

Appendix H

Soils

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Definitions for Soil Management Interpretations

Soil Compaction

Compaction is the compression of soil particles. Compaction reduces the amount of pore spaces in the soil and thus increases soil density. Compaction can be caused by the movement of wheeled and tracked equipment on the soil surface and by certain logging practices (for example, yarding logs).

Compaction can reduce the growth rate of trees by:

- Reducing the size or extent of root systems and the number of fine roots by increasing soil density. The moisture stress and nutrient stress potentials are greater as a result.
- Reducing the oxygen uptake of roots, thereby decreasing absorption of water and nutrients.
- Impeding water movement through soils.

The compaction potential rating refers to the susceptibility of a soil to compaction. The ratings are based on moist surface soil behavior.

Definitions of the ratings:

- **Low:** The potential for compaction is insignificant. This soil is able to support standard equipment with minimal compaction. The soil is moisture insensitive, exhibiting only small changes in density with changing moisture content.
- **Medium:** The potential for compaction is significant. The growth rate of seedlings may be reduced. After the initial compaction (i.e. the first equipment pass), this soil is able to support standard equipment with only minimal increases in soil density. The soil is an intermediate between moisture insensitive and moisture sensitive (see below) soils.
- **High:** The potential for compaction is significant. The growth rate of seedlings will be reduced following compaction. After initial compaction, this soil is still able to support standard equipment, but will continue to compact with each subsequent pass. The soil is moisture sensitive, exhibiting large changes in density with changing moisture content.

Soil Displacement

Displacement is the movement of the soil caused by scraping or gouging during equipment operation and yarding. This movement is not downward (as in compaction) but sideward or horizontal, resulting in the formation of ridges and furrows of soil. Displacement is most pronounced on sites that are tractor logged, or that are cable yarded without adequate suspension. Further displacement may occur during site preparation.

Displacement results in loss of productivity by:

- Disturbing or removing the duff which protects the soil and provides nutrients for seedling growth.
- Removing the surface layer from some areas.
- Increasing the potential for erosion.

The displacement potential rating refers to the susceptibility of a soil to displacement. The ratings are based on dry and moist soil behavior.

Definitions of the ratings:

- **Low:** The potential for displacement is insignificant under standard operations.
- **Medium:** The potential for displacement is significant, but the damage that may occur can be limited or minimized by careful equipment selection and operation.
- **High:** The potential for displacement is significant, and the damage that may occur cannot be effectively reduced by careful equipment selection and operation.

Soil Erosion

The erosion potential rating refers to the susceptibility of a soil surface to erode from bare slopes as a result of water action. Bare soil areas include skid trails and yarding paths. The types of water erosion that occur are sheet, rill, and gully erosion.

Erosion potential ratings are based on the interaction of:

- Certain soil properties, including texture, structure, and porosity.
- Rainfall and storm intensity.
- Slope

Definitions of the ratings:

- **Low:** The potential for surface erosion is insignificant. Erosion will be minimal.
- **Medium:** The potential for surface erosion is significant. Extensive erosion can occasionally occur on skid trails and yarding paths, but it can be reduced or limited by careful logging and by avoiding unnecessary surface disturbance.
- **High:** The potential for surface erosion is significant. Extensive erosion can frequently be expected to occur on all bare surfaces. Widespread erosion cannot be avoided unless logging practices that minimize surface disturbance are applied.

Analysis Methods

Soil data was analyzed using DNR corporate data ROPA.SOILS_SV. The soil polygons were clipped during an editing session by addition of the WAU 20 percent DNR merged polygon set and preservation of the clipped value (and then removal of the merged polygon). The soils polygons contained some overlap and were mitigated by merging the values of high, medium, low, and variable and clipping them in the hierarchical value from high to variable (as above). The analysis was then completed by using the polygon- to-polygon analysis (also known as zonal statistics) in Hawth's Analysis Tools for ArcGIS, Version 3.27 (Beyer, 2004) by using the WAU 20 percent DNR T3 layer compared with the values of erosion, compaction, and displacement (high, medium, low, and variable). Any values remaining that did not sum to the total value of the watershed were considered null or no data. Precision of the soils and WAU_T3 data was set to a XY resolution of 0.00048828125 feet US. Zonal statistics is a tool to calculate statistics on values of a spatial integer generated file (such as a raster) within the zones or area of another dataset.

SOILS_SV Metadata Abstract

Information for the SOILS data layer was derived from the Private Forest Land Grading system (PFLG) and subsequent soil surveys. PFLG was a five-year mapping program completed in 1980 for the purpose of forestland taxation. It was funded by the Washington State Department of Revenue. The Soil Conservation Service (now known as the Natural Resources Conservation Service or NRCS), USDA Forest Service and Washington State University conducted soil mapping cooperatively following national soil survey standards. Private lands having the potential to support commercial forests were surveyed along with interspersed small areas of state trust lands, tribal lands, and federal lands. Because this was a cooperative soil survey project, agricultural and non-commercial forestlands were included within some survey areas.

After DNR originally developed its geographic information system, digitized soil map unit delineations and a few soil attributes were transferred to the system. Remaining PFLG soil attributes were later added and are now available through associated lookup tables. SCS (NRCS) soils data on agricultural lands also have been subsequently added to this data layer. The SOILS data layer includes approximately 1, 100 townships with wholly or partially digitized soils data (2,101 townships would provide complete coverage of the state of Washington). The source data is the soils data from prod (data that has gone through analysis and a conversion).

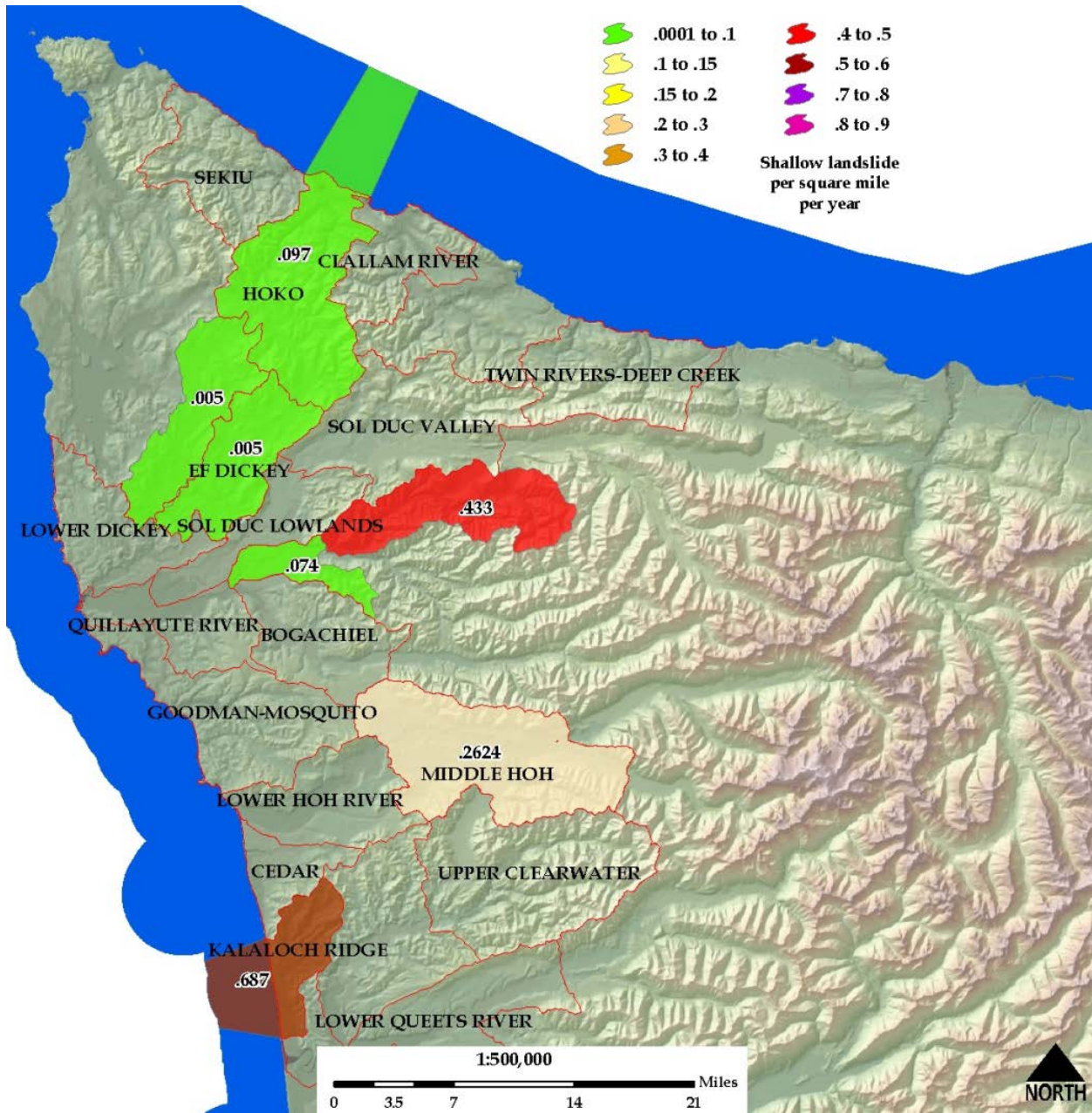
The SOILS_SV resolves one-to-many relationships and as such, is one of those special "DNR" spatial views (i.e. is implemented similar to a feature class). Column names may not match between SOILS_SV and the originating datasets.

