

**Appendix C—
Soil Detrimental Disturbance**

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1. Detrimental Disturbance (Forest Plan GL-10)

Detrimental soil disturbance (DD) is the alteration of natural soil characteristics that results in immediate or prolonged loss of soil productivity and soil-hydrologic conditions. At least 85 percent of an activity area should be in a non-detrimentally disturbed condition. Stated another way, no more than 15 percent of an activity area should have detrimentally disturbed soil after the management activities are completed. DD can occur where soil has been displaced, compacted, puddled, or severely burned. Determination of DD excludes existing or planned classified transportation facilities, dedicated trails, landings, mining dumps or excavations, parking areas, developed campgrounds, and other dedicated facilities. The impacts of these actions are considered total soil resource commitment (TSRC; see section 3.7.2 of the Supplemental Draft Environmental Impact Statement). DD is represented by any or all of the four characteristics described below.

1. *Detrimental Soil Displacement.* Areas of 1.0 meter by 1.0 meter or larger that exhibit detrimentally displaced soil as described as follows:
 - (a) Loss of either 5 centimeters (cm) or half of humus-enriched top soil (A horizon), whichever is less, or
 - (b) Exceeding the soil loss tolerance value for the specific soil type.
2. *Detrimental Soil Compaction.* Soil compaction is generally evaluated from 5 to 30 cm below the mineral soil surface. Specific depths for measurement depend upon soil type and management activities. Detrimental soil compaction is an increased soil density (weight per unit volume) and strength that hampers root growth, reduces soil aeration, and inhibits water movement. Measurements of potential detrimental soil compaction may be qualitative or quantitative. The Region 4 Soil Management Manual contains methods for measuring/determining soil compaction.
3. *Detrimental Soil Puddling.* Puddling is generally evaluated at the mineral soil surface. Visual indicators of detrimental puddling include clearly identifiable ruts with berms in mineral soil, or in an Oa horizon of an organic soil. Detrimental puddling may occur in conjunction with detrimental compaction. The guidelines for soil compaction are to be used when this occurs. Detrimentally puddled soils are not always detrimentally compacted. Infiltration and permeability are affected by detrimental soil puddling. Puddling can also alter local groundwater hydrology and wetland function and provide conduits for runoff.
4. *Severely Burned Soil.* Severely burned soil applies to prescribed fire and natural fires that are managed for resource benefits. Severely burned soils are identified by ratings of fire severity and the effects to the soil. Soil humus losses, structural changes, hydrophobic characteristics, and sterilization are potential effects of severely burned soil. A severely burned soil is generally soil that is within a High Fire Severity burn as defined by the Forest Service Burned Area Emergency Rehabilitation Program (FSH 2509.13) and Debano et al. (1998).

Example of High Fire Severity Rating—High soil heating or deep ground char occurs where the duff is completely consumed and the top of the mineral soil is visibly reddish or orange on severely burned sites. Color of the soil below 1 cm is darker or charred from

organic material that has heated or burned. The char layer can extend to a depth of 10 cm or more. Logs can be consumed or deeply charred, and deep ground char can occur under slash concentrations or under burned logs. Soil textures in the surface layers are changed and fusion evidenced by clinkers that can be observed locally. All shrub stems are consumed and only the charred remains or large stubs may be visible. Soil temperatures at 1 cm are greater than 250 degrees Celsius ($^{\circ}$ C). Lethal temperatures for soil organisms occur down to depths of 9 to 16 cm.

Standards for detrimentally disturbed soils are to be applied to existing or planned activities that are available for multiple uses. These standards do not apply to areas with dedicated uses such as mines, ski areas, campgrounds, and administrative sites.

1.1 ACTIVITY AREA (FOREST PLAN GL-1)

Activity area and DD are defined as follows in the Forest Plan (Forest Service 2010):

Activity Area—The smallest logical land area where the effect that is being analyzed or monitored is expected to occur. The area may vary in size depending on the effect that is being analyzed or monitored, because some effects are quite localized and some occur across landscapes. *Activity areas* are to be specifically described when used in planning and project implementation documents.

Detrimental Disturbance—The *activity area* is the specific area where proposed actions may have detrimental soil impacts, such as harvest units within a timber sale area, an individual pasture unit within a grazing allotment, or a burn block within a prescribed burn project area. Existing designated uses such as classified roads and trails, developed campgrounds, and buildings, are not considered detrimental disturbance within an *activity area*. See the definition for detrimental disturbance for more information.

