forest presently involves the teaching of logging techniques. Starting in 1972, the college employed an assistant forest manager to teach and manage a logging crew. Now, eight new students each summer are taught the arts of felling, bucking, choker-setting and skid trail layout. As students operate a crawler and rubber-tired skidder, they learn to operate and maintain equipment in an efficient and, most of all, safe manner. The value of such learning is difficult to assess. Not only does each student receive on-the-job logging training, but each is confronted with the problems of a typical logging contractor on a day-to-day basis.

RESEARCH

Because the College Forest is close to the University, it offers an excellent opportunity for research concerning mixed forest stands of northern Idaho.

Over 80 research projects have been or are now being conducted on the College Forest. We have listed the project number, subject, date initiated, investigators, status and publications for each project (Tables 7a through 7d).

Table 6. College Forest funded research projects.

Researcher	Project Title	Objectives	Started	Project Duration
Mitchell Summers*	Land use planning for livestock operation	Management plan for livestock grazing on the forest	April 1974	2 years
Allen	Forest inventory	Forest species inventory	June 1974	1 year
Schuster Moore*	Financial analysis of Big Meadow Creek recreation area management alternatives	Self-sustaining method for operation of Big Meadow Creek	June 1974	1 year
Loewenstein McGrath*	Soil-site quality relationships on the U of I College Forest	Define relationship between soil and topographic characteristics and site quality for Douglas-fir, grand fir, western larch	July 1974	2 years
Fazio Atkins*	Recreational use and user preferences of Big Meadow Creek recreational area	Establish use and user preferences of Big Meadow Creek	April 1975	1 year
Adams	Silvicultural demonstration areas	Develop variety of stand treatments for use by silviculture and wildlife classes	May 1975	Continuing
Canfield Partridge Martin*	Tree defoliation	Develop method of measuring defoliation as it relates to kind and amount	June 1975	3 years
F. Johnson	Secondary successional stages of the *Physocarpus* union on U of I Forest	Description of *Physocarpus* union as influenced by fire, logging, grazing	January 1976	1 year
L. Johnson	Development of model sky line system	Feasibility of single line sky line system	February 1976	Continuing
Loewenstein Lenhard*	Effect of tractor logging on compaction and other soil properties	Effects of tractor logging on soils	October 1976	Continuing

* Graduate student

Table 7a. Research projects on the College Forest at Big Meadow Creek.

Unit Number	Project	Subject	Date Initiated	Investigators	Status	Publication
1	CCC	Stand improvement	1934	Otter, James	Inactive	None
2		Direct seeding		Tinsley	Terminated 1939	Thesis 1938
3		Stand density, thinning	1940	Deters	Continuing	
4		Visceral parasites		Crites	Terminated 1951	Thesis 1951
5	ES-52	Environment and wood quality	1959	Howe	Continuing	
6	SR-70	Seedling growth	1960	Loewenstein	Continuing as ES-47	1964
7	USFS	Field graftability	1961	Bingham, Wise	Terminated	None
8	SR-77	Progeny testing	1962	Wang	Continuing as MS-3	
9	ES-37	Direct seeding	1962	Pitkin, Loewenstein	Terminated	None
10		Systemic treatment	1963	Pitkin, Portman	Continuing	
11	SR-65	Tree stand fertilization	1962	Loewenstein, Pitkin	Terminated	1971
12	MS-2	Radio-active tracers	1963	Pitkin, Loewenstein	Terminated	Loewenstein 1965
13	ES-39	Growth of seedlings	1964	Pitkin, Loewenstein	Continuing as MS-2	
14	W-71	Plant growth substances	1964	McEwen	Terminated	Thesis 1965
15	NDEA	Sources of nitrogen	1965	Gosz	Terminated	Dissertation 1968
16	WSU	Systemic fungus	1965	Waldron	Terminated	Thesis 1969
17		Root development	1965	McConnell	Terminated	Thesis 1966
18		Recreation Plan	1965	Forestry 187	Terminated	
19		Stand density, thinning	1975	Adams	Continuing	
20		Financial analysis of recreational area	1975	Moore	Terminated	Thesis 1975
21		Recreational use and user preferences	1975	Atkins	Terminated	Thesis 1976

Table 7b. Research projects on the College Forest at Flat Creek.

