Designating Riparian Habitat Areas Using WAC 222 Site Class and 200-year Site Potential Tree Height

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Introduction and Background

The Washington Department of Fish and Wildlife (WDFW) issued revised management recommendations for Riparian Priority Habitat in 2020. These recommendations are presented in 2 volumes with Volume 1 being a synthesis of the science and Volume 2 providing management recommendations. Key among the management recommendations in Volume 2 is the use of the 200-year Site Potential Tree Height ($SPTH^{200}$) as the basis for designation of riparian habitat as defined in WDFW's Priority Habitat and Species List (2008).

SPTH is generally available as empirical data associated with soils classified, mapped, and described by the Natural Resource Conservation Service in the Soil Survey. In order to apply available data to designation of Riparian Habitat there are 3 issues to consider:

1. Conversion of available data to $SPTH^{200}$;
2. Application of $SPTH^{200}$ to determine the Riparian Habitat Area; and
3. Adjustment of Riparian Habitat Area by the Water Types currently used to classify streams.

This paper addresses these issues, proposes a method for using the updated WDFW Management Recommendations to determine Riparian Habitat Areas (RHAs) designated as Fish and Wildlife Conservation Areas under Clark County's Critical Areas Ordinance. An makes specific finding with regard to the applicant of $SPTH^{200}$ to non-fish bearing streams

Conversion of Available Data to $SPTH^{200}$

50-year Site Potential Tree Height ($SPTH^{50}$) is published as the "Site Index" for silvicultural production potential of soils in the NRCS Soil Survey for Clark County, but data for $SPTH^{200}$ is not available. An empirical curve relating $SPTH^{200}$ to $SPTH^{50}$ for douglas fir in the Pacific Northwest can, however, be found in King (1966). This is the conversion used to determine $SPTH^{200}$ for Clark County in WDFW's Online SPTH Map Tool.

Table 1. King's Empirical Relationship between $STPH^{50}$ and $SPTH^{200}$

Point	$STPH^{200}$ (ft.)	Low $STPH^{50}$ (ft.)	High $STPH^{50}$ (ft.)	Median $STPH^{50}$ (ft.)[1]
1	276	135	160	147.5
2	225	115	134	124.5
3	185	95	114	104.5
4	146	75	94	84.5
5	100	50	74	62

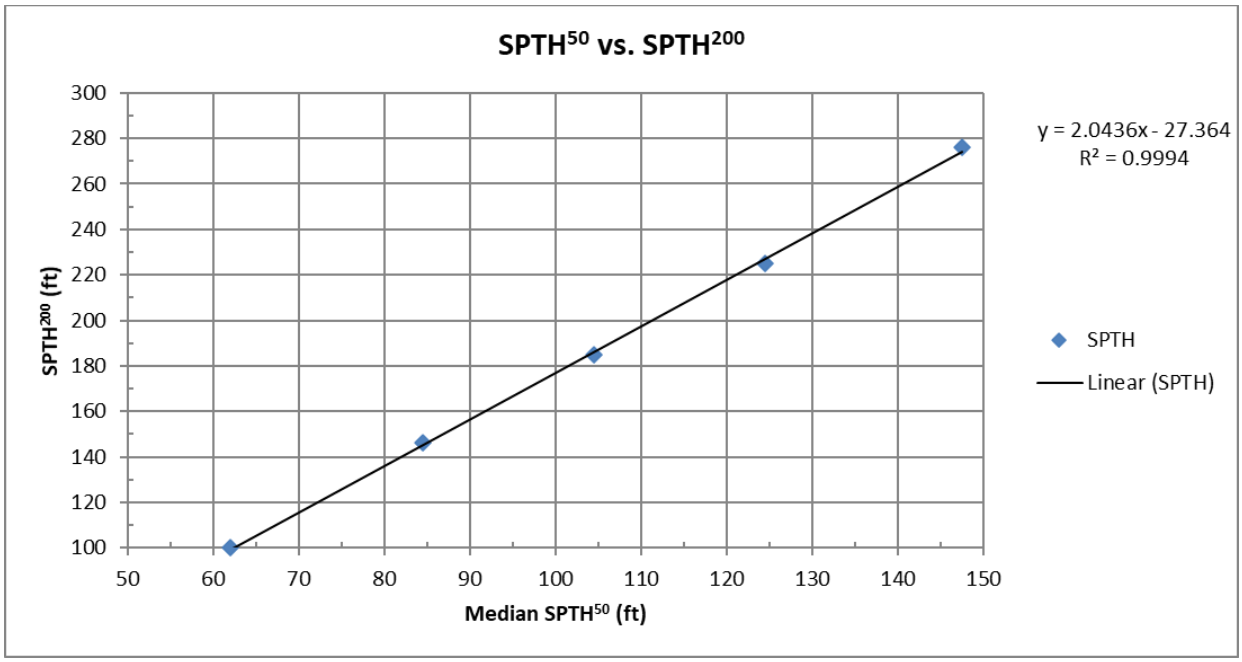
[1]Median $SPTH^{50}$ was calculated for this table

King's work provides 5 $SPTH^{200}$ values with an observed range of $SPTH^{50}$ values as shown in Table 1. A formula for converting $SPTH^{50}$ to $SPTH^{200}$ is derived from this data by plotting the median

$SPTH^{50}$ values from Table 1 against the associated $SPTH^{200}$ values (Figure 1) and calculating the best fit trendline for this data over the range of $SPTH^{50}$ values found in the Soil Survey of Clark County. The calculation is completed using Microsoft Excel, yielding the following equation:

$$SPTH^{200} = 2.0436\ SPTH^{50} - 27.364 \quad R^2 = 0.9994$$

Figure 1. Liner Fit of $SPTH^{50}$ vs. $SPTH^{200}$ for Pacific Northwest Douglas Fir from King (1966)



This equation can then be used to estimate $SPTH^{200}$ for all soil types in the county with a published $SPTH^{50}$ value for douglas fir and to assign corresponding $SPTH^{200}$ ranges to the Site Classes adopted in WAC 222 (See Appendix I).

Application of $SPTH^{200}$ to Determine the Riparian Area

Selecting "Site Class" to apply $SPTH^{200}$ at a site scale

Adjusting Riparian Area width based on $SPTH^{200}$ can be done using 3 general approaches.

1. Each site can be evaluated for the soil types present and the specific value of $SPTH^{200}$ that applies to the site can be calculated. This approach would result in wide variability in Riparian Habitat widths and would require a method to determine the appropriate width to use when there are multiple soil types layered adjacent to the stream.
2. $SPTH^{200}$ ranges can be grouped and averaged in some way to reduce the number of Riparian Habitat widths applied. This approach would result in reduced variability in Riparian Habitat widths and would require a method to determine the appropriate width to use when there are multiple group types layered adjacent to the stream.
3. $SPTH^{200}$ can be averaged in some way to create a single riparian zone width that applies to the entire County. This method simplifies interpretation but does not respond to natural variably in site conditions.

Clark County is selecting the 2nd approach and proposes the use of the "Site Class" concept adopted by the Washington State Forest Practices Board in WAC 222. The use of WAC 222

definitions in the Clark County's Critical Areas Ordinance is already established with the adoption and application of Water Types to classify streams.

Defining Site Classes and Assigning $SPTH^{200}$ Ranges

The Washington State Forest Practices Board Rules define site classes in western Washington for tree growth using $SPTH^{50}$ values published in the NRCS Soils Survey for the State of Washington. Site Classes are defined in WAC 222-16-010 as "a grouping of site indices that are used to determine the 50-year… site class. In order to determine site class, the [user]… will obtain the site class index from the state soil survey, place it in the correct index range shown in Table 2, below and select the corresponding site class."

To determine the $SPTH^{200}$ range for each site class, the equation derived from King's empirical data was used to calculate $SPTH^{200}$ ranges from the $SPTH^{50}$ values provided in WAC 222 (see Table 2).

Table 2. WAC 222 Western Washington Site Classes designated by Site Potential Tree Height Range

Site Class	$SPTH^{50}$ (ft.) per WAC 222	$STPH^{200}$ (ft.)[1]
I	137+	252+
II	119-136	215-251
III	97-118	170-214
IV	76-96	127-169
V	<=75	<=126

[1]Calculated $SPTH^{200}$ values have been rounded up or down to integers as needed to ensure there are no gaps between ranges.

Determination of RHAs for Clark County by Site Class

In order to determine the most appropriate single value for Riparian Area width in Clark County for each Site Class, a weighted average of $SPTH^{200}$ for each site class range was calculated using the estimated total area of each soil classification within one $SPTH^{200}$ of every mapped stream in the county (see Appendix I).

Several soils in the county do not have a published $SPTH^{50}$ or "site index" value for douglas fir. Some of these had site indices for red alder, and others have no site index. Both of these cases are considered unsuitable soils for conifer production for the purposes of this analysis and were designated Site Class V.

Minimum RHA based on WDFW Management Guidelines

The County has determined that a minimum riparian habitat width of 150 ft. should be applied for Site Class V soils. This value has been selected to protect functions that are not directly related to Site Potential Tree Height, such as water quality functions.

Relationship between SPTH and Water Types defined in WAC 222-16-030

The updated WDFW Management Recommendations do not refer the Water Typing System in WAC 222 as prior recommendations (1991) have.

Table 3. Habitat Area Width by Site Class under Current Management Recommendations

Site Class	Averaged[1] RHA per Management Recommendations (ft)
II	235
III	205
IV	165
V	150

[1]Averages Weighted by Near Stream Mapped Soil Distribution in Clark County

Additional Considerations for Type N waters

The use of SPTH to designate riparian habitat areas greatly expands the widths of riparian habitat adjacent to non-fish bearing waters, which raises concerns about impacts to affected land owners, increase in the number of affected land owners, and the County's ability to meet other goals of the Growth Management Act.