For this analysis, the activity area for assessing DD impacts to soils is defined as the forested stand delineated for the proposed treatments. This delineation is consistent with the Forest Plan (GL-1) (USDA Forest Service 2010).

1.2 SCRIVER CREEK INTEGRATED RESTORATION PROJECT DETRIMENTAL SOIL DISTURBANCE ANALYSIS

At any time, soil conditions across landscapes lie somewhere within the following spectrum:

undisturbed \leftrightarrow disturbed \leftrightarrow detrimentally disturbed (DD) \leftrightarrow TSRC.

The “undisturbed” and “disturbed” categories best represents the majority of soil conditions for forested and non-forested settings. Either through natural processes or land management activities, the “disturbed” soils have not had their physical and biological properties impacted to a level where soil quality impairs productivity.

Existing conditions and direct effects of proposed activities on DD were estimated for the 120 to 122 individual treatment units (i.e., activity areas) (Table C-1 through C-3 and Figure C-1). The dominant land type map unit underlying each activity area was defined in GIS and local bio-physical attributes (vegetation, near-surface and surface soils, slope, and aspect) were used to identify the dominant soil family and the inherent soil capabilities and limitations. The existing conditions and direct effects from the proposed activities are estimates based on data analysis

and the professional judgment of the soils specialist. The applied professional judgment is derived from prior analysis completed for similar management activities and review of implemented projects.

1.1.1 Existing Conditions

Existing conditions for DD are estimated to range from 0 to 4 percent. These estimates were derived by locating where residual DD is likely to exist from prior or ongoing activities (specifically timber harvest, livestock grazing, and dispersed recreation/fuelwood gathering) using GIS and the field data collected using the Soil Health Assessment (SHA) protocols. DD from timber harvest activities implemented more than 21 years ago are considered recovered (Arnup 1998). Effects of timber harvest activities since 1991 that overlap proposed treatment units were estimated as a function of time since disturbance and log yarding methods used. Limited disturbances from timber harvest overlap the proposed treatment units in time and area. Where it occurs, harvest using tractor yarding accounts for about 2 percent DD while harvest using skyline yarding accounts for roughly 1 percent DD. Effects of ongoing livestock grazing that overlaps proposed treatment units are estimated at about 1 percent DD. Impacts from dispersed recreation and fuelwood gathering are expected to occur only adjacent to travel routes open for public access and estimated to be 1 percent or less.

1.1.2 Direct Effects

Direct effects for DD are presented as the percent increase of the proposed activity compared to the basic erosion rate for each activity area. Direct effects of detrimental disturbance from timber harvest and prescribed fire were estimated using the soil erosion component of the BOISED sediment prediction model (Reinig et al. 1991). Soil erosion calculated by BOISED incorrectly assumes 100 percent of an activity area is disturbed. Based on professional judgment and consultation with other watershed specialists experienced in the use of BOISED and effects of land management activities on soil and water resources, actual “disturbance” is generally less than 50 percent and detrimental impacts range from 0 to 30 percent. To address these assumptions, coefficients were incorporated so calculations for soil erosion were limited to 50 percent or less of each activity area. Some DD recovers in the temporary time frame and, with active restoration and passive recovery, the majority of the direct effects ameliorate over the short term (up to 15 years).

For commercial timber harvest, potential increases in erosion and incremental recovery of those effects are a function of yarding methods and inherent land type and soil properties of the activity area. Using tracked or wheeled ground-based equipment (tractor or Timco) causes higher levels of detrimental soil displacement than skyline and helicopter yarding (detrimental soil compaction is addressed as TSRC). The recovery rate of detrimental impacts also correlates to the intensity of the disturbance. Bare ground and subsequent erosion from helicopter and skyline yarding are temporary impacts and recover within 1 to 3 years. Disturbances from ground-based yarding generally require active restoration to control erosion (slashing and seeding). Disturbances do recover at slower rates and residual impacts can exist for 15 to 20 years.

