

1
2 POLICY FOR USE OF
3
4 BLODGETT FOREST RESEARCH STATION
5

6 April 1, 2002

7 GENERAL POLICES AND PROCEDURES

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9 A. Forest Administration

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11 Blodgett Forest Research Station is a property of the University of California, Berkeley,
12 administered by the Center for Forestry. The original 2600 acres were a gift from the
13 Michigan-California Lumber Company (1933) to the School of Forestry. Directors are appointed
14 by the Dean, College of Natural Resources with administrative responsibility and authority to
15 develop and administer forest programs and policies, approve forest research, supervise the
16 Forest staff, and recommend an annual forest budget to the Dean. One Director is a faculty
17 member active in research on Center properties. One Director also serves as the Center
18 Properties Manager with administrative responsibility for the Forest physical plant, and,
19 coordination of the operation of Blodgett Forest with other Center properties. A resident Forest
20 Manager supervises all forest employees, implements forest programs and policies, and
21 maintains the Forest database and physical plant. The Directors, and Forest Manager jointly
22 develop an annual preliminary budget for review by the Associate Dean for Forestry. The Center
23 Advisory Committee is appointed by the Directors to regularly monitor, review, and recommend
24 additions and changes in programs and policy for approval by the Directors- Periodically, College
25 faculty provide advice and give consent to the Directors for this policy statement.

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27 B. General Objectives of Forest Use

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- 29 1. The primary objective is to provide a location for research in forestry and related wildland
30 resources by graduate students, faculty from the College of Natural Resources and other
31 interested University of California Researchers and Cooperators.
- 32 2. The secondary objective is to utilize, where feasible, forest research activities and facilities to
33 demonstrate forest management practice and transfer knowledge via graduate and
34 undergraduate instruction, extension, and public education programs.

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37 C. Resource Protection

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- 39 1. It is the intent of the Center to manage Blodgett Forest such that basic air, water and soil
40 resources are conserved. In developing the mosaic of vegetation described under land
41 allocation below, the best available management practices will be utilized to maintain
42 and, where feasible, improve the capability to produce:
- 43 a. Beneficial uses of water;
44 b. Wood products;
45 c. Wildlife habitat;
46 d. Visual quality;
47 e. Forage for livestock; and
48 f. Recreation potential.
- 49
- 50 2. Particular attention will be directed toward Watercourse and Lake Protection Zones in order to
51 maintain water quality and protect riparian vegetation. Snags and downed woody fuel
52 will be manipulated to provide specific wildlife habitat and reduce potential wildfire
53 damage. Historic and pre-historic cultural sites will be catalogued and appropriately
54 protected.
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66D. Research
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3. The Forest Manager will monitor water, soil, vegetation, atmospheric, stream, visual, fuel, wildlife, archaeological resources and pest conditions, and propose rehabilitation if necessary. The Forest Manager will review proposed research projects and recommend measures to mitigate potential significant adverse environmental effects.
 4. The rules and intent of the California Forest Practices Act are met or exceeded in all management and research activities on the Forest. The Center Steering Committee must review research needing exemption.
- 66D. Research
1. The primary research mission of the forest is providing knowledge to improve management of young growth mixed conifer-oak forests for commercial timber, watershed, wildlife, air quality, soil, forage, recreation and other forest values.
 2. Research on the Forest is to be coordinated by the Center Directors.
 3. All new project proposals are to be submitted to the Directors or Forest Manager for subsequent review by an adhoc committee of researchers selected by the Directors. Recommendations for approval will be forwarded to the Director. Proposal forms are available from the Directors and Forest Manager.
 4. All projects are expected to contribute to costs of maintenance of the Forest and its facilities.
 5. All graduate research shall be sponsored by faculty members and will be subject to review and approval in a similar manner to that for faculty research.
 6. All researchers are expected to consult the Forest Manager and obtain approval for the exact field location before commencing fieldwork.
 7. **It is the responsibility of each project leader to select field measurement sites that are set back from road and compartment boundaries sufficiently to prevent planned maintenance and management of adjacent areas from interfering with their research.**
 8. **It is the responsibility of the project leader to disclose in the research proposal all animal, insect, vegetation, and site manipulation that will be required.** The Forest Manager will coordinate all such activities. **Cost of all activities will be borne by the project unless specifically approved otherwise by the Directors.**
 9. Research projects that have not had published reports, nor research measurements taken, nor abstracts for the Blodgett Research Workshop written, and submitted to the Directors within the past five years shall be deemed abandoned. The Center Directors shall decide the most appropriate use of abandoned resources.
 10. An annual Research Workshop will be held at Blodgett Forest each winter. All research project Principal Investigators are strongly encouraged to participate and facilitate the participation of cooperators and affiliated students. As a condition of project approval, each Center for Forestry project Principal Investigator must agree to submit an annual research abstract in December for each approved project.