A change analysis was completed to assess the impact that the updated Management Recommendations would have on the extent of the County's land area that would be subject to regulation as Riparian Priority Habitat under the Critical Areas Ordinance using the estimated area calculations that were used for averaging SPTH by Site Class. The following tables show the magnitude of changes in riparian area width (Table 3), the change in the total land area affected (Table 4), and the amount of the County's land area affected (Table 5).

Table 3. Comparison of Existing and Management Recommendations RHA Designations

Water Type	Site Class	RHA under current CAO reduction (ft)	Averaged RHA per Management Recommendations (ft)	Change from Current CAO (ft)
S	II	250	235	-15
	III	250	205	-45
	IV	250	165	-85
	V	250	150	-100
F	II	200	235	+35
	III	200	205	+5
	IV	200	165	-35
	V	200	150	-50
Np	II	100	235	+55
	III	100	205	+105
	IV	100	165	+65
	V	100	150	+50
Ns	II	75	235	+160
	III	75	205	+130

Water Type	Site Class	RHA under current CAO reduction (ft)	Averaged RHA per Management Recommendations (ft)	Change from Current CAO (ft)
	IV	75	165	+90
	V	75	150	+75

Table 4. Change in County Land Area designated as Riparian Habitat under Current Management Recommendations

Water Type	Land Regulated as Riparian Habitat Under the Current CAO (ac)	Land Regulated Under Current Management Recommendations (ac)	Land Added (ac)	% Change
S	30,844	25,329	-5,515	-17.9%
F	56,049	60,527	4,478	8.0%
Np	6,289	18,064	11,775	187.2%
Ns	24,096	71,527	47,431	196.8%
Total	**117,278**	**175,447**	**58,109**	**49.6%**

Table 5. Change in County Land Area Designated as Riparian Habitat with Current Management Recommendations

Total Land in County Jurisdiction (ac)	Land Regulated as Riparian Habitat Under the Current CAO (ac)	Potential Land Regulated Under Proposed RHAs (ac)	Land Added (ac)
359,508	117,278	175,447	58,109
Total % of County Land	32.6%	48.8%	16.2%

The greatest increase in land area that would be subject to critical areas designation under the SPTH model occurs for non-fish bearing waters, and particularly those with a seasonal hydroperiod. This magnitude of this increase in regulated area poses several risks in the context of the Growth Management Act:

- Conflict with Goal 2 of the GMA by reducing opportunities for high-density development.
- Conflict with Goal 4 of the GMA by putting more demand for development on less area and increasing development costs, leading to fewer opportunities for affordable housing for most economic segments of the population.
- Conflict with Goal 5 of the GMA by reducing land available for economic development and economic growth.

- Conflict with Goal 6 of the GMA by increasing potential for Reasonable Use Assurance requests and constitutional taking claims and increasing development costs.
- Conflict with Goal 12 of the GMA by increasing development costs for public facilities and increasing the need for Public Interest Exceptions, thus making it more challenging to provide public infrastructure needed to support planned growth.

In addition to GMA risks, there also specific risks to property owners subject to Riparian Habitat regulations that speak directly to Goal 6:

- Increased chances current property owners cannot achieve reasonable investment backed expectations.
- Increased design, development, permitting, and mitigation costs.
- Opportunity costs resulting from reduced future growth in values.

In order to reduce the impact of increased riparian habitat area resulting from the

Special Consideration of Conservation or Protection Measures Necessary to Preserve or Enhance Anadromous Fish

Table 5. Application of Existing County RHA Reduction for Type N Waters Applied to Current Management Recommendations

Water Type	Site Class	Averaged RHA per Management Recommendations (ft)	RHA using existing CAO reduction (ft)	Reduction from Management Recommendations (ft)	Change from Current CAO (ft)
Np	II	235	155	-85	+55
	III	205	135	-55	+35
	IV	165	110	-15	+10
	V	150	100	-50	0
Ns	II	235	100	-135	+25
	III	205	100	-105	+25
	IV	165	100	-65	+25
	V	150	100	-50	+25

Table 6. Change in County Land Area Designated as Riparian Habitat with with Current Reduction (by % of Management Recommendations) of RHA for Type N Waters

Total Land in County Jurisdiction (ac)	Land Regulated as Riparian Habitat Under the Current CAO (ac)	Potential Land Regulated Under Proposed RHAs (ac)	Land Added (ac)
359,508	117,278	134,294	17,015
Total % of County Land Designated as Riparian Habitat	32.6%	37.4%	4.7%

Clark County RHA Designation

Based on the averaging analysis and findings regarding the extent of impact full implantation of the Management Recommendations would have on property owners and the County's ability to meet it's GMA planning goals, the County proposes to maintain the existing reduction in Riparian Management Zones applied to perennial non-fish bearing waters (Type Np streams) and maintain the WDFW recommended width to protect water quality functions in seasonal non-fish bearing waters (Type Ns streams).

Table 7. Proposed RHAs for Clark County

Site Class[1]	Type S and F Waters (ft.)	Type Np Waters (ft.)	Type Ns Waters (ft.)
II	235	155	100
III	205	135	100
IV	165	105	100
V	150	100	100

[1]There are no Site Class I soils mapped in Clark County.

References

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Appendix I. Total Estimated SPTH^{200} Riparian Area by NRCS Soil Classification

Data for estimating the total area of NRCS soil classifications within one STPH^{200} of mapped streams was extracted from Clark County GIS by intersecting the NRCS soils layer with a 300 ft. buffer around mapped streams

Data Glossary

Soil Name:	NRCS Soil Survey Soil Classifications.
Water Type:	Defined in WAC 222-16-035. Mapped water type for streams adjacent to soil classification listed.
300 ft. Near Stream Area (ac)	Total area, in acres, of the listed soil classification for the listed water type that is within 300 feet of either side of the mapped stream location.
SPTH^{50}	The "Site Index" which is 50-year Site Potential Tree Height from in the NRCS Soils Survey for Clark County for the listed soil classification.
Tree Species	Tree species referenced in the NRCS Soil Survey for the SPTH^{50} value listed.
Site Class	The Site Class from WAC 222-16-010 as determined using SPTH^{50}.
SPTH^{200}	200-year Site Potential Tree Height calculated from SPTH^{50} using King (1966).
Estimated Area in SPTH^{200} (ac)	Total estimated area, in acres, of each soil classification within one SPTH^{200} of mapped streams calculated from the percentage of the area of the 300 ft. buffer used to extract GIS data.

Table A-I 1 Estimated Area Within One SPTH^{200} of Mapped Streams for NRCS Soil Classifications

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
ASCHOFF VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	F	18.03	Douglas-fir	125	II	228	13.70
ASCHOFF VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	N	1.06	Douglas-fir	125	II	228	0.81
ASCHOFF VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	Ns	106.12	Douglas-fir	125	II	228	80.65
ASCHOFF VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	S	224.74	Douglas-fir	125	II	228	170.80
ASCHOFF VERY GRAVELLY LOAM, 5 TO 30 PERCENT SLOPES	Ns	3.36	Douglas-fir	125	II	228	2.56
BEAR PRAIRIE SILT LOAM, 0 TO 8 PERCENT SLOPES	F	128.74	Douglas-fir	125	II	228	97.84
BEAR PRAIRIE SILT LOAM, 0 TO 8 PERCENT SLOPES	N	23.27	Douglas-fir	125	II	228	17.68
BEAR PRAIRIE SILT LOAM, 0 TO 8 PERCENT SLOPES	Ns	52.98	Douglas-fir	125	II	228	40.26

