

Appendix E

Forest Conditions and Management

In the following appendix, DNR provides additional information regarding the analysis of the No Action and Landscape alternatives. For the Pathways Alternative, refer to the FEIS.

This page intentionally left blank.

Table of Contents

Stand Development Stages E-1

 Charts E-1 Through E-22: Stand Development Stages by Landscape and Alternative E-1

 Charts E-23 Through E-54: Stand Development Stages by Alternative and Watershed Administrative Unit..... E-9

Forest Types..... E-20

 Table E-1: Forest Types by Landscape E-20

Harvest Methods E-24

 Chart E-55: Harvest Methods in First Decade E-25

 Tables E-2 and E-3: Harvest Method by Decade and Alternative E-25

 Charts E-56 and E-57: Harvest Methods in All Decades by Alternative E-26

 Tables E-4 and E-5: Harvest Methods in All Decades by Alternative and Landscape E-27

 Tables E-6 and E-7: Harvest Methods by Landscape, Decade, and Alternative E-28

 Charts E-58 through E-79: Harvest Methods in All Decades by Alternative and Landscape E-30

 Charts E-80 through E-111: Harvest Methods in All Decades by Alternative and Watershed Administrative Unit E-38

 Tables E-8 and E-9: Harvest Methods in All Decades by Alternative and Type 3 Watershed E-49

Relative Density..... E-84

 Charts E-112 and E-113: Relative Density Greater Than 75 E-84

 Charts E-114 through E-117: Relative Density by Forest Type and Alternative E-85

Harvest Entries E-87

 Table E-10: Harvest Regimes E-87

 Tables E-11 and E-12: Number of Harvest Entries by Alternative, Watershed Administrative Unit, and Type 3 Watershed..... E-87

 Table E-13 Though E-23: Number of Harvest Entries by Method and Landscape, No Action Alternative..... E-121

 Table E-24 Though E-34: Number of Harvest Entries by Method and Landscape, Landscape Alternative..... E-124

References E-128

This page intentionally left blank.