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112E. Physical Plant and Equipment

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1. All permanent structures or equipment will be owned or under the control of the Center.

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2. All buildings on the Forest receive the same level of care, maintenance and repair for safety, liability, economic and aesthetic reasons.

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3. While arrangements for extended part- or full-year use of a facility may be made, when such space is otherwise available the Forest may schedule the facility for use by others.

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4. In recognition of the fragile nature of roads and the cost of road maintenance, those parts of the Blodgett road system other than designated wet season use Roads, shall not be used by vehicles during the wet season. The Forest Manager will designate times when portions of the road system may NOT be used. Charges may be made where use damages road surfaces.

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5. Pets (Dogs, Cats, etc.)

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Pets are not allowed on any part of Blodgett Forest except as follows:

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a. Pets are never allowed inside common-use buildings and University-owned vehicles or on field trips.

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b. Faculty and full-year resident Blodgett staff may keep pets only when all these conditions are met:

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(1) The owners occupy sole use housing.

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(2) Pets stay within the building, or

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Pets stay inside private vehicles, or

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Pets are on leash, or

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Pets are close at owner's side and under direct verbal command.

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(3) Owners have the express permission of the Forest Manager to keep pets.

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(4) Owners immediately dispose of all pet scat.

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(5) Owners accept financial responsibility for all damages and commercial cleaning of facilities immediately after use.

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146II.

FACILITIES AND FOREST USE, SCHEDULING AND PRIORITIES

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148A.

General Priorities for Forest Use

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1. Programmatic Priorities

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a. Research

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b. Teaching

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c. Outreach based on information developed at BFRS.

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d. Conference use of forest facilities

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2. User Priorities

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a. _Faculty, College of Natural Resources

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b. _Graduate students from College of Natural Resources.

160

c. _Faculty, of other University of California colleges and campuses.

161

d. _Graduate students from other University of California colleges and campuses.

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e. _Students of the Berkeley campus and other University of California colleges

163

f. _Other users with substantive interests in wildland resource management.

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- 166 3. Use of all facilities, residence space, and equipment is scheduled by the Forest Manager
167 using these priorities so as to maximize their efficient use while satisfying user needs.
168
169 4. A set of "Operational Guidelines for Blodgett Forest Research Station" (revised annually)
170 (available from the Forest Manager) describes in detail administrative rules developed
171 from this policy statement. Each Blodgett visitor and resident is expected to abide by
172 these guidelines.
173
174 5. A series of "Blodgett Forest Notes" are irregularly distributed by the Forest Manager to all
175 Blodgett users. Each Blodgett visitor and resident is expected to abide by these Notes.
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180B. Research

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182 1. The summer field season for priority research use of the forest is May 15th to the end of
183 August.
184
185 2. All requests for summer housing in connection with approved research projects shall be
186 submitted to the Forest Manager prior to April 1 for each field season. Requests after
187 that date will be considered in order of submission.
188
189 3. Requests for housing in connection with approved research projects outside of the summer
190 field season will be scheduled by the Forest Manager as they are received, normally not
191 to exceed one month in advance.

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194C. Conferences

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196 1. Conferences requiring the use of Blodgett housing facilities will not normally be scheduled
197 during the summer field season.
198
199 2. Conferences will normally be scheduled and written notice provided to the Directors at least
200 one month in advance of confirming the conference.
201
202 3. Conferences will not normally be scheduled on weekends during September, October,
203 November, April, and May, so that facilities will be available for instructional use.
204
205 4. Overnight use by conferences will be limited in size such that at least one major residence is
206 available for research use.
207
208 5. Conferences scheduled in compliance with BFRS policy will not be "bumped" by higher priority
209 users.