When implementing prescribed fire, timing and locations of fire ignitions are adjusted to achieve desirable burning conditions and mitigate the potential for severely burned soils. Burning large accumulations of treatment fuels can occur when duff, soil, and live fuel have adequate moisture levels to minimize soil heating, thereby reducing fire residence time and impacts to soils. Fuels

burning at moderate and high intensities can result in undesirable soil impacts. This analysis does include estimates for DD due to severely burned soil conditions in the activity areas with increased fuel concentrations from commercial timber harvest slash and non-commercial thinning. Where mechanical treatments do not precede prescribed fire and do not change the existing fuel conditions, moderate intensity fire and low soil burn severity with minimal detrimental disturbance is expected. When burning within prescription, recovery of bare ground and localized erosion is expected to take 1 to 3 years.

1.1.3 Cumulative Effects

The estimates for cumulative DD in Table C-1 through C-3 (Year 10) consider the following three components: the (1) continued impacts from ongoing activities (livestock grazing and dispersed recreation); (2) recovery of the residual DD from past timber harvest that currently contributes to the existing condition; and (3) active restoration and passive, natural amelioration of management-related impacts from the proposed activities. The DD from proposed commercial timber harvest would mostly recover to a disturbed condition within 10 years. Residual detrimental impacts will occur intermittently along primary skid trails that have been restored from TSRC, and will likely exist at decreasing rates for up to 20 years, or until soil properties passively recover to achieve some level of productivity. Beyond the 10-year period, any cumulative DD from prescribed fire would be expected to decrease to zero. Lacking other changes in permitted land management activities, DD will exist within some activity areas from ongoing livestock grazing and dispersed recreation.

1.1.4 Description of Fields in Tables C-1, C-2, and C-3

Unit ID: Delineated area for proposed commercial timber harvest and prescribed fire (corresponds to *activity area*).

Acres: Size of unit.

Existing Condition: Percent DD, as a function of past or ongoing disturbances, that overlap that specific unit.

Landtype: Dominant land type map unit underlying the proposed treatment unit.

Harvest System: Method for yarding logs as part of commercial timber harvest activities.

Direct Effect—commercial timber harvest: DD impacts attributable specifically to timber harvest.

Direct Effect—Year 1: Existing condition plus increase in DD from commercial timber harvest.

Year 2: Existing Condition plus Direct Effects, minus recovery in DD from active restoration of implemented commercial timber harvest treatments.

Direct Effect—Prescribed Fire: DD impacts attributed specifically to prescribed fire.

Direct Effect—Year 3–5: Existing condition, plus a reduced level of DD associated with active restoration of implemented commercial timber harvest treatments, plus increased DD attributed specifically to prescribed fire.

Cumulative Effect—Year 5: Existing condition, plus a reduced level of DD associated with active restoration of implemented commercial timber harvest treatments. Impacts from prescribed fire are expected to have recovered to pre-activity conditions.

Cumulative Effect—Year 10: Existing condition, plus a reduced level of DD associated with recovery of residual existing disturbance (livestock grazing and dispersed recreation impacts not decreased) and active restoration and passive recovery of implemented commercial timber harvest treatments. Impacts from prescribed fire are expected to have recovered to pre-activity conditions.