Shallow Landslide Initiation Rates

DNR calculates shallow landslide initiation rates within OESF watershed administrative units where data is available. An average landslide rate for western Washington is calculated to be .121 landslides per square mile per year (Sarikhani and others 2009). For the OESF, four watersheds have a calculated landslide rate ranging from .005 to .687 landslides per acre per year (Sarikhani and others 2009, Parks 2000). Shallow landslide initiation has been tied to geologic units (Sarikhani and others 2008, Sarikhani and others 2009). Shallow landslides are normalized by simplified geologic units and compared within

each watershed administrative unit to determine which geologic units are at higher risk of landslide initiation.

Map H-1 Landslide Rates for Watershed Administrative Units With Data in the OESF



Map H-2: Geologic Map of the OESF



Harvest Entries on State Trust Lands in the OESF

In the following section, DNR shows the number of harvest entries and acres of harvest in each watershed administrative unit on soils with a high likelihood of compaction, displacement, erosion, or that are the least productive (Tables H-1 through H-14). Data is presented for the entire analysis period and by decade.

Results for Compaction

Table H-1: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils with a High Likelihood of Compaction, No Action Alternative

Watershed administrative unit (acres)	Harvest entries (acres)			
	1	2	3	4
Bogachiel (11,267)	462	1,632	1,613	601
Cedar (4,208)	239	641	762	619
Clallam River (10,161)	1,613	1,602	1,526	1,444
East Fork Dickey (10,975)	850	2,496	2,366	1,233
Goodman Mosquito (13,449)	516	2,631	1,941	670
Hoko (10,636)	1,767	1,670	2,524	1,382
Kalaloch Ridge (5,753)	339	655	719	475
Lower Clearwater (19,815)	1,981	2,207	3,887	1,578
Lower Dickey (7,377)	509	935	1,692	395
Lower Hoh River (7,120)	759	1,612	561	287
Lower Queets River (14,961)	524	1,623	1,965	1,424
Middle Hoh (37,289)	2,871	4,643	874	384
Quillayute River (6,187)	152	1,194	1,453	702
Sol Duc Lowlands (4,448)	499	647	385	293
Sol Duc Valley (13,481)	703	2,481	1,508	1,549
Upper Clearwater (54,911)	1,876	4,331	4,588	2,467

Table H-2: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils with a High Likelihood of Compaction, Landscape Alternative

Watershed administrative unit (acres)	Harvest entries (acres)			
	1	2	3	4
Bogachiel	345	1,304	1,697	1,074
Cedar	176	576	794	804
Clallam River	1,787	907	1,962	1,600
East Fork Dickey	722	1,287	2,862	2,057
Goodman Mosquito	646	1,991	2,018	1,101
Hoko	1,542	1,053	2,892	1,848
Kalaloch Ridge	204	335	942	747
Lower Clearwater	1,091	2,190	4,414	2,143
Lower Dickey	390	681	1,704	756
Lower Hoh River	711	1,710	555	315
Lower Queets River	342	1,059	2,134	2,074
Middle Hoh	2,751	5,970	346	42
Quillayute River	144	698	1,500	1,225
Sol Duc Lowlands	441	372	608	441
Sol Duc Valley	1,011	1,259	2,213	1,868
Upper Clearwater	1,316	3,373	5,721	3,114

Table H-3: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit and Decade on Soils With a High Likelihood of Compaction

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
Bogachiel		4,276	4,518
1		523	488
	1	18	10
	2	139	120
	3	82	74
	4	168	165
	5	116	119
2		65	200
	1	1	1
	2	24	51
	3	38	90
	4	1	24
	5	1	34
3		503	423
	1	0	3
	2	168	87

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	316	259
	4	19	74
4		559	458
	1	31	15
	2	94	93
	3	180	130
	4	138	101
	5	116	119
5		382	643
	1	17	6
	2	75	118
	3	129	179
	4	71	193
	5	90	147
6		557	514
	1	51	37
	2	126	103
	3	322	254
	4	30	80
	5	28	40
7		479	415
	2	126	78
	3	266	318
	4	87	19
8		531	625
	1	7	7
	2	164	141
	3	222	218
	4	49	146
	5	89	113
9		439	494
	1	1	1
	2	45	41
	3	182	139
	4	102	166
	5	109	147
10		238	258
	2	43	56
	3	72	64

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	87	92
	5	36	46
Cedar		2,408	2,755
		205	164
	1	1	1
	2	11	4
	3	28	48
	4	99	74
	5	66	37
2		200	291
	1	14	0
	2	66	34
	3	97	188
	4	2	44
	5	21	25
3		170	251
	1	1	5
	2	94	124
	3	72	35
	4	3	87
4		251	175
	1	6	0
	2	35	31
	3	45	34
	4	99	73
	5	66	37
5		174	291
	1	0	1
	2	38	47
	3	55	76
	4	9	105
	5	72	62
6		317	394
	1	51	26
	2	21	21
	3	171	213
	4	38	109
	5	36	25
7		330	210

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	98	23
	2	95	41
	3	80	119
	4	57	27
8		181	408
	1	14	14
	2	62	102
	3	45	165
	4	9	90
	5	51	37
9		363	322
	1	37	2
	2	66	68
	3	162	78
	4	44	116
	5	54	58
10		217	249
	2	22	34
	3	70	91
	4	56	95
	5	69	29
Clallam River		5,354	5,180
1		922	692
	1	50	67
	2	184	115
	3	112	117
	4	489	231
	5	87	162
2		158	142
	1	3	5
	2	79	15
	3	43	71
	4	12	44
	5	21	7
3		276	248
	1	6	4
	2	45	52
	3	217	152
	4	8	40

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
4		934	830
	1	87	47
	2	114	138
	3	169	285
	4	477	200
	5	87	160
5		354	567
	1	6	14
	2	31	47
	3	125	130
	4	103	219
	5	89	157
6		541	548
	1	45	62
	2	113	138
	3	219	199
	4	124	128
	5	40	21
7		724	516
	1	87	101
	2	117	11
	3	219	385
	4	301	19
8		371	619
	1	74	97
	2	70	59
	3	123	232
	4	36	83
	5	68	148
9		570	660
	1	53	74
	2	125	154
	3	135	90
	4	179	229
	5	78	113
10		504	358
	1	23	15
	2	64	81
	3	12	118

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	335	67
	5	70	77
East Fork Dickey		5,532	6,108
1		642	676
	1	5	12
	2	153	93
	3	121	111
	4	201	234
	5	162	226
2		339	358
	1	5	5
	2	79	14
	3	163	216
	4	5	65
	5	87	58
3		158	197
	1	3	4
	2	73	42
	3	81	113
	4	1	38
4		800	819
	1	15	10
	2	164	91
	3	259	271
	4	200	221
	5	162	226
5		545	901
	1	23	27
	2	103	120
	3	191	294
	4	57	200
	5	171	260
6		534	587
	1	64	38
	2	137	86
	3	148	220
	4	20	161
	5	165	82
7		698	535

