

## Appendix G

### Sample Stand Diagnoses

Example

SILVICULTURAL PRESCRIPTION  
(Group Selection within Wild and Scenic River Corridor)

STANDS 521-02-037, -075, -077, -079

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### STAND DIAGNOSIS AND PRESCRIPTION

#### Site Attributes

Stand	Acres	Elevation	Aspect	Slope	H.T.	Landtype	BA/A	MBF/ acre
521-02-037	31	1800-2600	S	70	261	61S26	28	4
521-02-075	58	1500-2000	S	75	506	61S26	123	16
521-02-077	33	1500-2200	S	78	261	61S26	74	11
521-02-079	66	1800-2800	S	70	261	61S26 60S10	100	19

#### Existing Stand Data

Stand	Spp. Comp.	Structure	Density (ba/a)	I & D	Growth (PAI)	Large Woody Debris
521-02-037	PP and DF with GF in understory	2 storied	30	Low levels, primarily in the DF	31	
521-02-075	DF, PP, GF, with some young WRC	4 aged: 200+, 120-140, 50-80, and seedlings	123	Root rot in DF and GF	102	5 snags/ac 9"-11" 5 snags/ac over 19"
521-02-077	PP and DF	2 cohorts, 50-80 and 150-170, with nonstocked areas	74	Some root rot in both PP and DF	50	13 snags/ac 9"-21" 2 snags/ac over 21"
521-02-079	DF and PP with a few GF coming into the understory	2 cohorts, 50-80 and 130-170	100	Little, in spots.	93	PP snags at the desired level, based on walk-thru exam.

**Structure:** stands range from immature in the understory reinitiation stage to mature young forest, multistoried.

**Composition:** Tallest canopy is a mix of PP/DF with minor amounts of GF. WRC occurs on wet microsites. Small patches of pole and small sawtimber of DF/GF occur in addition to patches of seedlings/saplings of the same species. Seedling/sapling size classes are at low levels. Brush is heavy where root rot has been operating for a long time.

**Condition:** Insects and disease (Douglas-fir and Scolytus beetles and Armillaria and Schweinitzii root rots) are at light- to-moderate levels in stand causing mortality in overstory trees. Regeneration is lacking due to intense brush competition.

**Down Wood:** variable over site being high at centers of mortality, and low - moderate elsewhere.

**Management Area Objectives:**

C4, big-game winter range with timber production. Visual quality is maximum modification. PACFISH buffers of 150' on Class II streams and 50' on intermittent streams.

A7, Middle Fork-Lochsa Recreation River Corridor, manage to protect and enhance scenic values by maintaining certain tree species, sizes or vegetation patterns to enhance visual quality and elk winter range. Visual quality is retention, openings are not to exceed 1/4 acre in size and less than 30% canopy removal outside of openings. PACFISH buffers of 150' on Class II streams and 50' on intermittent streams.

**Desired Stand Attributes and Resource Benefits**

Structure	Sp. Comp.	Density	I & D	Growth	Large Woody Debris	Other
even-aged groups from 1/4 to 2 acres	50 to 75% PP, 15-25% DF with minor amounts of GF/WRC occurring in draws and on more moist aspects	<b>Seedling &amp; Sapling:</b> 200 to 600 t/a <b>Poles:</b> 200 to 450 t/a <b>Sm. Sawt:</b> 120 to 250 sq. ft. of ba/a <b>Lg. Sawt:</b> 190 to 260 sq. ft. of ba/a	low levels in PP, low in DF	varies by group. Young groups should have a minimum of 1' ht. growth annually, older groups should be vigorous enough to retain large, old trees	Standing snags, 1-3 over 21", 5 to 10 9"-21" per acre, PP is preferred.	1/4-2 acre groups will provide browse, hiding cover, and thermal cover intermixed

**Comparison of Existing Attributes with Desired Attributes**

Stocking level and growth are below what is expected and root rot and bark beetles are higher than desired. Desired level of PP is absent. Stands are lacking adequate seedling component.