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211D. Instruction

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213 1. Teaching use shall be conducted so as not to compete with research for facilities nor interfere
214 with approved research and management activities on the Forest.
215
216 2. Requests for the priority use of Blodgett facilities, equipment and road system for teaching
217 purposes must be made to and approved by the Forest Manager. Requests must be
218 submitted by the end of the first week of the semester in which use is to take place.
219 Otherwise use will be decided on a first come, first scheduled basis. The general
220 itinerary and route to be traveled on the forest should be reported.

- 221 3. The following priorities will be observed in approving requests for teaching use of facilities:
 222 a. Graduate-level classes from Berkeley, College of Natural Resources.
 223 b. Upper division classes from Berkeley, College of Natural Resources.
 224 c. Other wildland resource related courses:
 225 (1) From University of California, Berkeley
 226 (2) From University of California, Davis
 227 (3) Other University of California groups
 228 (4) Agency, school, youth and civic groups.
 229
 230 4. Classes or groups must be supervised and accompanied by regular University faculty, staff, or
 231 graduate students having an intimate knowledge of the Forest.
 232
 233 5. Overnight use by classes will be limited in size such that at least one major residence is
 234 available for research use.
 235
 236 6. Classes scheduled in conformance with BFRS policy will not be "bumped" by higher priority
 237 users.

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 239 III. LAND USE ALLOCATION

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 241 The land organization for Blodgett Forest is driven by four major objectives:

- 242
 243 1. To provide a predictable variety of forest stand structures, composition, ages, and vegetation
 244 conditions, including areas that will eventually be "old growth" in character, to meet the
 245 current and potential needs of researchers and instructors.
 246
 247 2. To develop, on one site, a long term comparison of the two major silvicultural and
 248 management systems, even-aged and uneven-aged, likely to be applied to young growth
 249 Sierra Nevada mixed conifer-oak forests together with unmanaged young growth stands
 250 containing comparable species, size, and age vegetation.
 251
 252 3. To manage logical land units in an operational fashion that can be reproduced directly by
 253 small private landowners and, with a minimum of extrapolation, on industrial, state and
 254 federal forests.
 255
 256 4. To create stable cash flow sufficient to:
 257 a. Protect the various forest resources from catastrophic loss;
 258 b. Provide and maintain the administration, facilities and access systems required to
 259 support a wide variety of research;
 260 c. Adequately implement forest management plans.

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 262
 263 A. Ecological Reserves:

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 265 1. Ecological reserves will be protected from major vegetation disturbance (wildfire, manipulative
 266 or destructive sampling).
 267
 268 2. The purpose of ecological reserves are:
 269 a. To provide older, maturing, undisturbed areas to study wildlife, insects, disease, plant
 270 development and succession in plant communities and habitats different than the
 271 intensively managed even and uneven aged structures on the remainder of
 272 Blodgett Forest.
 273 b. To provide such research areas in locations convenient to field research facilities and
 274 on land where future activity can be controlled.

275 c. To provide locations where the rate of vegetation change is as slow as possible without
276 management intervention.

277
278 3. These reserves will be allowed to develop into "old growth like" vegetation structures. The
279 reserves may be periodically prescribed burned to simulate "pre-European man"
280 vegetation conditions. The reserve units may be manipulated to restore vegetation
281 structure and composition suitable for re-introduction of a "simulated" natural forest
282 regime.

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285 4. Cultural resources, domestic water supplies, and primitive campgrounds may be maintained
286 with very modest manipulation in the 291AR, and 521AR enclaves.

287
288 5. Current ecological reserves are:

	Ha	ha	Acres	
289	220ER	30	30	74
290	292ER	54	56	133
291	291AR	2		5
292				
293	390ER	13	13	31
294				
295	510ER	14		35
296	520ER	10	25	25
297	521AR	1		3
298				
299	600ER	18	18	45
300	1010	13		32
301	1030	4		9
302	1050	14		35
303	1070	10		24
304	1120	38		93
305	1160	5		12
306				
307		Total	226 ha	556Acres

308
309B. Administrative Reserves

310 1. Administrative reserves are not available for manipulative research or research that requires
311 exclusive use of land areas. Administrative reserves are designated to protect visual,
312 cultural and human habitation values. They may be manipulated by any means to further
313 those goals.