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
BEAR PRAIRIE SILT LOAM, 8 TO 15 PERCENT SLOPES	F	31.94	Douglas-fir	125	II	228	24.27
BEAR PRAIRIE SILT LOAM, 8 TO 15 PERCENT SLOPES	N	3.11	Douglas-fir	125	II	228	2.36
BEAR PRAIRIE SILT LOAM, 8 TO 15 PERCENT SLOPES	Ns	36.97	Douglas-fir	125	II	228	28.10
BEAR PRAIRIE SILT LOAM, 8 TO 15 PERCENT SLOPES	S	1.00	Douglas-fir	125	II	228	0.76
BONNEVILLE STONY SANDY LOAM	F	17.10	Douglas-fir	90	IV	157	8.95
BONNEVILLE STONY SANDY LOAM	S	32.41	Douglas-fir	90	IV	157	16.96
CINEBAR SILT LOAM, 20 TO 30 PERCENT SLOPES	F	3115.49	Douglas-fir	132	II	242	2513.16
CINEBAR SILT LOAM, 20 TO 30 PERCENT SLOPES	N	1880.32	Douglas-fir	132	II	242	1516.79
CINEBAR SILT LOAM, 20 TO 30 PERCENT SLOPES	Ns	9226.67	Douglas-fir	132	II	242	7442.84
CINEBAR SILT LOAM, 20 TO 30 PERCENT SLOPES	S	366.90	Douglas-fir	132	II	242	295.97
CINEBAR SILT LOAM, 3 TO 8 PERCENT SLOPES	F	1854.39	Douglas-fir	132	II	242	1495.88
CINEBAR SILT LOAM, 3 TO 8 PERCENT SLOPES	N	400.59	Douglas-fir	132	II	242	323.14
CINEBAR SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	1767.33	Douglas-fir	132	II	242	1425.64
CINEBAR SILT LOAM, 3 TO 8 PERCENT SLOPES	S	277.56	Douglas-fir	132	II	242	223.90
CINEBAR SILT LOAM, 30 TO 70 PERCENT SLOPES	F	3289.71	Douglas-fir	132	II	242	2653.70
CINEBAR SILT LOAM, 30 TO 70 PERCENT SLOPES	N	1211.18	Douglas-fir	132	II	242	977.02
CINEBAR SILT LOAM, 30 TO 70 PERCENT SLOPES	Ns	4869.23	Douglas-fir	132	II	242	3927.85
CINEBAR SILT LOAM, 30 TO 70 PERCENT SLOPES	S	1009.28	Douglas-fir	132	II	242	814.16
CINEBAR SILT LOAM, 8 TO 20 PERCENT SLOPES	F	3661.75	Douglas-fir	132	II	242	2953.81
CINEBAR SILT LOAM, 8 TO 20 PERCENT SLOPES	N	1467.83	Douglas-fir	132	II	242	1184.05
CINEBAR SILT LOAM, 8 TO 20 PERCENT SLOPES	Ns	5211.96	Douglas-fir	132	II	242	4204.32
CINEBAR SILT LOAM, 8 TO 20 PERCENT SLOPES	S	332.01	Douglas-fir	132	II	242	267.82
CINEBAR STONY SILT LOAM, 3 TO 30 PERCENT SLOPES	F	397.86	Douglas-fir	132	II	242	320.94
CINEBAR STONY SILT LOAM, 3 TO 30 PERCENT SLOPES	N	228.50	Douglas-fir	132	II	242	184.32
CINEBAR STONY SILT LOAM, 3 TO 30 PERCENT SLOPES	Ns	1899.82	Douglas-fir	132	II	242	1532.52
CINEBAR STONY SILT LOAM, 3 TO 30 PERCENT SLOPES	S	98.02	Douglas-fir	132	II	242	79.07
CINEBAR STONY SILT LOAM, 30 TO 70 PERCENT SLOPES	F	3992.52	Douglas-fir	132	II	242	3220.64
CINEBAR STONY SILT LOAM, 30 TO 70 PERCENT SLOPES	N	2743.08	Douglas-fir	132	II	242	2212.75
CINEBAR STONY SILT LOAM, 30 TO 70 PERCENT SLOPES	Ns	13535.76	Douglas-fir	132	II	242	10918.85
CINEBAR STONY SILT LOAM, 30 TO 70 PERCENT SLOPES	S	5358.14	Douglas-fir	132	II	242	4322.23
CISPUS GRAVELLY SANDY LOAM, 20 TO 45 PERCENT SLOPES	F	87.77	Douglas-fir	127	II	232	67.88
CISPUS GRAVELLY SANDY LOAM, 20 TO 45 PERCENT SLOPES	N	121.50	Douglas-fir	127	II	232	93.96
CISPUS GRAVELLY SANDY LOAM, 20 TO 45 PERCENT SLOPES	Ns	338.86	Douglas-fir	127	II	232	262.05
CISPUS GRAVELLY SANDY LOAM, 20 TO 45 PERCENT SLOPES	S	65.44	Douglas-fir	127	II	232	50.61
CLOQUATO SILT LOAM, 0 TO 3 PERCENT SLOPES	F	7.98	Douglas-fir	130	II	238	6.33
CLOQUATO SILT LOAM, 0 TO 3 PERCENT SLOPES	S	20.89	Douglas-fir	130	II	238	16.57

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
COVE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	F	2359.20	None	0	V	150	1179.60
COVE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	N	280.45	None	0	V	150	140.22
COVE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	Ns	832.64	None	0	V	150	416.32
COVE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	S	637.07	None	0	V	150	318.54
COVE SILTY CLAY LOAM, THIN SOLUM, 0 TO 3 PERCENT SLOPES	F	107.71	None	0	V	150	53.86
COVE SILTY CLAY LOAM, THIN SOLUM, 0 TO 3 PERCENT SLOPES	N	212.31	None	0	V	150	106.15
COVE SILTY CLAY LOAM, THIN SOLUM, 0 TO 3 PERCENT SLOPES	Ns	31.86	None	0	V	150	15.93
COVE SILTY CLAY LOAM, THIN SOLUM, 0 TO 3 PERCENT SLOPES	S	47.60	None	0	V	150	23.80
DOLLAR LOAM, 0 TO 5 PERCENT SLOPES	F	1179.56	Douglas-fir	110	III	197	774.58
DOLLAR LOAM, 0 TO 5 PERCENT SLOPES	N	308.23	Douglas-fir	110	III	197	202.41
DOLLAR LOAM, 0 TO 5 PERCENT SLOPES	Ns	154.12	Douglas-fir	110	III	197	101.21
DOLLAR LOAM, 0 TO 5 PERCENT SLOPES	S	280.03	Douglas-fir	110	III	197	183.89
DOUGAN VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	F	180.69	Douglas-fir	90	IV	157	94.56
DOUGAN VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	N	54.01	Douglas-fir	90	IV	157	28.26
DOUGAN VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	Ns	17.86	Douglas-fir	90	IV	157	9.35
DOUGAN VERY GRAVELLY LOAM, 30 TO 65 PERCENT SLOPES	S	4.60	Douglas-fir	90	IV	157	2.41
FILL LAND	F	56.51	None	0	V	150	28.26
FILL LAND	N	13.07	None	0	V	150	6.54
FILL LAND	Ns	3.60	None	0	V	150	1.80
FILL LAND	S	667.66	None	0	V	150	333.83
GEE SILT LOAM, 0 TO 8 PERCENT SLOPES	F	2102.58	Douglas-fir	120	II	218	1527.87
GEE SILT LOAM, 0 TO 8 PERCENT SLOPES	N	160.09	Douglas-fir	120	II	218	116.33
GEE SILT LOAM, 0 TO 8 PERCENT SLOPES	Ns	2627.04	Douglas-fir	120	II	218	1908.98
GEE SILT LOAM, 0 TO 8 PERCENT SLOPES	S	114.09	Douglas-fir	120	II	218	82.91
GEE SILT LOAM, 20 TO 30 PERCENT SLOPES	F	1117.22	Douglas-fir	120	II	218	811.85
GEE SILT LOAM, 20 TO 30 PERCENT SLOPES	N	32.38	Douglas-fir	120	II	218	23.53
GEE SILT LOAM, 20 TO 30 PERCENT SLOPES	Ns	453.35	Douglas-fir	120	II	218	329.44
GEE SILT LOAM, 20 TO 30 PERCENT SLOPES	S	10.15	Douglas-fir	120	II	218	7.38
GEE SILT LOAM, 30 TO 60 PERCENT SLOPES	F	1763.96	Douglas-fir	120	II	218	1281.81
GEE SILT LOAM, 30 TO 60 PERCENT SLOPES	N	65.05	Douglas-fir	120	II	218	47.27
GEE SILT LOAM, 30 TO 60 PERCENT SLOPES	Ns	979.99	Douglas-fir	120	II	218	712.13
GEE SILT LOAM, 30 TO 60 PERCENT SLOPES	S	386.66	Douglas-fir	120	II	218	280.98
GEE SILT LOAM, 8 TO 20 PERCENT SLOPES	F	1318.40	Douglas-fir	120	II	218	958.04
GEE SILT LOAM, 8 TO 20 PERCENT SLOPES	N	115.59	Douglas-fir	120	II	218	84.00
GEE SILT LOAM, 8 TO 20 PERCENT SLOPES	Ns	1199.80	Douglas-fir	120	II	218	871.85
GEE SILT LOAM, 8 TO 20 PERCENT SLOPES	S	37.44	Douglas-fir	120	II	218	27.20