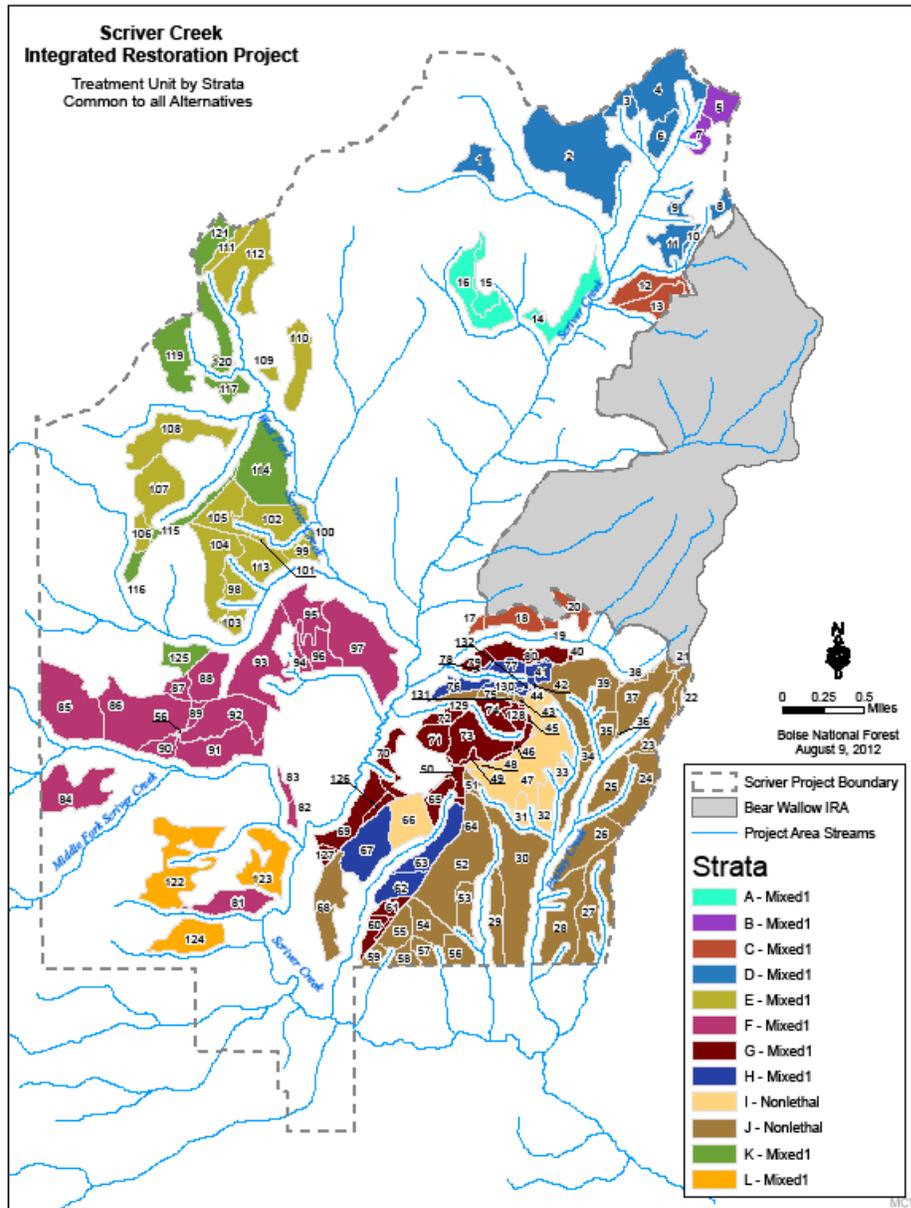


Figure C-1. Scriver Integrated Restoration Project Treatment Units by Strata Common to all Alternatives

Table C-1. Alternative B (Proposed Action) Detrimental Disturbance by Unit (Activity Area)