314
315 2. Current administrative reserves are:

	<u>Ha</u>	<u>Acres</u>	<u>Land Use</u>	
316				
317				
318	211AR	4	10	Domestic Water
319	250AR	35	85	Headquarters
320	291AR	2	5	Historic
321	521AR	1	3	Historic
322	1090AR	17	42	Fuelbreak
323	1140AR	23	56	Public Recreation
324	1150AR	3	7	Domestic Water
325				
326	1170AR	3	7	Public Recreation
327				
328	TOTAL	87ha.	215acres	

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330C. Young-growth Reserves

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1. The purpose of young growth reserves are:
 - a. To provide undisturbed areas to study wildlife, insects, disease, plant development and succession in plant communities and habitats different than the intensively managed even and uneven-aged structures on the remainder of Blodgett Forest.
 - b. To provide such research areas in locations convenient to field research facilities and on land where future activity can be controlled.
 - c. To provide locations where the rate of vegetation change is as slow as possible without management intervention (except for regeneration period).
2. Young growth reserves will eventually consist of six age classes (15 year) representing a range of vegetation conditions with individual tree and stand ages comparable to the intensively managed even-aged and uneven-aged portions of Blodgett Forest. These areas will remain protected from manipulation from age 5 through 90 = rotation. Once each 15-year period, one such unit will be regenerated by the means most appropriate to secure a wide variety of native tree species. No pesticides will be utilized during the regeneration (0-5 years) period.
3. These reserves will also serve as examples of even-aged minimum intensity management. It is anticipated their stand structures will develop (except for catastrophic events) similarly to predictions in mixed-conifer normal yield tables. Unmanaged 70 to 90 year old stands should have individual tree sizes similar to managed 50 to 70 year old stands.
4. Future young growth reserve sites are available for research and manipulation to accomplish research before their initial regeneration schedule.

4. Young-growth reserves: Total: 467Acres

Comp.	Ha	Subtotal Acres	1 st Scheduled Regeneration	2 nd Scheduled Regeneration
20R	36	88	2030-2035	2120-2125
40E				
120E	} 25	61	2002	2090-2100
121E				
122E				
140E				
240U	} 24	58	2045-2050	2135-2140
260U				
464YGR	} 31	77	1988	2075-2080
461ERR				
462ERR				
490U	29	72	2015-2020	
650R	} 25	61	2060-2065	2150-2155
660E				

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 386 1020 20 50 On request
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390D. Even-Aged Compartments: 1094Acres

391
 392 The even-aged compartments currently range in size from 4 to 68 acres averaging 24 acres.
 393 Regulation of current stands is scheduled to maximize cash flow to the forest subject to two
 394 major constraints. First, the even-aged forest must contribute a proportionate share of Blodgett's
 395 minimum annual budget requirement. Second, the harvests must produce a fully regulated forest
 396 (approximately equal productive areas in each of 0 to R age classes) by the year 2080.

397
 398 Interim management of existing stands may include both commercial and pre-commercial
 399 thinning regimes. Individual detailed silvicultural prescriptions are written for each compartment
 400 before each manipulative entry. Most even-aged compartments are manipulated every 10 to 20
 401 years.

402
 403 Even-aged compartments may be subdivided in order to meet management objectives and
 404 facilitate particular research projects. Such sub-divisions must produce new compartments >5
 405 acres in size. Acreage listed below may include minor amounts of non-productive land (e.g.,
 406 rock outcroppings) and watercourses that require modification of the even-aged management
 407 regimes.

408
 409 Shelterwood, seed tree and clear-cut techniques to obtain both natural and artificial regeneration
 410 are options available to meet research and management objectives. Management regimes may
 411 include various intensities of site preparation, livestock grazing, vegetation control, PCT, burning,
 412 thinning, pruning, and other cultural activities. Tentatively, the average rotation age is assumed to
 413 be 60 to 90 years.