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	22	56
	2	194	37
	3	346	406
	4	136	36
8		496	687
	1	29	17
	2	124	106
	3	255	307
	4	4	55
	5	84	202
9		673	938
	1	86	18
	2	175	174
	3	130	253
	4	55	285
	5	227	208
10		647	410
	1	51	23
	2	138	87
	3	118	89
	4	153	53
	5	187	158
Goodman Mosquito		4,060	4,142
1		289	195
	1	4	0
	2	76	32
	3	38	49
	4	99	37
	5	72	77
2		100	250
	2	49	54
	3	47	95
	4	3	37
	5	1	64
3		623	466
	1	13	20
	2	244	115
	3	338	241
	4	28	90

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
4		407	369
	1	16	15
	2	132	135
	3	93	111
	4	94	31
	5	72	77
5		310	544
	1	9	23
	2	136	122
	3	109	130
	4	29	131
	5	27	138
6		700	597
	1	123	122
	2	114	68
	3	363	269
	4	53	71
	5	47	67
7		391	388
	1	7	7
	2	127	53
	3	206	326
	4	51	2
8		421	504
	2	200	182
	3	173	166
	4	22	82
	5	26	74
9		545	529
	1	6	6
	2	173	145
	3	221	131
	4	72	109
	5	73	138
10		274	300
	1	4	4
	2	83	100
	3	71	48
	4	69	78

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	47	70
Hoko		6,452	6,818
1		728	779
	1	58	110
	2	132	105
	3	86	132
	4	373	298
	5	79	134
2		312	375
	1	17	8
	2	33	38
	3	168	201
	4	54	106
	5	40	22
3		504	535
	1	10	15
	2	80	61
	3	411	312
	4	3	147
4		726	716
	1	36	59
	2	109	95
	3	164	171
	4	338	259
	5	79	132
5		673	818
	1	71	43
	2	84	70
	3	289	267
	4	130	303
	5	99	135
6		751	799
	1	33	49
	2	136	96
	3	392	311
	4	130	298
	5	60	45
7		738	661
	1	147	78

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	59	39
	3	317	488
	4	215	56
8		609	707
	1	69	58
	2	110	68
	3	303	307
	4	68	167
	5	59	107
9		902	902
	1	92	57
	2	102	102
	3	407	244
	4	202	399
	5	99	100
10		509	526
	1	30	11
	2	119	122
	3	73	117
	4	207	171
	5	80	105
Kalaloch Ridge		3,105	3,502
1		423	414
	1	3	2
	2	108	41
	3	88	114
	4	192	239
	5	32	18
2		185	264
	1	8	17
	2	50	37
	3	107	144
	4	2	49
	5	18	17
3		227	305
	1	22	12
	2	69	70
	3	136	156
	4	0	67

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
4		428	292
	1	84	2
	2	37	19
	3	84	25
	4	191	228
	5	32	18
5		193	501
	1	10	45
	2	10	72
	3	108	208
	4	15	141
	5	50	35
6		424	405
	1	86	58
	2	34	30
	3	159	138
	4	127	162
	5	18	17
7		330	299
	1	21	17
	2	87	28
	3	170	174
	4	52	80
8		194	307
	1	5	2
	2	67	12
	3	87	160
	4	3	115
	5	32	18
9		462	505
	1	10	1
	2	54	72
	3	239	159
	4	130	248
	5	29	25
10		239	210
	1	11	12
	2	88	23
	3	37	57

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	64	91
	5	39	27
Lower Clearwater		37	36
1		1	1
	4	1	1
2		1	2
	4	1	2
3		3	2
	2	1	1
	3	2	1
4		7	7
	2	1	3
	3	5	4
	4	1	0
5		2	3
	3	1	0
	4	1	3
6		4	6
	2	0	2
	3	2	1
	4	2	3
7		3	4
	3	3	4
8		10	6
	1	1	1
	2	1	1
	3	8	4
9		3	5
	2	1	1
	3	0	1
	4	2	3
10		3	0
	3	3	0
Lower Dickey		2,771	3,229
1		102	104
	1	9	9
	2	22	25
	3	23	14
	4	7	9

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	41	47
2		170	254
	1	8	2
	2	25	6
	3	95	118
	4	11	47
	5	31	81
3		335	294
	1	14	6
	2	116	47
	3	202	217
	4	3	24
4		263	273
	1	35	14
	2	73	49
	3	107	152
	4	7	11
	5	41	47
5		236	346
	1	10	14
	2	20	32
	3	142	102
	4	14	71
	5	50	127
6		316	457
	1	44	58
	2	33	40
	3	182	227
	4	4	50
	5	53	82
7		351	370
	1	11	22
	2	125	21
	3	208	327
	4	7	0
8		358	427
	1	47	10
	2	105	66
	3	177	281

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	10	24
	5	19	46
9		338	421
	1	100	21
	2	70	95
	3	86	114
	4	12	70
	5	70	121
10		302	283
	1	48	43
	2	77	61
	3	113	56
	4	9	34
	5	55	89
Lower Hoh River		4,191	4,472
1		343	336
	1	31	31
	2	86	61
	3	48	60
	4	130	71
	5	48	113
2		371	435
	1	3	3
	2	224	228
	3	88	132
	4	4	42
	5	52	30
3		439	537
	1	16	38
	2	176	332
	3	237	145
	4	10	22
4		414	463
	1	91	91
	2	109	118
	3	50	105
	4	116	37
	5	48	112
5		159	410

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	25	49
	2	24	41
	3	33	87
	4	18	91
	5	59	142
6		611	425
	1	144	98
	2	45	23
	3	299	219
	4	30	53
	5	93	32
7		569	468
	1	108	29
	2	258	232
	3	103	202
	4	100	5
8		205	519
	1	2	2
	2	140	242
	3	52	110
	4	4	54
	5	7	111
9		663	584
	1	49	11
	2	181	194
	3	292	147
	4	44	117
	5	97	115
10		417	295
	1	37	1
	2	103	67
	3	61	119
	4	120	48
	5	96	60
Lower Queets River		3,710	4,443
1		194	232
	1	11	0
	2	43	12
	3	7	22

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	70	97
	5	63	101
2		338	376
	1	9	1
	2	79	17
	3	92	134
	4	28	28
	5	130	196
3		175	268
	2	69	47
	3	105	184
	4	1	37
4		433	461
	1	21	5
	2	144	113
	3	135	163
	4	70	79
	5	63	101
5		411	622
	1	22	1
	2	58	43
	3	153	209
	4	22	86
	5	156	283
6		544	560
	1	74	33
	2	103	37
	3	131	182
	4	69	98
	5	167	210
7		326	413
	1	27	2
	2	72	30
	3	210	366
	4	17	15
8		358	466
	1	3	3
	2	130	77
	3	198	263

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	1	36
	5	26	87
9		614	656
	1	90	11
	2	127	110
	3	135	121
	4	71	121
	5	191	293
10		317	389
	1	23	11
	2	23	32
	3	55	81
	4	47	51
	5	169	214
Middle Hoh		7,907	7,614
1		1,082	1,280
	1	228	281
	2	592	916
	3	134	72
	4	86	10
	5	42	1
2		532	774
	1	83	141
	2	396	608
	3	49	21
	4	3	4
	5	1	0
3		773	961
	1	107	246
	2	537	661
	3	129	54
4		278	510
	1	26	230
	2	139	254
	3	48	24
	4	23	1
	5	42	1
5		664	373
	1	349	162

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	260	114
	3	51	89
	4	3	8
	5	1	0
6		1,386	671
	1	634	574
	2	344	29
	3	289	58
	4	76	9
	5	43	1
7		757	994
	1	206	250
	2	468	657
	3	73	86
	4	10	1
8		614	735
	1	24	44
	2	508	654
	3	79	33
	4	3	4
9		1,147	828
	1	433	65
	2	459	715
	3	133	34
	4	79	13
	5	43	1
10		674	488
	1	221	9
	2	311	454
	3	26	18
	4	73	6
	5	43	1
Quillayute River		2,707	3,062
1		123	63
	2	13	3
	3	26	19
	4	49	23
	5	35	18
2		121	307