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
1	D	21.8	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
2	D	152.7	4.0	Timco	4.8	8.8	7.6	—	6.4	6.4	3.2
3	D	14.1	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
4	D	66.3	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
5	B	24.2	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
6	D	20.7	1.0	Skyline	5.1	6.1	4.8	—	3.5	3.5	1.8
7	B	13.0	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
8	D	9.6	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
9	D	8.1	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
10	D	2.9	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
11	D	25.0	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
12	C	29.5	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
13	C	24.8	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
14	A	38.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
15	A	17.4	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
16	A	45.8	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
17	C	4.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
18	C	25.7	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
19	C	3.9	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
20	C	17.0	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
21	J	3.4	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
22	J	9.8	1.0	Tractor	10.3	11.3	8.7	2.1	8.2	6.1	3.1
23	J	28.5	1.0	Skyline	5.1	6.1	4.9	2.1	5.6	3.6	1.8
24	J	41.4	0.0	Timco	7.7	7.7	5.8	2.1	5.9	3.9	1.9
25	J	26.8	0.0	Timco	7.7	7.7	5.8	4.2	8.0	3.9	1.9
26	J	45.4	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
27	J	57.9	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
28	J	58.8	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
29	J	27.9	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
30	J	106.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
31	I	9.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
32	I	17.5	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
33	I	4.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
34	J	19.8	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
35	J	14.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
36	J	0.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
37	J	43.8	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
38	J	2.8	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
39	J	78.5	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
40	G	1.6	1.0	Tractor	5.3	6.3	5.0	—	—	3.6	1.8
41	H	10.6	1.0	Timco	5.1	6.1	4.8	—	—	3.5	1.8
42	H	4.0	1.0	Timco	5.1	6.1	4.8	—	—	3.5	1.8
43	J	2.2	1.0	Timco	5.1	6.1	4.8	—	—	3.5	1.8
44	I	15.2	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
45	G	2.3	1.0	Tractor	6.7	7.7	6.1	—	—	4.4	2.2
46	G	7.5	1.0	Tractor	6.7	7.7	6.1	—	—	4.4	2.2
47	I	103.7	1.0	Skyline	5.1	6.1	4.9	2.1	5.6	3.6	1.8
48	I	4.9	1.0	Tractor	6.7	7.7	6.1	1.4	5.7	4.4	2.2
49	G	4.9	1.0	Timco	7.7	8.7	6.8	—	—	4.9	2.4
50	G	10.3	1.0	Timco	7.7	8.7	6.8	—	—	4.9	2.4
51	J	7.4	1.0	Skyline	3.4	4.4	3.5	1.4	4.0	2.7	1.3
52	J	111.4	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
53	J	19.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
54	J	27.9	0.0	Skyline	3.4	3.4	2.5	1.4	3.0	1.7	0.8
55	J	21.9	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
56	F	19.5	1.0	Timco	5.1	6.1	4.8	2.7	6.3	3.5	1.8
57	J	12.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
58	J	12.1	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
59	J	9.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
60	G	13.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
61	G	13.5	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
62	H	24.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
63	H	33.8	0.0	Timco	5.3	5.3	4.0	—	2.6	2.6	1.3
64	G	1.6	0.0	Timco	7.7	7.7	5.8	—	3.9	3.9	1.9
65	G	15.5	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
66	I	40.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
67	H	54.2	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
68	J	49.9	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
69	G	39.6	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
70	G	19.6	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
71	G	19.3	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
72	G	11.4	1.0	Helicopter	2.6	3.6	2.9	—	2.3	2.3	1.1
73	G	45.6	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
74	G	20.3	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
75	J	6.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
76	H	15.7	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
77	H	11.9	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
78	H	2.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
79	G	11.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
80	G	28.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
81	F	33.7	0.0	Skyline	3.5	3.5	2.6	—	1.8	1.8	0.9
82	F	5.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
83	F	4.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
84	F	57.9	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
85	F	87.1	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
86	F	98.5	1.0	Helicopter	1.6	2.6	2.2	—	1.8	1.8	0.9
87	F	12.0	1.0	Helicopter	1.6	2.6	2.2	—	1.8	1.8	0.9

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System	Direct Effect			Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)	Year 2 (%)	Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
88	F	35.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
89	F	6.5	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
90	F	14.0	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
91	F	55.7	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
92	F	60.9	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
93	F	65.6	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
94	F	8.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
95	F	35.5	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
96	F	26.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
97	F	94.8	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
98	E	18.9	1.0	Skyline	6.1	7.1	5.6	—	4.0	4.0	2.0
99	E	12.4	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
100	E	3.1	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
101	E	2.8	1.0	Skyline	6.1	7.1	5.6	—	4.0	4.0	2.0
102	E	42.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
103	E	11.5	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
104	E	54.1	1.0	Tractor	12.1	13.1	10.1	—	7.1	7.1	3.5
105	E	38.6	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
106	E	13.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
107	E	52.3	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
108	E	63.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
109	E	4.8	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
110	E	36.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
111	E	15.8	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
112	E	67.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
113	E	34.1	1.0	Skyline	6.1	7.1	5.6	—	4.0	4.0	2.0
126	G	7.2	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
127	G	6.2	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
128	G	10.5	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
129	J	6.9	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
130	H	8.2	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9
131	J	0.9	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
132	H	1.5	1.0	Helicopter	1.8	2.8	2.3	—	1.9	1.9	0.9

Table C-1. Alternative C Detrimental Disturbance by Unit (Activity Area)