414
 415 Most even-age compartments will achieve commercial tree density control by thinning from below
 416 treatments.

417
 418 The following compartments will be thinned from above (high-graded) before regeneration. The
 419 intent will be to provide examples of stands managed by practices expected to degrade wood
 420 production, thus creating opportunities for research and extension of differences which may
 421 develop between this and other management styles.

422

423 Unit	ha	acres
424 70	16	39
425 100	14	34
426 170	16	39
427 540	11	26

428
 429
 430 Even-Aged Compartments

431

432 Unit	Ha.	-- Acres--	433 Actual or Probable 434 Regeneration Method
435 70	16	39-	436 CC
437 80	8	19	438 Shelterwood (SH)
439 81	14	34	ANY

440	90	5	12	Any
441	91	7	16	ANY
442	100	14	34	CC
443	141	17	42	Any
444	150	7	18	Any
445	151RR	9	21	Any
446	170	16	39	CC
447	200	4	11	Any
448	210	7	17	ANY
449	280	19	46	Any
450				
451	301	9	23	Any
452	320	4	11	CC
453	321	7	16	Any
454	322RR	0	1	CC
455	330	9	22	CC
456	360	9	22	Any
457	370	6	14	Any
458	371	10	27	Any
459	372RR	0	1.0	CC
460	431RR	5	13	CC
461	440	14	35	SH
462	450	8	21	ANY
463	451	4	11	CC
464	480	8	19	ANY
465	481	8	20	ANY
466	501	10	25	ANY
467	511	2	4	Any
468	512	13	31	ANY
469	530	15	37	CC
470	531	6	16	ANY
471	540	11	26	CC
472	550	5	12	CC
473	551	9	22	CC
474	552	5	10	CC
475	553	3	7	Any
476	560	6	15	Any
477	561RR	2	4	CC
478	563RR	1	2	CC
479	564RR	0	1	CC
480	580	8	19	ANY
481	581	11	26	CC
482	611RR	2	6	CC
483	612	3	7	CC
484	620	8	20	Any
485	621	3	7	CC
486	622	2	4	CC
487	623	4	9	Any
488	624	6	15	ANY
489	630	6	16	ANY
490	640	17	41	Any
491	1060	24	68	CC
492	1130	16	40	CC
493				
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497E.

Uneven-Aged Compartments: 1212 Acres

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The uneven-aged compartments range in size from 8 to 69 acres averaging 42 acres. These compartments are regenerated by either individual tree (no group opening >0.25 acre) or group (½ to 2 ½ acres) selection. All entries are scheduled and supported by a set of silvicultural prescriptions (one for each compartment).

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Current practice is to target long-term ideal residual growing stock levels ranging from 120 ft.²/acre to 180-ft.²/acre basal area. Maximum tree diameters will range from 30" to 40" depending on species. Diminution quotients for individual tree selection are currently targeted at 1.2. Cutting cycle lengths range from 8 to 15 years at this time. Most compartments should be near the desired stand structure by 2040.

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Both natural and artificial regeneration may be utilized. Management may include various intensities of site preparation, burning, vegetation control, livestock grazing, PCT, thinning, pruning and other cultural activities.

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Uneven-aged compartments may not be subdivided. Some non-productive land (e.g., rock outcropping) and watercourses that require modest changes in the uneven-aged management regimes are included in the acreage listed below.

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518

Unit	ha	Acres	Regeneration Method
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10	25	61	Group Selection (GS)
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521

30	15	36	GS
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522

31RR	1	2	GS
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523

50	18	44	GS
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524

60	24	59	GS
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525

101RR	3	8	Individual Tree Selection (IS)
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110	18	44	IS
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527

130	18	44	IS
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528

160	24	60	IS
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529

180	17	42	GS
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530

190	23	58	GS
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531

230	19	47	IS
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532

270	27	67	GS
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533

295	10	25	GS
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534

340	17	43	GS
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535

350	14	34	GS
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380	22	55	GS
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537

400	18	44	GS
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538

410	20	49	IS
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539

420	18	44	GS
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540

470	9	22	IS
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541

471	8	21	IS
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542

500	15	38	GS
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543

562	6	14	GS
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544

570	13	32	GS
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590	19	48	GS
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546

670	10	24	IS
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547

1080	23	58	IS
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1100	26	64	GPS
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549

1110	28	69	GPS
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552F. Research Reserves

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554 1. Research reserves are areas temporarily set aside out of other units on the Forest. They are
555 created at the request of a principal investigator with approval of the Directors for <10
556 years to protect a specific research project from other research and management
557 actions.