Stand Development Stages

■ Charts E-1 Through E-22: Stand Development Stages by Landscape and Alternative

Chart E-1. Clallam No Action Alternative

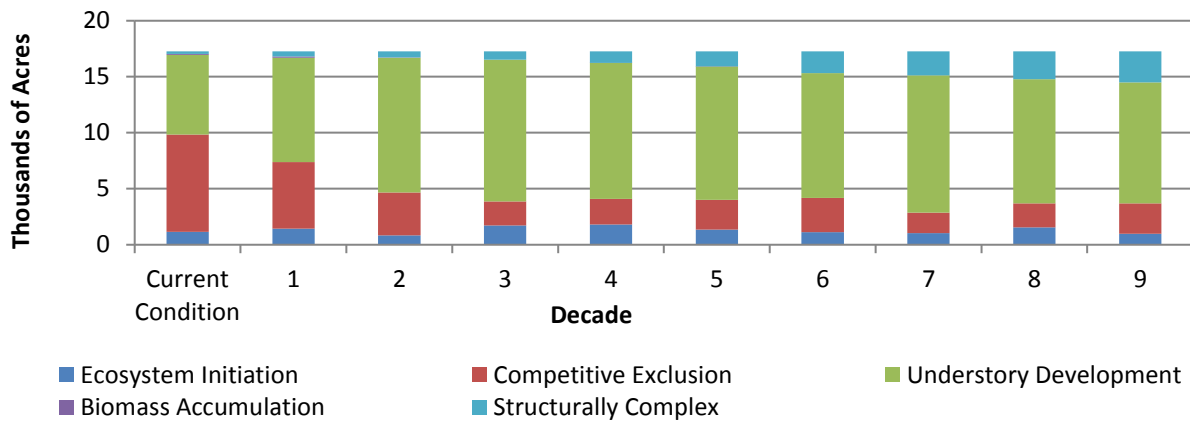


Chart E-2. Clallam Landscape Alternative

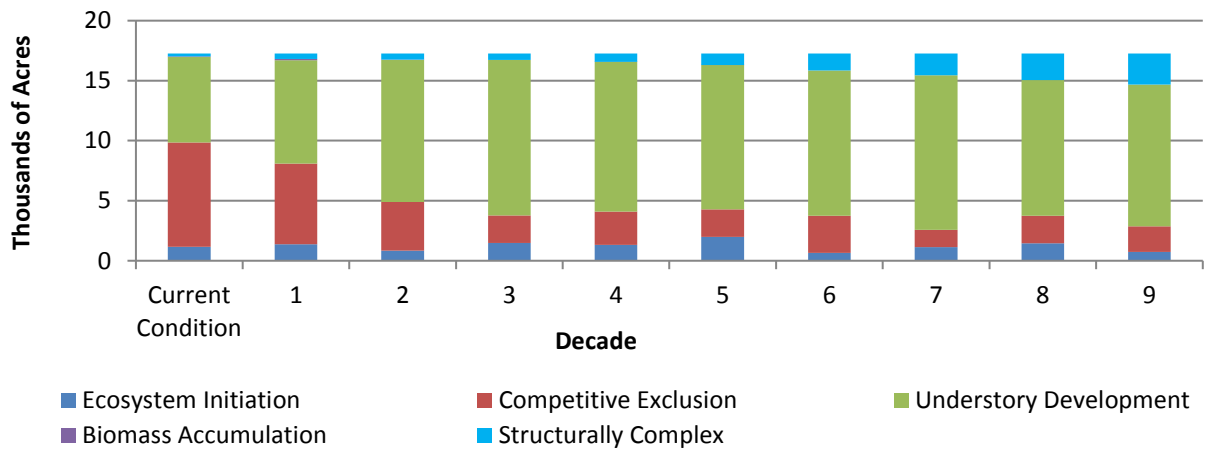


Chart E-3. Clearwater No Action Alternative

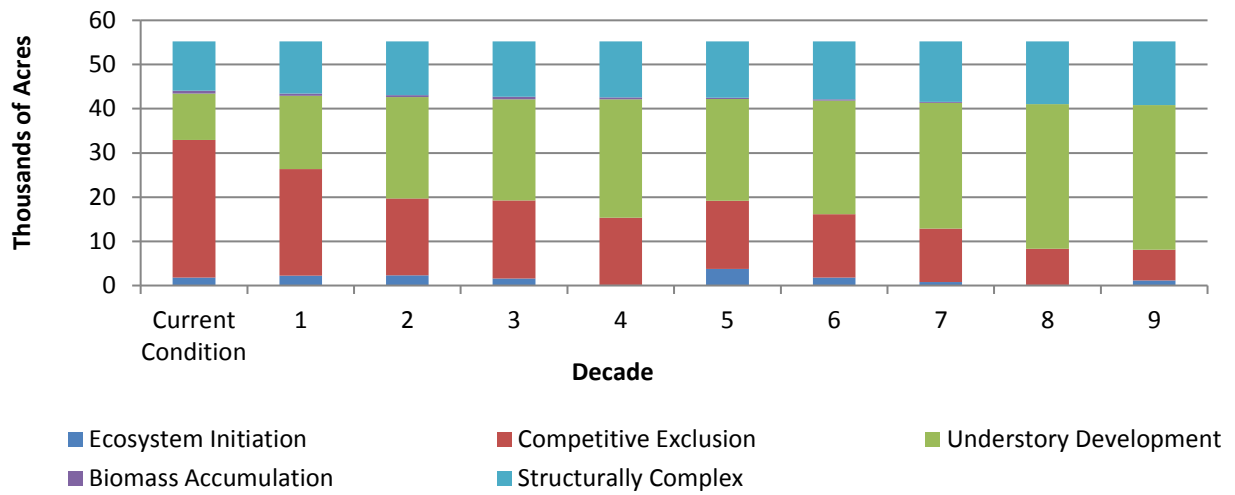


Chart E-4. Clearwater Landscape Alternative

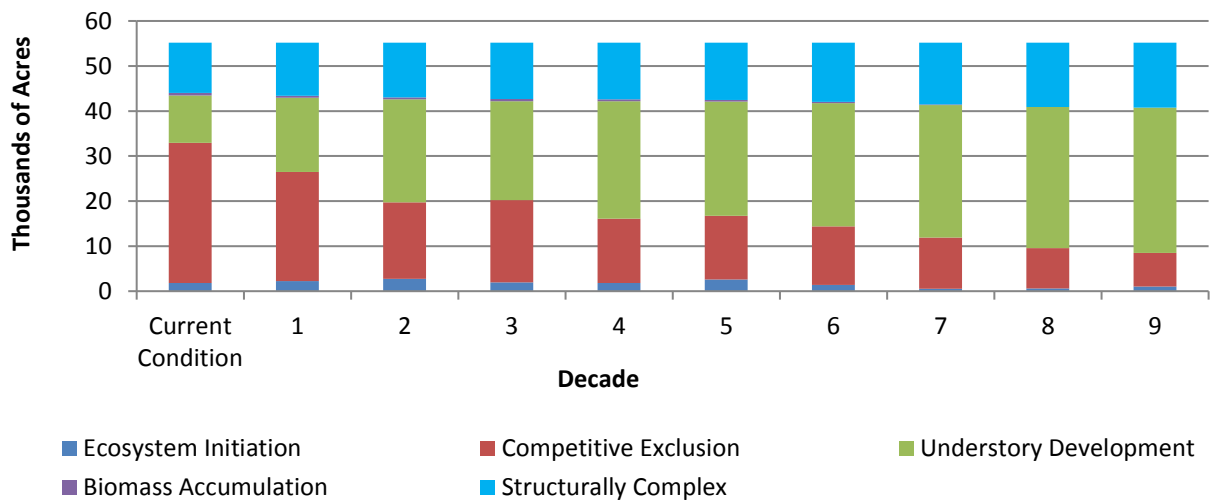


Chart E-5. Coppermine No Action Alternative

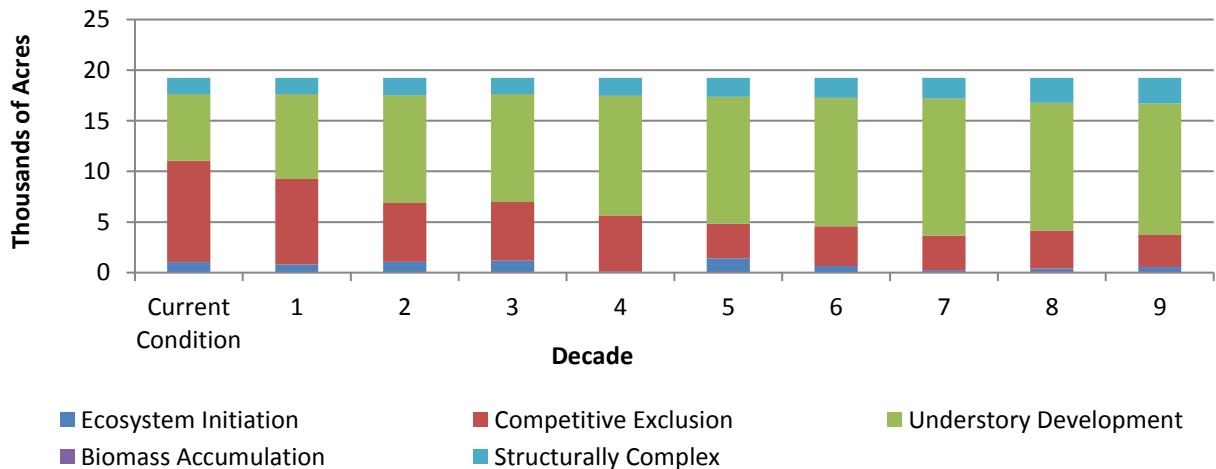


Chart E-6. Coppermine Landscape Alternative

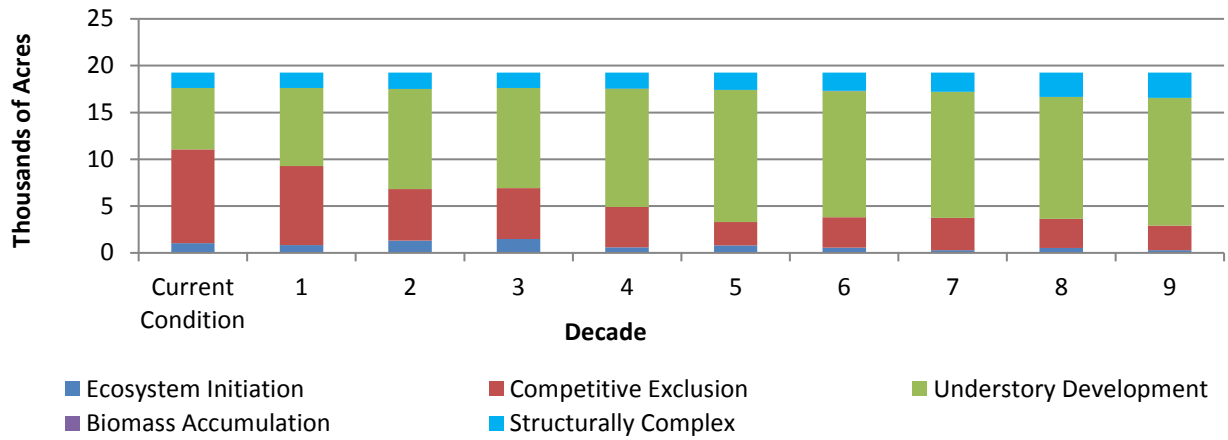


Chart E-7. Dickodochtedar No Action Alternative

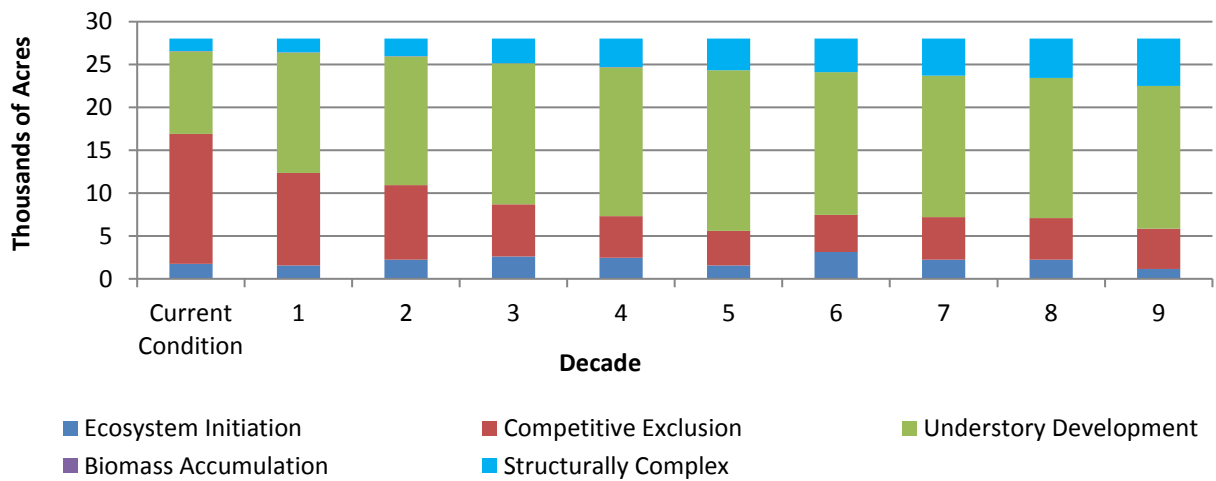


Chart E-8. Dickodochtedar Landscape Alternative

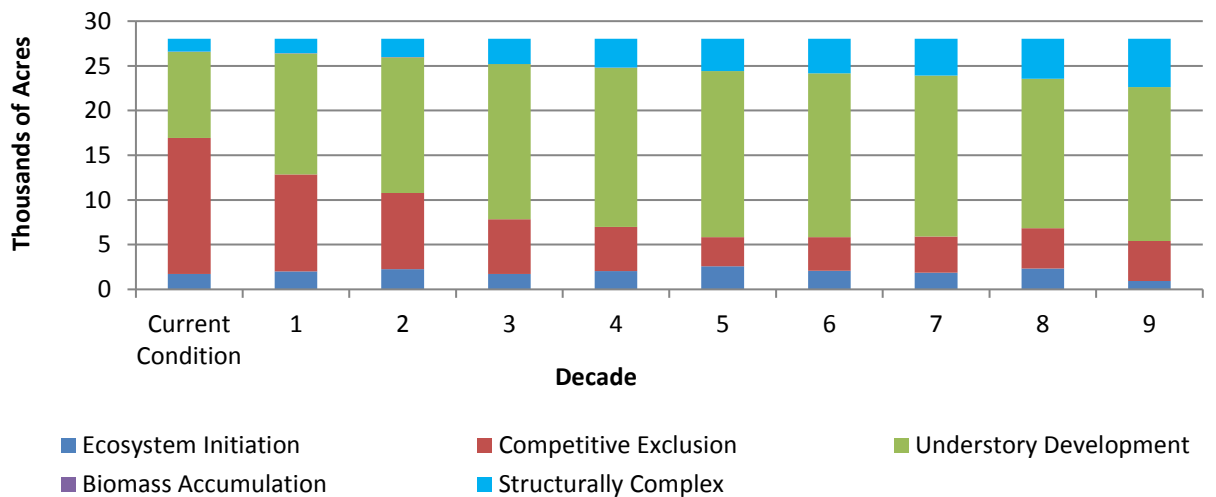


Chart E-9. Goodman No Action Alternative

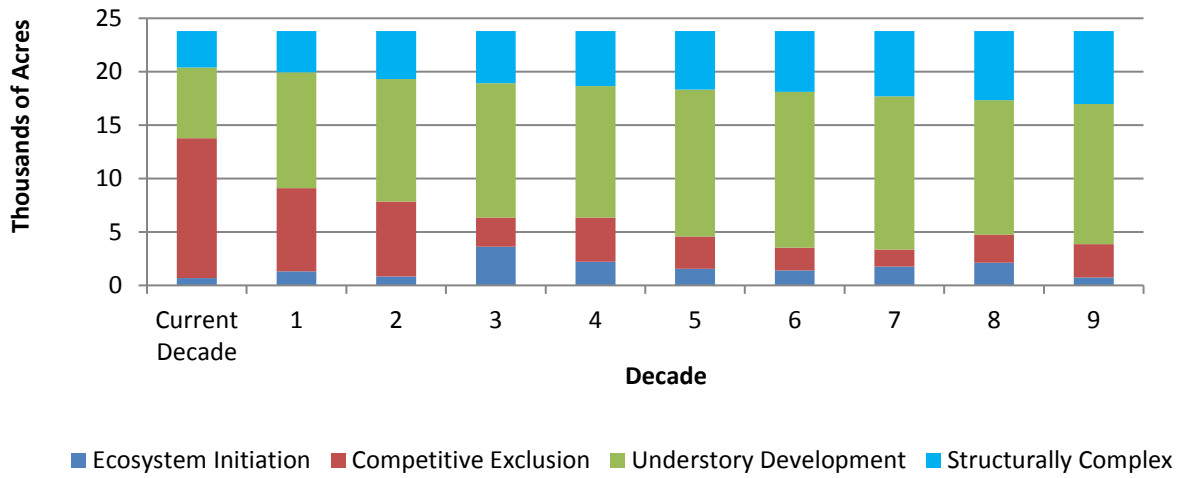


Chart E-10. Goodman Landscape Alternative

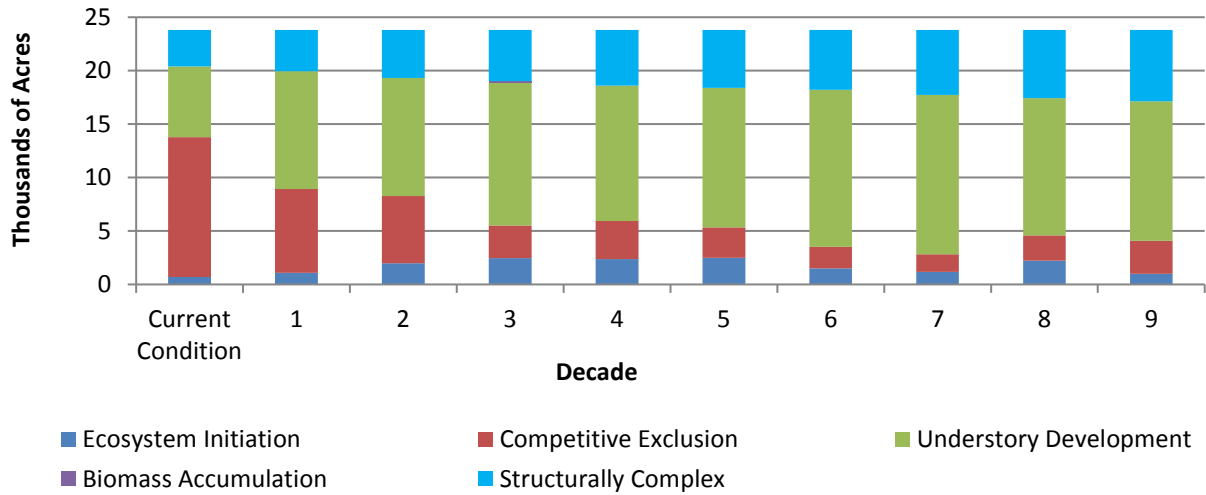


Chart E-11. Kalaloch No Action Alternative

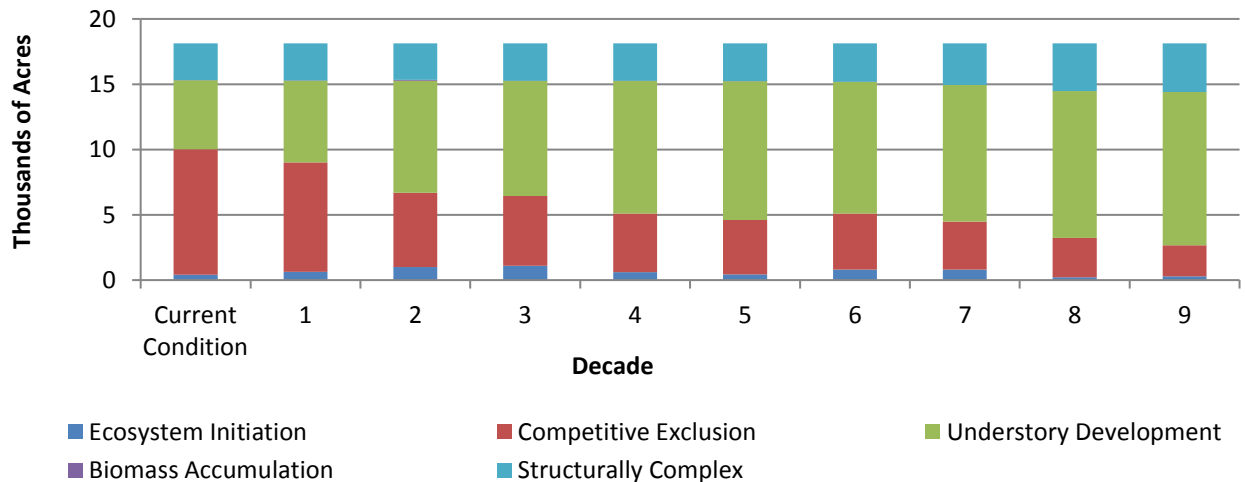


Chart E-12. Kalaloch Landscape Alternative

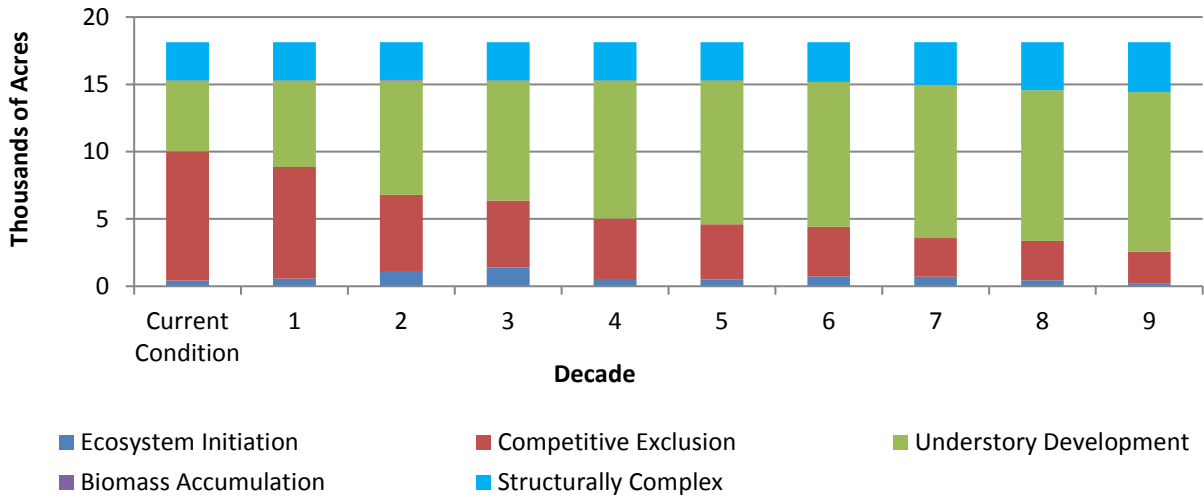


Chart E-13. Queets No Action Alternative

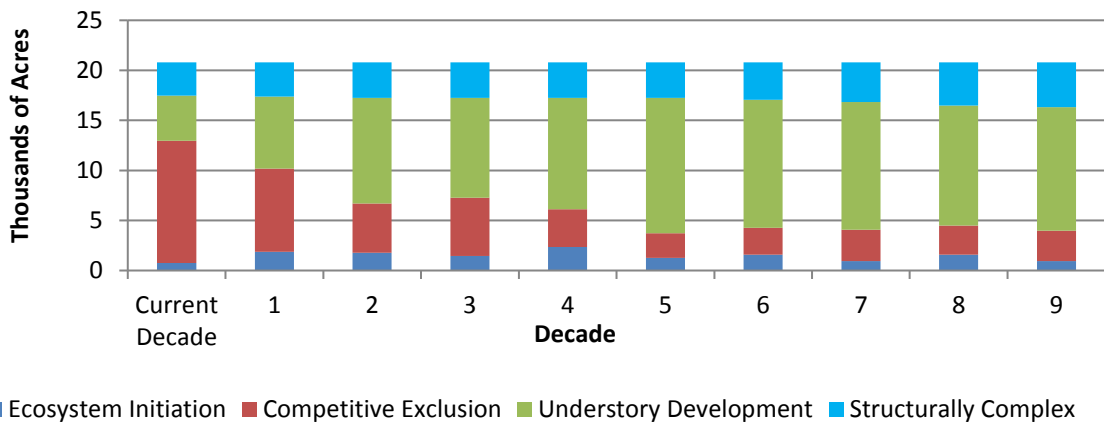


Chart E-14. Queets Landscape Alternative

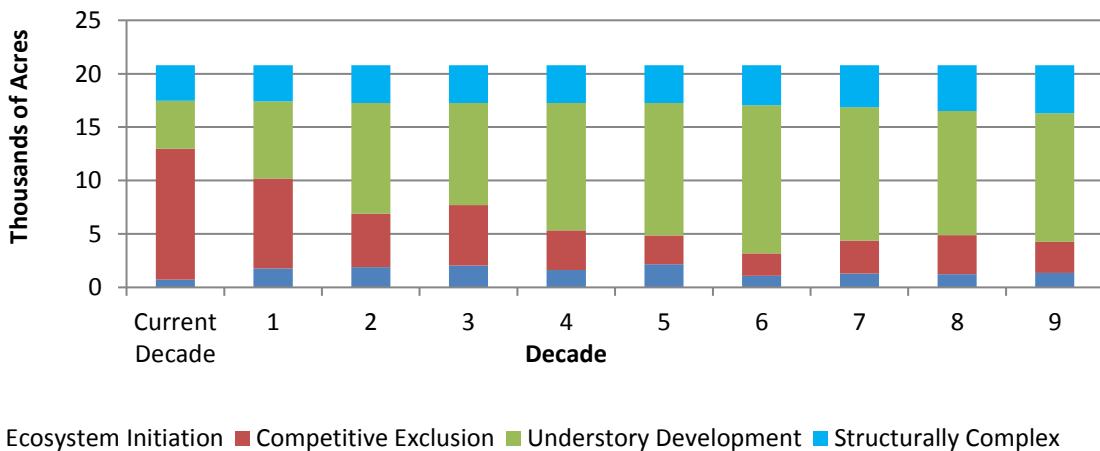


Chart E-15. Reade Hill No Action Alternative

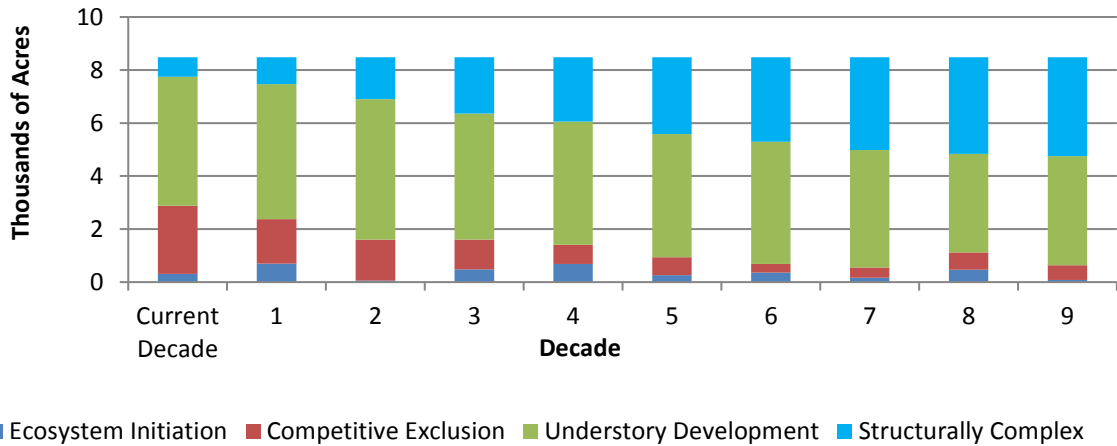


Chart E-16. Reade Hill Landscape Alternative

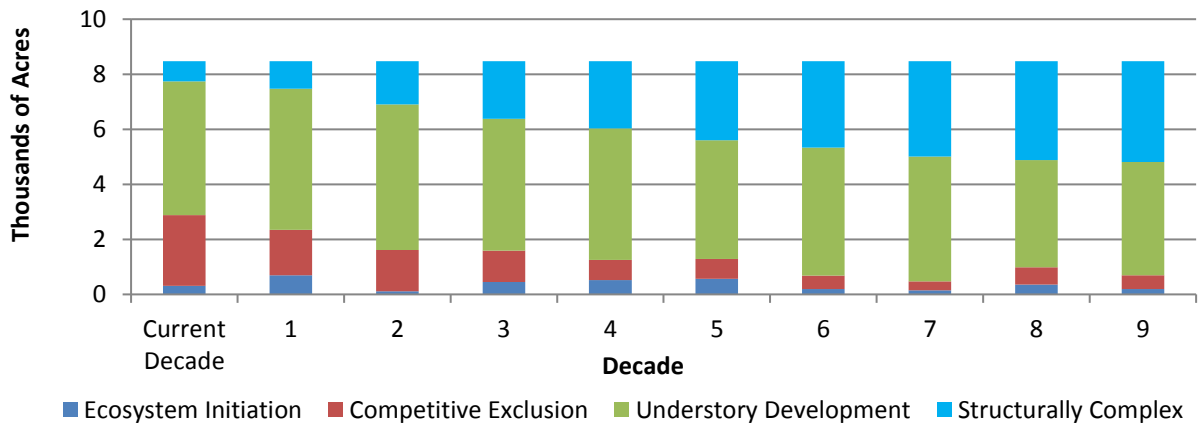


Chart E-17. Sekiu No Action Alternative

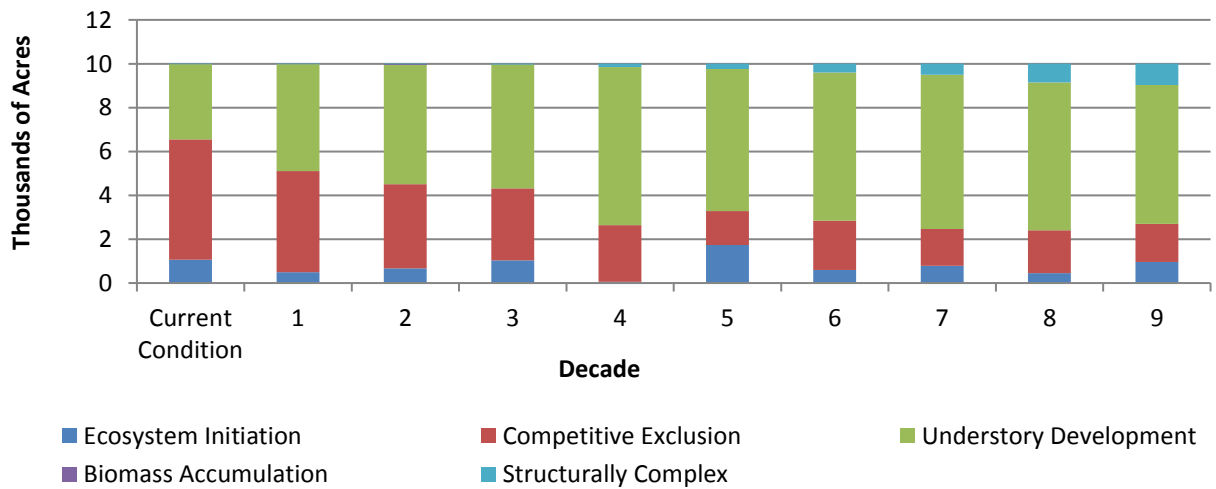


Chart E-18. Sekiu Landscape Alternative

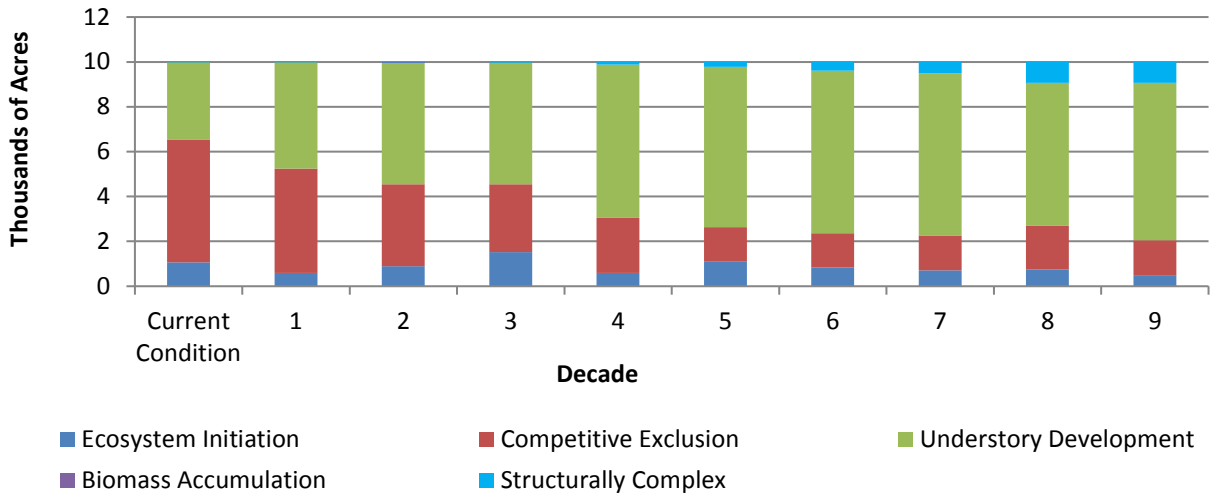


Chart E-19. Sol Duc No Action Alternative

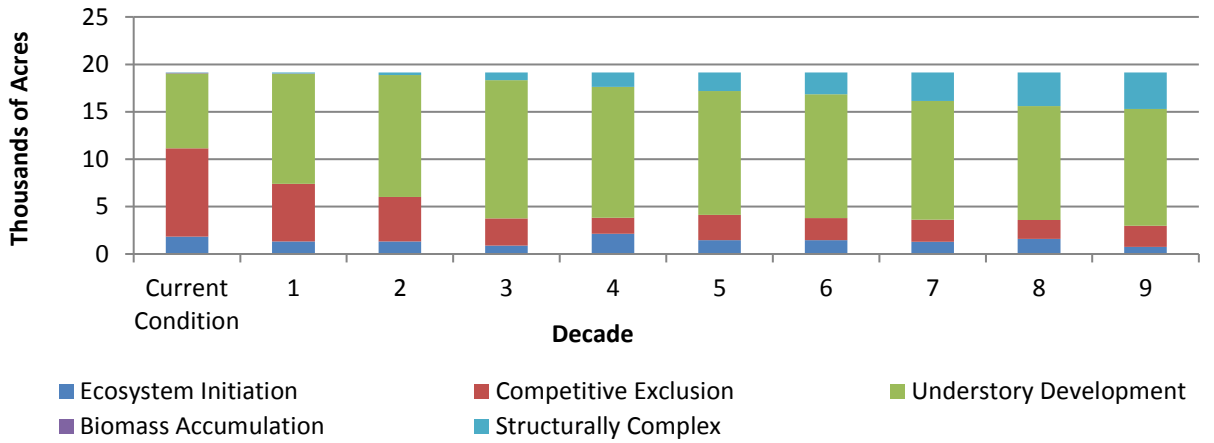


Chart E-20. Sol Duc Landscape Alternative

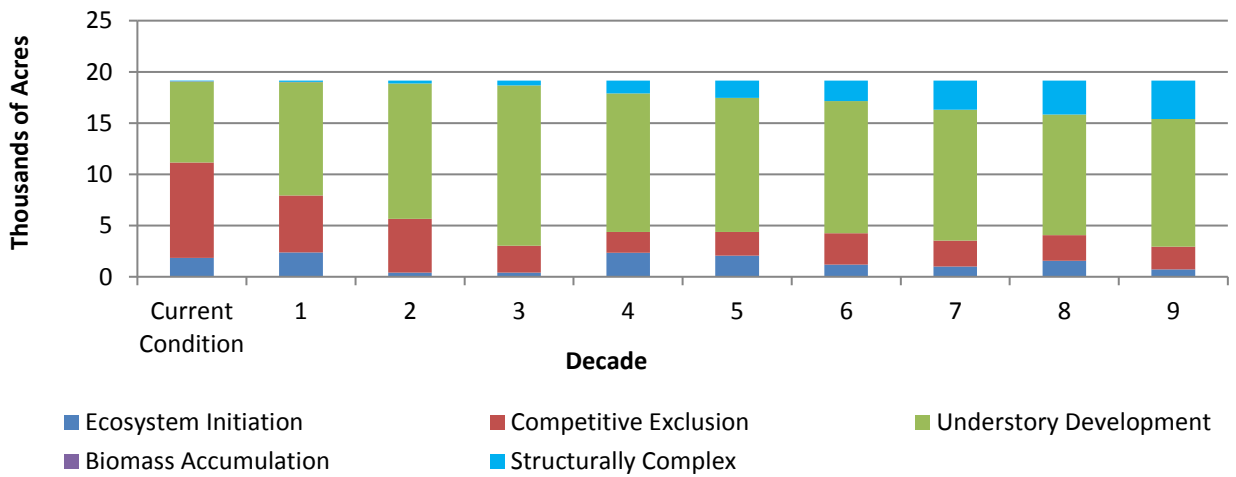


Chart E-21. Willy Huel No Action Alternative

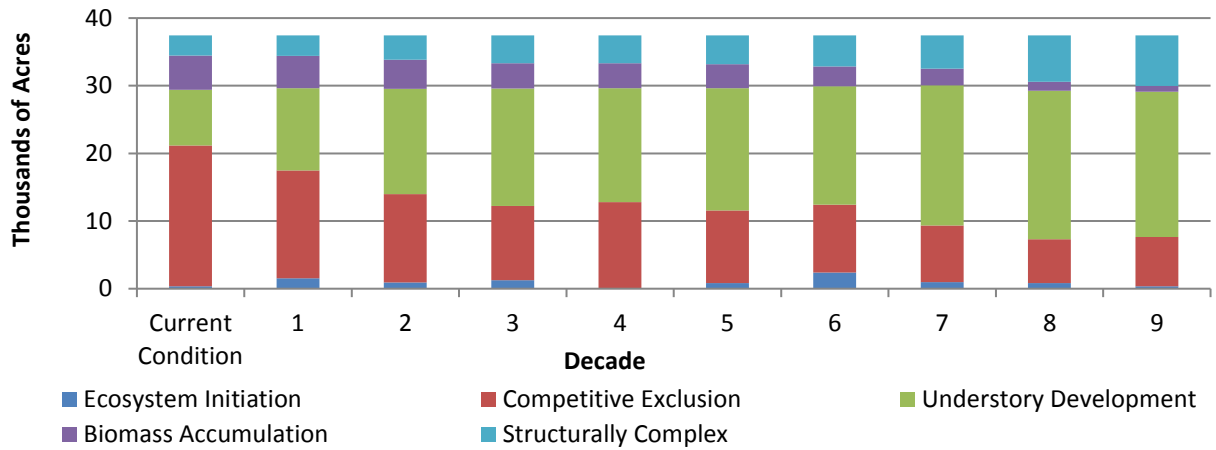
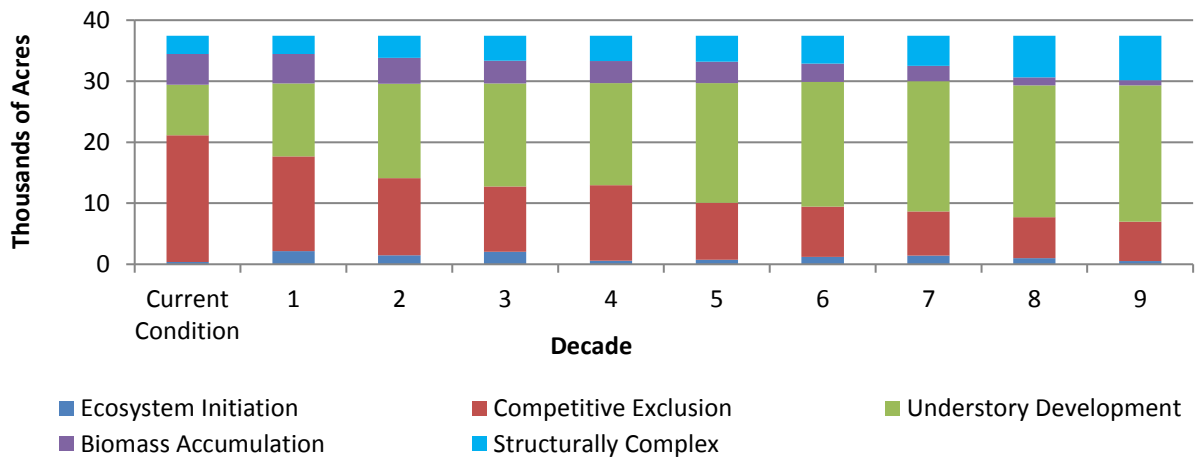


Chart E-22. Willy Huel Landscape Alternative



■ Charts E-23 Through E-54: Stand Development Stages by Alternative and Watershed Administrative Unit