Unit Number	Project	Subject	Date Initiated	Investigators	Status	Publication
1		Cedar pole operation	1940	Seale	Terminated	Thesis 1942
2		Management plan	1947	Randall	Terminated	Thesis 1947
3	WU-1	Ecology of ruffed grouse	1948	Hungerford	Continuing	1952b 1953a 1951a, 1951b
4	WU-2	Distribution of birds	1948	Burleigh	Terminated 1952	
5	WU-10	Use of deer browse	1949	Morton	Terminated 1952	Thesis 1950, 1950b
6	WU-18	Productivity of grouse	1952	Hungerford	Terminated 1960	1955, 1957a, 1957b
7	WU-19	Grouse census	1952	Hungerford	Terminated 1956	
8	WU-18a	Effect of thinnings	1953	Marsh	Terminated 1954	Thesis 1954
9	WU-18c	Movement of grouse	1959	Erickson	Terminated	Thesis 1961
10	SR-80	"Indian Paint" fungus	1962	Partridge	Terminated	
11		Silvicultural demonstration areas	1974	Adams	Continuing	
12		Thinning study	1975	Adams	Continuing	
13		Soil-site quality	1975	McGrath, Loewenstein	Terminated	Station Note No. 22

Forest fertilization is carried out by helicopter following over-story removal, at left. This log skidder, below, donated to the College by the Clark Co., is a major teaching aid and working tool in harvest and thinning operations.

Table 7c. Research projects on the College Forest at East Hatter Creek.

Unit Number	Project	Subject	Date Initiated	Investigators	Status	Publication
1		Deer enclosure	1949		Terminated	
2	WU-15	Nutrition of deer	1951	Peak	Discontinued	
3	WU-16	Deer winter food	1951	Dickenson	Discontinued	
4	SU-18	Productivity of grouse	1952	Hungerford	Continuing	Thesis 1954
5	WU-14	Deer winter food	1953	Basile	Continuing	
6	WU-18a	Effects of thinning	1953	Marsh	Terminated	Thesis 1954
7	WU-23	Food habits of deer	1954	Roberts	Terminated	Thesis 1956
8	SR-43	Site Mapping	1954	Ferrell	Discontinued	
9	WU-32	Helminth parasites	1957	Greichus	Terminated	Thesis 1957
10	WU-38	Browsing competition	1958	Thilenius	Terminated	Thesis 1960 Hungerford 1967
11	WU-23b	Deer census	1960	Shaw	Terminated	Thesis 1962
12	WU-45	Significance of deer	1961	Edgerton	Terminated	Hungerford 1967
13	WU-55	Browse fertilization	1963	Hungerford	Continuing	
14	MS-5	Effect of methyl demeton	1964	Schenk, Giles, Johnson	Terminated	
15	WU-65	Experimental burning	1964	Hungerford, Asherin	Continuing as MS-18	
16	WU-62	Nocturnal behavior of deer	1965	Gladfelter	Terminated	Thesis 1966
17	WU-63	Influence of game on cattle	1965	Hungerford	Continuing as MS-10	
18	WU-62a	Nocturnal movement of deer	1966	Howard	Terminated	Dissertation 1969
19	WU-80	Maximum yield of deer	1969	Will	Continuing	

Table 7d. Research projects on the College Forest at West Hatter Creek.

Unit Number	Project	Subject	Date Initiated	Investigators	Status	Publication
1		Management plan	1947	Taylor	Terminated	Thesis 1949
2		Palouse mammals		Francq	Terminated	Thesis 1955
3		Management plan	1965	Forestry 144	Terminated	

Rustic cabin provides temporary home for loggers and researchers working on the College Forest.