558

559 2. Such areas are not available for any uses not connected with the project for which they were
560 reserved.

561

562 3. On expiration of the reserve period, these areas revert to their former status.

563

564 4. The Forest Manager maintains a record of all such areas.

565

566 G. Undesignated Areas

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568 Land, which has been acquired, may be placed in the undesignated category until such time as the
569 Directors determine approximate future use. Management of undesignated areas is limited to
570 development of access, baseline data and short-term non-manipulative research. All such land will
571 be afforded the same level of resource protection as the previous designated lands.

572

573 Section 19 485 acres

574

575 Section 27 220 acres

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577 TOTAL ACRES:705 acres

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579IV. BUDGET AND FISCAL MATTERS

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581A. Blodgett Forest is a Center for Forestry research station and receives financial support from the
582 budget of the Dean, College of Natural Resources. Each spring an annual list of user fees will be
583 recommended by the Forest Manager, approved by the Directors, and made available to all users
584 by April 15.

585

586B. Supplementary funds will be derived from fees charged to individual research projects.

587

588 1. All fees will be made payable to the Forest at the beginning of the field season in question, or
589 upon receipt of a recharge statement from the Forest Manager, or by special advance
590 arrangement.

591

592 2. An annual service charge will be negotiated for research projects making extensive use of the
593 Forest without using housing facilities.

594

595C. Charges for use of housing facilities for instructional purposes will be borne by the Unit sponsoring the
596 course. A per person per night charge shall be made for class use of housing facilities.

597

598D. Sufficient fees will be charged to conference participants/sponsors to cover all costs incurred in
599 support of such meetings at Blodgett Forest.

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601E. Funds derived from product sales resulting from harvesting and cultural work in conjunction with
602 research projects will be allocated to activities of the Center by the Directors.

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607VI. PESTICIDE USE

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609A. Any and all applications of pesticides for forest management or research purposes must be reviewed on a project-by-project basis and approved by the Directors prior to implementation. All application proposals must show evidence that they comply with University Pesticide Policy Communication 18 (and subsequent revisions).

613

614B. Any and all applications must be fully detailed by substance, site, time, application method, and location and presented by the investigator or the Forest Manager to the Directors for review prior to application.

617

618C. Although pesticides are currently a significant land management tool, research on alternatives to pesticide use are strongly encouraged to help achieve forest production and research objectives in a potentially more restrictive future environment. **Approval will not be given for the use of pesticides not currently registered in California for the specific proposed application.**

622

623VII. GRAZING

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625A. Cattle and deer have a long historical presence in the mid-Sierra land type in which Blodgett is located and will continue an open range presence in the foreseeable future. The only practical way browsing or grazing by these animals can be either excluded or completely controlled in terms of timing and intensity is through the construction and use of suitable fencing.

629

630B. Browsing and grazing relate to several research and applied goals at Blodgett Forest. All of these objectives and purposes are accepted as valid reasons for grazing use and control at Blodgett.

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1. Research investigating the impact and effects of controlled grazing.

634

635

2. Research investigating the effects of grazing and browsing exclusion.

636

637

3. Resource protection, particularly meadows, watercourses and riparian zones.

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639

4. Forest management on the young growth compartments at Blodgett.

640

641

5. Other research needing non-grazed and/or browsed sites.

642

643

6. Minimizing reliance on pesticides for vegetation control.

644

645

7. Maintaining community goodwill on the Georgetown Divide.

646

647C. To achieve these varied objectives:

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1. The entire forest will be fenced as soon as practicable to enable inclusion or exclusion of livestock grazing from either the area north and/or south of Wentworth Springs Road. The Forest will maintain all perimeter fences.

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2. For grazing use areas, research proposals from principal investigators or management proposals from the Forest Manager need to present specific prescriptions for levels, timing, animal control, resource protection, fence management, monitoring, and mitigation of potential adverse effects to the Directors for review prior to grazing use.

