Appendix 6

Management constraints and preferences for large landowner actor groups.

Federal forests

The primary commercial harvest is thinning from below which is restricted to ponderosa pine, dry mixed-conifer, moist mixed-conifer, or lodgepole pine stands. Thinning from below removes 20% of the stand volume and can occur only in stands with mean diameters at breast height (dbh) of more than 25 cm and multistory, closed canopies (>60% cover). Stands may not have been thinned within the previous 14 years. Stands that are within U.S. Congressionally-designated Wilderness areas, classified by the USFS as unsuitable for commercial timber production, on slopes of 30% or more, in nesting habitat for the federally-protected northern spotted owl, or that recently experienced a stand-replacing fire may not undergo thinning from below. The size of thinning from below treatment units is assumed to be normally distributed around a mean size of 50 ha.

Salvage harvesting is possible on stands that meet the characteristics required for thinning from below described in the preceding paragraph and removes 50% of remaining standing sawtimber volume. Salvage logging is only possible in years 1 through 3 after stand-replacing fire. The size of salvage harvests units is assumed to be normally distributed around a mean size of 27 ha.

Prescribed fire may be used in stands of dry mixed conifer and ponderosa pine with mean dbh of more than 25 cm. Stands must have single-story, closed (>60% cover) canopies. Prescribed fire may not be used in stands located within U.S. Congressionally-designated Wilderness areas, on lands classified by the USFS as unsuitable for commercial timber production, or in nesting habitat for the federally-protected northern spotted owl. At least nine years must pass between prescribed fire treatments within the same stand. The size of prescribed fire treatment units is assumed to be 40 ha.

Surface treatments are mowing and grinding activities and can only happen in forest stands with fuel models that are high load dry climate shrubs, very high load climate shrubs or very high load dry climate timber-shrub (Scott and Burgan 2005). Stands that are within U.S. Congressionally-designated Wilderness areas, classified by the USFS as unsuitable for commercial timber production, on slopes of 30% or more, or in nesting habitat for the federally-protected northern spotted owl may not undergo surface treatments. At least nine years must have passed since the last stand disturbance, including mowing and grinding treatments. The size of mowing and grinding treatment units is assumed to be 40 ha.

Preference weights used to rank eligible IDUs for thinning from below, salvage harvest, prescribed fire and surface treatments are shown in Table A3.

Tribal lands

Commercial harvest on tribal lands is done using a combination of thinning from below with a culminating clearcut. Thinning from below removes 20% of the stand volume and is restricted to stands outside of nesting habitat for the federally-protected northern spotted owl where dominant tree species are lodgepole pine (age>70 years), mountain hemlock (age>70 years), moist mixed conifers (age> 40 years), dry mixed conifer (age>40 years), western hemlock (age>60 years), western white pine (age>60 years), pacific silver fir/Douglas-fir (age>60 years), western larch/lodgepole pine (age> 60 years) and alpine/high elevation vegetation (age>70 years). The size of thinning from below treatment units is assumed to be 30 ha.

Clearcutting removes 100% of standing volume and is restricted to stands outside of nesting habitat for the federally-protected northern spotted owl, more than 30 meters from streams, and where the last harvest was more than 19 years prior. The dominant tree species in the stand must be lodgpole or mountain hemlock that is more than 130 years old, moist or dry-mixed conifer stands more than 70 years old, western white pine, pacific silver fir/Douglas-fir, western hemlock more than 90 years old, or high-elevation species stands greater than 130 years old. The size of clearcutting treatment units is assumed to be 20 ha.

Salvage harvesting that removes 50% of remaining standing sawtimber volume is possible in stands of moist or dry-mixed conifer or ponderosa pine on slopes of less than 30 percent and outside the conditional use zone and outside of nesting habitat for the federally-protected northern spotted owl. Salvage logging is possible in periods immediately after the fire and years 1 and 2 post fire. There is no limit to the size of salvage harvests, but total harvested volume in any single year must be less than or equal to the timber volume target for the year.