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	1	0
	2	18	13
	3	69	124
	4	7	50
	5	26	120
3		507	369
	1	6	5
	2	159	64
	3	311	208
	4	31	92
4		206	168
	1	3	0
	2	40	48
	3	88	89
	4	40	13
	5	35	18
5		256	494
	1	0	1
	2	57	54
	3	108	161
	4	38	143
	5	53	135
6		401	391
	1	16	13
	2	21	16
	3	305	185
	4	25	54
	5	34	123
7		280	230
	2	105	33
	3	144	193
	4	31	4
8		313	365
	1	8	8
	2	89	64
	3	158	177
	4	31	103
	5	27	13
9		369	399

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	44	37
	3	213	128
	4	51	97
	5	61	137
10		131	276
	2	16	24
	3	36	45
	4	45	81
	5	34	126
Sol Duc Lowlands		1,554	1,669
1		208	201
	1	1	2
	2	33	10
	3	25	46
	4	133	84
	5	16	59
2		88	72
	1	0	1
	2	64	26
	3	23	42
	4	0	3
	5	1	0
3		54	54
	2	21	6
	3	33	37
	4	0	11
4		275	266
	1	46	40
	2	31	33
	3	53	56
	4	129	78
	5	16	59
5		127	231
	1	5	16
	2	46	42
	3	34	73
	4	33	43
	5	9	57
6		114	172

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	22	59
	2	29	20
	3	42	55
	4	12	36
	5	9	2
7		248	176
	1	26	18
	2	71	8
	3	63	129
	4	88	21
8		106	212
	1	14	15
	2	53	42
	3	27	67
	4	4	31
	5	8	57
9		174	181
	1	48	10
	2	51	52
	3	30	35
	4	29	66
	5	16	18
10		160	104
	1	7	14
	2	21	13
	3	18	15
	4	104	19
	5	10	43
Sol Duc Valley		6,510	6,484
1		1,056	932
	1	8	7
	2	187	157
	3	75	254
	4	674	286
	5	112	228
2		259	350
	1	9	7
	2	160	26
	3	63	183

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	3	93
	5	24	41
3		305	145
	1	4	3
	2	71	60
	3	227	77
	4	3	5
4		1,115	914
	1	21	32
	2	102	95
	3	206	286
	4	674	273
	5	112	228
5		378	913
	1	21	61
	2	45	57
	3	88	339
	4	96	204
	5	128	252
6		589	677
	1	75	86
	2	180	88
	3	280	253
	4	22	192
	5	32	58
7		942	688
	1	78	110
	2	121	50
	3	181	471
	4	562	57
8		427	658
	1	11	37
	2	126	99
	3	167	260
	4	19	62
	5	104	200
9		640	842
	1	70	33
	2	108	103

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	297	212
	4	56	291
	5	109	203
10		799	365
	1	0	1
	2	60	55
	3	69	101
	4	611	73
	5	59	135
Upper Clearwater		13,879	15,577
1		1,088	980
	1	45	10
	2	366	172
	3	161	180
	4	218	292
	5	298	326
2		1,285	1,653
	1	38	21
	2	452	296
	3	590	955
	4	46	189
	5	159	192
3		919	1,250
	1	94	98
	2	273	371
	3	497	665
	4	55	116
4		781	1,306
	1	6	117
	2	81	218
	3	198	439
	4	198	218
	5	298	314
5		2,052	1,937
	1	258	85
	2	385	187
	3	1053	865
	4	92	308
	5	264	492

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
6		1,545	2,002
	1	215	227
	2	330	336
	3	426	846
	4	222	363
	5	352	230
7		1,584	1,536
	1	209	90
	2	619	168
	3	723	1258
	4	33	20
8		1,386	1,815
	1	78	53
	2	359	347
	3	776	916
	4	68	211
	5	105	288
9		1,761	2,037
	1	123	8
	2	444	389
	3	500	618
	4	262	531
	5	432	491
10		1,478	1,061
	1	91	31
	2	481	244
	3	443	389
	4	86	140
	5	377	257

Results for Displacement

Table H-4: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils with a High Likelihood of Displacement, No Action Alternative

Watershed administrative unit	Harvest entries (acres)			
	1	2	3	4
Bogachiel	1	26	15	342
Cedar	0	3	15	325
Clallam River	4	257	44	1,145
East Fork Dickey	1	26	6	391
Goodman Mosquito	3	47	42	684
Hoko	27	271	55	1,682
Kalaloch Ridge	0	132	35	909
Lower Clearwater	1,020	1,314	1,869	909
Lower Dickey	0	30	0	167
Lower Hoh River	0	70	37	541
Lower Queets River	2	10	5	286
Middle Hoh	55	1,749	586	1,485
Quillayute River	0	11	1	148
Sol Duc Lowlands	0	2	0	39
Sol Duc Valley	1	69	26	772
Upper Clearwater	27	934	417	4,384

Table H-5: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils with a High Likelihood of Displacement, Landscape Alternative

Watershed administrative unit	Harvest entries (acres)			
	1	2	3	4+
Bogachiel	12	32	32	339
Cedar	4	14	19	322
Clallam River	80	276	63	1,148
East Fork Dickey	20	31	14	390
Goodman Mosquito	26	92	59	692
Hoko	96	309	83	1,684
Kalaloch Ridge	0	140	53	912
Lower Clearwater	519	1,244	2,252	1,233
Lower Dickey	0	30	0	167
Lower Hoh River	16	88	61	542
Lower Queets River	1	20	14	287
Middle Hoh	212	1,796	590	1,485
Quillayute River	8	13	1	148
Sol Duc Lowlands	0	2	0	39

Soi Duc Valley	23	90	37	768
Upper Clearwater	117	1,002	522	4,392

Table H-6: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit and Decade on Soils With a High Likelihood of Displacement

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
Bogachiel		384	377
1		101	103
	1	1	1
	2	6	14
	3	43	46
	4	40	31
	5	11	11
2		14	41
	1	0	1
	2	3	10
	3	10	15
	4	1	7
	5	0	8
3		145	128
	1	0	2
	2	51	39
	3	91	65
	4	3	22
4		67	62
	1	9	13
	2	28	25
	3	30	24
5		26	29
	1	11	3
	2	15	26
6		18	12
	1	18	12
8		12	1
	1	12	1
9		1	1
	1	1	1
Cedar		343	341

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
1		131	115
	1	1	1
	2	3	1
	3	18	29
	4	68	59
	5	41	25
2		77	89
	1	12	0
	2	38	2
	3	25	86
	4	0	1
	5	2	0
3		61	96
	2	26	21
	3	35	10
	4	0	65
4		23	9
	1	3	0
	3	20	9
5		9	17
	1	0	1
	2	5	5
	3	4	11
6		32	12
	1	32	5
	2	0	7
7		2	1
	1	2	1
8		1	1
	1	1	1
9		7	1
	1	7	1
Clallam River		1,450	1,440
1		648	474
	1	48	59
	2	158	90
	3	75	90
	4	305	149
	5	62	86

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
2		121	117
	1	0	2
	2	71	14
	3	25	61
	4	6	34
	5	19	6
3		221	200
	1	6	3
	2	38	43
	3	170	120
	4	7	34
4		198	294
	1	65	36
	2	81	103
	3	45	155
	4	7	0
5		43	46
	1	6	12
	2	23	13
	3	14	21
6		25	69
	1	24	32
	2	1	36
	3	0	1
7		77	80
	1	72	80
	2	5	0
8		61	85
	1	61	85
9		49	64
	1	49	64
10		7	11
	1	7	11
East Fork Dickey		426	422
1		132	137
	1	2	0
	2	18	14
	3	21	10
	4	59	57

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	32	56
2		99	108
	1	0	2
	2	45	3
	3	25	73
	4	0	18
	5	29	12
3		25	25
	1	0	1
	2	15	0
	3	10	20
	4	0	4
4		74	77
	2	8	6
	3	66	71
5		21	25
	2	17	19
	3	4	6
6		34	35
	1	14	14
	2	10	12
	3	10	9
7		20	10
	1	2	9
	2	18	1
8		1	1
	1	1	1
9		9	0
	1	9	0
10		11	4
	1	11	4
Goodman Mosquito		777	753
1		166	127
	1	1	0
	2	33	22
	3	27	31
	4	57	35
	5	48	39
2		78	155