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658

3. For exclusion of animal use over a period, a specific proposal is also needed stating the research or other justification for the enclosure.

659

660
661 4. Financial responsibility for construction, repair and removal of approved research fences are
662 the responsibility of the project Principal Investigator.

663
664VIII. TREE SPECIES DIVERSITY

665
666A. General Goals

- 667
668 1. Maintain a reproductively viable population of each tree species native to Blodgett Forest.
669
670 2. Preserve the tree species provenances present when the University acquired Blodgett.
671
672 3. Maintain examples of the range of species composition commonly occurring in naturally
673 regenerated stands of the Sierra Nevada mixed-conifer forest type.
674
675 4. Ensure that seed used for reforestation of managed stands is selected for meeting Forest
676 objectives.

677
678
679 B. Ecological Reserves

- 680
681 1. Ecological reserves are not manipulated hence control of species composition is not possible.
682
683 2. Ecological reserves will serve as a native gene reservoir.
684
685 3. Ecological reserve boundaries and road edges will be periodically inspected. All non-
686 native tree and shrub regeneration will be removed.

687
688
689
690C. Managed Stands

691
692 1. General Requirements

- 693
694 a. Tree species diversity will be managed to achieve a forest-wide average composition
695 (basal -area basis) at greater than 5% and less than 30% for each of six
696 components: PP, SP, IC, WF, DF, and all hardwoods combined. The Forest
697 Manager will monitor species diversity and propose actions to prevent or correct
698 problems.
699
700 b. The forest will develop and maintain a seed bank collected from Blodgett for each of the
701 five major native conifers meeting the following criteria:
702
703 (1) Quantity sufficient to meet projected 10-year demand including reforestation
704 after catastrophic fire event.
705 -(2) Collected from phenotypes with superior wood product characteristics.
706 (3) Representing not less than 20 and preferably 100 individual trees per species
707 each from widely separated stands.
708
709 c. The Forest Manager will maintain records of species, seed source and stock type for
710 each area regenerated on Blodgett.
711
712 d. The Forest Manager will encourage adjacent landowners to utilize only local seed
713 sources for regeneration adjoining Blodgett Forest.

714

715 e. No trees native to Blodgett from populations external to Blodgett will be introduced to
716 Blodgett Forest and allowed to reach sexual maturity unless specifically approved
717 as part of a research project. Plants and animals not native to Blodgett Forest
718 may not be introduced unless specifically approved as part of a research project.
719 Each such project may be required to specify, and provide resources for, removal
720 of exotic plants and animals, and non-Blodgett seed source trees before they
721 become reproductively active.

722
723 f. Giant Sequoia is a natural associate of the Sierran mixed-conifer type not native to
724 Blodgett Forest. Regeneration of Giant Sequoia is limited by the constraints for
725 tree species diversity in paragraphs "VIII C1a" above and "VIII C3a" below. Within
726 managed stands Giant Sequoia will be permitted to reach maturity and reproduce
727 naturally.

728 729 2. Young Growth Reserves

730
731 a. Young growth reserves will be regenerated only with seed and/or seedlings from stands
732 which themselves were regenerated from seed and/or seedlings solely from native
733 Blodgett sources.

734
735 b. Regeneration prescriptions will be designed to produce an average of at least 100
736 seedlings per acre (at age 25) of each of the five major native conifers. All
737 hardwoods will be retained or allowed to sprout. Blodgett native hardwoods will be
738 planted where the total of residual hardwoods and sprout clumps average less
739 than 10 per acre.

740
741 c. Young growth reserve boundaries and road edges will be periodically inspected. All non-
742 native tree and shrub regeneration will be removed.

743 744 745 3. Even-aged, Uneven-aged and Research Reserve Compartments

746
747 a. Except for specific research or demonstration projects, each planting and natural
748 regeneration will be designed to allow each of the five major native conifers to
749 comprise at least 10% and total hardwoods at least 5% (trees/acre basis) of the
750 ten year age class or the immediately post PCT stand.

751
752 b. Research proposals must detail species and seed source of all material to be used at
753 Blodgett.