Chart E-23. Bogachiel Watershed Administrative Unit No Action Alternative

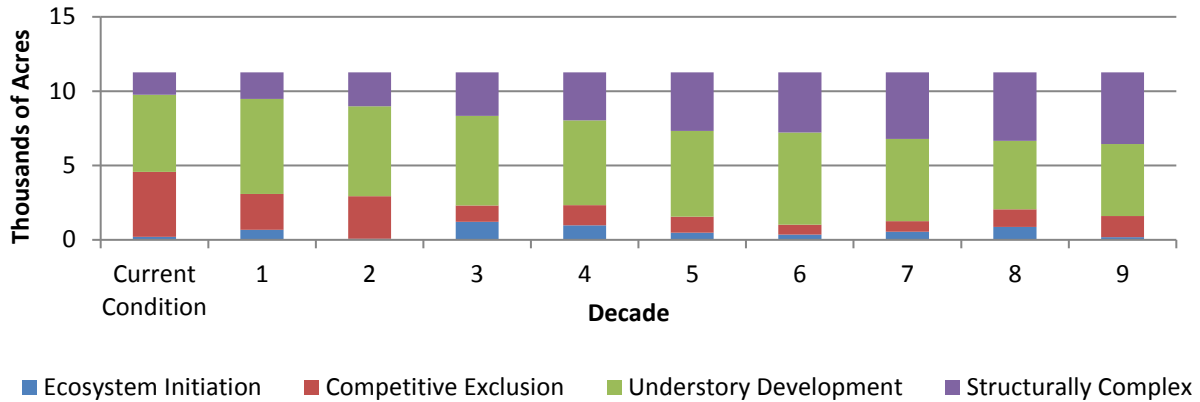


Chart E-24. Bogachiel Watershed Administrative Unit Landscape Alternative

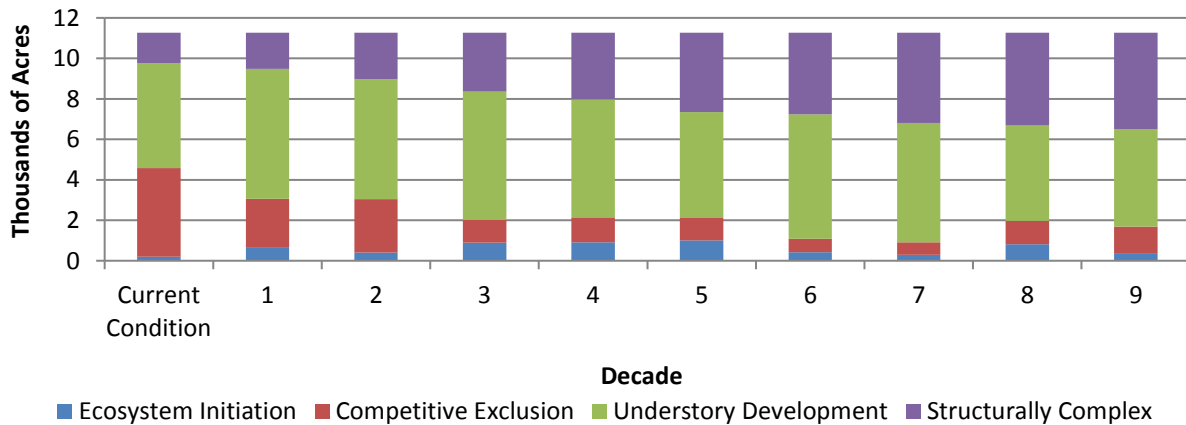


Chart E-25. Cedar Watershed Administrative Unit No Action Alternative

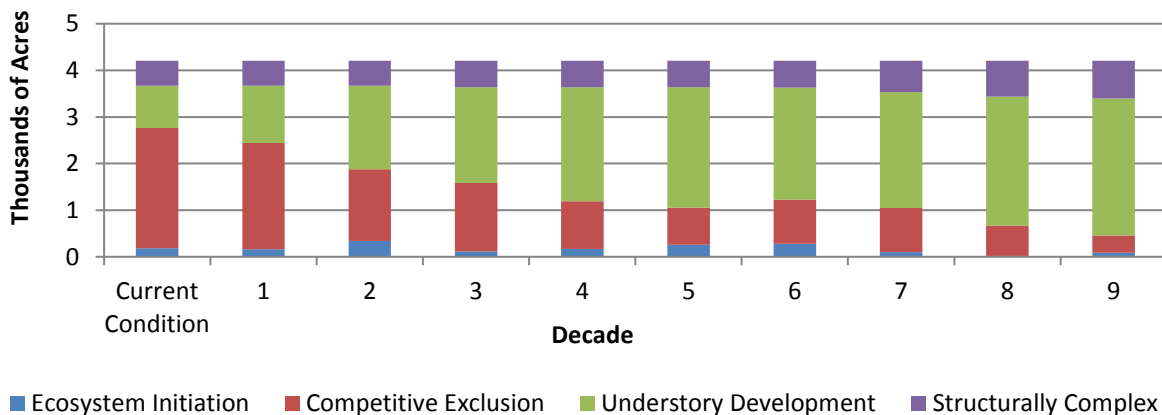


Chart E-26. Cedar Watershed Administrative Unit Landscape Alternative

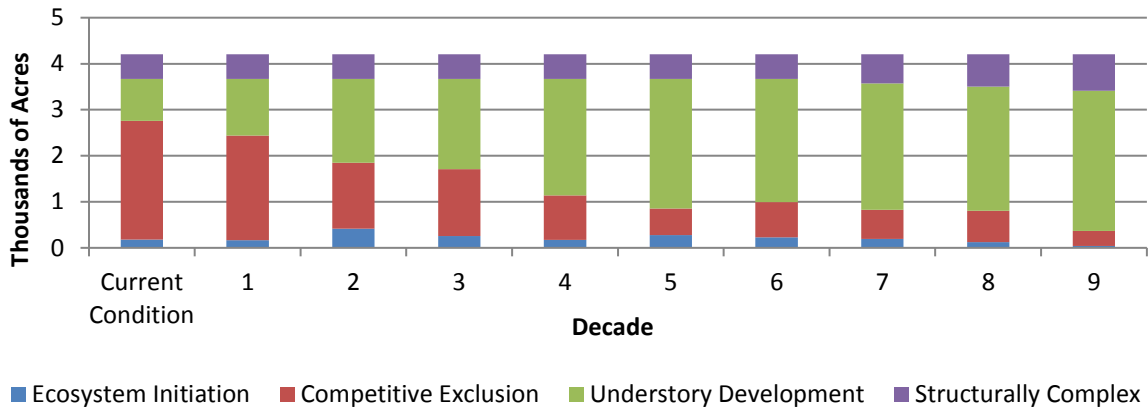


Chart E-27. Clallam River Watershed Administrative Unit No Action Alternative

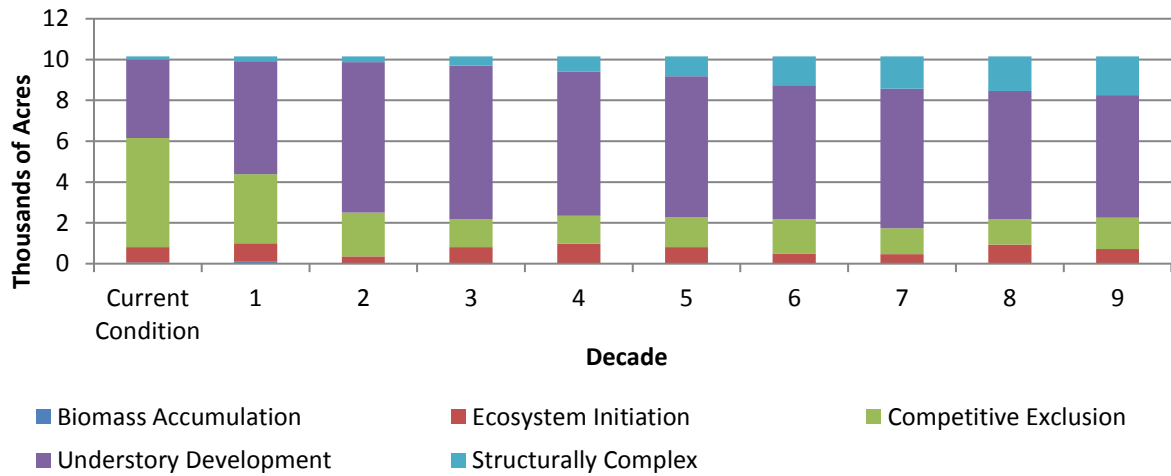


Chart E-28. Clallam River Watershed Administrative Unit Landscape Alternative

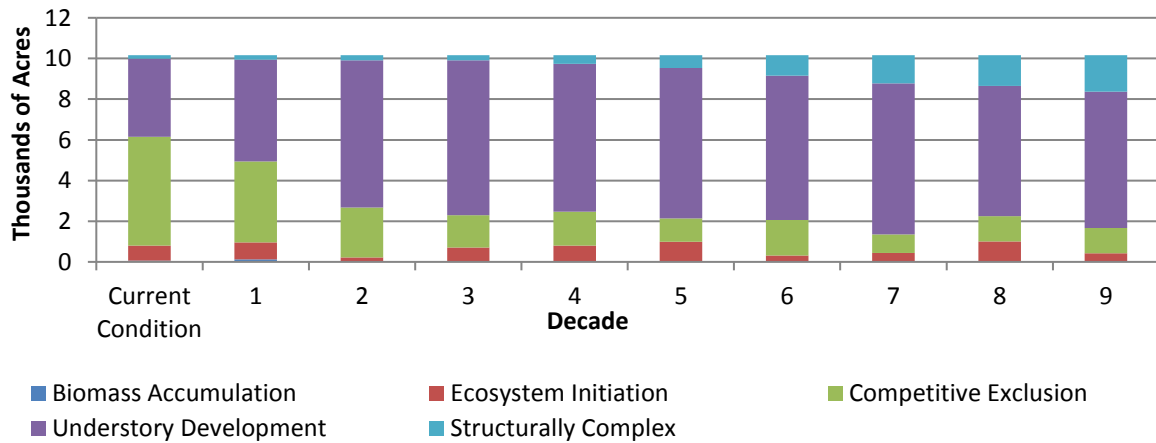


Chart E-29. East Fork Dickey Watershed Administrative Unit No Action Alternative

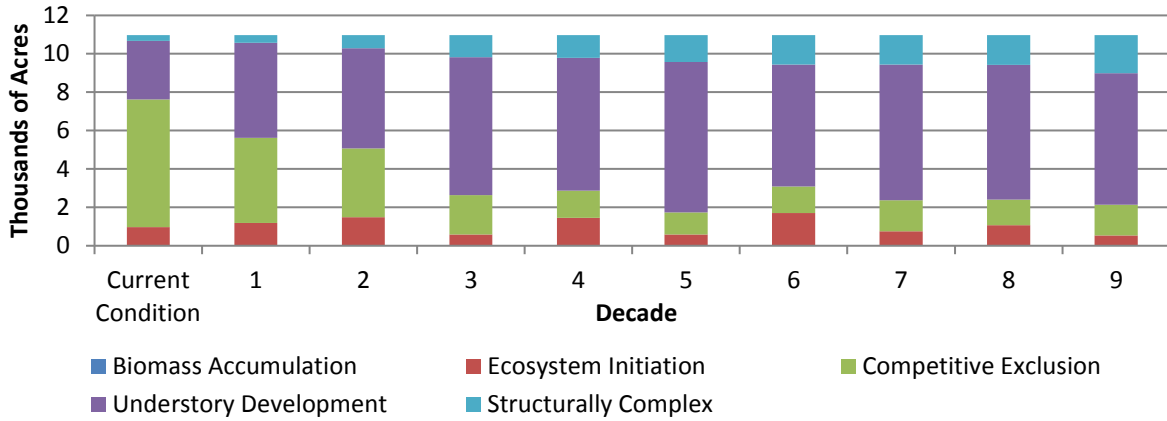


Chart E-30. East Fork Dickey Watershed Administrative Unit Landscape Alternative

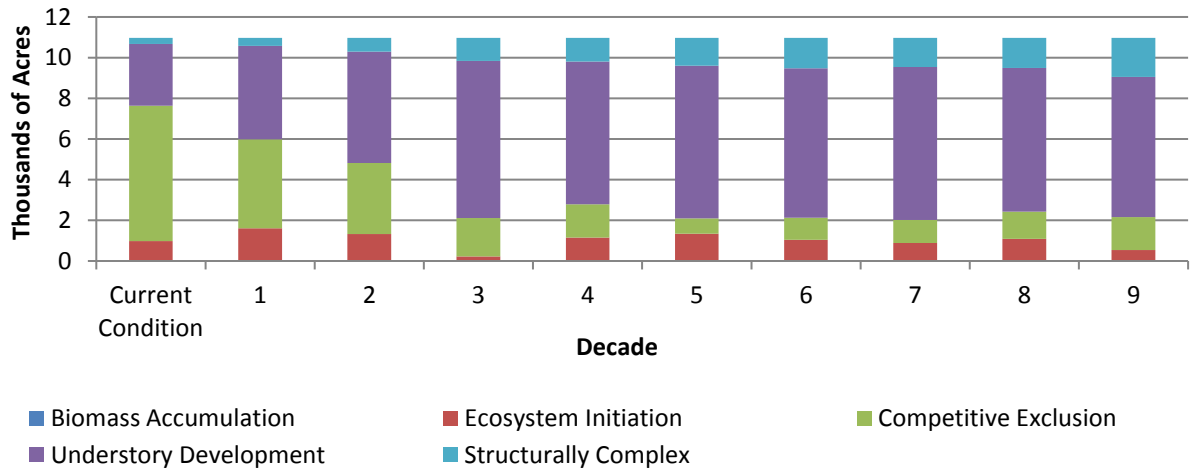


Chart E-31. Goodman Mosquito Watershed Administrative Unit No Action Alternative

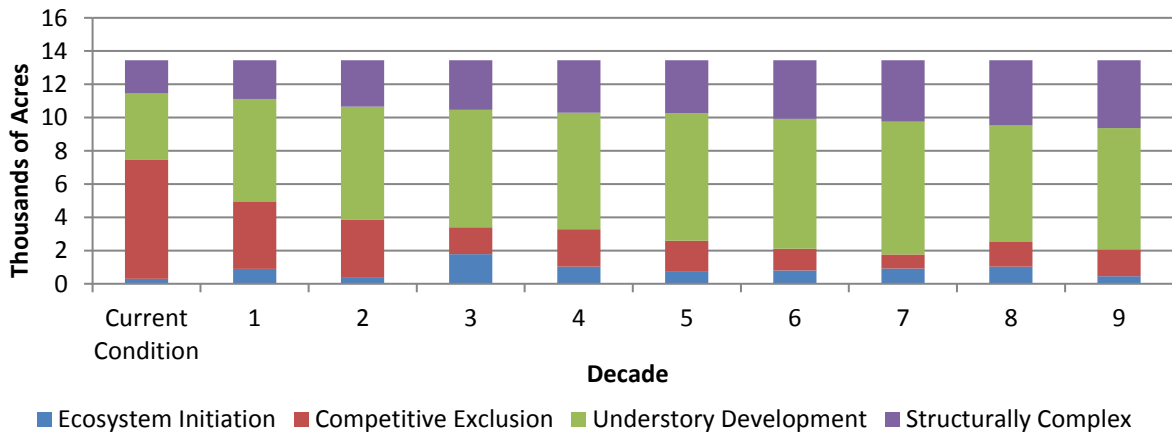


Chart E-32. Goodman Mosquito Watershed Administrative Unit Landscape Alternative

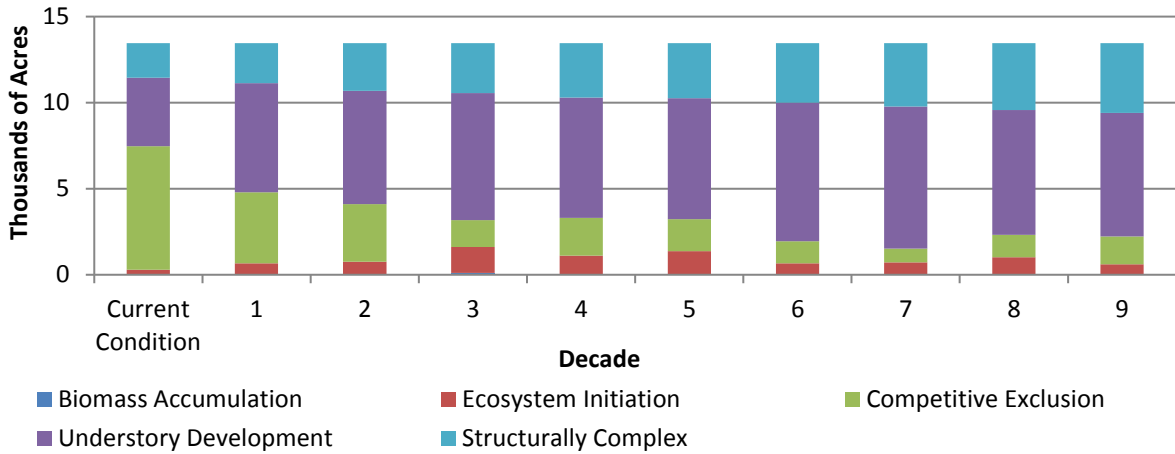


Chart E-33. Hoko Watershed Administrative Unit No Action Alternative

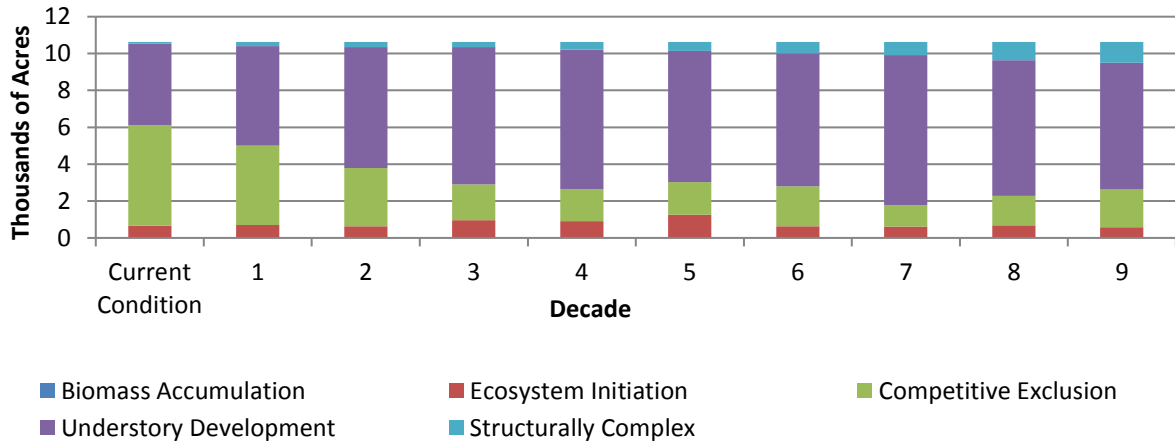


Chart E-34. Hoko Watershed Administrative Unit Landscape Alternative

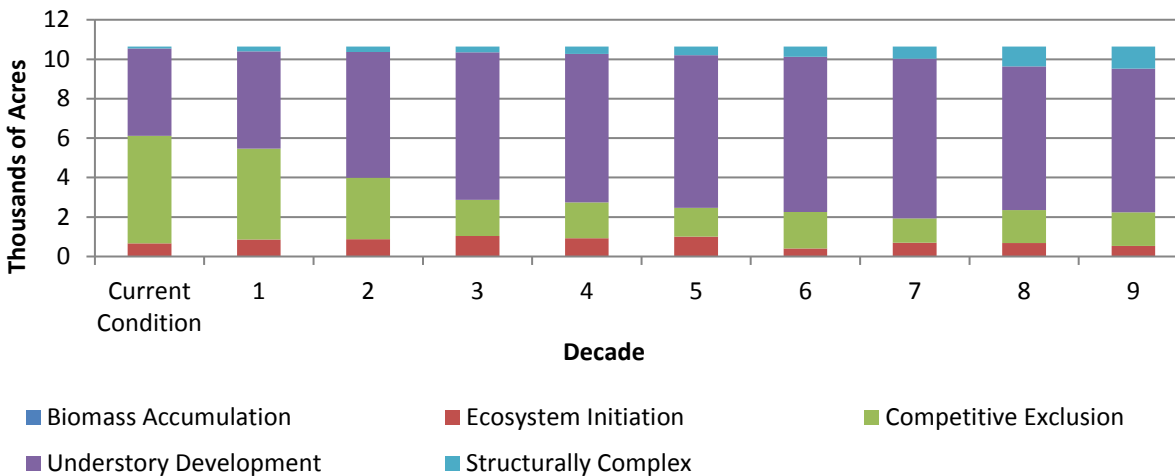


Chart E-35. Kalaloch Ridge Watershed Administrative Unit No Action Alternative

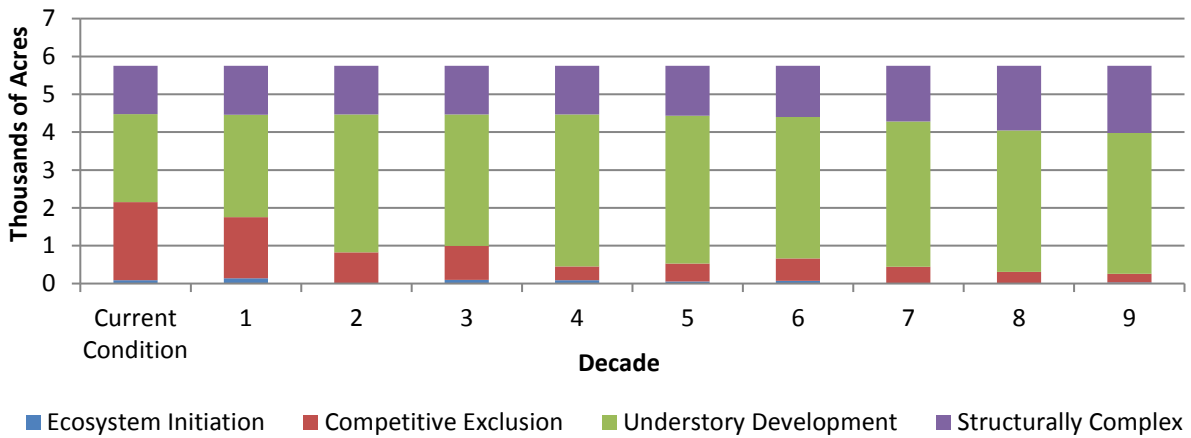


Chart E-36. Kalaloch Ridge Watershed Administrative Unit Landscape Alternative

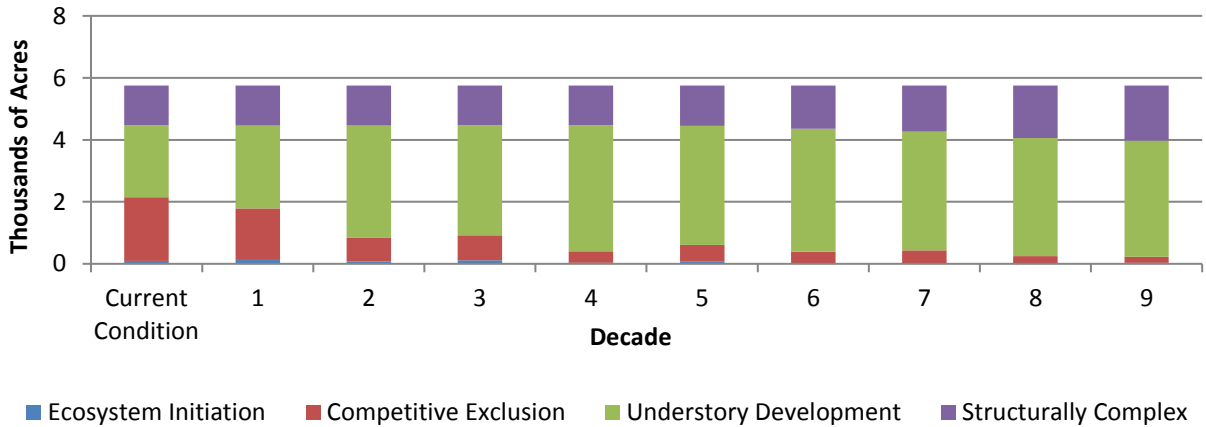


Chart E-37. Lower Clearwater Watershed Administrative Unit No Action Alternative

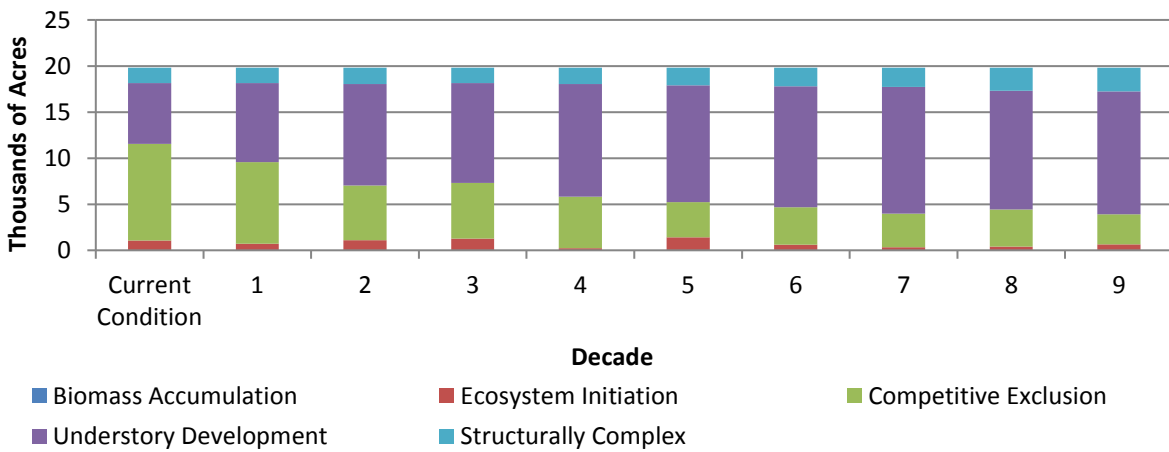


Chart E-38. Lower Clearwater Watershed Administrative Unit Landscape Alternative

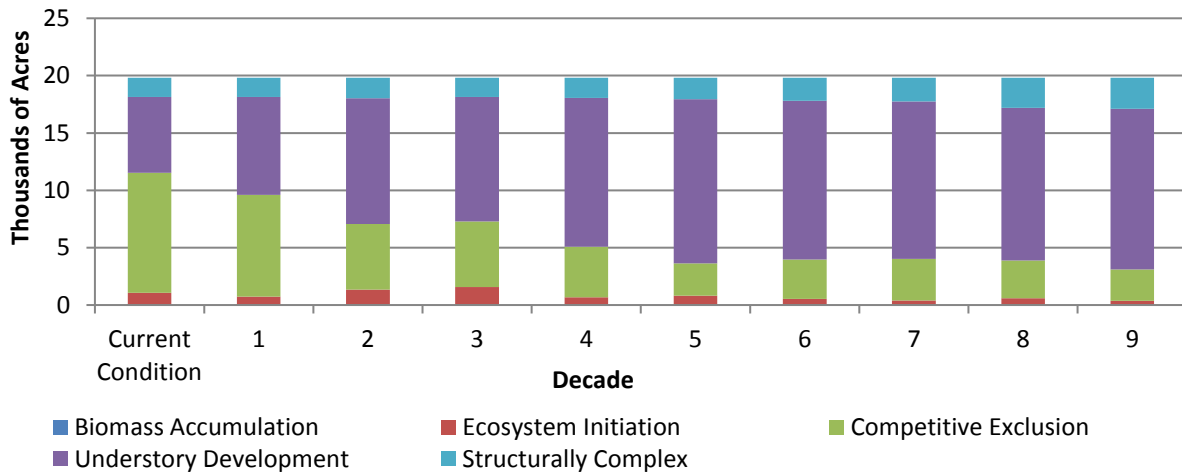


Chart E-39. Lower Dickey Watershed Administrative Unit No Action Alternative

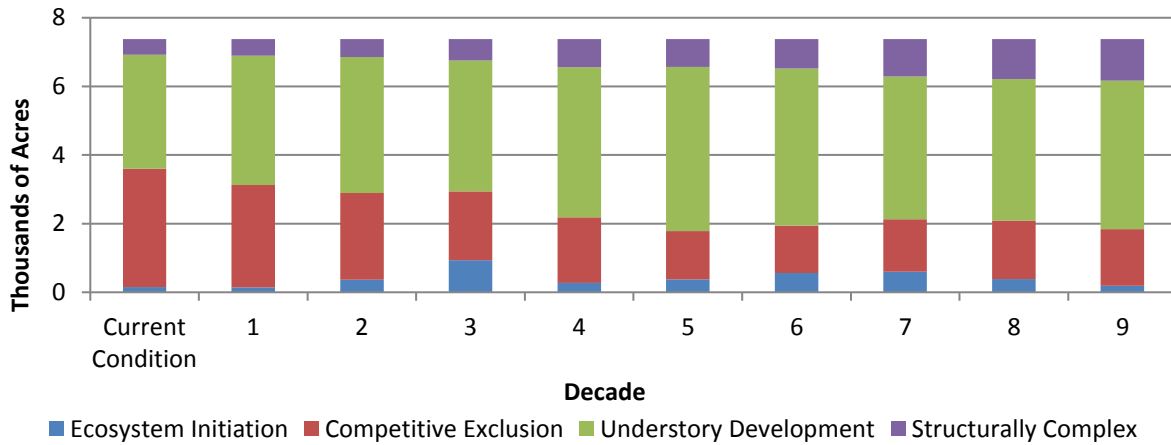


Chart E-40. Lower Dickey Watershed Administrative Unit Landscape Alternative

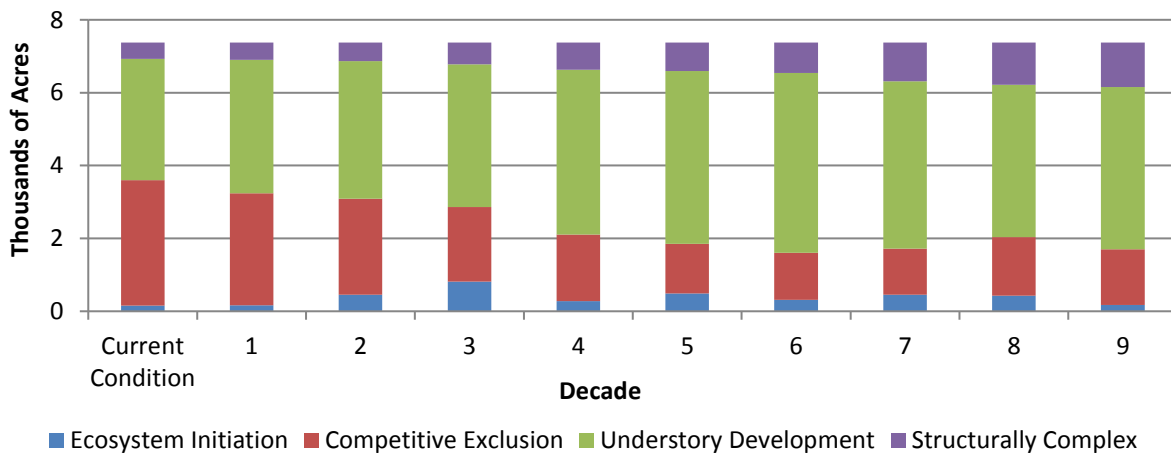


Chart E-41. Lower Hoh Watershed Administrative Unit No Action Alternative

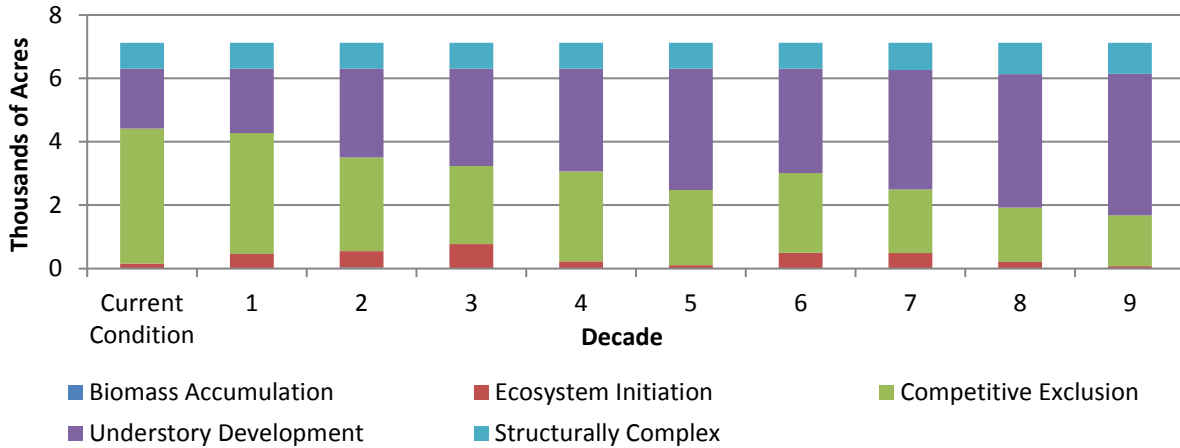


Chart E-42. Lower Hoh Watershed Administrative Unit Landscape Alternative

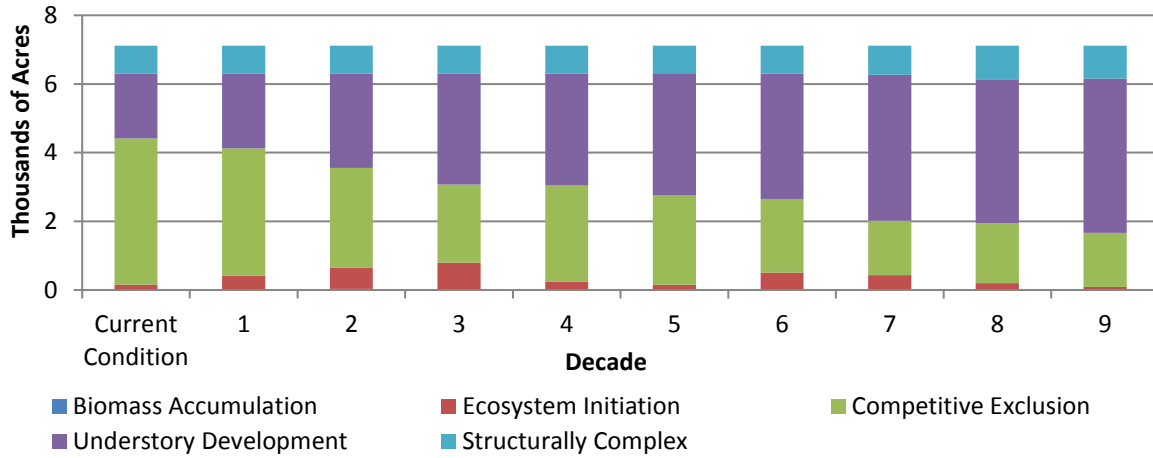


Chart E-43. Lower Queets River Watershed Administrative Unit No Action Alternative

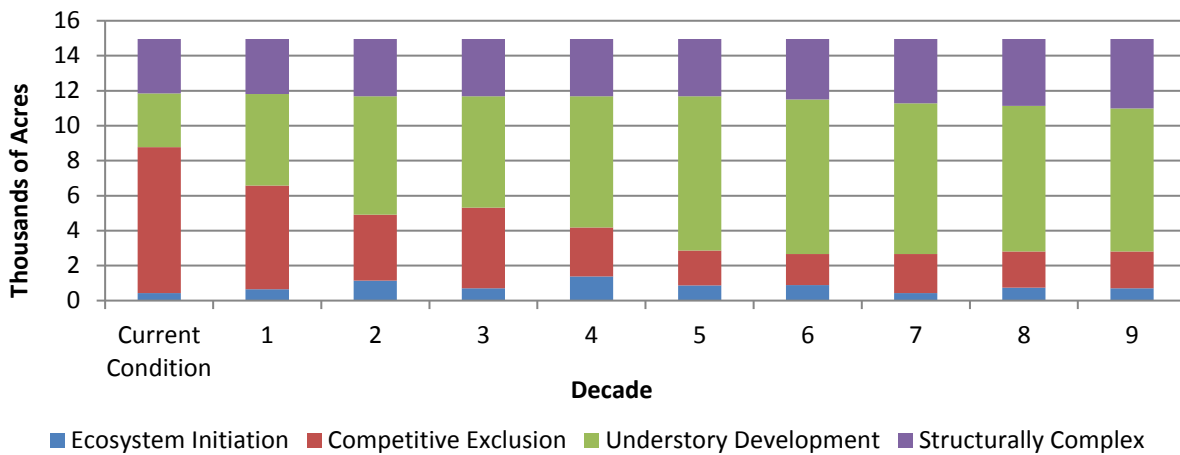


Chart E-44. Lower Queets River Watershed Administrative Unit Landscape Alternative