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
GUMBOOT SILT LOAM, 0 TO 8 PERCENT SLOPES	F	2375.83	red alder	0	V	150	1187.92
GUMBOOT SILT LOAM, 0 TO 8 PERCENT SLOPES	N	580.96	red alder	0	V	150	290.48
GUMBOOT SILT LOAM, 0 TO 8 PERCENT SLOPES	Ns	1408.45	red alder	0	V	150	704.23
GUMBOOT SILT LOAM, 0 TO 8 PERCENT SLOPES	S	391.97	red alder	0	V	150	195.99
HESSON CLAY LOAM, 0 TO 8 PERCENT SLOPES	F	2251.14	Douglas-fir	120	II	218	1635.83
HESSON CLAY LOAM, 0 TO 8 PERCENT SLOPES	N	290.73	Douglas-fir	120	II	218	211.27
HESSON CLAY LOAM, 0 TO 8 PERCENT SLOPES	Ns	2694.10	Douglas-fir	120	II	218	1957.71
HESSON CLAY LOAM, 0 TO 8 PERCENT SLOPES	S	318.17	Douglas-fir	120	II	218	231.20
HESSON CLAY LOAM, 20 TO 30 PERCENT SLOPES	F	1753.48	Douglas-fir	120	II	218	1274.19
HESSON CLAY LOAM, 20 TO 30 PERCENT SLOPES	N	128.32	Douglas-fir	120	II	218	93.25
HESSON CLAY LOAM, 20 TO 30 PERCENT SLOPES	Ns	1249.61	Douglas-fir	120	II	218	908.05
HESSON CLAY LOAM, 20 TO 30 PERCENT SLOPES	S	67.92	Douglas-fir	120	II	218	49.36
HESSON CLAY LOAM, 30 TO 55 PERCENT SLOPES	F	2193.38	Douglas-fir	120	II	218	1593.86
HESSON CLAY LOAM, 30 TO 55 PERCENT SLOPES	N	146.38	Douglas-fir	120	II	218	106.37
HESSON CLAY LOAM, 30 TO 55 PERCENT SLOPES	Ns	1369.90	Douglas-fir	120	II	218	995.46
HESSON CLAY LOAM, 30 TO 55 PERCENT SLOPES	S	175.59	Douglas-fir	120	II	218	127.59
HESSON CLAY LOAM, 8 TO 20 PERCENT SLOPES	F	1928.17	Douglas-fir	120	II	218	1401.14
HESSON CLAY LOAM, 8 TO 20 PERCENT SLOPES	N	267.80	Douglas-fir	120	II	218	194.60
HESSON CLAY LOAM, 8 TO 20 PERCENT SLOPES	Ns	2331.54	Douglas-fir	120	II	218	1694.25
HESSON CLAY LOAM, 8 TO 20 PERCENT SLOPES	S	88.77	Douglas-fir	120	II	218	64.50
HESSON GRAVELLY CLAY LOAM, 0 TO 8 PERCENT SLOPES	F	269.58	Douglas-fir	120	II	218	195.89
HESSON GRAVELLY CLAY LOAM, 0 TO 8 PERCENT SLOPES	N	38.54	Douglas-fir	120	II	218	28.00
HESSON GRAVELLY CLAY LOAM, 0 TO 8 PERCENT SLOPES	Ns	225.66	Douglas-fir	120	II	218	163.98
HESSON GRAVELLY CLAY LOAM, 0 TO 8 PERCENT SLOPES	S	59.19	Douglas-fir	120	II	218	43.01
HESSON GRAVELLY CLAY LOAM, 8 TO 20 PERCENT SLOPES	F	340.75	Douglas-fir	120	II	218	247.61
HESSON GRAVELLY CLAY LOAM, 8 TO 20 PERCENT SLOPES	N	12.30	Douglas-fir	120	II	218	8.94
HESSON GRAVELLY CLAY LOAM, 8 TO 20 PERCENT SLOPES	Ns	216.31	Douglas-fir	120	II	218	157.18
HESSON GRAVELLY CLAY LOAM, 8 TO 20 PERCENT SLOPES	S	68.47	Douglas-fir	120	II	218	49.76
HESSON VERY STONY SILTY CLAY LOAM, 3 TO 30 PERCENT SLOPES	F	110.19	Douglas-fir	120	II	218	80.07
HESSON VERY STONY SILTY CLAY LOAM, 3 TO 30 PERCENT SLOPES	N	3.02	Douglas-fir	120	II	218	2.20
HESSON VERY STONY SILTY CLAY LOAM, 3 TO 30 PERCENT SLOPES	Ns	93.14	Douglas-fir	120	II	218	67.68
HESSON VERY STONY SILTY CLAY LOAM, 3 TO 30 PERCENT SLOPES	S	3.42	Douglas-fir	120	II	218	2.48
HILLSBORO BOULDERY SILT LOAM, 3 TO 8 PERCENT SLOPES	F	13.78	Douglas-fir	120	II	218	10.02
HILLSBORO BOULDERY SILT LOAM, 3 TO 8 PERCENT SLOPES	N	0.41	Douglas-fir	120	II	218	0.30
HILLSBORO BOULDERY SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	13.05	Douglas-fir	120	II	218	9.48
HILLSBORO BOULDERY SILT LOAM, 3 TO 8 PERCENT SLOPES	S	18.73	Douglas-fir	120	II	218	13.61

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
HILLSBORO LOAM, 15 TO 20 PERCENT SLOPES	F	36.65	Douglas-fir	125	II	228	27.85
HILLSBORO LOAM, 15 TO 20 PERCENT SLOPES	N	9.15	Douglas-fir	125	II	228	6.95
HILLSBORO LOAM, 15 TO 20 PERCENT SLOPES	Ns	6.49	Douglas-fir	125	II	228	4.94
HILLSBORO LOAM, 15 TO 20 PERCENT SLOPES	S	28.62	Douglas-fir	125	II	228	21.75
HILLSBORO LOAM, 20 TO 30 PERCENT SLOPES	F	176.29	Douglas-fir	125	II	228	133.98
HILLSBORO LOAM, 20 TO 30 PERCENT SLOPES	Ns	18.35	Douglas-fir	125	II	228	13.94
HILLSBORO LOAM, 20 TO 30 PERCENT SLOPES	S	60.90	Douglas-fir	125	II	228	46.28
HILLSBORO LOAM, 3 TO 8 PERCENT SLOPES	F	373.41	Douglas-fir	125	II	228	283.79
HILLSBORO LOAM, 3 TO 8 PERCENT SLOPES	N	43.24	Douglas-fir	125	II	228	32.86
HILLSBORO LOAM, 3 TO 8 PERCENT SLOPES	Ns	84.57	Douglas-fir	125	II	228	64.27
HILLSBORO LOAM, 3 TO 8 PERCENT SLOPES	S	135.05	Douglas-fir	125	II	228	102.64
HILLSBORO LOAM, 30 TO 50 PERCENT SLOPES	F	386.36	Douglas-fir	125	II	228	293.63
HILLSBORO LOAM, 30 TO 50 PERCENT SLOPES	N	23.04	Douglas-fir	125	II	228	17.51
HILLSBORO LOAM, 30 TO 50 PERCENT SLOPES	Ns	95.57	Douglas-fir	125	II	228	72.63
HILLSBORO LOAM, 30 TO 50 PERCENT SLOPES	S	129.69	Douglas-fir	125	II	228	98.56
HILLSBORO LOAM, 8 TO 15 PERCENT SLOPES	F	150.41	Douglas-fir	125	II	228	114.31
HILLSBORO LOAM, 8 TO 15 PERCENT SLOPES	N	13.73	Douglas-fir	125	II	228	10.44
HILLSBORO LOAM, 8 TO 15 PERCENT SLOPES	Ns	54.14	Douglas-fir	125	II	228	41.15
HILLSBORO LOAM, 8 TO 15 PERCENT SLOPES	S	37.39	Douglas-fir	125	II	228	28.41
HILLSBORO SILT LOAM, 0 TO 3 PERCENT SLOPES	F	559.74	Douglas-fir	125	II	228	425.40
HILLSBORO SILT LOAM, 0 TO 3 PERCENT SLOPES	N	55.08	Douglas-fir	125	II	228	41.86
HILLSBORO SILT LOAM, 0 TO 3 PERCENT SLOPES	Ns	369.92	Douglas-fir	125	II	228	281.14
HILLSBORO SILT LOAM, 0 TO 3 PERCENT SLOPES	S	274.76	Douglas-fir	125	II	228	208.81
HILLSBORO SILT LOAM, 15 TO 20 PERCENT SLOPES	F	163.29	Douglas-fir	125	II	228	124.10
HILLSBORO SILT LOAM, 15 TO 20 PERCENT SLOPES	Ns	54.22	Douglas-fir	125	II	228	41.21
HILLSBORO SILT LOAM, 15 TO 20 PERCENT SLOPES	S	11.81	Douglas-fir	125	II	228	8.98
HILLSBORO SILT LOAM, 20 TO 30 PERCENT SLOPES	F	314.57	Douglas-fir	125	II	228	239.07
HILLSBORO SILT LOAM, 20 TO 30 PERCENT SLOPES	N	1.56	Douglas-fir	125	II	228	1.19
HILLSBORO SILT LOAM, 20 TO 30 PERCENT SLOPES	Ns	133.40	Douglas-fir	125	II	228	101.39
HILLSBORO SILT LOAM, 20 TO 30 PERCENT SLOPES	S	64.61	Douglas-fir	125	II	228	49.11
HILLSBORO SILT LOAM, 3 TO 8 PERCENT SLOPES	F	814.36	Douglas-fir	125	II	228	618.92
HILLSBORO SILT LOAM, 3 TO 8 PERCENT SLOPES	N	47.62	Douglas-fir	125	II	228	36.19
HILLSBORO SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	464.98	Douglas-fir	125	II	228	353.38
HILLSBORO SILT LOAM, 3 TO 8 PERCENT SLOPES	S	76.48	Douglas-fir	125	II	228	58.12
HILLSBORO SILT LOAM, 30 TO 65 PERCENT SLOPES	F	1657.56	Douglas-fir	125	II	228	1259.75
HILLSBORO SILT LOAM, 30 TO 65 PERCENT SLOPES	N	74.81	Douglas-fir	125	II	228	56.86