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	33	44
	3	44	60
	4	0	22
	5	1	29
3		301	234
	1	4	6
	2	130	78
	3	148	92
	4	19	58
4		111	127
	1	16	5
	2	53	71
	3	42	51
5		29	35
	1	4	10
	2	19	21
	3	6	4
6		83	67
	1	28	27
	2	40	37
	3	15	3
7		3	2
	1	3	2
9		6	6
	1	6	6
Hoko		2,036	2,011
1		564	620
	1	54	100
	2	120	82
	3	70	101
	4	268	234
	5	52	103
2		294	343
	1	17	7
	2	33	36
	3	155	181
	4	51	98
	5	38	21
3		452	482

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	10	10
	2	68	48
	3	372	288
	4	2	136
4		186	216
	1	13	23
	2	97	76
	3	76	117
5		209	122
	1	63	35
	2	72	54
	3	74	33
6		34	44
	1	17	29
	2	16	10
	3	1	5
7		138	74
	1	125	74
	2	13	0
8		59	46
	1	45	32
	2	14	14
		79	54
	1	79	54
0		21	10
	1	21	10
Kalaloch Ridge		1,077	1,069
1		363	359
	1	3	2
	2	93	35
	3	60	86
	4	176	220
	5	31	16
2		168	228
	1	4	10
	2	44	26
	3	104	135
	4	2	45
	5	14	12

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
3		212	288
	1	22	9
	2	66	63
	3	124	151
	4	0	65
4		167	27
	1	72	0
	2	37	15
	3	58	12
5		21	69
	1	6	31
	2	8	23
	3	7	15
6		108	67
	1	83	56
	2	25	11
7		17	16
	1	14	16
	2	3	0
8		5	2
	1	5	2
9		5	1
	1	5	1
10		11	12
	1	11	12
Lower Clearwater		3	3
1		1	1
	4	1	1
2		1	0
	4	1	0
3		1	2
	2	1	1
	3	0	1
Lower Dickey		198	198
2		64	95
	2	3	0
	3	39	46
	4	7	24
	5	15	25

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
3		53	40
	1	2	0
	2	0	1
	3	50	35
	4	1	4
		34	14
	2	13	0
	3	21	14
5		12	16
	3	12	16
6		4	2
	1	2	0
	2	2	2
7		2	2
	1	2	2
8		1	1
	2	1	1
9		28	0
	1	28	0
10		0	28
	1	0	28
Lower Hoh River		649	649
1		47	76
	1	4	7
	2	13	23
	3	4	0
	4	11	9
	5	15	37
		151	230
	1	8	6
	2	50	71
	3	58	102
	4	4	27
	5	31	24
3		150	142
	1	5	8
	2	67	66
	3	77	65
	4	1	3

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
4		84	135
	1	24	13
	2	25	26
	3	35	96
5		8	23
	1	8	14
	2	0	9
6		81	42
	1	65	33
	2	16	9
7		74	0
	1	27	0
	2	47	0
9		37	1
	1	37	1
10		17	0
	1	17	0
Lower Queets River		306	300
1		56	52
	1	3	0
	2	3	5
	3	3	6
	4	23	18
	5	24	23
2		67	78
	1	6	0
	2	28	12
	3	6	29
	4	6	3
	5	21	34
3		39	67
	2	6	12
	3	33	43
	4	0	12
4		75	57
	1	4	0
	2	31	25
	3	40	32
5		35	32

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	2	0
	2	7	6
	3	26	26
6		11	10
	1	5	4
	2	6	6
7		1	1
	1	1	0
	2	0	1
8		1	1
	1	1	1
9		17	2
	1	17	2
10		4	0
	1	4	0
Middle Hoh		3,885	3,845
1		699	819
	1	162	199
	2	455	594
	3	57	24
	4	22	2
	5	3	0
2		551	787
	1	309	440
	2	208	331
	3	32	13
	4	2	3
3		915	1118
	1	321	672
	2	388	399
	3	206	47
4		230	359
	1	41	256
	2	184	97
	3	5	6
5		555	204
	1	349	159
	2	205	44
	3	1	1

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
6		512	427
	1	432	402
	2	80	25
7		94	95
	1	90	95
	2	4	0
8		8	18
	1	8	18
9		189	13
	1	189	13
10		132	5
	1	132	5
Quillayute River		161	161
1		22	16
	2	12	2
	3	1	7
	4	5	5
	5	4	2
2		11	51
	2	4	0
	3	0	17
	4	1	16
	5	6	18
3		102	65
	1	7	7
	2	24	23
	3	68	29
	4	3	6
4		13	19
	2	2	2
	3	11	17
5		5	6
	2	5	6
6		4	0
	1	4	0
8		4	4
	1	4	4
Sol Duc Lowlands		41	41
1		26	22

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	5	0
	3	3	0
	4	18	22
2		11	14
	1	0	1
	2	11	11
	3	0	2
3		1	1
	2	1	0
	4	0	1
4		1	1
	2	1	1
6		0	1
	1	0	1
7		1	0
	1	1	0
8		1	2
	1	1	2
Sol Duc Valley		870	861
1		450	428
	1	5	4
	2	96	64
	3	35	144
	4	265	128
	5	49	88
2		173	156
	1	6	5
	2	110	9
	3	37	72
	4	3	39
	5	17	31
3		129	48
	1	2	0
	2	29	22
	3	95	25
	4	3	1
4		41	109
	1	17	25
	2	21	24

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	3	60
5		11	35
	1	1	19
	2	4	6
	3	6	10
6		27	45
	1	24	40
	2	3	5
7		10	25
	1	10	23
	2	0	2
8		0	11
	1	0	11
9		29	3
	1	29	3
10		0	1
	1	0	1
Upper Clearwater		5,774	5,723
1		739	627
	1	39	21
	2	272	130
	3	112	134
	4	162	171
	5	154	171
2		1,259	1,571
	1	67	20
	2	403	239
	3	617	976
	4	47	189
	5	125	147
3		1,235	1,612
	1	161	188
	2	364	480
	3	608	759
	4	102	185
4		118	727
	1	3	117
	2	24	208
	3	90	402

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	1	0
5		1,164	481
	1	406	133
	2	341	189
	3	417	159
6		486	400
	1	360	319
	2	126	81
7		398	68
	1	162	68
	2	236	0
8		176	148
	1	88	57
	2	88	91
9		105	30
	1	105	30
10		94	59
	1	94	59

Soil Erosion

Table H-7: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils With a High Likelihood of Erosion, No Action Alternative

Watershed administrative unit	Harvest entries (acres)			
	1	2	3	4+
Bogachiel	0	2	3	16
Cedar	0	0	0	27
Clallam River	0	0	0	0
East Fork Dickey	0	0	0	0
Goodman Mosquito	0	4	3	35
Hoko	0	0	0	0
Kalaloch Ridge	0	10	4	116
Lower Clearwater	38	26	42	8
Lower Dickey	0	0	0	0
Lower Hoh River	0	0	0	12
Lower Queets River	0	0	0	0
Middle Hoh	0	0	0	0
Quillayute River	0	1	0	9

Watershed administrative unit	Harvest entries (acres)			
	1	2	3	4+
Sol Duc Lowlands	0	0	0	0
Sol Duc Valley	0	0	0	0
Upper Clearwater	0	52	50	868

Table H-8: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils With a High Likelihood of Erosion, Landscape Alternative

Watershed Administrative Unit	Harvest Entries (acres)			
	1	2	3	4+
Bogachiel	1	2	0	17
Cedar	0	0	0	27
Clallam River	0	0	0	0
East Fork Dickey	0	0	0	0
Goodman Mosquito	2	4	10	35
Hoko	0	0	0	0
Kalaloch Ridge	0	11	4	116
Lower Clearwater	22	35	43	18
Lower Dickey	0	0	0	0
Lower Hoh River	0	0	0	12
Lower Queets River	0	0	0	0
Middle Hoh	0	0	0	0
Quillayute River	0	1	0	9
Sol Duc Lowlands	0	0	0	0
Sol Duc Valley	0	0	0	0
Upper Clearwater	12	84	82	874

Table H-9: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit and Decade on Soils With a High Likelihood of Erosion

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
Bogachiel		880	997
1		161	166
	1	4	4
	2	26	20
	3	24	24
	4	72	88
	5	35	30
2		7	9
	2	4	0
	3	3	9
3		33	73
	2	2	2
	3	27	39
	4	4	32
4		157	67
	2	12	2
	3	66	27
	4	44	8
	5	35	30
5		98	192
	2	4	10
	3	27	36
	4	32	116
	5	35	30
6		65	72
	1	5	2
	2	24	18
	3	24	36
	4	12	16
7		80	55
	3	48	51
	4	32	4
8		108	158
	1	3	0
	2	8	4
	3	30	24
	4	32	100