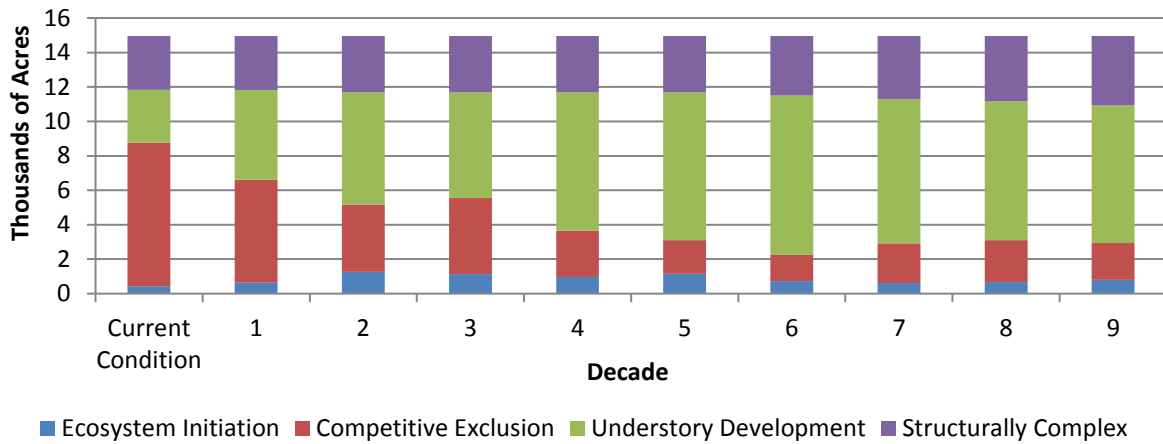


Chart E-45. Middle Hoh Watershed Administrative Unit No Action Alternative

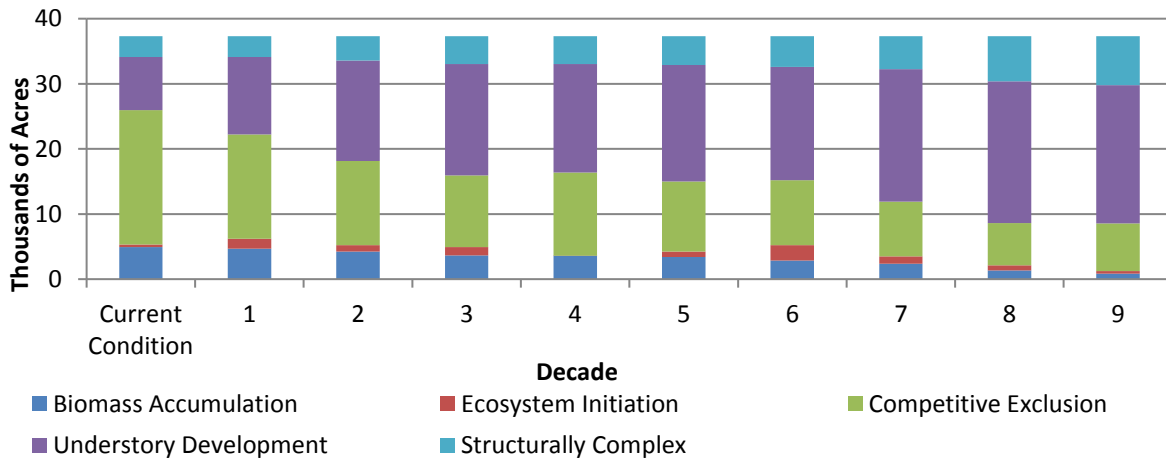


Chart E-46. Middle Hoh Watershed Administrative Unit Landscape Alternative

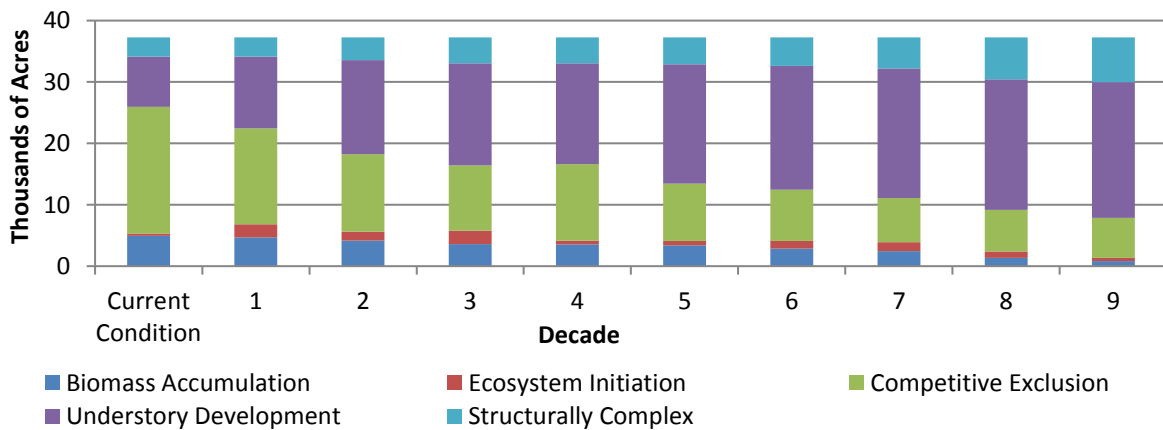


Chart E-47. Quillayute River Watershed Administrative Unit No Action Alternative

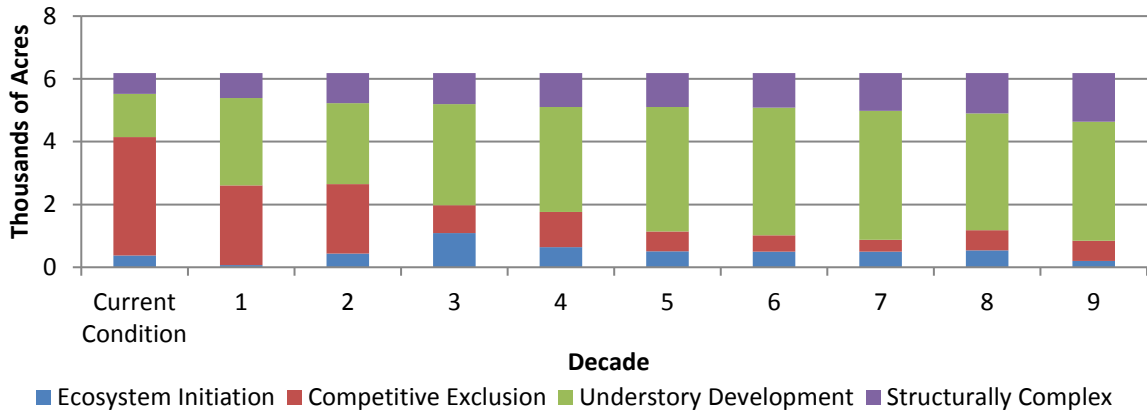


Chart E-48. Quillayute River Watershed Administrative Unit Landscape Alternative

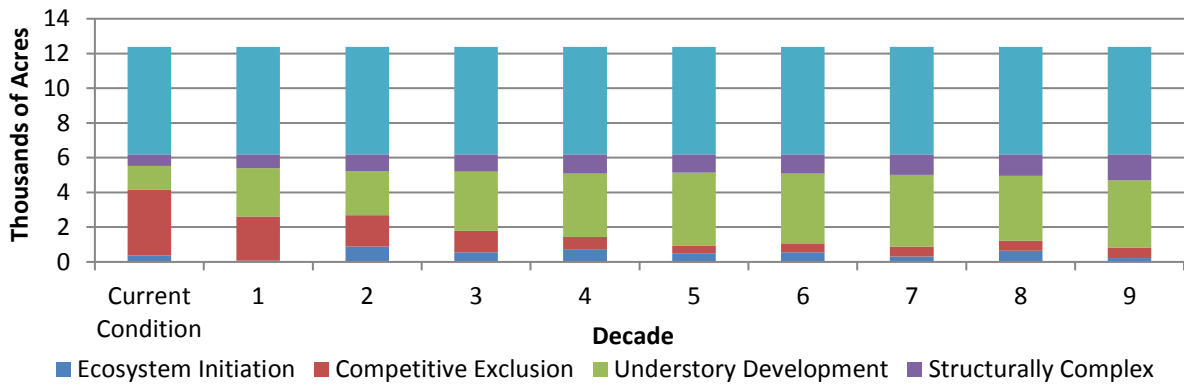


Chart E-49. Sol Duc Lowlands Watershed Administrative Unit No Action Alternative

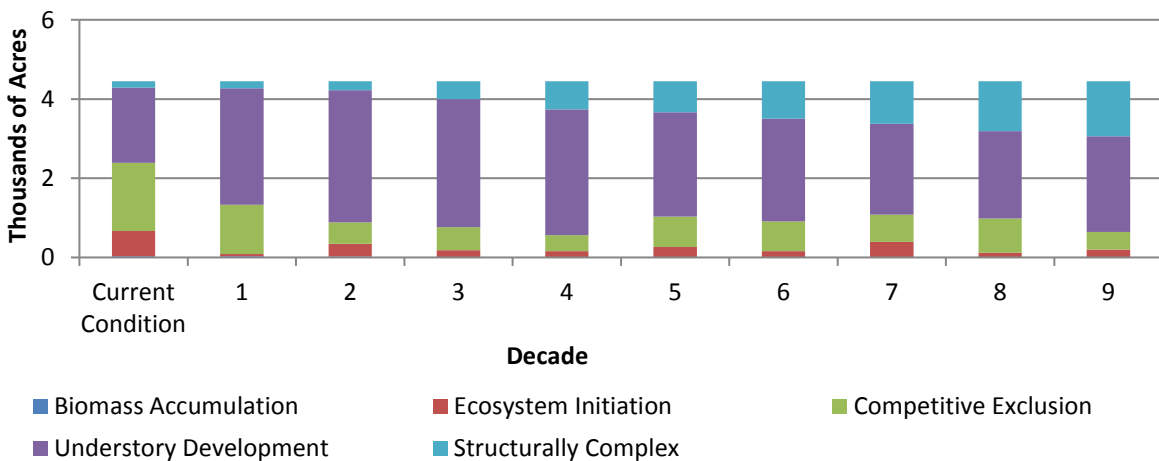


Chart E-50. Sol Duc Lowlands Watershed Administrative Unit Landscape Alternative

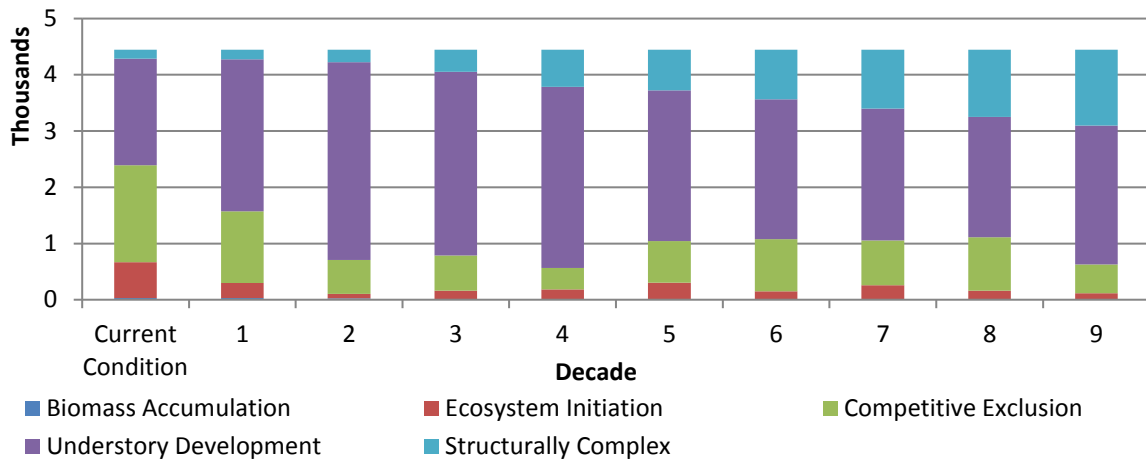


Chart E-51. Sol Duc Valley Watershed Administrative Unit No Action Alternative

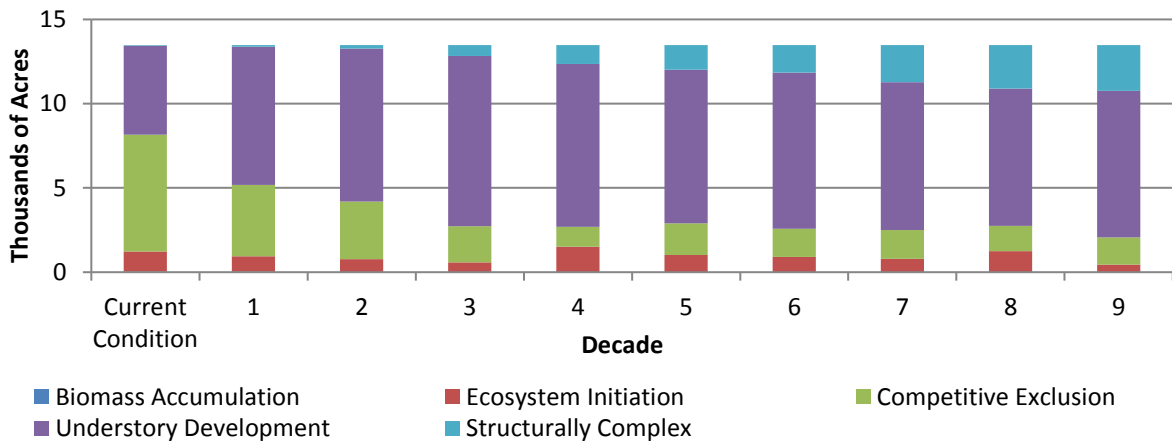


Chart E-52. Sol Duc Valley Watershed Administrative Unit Landscape Alternative

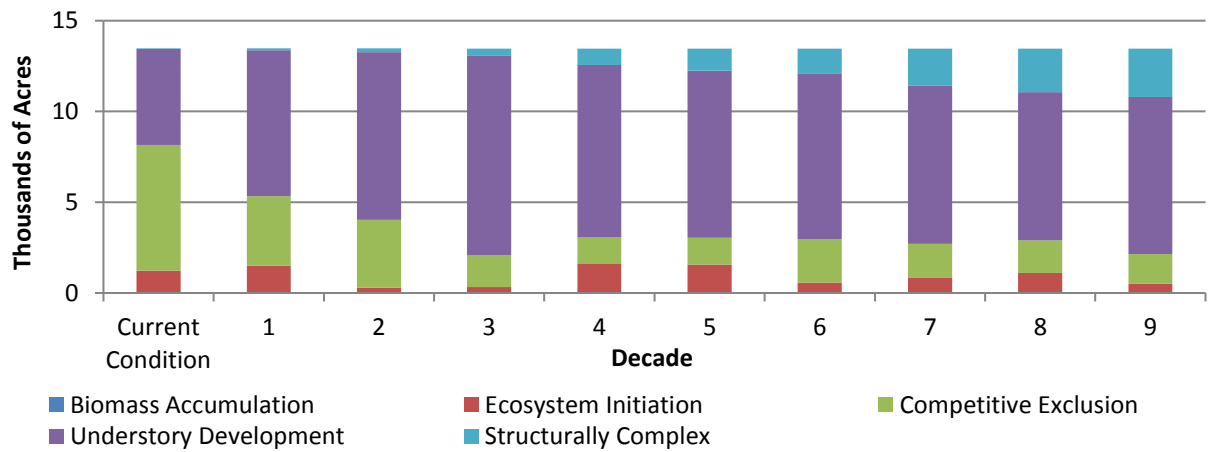


Chart E-53. Upper Clearwater Watershed Administrative Unit No Action Alternative

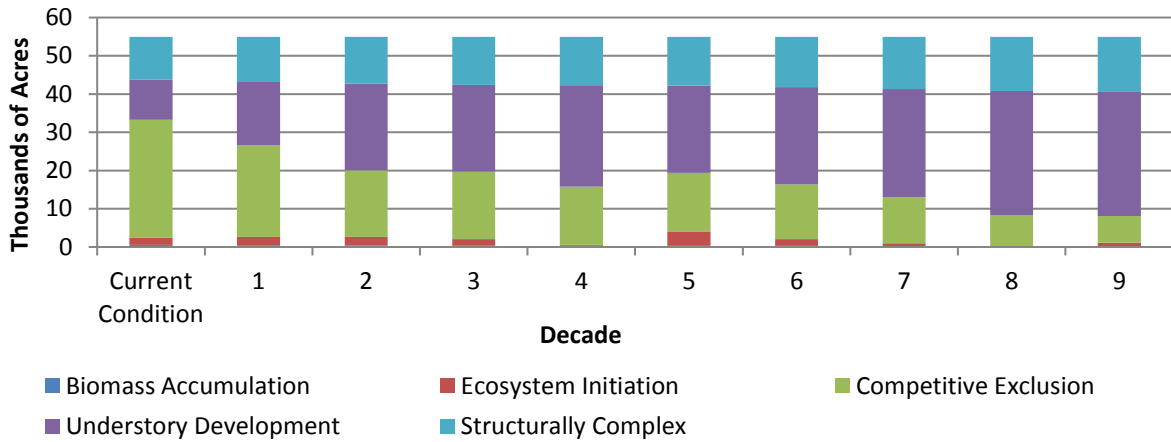
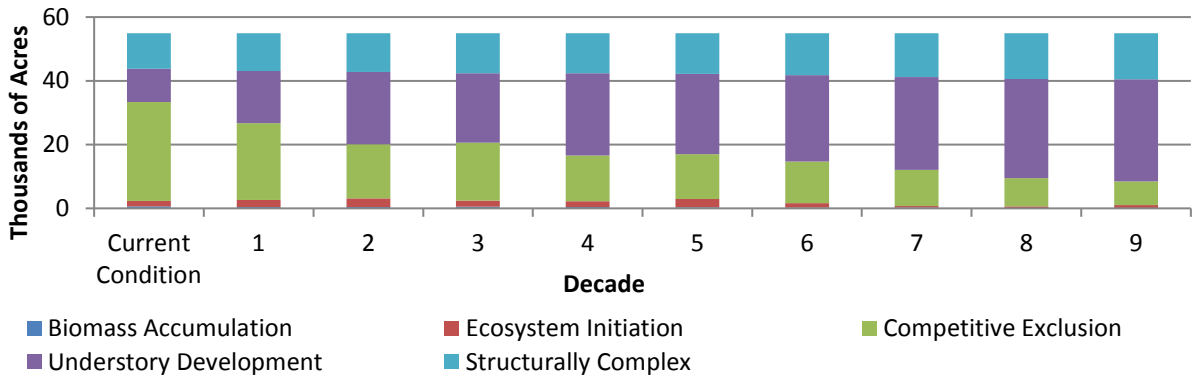


Chart E-54. Upper Clearwater Watershed Administrative Unit Landscape Alternative



Forest Types

■ Table E-1: Forest Types by Landscape

Table E-1. Acres of Forest Types on State Trust Lands, by Landscape

	Clallam	Clearwater	Coppermine	Dickodochtedar	Goodman	Kalaloch	Queets	Reade Hill	Sekiu	Sol Duc	Willy Huel	Total Acres
Douglas-fir	5											5
Douglas-fir, Red Alder	274	408	234	397	487	45	144	19	283	685	1	2,976
Douglas-fir, Red Cedar	0	11	0	20	44	0	258	0	53	20	0	407
Douglas-fir, Sitka Spruce	0	0	28	0	59	0	0	0	0	0	0	87
Douglas-fir, Western Hemlock	1,514	11,310	4,376	4,774	4,976	2,688	6,424	1,223	2,160	2,851	112	42,408
Red Alder, Douglas-fir	1,433	149	186	1,083	485	71	146	274	269	2,138	0	6,234
Red Alder, Sitka Spruce	0	0	0	0	0	0	0	0	0	0	4	4
Red Alder, Western Hemlock	0	0	0	24	13	0	0	0	0	0	0	36
Red Cedar	29	0	0	0	0	0	0	0	0	0	0	29

	Clallam	Clearwater	Coppermine	Dickodochtedar	Goodman	Kalaloch	Queets	Reade Hill	Sekiu	Sol Duc	Willy Huel	Total Acres
Silver fir, Western Hemlock	0	40	0	0	0	0	0	0	21	0	0	61
Sitka Spruce, Douglas-fir	0	0	0	32	0	0	0	0	0	0	0	32
Sitka Spruce, Maple	0	0	0	0	0	0	0	0	0	0	5	5
Sitka Spruce, Western Hemlock	0	0	0	110	38	0	0	0	116	0	0	264
Western Hemlock	0	0	0	0	0	0	0	0	11	0	0	11
Western Hemlock, Douglas-fir	9,397	21,801	8,769	7,582	10,011	10,125	5,689	2,939	5,260	8,001	30,134	119,706
Western Hemlock, Red Alder	2,241	2,117	1,358	4,601	1,423	588	658	841	650	3,396	0	17,872
Western Hemlock, Red Cedar	616	970	1,841	1,945	3,308	3,840	3,665	197	241	5	0	16,626
Western Hemlock, Silver fir	1,769	18,397	2,454	7,480	2,777	765	3,822	2,984	951	2,041	7,171	50,612

	Clallam	Clearwater	Coppermine	Dickodohtedar	Goodman	Kalaloch	Queets	Reade Hill	Sekiu	Sol Duc	Willy Huel	Total Acres
Western Hemlock, Sitka Spruce	0	0	0	0	177	0	0	2	0	10	0	189
Total Acres	17,276	55,203	19,246	28,047	23,799	18,122	20,807	8,479	10,014	19,146	37,427	257,565

This page left intentionally blank.

Harvest Methods

Variable retention harvest is a type of stand replacement harvest in which structural components (for example, snags) of the existing forest stand are retained.

The number of times a forest stand is regenerated over a 100-year period determines the harvest rotation age. For example, forest stands that are regenerated once in 100 years may have a harvest rotation age of approximately 100 years or greater; twice, approximately 50-100 years; and three times, approximately 30-60 years.

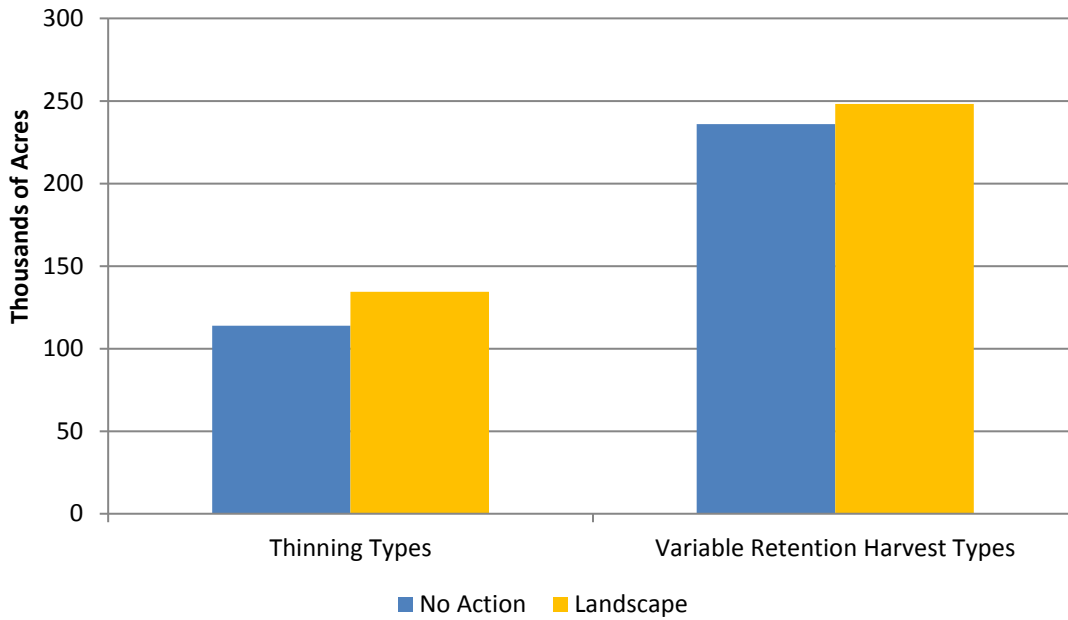
Thinning activities are normally conducted to reduce stand density and allow the remaining trees to become larger. Without periodic disturbances, either natural or human-caused, young thinned forest stands tend to return to a closed-canopy condition. Thinning studies have shown that canopy closure returns in 90 percent of thinned forest stands within 10-30 years after the initial thinning. Managing for understory vegetation and diverse habitat features requires either a heavy initial thinning or multiple thinnings. Variable density thinning with low tree retention gaps and unthinned areas (skips) is a method used to combine heavier thinning techniques with the benefits of reducing windthrow risk while creating structural diversity (Wilson and Puettmann 2007).

Timber harvests can change a forest stand's trajectory into and out of its existing stand development stage. For example, variable retention harvest often results in a forest stand being temporarily reclassified to the Ecosystem Initiation stage. Plant and wildlife communities within the harvested area shift to species that are best adapted to the new conditions of increased sunlight, greater temperature extremes, and altered species composition. Gradually, the developing vegetation communities in the disturbed area change to plant species that are adapted to shadier conditions, and to animal species that prefer the new plant communities for their food and nesting needs.

Harvesting practices of the past were mainly done by regeneration methods in which all the trees in a forest stand were cut and replaced by new seedlings (Reutebuch 2004). Today, harvesting methods and tree plantings and other silvicultural practices are often used to hasten natural processes to meet specific management objectives. Variable retention harvests are conducted to leave structural components of the existing forest stand until the next harvest entry to increase stand complexity. Structural diversity in young stands is created using different harvesting activities on a variety of spatial scales; in the OESF, structural diversity can be achieved by creating canopy gaps and leaving irregular patches of forest ("skips") that are not thinned. Two-storied canopied stands can be created by allowing natural regeneration to occur and/or under-planting young trees to create stand diversity.

■ Chart E-55: Harvest Methods in First Decade

Chart E-163. Acres Harvested by Thinning and Variable Retention Harvest in First Decade Under Each Alternative



■ Tables E-2 and E-3: Harvest Method by Decade and Alternative

Table E-2. Acres of Thinning By Decade and Alternative

Decade	1	2	3	4	5	6	7	8	9	10	TOTAL
No Action	8,725	1,526	5,804	19,947	12,561	13,456	13,219	14,333	20,517	3,775	113,863
Landscape	5,778	2,865	6,533	18,630	20,044	17,308	15,270	20,058	24,284	3,596	134,366

Table E-3. Acres of Variable Retention Harvest by Decade and Alternative

Decade	1	2	3	4	5	6	7	8	9	10	TOTAL
No Action	22,741	21,351	22,669	15,775	25,517	32,479	25,447	25,233	22,483	22,188	235,882
Landscape	24,790	23,978	24,935	19,418	28,249	27,369	25,112	26,836	24,936	22,503	248,126

■ Charts E-56 and E-57: Harvest Methods in All Decades by Alternative

Chart E-56. Harvest Methods, No Action Alternative

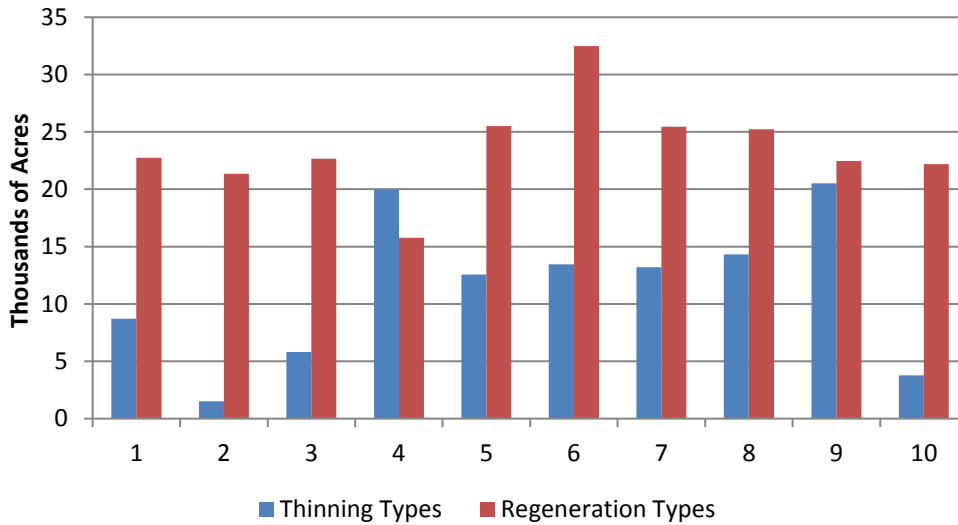
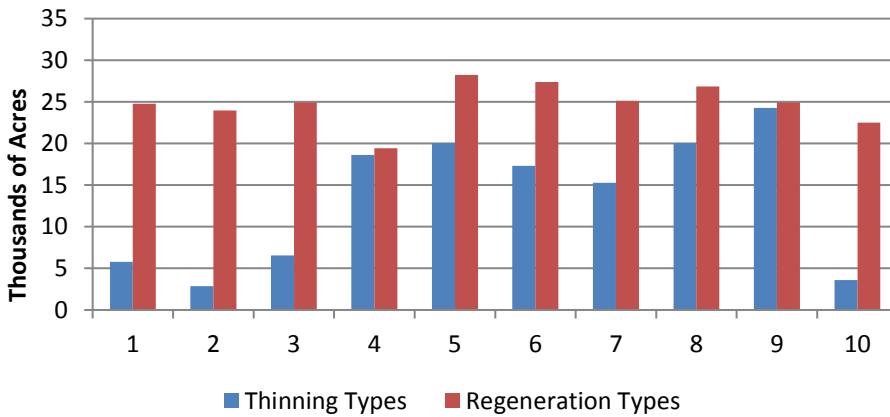


Chart E-57. Harvest Methods, Landscape Alternative



■ Tables E-4 and E-5: Harvest Methods in All Decades by Alternative and Landscape

Table E-4. Acres Harvested by Thinning and Variable Retention Over 100 Years by Landscape, No-Action Alternative

Landscape	Uniform Thinning	Variable Density Thinning	Variable Retention Harvest	TOTAL
Clallam	1,164	11,702	21,137	34,002
Clearwater	278	17,784	39,353	57,415
Coppermine	59	8,183	16,651	24,893
Dickodochtedar	435	16,148	31,965	48,548
Goodman	308	11,003	24,866	36,177
Kalaloch	95	6,824	15,795	22,714
Queets	124	10,155	23,489	33,768
Reade Hill	488	3,145	6,502	10,135
Sekiu	351	5,951	11,367	17,669
Sol Duc	1,037	11,990	21,406	34,433
Willy Huel	69	6,571	23,354	29,994

Table E-5. Acres Harvested by Thinning and Variable Retention Over 100 Years by Landscape, Landscape Alternative

Landscape	Uniform Thinning	Variable Density Thinning	Variable Retention Harvest	TOTAL
Clallam	338	15,149	20,785	36,272
Clearwater	251	21,084	41,892	63,227
Coppermine	152	10,401	17,575	28,128
Dickodochtedar	294	21,522	31,556	53,372
Goodman	289	14,106	26,170	40,565
Kalaloch	2	7,390	17,085	24,477
Queets	219	13,259	24,502	37,980
Reade Hill	345	3,782	7,068	11,195
Sekiu	208	7,743	12,359	20,310
Sol Duc	397	15,929	21,997	38,323
Willy Huel	9	1,496	27,137	28,642

■ Tables E-6 and E-7: Harvest Methods by Landscape, Decade, and Alternative

Table E-6. Acres of Thinning By Landscape, Decade, and Alternative

Decade	1	2	3	4	5	6	7	8	9	10	TOTAL
Clallam											
No Action	2,084	139	314	3,072	1,020	1,130	1,647	1,313	1,752	395	12,866
Landscape	1,840	70	953	3,068	1,153	1,615	1,679	2,387	2,254	469	15,487
Clearwater											
No Action	509	123	963	2,705	3,096	1,855	929	3,570	3,844	467	18,062
Landscape	136	134	882	2,356	3,965	3,375	2,143	3,824	4,121	400	21,335
Coppermine											
No Action	29	12	98	1,202	1,433	1,170	681	1,561	1,849	206	8,241
Landscape	15	10	73	1,066	2,637	1,397	1,206	1,201	2,114	834	10,553
Dickodochtedar											
No Action	1,095	472	615	2,444	1,736	2,001	2,657	1,565	2,998	999	16,583
Landscape	796	1,163	928	2,855	3,138	2,519	2,931	2,443	4,245	797	21,815
Goodman											
No Action	653	140	1,049	1,782	656	2,690	1,321	1,195	1,671	154	11,311
Landscape	240	294	1,302	1,506	2,119	2,615	1,492	1,980	2,733	113	14,395
Kalaloch											
No Action	476	48	290	1,225	723	623	857	542	1,899	235	6,919
Landscape	107	31	619	1,090	955	981	570	1,025	1,870	143	7,392
Queets											
No Action	203	103	119	1,896	1,492	854	1,768	1,367	2,422	55	10,279
Landscape	190	16	316	1,964	2,522	1,779	1,500	2,415	2,607	170	13,479
Reade Hill											
No Action	611	31	85	796	207	356	688	306	426	127	3,633
Landscape	497	116	325	507	471	396	444	642	681	46	4,127
Sekiu											
No Action	431	231	459	706	636	978	388	1,473	803	196	6,302
Landscape	395	199	697	592	1,265	1,334	795	1,217	1,243	215	7,951
Sol Duc											
No Action	2,359	32	286	3,166	677	845	2,192	1,298	1,439	735	13,027
Landscape	1,502	755	178	3,353	1,617	957	2,449	2,795	2,335	387	16,327
Willy Huel											
No Action	273	197	1,527	953	882	954	91	143	1,415	205	6,640
Landscape	58	78	260	274	202	341	61	128	82	22	1,505

Table E-7. Acres of Variable Retention Harvest, by Landscape, Decade, and Alternative

Decade	1	2	3	4	5	6	7	8	9	10	TOTAL
Clallam											
No Action	2,296	1,045	1,871	2,139	2,517	2,544	2,048	2,424	2,917	1,335	21,136
Landscape	1,931	1,068	1,668	1,829	3,734	2,135	1,992	2,335	2,343	1,752	20,786
Clearwater											
No Action	3,696	5,051	3,461	131	6,223	5,026	4,684	2,600	3,436	5,045	39,353
Landscape	3,701	5,534	4,663	2,716	4,536	4,403	3,963	3,854	4,298	4,226	41,892
Coppermine											
No Action	2,170	2,185	1,628	98	1,983	2,063	1,048	2,228	2,098	1,150	16,650
Landscape	2,139	2,659	2,036	990	1,104	2,180	1,710	1,538	1,939	1,279	17,575
Dickodochtedar											
No Action	2,085	2,544	3,089	3,575	2,706	4,703	3,485	3,508	2,384	3,886	31,965
Landscape	2,507	2,651	1,976	3,073	3,939	4,161	2,885	3,950	3,035	3,379	31,556
Goodman											
No Action	1,748	932	4,217	2,508	2,392	2,430	3,236	3,466	2,164	1,772	24,865
Landscape	1,412	2,289	2,873	2,693	3,260	2,787	2,540	3,474	2,299	2,543	26,170
Kalaloch											
No Action	1,537	2,025	1,738	1,207	826	2,355	1,830	1,177	1,525	1,575	15,795
Landscape	1,720	2,111	2,191	845	1,595	2,064	1,491	1,908	1,589	1,571	17,085
Queets											
No Action	2,104	2,559	1,613	2,753	1,743	3,578	1,995	2,594	1,951	2,600	23,489
Landscape	2,085	2,663	2,452	1,995	2,792	2,770	2,504	2,116	2,579	2,545	24,501
Reade Hill											
No Action	1,030	113	650	816	548	1,216	381	986	344	418	6,502
Landscape	1,085	222	605	662	1,072	958	509	810	617	527	7,068
Sekiu											
No Action	762	800	1,120	127	2,280	986	1,498	983	1,756	1,054	11,367
Landscape	938	1,015	1,671	773	1,460	1,391	1,294	1,368	1,263	1,184	12,359
Sol Duc											
No Action	1,926	1,833	1,110	2,402	2,627	2,639	2,277	2,365	2,276	1,950	21,406
Landscape	3,281	544	497	2,691	3,585	2,385	2,313	2,301	2,527	1,872	21,997
Willy Huel											
No Action	3,388	2,265	2,169	18	1,671	4,940	2,966	2,903	1,631	1,403	23,353
Landscape	3,990	3,221	4,302	1,151	1,171	2,136	3,911	3,185	2,447	1,624	27,137

■ Charts E-58 through E-79: Harvest Methods in All Decades by Alternative and Landscape