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
HILLSBORO SILT LOAM, 30 TO 65 PERCENT SLOPES	Ns	521.21	Douglas-fir	125	II	228	396.12
HILLSBORO SILT LOAM, 30 TO 65 PERCENT SLOPES	S	559.98	Douglas-fir	125	II	228	425.58
HILLSBORO SILT LOAM, 8 TO 15 PERCENT SLOPES	F	685.66	Douglas-fir	125	II	228	521.10
HILLSBORO SILT LOAM, 8 TO 15 PERCENT SLOPES	N	4.50	Douglas-fir	125	II	228	3.42
HILLSBORO SILT LOAM, 8 TO 15 PERCENT SLOPES	Ns	307.94	Douglas-fir	125	II	228	234.04
HILLSBORO SILT LOAM, 8 TO 15 PERCENT SLOPES	S	101.26	Douglas-fir	125	II	228	76.96
HOCKINSON LOAM, 0 TO 3 PERCENT SLOPES	F	374.04	red alder	0	V	150	187.02
HOCKINSON LOAM, 0 TO 3 PERCENT SLOPES	N	70.74	red alder	0	V	150	35.37
HOCKINSON LOAM, 0 TO 3 PERCENT SLOPES	Ns	74.71	red alder	0	V	150	37.35
HOCKINSON LOAM, 0 TO 3 PERCENT SLOPES	S	44.97	red alder	0	V	150	22.49
HOCKINSON LOAM, MODERATELY WELL DRAINED, 0 TO 8 PERCENT SLOPES	F	407.65	Douglas-fir	115	III	208	282.64
HOCKINSON LOAM, MODERATELY WELL DRAINED, 0 TO 8 PERCENT SLOPES	N	74.81	Douglas-fir	115	III	208	51.87
HOCKINSON LOAM, MODERATELY WELL DRAINED, 0 TO 8 PERCENT SLOPES	Ns	100.68	Douglas-fir	115	III	208	69.81
HOCKINSON LOAM, MODERATELY WELL DRAINED, 0 TO 8 PERCENT SLOPES	S	56.45	Douglas-fir	115	III	208	39.14
HOCKINSON-DOLLAR LOAMS, 0 TO 3 PERCENT SLOPES	F	8.94	Douglas-fir	110	III	197	5.87
KINNEY COBBLY SILT LOAM, 30 TO 60 PERCENT SLOPES	F	546.90	Douglas-fir	117	III	212	386.48
KINNEY COBBLY SILT LOAM, 30 TO 60 PERCENT SLOPES	N	444.42	Douglas-fir	117	III	212	314.06
KINNEY COBBLY SILT LOAM, 30 TO 60 PERCENT SLOPES	Ns	1338.66	Douglas-fir	117	III	212	945.99
KINNEY COBBLY SILT LOAM, 30 TO 60 PERCENT SLOPES	S	102.56	Douglas-fir	117	III	212	72.47
KINNEY SILT LOAM, 15 TO 30 PERCENT SLOPES	F	1462.76	Douglas-fir	117	III	212	1033.69
KINNEY SILT LOAM, 15 TO 30 PERCENT SLOPES	N	1125.76	Douglas-fir	117	III	212	795.54
KINNEY SILT LOAM, 15 TO 30 PERCENT SLOPES	Ns	3448.23	Douglas-fir	117	III	212	2436.75
KINNEY SILT LOAM, 15 TO 30 PERCENT SLOPES	S	176.20	Douglas-fir	117	III	212	124.51
KINNEY SILT LOAM, 3 TO 15 PERCENT SLOPES	F	411.59	Douglas-fir	117	III	212	290.86
KINNEY SILT LOAM, 3 TO 15 PERCENT SLOPES	N	604.46	Douglas-fir	117	III	212	427.15
KINNEY SILT LOAM, 3 TO 15 PERCENT SLOPES	Ns	1599.86	Douglas-fir	117	III	212	1130.57
KINNEY SILT LOAM, 3 TO 15 PERCENT SLOPES	S	19.92	Douglas-fir	117	III	212	14.08
KINNEY SILT LOAM, 30 TO 50 PERCENT SLOPES	F	3017.44	Douglas-fir	117	III	212	2132.33
KINNEY SILT LOAM, 30 TO 50 PERCENT SLOPES	N	2490.55	Douglas-fir	117	III	212	1759.99
KINNEY SILT LOAM, 30 TO 50 PERCENT SLOPES	Ns	4198.22	Douglas-fir	117	III	212	2966.74
KINNEY SILT LOAM, 30 TO 50 PERCENT SLOPES	S	212.42	Douglas-fir	117	III	212	150.11
LARCHMOUNT COBBLY SILT LOAM, 15 TO 30 PERCENT SLOPES	F	0.17	Douglas-fir	110	III	197	0.11
LARCHMOUNT COBBLY SILT LOAM, 15 TO 30 PERCENT SLOPES	N	39.81	Douglas-fir	110	III	197	26.14
LARCHMOUNT COBBLY SILT LOAM, 15 TO 30 PERCENT SLOPES	Ns	344.40	Douglas-fir	110	III	197	226.16
LARCHMOUNT COBBLY SILT LOAM, 30 TO 75 PERCENT SLOPES	F	207.88	Douglas-fir	110	III	197	136.51
LARCHMOUNT COBBLY SILT LOAM, 30 TO 75 PERCENT SLOPES	N	500.71	Douglas-fir	110	III	197	328.80

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
LARCHMOUNT COBBLY SILT LOAM, 30 TO 75 PERCENT SLOPES	Ns	1836.03	Douglas-fir	110	III	197	1205.66
LARCHMOUNT COBBLY SILT LOAM, 30 TO 75 PERCENT SLOPES	S	113.55	Douglas-fir	110	III	197	74.57
LARCHMOUNT VERY STONY SILT LOAM, 30 TO 75 PERCENT SLOPES	F	48.86	Douglas-fir	110	III	197	32.08
LARCHMOUNT VERY STONY SILT LOAM, 30 TO 75 PERCENT SLOPES	N	54.74	Douglas-fir	110	III	197	35.95
LARCHMOUNT VERY STONY SILT LOAM, 30 TO 75 PERCENT SLOPES	Ns	288.39	Douglas-fir	110	III	197	189.38
LAUREN GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	F	171.93	Douglas-fir	110	III	197	112.90
LAUREN GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	N	1.23	Douglas-fir	110	III	197	0.81
LAUREN GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	Ns	10.41	Douglas-fir	110	III	197	6.83
LAUREN GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	S	276.12	Douglas-fir	110	III	197	181.32
LAUREN GRAVELLY LOAM, 20 TO 45 PERCENT SLOPES	F	6.76	Douglas-fir	110	III	197	4.44
LAUREN GRAVELLY LOAM, 20 TO 45 PERCENT SLOPES	N	1.87	Douglas-fir	110	III	197	1.23
LAUREN GRAVELLY LOAM, 20 TO 45 PERCENT SLOPES	Ns	1.10	Douglas-fir	110	III	197	0.72
LAUREN GRAVELLY LOAM, 20 TO 45 PERCENT SLOPES	S	16.77	Douglas-fir	110	III	197	11.01
LAUREN GRAVELLY LOAM, 8 TO 20 PERCENT SLOPES	F	36.88	Douglas-fir	110	III	197	24.22
LAUREN GRAVELLY LOAM, 8 TO 20 PERCENT SLOPES	Ns	5.74	Douglas-fir	110	III	197	3.77
LAUREN GRAVELLY LOAM, 8 TO 20 PERCENT SLOPES	S	6.80	Douglas-fir	110	III	197	4.47
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 20 TO 55 PERCENT SLOPES	F	164.72	Douglas-fir	90	IV	157	86.21
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 20 TO 55 PERCENT SLOPES	Ns	42.59	Douglas-fir	90	IV	157	22.29
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 20 TO 55 PERCENT SLOPES	S	23.64	Douglas-fir	90	IV	157	12.37
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 3 TO 15 PERCENT SLOPES	F	86.30	Douglas-fir	90	IV	157	45.17
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 3 TO 15 PERCENT SLOPES	Ns	30.39	Douglas-fir	90	IV	157	15.90
LAUREN GRAVELLY LOAM, CEMENTED SUBSTRATUM, 3 TO 15 PERCENT SLOPES	S	78.96	Douglas-fir	90	IV	157	41.32
LAUREN LOAM, 0 TO 8 PERCENT SLOPES	F	111.43	Douglas-fir	110	III	197	73.17
LAUREN LOAM, 0 TO 8 PERCENT SLOPES	Ns	5.66	Douglas-fir	110	III	197	3.72
LAUREN LOAM, 0 TO 8 PERCENT SLOPES	S	9.75	Douglas-fir	110	III	197	6.40
LAUREN VERY GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	F	1.41	Douglas-fir	110	III	197	0.93
LAUREN VERY GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	Ns	10.19	Douglas-fir	110	III	197	6.69
LAUREN VERY GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	S	1.14	Douglas-fir	110	III	197	0.75
McBEE SILT LOAM, 0 TO 5 PERCENT SLOPES	F	336.85	red alder	0	V	150	168.43
McBEE SILT LOAM, 0 TO 5 PERCENT SLOPES	N	0.67	red alder	0	V	150	0.33
McBEE SILT LOAM, 0 TO 5 PERCENT SLOPES	Ns	77.06	red alder	0	V	150	38.53
McBEE SILT LOAM, 0 TO 5 PERCENT SLOPES	S	460.09	red alder	0	V	150	230.04
MCBEE SILT LOAM, COARSE VARIANT, 0 TO 3 PERCENT SLOPES	F	77.95	None	0	V	150	38.98
MCBEE SILT LOAM, COARSE VARIANT, 0 TO 3 PERCENT SLOPES	N	116.64	None	0	V	150	58.32
MCBEE SILT LOAM, COARSE VARIANT, 0 TO 3 PERCENT SLOPES	Ns	9.59	None	0	V	150	4.79
MCBEE SILT LOAM, COARSE VARIANT, 0 TO 3 PERCENT SLOPES	S	37.46	None	0	V	150	18.73