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect			Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)	Year 2 (%)	Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
1	D	21.8	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
2	D	152.7	4.0	Timco	4.8	8.8	7.6	—	6.4	6.4	3.2
3	D	14.1	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
4	D	66.3	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
5	B	24.2	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
6	D	20.7	1.0	Skyline	5.1	6.1	4.8	—	3.5	3.5	1.8
7	B	13.0	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
8	D	9.6	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
9	D	8.1	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
10	D	2.9	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
11	D	25.0	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
14	A	38.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
15	A	17.4	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
16	A	45.8	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
23	J	28.5	2.0	Skyline	5.1	7.1	5.9	2.1	6.6	4.6	2.3
24	J	41.4	0.0	Timco	7.7	7.7	5.8	2.1	5.9	3.9	1.9
25	J	26.8	0.0	Timco	7.7	7.7	5.8	4.2	8.0	3.9	1.9
26	J	45.4	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
27	J	57.9	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
28	J	58.8	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
29	J	27.9	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
30	J	106.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
31	I	9.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
32	I	17.5	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
33	I	4.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
34	J	19.8	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
35	J	14.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
36	J	0.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
37	J	43.8	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
38	J	2.8	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
39	J	78.5	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
40	G	1.6	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
41	H	10.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
42	H	4.0	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
43	J	2.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
44	I	15.2	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
45	G	2.3	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
46	G	7.5	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
47	I	103.7	1.0	Skyline	5.1	6.1	4.9	2.1	5.6	3.6	1.8
48	I	4.9	1.0	Tractor	6.7	7.7	6.1	1.4	5.7	4.4	2.2
49	G	4.9	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
50	G	10.3	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
51	J	7.4	1.0	Skyline	5.1	6.1	4.8	1.4	4.9	3.5	1.8
52	J	111.4	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
53	J	19.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
54	J	27.9	0.0	Skyline	5.1	5.1	3.8	1.4	3.9	2.5	1.3
55	J	21.9	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
56	F	19.5	1.0	Timco	5.1	6.1	4.8	2.7	6.3	3.5	1.8
57	J	12.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
58	J	12.1	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
59	J	9.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
60	J	13.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
61	G	13.5	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
62	G	24.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
63	H	33.8	0.0	Timco	5.3	5.3	4.0	—	2.6	2.6	1.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
64	G	1.6	0.0	Timco	7.7	7.7	5.8	—	3.9	3.9	1.9
65	G	15.5	1.0	Skyline	5.3	6.3	5.0	—	3.6	3.6	1.8
66	I	40.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
67	H	54.2	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
68	J	49.9	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
69	G	39.6	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
70	G	19.6	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
71	G	19.3	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
72	G	11.4	1.0	Helicopter	2.6	3.6	2.9	—	2.3	2.3	1.1
73	G	45.6	1.0	Skyline	7.7	8.7	6.8	—	4.9	4.9	2.4
74	G	20.3	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
75	J	6.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
76	H	15.7	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
77	H	11.9	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
78	H	2.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
79	G	11.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
80	G	28.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
81	F	33.7	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
82	F	5.2	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
83	F	4.9	2.0	Tractor	6.7	8.7	7.1	—	5.4	5.4	2.7
84	F	57.9	2.0	Helicopter	1.8	3.8	3.3	—	2.9	2.9	1.4
85	F	87.1	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
86	F	98.5	1.0	Helicopter	4.8	5.8	4.6	—	3.4	3.4	1.7
87	F	12.0	1.0	Helicopter	1.6	2.6	2.2	—	1.8	1.8	0.9
88	F	35.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
89	F	6.5	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
90	F	14.0	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
91	F	55.7	2.0	Skyline	3.2	5.2	4.4	—	3.6	3.6	1.8

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
92	F	60.9	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
93	F	65.6	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
94	F	8.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
95	F	35.5	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
96	F	26.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
97	F	94.8	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
98	E	18.9	2.0	Skyline	6.1	8.1	6.6	—	5.0	5.0	2.5
99	E	12.4	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
100	E	3.1	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
101	E	2.8	2.0	Skyline	6.1	8.1	6.6	—	5.0	5.0	2.5
102	E	42.9	2.0	Tractor	6.7	8.7	7.1	—	5.4	5.4	2.7
103	E	11.5	2.0	Timco	9.1	11.1	8.8	—	6.6	6.6	3.3
104	E	54.1	2.0	Tractor	12.1	14.1	11.1	—	8.1	8.1	4.0
105	E	38.6	2.0	Timco	9.1	11.1	8.8	—	6.6	6.6	3.3
106	E	13.2	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
107	E	52.3	2.0	Timco	7.4	9.4	7.5	—	5.7	5.7	2.8
108	E	63.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
109	E	4.8	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
110	E	36.1	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
111	E	15.8	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
112	E	67.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
113	E	34.1	1.0	Skyline	6.1	7.1	5.6	—	4.0	4.0	2.0
114	K	79.3	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
115	K	15.6	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
116	K	9.0	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
117	K	16.4	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
119	K	50.1	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
120	K	34.4	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Commercial Timber Harvest (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
121	K	26.2	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
122	L	83.0	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
123	L	49.2	0.0	Skyline	3.5	3.5	2.6	—	1.8	1.8	0.9
124	L	42.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
125	K	23.1	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
126	G	7.2	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
127	G	6.2	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
128	G	10.5	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
129	J	6.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
130	H	8.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
131	J	0.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
132	H	1.5	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3