Chart E-58. Clallam No Action Alternative

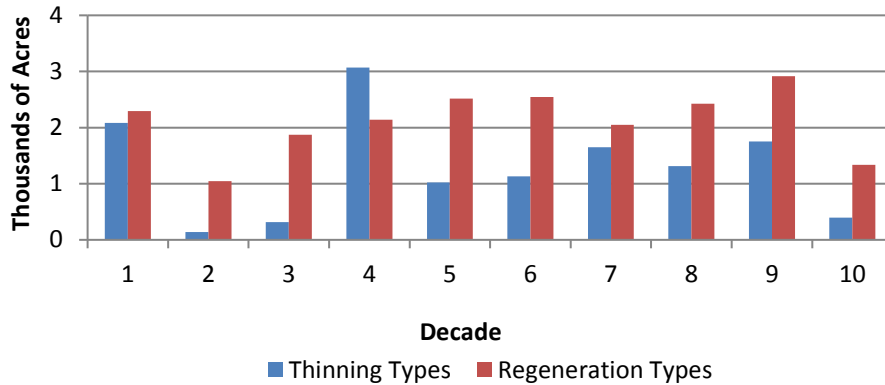


Chart E-59. Clallam Landscape Alternative

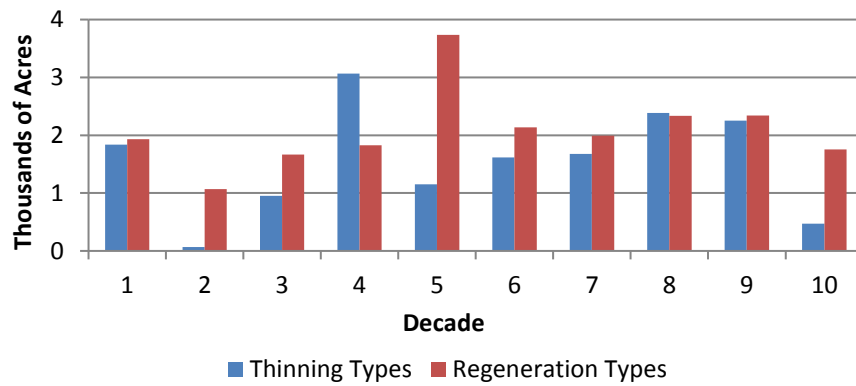


Chart E-60. Clearwater No Action Alternative

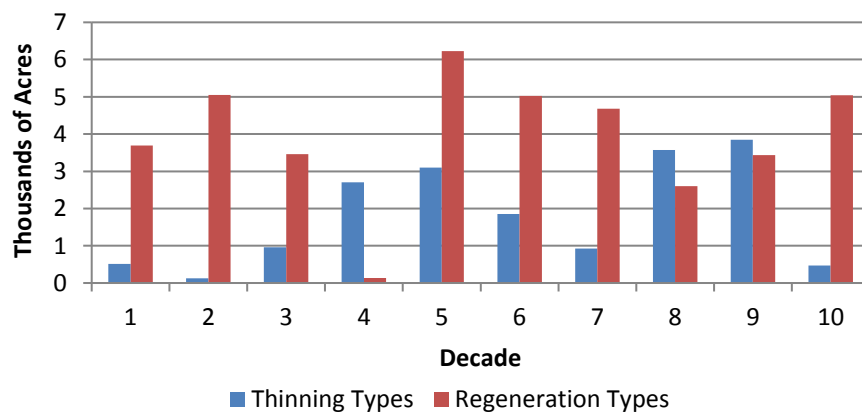


Chart E-61. Clearwater Landscape Alternative

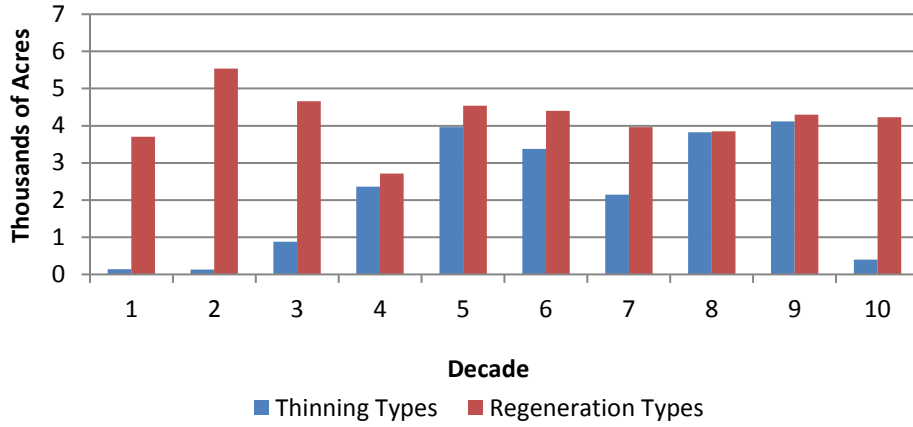


Chart E-62. Coppermine No Action Alternative

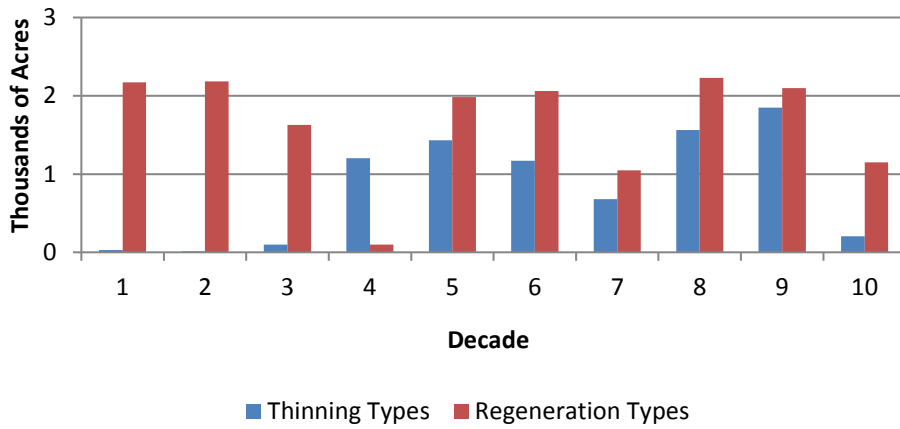


Chart E-63. Coppermine Landscape Alternative

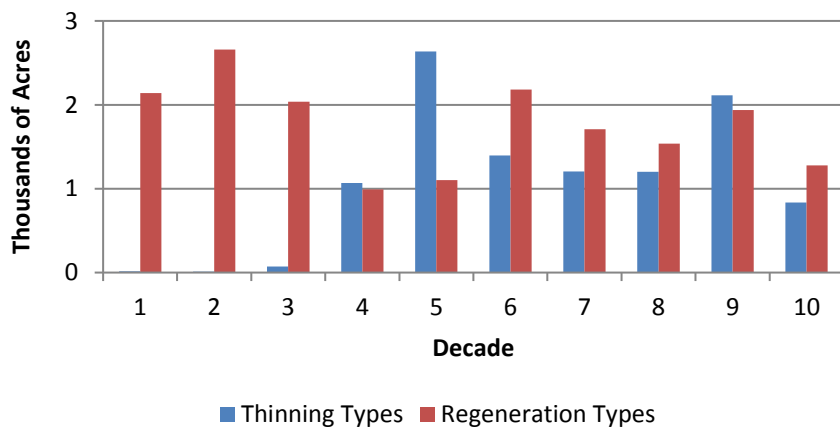


Chart E-64. Dickodochtedar No Action Alternative

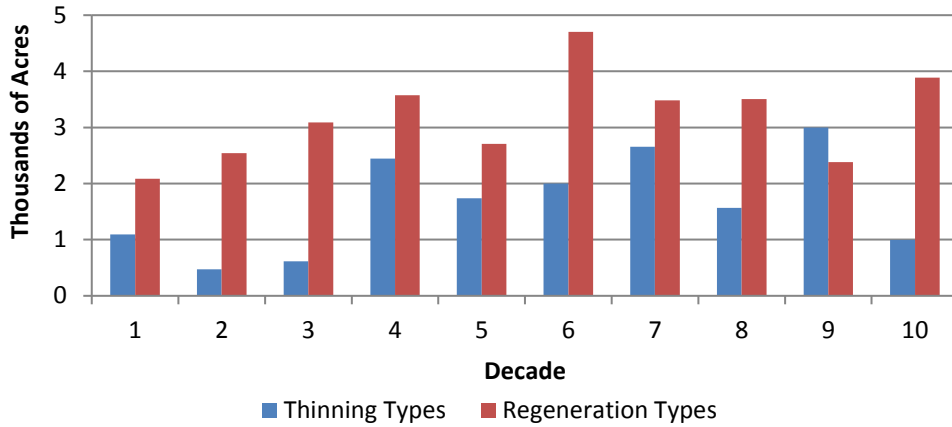


Chart E-65. Dickodochtedar Landscape Alternative

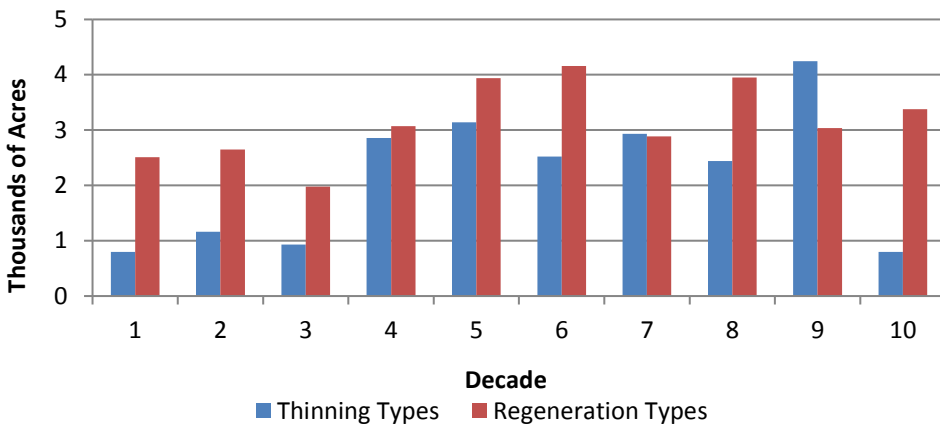


Chart E-66. Goodman No Action Alternative

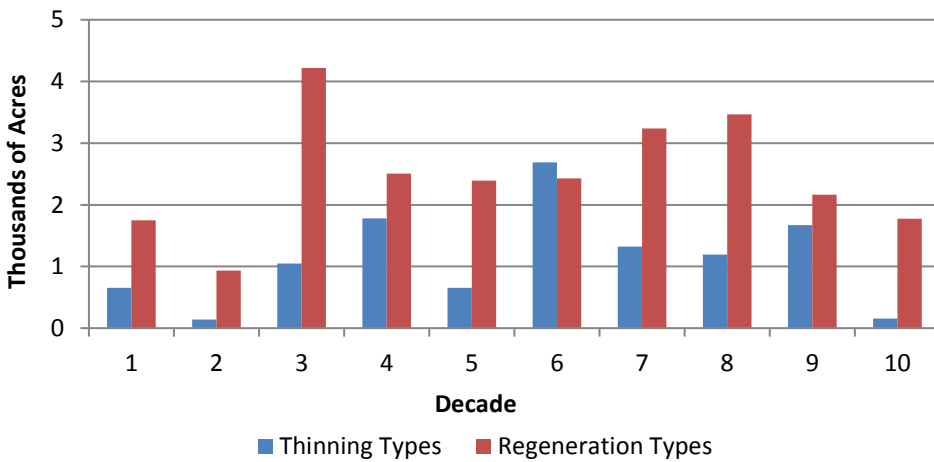


Chart E-67. Goodman Landscape Alternative

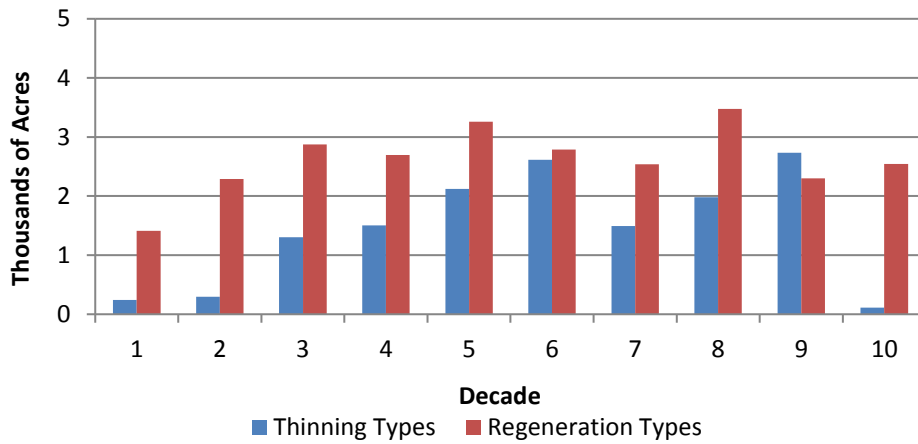


Chart E-68. Kalaloch No Action Alternative

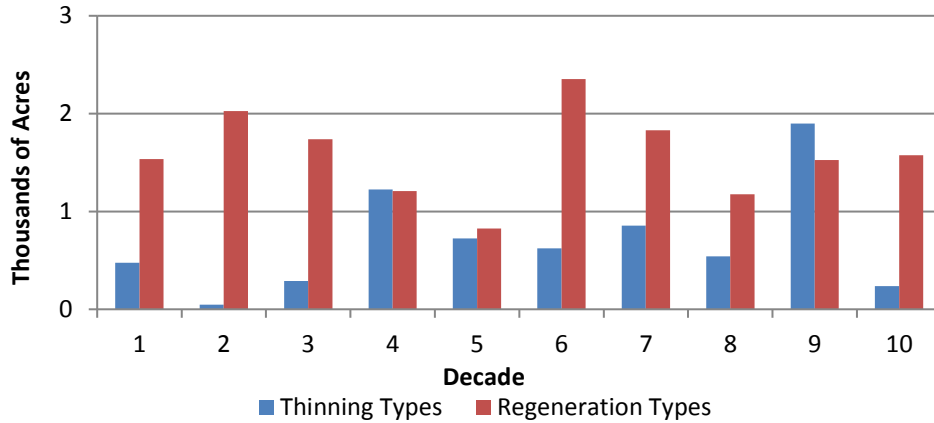


Chart E-69. Kalaloch Landscape Alternative

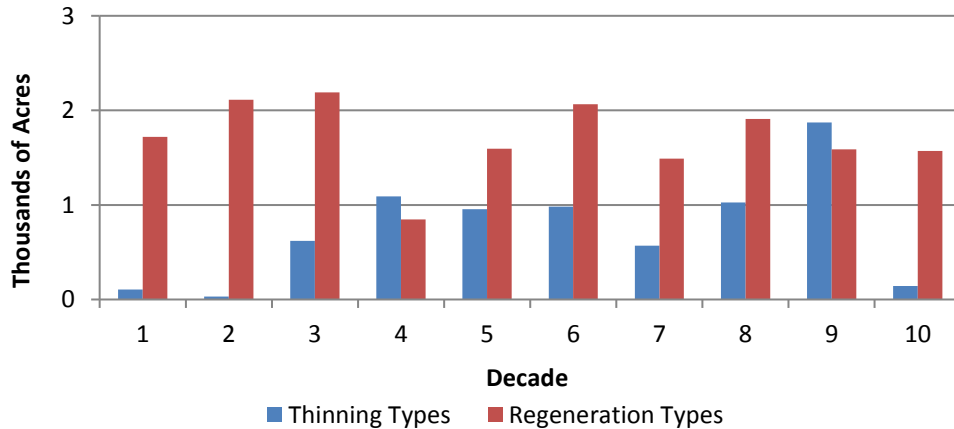


Chart E-70. Queets No Action Alternative

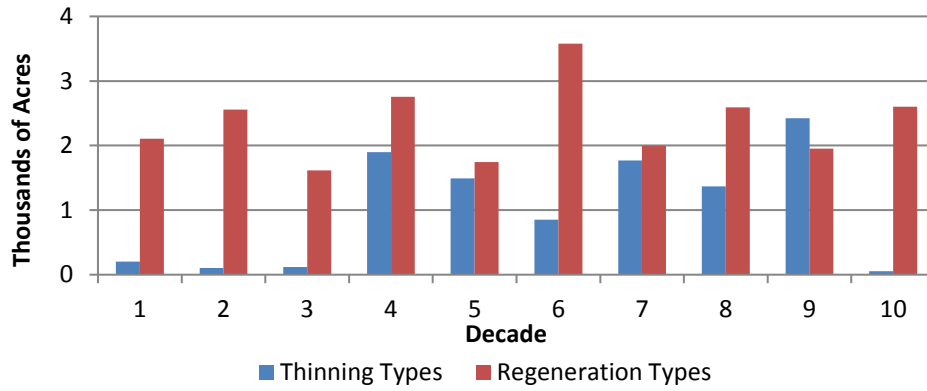


Chart E-71. Queets Landscape Alternative

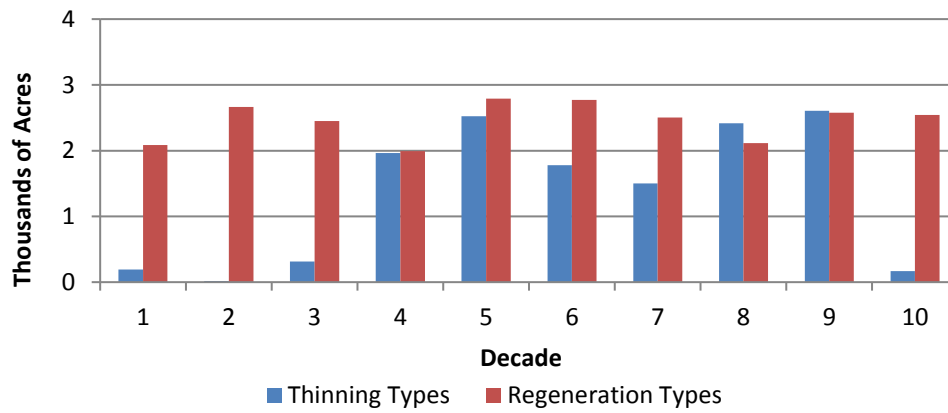


Chart E-72. Reade Hill No Action Alternative

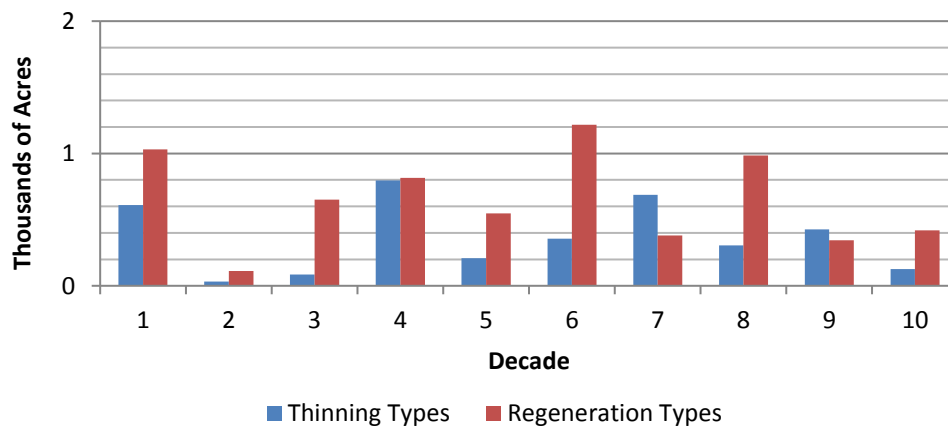


Chart E-73. Reade Hill Landscape Alternative

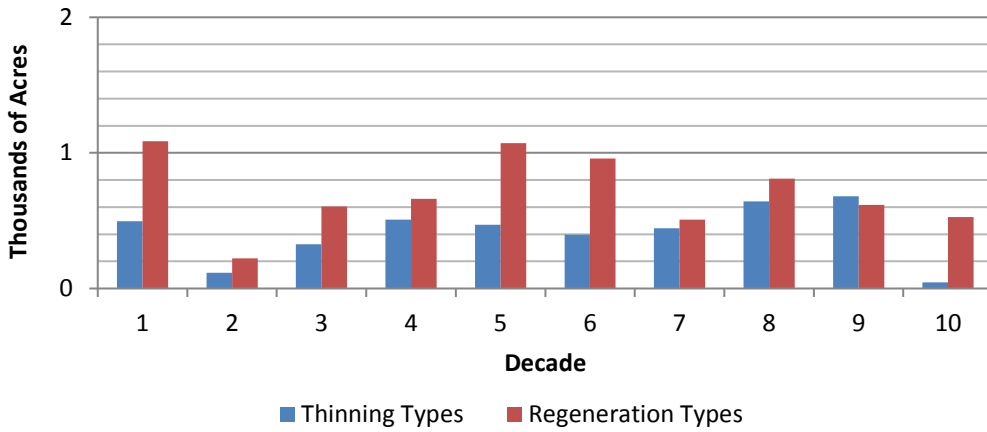


Chart E-74. Sekiu No Action Alternative

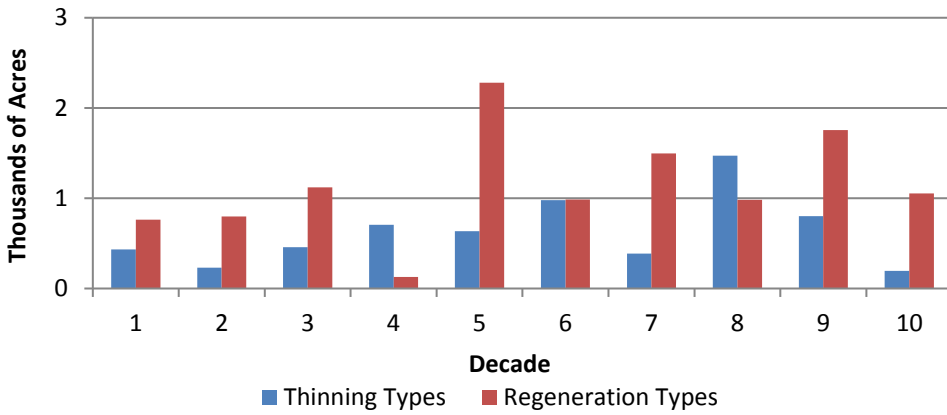


Chart E-75. Sekiu Landscape Alternative

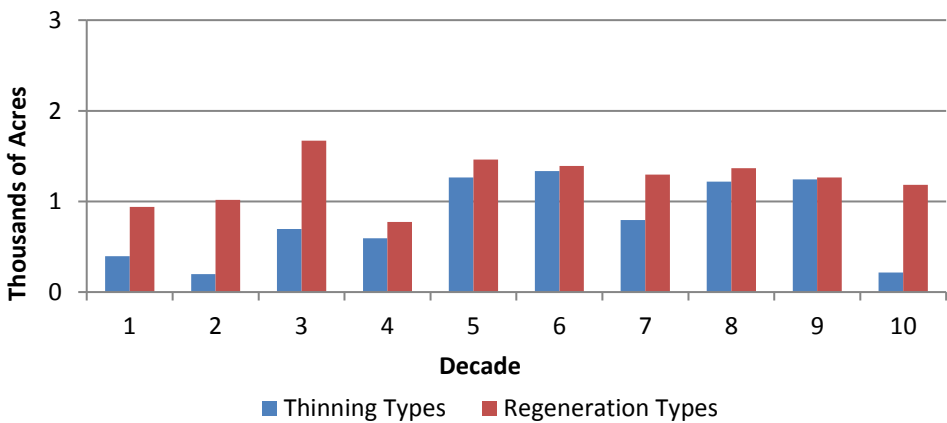


Chart E-76. Sol Duc No Action Alternative

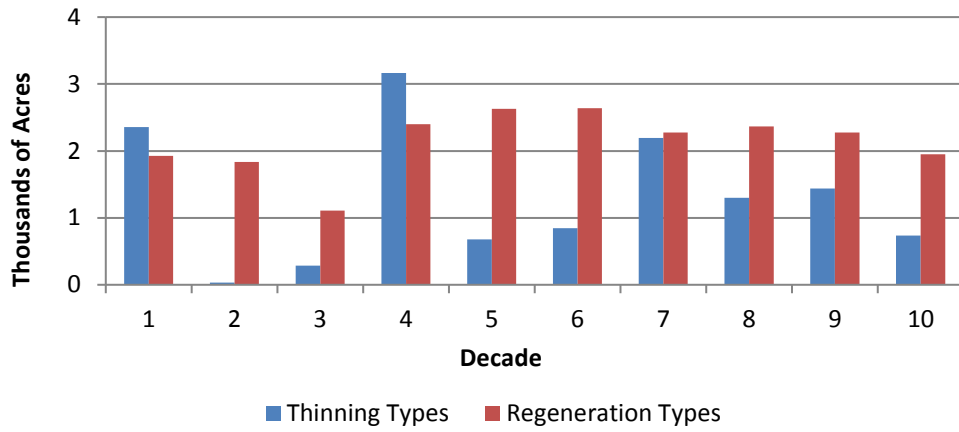


Chart E-77. Sol Duc Landscape Alternative

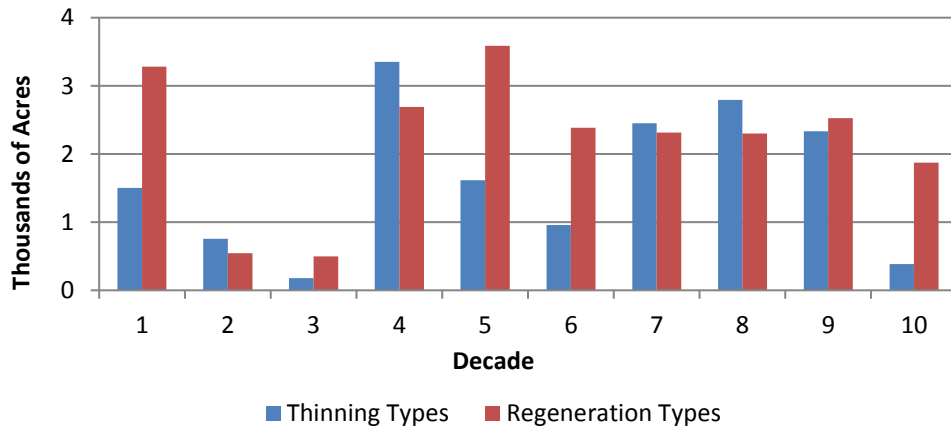


Chart E-78. Willy Hue No Action Alternative

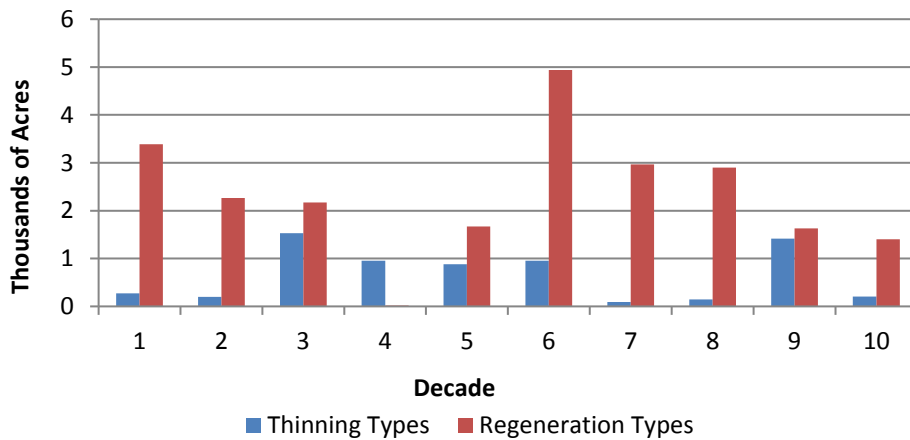
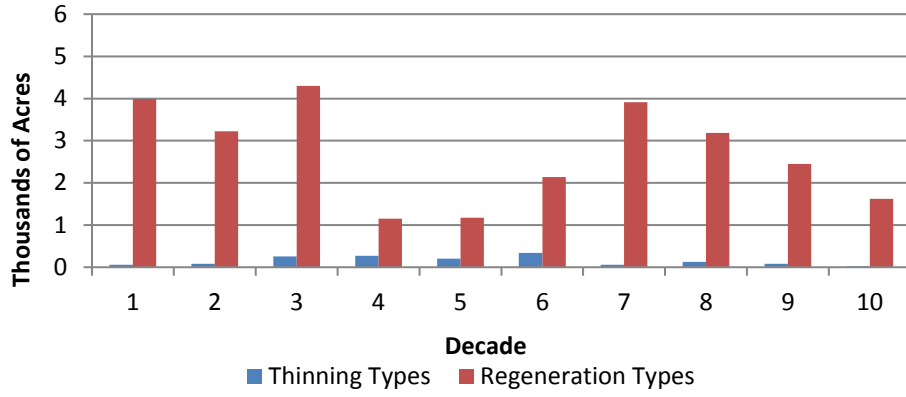


Chart E-79. Willy Huel Landscape Alternative



■ Charts E-80 through E-111: Harvest Methods in All Decades by Alternative and Watershed Administrative Unit