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
McBEE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	F	780.93	red alder	0	V	150	390.47
McBEE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	N	14.71	red alder	0	V	150	7.35
McBEE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	Ns	55.13	red alder	0	V	150	27.57
McBEE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	S	545.09	red alder	0	V	150	272.55
MINNIECE SILT LOAM, THIN SOLUM VARIANT, 0 TO 3 PERCENT SLOPES	F	791.12	None	0	V	150	395.56
MINNIECE SILT LOAM, THIN SOLUM VARIANT, 0 TO 3 PERCENT SLOPES	N	6.42	None	0	V	150	3.21
MINNIECE SILT LOAM, THIN SOLUM VARIANT, 0 TO 3 PERCENT SLOPES	Ns	54.43	None	0	V	150	27.21
MINNIECE SILT LOAM, THIN SOLUM VARIANT, 0 TO 3 PERCENT SLOPES	S	241.35	None	0	V	150	120.67
MINNIECE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	F	677.95	None	0	V	150	338.97
MINNIECE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	N	40.99	None	0	V	150	20.49
MINNIECE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	Ns	514.96	None	0	V	150	257.48
MINNIECE SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES	S	31.38	None	0	V	150	15.69
MINNIECE SILTY CLAY LOAM, 3 TO 20 PERCENT SLOPES	F	603.19	None	0	V	150	301.59
MINNIECE SILTY CLAY LOAM, 3 TO 20 PERCENT SLOPES	N	78.90	None	0	V	150	39.45
MINNIECE SILTY CLAY LOAM, 3 TO 20 PERCENT SLOPES	Ns	313.32	None	0	V	150	156.66
MOSSYROCK SILT LOAM, 0 TO 5 PERCENT SLOPES	F	341.67	Douglas-fir	130	II	238	271.06
MOSSYROCK SILT LOAM, 0 TO 5 PERCENT SLOPES	N	17.21	Douglas-fir	130	II	238	13.65
MOSSYROCK SILT LOAM, 0 TO 5 PERCENT SLOPES	Ns	62.08	Douglas-fir	130	II	238	49.25
MOSSYROCK SILT LOAM, 0 TO 5 PERCENT SLOPES	S	101.78	Douglas-fir	130	II	238	80.75
MOUNTZION CLAY LOAM, 2 TO 15 PERCENT SLOPES	F	8.80	Douglas-fir	116	III	210	6.16
MOUNTZION CLAY LOAM, 2 TO 15 PERCENT SLOPES	Ns	0.46	Douglas-fir	116	III	210	0.32
MOUNTZION CLAY LOAM, 30 TO 65 PERCENT SLOPES	F	12.54	Douglas-fir	116	III	210	8.78
MOUNTZION CLAY LOAM, 30 TO 65 PERCENT SLOPES	Ns	20.48	Douglas-fir	116	III	210	14.34
NEWBERG SILT LOAM, 0 TO 3 PERCENT SLOPES	F	3.48	Douglas-fir	120	II	218	2.53
NEWBERG SILT LOAM, 0 TO 3 PERCENT SLOPES	Ns	2.21	Douglas-fir	120	II	218	1.61
NEWBERG SILT LOAM, 0 TO 3 PERCENT SLOPES	S	359.22	Douglas-fir	120	II	218	261.03
NEWBERG SILT LOAM, 3 TO 8 PERCENT SLOPES	F	42.25	Douglas-fir	120	II	218	30.70
NEWBERG SILT LOAM, 3 TO 8 PERCENT SLOPES	N	0.35	Douglas-fir	120	II	218	0.25
NEWBERG SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	0.47	Douglas-fir	120	II	218	0.34
NEWBERG SILT LOAM, 3 TO 8 PERCENT SLOPES	S	840.74	Douglas-fir	120	II	218	610.94
ODNE SILT LOAM, 0 TO 5 PERCENT SLOPES	F	1260.29	None	0	V	150	630.15
ODNE SILT LOAM, 0 TO 5 PERCENT SLOPES	N	83.02	None	0	V	150	41.51
ODNE SILT LOAM, 0 TO 5 PERCENT SLOPES	Ns	1379.83	None	0	V	150	689.91
ODNE SILT LOAM, 0 TO 5 PERCENT SLOPES	S	41.86	None	0	V	150	20.93
OLEQUA SILT LOAM, 20 TO 30 PERCENT SLOPES	F	262.25	Douglas-fir	124	II	226	197.56
OLEQUA SILT LOAM, 20 TO 30 PERCENT SLOPES	Ns	364.91	Douglas-fir	124	II	226	274.90

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
OLEQUA SILT LOAM, 20 TO 30 PERCENT SLOPES	S	30.52	Douglas-fir	124	II	226	23.00
OLEQUA SILT LOAM, 3 TO 20 PERCENT SLOPES	F	418.47	Douglas-fir	124	II	226	315.25
OLEQUA SILT LOAM, 3 TO 20 PERCENT SLOPES	N	56.68	Douglas-fir	124	II	226	42.70
OLEQUA SILT LOAM, 3 TO 20 PERCENT SLOPES	Ns	711.22	Douglas-fir	124	II	226	535.79
OLEQUA SILT LOAM, 3 TO 20 PERCENT SLOPES	S	99.99	Douglas-fir	124	II	226	75.33
OLEQUA SILT LOAM, 30 TO 60 PERCENT SLOPES	F	452.76	Douglas-fir	124	II	226	341.08
OLEQUA SILT LOAM, 30 TO 60 PERCENT SLOPES	N	116.83	Douglas-fir	124	II	226	88.01
OLEQUA SILT LOAM, 30 TO 60 PERCENT SLOPES	Ns	535.38	Douglas-fir	124	II	226	403.32
OLEQUA SILT LOAM, 30 TO 60 PERCENT SLOPES	S	607.51	Douglas-fir	124	II	226	457.66
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 20 TO 45 PERCENT SLOPES	F	1004.85	Douglas-fir	115	III	208	696.70
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 20 TO 45 PERCENT SLOPES	N	25.32	Douglas-fir	115	III	208	17.56
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 20 TO 45 PERCENT SLOPES	Ns	771.60	Douglas-fir	115	III	208	534.98
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 3 TO 20 PERCENT SLOPES	F	884.82	Douglas-fir	115	III	208	613.48
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 3 TO 20 PERCENT SLOPES	N	87.73	Douglas-fir	115	III	208	60.82
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 3 TO 20 PERCENT SLOPES	Ns	680.39	Douglas-fir	115	III	208	471.74
OLEQUA SILTY CLAY LOAM, HEAVY VARIANT, 3 TO 20 PERCENT SLOPES	S	42.36	Douglas-fir	115	III	208	29.37
OLYMPIC CLAY LOAM, 20 TO 30 PERCENT SLOPES	F	2204.69	Douglas-fir	133	II	244	1793.15
OLYMPIC CLAY LOAM, 20 TO 30 PERCENT SLOPES	N	1252.06	Douglas-fir	133	II	244	1018.34
OLYMPIC CLAY LOAM, 20 TO 30 PERCENT SLOPES	Ns	2384.29	Douglas-fir	133	II	244	1939.22
OLYMPIC CLAY LOAM, 20 TO 30 PERCENT SLOPES	S	127.10	Douglas-fir	133	II	244	103.38
OLYMPIC CLAY LOAM, 3 TO 8 PERCENT SLOPES	F	1642.63	Douglas-fir	133	II	244	1336.00
OLYMPIC CLAY LOAM, 3 TO 8 PERCENT SLOPES	N	208.87	Douglas-fir	133	II	244	169.88
OLYMPIC CLAY LOAM, 3 TO 8 PERCENT SLOPES	Ns	1023.80	Douglas-fir	133	II	244	832.69
OLYMPIC CLAY LOAM, 3 TO 8 PERCENT SLOPES	S	348.96	Douglas-fir	133	II	244	283.82
OLYMPIC CLAY LOAM, 30 TO 60 PERCENT SLOPES	F	2349.90	Douglas-fir	133	II	244	1911.25
OLYMPIC CLAY LOAM, 30 TO 60 PERCENT SLOPES	N	782.84	Douglas-fir	133	II	244	636.71
OLYMPIC CLAY LOAM, 30 TO 60 PERCENT SLOPES	Ns	1936.07	Douglas-fir	133	II	244	1574.67
OLYMPIC CLAY LOAM, 30 TO 60 PERCENT SLOPES	S	810.87	Douglas-fir	133	II	244	659.51
OLYMPIC CLAY LOAM, 8 TO 20 PERCENT SLOPES	F	2117.82	Douglas-fir	133	II	244	1722.50
OLYMPIC CLAY LOAM, 8 TO 20 PERCENT SLOPES	N	664.22	Douglas-fir	133	II	244	540.23
OLYMPIC CLAY LOAM, 8 TO 20 PERCENT SLOPES	Ns	2741.81	Douglas-fir	133	II	244	2230.00
OLYMPIC CLAY LOAM, 8 TO 20 PERCENT SLOPES	S	225.39	Douglas-fir	133	II	244	183.32
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 15 TO 30 PERCENT SLOPES	F	307.02	Douglas-fir	110	III	197	201.61
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 15 TO 30 PERCENT SLOPES	N	122.04	Douglas-fir	110	III	197	80.14
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 15 TO 30 PERCENT SLOPES	Ns	340.29	Douglas-fir	110	III	197	223.45
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 15 TO 30 PERCENT SLOPES	S	24.49	Douglas-fir	110	III	197	16.08