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	35	30
9		140	124
	2	12	8
	3	48	48
	4	60	48
	5	20	20
10		31	81
	3	0	3
	4	16	68
	5	15	10
Cedar		207	274
1		17	4
	3	3	0
	4	4	4
	5	10	0
2		21	21
	3	21	21
3		18	44
	2	12	0
	3	6	0
	4	0	44
4		26	4
	3	12	0
	4	4	4
	5	10	0
5		31	26
	3	21	6
	4	0	20
	5	10	0
6		13	46
	1	0	1
	3	9	21
	4	4	24
7		30	4
	3	30	0
	4	0	4
8		10	51
	3	0	27
	4	0	24

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	10	0
9		31	24
	2	12	0
	3	15	0
	4	4	24
10		10	50
	3	0	6
	4	0	44
	5	10	0
Clallam River		3,417	3,473
1		641	467
	1	8	9
	2	152	68
	3	84	96
	4	232	144
	5	165	150
2		78	113
	1	1	1
	2	46	16
	3	18	60
	4	8	36
	5	5	0
3		176	251
	2	8	38
	3	168	129
	4	0	84
4		565	512
	1	6	3
	2	56	60
	3	102	159
	4	236	140
	5	165	150
5		373	501
	1	1	3
	2	10	36
	3	117	117
	4	100	200
	5	145	145
6		285	313

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	3	8
	2	60	44
	3	144	156
	4	48	100
	5	30	5
7		382	282
	1	18	18
	2	80	12
	3	180	252
	4	104	0
8		269	369
	1	9	14
	2	16	6
	3	84	120
	4	20	84
	5	140	145
9		333	418
	1	7	8
	2	90	38
	3	81	81
	4	60	196
	5	95	95
10		315	247
	1	0	1
	2	30	78
	3	12	36
	4	168	72
	5	105	60
East Fork Dickey		363	501
1		44	79
	2	8	4
	3	3	12
	4	8	8
	5	25	55
2		26	20
	2	8	0
	3	3	15
	5	15	5
3		19	15

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	10	2
	3	9	9
	4		4
4		47	72
	1	1	0
	2	10	0
	3	3	9
	4	8	8
	5	25	55
5		51	75
	1	0	2
	2	0	2
	3	3	9
	4	8	12
	5	40	50
6		39	50
	1	1	1
	2	8	4
	3	15	30
	5	15	15
7		21	10
	1	2	1
	2	10	0
	3	9	9
8		30	67
	1	1	2
	2	4	0
	3	0	12
	4	0	8
	5	25	45
9		57	75
	2	14	0
	3	3	27
	4	0	8
	5	40	40
10		29	38
	3	6	3
	4	8	0
	5	15	35

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
Goodman Mosquito		136	146
1		7	
	2	2	0
	5	5	0
2		8	8
	2	8	8
3		31	41
	2	28	24
	3	3	9
	4	0	8
4		9	4
	2	4	4
	5	5	0
5		12	19
	1	0	1
	2	12	10
	4	0	8
6		12	11
	1	2	2
	2	2	0
	3	3	9
	5	5	0
7		5	6
	2	2	0
	3	3	6
8		10	17
	2	10	6
	3	0	3
	4	0	8
9		23	16
	2	18	12
	4	0	4
	5	5	0
10		19	24
	2	14	20
	4	0	4
	5	5	0
Hoko		5,987	6,945
1		721	722

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	14	32
	2	80	58
	3	108	126
	4	404	296
	5	115	210
2		312	442
	1	3	4
	2	44	30
	3	168	216
	4	52	152
	5	45	40
3		463	588
	1	5	6
	2	58	22
	3	396	372
	4	4	188
4		713	683
	1	10	9
	2	68	66
	3	156	150
	4	364	248
	5	115	210
5		701	979
	1	28	16
	2	62	40
	3	306	258
	4	160	420
	5	145	245
6		680	734
	1	1	2
	2	82	42
	3	357	309
	4	180	336
	5	60	45
7		599	570
	1	41	25
	2	56	22
	3	330	507
	4	172	16

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
8		530	726
	1	5	3
	2	64	36
	3	309	288
	4	52	204
	5	100	195
9		898	1,000
	1	34	25
	2	68	50
	3	363	261
	4	288	484
	5	145	180
10		370	501
	1	8	6
	2	78	74
	3	45	96
	4	164	200
	5	75	125
Kalaloch Ridge		52	79
1		9	8
	2	2	0
	3	3	0
	4	4	8
2		5	7
	2	2	0
	3	3	3
	4	0	4
3		3	8
	2	0	2
	3	3	6
4		5	8
	1	1	0
	4	4	8
5		3	9
	2	0	2
	3	3	3
	4		4
6		4	3
	3	0	3

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	4	0
7		8	11
	2	2	0
	3	6	3
	4	0	8
8		5	11
	2	2	0
	3	3	3
	4	0	8
9		10	14
	3	6	6
	4	4	8
Lower Dickey		44	86
2		5	16
	2	2	0
	3	3	6
	5	0	10
3		8	3
	2	2	0
	3	6	3
4		3	3
	3	3	3
5		3	16
	3	3	6
	5	0	10
6		8	13
	2	2	0
	3	6	3
	5	0	10
7		14	12
	2	2	0
	3	12	12
8		3	3
	3	3	3
9		0	10
	5	0	10
10		0	10
	5	0	10
Lower Hoh River		107	161

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
1		12	30
	2	2	10
	5	10	20
2		5	5
	5	5	5
3		8	8
	2	8	8
4		16	20
	1	2	0
	2	4	0
	5	10	20
5		5	25
	5	5	25
6		15	5
	5	15	5
7		0	8
	2	0	8
8		6	26
	2	6	6
	5	0	20
9		17	15
	1	2	0
	5	15	15
10		23	19
	2	8	4
	5	15	15
Lower Queets River		135	122
1		26	24
	3	0	6
	4	16	8
	5	10	10
2		4	3
	2	4	0
	3	0	3
3		3	3
	3	3	3
4		28	23
	2	2	2
	3	0	3

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	16	8
	5	10	10
5		14	20
	3	0	6
	4	4	4
	5	10	10
6		7	10
	3	3	6
	4	4	4
7		12	6
	2	4	0
	3	0	6
	4	8	0
8		13	13
	3	3	3
	5	10	10
9		10	10
	2	2	2
	4	8	8
10		18	10
	4	8	0
	5	10	10
Middle Hoh		7,801	6,080
1		970	1042
	1	158	183
	2	752	856
	3	48	3
	4	12	0
2		561	849
	1	202	340
	2	254	500
	3	105	9
3		1,296	1,180
	1	247	512
	2	602	584
	3	447	84
4		326	275
	1	20	193
	2	270	82

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	36	0
5		582	203
	1	263	108
	2	214	86
	3	105	9
6		1,543	364
	1	243	226
	2	724	42
	3	564	96
	4	12	0
7		594	434
	1	62	40
	2	352	334
	3	180	60
8		715	427
	1	4	6
	2	414	412
	3	297	9
9		741	681
	1	113	7
	2	550	656
	3	66	18
	4	12	0
10		473	625
	1	57	1
	2	380	624
	3	24	0
	4	12	0
Quillayute River		38	67
2		0	15
	3	0	3
	4	0	12
3		12	3
	3	12	3
5		0	18
	3	0	6
	4	0	12
6		13	8
	1	1	0

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	12	0
	4	0	8
7		0	3
	3	0	3
8		1	5
	1	1	1
	4	0	4
9		12	11
	3	12	3
	4	0	8
10		0	4
	4	0	4
Sol Duc Lowlands		307	456
1		53	85
	2	2	0
	3	9	6
	4	32	24
	5	10	55
2		15	3
	2	10	0
	3	0	3
	5	5	0
4		54	82
	3	12	3
	4	32	24
	5	10	55
5		50	88
	2	4	2
	3	12	15
	4	24	16
	5	10	55
6		18	10
	2	2	0
	3	6	6
	4	0	4
	5	10	0
7		26	15
	1	5	5
	2	10	0