Table C-2. Alternative D Detrimental Disturbance by Unit (Activity Area)

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Direct Effect (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
1	D	21.8	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
2	D	152.7	4.0	Timco	4.8	8.8	7.6	—	6.4	6.4	3.2
3	D	14.1	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
4	D	66.3	2.0	Timco	4.8	6.8	5.6	—	4.4	4.4	2.2
5	B	24.2	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
6	D	20.7	1.0	Skyline	5.1	6.1	4.8	—	3.5	3.5	1.8
7	B	13.0	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
8	D	9.6	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
9	D	8.1	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
10	D	2.9	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
11	D	25.0	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
14	A	38.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
15	A	17.4	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
16	A	45.8	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
23	J	28.5	2.0	Skyline	5.1	7.1	5.9	2.1	6.6	4.6	2.3
24	J	41.4	0.0	Timco	7.7	7.7	5.8	2.1	5.9	3.9	1.9
25	J	26.8	0.0	Timco	7.7	7.7	5.8	4.2	8.0	3.9	1.9
26	J	45.4	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
27	J	57.9	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
28	J	58.8	0.0	Helicopter	3.0	3.0	2.3	4.9	6.4	1.5	0.8
29	J	27.9	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
30	J	106.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
31	I	9.2	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
32	I	17.5	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
33	I	4.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
34	J	19.8	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
35	J	14.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Direct Effect (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
36	J	0.9	0.0	Helicopter	2.6	2.6	1.9	4.2	5.4	1.3	0.6
37	J	43.8	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
38	J	2.8	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
39	J	78.5	2.0	Timco	5.1	7.1	5.8	1.4	5.9	4.5	2.3
40	G	1.6	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
41	H	10.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
42	H	4.0	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
43	J	2.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
44	I	15.2	1.0	Timco	5.1	6.1	4.8	1.4	4.9	3.5	1.8
45	G	2.3	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
46	G	7.5	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
47	I	103.7	1.0	Skyline	5.1	6.1	4.9	2.1	5.6	3.6	1.8
48	I	4.9	1.0	Tractor	6.7	7.7	6.1	1.4	5.7	4.4	2.2
49	G	4.9	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
50	G	10.3	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
51	J	7.4	1.0	Skyline	5.1	6.1	4.8	1.4	4.9	3.5	1.8
52	J	111.4	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
53	J	19.4	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
54	J	27.9	0.0	Skyline	5.1	5.1	3.8	1.4	3.9	2.5	1.3
55	J	21.9	0.0	Timco	5.1	5.1	3.8	1.4	3.9	2.5	1.3
56	F	19.5	1.0	Timco	5.1	6.1	4.8	2.7	6.3	3.5	1.8
57	J	12.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
58	J	12.1	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
59	J	9.5	0.0	Timco	5.1	5.1	3.8	2.7	5.3	2.5	1.3
60	J	13.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
61	G	13.5	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
62	G	24.3	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
63	H	33.8	0.0	Timco	5.3	5.3	4.0	—	2.6	2.6	1.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Direct Effect (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
64	G	1.6	0.0	Timco	7.7	7.7	5.8	—	3.9	3.9	1.9
65	G	15.5	1.0	Skyline	5.3	6.3	5.0	—	3.6	3.6	1.8
66	I	40.6	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
67	H	54.2	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
68	J	49.9	0.0	Timco	5.1	5.1	3.8	—	2.5	2.5	1.3
69	G	39.6	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
70	G	19.6	1.0	Skyline	5.1	6.1	4.9	—	3.6	3.6	1.8
71	G	19.3	1.0	Timco	7.7	8.7	6.8	—	4.9	4.9	2.4
72	G	11.4	1.0	Helicopter	2.6	3.6	2.9	—	2.3	2.3	1.1
73	G	45.6	1.0	Skyline	7.7	8.7	6.8	—	4.9	4.9	2.4
74	G	20.3	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
75	J	6.2	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
76	H	15.7	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
77	H	11.9	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
78	H	2.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
79	G	11.1	1.0	Helicopter	1.7	2.7	2.3	—	1.8	1.8	0.9
80	G	28.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
81	F	33.7	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
82	F	5.2	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
83	F	4.9	2.0	Tractor	6.7	8.7	7.1	—	5.4	5.4	2.7
84	F	57.9	2.0	Helicopter	1.8	3.8	3.3	—	2.9	2.9	1.4
85	F	87.1	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
86	F	98.5	1.0	Helicopter	4.8	5.8	4.6	—	3.4	3.4	1.7
87	F	12.0	1.0	Helicopter	1.6	2.6	2.2	—	1.8	1.8	0.9
88	F	35.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
89	F	6.5	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
90	F	14.0	1.0	Skyline	3.2	4.2	3.4	—	2.6	2.6	1.3
91	F	55.7	2.0	Skyline	3.2	5.2	4.4	—	3.6	3.6	1.8