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 3 TO 15 PERCENT SLOPES	F	35.94	Douglas-fir	110	III	197	23.60
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 3 TO 15 PERCENT SLOPES	N	3.40	Douglas-fir	110	III	197	2.23
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 3 TO 15 PERCENT SLOPES	Ns	210.57	Douglas-fir	110	III	197	138.27
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 3 TO 15 PERCENT SLOPES	S	17.74	Douglas-fir	110	III	197	11.65
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 30 TO 65 PERCENT SLOPES	F	158.42	Douglas-fir	110	III	197	104.03
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 30 TO 65 PERCENT SLOPES	N	314.83	Douglas-fir	110	III	197	206.74
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 30 TO 65 PERCENT SLOPES	Ns	430.80	Douglas-fir	110	III	197	282.89
OLYMPIC CLAY LOAM, SHALLOW VARIANT, 30 TO 65 PERCENT SLOPES	S	202.63	Douglas-fir	110	III	197	133.06
OLYMPIC STONY CLAY LOAM, 3 TO 30 PERCENT SLOPES	F	2787.62	Douglas-fir	125	II	228	2118.59
OLYMPIC STONY CLAY LOAM, 3 TO 30 PERCENT SLOPES	N	764.76	Douglas-fir	125	II	228	581.22
OLYMPIC STONY CLAY LOAM, 3 TO 30 PERCENT SLOPES	Ns	2702.60	Douglas-fir	125	II	228	2053.98
OLYMPIC STONY CLAY LOAM, 3 TO 30 PERCENT SLOPES	S	374.01	Douglas-fir	125	II	228	284.25
OLYMPIC STONY CLAY LOAM, 30 TO 60 PERCENT SLOPES	F	4991.66	Douglas-fir	125	II	228	3793.66
OLYMPIC STONY CLAY LOAM, 30 TO 60 PERCENT SLOPES	N	1393.23	Douglas-fir	125	II	228	1058.85
OLYMPIC STONY CLAY LOAM, 30 TO 60 PERCENT SLOPES	Ns	4560.86	Douglas-fir	125	II	228	3466.25
OLYMPIC STONY CLAY LOAM, 30 TO 60 PERCENT SLOPES	S	1681.22	Douglas-fir	125	II	228	1277.73
OLYMPIC VERY STONY CLAY LOAM, SHALLOW VARIANT, 5 TO 15 PERCENT SLOPES	F	47.35	Douglas-fir	110	III	197	31.10
OLYMPIC VERY STONY CLAY LOAM, SHALLOW VARIANT, 5 TO 15 PERCENT SLOPES	Ns	66.84	Douglas-fir	110	III	197	43.89
OLYMPIC VERY STONY CLAY LOAM, SHALLOW VARIANT, 5 TO 15 PERCENT SLOPES	S	277.70	Douglas-fir	110	III	197	182.36
PILCHUCK FINE SAND, 0 TO 8 PERCENT SLOPES	F	145.68	Douglas-fir	114	III	206	100.03
PILCHUCK FINE SAND, 0 TO 8 PERCENT SLOPES	N	0.86	Douglas-fir	114	III	206	0.59
PILCHUCK FINE SAND, 0 TO 8 PERCENT SLOPES	Ns	38.85	Douglas-fir	114	III	206	26.68
PILCHUCK FINE SAND, 0 TO 8 PERCENT SLOPES	S	1293.89	Douglas-fir	114	III	206	888.47
PITS	F	7.96	None	0	V	150	3.98
PITS	Ns	6.91	None	0	V	150	3.45
PITS	S	0.08	None	0	V	150	0.04
POWELL SILT LOAM, 0 TO 8 PERCENT SLOPES	F	238.48	None	0	V	150	119.24
POWELL SILT LOAM, 0 TO 8 PERCENT SLOPES	N	30.41	None	0	V	150	15.20
POWELL SILT LOAM, 0 TO 8 PERCENT SLOPES	Ns	119.16	None	0	V	150	59.58
POWELL SILT LOAM, 20 TO 30 PERCENT SLOPES	F	72.91	None	0	V	150	36.46
POWELL SILT LOAM, 20 TO 30 PERCENT SLOPES	N	38.74	None	0	V	150	19.37
POWELL SILT LOAM, 20 TO 30 PERCENT SLOPES	Ns	156.54	None	0	V	150	78.27
POWELL SILT LOAM, 20 TO 30 PERCENT SLOPES	S	0.58	None	0	V	150	0.29
POWELL SILT LOAM, 8 TO 20 PERCENT SLOPES	F	58.33	None	0	V	150	29.17
POWELL SILT LOAM, 8 TO 20 PERCENT SLOPES	N	62.11	None	0	V	150	31.05
POWELL SILT LOAM, 8 TO 20 PERCENT SLOPES	Ns	188.92	None	0	V	150	94.46

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
PUYALLUP FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	F	1253.05	Douglas-fir	125	II	228	952.32
PUYALLUP FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	N	53.16	Douglas-fir	125	II	228	40.40
PUYALLUP FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	Ns	457.15	Douglas-fir	125	II	228	347.44
PUYALLUP FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	S	2051.47	Douglas-fir	125	II	228	1559.12
RIVERWASH, COBBLY	F	344.47	None	0	V	150	172.23
RIVERWASH, COBBLY	N	8.70	None	0	V	150	4.35
RIVERWASH, COBBLY	Ns	52.84	None	0	V	150	26.42
RIVERWASH, COBBLY	S	839.03	None	0	V	150	419.51
RIVERWASH, SANDY	F	15.85	None	0	V	150	7.93
RIVERWASH, SANDY	S	267.60	None	0	V	150	133.80
ROCK LAND	F	56.32	None	0	V	150	28.16
ROCK LAND	N	53.85	None	0	V	150	26.93
ROCK LAND	Ns	329.46	None	0	V	150	164.73
ROCK LAND	S	149.52	None	0	V	150	74.76
ROUGH BROKEN LAND	F	206.30	None	0	V	150	103.15
ROUGH BROKEN LAND	N	22.05	None	0	V	150	11.03
ROUGH BROKEN LAND	Ns	80.10	None	0	V	150	40.05
ROUGH BROKEN LAND	S	146.94	None	0	V	150	73.47
SALKUM SILTY CLAY LOAM, 3 TO 15 PERCENT SLOPES	F	217.77	Douglas-fir	126	II	230	166.96
SALKUM SILTY CLAY LOAM, 3 TO 15 PERCENT SLOPES	N	14.21	Douglas-fir	126	II	230	10.90
SALKUM SILTY CLAY LOAM, 3 TO 15 PERCENT SLOPES	Ns	130.30	Douglas-fir	126	II	230	99.90
SARA SILT LOAM, 0 TO 8 PERCENT SLOPES	F	115.80	Douglas-fir	116	III	210	81.06
SARA SILT LOAM, 0 TO 8 PERCENT SLOPES	N	26.08	Douglas-fir	116	III	210	18.25
SARA SILT LOAM, 0 TO 8 PERCENT SLOPES	Ns	449.60	Douglas-fir	116	III	210	314.72
SARA SILT LOAM, 0 TO 8 PERCENT SLOPES	S	2.42	Douglas-fir	116	III	210	1.69
SARA SILT LOAM, 30 TO 50 PERCENT SLOPES	F	583.15	Douglas-fir	116	III	210	408.21
SARA SILT LOAM, 30 TO 50 PERCENT SLOPES	N	38.01	Douglas-fir	116	III	210	26.61
SARA SILT LOAM, 30 TO 50 PERCENT SLOPES	Ns	309.58	Douglas-fir	116	III	210	216.70
SARA SILT LOAM, 30 TO 50 PERCENT SLOPES	S	140.31	Douglas-fir	116	III	210	98.22
SARA SILT LOAM, 8 TO 20 PERCENT SLOPES	F	331.23	Douglas-fir	116	III	210	231.86
SARA SILT LOAM, 8 TO 20 PERCENT SLOPES	N	103.44	Douglas-fir	116	III	210	72.41
SARA SILT LOAM, 8 TO 20 PERCENT SLOPES	Ns	476.28	Douglas-fir	116	III	210	333.40
SARA SILT LOAM, 8 TO 20 PERCENT SLOPES	S	14.98	Douglas-fir	116	III	210	10.49
SAUVIE SILT LOAM, 0 TO 3 PERCENT SLOPES	F	1054.16	None	0	V	150	527.08
SAUVIE SILT LOAM, 0 TO 3 PERCENT SLOPES	N	335.51	None	0	V	150	167.76
SAUVIE SILT LOAM, 0 TO 3 PERCENT SLOPES	Ns	160.38	None	0	V	150	80.19

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	SPTH^{50}	Site Class	SPTH^{200}	Estimated Area in SPTH^{200} (ac)
SAUVIE SILT LOAM, 0 TO 3 PERCENT SLOPES	S	2307.92	None	0	V	150	1153.96
SAUVIE SILT LOAM, 3 TO 8 PERCENT SLOPES	F	115.75	None	0	V	150	57.88
SAUVIE SILT LOAM, 3 TO 8 PERCENT SLOPES	N	34.11	None	0	V	150	17.06
SAUVIE SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	18.76	None	0	V	150	9.38
SAUVIE SILT LOAM, 3 TO 8 PERCENT SLOPES	S	618.12	None	0	V	150	309.06
SAUVIE SILT LOAM, SANDY SUBSTRATUM, 0 TO 3 PERCENT SLOPES	F	284.42	None	0	V	150	142.21
SAUVIE SILT LOAM, SANDY SUBSTRATUM, 0 TO 3 PERCENT SLOPES	N	52.28	None	0	V	150	26.14
SAUVIE SILT LOAM, SANDY SUBSTRATUM, 0 TO 3 PERCENT SLOPES	Ns	119.73	None	0	V	150	59.86
SAUVIE SILT LOAM, SANDY SUBSTRATUM, 0 TO 3 PERCENT SLOPES	S	585.23	None	0	V	150	292.61
SAUVIE SILTY CLAY LOAM, 0 TO 8 PERCENT SLOPES	F	642.77	None	0	V	150	321.38
SAUVIE SILTY CLAY LOAM, 0 TO 8 PERCENT SLOPES	N	497.71	None	0	V	150	248.85
SAUVIE SILTY CLAY LOAM, 0 TO 8 PERCENT SLOPES	Ns	160.24	None	0	V	150	80.12
SAUVIE SILTY CLAY LOAM, 0 TO 8 PERCENT SLOPES	S	2143.74	None	0	V	150	1071.87
SEMIAHMOO MUCK	F	363.55	None	0	V	150	181.78
SEMIAHMOO MUCK	N	129.17	None	0	V	150	64.59
SEMIAHMOO MUCK	Ns	57.19	None	0	V	150	28.59
SEMIAHMOO MUCK	S	5.37	None	0	V	150	2.68
SEMIAHMOO MUCK, SHALLOW VARIANT	F	199.73	None	0	V	150	99.87
SEMIAHMOO MUCK, SHALLOW VARIANT	N	127.10	None	0	V	150	63.55
SEMIAHMOO MUCK, SHALLOW VARIANT	Ns	27.70	None	0	V	150	13.85
SEMIAHMOO MUCK, SHALLOW VARIANT	S	71.50	None	0	V	150	35.75
SIFTON GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES	F	14.92	Douglas-fir	110	III	197	9.80
SIFTON GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES	S	14.59	Douglas-fir	110	III	197	9.58
SKOLY STONY LOAM, 15 TO 30 PERCENT SLOPES	F	3.25	Douglas-fir	111	III	199	2.16
SKOLY STONY LOAM, 2 TO 15 PERCENT SLOPES	S	8.18	Douglas-fir	111	III	199	5.43
SKOLY STONY LOAM, 30 TO 65 PERCENT SLOPES	F	0.00	Douglas-fir	111	III	199	0.00
SKOLY STONY LOAM, 30 TO 65 PERCENT SLOPES	Ns	11.88	Douglas-fir	111	III	199	7.88
SWIFT CINDERY SANDY LOAM, 2 TO 30 PERCENT SLOPES	F	10.85	Douglas-fir	96	IV	169	6.11
SWIFT CINDERY SANDY LOAM, 2 TO 30 PERCENT SLOPES	N	214.63	Douglas-fir	96	IV	169	120.91
SWIFT CINDERY SANDY LOAM, 2 TO 30 PERCENT SLOPES	Ns	341.07	Douglas-fir	96	IV	169	192.14
SWIFT CINDERY SANDY LOAM, 30 TO 65 PERCENT SLOPES	F	29.48	Douglas-fir	96	IV	169	16.61
SWIFT CINDERY SANDY LOAM, 30 TO 65 PERCENT SLOPES	N	146.91	Douglas-fir	96	IV	169	82.76
SWIFT CINDERY SANDY LOAM, 30 TO 65 PERCENT SLOPES	Ns	326.03	Douglas-fir	96	IV	169	183.66
SWIFT CINDERY SANDY LOAM, 30 TO 65 PERCENT SLOPES	S	0.00	Douglas-fir	96	IV	169	0.00
SWIFT CINDERY SANDY LOAM, 65 TO 90 PERCENT SLOPES	F	256.94	Douglas-fir	96	IV	169	144.74
SWIFT CINDERY SANDY LOAM, 65 TO 90 PERCENT SLOPES	N	150.96	Douglas-fir	96	IV	169	85.04