Chart E-80. Bogachiel Watershed Administrative Unit No Action Alternative

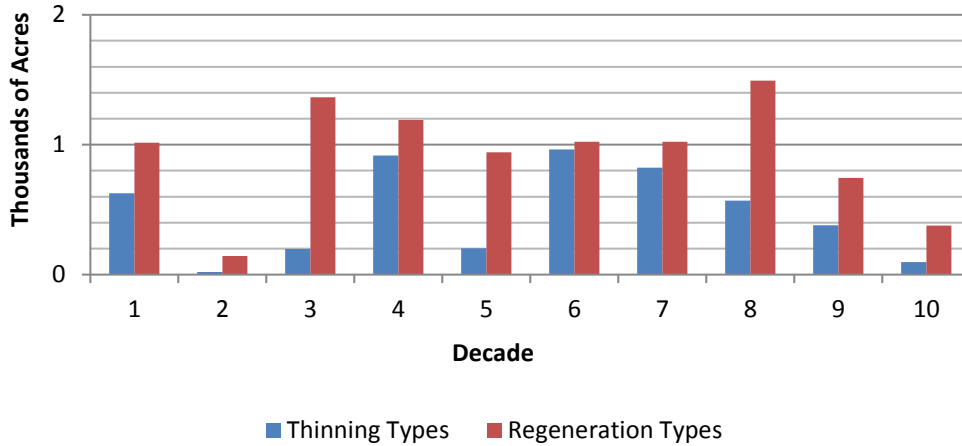


Chart E-81. Bogachiel Watershed Administrative Unit Landscape Alternative

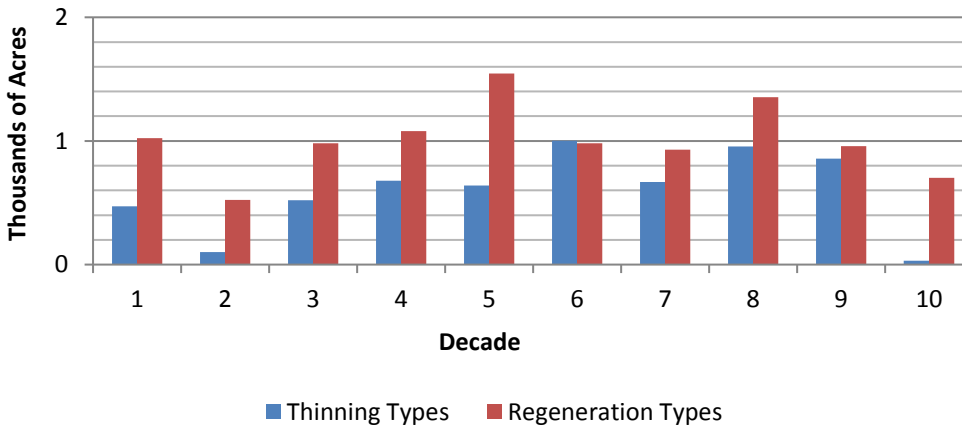


Chart E-82. Cedar Watershed Administrative Unit No Action Alternative

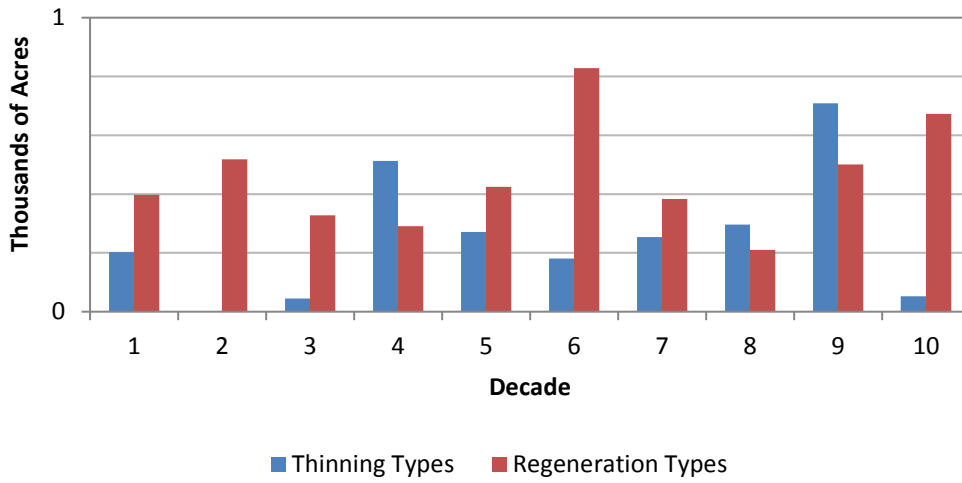


Chart E-83. Cedar Watershed Administrative Unit Landscape Alternative

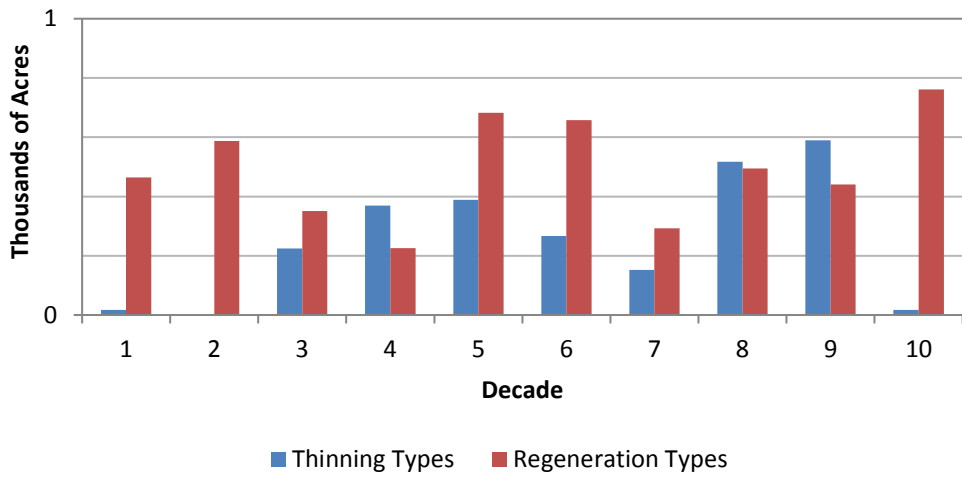


Chart E-84. Clallam River Watershed Administrative Unit No Action Alternative

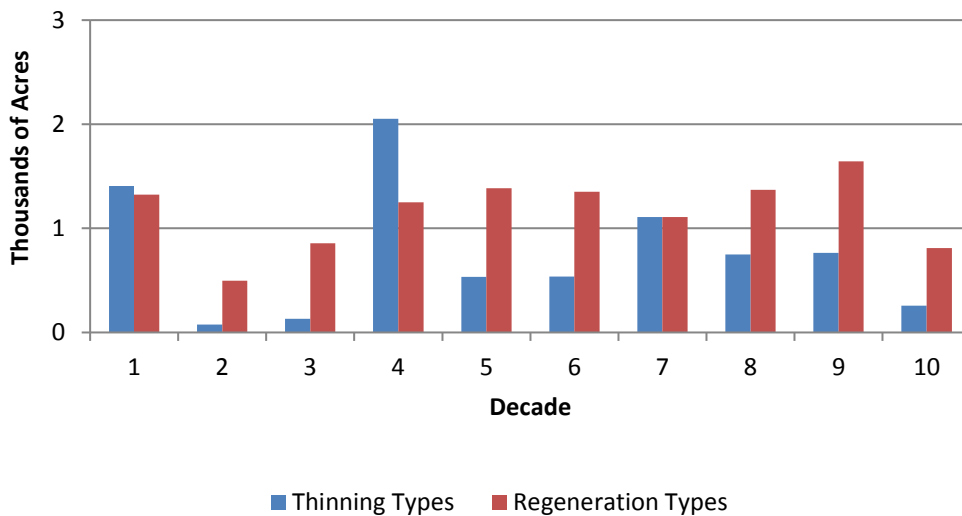


Chart E-85. Clallam River Watershed Administrative Unit Landscape Alternative

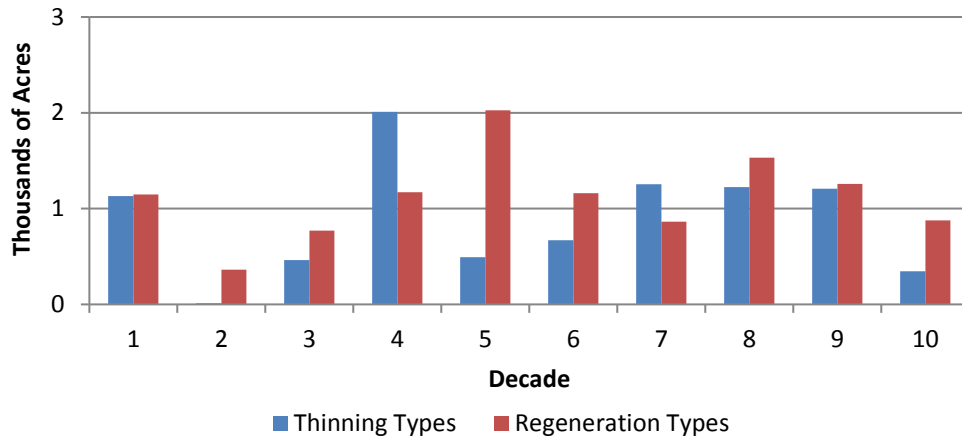


Chart E-86. East Fork Dickey Watershed Administrative Unit No Action Alternative

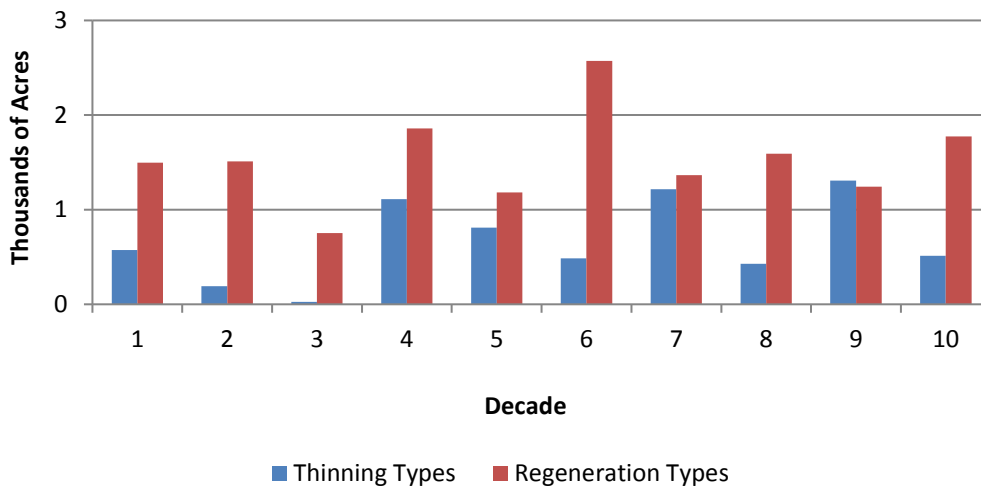


Chart E-87. East Fork Dickey Watershed Administrative Unit Landscape Alternative

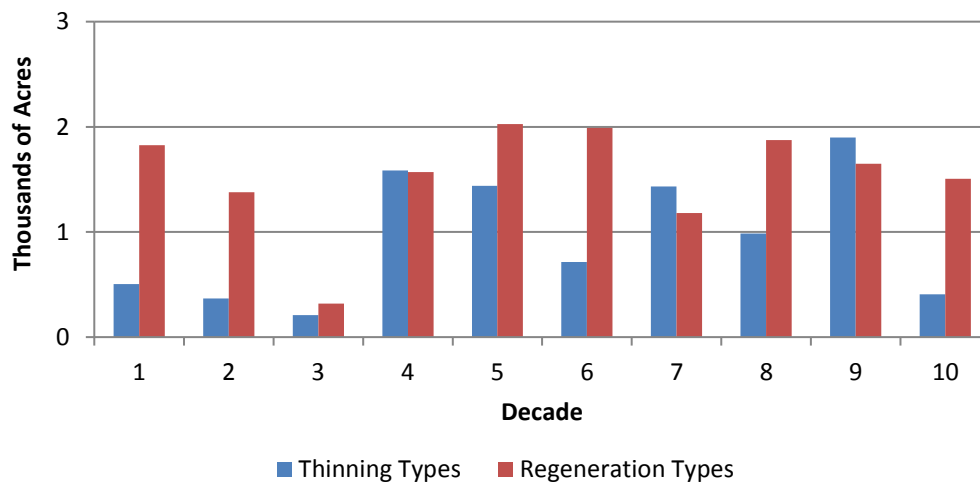


Chart E-88. Goodman Mosquito Watershed Administrative Unit No Action Alternative

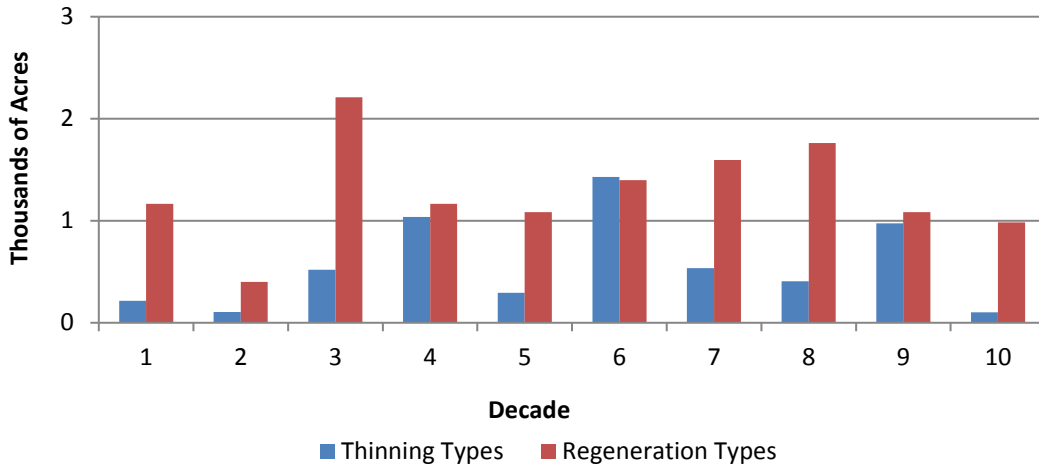


Chart E-89. Goodman Mosquito Watershed Administrative Unit Landscape Alternative

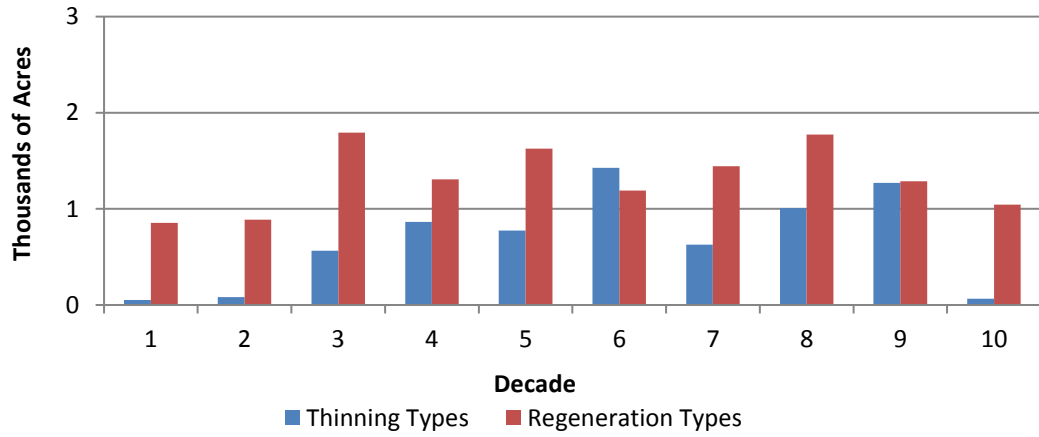


Chart E-90. Hoko Watershed Administrative Unit No Action Alternative

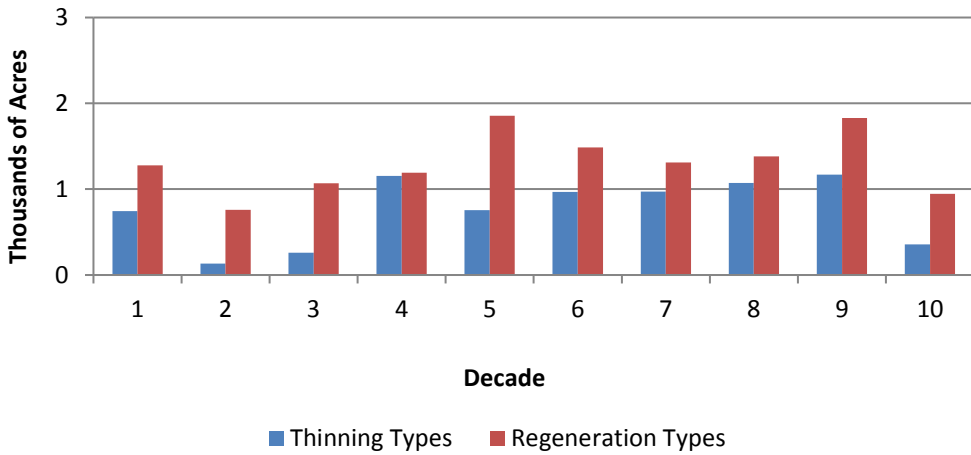


Chart E-91. Hoko Watershed Administrative Unit Landscape Alternative

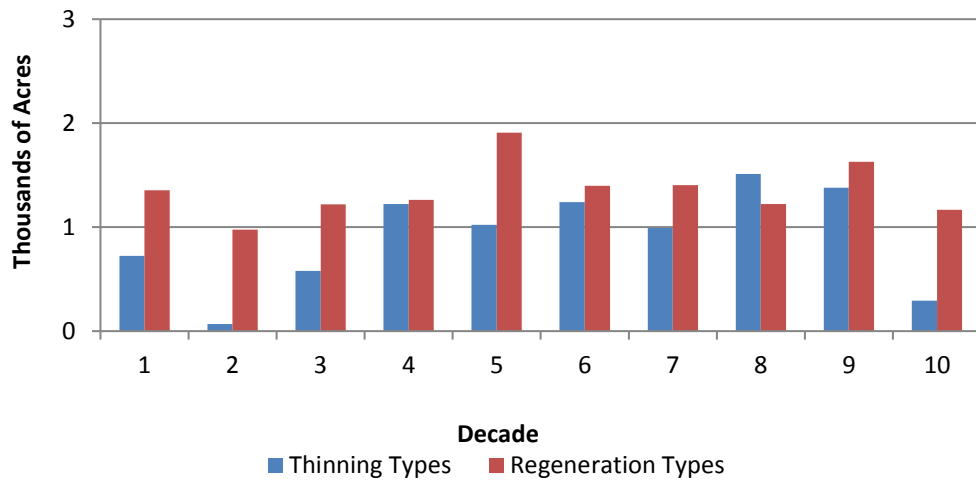


Chart E-92. Kalaloch Ridge Watershed Administrative Unit No Action Alternative

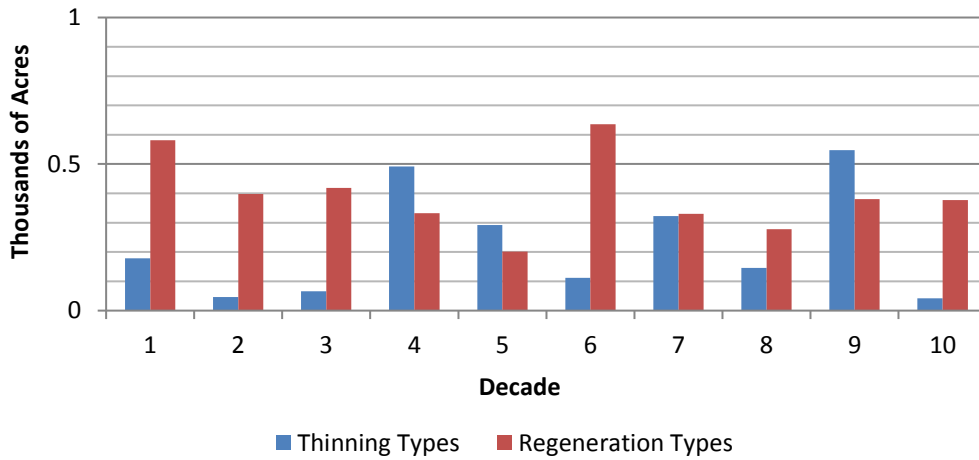


Chart E-93. Kalaloch Ridge Watershed Administrative Unit Landscape Alternative

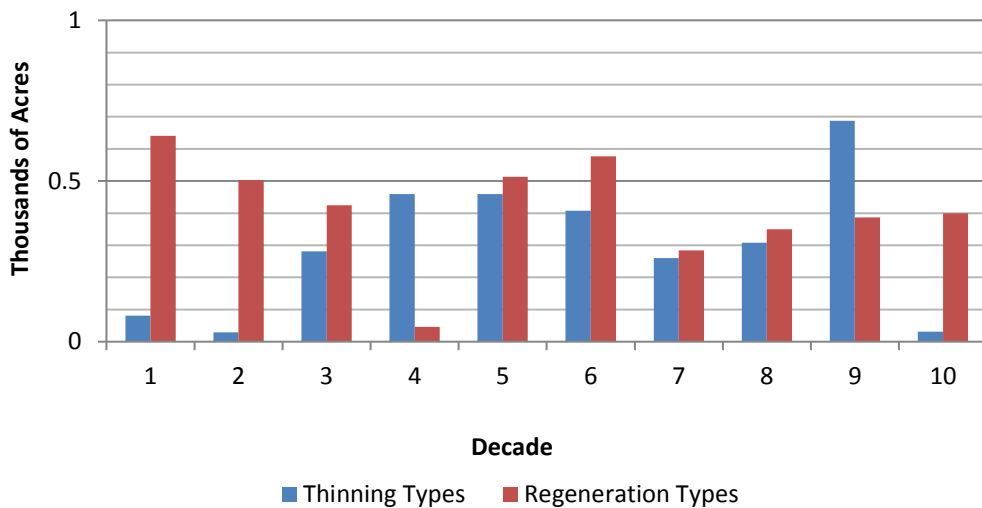


Chart E-94. Lower Clearwater Watershed Administrative Unit No Action Alternative

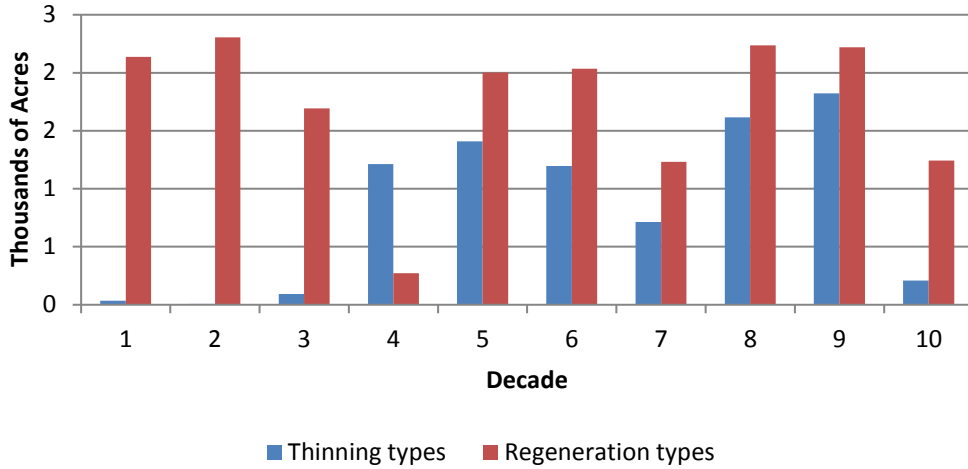


Chart E-95. Lower Clearwater Watershed Administrative Unit Landscape Alternative

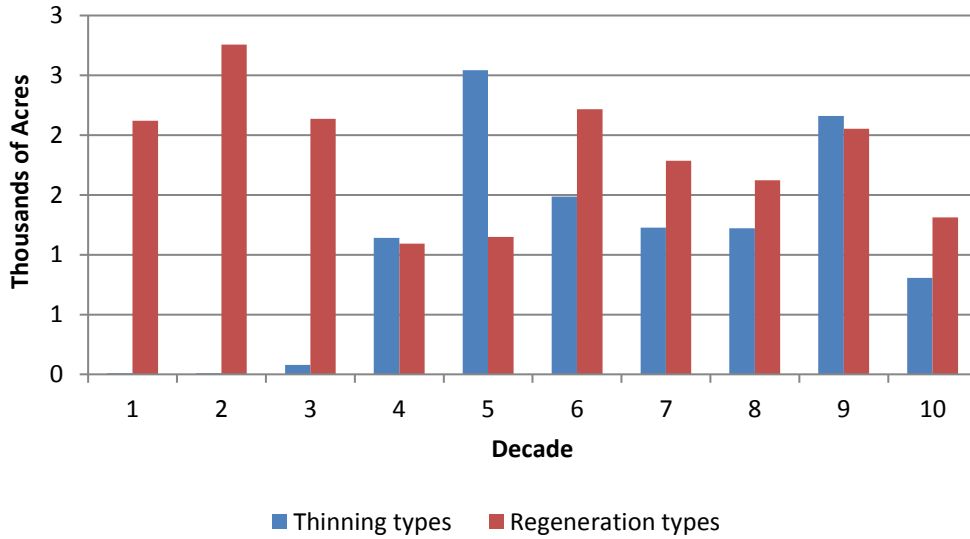


Chart E-96. Lower Dickey Watershed Administrative Unit No Action Alternative

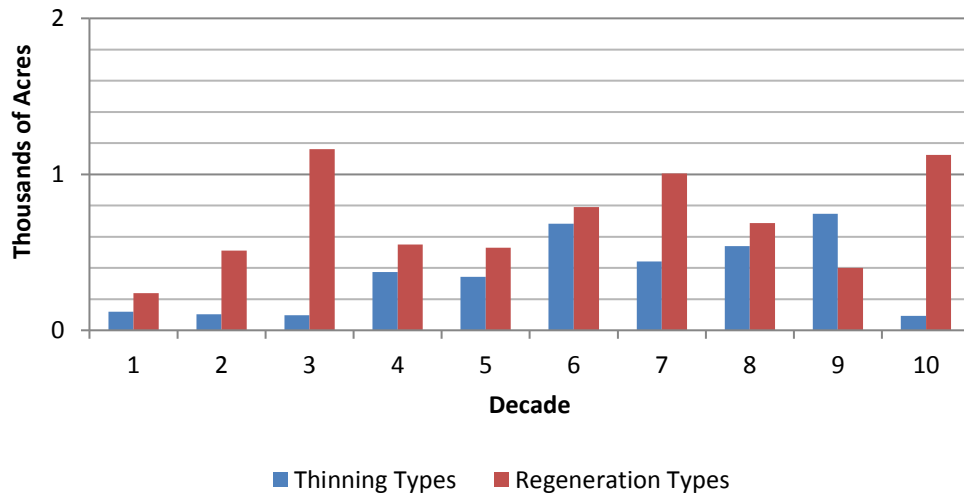


Chart E-97. Lower Dickey Watershed Administrative Unit Landscape Alternative

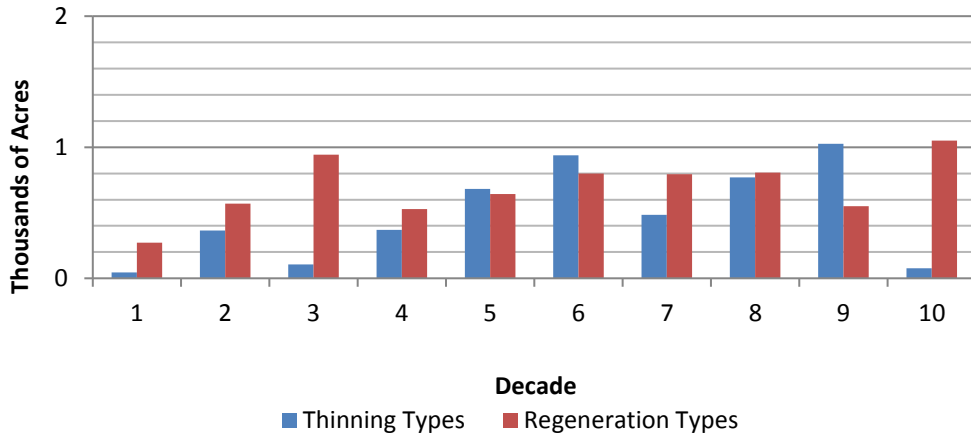


Chart E-98. Lower Hoh River Watershed Administrative Unit No Action Alternative

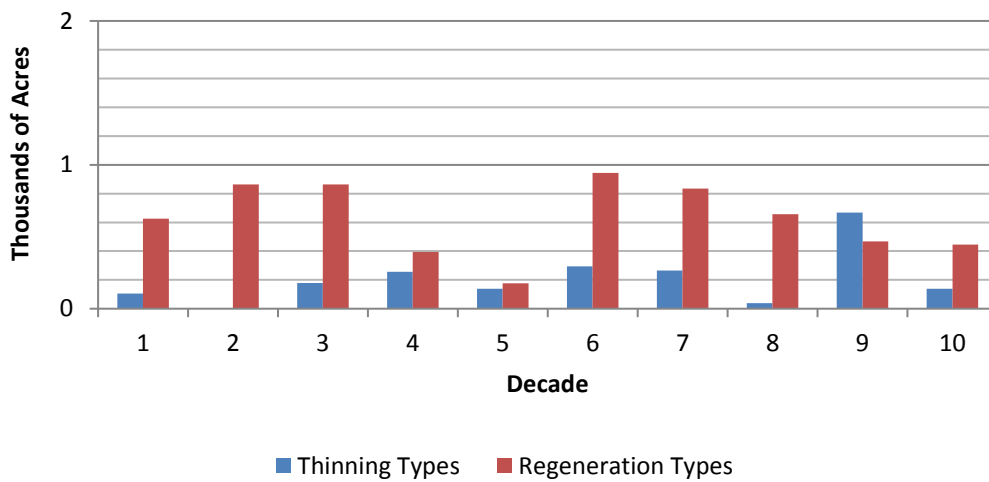


Chart E-99. Lower Hoh Watershed Administrative Unit Landscape Alternative

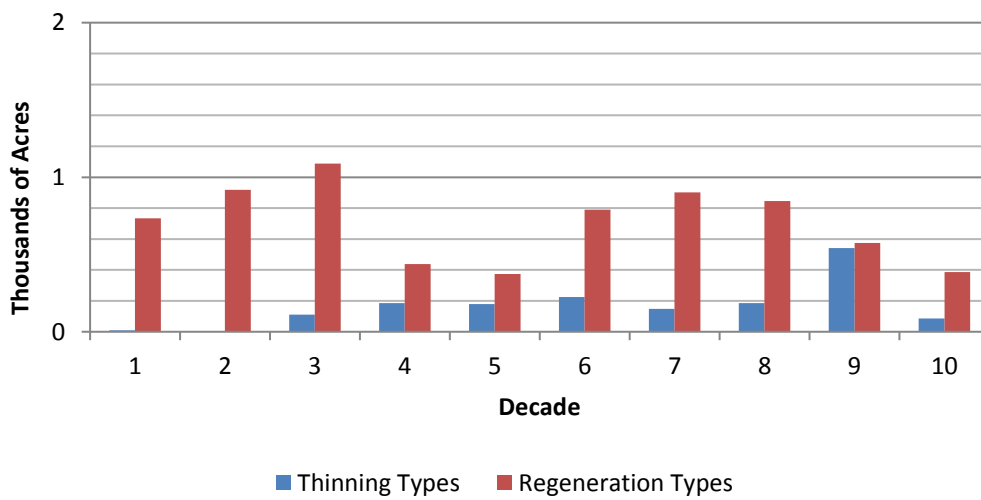


Chart E-100. Lower Queets River Watershed Administrative Unit No Action Alternative

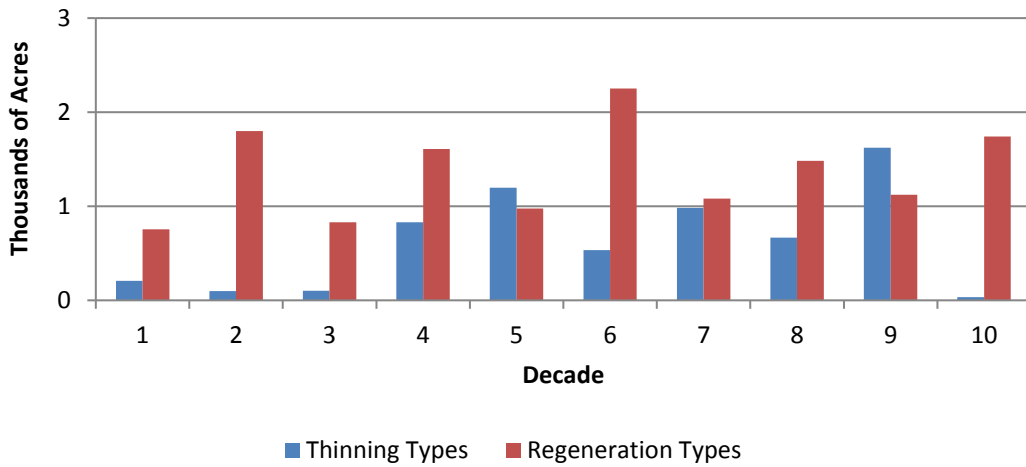


Chart E-101. Lower Queets River Watershed Administrative Unit Landscape Alternative

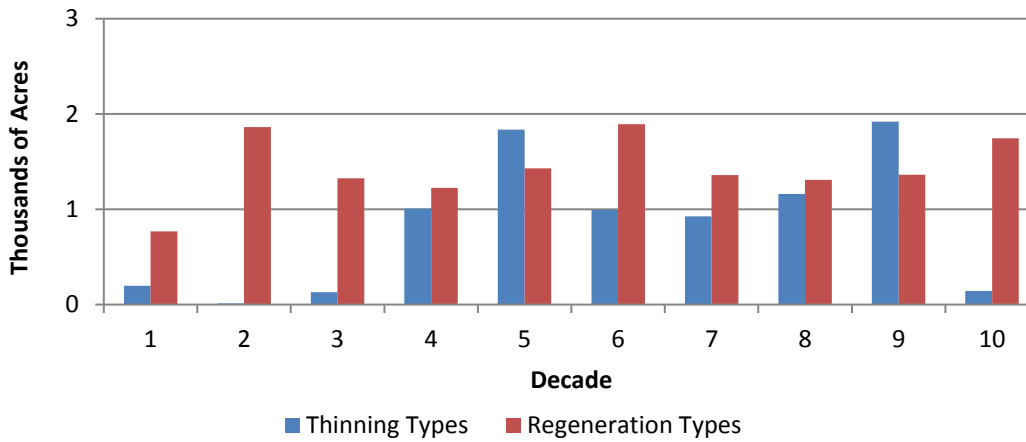


Chart E-102. Middle Hoh Watershed Administrative Unit No Action Alternative

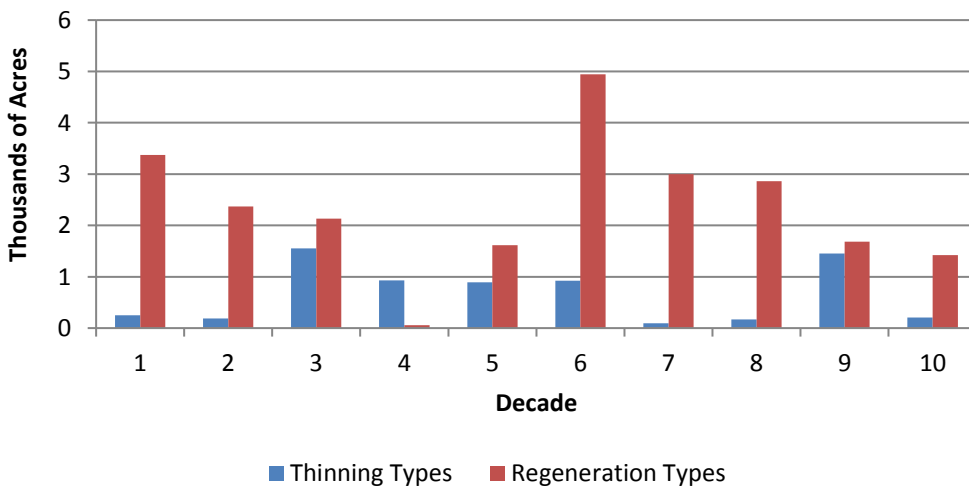


Chart E-103. Middle Hoh Watershed Administrative Unit Landscape Alternative

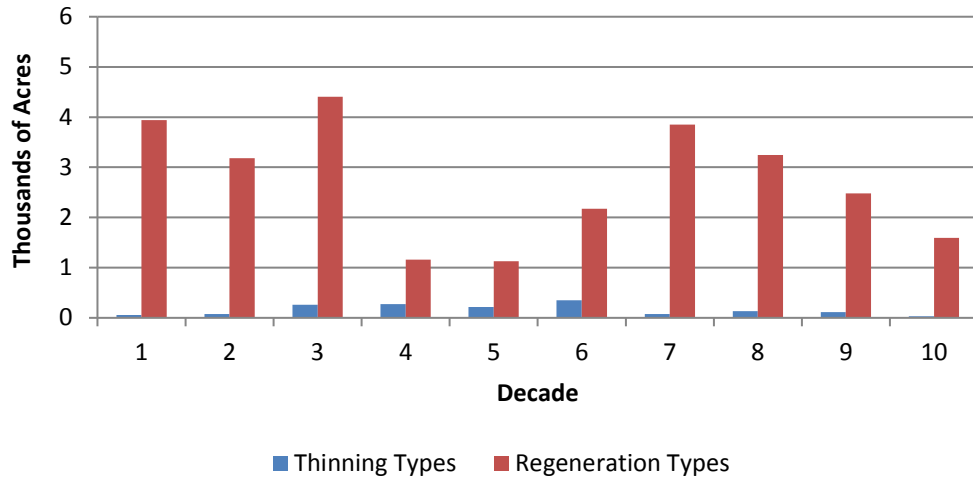


Chart E-104. Quillayute River Watershed Administrative Unit No Action Alternative