Stand	Spp. Comp.	Structure	Density	I & D	Growth
521-02-037	Serals there, but heavy to DF, and GF starting to come in.	lacking one cohort	lower than desired	Root rot and bark beetles expanding, at moderate to high endemic level	lower than desired due to openings in stand
521-02-075	GF more dominant than desired, with WRC coming in	meets desired structure	about at desired level	Root rot and bark beetles expanding, at moderate to high endemic level	lower than desired due to openings in stand
521-02-077	At desired spp. comp.	lacking one cohort	lower than desired	Root rot and bark beetles expanding, at moderate to high endemic level	lower than desired due to openings in stand
521-02-079	Serals there, but heavy to DF, and GF starting to come in.	lacking one cohort	lower than desired	Root rot and bark beetles expanding, at moderate to high endemic level	lower than desired due to openings in stand

### Treatment Alternatives

Stand ID	Meets Target?	Can Defer?	Modify	Clearcut	Seed Tree	Shelterwood	Uneven-aged
521-02-037 521-02-075 521-02-077 521-02-079	No, stands lack true uneven aged condition	No, mortality will continue with a continued reduction in forest health and unevenage condition will not be met	Yes, could thin dense portions of stands	No, not consistent with historical forest structure of LTA	No, not consistent with historical forest structure of LTA	No, not consistent with historical forest structure of LTA	Yes, would capture ongoing mortality occurring in clumps, reestablish a seral seedling component that is lacking, and improve stand health

### Preferred Alternative

The preferred alternative is uneven-aged management, including thinning. This will mimic the natural disturbance processes of LTA 23A, promote forest health, improve within-stand age class distribution, decrease the presence of climax tree species, and increase the seral tree component. It will provide for an interspersed mix of forage and cover to enhance big game winter range. Visual quality will be maintained, and enhanced in the long-term, for the Wild and Scenic River corridor.

### Detailed Silvicultural Prescription

Activity	Acres	Year	Specifications
4330	188	1998	Prepare prescriptions
4152/4220	188	1998	Mark to cut trees in groups sized from 1/4 to 2 acres for group selection. Commercially thin dense clumps down to 120 ft <sup>2</sup> /acre. See marking guides below. Limb trees in place to provide fuel for broadcast burn.
4978/4471	188	1999	Conduct moderate intensity broadcast burn to regenerate shrubs, reduce fuel loads, and prepare the group removals for planting. The duff layer should still be in place on 70-80% of the area after treatment.
4313	188	1999	Conduct preplant surveys to assess planting needs, and make the final estimate of planting acreage.
4431	50*	1999	Plant a 75/25 mix of 2-0 bareroot PP and DF in openings on 10'x10' spacing.

Activity	Acres	Year	Specifications
4460	50	1999	Treat with BGR spray in the fall.
4317	50	1999	Conduct 1st year stocking surveys. Target is 300 TPA. Include all PP and DF seedlings 6" tall and greater.
4460	50	2000	Treat with BGR spray in the fall.
4460	50	2001	Treat with BGR spray in the fall.
43143177	50	2001	Conduct 3rd year stocking surveys. Target is 300 TPA. Include all PP and DF seedlings 6" tall and greater. Certify stands as stocked or schedule replant.

\* This is an estimate of the acreage that will require planting due to timber harvest. Stands 75 and 77 will have a maximum of 30% removal, all in groups, stands 37 and 79 will have approximately 33% of the area in openings. There may be additional acreage in existing openings that will be plantable after broadcast burning.

**Marking Guides for Group Selection and Commercial Thinning**

Our objective is to favor PP. We especially want to retain the old veterans and as many PP snags as possible, and regenerate PP in the small openings created by removal of root rot pockets. In addition, we want to remove DF and GF that have come in under older PP, and thin dense clumps of young DF, favoring any PP that are included.

Harvest will be by helicopter. Locate harvest groups in areas where mortality is occurring from pests-related agents (e.g., root rot and bark beetles). Use crown health as indication of tree health. Mark to cut trees with thinning crowns and/or yellowing foliage. Leave 2-3 overstory TPA in groups. These trees should be the best ones on site. Leave 3-6 snags/acre over 21" diameter (in groups if possible). Implement PACFISH stream buffers.

For commercial thinning, cut tree mark young, dense groups of DF, GF, or WRC to retain 120 ft<sup>2</sup>/acre, thinning from below. Favor PP to leave, removing understory trees and pests-affected trees first, then thinning the healthy dominant and codominant trees, again favoring PP, to get to 120 ft<sup>2</sup>/acre of basal area. Post-felling canopy opening should be at least 60% to facilitate helicopter yarding.

**Within the Wild and Scenic River Corridor** (stands 75 and 77) groups will be no more than 1/4 acre in size, and are to be centered on root rot/bark beetle mortality. No more than 20% of the area is to be harvested. Harvest only DF, GF, and WRC unless there are isolated PP within a group. Do not leave overstory trees in these openings. Groups of PP in any condition (including dead) are to be retained to enhance wildlife use.