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
SWIFT CINDERY SANDY LOAM, 65 TO 90 PERCENT SLOPES	Ns	839.45	Douglas-fir	96	IV	169	472.89
SWIFT-ROCK OUTCROP COMPLEX, 30 TO 65 PERCENT SLOPES	F	10.40	Douglas-fir	96	IV	169	5.86
SWIFT-ROCK OUTCROP COMPLEX, 30 TO 65 PERCENT SLOPES	N	91.43	Douglas-fir	96	IV	169	51.51
SWIFT-ROCK OUTCROP COMPLEX, 30 TO 65 PERCENT SLOPES	Ns	70.85	Douglas-fir	96	IV	169	39.91
SWIFT-ROCK OUTCROP COMPLEX, 30 TO 65 PERCENT SLOPES	S	3.08	Douglas-fir	96	IV	169	1.73
SWIFT-ROCK OUTCROP COMPLEX, 65 TO 90 PERCENT SLOPES	F	9.64	Douglas-fir	96	IV	169	5.43
SWIFT-ROCK OUTCROP COMPLEX, 65 TO 90 PERCENT SLOPES	N	14.52	Douglas-fir	96	IV	169	8.18
SWIFT-ROCK OUTCROP COMPLEX, 65 TO 90 PERCENT SLOPES	Ns	143.87	Douglas-fir	96	IV	169	81.04
SWIFT-ROCK OUTCROP COMPLEX, 65 TO 90 PERCENT SLOPES	S	84.58	Douglas-fir	96	IV	169	47.64
TISCH SILT LOAM, 0 TO 3 PERCENT SLOPES	F	187.83	red alder	0	V	150	93.91
TISCH SILT LOAM, 0 TO 3 PERCENT SLOPES	N	39.82	red alder	0	V	150	19.91
TISCH SILT LOAM, 0 TO 3 PERCENT SLOPES	Ns	32.91	red alder	0	V	150	16.46
TISCH SILT LOAM, 0 TO 3 PERCENT SLOPES	S	131.55	red alder	0	V	150	65.77
VADER SILT LOAM, 3 TO 8 PERCENT SLOPES	F	34.95	Douglas-fir	122	II	222	25.86
VADER SILT LOAM, 3 TO 8 PERCENT SLOPES	N	45.03	Douglas-fir	122	II	222	33.32
VADER SILT LOAM, 3 TO 8 PERCENT SLOPES	Ns	9.63	Douglas-fir	122	II	222	7.13
VADER SILT LOAM, 3 TO 8 PERCENT SLOPES	S	95.95	Douglas-fir	122	II	222	71.01
VADER SILT LOAM, 8 TO 15 PERCENT SLOPES	F	25.92	Douglas-fir	122	II	222	19.18
VADER SILT LOAM, 8 TO 15 PERCENT SLOPES	N	12.87	Douglas-fir	122	II	222	9.53
VADER SILT LOAM, 8 TO 15 PERCENT SLOPES	Ns	12.58	Douglas-fir	122	II	222	9.31
VADER SILT LOAM, 8 TO 15 PERCENT SLOPES	S	8.88	Douglas-fir	122	II	222	6.57
WASHOUGAL GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	F	462.98	Douglas-fir	119	II	216	333.34
WASHOUGAL GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	N	8.33	Douglas-fir	119	II	216	6.00
WASHOUGAL GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	Ns	244.52	Douglas-fir	119	II	216	176.06
WASHOUGAL GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	S	853.19	Douglas-fir	119	II	216	614.30
WASHOUGAL GRAVELLY LOAM, 8 TO 30 PERCENT SLOPES	F	41.46	Douglas-fir	119	II	216	29.85
WASHOUGAL GRAVELLY LOAM, 8 TO 30 PERCENT SLOPES	Ns	15.54	Douglas-fir	119	II	216	11.19
WASHOUGAL GRAVELLY LOAM, 8 TO 30 PERCENT SLOPES	S	132.38	Douglas-fir	119	II	216	95.31
WASHOUGAL LOAM, 0 TO 3 PERCENT SLOPES	F	204.51	Douglas-fir	114	III	206	140.43
WASHOUGAL LOAM, 0 TO 3 PERCENT SLOPES	N	39.42	Douglas-fir	114	III	206	27.07
WASHOUGAL LOAM, 0 TO 3 PERCENT SLOPES	Ns	115.30	Douglas-fir	114	III	206	79.18
WASHOUGAL LOAM, 0 TO 3 PERCENT SLOPES	S	434.27	Douglas-fir	114	III	206	298.20
WASHOUGAL STONY LOAM, 30 TO 60 PERCENT SLOPES	F	94.64	Douglas-fir	119	II	216	68.14
WASHOUGAL STONY LOAM, 30 TO 60 PERCENT SLOPES	Ns	33.07	Douglas-fir	119	II	216	23.81
WASHOUGAL STONY LOAM, 30 TO 60 PERCENT SLOPES	S	436.20	Douglas-fir	119	II	216	314.06
WIND RIVER GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	F	52.16	Douglas-fir	110	III	197	34.25

Soil Name	Water Type	300 ft. Near Stream Area (ac)	Tree Species	$SPTH^{50}$	Site Class	$SPTH^{200}$	Estimated Area in $SPTH^{200}$ (ac)
WIND RIVER GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	Ns	10.25	Douglas-fir	110	III	197	6.73
WIND RIVER GRAVELLY LOAM, 0 TO 8 PERCENT SLOPES	S	46.01	Douglas-fir	110	III	197	30.21
WIND RIVER GRAVELLY LOAM, 12 TO 50 PERCENT SLOPES	S	79.18	Douglas-fir	110	III	197	51.99
WIND RIVER SANDY LOAM, 0 TO 8 PERCENT SLOPES	F	11.04	Douglas-fir	110	III	197	7.25
WIND RIVER SANDY LOAM, 0 TO 8 PERCENT SLOPES	S	73.98	Douglas-fir	110	III	197	48.58
WIND RIVER SANDY LOAM, 30 TO 65 PERCENT SLOPES	F	27.99	Douglas-fir	110	III	197	18.38
WIND RIVER SANDY LOAM, 30 TO 65 PERCENT SLOPES	S	70.67	Douglas-fir	110	III	197	46.41
WIND RIVER SANDY LOAM, 8 TO 20 PERCENT SLOPES	F	26.85	Douglas-fir	110	III	197	17.63
WIND RIVER SANDY LOAM, 8 TO 20 PERCENT SLOPES	S	93.44	Douglas-fir	110	III	197	61.36
YACOLT LOAM, 0 TO 3 PERCENT SLOPES	F	303.68	Douglas-fir	105	III	187	189.29
YACOLT LOAM, 0 TO 3 PERCENT SLOPES	N	6.20	Douglas-fir	105	III	187	3.86
YACOLT LOAM, 0 TO 3 PERCENT SLOPES	Ns	96.21	Douglas-fir	105	III	187	59.97
YACOLT LOAM, 0 TO 3 PERCENT SLOPES	S	94.21	Douglas-fir	105	III	187	58.72
YACOLT LOAM, 3 TO 15 PERCENT SLOPES	F	785.61	Douglas-fir	105	III	187	489.70
YACOLT LOAM, 3 TO 15 PERCENT SLOPES	N	122.58	Douglas-fir	105	III	187	76.41
YACOLT LOAM, 3 TO 15 PERCENT SLOPES	Ns	345.38	Douglas-fir	105	III	187	215.29
YACOLT LOAM, 3 TO 15 PERCENT SLOPES	S	2340.17	Douglas-fir	105	III	187	1458.71
YACOLT STONY LOAM, 0 TO 5 PERCENT SLOPES	F	157.98	Douglas-fir	105	III	187	98.47
YACOLT STONY LOAM, 0 TO 5 PERCENT SLOPES	N	12.87	Douglas-fir	105	III	187	8.02
YACOLT STONY LOAM, 0 TO 5 PERCENT SLOPES	Ns	48.63	Douglas-fir	105	III	187	30.31
YACOLT STONY LOAM, 0 TO 5 PERCENT SLOPES	S	60.46	Douglas-fir	105	III	187	37.69