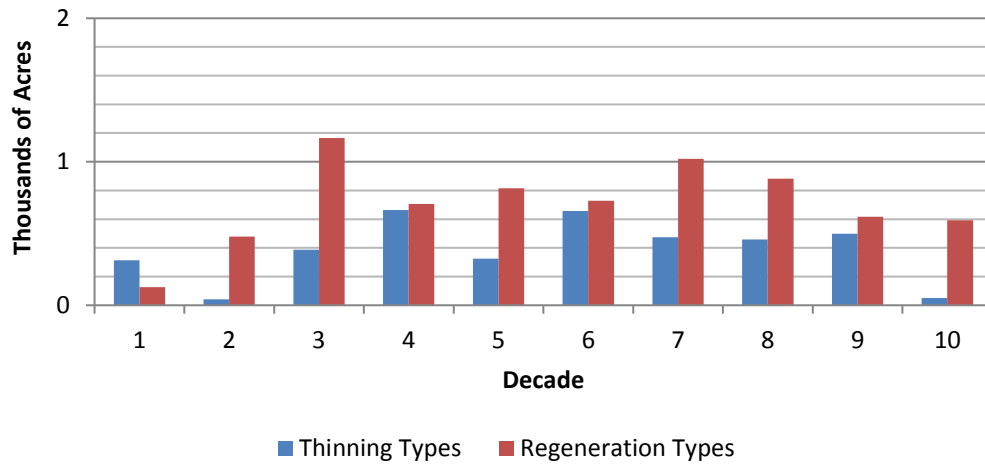


Chart E-105. Quillayute River Watershed Administrative Unit Landscape Alternative

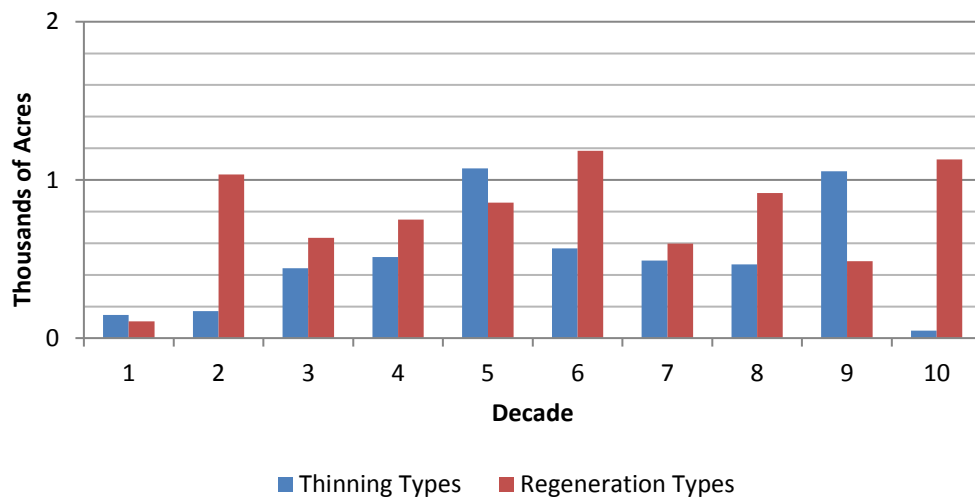


Chart E -106. Sol Duc Lowlands Watershed Administrative Unit No Action Alternative

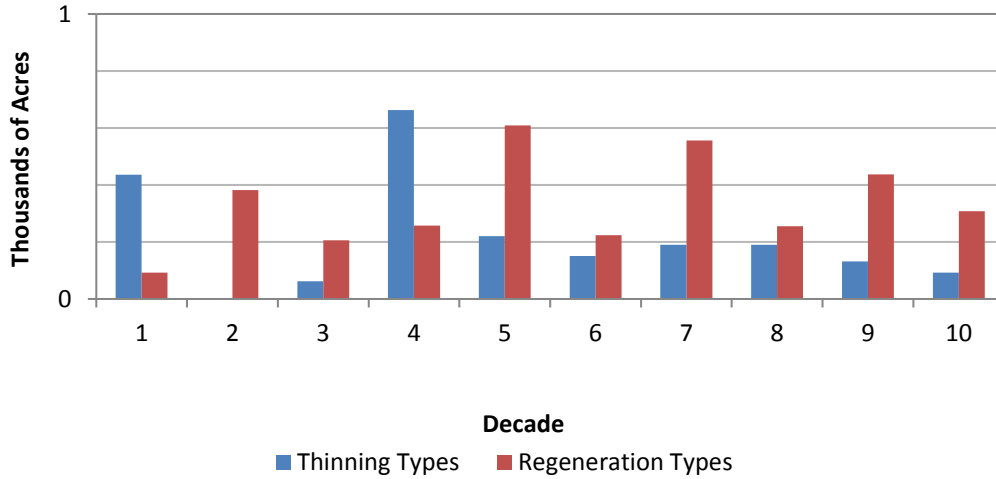


Chart E -107. Sol Duc Lowlands Watershed Administrative Unit Landscape Alternative

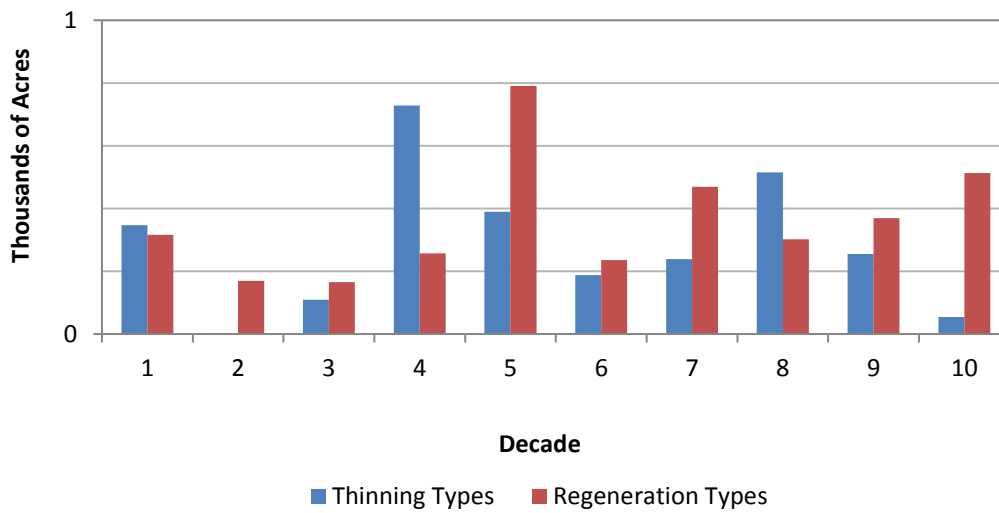


Chart E -108. Sol Duc Valley Watershed Administrative Unit No Action Alternative

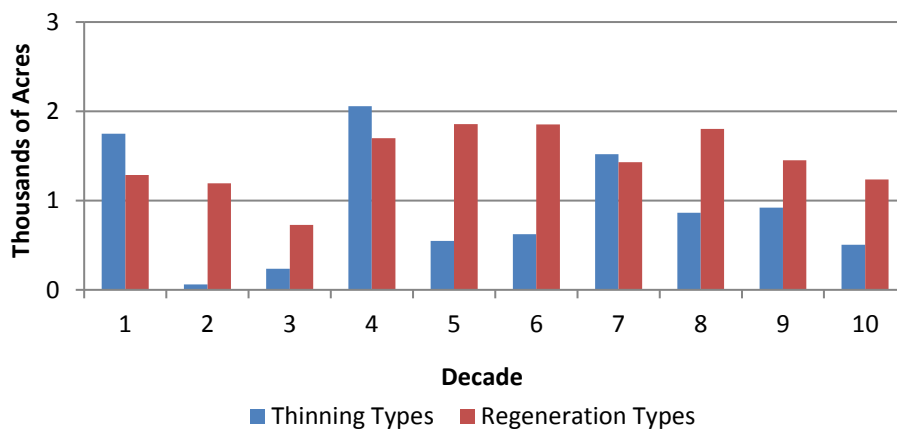


Chart E-109. Sol Duc Valley Watershed Administrative Unit Landscape Alternative

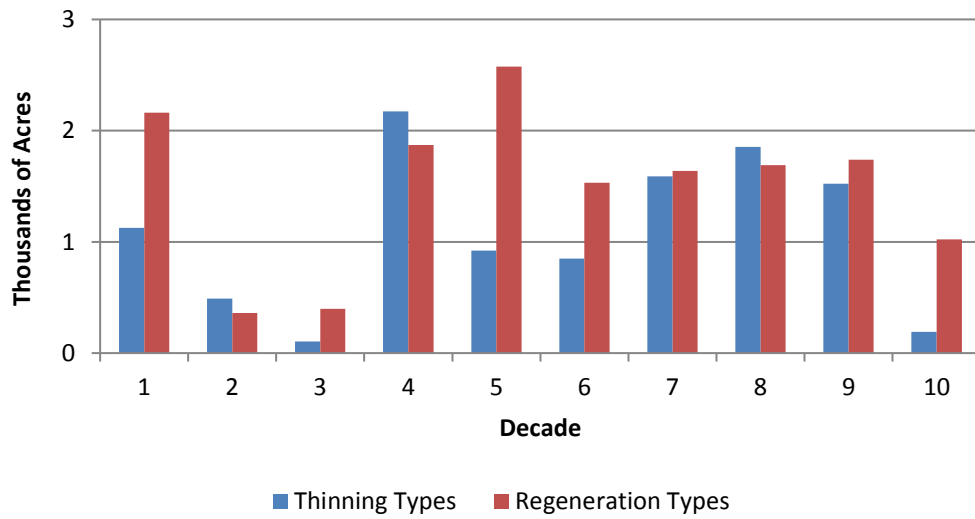


Chart E-110. Upper Clearwater Watershed Administrative Unit No Action Alternative

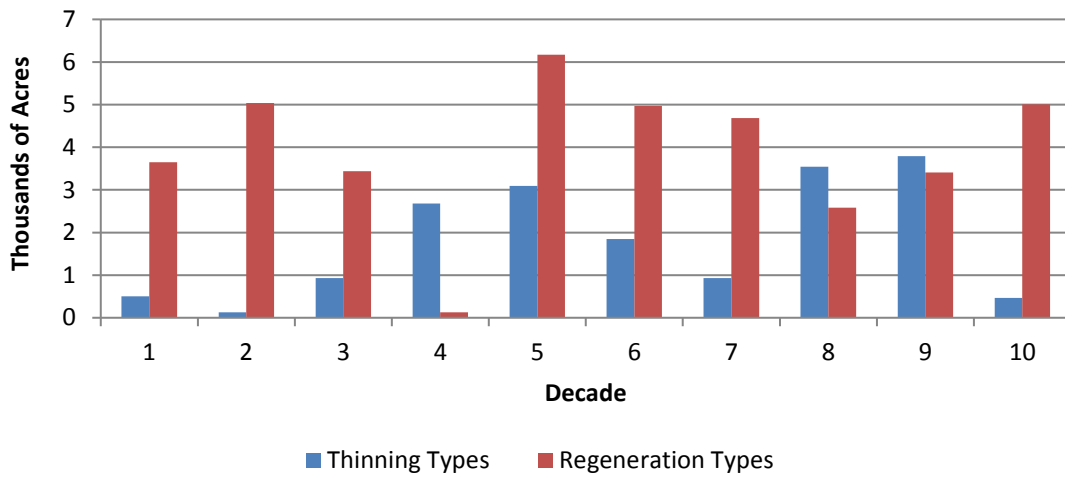
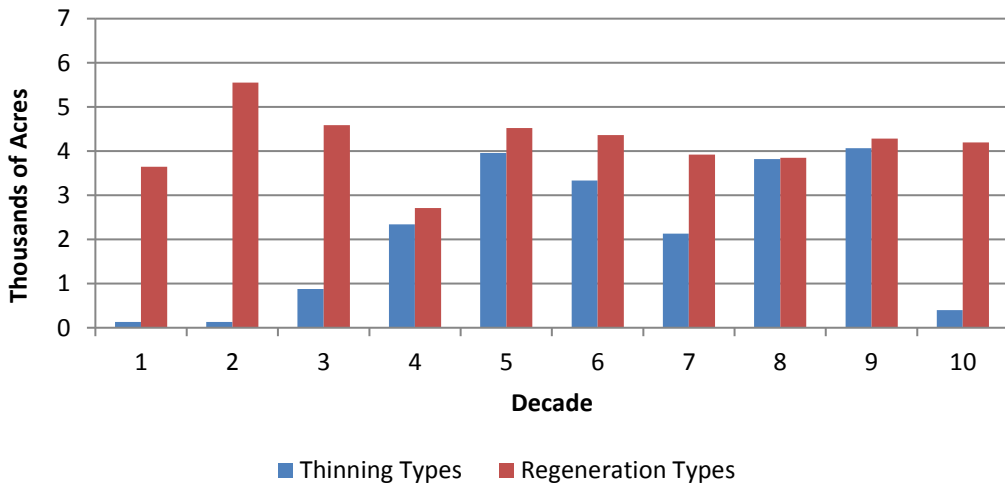


Chart E-111. Upper Clearwater Watershed Administrative Unit Landscape Alternative



■ Tables E-8 and E-9: Harvest Methods in All Decades by Alternative and Type 3 Watershed

Table E-8. Acres Harvested by Thinning and Variable Retention Over 100 Years Under the No-Action Alternative, by Decade and Type 3 Watershed

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
69	231	422	654
2		56	56
3	8	91	99
5	50	21	71
6	66	56	122
7	0	53	53
8	51	59	110
9	55	54	109
10	0	33	33
86	722	1,280	2,002
1	104	300	404
2	0	41	41
3	10	22	32
4	178	120	298
5	41	159	200
6	17	233	250
7	92	63	155
8	56	94	151
9	170	218	388
10	54	29	83
88	93	241	334
1	6	36	42
4	42	39	81
5	0	5	5
6	0	74	74
7	3	0	3
8	2	25	26
9	38	14	52
10	1	48	50
89	692	634	1,326
1	83	57	140
4	83	259	342
5	0	1	1

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	0	189	189
7	245	0	245
8	1	22	23
9	62	0	62
10	217	106	324
96	194	164	358
1	45	12	58
3	0	12	12
4	134	38	172
5	0	45	45
6	0	16	16
9	12	29	41
10	1	12	14
102	94	242	336
5	4	106	110
7		57	57
8	56	0	56
9	33	63	96
10	1	15	16
105	1,062	2,456	3,518
1	58	306	365
2	1	297	298
3	1	162	163
4	220	32	252
5	38	265	303
6	127	503	630
7	51	193	244
8	265	218	483
9	159	221	381
10	142	257	399
117	126	324	450
1		35	35
5	3	104	107
7	15	81	96
8	104	0	104
9	3	104	108
119	455	890	1,345
1	13	95	107
2	0	51	51
3	5	119	124

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
4	55	93	148
5	41	81	123
6	40	76	115
7	144	54	198
8	62	169	230
9	78	54	132
10	19	98	116
122	213	406	619
1	0	7	7
2	0	46	46
3	37	43	80
5	46	110	157
6	45	0	45
7	2	65	67
8	78	24	102
9	2	88	91
10	2	22	24
130	25	16	41
2	10	0	10
4	0	3	3
5	10	0	10
7	0	6	6
8	4	0	4
9	0	7	7
132	158	333	491
2	0	25	25
3	1	52	53
4	4	0	4
5	0	67	67
6	25	0	25
7	56	36	92
8	67	52	119
9	0	44	44
10	4	57	61
133	999	1,701	2,700
1	26	110	136
2	47	195	242
3	34	175	208
4	118	138	256
5	204	122	326

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	184	349	533
7	25	161	186
8	41	239	280
9	314	139	453
10	7	72	80
135	20	436	456
2	0	28	28
3	7	66	72
5	0	98	98
6	7	0	7
7	0	81	81
8	0	66	66
9	7	83	90
10	0	15	15
136	114	388	503
1	2	72	73
2	5	26	32
3	0	60	60
4	15	0	15
5	0	32	32
6	60	71	130
7	6	26	32
8	9	60	69
9	12	36	48
10	6	6	12
137	224	662	885
1	5	0	5
2	0	104	104
3	0	1	1
4	7	0	7
5	102	170	272
6	1	22	23
7	4	108	112
8	71	2	73
9	34	123	157
10	0	132	132
138	885	1,176	2,061
1	106	194	300
2	6	32	38
3	23	122	145

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
4	293	70	363
5	24	92	116
6	103	181	284
7	104	92	196
8	71	269	340
9	126	106	232
10	29	19	48
139	67	57	125
1	11	22	33
3	1	0	1
4	15	0	15
5	0	12	13
6	1	10	11
7	18	0	18
8	12	0	12
9	1	12	13
10	8	0	8
145	132	451	582
1	5	6	11
2	0	48	48
3	0	13	13
4	5	0	5
5	48	62	111
6	0	57	57
7	20	24	44
8	0	156	156
9	48	49	97
10	5	35	40
150	388	983	1,371
1	27	126	152
2	0	23	23
3	66	39	105
4	71	140	212
5	3	155	158
6	6	130	136
7	68	43	111
8	88	146	235
9	51	134	185
10	8	47	55
152	114	259	373

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
2	0	9	9
3	0	11	11
5	9	92	101
6	11	2	13
7	0	20	20
8	92	34	126
9	2	10	12
10	0	82	82
157	139	498	637
1	31	29	60
2	0	3	3
3	0	85	85
4	31	36	67
5	1	3	4
6	25	35	60
7	13	158	171
8	3	27	30
9	35	120	155
10	1	3	4
158	90	559	649
1	19	75	95
2	7	27	35
3	2	45	47
4	22	41	63
5	12	42	55
6	6	100	106
7	4	69	72
8	8	71	79
9	5	85	90
10	4	3	7
160	650	997	1,647
1	146	47	192
2	0	119	119
3	2	0	2
4	203	58	261
5	53	131	184
6	2	180	181
7	68	42	110
8	34	155	189
9	97	120	217

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
10	46	145	191
161	125	192	317
1	20	5	25
2	0	14	14
4	32	72	104
5	20	4	24
6	0	76	76
7	9	3	12
9	18	1	19
10	25	18	43
164	282	638	920
1	1	126	127
2	2	25	28
3	8	64	72
4	12	60	73
5	20	83	102
6	58	59	117
7	66	62	127
8	85	66	152
9	28	91	119
10	1	1	2
165	980	1,958	2,938
1	155	218	373
2	5	57	62
3	29	205	234
4	248	318	566
5	47	233	279
6	71	94	165
7	189	143	332
8	110	178	289
9	113	353	466
10	14	160	174
167	2,182	1,904	4,086
1	614	304	918
2	2	65	66
3	6	46	52
4	731	204	935
5	210	358	567
6	37	217	253
7	154	150	304

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
8	234	68	302
9	110	268	379
10	85	225	309
168	22	46	68
2	0	5	5
5	0	18	18
6	5	1	6
7	0	5	5
8	18	0	18
9	0	18	18
169	180	186	367
1	41	0	41
3	6	0	6
4	41	66	107
5	0	19	19
6	7	17	24
7	58	0	58
8	0	66	66
9	23	0	23
10	4	18	22
170	250	592	842
1	27	115	142
3	0	144	144
4	49	1	50
5	2	51	53
6	132	51	184
7	7	118	125
8	25	40	64
9	1	53	54
10	6	20	25
171	102	171	273
1	18	3	21
2	0	20	20
3	0	10	10
4	18	8	26
5	4	45	49
6	10	6	17
7	3	15	18
8	38	0	38
9	6	44	50

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
10	4	19	24
172	182	430	612
1	1	0	1
2	0	86	86
3	0	35	35
4	1	88	89
5	67	6	73
6	35	67	102
7	12	35	47
8	1	87	88
9	67	25	91
10	0	1	1
174	432	659	1,091
2	0	83	83
3	90	116	206
5	83	86	169
6	75	83	158
7	1	63	64
8	38	35	73
9	146	79	225
10	0	114	114
179	181	215	396
1	36	61	97
3	22	8	30
4	36	0	36
5	0	14	14
6	19	70	89
7	13	27	40
8	14	13	27
9	30	14	45
10	9	9	18
180	251	164	415
1	81	19	99
4	81	0	81
6	0	73	73
7	26	0	26
8	0	18	18
9	54	0	54
10	9	54	63
186	113	157	270

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
1	39	7	46
2	0	27	27
4	41	11	51
5	21	34	55
7	5	31	36
8	1	0	1
9	0	11	11
10	5	36	42
188	241	495	736
1	24	45	69
2	1	22	23
3	0	17	17
4	39	108	147
5	27	31	58
6	18	53	70
7	81	22	103
8	26	86	112
9	25	60	84
10	0	53	53
192	362	634	996
1	5	27	32
2	0	71	71
3	0	65	65
4	15	85	100
5	66	35	100
6	54	87	141
7	67	75	142
8	35	67	102
9	90	0	91
10	31	122	153
196	631	565	1,197
1	137	14	151
2	0	1	1
4	128	150	278
5	1	113	114
6	1	29	30
7	240	4	244
8	56	166	222
9	60	64	123
10	9	24	34

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
200	316	850	1,167
1	24	132	156
2	0	31	31
3	0	114	114
4	69	59	128
5	30	24	54
6	80	107	187
7	37	101	138
8	2	60	63
9	74	167	241
10		55	55
203	224	295	519
1	26	33	59
2	7	28	35
3	6	29	35
4	55	27	82
5	22	33	56
6	19	26	45
7	10	37	48
8	38	20	59
9	35	35	71
10	4	27	31
205	119	307	426
1	2	0	2
3	28	87	115
4	2	20	22
5	0	97	97
6	78	26	104
7	1	74	75
9	6	3	8
10	1	0	1
220	186	480	665
1	0	80	80
2	0	34	34
3	13	76	89
4	11	31	42
5	6	22	28
6	56	18	73
7	59	93	152
8	16	15	31

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
9	25	101	126
10	0	11	11
233	749	1,331	2,080
1	0	100	100
2	31	48	79
3	18	227	245
4	60	110	170
5	91	93	184
6	195	205	399
7	44	178	222
8	105	158	262
9	180	76	255
10	26	137	163
234	87	114	201
1	0	30	30
4	30	20	50
5	0	5	5
6	0	30	30
7	20	0	20
8	5	20	25
9	32	5	37
10	0	5	5
236	56	135	191
1	0	5	5
5	0	56	56
7	0	19	19
8	56	0	56
9	0	56	56
241	543	869	1,411
1	0	112	112
2	21	48	69
3	35	186	221
4	43	0	44
5	18	117	136
6	224	44	268
7	37	44	81
8	97	166	263
9	68	141	208
10	0	10	10
249	558	777	1,336

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
1	125	65	190
2	28		28
3	42	18	60
4	125		125
5	44	237	281
6	47	28	75
7	43	194	237
8	75	18	93
9	12	199	211
10	17	18	35
252	274	211	485
1	9	8	17
2	101	0	101
3	14	28	41
4	9	19	28
5	101	8	109
6	6	9	15
7	0	82	82
8	19	8	27
9	15	49	65
269	7	5	12
5	3	0	3
6	0	5	5
10	4	0	4
277	227	600	826
1	8	70	78
2	0	87	87
3	0	1	1
4	78	63	141
5	9	32	42
6	20	65	84
7	8	144	152
8	32	21	53
9	64	99	163
10	8	18	25
278	213	432	645
1	8	0	8
2	0	132	132
3	11	1	13
4	20	32	52

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
5	62	0	62
6	11	119	131
7	8	13	21
8	0	40	40
9	83	32	116
10	8	62	70
289	72	269	342
1	5	30	35
2	0	84	84
3	6	0	6
4	8	19	27
5	2	0	2
6	6	62	69
7	23	54	77
8	0	19	19
9	18	0	18
10	4	0	4
293	223	232	455
1	64	3	67
2	7	0	7
3	8	34	43
4	64	0	64
5	5	74	79
6	0	15	15
7	1	42	43
8	66	1	67
9	5	63	68
10	1	1	2
296	87	90	176
3	37	38	76
5	0	13	13
6	25	0	25
7	0	38	38
9	25	0	25
301	109	210	319
1	27	57	84
4	27	30	57
5	0	11	11
6	0	24	24
7	27	13	40

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
8	0	31	31
9	0	17	17
10	27	28	55
302	152	477	629
1	10	145	155
4	44	70	114
5	0	6	6
6	0	78	78
7	60	66	126
8	0	71	71
9	34	5	39
10	4	35	39
303	472	897	1,370
1	67	7	74
2	2	68	70
3	3	102	104
4	72	188	261
5	2	71	73
6	24	35	59
7	164	73	236
8	102	152	253
9	22	125	146
10	16	76	92
309	2,141	2,446	4,587
1	345	577	922
2	20	253	273
3	115	107	222
4	548	32	580
5	130	319	449
6	112	453	565
7	203	128	331
8	268	119	387
9	235	283	518
10	165	175	341
311	272	433	705
1	75	82	157
2	0	66	66
3	3	0	3
4	85	38	123
5	33	26	60

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	3	81	84
7	17	32	49
8	26	39	65
9	13	59	72
10	17	10	27
313	39	199	237
1	12	42	55
2	1	0	1
3	1	0	1
4	10	2	12
5	1	60	62
6	1	39	39
7	5	0	5
8	1	3	4
9	1	1	2
10	5	51	57
316	137	225	363
2	14	0	14
3	8	22	31
5	12	4	16
6	29	61	90
7	0	12	12
8	4	62	66
9	67	4	71
10	2	61	63
319	11	7	18
5	0	1	1
6	11	6	17
10	0	1	1
321	697	1,265	1,961
1	82	248	330
2	4	15	19
4	192	251	443
5	17	89	106
6	0	117	117
7	213	124	337
8	7	184	192
9	117	122	240
10	64	114	178
322	33	88	121

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
1	6	22	28
4	4	18	22
6	0	10	10
7	18	22	40
8	0	13	13
9	0	2	2
10	5	0	5
323	92	13	105
1	27	0	27
2	0	5	5
3	2	1	4
4	27	0	27
6	28	0	28
7	3	0	3
8	2	7	9
9	1	0	1
10	2	0	2
326	235	333	567
1	49	0	49
2	0	1	1
4	49	88	138
5	0	55	55
6	46	24	70
7	89	12	101
8	0	99	99
9	0	44	44
10	1	9	10
327	715	1,399	2,114
1	105	136	240
2	0	237	237
3	10	1	11
4	124	114	237
5	117	84	200
6	12	331	343
7	116	84	200
8	3	212	216
9	189	41	230

Table E-9. Acres Harvested by Thinning and Variable Retention Over 100 Years Under the Landscape Alternative, by Decade and Type 3 Watershed

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
69	237	468	705
1	0	2	2
2	8	50	58
3	1	107	108
4	0	28	28
5	46	3	49
6	75	58	133
7	24	68	92
8	33	90	123
9	44	35	79
10	5	27	33
86	841	1,318	2,159
1	55	314	370
2	0	43	43
3	31	24	55
4	136	89	225
5	58	265	323
6	43	185	229
7	110	65	176
8	169	99	269
9	211	93	303
10	27	141	168
88	117	207	324
1	11	36	48
2	0	1	1
4	15	33	48
5	0	11	11
6	33	43	76
7	18	0	18
8	5	26	30
9	35	13	47
10	0	44	45
89	775	738	1,513
1	25	137	162
2	5	0	5
4	129	244	373
5	5	15	19

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	34	190	224
7	213	1	214
8	5	54	58
9	176	12	188
10	185	84	270
96	244	171	415
1	56	13	69
3	0	12	12
4	145	21	166
5	0	59	59
6	0	19	19
7	0	3	3
8	19	0	19
9	13	12	26
10	11	31	42
102	158	321	479
4	13	90	103
5	0	3	3
6	1	95	96
7	65	1	66
8	3	26	29
9	60	65	125
10	16	41	57
105	1,600	2,866	4,467
1	31	305	336
2	3	299	302
3	2	366	368
4	121	69	191
5	410	241	652
6	287	542	829
7	35	209	244
8	192	346	539
9	433	85	518
10	85	404	489
117	149	346	495
1	0	40	40
3	1	0	1
4	6	111	117
6	18	79	97

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
7	110	0	110
8	1	110	111
9	9	0	9
10	4	6	10
119	473	822	1,295
1	7	49	57
2	0	53	53
3	0	123	124
4	22	85	107
5	83	108	191
6	37	71	108
7	171	54	225
8	76	146	223
9	72	58	130
10	3	73	77
122	290	422	713
1	0	9	9
2	0	52	52
3	30	39	69
4	2	56	58
5	52	53	105
6	42	54	96
7	56	13	70
8	53	86	138
9	54	28	82
10	1	33	34
130	17	16	33
4	0	3	3
5	10	0	10
7	3	6	9
8	4	0	4
9	0	7	7
132	200	300	500
2	0	39	39
3	2	39	41
4	3	58	61
5	0	11	11
6	38	1	39
7	100	45	145