Prescribed fire may be used in any stand of ponderosa pine, Douglas-fir or dry mixed conifers outside of habitat for the federally-protected northern spotted owl. The size of prescribed fire treatment units is assumed to be 81 ha.

Preference weights used to rank eligible IDUs for thinning from below, clearcutting, salvage harvesting, and prescribed fire are shown in Table A3.

Private corporate forest

Commercial harvest on private corporate lands within the study area is done using partial harvest that removes 75% of the stand volume. Partial harvest on corporate land can be used in stands of any forest type with average stand dbh of at least 25 cm that had not been harvested in the previous 19 years.

Salvage harvesting that removes 50% of remaining standing sawtimber volume is possible in stands of commercial timber species on slopes of less than 30 percent. Salvage logging is possible in immediately after the fire and years 1, 2, and 3 post fire.

Preference weights used to rank eligible IDUs for thinning from below and salvage harvest are shown in Table A3.

Table A6.1. Preferences and weights used in Envision for for management treatments of IDUs by large land owners.

Owner	Treatment	Preference characteristic	Preference weight
Federal	Thinning from below	Ponderosa pine stands	1,100
		Dry mixed-conifer stands	1,000
		Lodgepole stands	900
		Basal area > 20.67 square meters/ha	500
		Stands with medium or high canopy closure	500
		Stands within the wildland urban interface	500
		Dry mixed-conifer or ponderosa pine stands with high potential for high-severity fire	400
		Dry mixed-conifer or ponderosa pine stands with high potential for moderate-severity fire	300
		Moist mixed-conifer stands	-20
		Within area designated as potential habitat for northern spotted owl	-100
	Salvage harvest	Within 366 meters of a road	3
		Within area designated as potential habitat for northern spotted owl	-3
	Prescribed fire	Thinning from below happened within the last four years	3
		Ponderosa pine stands with single-layered, low closure canopies	2
		Dry mixed-conifer stands with single-layered, low closure canopies	1
		Dry mixed-conifer or ponderosa pine stands with high potential for moderate-severity fire	1
		Fuel model is high-load dry climate shrub, very high load dry climate shrub, very high load dry climate timber-shrub, moderate load dry climate shrub	-3
		Within area designated as potential habitat for northern spotted owl	-3
		Stands within the wildland urban interface	-5
	Surface fuel treatment	Stands within the wildland urban interface	5
		Within 400 meters of a major road	2
		Prior prescribed fire or wildfire was 20 or more years ago	1

		Fuel model is high-load dry climate shrub, very high load dry climate shrub, very high load dry climate timber-shrub, moderate load dry climate shrub	1
		Fuel model is moderate load dry climate shrub	0.5
		Within area designated as potential habitat for northern spotted owl	-3
Tribal	Thinning from below and clearcut	Within Beaver or Upper Warm Springs planning area	3
		Within Badger, Mill Creek, or Shitike planning area	1
		Slope is less than 30%	2
		Distance to major road is less than 600 meters	1
		Within 30 meters of a stream	-2
		Northern spotted owl foraging habitat	-3
	Salvage harvest	Grand fir species type	3
		Distance to major road is less than 600 meters	2
		Within 30 meters of a stream	-3
		Northern spotted owl foraging habitat	-3
	Prescribed fire	Ponderosa pine or Douglas-fir stands	3
		Fuel model is high-load dry climate shrub, very high load dry climate shrub, very high load dry climate timber-shrub, moderate load dry climate shrub	3
		Less than five years since prior disturbance	2
		Mixed-conifer stands	2
		7 to 10 years after fuel treatment	1
		Northern spotted owl foraging habitat	-3
		Within 30 meters of a stream	-3
Forest industry	Partial harvest	Basal area greater than 23 square meters/ha	10
		Slope less than 30%	5
	Salvage harvest	Distance to road is less than 366 m	3