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Direct Effect (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
92	F	60.9	1.0	Timco	4.8	5.8	4.6	—	3.4	3.4	1.7
93	F	65.6	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
94	F	8.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
95	F	35.5	1.0	Timco	5.3	6.3	5.0	—	3.6	3.6	1.8
96	F	26.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
97	F	94.8	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
98	E	18.9	2.0	Skyline	6.1	8.1	6.6	—	5.0	5.0	2.5
99	E	12.4	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
100	E	3.1	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
101	E	2.8	2.0	Skyline	6.1	8.1	6.6	—	5.0	5.0	2.5
102	E	42.9	2.0	Tractor	6.7	8.7	7.1	—	5.4	5.4	2.7
103	E	11.5	2.0	Skyline	9.1	11.1	8.8	—	6.6	6.6	3.3
104	E	54.1	2.0	Tractor	12.1	14.1	11.1	—	8.1	8.1	4.0
105	E	38.6	2.0	Timco	9.1	11.1	8.8	—	6.6	6.6	3.3
106	E	13.2	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
107	E	52.3	2.0	Timco	7.4	9.4	7.5	—	5.7	5.7	2.8
108	E	63.1	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
109	E	4.8	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
110	E	36.1	2.0	Timco	5.1	7.1	5.8	—	4.5	4.5	2.3
111	E	15.8	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
112	E	67.5	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
113	E	34.1	1.0	Skyline	6.1	7.1	5.6	—	4.0	4.0	2.0
114	K	79.3	1.0	Skyline	3.4	4.4	3.5	—	2.7	2.7	1.3
115	K	15.6	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
116	K	9.0	1.0	Timco	9.1	10.1	7.8	—	5.6	5.6	2.8
117	K	16.4	1.0	Timco	5.1	6.1	4.8	—	3.5	3.5	1.8
119	K	50.1	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
120	K	34.4	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3

Unit ID	Strata	Acres	Existing Condition (%)	Harvest System (%)	Direct Effect		Year 2 (%)	Direct Effect		Cumulative Effects	
					Direct Effect (%)	Year 1 (%)		Prescribed Fire (%)	Year 3-5 (%)	Year 5 (%)	Year 10 (%)
121	L	26.2	1.0	Timco	7.4	8.4	6.5	—	4.7	4.7	2.3
122	L	83.0	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
123	L	49.2	0.0	Skyline	3.5	3.5	2.6	—	1.8	1.8	0.9
124	K	42.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
125	G	23.1	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
126	G	7.2	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
127	G	6.2	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3
128	J	10.5	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
129	H	6.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
130	J	8.2	1.0	Skyline	3.5	4.5	3.6	—	2.8	2.8	1.4
131	H	0.9	1.0	Tractor	6.7	7.7	6.1	—	4.4	4.4	2.2
132	K	1.5	1.0	Tractor	7.0	8.0	6.3	—	4.5	4.5	2.3

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