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	3	6
	4	8	4
8		12	71
	1	4	4
	3	3	12
	5	5	55
9		22	33
	2	2	2
	3	6	6
	4	4	20
	5	10	5
10		57	69
	2	2	0
	3	12	15
	4	28	4
	5	15	50
Sol Duc Valley		3,062	3,542
1		517	619
	1	1	1
	2	86	48
	3	30	156
	4	240	184
	5	160	230
2		208	163
	1	1	0
	2	80	6
	3	60	48
	4	12	64
	5	55	45
3		72	20
	1	1	0
	2	20	4
	3	51	12
	4	0	4
4		460	523
	1	2	3
	2	28	26
	3	30	96
	4	240	168

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	160	230
5		344	558
	1	0	8
	2	16	14
	3	60	153
	4	68	108
	5	200	275
6		243	340
	1	17	8
	2	78	34
	3	66	105
	4	12	148
	5	70	45
7		262	249
	1	6	10
	2	54	8
	3	30	195
	4	172	36
8		295	372
	1	1	1
	2	40	18
	3	81	72
	4	28	56
	5	145	225
9		321	522
	1	2	0
	2	30	32
	3	57	54
	4	52	196
	5	180	240
10		340	176
	1	0	1
	2	12	10
	3	39	36
	4	184	44
	5	105	85
Upper Clearwater		22,809	26,581
1		1,215	1,008
	1	13	10

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	270	100
	3	147	264
	4	380	324
	5	405	310
2		2,290	2,849
	1	47	6
	2	470	230
	3	1305	1758
	4	128	520
	5	340	335
3		2,245	3,099
	1	93	135
	2	420	552
	3	1500	1764
	4	232	648
4		1,018	1,395
	1		50
	2	8	214
	3	249	561
	4	356	260
	5	405	310
5		3,230	3,344
	1	232	91
	2	456	240
	3	1779	1590
	4	268	788
	5	495	635
6		2,689	3,206
	1	273	232
	2	204	152
	3	1170	1653
	4	452	824
	5	590	345
7		2,256	2,442
	1	98	39
	2	674	182
	3	1392	2205
	4	92	16
8		2,625	3,282

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	69	53
	2	460	420
	3	1713	1869
	4	228	640
	5	155	300
9		2,790	3,631
	1	46	24
	2	548	556
	3	1023	1209
	4	528	1212
	5	645	630
10		2,451	2,325
	1	73	50
	2	530	318
	3	846	861
	4	312	736
	5	690	360

Landslide Potential

Table H-10. Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils With a High Likelihood of Landslides, No Action Alternative

Watershed Administrative Unit	Harvest Entries			
	1	2	3	4
Bogachiel	0	4	5	61
Cedar	0	0	0	22
Clallam River	0	14	7	244
East Fork Dickey	0	1	2	17
Goodman Mosquito	0	3	2	33
Hoko	2	76	15	448
Kalaloch Ridge	0	1	2	28
Lower Clearwater	179	135	218	55
Lower Dickey	0	0	0	0
Lower Hoh River	0	1	1	16
Lower Queets River	0	0	0	0
Middle Hoh	15	1,244	395	1,051
Quillayute River	0	0	0	1

Sol Duc Lowlands	0	9	0	19
Sol Duc Valley	0	13	10	219
Upper Clearwater	21	664	246	2,449

Table H-11. Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit on Soils With a High Likelihood of Landslides, Landscape Alternative

Watershed Administrative Unit	Harvest Entries			
	1	2	3	4+
Bogachiel	0	6	5	62
Cedar	0	0	0	22
Clallam River	4	14	8	244
East Fork Dickey	0	1	4	17
Goodman Mosquito	1	3	2	33
Hoko	5	81	15	451
Kalaloch Ridge	0	2	1	28
Lower Clearwater	26	40	60	26
Lower Dickey	0	0	0	0
Lower Hoh River	0	1	1	16
Lower Queets River	0	0	0	0
Middle Hoh	80	1,252	396	1,051
Quillayute River	0	0	0	1
Sol Duc Lowlands	0	9	0	19
Sol Duc Valley	8	15	14	219
Upper Clearwater	43	666	266	2,453

Table H-12: Number of Harvest Entries and Acres of Harvest by Watershed Administrative Unit and Decade on Soils With a High Likelihood of Landslides

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
Bogachiel		191	218
1		36	42
	1	3	3
	2	10	13
	3	3	4
	4	15	17
	5	5	5
2		1	3
	2	1	0
	3	0	3
3		7	15

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	7	9
	4	0	6
4		33	13
	2	7	0
	3	12	3
	4	9	5
	5	5	5
5		18	45
	2	3	10
	3	4	11
	4	6	19
	5	5	5
6		25	21
	1	6	1
	2	9	8
	3	6	5
	4	4	7
7		14	9
	2	0	2
	3	9	7
	4	5	0
8		17	23
	2	1	0
	3	5	3
	4	6	15
	5	5	5
9		35	31
	2	9	7
	3	11	10
	4	11	10
	5	4	4
10		5	16
	3	0	2
	4	4	13
	5	1	1
Cedar		60	69
1		5	1
	3	1	0

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	1	1
	5	3	0
2		7	9
	2	4	0
	3	3	9
3		3	8
	2	2	0
	3	1	0
	4	0	8
4		9	2
	3	5	1
	4	1	1
	5	3	0
5		6	6
	3	3	0
	4	0	6
	5	3	0
6		5	13
	1	2	1
	2	0	1
	3	2	8
	4	1	3
7		7	2
	3	7	2
8		7	14
	2	4	0
	3	0	8
	4	0	6
	5	3	0
9		8	6
	2	2	1
	3	5	2
	4	1	3
10		3	8
	4	0	8
	5	3	0
Clallam River		706	725
1		131	89

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	3	2
	2	46	18
	3	25	24
	4	32	19
	5	25	26
2		22	25
	2	16	6
	3	5	13
	4	0	6
	5	1	0
3		45	60
	2	3	11
	3	42	33
	4	0	16
4		107	103
	1	5	3
	2	14	24
	3	30	31
	4	33	19
	5	25	26
5		69	94
	2	2	10
	3	33	26
	4	13	33
	5	21	25
6		69	73
	1	1	4
	2	19	14
	3	38	40
	4	5	14
	5	6	1
7		96	69
	1	7	8
	2	27	3
	3	47	58
	4	15	0
8		46	80
	1	3	10

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	3	1
	3	18	27
	4	2	17
	5	20	25
9		70	77
	1	2	5
	2	24	13
	3	21	16
	4	8	27
	5	15	16
10		51	55
	2	8	26
	3	2	5
	4	24	13
	5	17	11
East Fork Dickey		43	62
1		6	9
	2	3	1
	3	0	2
	4	1	1
	5	2	5
2		2	1
	2	1	0
	3	1	1
3		3	4
	2	2	0
	3	1	3
	4	0	1
4		8	8
	2	5	0
	3	0	2
	4	1	1
	5	2	5
5		3	11
	1	0	2
	3	0	2
	4	1	2

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	5	2	5
6		5	5
	2	3	1
	3	2	4
7		3	5
	2	2	0
	3	1	5
8		5	8
	1	1	1
	2	2	0
	3	0	1
	4	0	1
	5	2	5
9		6	9
	2	4	0
	3	0	4
	4	0	2
	5	2	3
10		2	2
	3	1	0
	4	1	0
	5	0	2
Goodman Mosquito		88	94
1		5	4
	2	4	4
	5	1	0
2		8	11
	2	5	6
	3	3	3
	5	0	2
3		18	16
	2	14	11
	4	4	5
4		1	
	5	1	0
5		7	12
	1	0	1

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	6	6
	3	1	2
	4	0	1
	5	0	2
6		11	11
	1	4	4
	3	2	1
	4	4	4
	5	1	2
7		6	6
	2	5	4
	3	1	2
8		2	4
	2	2	2
	3	0	1
	4	0	1
9		16	13
	2	11	6
	4	4	5
	5	1	2
10		14	17
	2	7	11
	3	2	0
	4	4	4
	5	1	2
Hoko		1,328	1,484
1		137	147
	1	11	23
	2	26	18
	3	23	24
	4	67	57
	5	10	25
2		66	93
	1	2	4
	2	17	12
	3	30	45
	4	11	29
	5	6	3

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
3		116	142
	1	3	5
	2	19	6
	3	93	101
	4	1	30
4		147	141
	1	7	6
	2	30	26
	3	38	37
	4	62	47
	5	10	25
5		158	196
	1	23	16
	2	24	14
	3	66	59
	4	31	80
	5	14	27
6		148	163
	1	1	4
	2	25	18
	3	84	80
	4	30	57
	5	8	4
7		154	153
	1	29	17
	2	22	7
	3	74	125
	4	29	4
8		133	150
	1	5	3
	2	27	18
	3	82	68
	4	11	38
	5	8	23
9		190	200
	1	26	19
	2	24	16
	3	77	61

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	49	89
	5	14	15
10		79	99
	1	6	3
	2	32	27
	3	6	18
	4	25	33
	5	10	18
Kalaloch Ridge		101	122
1		14	13
	2	3	0
	3	4	1
	4	6	11
	5	1	1
2		7	9
	2	2	2
	3	5	6
	4	0	1
3		6	14
	2	3	5
	3	3	7
	4	0	2
4		15	14
	1	2	0
	2	3	2
	3	3	0
	4	6	11
	5	1	1
5		5	15
	2	0	4
	3	4	8
	4	0	2
	5	1	1
6		10	12
	1	2	1
	2	0	2
	3	3	4
	4	5	5

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
7		15	12
	2	4	1
	3	10	4
	4	1	7
8		5	11
	1	1	0
	2	1	0
	3	2	5
	4	0	5
	5	1	1
9		16	18
	2	1	2
	3	10	6
	4	5	10
10		8	4
	2	5	0
	3	1	1
	4	1	2
	5	1	1
Lower Hoh River		33	32
1		2	2
	2	1	1
	3	1	1
2		3	5
	2	3	5
3		9	6
	2	9	6
4		1	1
	3	1	1
6		2	3
	1	1	2
	3	1	1
7		4	4
	2	3	3
	3	1	1
8		5	7
	2	5	7

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
9		6	3
	2	4	1
	3	2	2
10		1	1
	2	1	1
Middle Hoh		4,182	3,750
1		515	559
	1	142	172
	2	348	369
	3	8	18
	4	7	0
	5	10	0
2		343	588
	1	193	345
	2	109	234
	3	39	6
	4	2	3
3		702	824
	1	254	519
	2	291	280
	3	157	25
4		182	257
	1	19	220
	2	133	37
	3	13	0
	4	7	0
	5	10	0
5		415	195
	1	273	127
	2	102	42
	3	38	23
	4	2	3
6		811	302
	1	242	253
	2	363	21
	3	190	28
	4	6	0
	5	10	0

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
7		248	195
	1	45	42
	2	141	113
	3	61	40
	4	1	0
8		286	192
	1	2	5
	2	179	182
	3	103	2
	4	2	3
9		417	338
	1	90	5
	2	291	326
	3	18	4
	4	8	3
	5	10	0
10		263	300
	1	66	1
	2	177	298
	3	9	1
	4	1	0
	5	10	0
Quillayute River		1	3
3		0	1
	3	0	1
5		0	1
	3	0	1
6		1	0
	1	1	0
9		0	1
	3	0	1
Sekiu		281	372
1		4	4
	1	1	1
	2	2	3
	5	1	0
2		21	24

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	5	6
	3	2	6
	4	8	4
	5	6	8
3		45	56
	2	5	4
	3	40	48
	4	0	4
4		2	16
	1	0	1
	2	1	3
	3	0	12
	5	1	0
5		31	35
	1	1	2
	2	5	0
	3	10	19
	4	8	6
	5	7	8
6		54	70
	1	1	0
	2	5	9
	3	34	47
	4	8	6
	5	6	8
7		25	39
	1	8	7
	2	7	3
	3	10	29
8		32	62
	1	0	6
	2	3	3
	3	28	51
	4	0	2
	5	1	0
9		52	34
	1	12	5
	2	2	1

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	3	23	13
	4	8	7
	5	7	8
10		15	32
	1	5	1
	2	1	2
	3	3	18
	4	0	3
	5	6	8
Sol Duc Lowlands		60	73
1		9	12
	3	3	1
	4	4	4
	5	2	7
2		3	0
	2	3	0
4		10	12
	3	4	1
	4	4	4
	5	2	7
5		10	14
	2	1	1
	3	4	2
	4	4	4
	5	1	7
6		2	1
	3	1	1
	5	1	0
7		8	5
	1	4	4
	2	3	0
	3	1	1
8		6	13
	1	4	4
	3	1	2
	5	1	7
9		4	7

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	1	1
	3	1	1
	4	1	4
	5	1	1
10		8	9
	3	3	3
	4	3	0
	5	2	6
Sol Duc Valley		680	763
1		117	127
	1	0	1
	2	40	23
	3	8	35
	4	46	40
	5	23	28
2		49	34
	1	2	0
	2	27	2
	3	12	11
	4	2	14
	5	6	7
3		25	7
	2	8	2
	3	17	4
	4	0	1
4		96	107
	1	0	1
	2	18	9
	3	9	33
	4	46	36
	5	23	28
5		64	115
	1	0	10
	2	7	7
	3	14	31
	4	15	32
	5	28	35
6		69	76

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	1	9	9
	2	33	13
	3	19	24
	4	1	23
	5	7	7
7		66	74
	1	4	8
	2	21	4
	3	9	55
	4	32	7
8		65	78
	1	1	4
	2	17	8
	3	20	25
	4	5	13
	5	22	28
9		62	99
	2	13	12
	3	16	16
	4	9	41
	5	24	30
10		67	46
	2	8	6
	3	11	15
	4	36	13
	5	12	12
Upper Clearwater		7,484	8,466
1		340	280
	1	5	5
	2	115	25
	3	54	92
	4	81	74
	5	85	84
2		756	858
	1	44	8
	2	230	97
	3	398	580

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	4	30	116
	5	54	57
3		772	1,026
	1	93	125
	2	198	255
	3	434	521
	4	47	125
4		245	487
	1	0	47
	2	12	102
	3	73	204
	4	75	52
	5	85	82
5		1,124	1,035
	1	244	117
	2	206	110
	3	536	501
	4	58	168
	5	80	139
6		905	1,069
	1	266	232
	2	89	73
	3	340	522
	4	97	181
	5	113	61
7		820	819
	1	100	56
	2	284	51
	3	420	708
	4	16	4
8		907	1,056
	1	73	63
	2	235	178
	3	520	602
	4	53	133
	5	26	80
9		871	1,106
	1	53	19

Watershed administrative unit and decade	Harvest entries	No Action Alternative (acres)	Landscape Alternative (acres)
	2	258	284
	3	315	397
	4	116	267
	5	129	139
10		744	730
	1	59	56
	2	241	161
	3	258	310
	4	63	140
	5	123	63

Soil Productivity

Table H-13: Number of Harvest Entries and Acres of Harvest on Site Class 5 Soils by Watershed Administrative Unit, No Action Alternative

Watershed administrative unit	Harvest entries (acres)	
	1	2+
Bogachiel	0	27
Cedar	0	50
Clallam River	0	3
East Fork Dickey	0	11
Goodman Mosquito	0	49
Hoko	0	67
Kalaloch Ridge	0	0
Lower Clearwater	0	0
Lower Dickey	0	147
Lower Hoh River	0	0
Lower Queets River	0	16
Middle Hoh	0	31
Quillayute River	0	0
Sol Duc Lowlands	0	0
Sol Duc Valley	0	40
Upper Clearwater	0	5

Table H-14: Number of Harvest Entries and Acres of Harvest on Site Class 5 Soils by Watershed Administrative Unit, Landscape Alternative

Watershed administrative unit	Harvest entries (acres)	
	1	2+
Bogachiel	0	27
Cedar	10	58
Clallam River	0	3
East Fork Dickey	0	11
Goodman Mosquito	6	52
Hoko	0	69
Kalaloch Ridge	0	0
Lower Clearwater	0	0
Lower Dickey	0	147
Lower Hoh River	0	0
Lower Queets River	0	16
Middle Hoh	14	35
Quillayute River	0	0
Sol Duc Lowlands	0	0
Sol Duc Valley	0	40
Upper Clearwater	0	5

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