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
8	12	44	56
9	1	53	54
10	43	10	54
133	1,149	1,696	2,845
1	102	70	172
2	5	207	212
3	50	178	227
4	134	116	249
5	240	212	452
6	166	296	463
7	69	185	254
8	86	207	293
9	287	93	380
10	11	133	144
135	243	436	678
2	1	0	1
3	156	95	251
5	1	145	145
6	12	0	12
7		2	2
8	58	93	152
9	16	31	47
10	0	70	70
136	194	362	556
1	1	78	79
2	0	51	51
3	0	37	37
4	13	26	40
5	50	19	69
6	37	54	91
7	26	26	52
8	50	15	65
9	15	43	58
10	0	12	12
137	380	685	1,065
1	0	5	5
2	0	111	111
3	0	85	85
4	0	17	17

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
5	111	74	185
6	85	28	113
7	14	141	156
8	134	60	194
9	31	103	134
10	5	61	65
138	1,005	1,307	2,312
1	114	192	306
2	2	33	34
3	10	121	131
4	307	79	386
5	29	236	264
6	84	110	194
7	163	112	275
8	156	210	366
9	130	174	304
10	10	39	50
139	70	57	127
1	4	22	26
2	1	0	1
3	1	0	1
4	9	0	9
5	12	12	25
6	0	10	11
7	11	0	11
8	12	0	12
9	20	0	20
10	0	12	13
145	202	466	667
1	9	10	18
2	0	48	48
3	0	13	13
4	9	1	9
5	50	70	120
6	30	59	89
7	0	16	16
8	11	109	120
9	94	99	193
10	0	40	40

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
150	395	853	1,247
1	20	83	103
2	0	3	3
3	14	39	54
4	21	147	168
5	33	130	163
6	32	90	123
7	141	41	182
8	57	182	240
9	71	117	188
10	5	20	25
152	122	263	386
2	0	30	30
3	1	0	1
4	0	81	81
5	27	1	27
6	0	12	12
7	81	47	129
8	1	5	6
9	12	84	96
10	0	4	4
157	233	487	720
1	44	1	45
2	0	1	1
3	0	85	85
4	16	37	53
5	1	14	15
6	86	34	119
7	37	123	160
8	14	55	69
9	34	94	128
10	1	43	44
158	295	519	813
1	45	79	123
2	0	7	7
3	1	47	47
4	57	43	100
5	3	72	75
6	51	83	134

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
7	45	51	96
8	3	90	93
9	85	35	121
10	5	13	18
160	966	922	1,888
1	289	51	340
2	0	32	32
3	4	1	5
4	295	71	366
5	27	257	284
6	25	74	99
7	46	55	101
8	121	172	293
9	154	69	223
10	5	141	146
161	202	219	421
1	51	5	55
4	65	35	100
5	5	49	53
6	0	62	62
7	1	18	19
8	45	4	49
9	34	15	48
10	2	33	34
164	532	593	1,125
1	8	43	51
2	1	18	19
3	149	65	213
4	64	4	68
5	21	179	201
6	58	19	77
7	8	71	80
8	183	12	195
9	26	145	171
10	14	35	49
165	1,154	2,014	3,169
1	125	183	308
2	2	120	122
3	142	176	317

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
4	244	185	429
5	63	382	445
6	93	85	178
7	99	186	285
8	317	128	444
9	69	303	371
10	1	267	268
167	2,242	1,811	4,053
1	230	271	501
2	1	44	44
3	212	46	258
4	610	154	764
5	70	486	556
6	96	203	299
7	168	117	284
8	292	125	416
9	315	193	508
10	249	171	421
168	28	50	78
1	1	0	1
2	0	5	5
4	1	1	3
5	0	18	18
6	5	2	7
7	1	5	6
8	18	1	19
9	0	18	18
10	1	2	2
169	187	167	354
1	20	0	20
3	48	0	48
4	21	38	60
5	0	39	39
6	0	33	33
7	55	1	57
8	19	37	56
9	23	1	24
10	0	18	18
170	310	592	902

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
1	23	102	125
2	0	67	67
3	13	80	93
4	44	6	50
5	65	64	129
6	81	105	185
7	6	59	65
8	24	35	60
9	54	9	63
10	0	65	65
171	92	172	265
1	1	3	5
2	0	31	31
3	10	0	10
4	8	12	20
5	10	45	55
6	0	10	10
7	1	10	11
8	37	2	39
9	10	38	48
10	14	20	34
172	244	437	682
1	20	0	20
2	0	69	69
3	0	48	48
4	20	80	100
5	68	23	90
6	48	69	117
7	0	48	48
8	20	79	99
9	68	21	89
10	1	2	3
174	478	670	1,149
2	0	100	100
3	87	100	187
4	0	11	11
5	97	85	182
6	76	100	176
7	25	75	100

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
8	80	1	81
9	113	120	233
10		79	79
179	149	259	408
1	45	56	100
2	3	14	17
3		8	8
4	37	1	38
5	17	73	89
6	8	20	28
7	1	48	48
8	17	10	27
9	21	26	47
10		4	4
180	239	149	388
1	78	15	93
2	0	4	4
4	78	0	78
5	3	0	3
6	4	68	72
7	10	3	13
8	0	14	14
9	65	0	65
10	0	46	46
186	152	115	267
1	36	7	43
2	0	25	25
3	10	0	10
4	37	1	38
5	30	46	76
6	1	0	1
7	0	30	30
8	3	0	3
9	35	0	35
10	0	4	4
188	375	463	838
1	42	45	87
2	0	2	2
3	9	17	26

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
4	78	103	181
5	6	71	77
6	37	19	56
7	102	21	123
8	63	86	149
9	20	82	102
10	18	16	34
192	466	509	976
1	0	27	27
2	49	77	127
3	0	6	6
4	20	101	121
5	105	17	122
6	30	115	145
7	100	24	124
8	17	119	136
9	118	17	135
10	27	6	33
196	540	585	1,124
1	69	14	84
3	25	0	25
4	66	176	242
5	0	81	81
6	16	39	55
7	216	4	220
8	103	166	269
9	43	26	70
10	1	78	79
200	386	824	1,210
1	23	108	131
2	0	34	34
3	57	82	139
4	53	61	114
5	33	139	172
6	47	39	86
7	37	57	93
8	75	62	137
9	60	194	254
10	0	49	49

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
203	289	275	564
1	26	5	31
2	39	50	89
3	0	7	7
4	26	34	60
5	56	26	82
6	29	37	66
7	5	21	26
8	51	34	85
9	57	27	84
10	0	34	34
205	251	349	600
1	76	2	78
2	2	75	77
3	0	15	15
4	74	21	96
5	74	104	178
6	3	29	32
7	8	71	78
8	2	2	4
9	7	1	8
10	6	27	34
220	252	485	737
1	0	88	88
2	0	15	15
3	33	100	132
4	78	5	82
5	15	33	48
6	68	78	146
7	5	21	26
8	38	93	131
9	14	19	33
10	2	33	35
233	903	1,304	2,207
1	0	84	84
2	91	148	239
3	15	137	151
4	73	7	80
5	232	191	423

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	99	192	291
7	45	192	237
8	102	88	191
9	236	125	361
10	10	138	149
234	88	123	211
1	0	31	31
2	0	0	0
4	0	6	6
5	31	20	50
6	0	30	31
7	6	0	6
8	20	5	26
9	30	20	50
10	0	12	12
236	122	75	197
1	0	5	5
2	0	56	56
5	61	0	61
6	0	5	5
8	56	4	60
9	5	0	5
10	0	5	5
241	677	933	1,610
1	0	143	144
2	10	6	16
3	72	293	365
4	78	7	86
5	8	61	69
6	242	55	298
7	39	130	169
8	105	94	199
9	106	92	197
10	16	52	68
249	585	974	1,559
1	90	154	244
3	31	127	158
4	116	38	153
5	27	171	197

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
6	73	75	148
7	35	97	132
8	148	47	195
9	62	179	241
10	4	87	90
252	270	200	470
1	1	8	9
2	105	0	105
3	11	28	39
4	1	0	1
5	106	20	126
6	2	1	3
7	29	94	123
8	12	1	12
9	2	47	49
10	1	2	2
269	13	5	18
3	0	0	0
4	2	0	2
5	2	0	2
6	2	5	7
8	2	0	2
9	2	0	2
10	3	0	3
277	271	587	858
1	0	147	147
2	6	0	6
3	0	1	1
4	95	63	158
5	54	44	99
6	4	117	121
7	1	90	90
8	49	8	57
9	62	106	168
10	1	10	11
278	249	423	672
1	1	136	136
2	38	1	39
3	3	3	6

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
4	75	32	108
5	47	66	113
6	8	40	48
7	4	44	48
8	65	3	68
9	4	96	100
10	4	3	6
289	172	290	462
1	2	119	121
2	7	0	7
3	6	0	6
4	39	0	39
5	8	23	31
6	44	77	121
7	2	39	41
8	23	2	25
9	39	6	44
10	2	24	26
293	191	162	353
1	0	2	2
2	52	1	52
3	4	28	32
4	4	0	4
5	52	5	56
6	15	69	83
7	3	14	17
8	2	14	16
9	58	1	59
10	3	29	32
296	113	67	180
1	0	2	2
3	71	1	72
5	0	36	36
6	35	0	35
8	0	29	29
9	7	0	7
301	97	232	329
1	21	64	84
2	0	2	2

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
3	1	3	4
4	21	19	40
5	0	34	34
6	16	27	43
7	0	16	16
8	17	34	52
9	21	2	23
10	0	33	33
302	316	560	876
1	7	151	158
2	0	2	2
4	119	67	186
5	0	108	108
6	0	51	51
7	69	1	69
8	106	69	175
9	15	104	118
10	1	8	9
303	661	916	1,577
1	82	22	105
2	28	3	31
3	0	36	36
4	103	173	277
5	34	201	235
6	25	86	110
7	99	43	142
8	124	87	211
9	152	136	287
10	13	129	143
309	2,038	2,829	4,867
1	112	839	951
2	119	33	152
3	17	30	46
4	476	175	651
5	331	449	780
6	125	392	516
7	103	255	358
8	399	108	507
9	342	429	771

Appendix E: Forest Conditions and Management

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
10	15	120	135
311	326	436	761
1	50	121	171
2	34	19	53
4	91	2	93
5	4	93	97
6	71	31	102
7	0	80	80
8	39	2	41
9	37	86	123
10	0	2	2
313	59	184	243
1	8	45	53
2	0	1	1
3	2		2
4	6	2	8
5	4	85	89
6	1	18	19
7	3	4	8
8	3	0	4
9	27	2	29
10	3	28	31
316	120	244	364
2	0	1	1
3	6	22	28
4	2	14	16
5	1	2	3
6	26	65	91
7	14	2	16
8	3	73	76
9	68	0	68
10	0	64	65
319	11	7	18
5	0	1	1
6	11	6	17
10	0	1	1
321	827	1,288	2,114
1	31	255	287
2	4	34	39

Type 3 Watershed Number and Decade	Thinning Types	Regeneration Types	TOTAL
3	2	6	8
4	202	254	456
5	40	59	99
6	11	242	252
7	224	10	233
8	41	221	262
9	187	107	294
10	85	100	185
322	32	46	79
1	2	1	3
4	2	19	21
5	0	0	0
6	0	10	10
7	20	0	20
8	0	14	15
9	0	2	2

Relative Density

■ Charts E-112 and E-113: Relative Density Greater Than 75

Chart E-112. Relative Density Greater Than 75, No Action Alternative

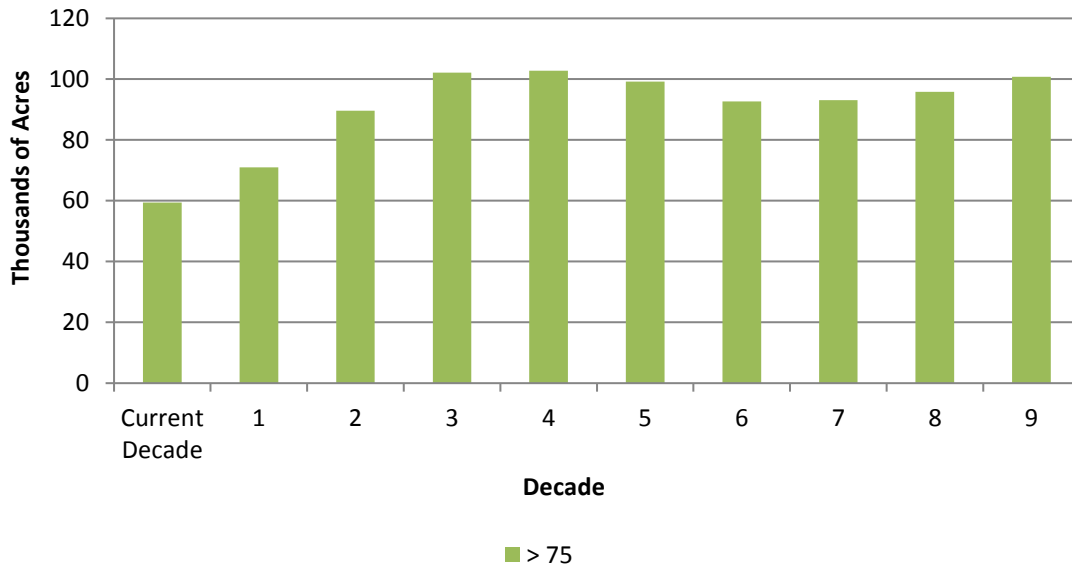
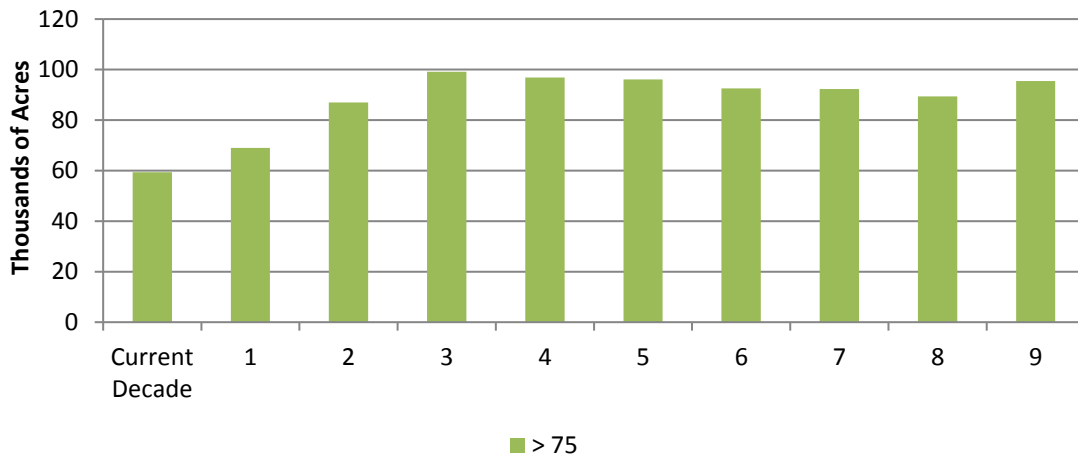


Chart E-113. Relative Density Greater Than 75, Landscape Alternative



■ Charts E-114 through E-117: Relative Density by Forest Type and Alternative

Chart E-114. Relative Density for Douglas-fir, Western Hemlock, No Action Alternative

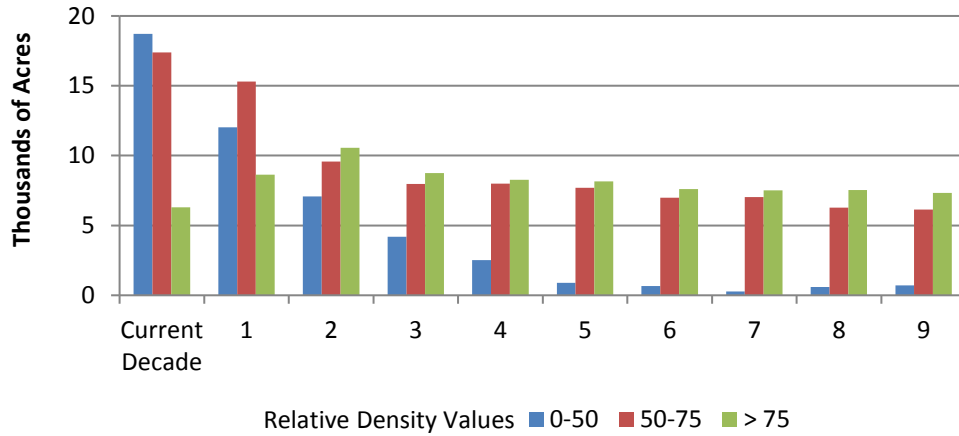


Chart E-115. Relative Density for Douglas-fir, Western Hemlock, Landscape Alternative

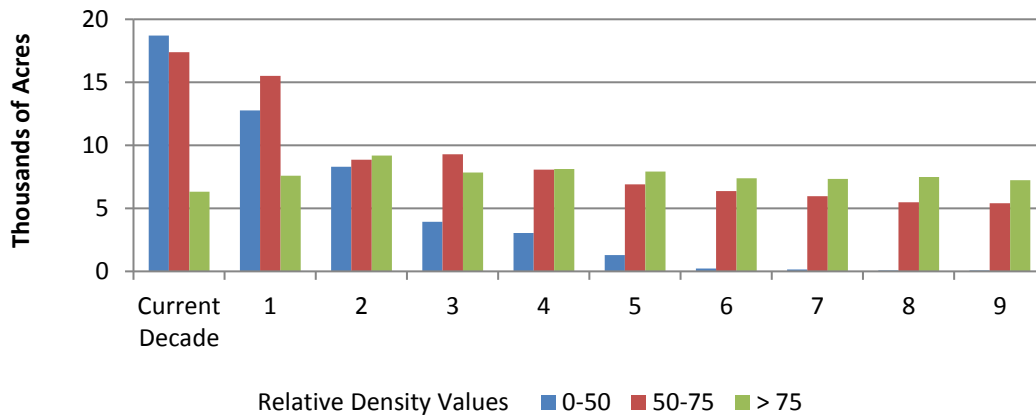


Chart E-116. Relative Density for Western Hemlock, Douglas-fir, No Action Alternative

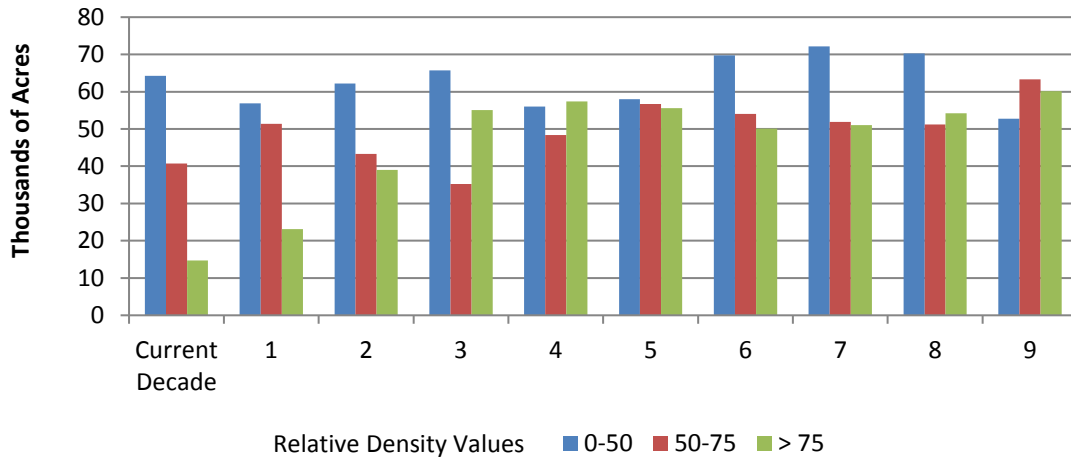
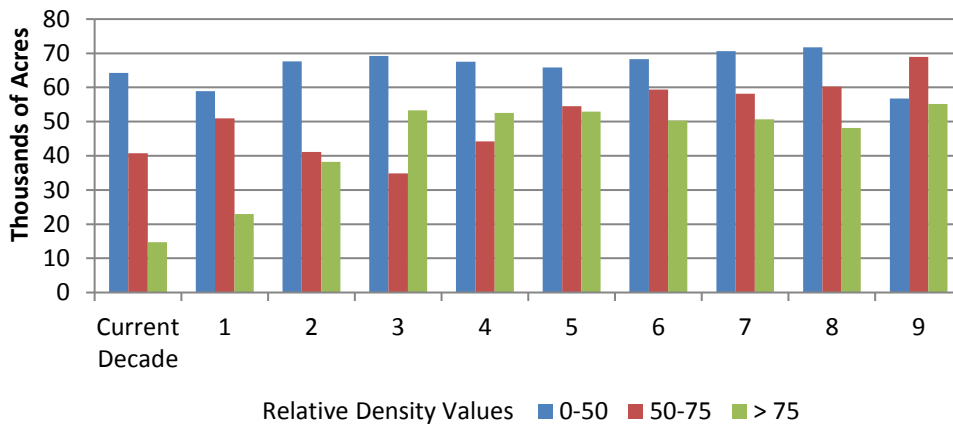


Chart E-117. Relative Density for Western Hemlock, Douglas-fir, Landscape Alternative



Harvest Entries

■ Table E-10: Harvest Regimes

Table E-10. Examples of Harvest Regimes Over 100-Years

Decade	1	2	3	4	5	6	7	8	9	10
Version One	VDT			VDT		VRH			VDT	VRH
Version Two	VDT			VDT	VRH			VRH	VRH	
Version Three		VDT			VDT	VRH			VDT	VRH
Version Four		VDT		VDT			VDT			VDT

VRH: Variable Retention Harvest VDT: Variable Density Thinning

■ Tables E-11 and E-12: Number of Harvest Entries by Alternative, Watershed Administrative Unit, and Type 3 Watershed

Table E-11. Harvest Entries by Alternative and Watershed Administrative Unit*

Number of Harvest Entries	0	1	2	3	4	5
Bogachiel (11,178 acres)						
Landscape	5,731 (51%)	510	1,500	2,157	825	544 (5%)
No Action	5,873 (53%)	639	1,986	1,989	366	415 (4%)
Cedar (4,144 acres)						
Landscape	1,760 (42%)	198	588	820	542	300 (1%)
No Action	1,849 (45%)	244	654	795	185	480 (1%)
Clallam River (10,036 acres)						
Landscape	2,518 (25%)	2,037	1,471	2,259	1,154	722 (1%)
No Action	2,589 (26%)	1,837	2,071	2,015	1,063	587 (1%)
East Fork Dickey (10,920 acres)						
Landscape	2,683 (25%)	1,054	1,493	3,406	1,097	1,241 (1%)
No Action	2,669 (24%)	1,185	2,995	2,705	395	1,027 (1%)
Goodman Mosquito (12,465 acres)						
Landscape	6,272 (50%)	676	2,554	2,405	761	780 (1%)
No Action	6,341 (50%)	555	3,294	2,299	368	592 (>1%)
Hoko (10,565 acres)						

Appendix E: Forest Conditions and Management

Number of Harvest Entries	0	1	2	3	4	5
Landscape	2,426 (23%)	1,717	1,235	3,106	1,687	465 (>1%)
No Action	2,436 (23%)	1,936	1,935	2,752	1,246	330 (>1%)
Kalaloch Ridge (5,736 acres)						
Landscape	3,407 (59%)	217	361	978	700	91 (>1%)
No Action	3,446 (60%)	355	685	761	366	141 (>1%)
Lower Clearwater (19,592 acres)						
Landscape	9,541 (49%)	1,141	2,300	4,595	1,787	451 (>1%)
No Action	9,764 (50%)	2,119	2,311	4,004	1,147	470 (>1%)
Lower Dickey (7,317 acres)						
Landscape	3,338 (46%)	440	873	1,875	249	604 (1%)
No Action	3,339 (46%)	605	1,208	1,788	33	404 (1%)
Lower Hoh River (7,131 acres)						
Landscape	3,108 (44%)	944	2,021	654	191	201 (>1%)
No Action	3,233 (45%)	969	1,882	678	199	159 (>1%)
Lower Queets River (14,865 acres)						
Landscape	8,150 (55%)	400	1,371	2,626	496	1,918 (1%)
No Action	8,212 (55%)	686	1,853	2,597	323	1,290 (1%)
Middle Hoh (36,964 acres)						
Landscape	19,661(53%)	7,197	9,807	565	59	0 (0%)
No Action	20,196 (55%)	6,777	8,287	1,468	439	121 (>1%)
Quillayute River (7,011 acres)						
Landscape	1,994 (28%)	615	754	1,547	478	798 (1%)
No Action	2,070 (29%)	609	1,302	1,487	270	449 (1%)
Sol Duc Lowlands (4,285 acres)						
Landscape	2,019 (49%)	622	433	805	334	235 (%)
No Action	2,055 (50%)	687	770	548	342	46 (%)
Sol Duc Valley (13,472 acres)						
Landscape	4,451 (33%)	1,632	1,651	3,395	1,045	1,307 (1%)
No Action	4,598 (34%)	1,269	3,261	2,435	1,036	881 (1%)
Twin Rivers Deep Creek (518 acres)**						
Landscape	123 (24%)	99	54	64	65	115 (22%)
No Action	137 (26%)	57	99	42	53	133 (26%)
Upper Clearwater (54,507 acres)						
Landscape	32,313 (59%)	3,301	5,423	9,241	2,220	2,413 (>1%)
No Action	32,626	4,357	7,014	7,318	1,327	2,269 (>1%)

Number of Harvest Entries	0	1	2	3	4	5
	(60%)					

*percentages are rounded to the nearest higher number
 **This WAU appears high due to the small amount of acreage involved

Table E-12. Number of Harvest Entries by Alternative and Type 3 Watershed

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
65						
Landscape	143	0	0	0	0	0
No Action	143	0	0	0	0	0
69						
Landscape	300	65	19	135	15	27
No Action	325	56	17	118	19	27
86						
Landscape	313	117	138	186	209	75
No Action	318	122	214	125	216	43
88						
Landscape	10	2	55	55	6	5
No Action	10	2	79	0	36	6
89						
Landscape	85	41	63	265	79	47
No Action	94	86	91	226	37	46
96						
Landscape	151	102	13	74	0	12
No Action	165	102	29	45	0	12
97						
Landscape	38	0	0	0	0	0
No Action	38	0	0	0	0	0
102						
Landscape	34	47	62	103	0	0
No Action	38	136	15	56	0	0
105						
Landscape	193	314	300	522	133	291
No Action	297	384	390	478	103	102
117						
Landscape	22	53	36	117	2	2
No Action	27	66	33	106	0	0
119						
Landscape	56	32	73	244	75	17
No Action	57	32	86	181	107	34
122						
Landscape	6	11	0	124	74	7
No Action	10	8	5	193	5	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
130						
Landscape	0	0	6	7	0	0
No Action	0	0	3	6	4	0
132						
Landscape	19	46	1	149	1	0
No Action	22	45	0	147	1	0
133						
Landscape	107	272	87	281	384	4
No Action	124	265	177	253	260	57
135						
Landscape	41	45	180	14	58	0
No Action	45	135	151	7	0	0
136						
Landscape	39	14	46	130	12	2
No Action	39	7	117	60	19	1
137						
Landscape	253	35	90	278	4	0
No Action	254	49	236	119	2	0
138						
Landscape	227	333	110	189	128	136
No Action	247	342	156	170	144	65
139						
Landscape	124	13	8	1	24	0
No Action	120	18	10	2	20	0
145						
Landscape	50	246	62	23	57	0
No Action	97	206	81	0	53	0
150						
Landscape	254	230	87	207	55	0
No Action	237	149	234	101	112	0
152						
Landscape	60	37	2	105	6	1
No Action	63	34	2	112	0	0
157						
Landscape	56	175	0	155	2	14
No Action	62	155	86	93	4	3
158						
Landscape	135	99	115	102	43	1
No Action	145	95	220	28	6	1
160						
Landscape	76	205	93	76	118	160

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	76	189	199	75	105	82
161						
Landscape	38	95	3	41	32	14
No Action	29	155	1	10	9	18
164						
Landscape	133	5	24	78	161	39
No Action	135	18	61	126	99	1
165						
Landscape	423	214	267	277	266	105
No Action	440	133	420	344	144	72
167						
Landscape	528	176	449	295	269	204
No Action	548	168	381	382	203	240
168						
Landscape	15	5	0	23	1	0
No Action	20	1	0	22	0	0
169						
Landscape	40	30	30	41	36	0
No Action	45	19	30	43	40	0
170						
Landscape	107	0	88	108	76	20
No Action	109	0	99	142	26	23
171						
Landscape	22	0	48	45	8	0
No Action	22	2	38	56	3	3
172						
Landscape	55	3	82	48	68	20
No Action	61	1	99	47	66	2
174						
Landscape	89	58	3	113	156	24
No Action	89	72	44	104	51	83
179						
Landscape	27	43	49	34	15	21
No Action	35	27	71	19	13	23
180						
Landscape	56	15	3	7	29	46
No Action	56	0	19	0	26	54
186						
Landscape	53	4	15	29	34	2
No Action	52	1	22	22	39	0
188						

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	176	89	4	143	20	47
No Action	177	88	70	98	7	37
192						
Landscape	131	52	16	126	107	17
No Action	139	16	65	144	10	76
196						
Landscape	168	118	38	178	42	46
No Action	171	96	33	163	90	38
200						
Landscape	77	105	146	87	101	30
No Action	87	99	115	148	94	4
203						
Landscape	25	0	1	99	45	17
No Action	23	7	27	75	43	12
205						
Landscape	42	87	13	119	33	0
No Action	54	135	24	78	2	0
220						
Landscape	114	11	36	159	44	0
No Action	114	0	102	131	18	0
233						
Landscape	131	36	91	433	82	72
No Action	125	44	173	398	36	70
234						
Landscape	48	5	1	26	24	6
No Action	48	7	0	25	30	0
236						
Landscape	15	4	0	56	0	5
No Action	5	13	5	56	0	0
241						
Landscape	250	87	19	273	159	5
No Action	240	137	24	349	39	5
249						
Landscape	198	190	38	249	73	51
No Action	170	286	47	233	59	4
252						
Landscape	38	9	20	124	12	0
No Action	24	8	54	96	20	0
269						
Landscape	16	6	6	0	0	0
No Action	16	12	0	0	0	0

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
277						
Landscape	131	104	64	64	56	42
No Action	115	108	122	28	46	42
278						
Landscape	59	72	55	52	6	62
No Action	59	62	104	11	8	62
289						
Landscape	102	8	44	71	38	0
No Action	102	16	114	26	4	0
293						
Landscape	85	13	24	21	22	28
No Action	57	16	52	5	1	63
296						
Landscape	17	2	36	35	0	0
No Action	15	0	51	25	0	0
301						
Landscape	108	47	50	33	21	0
No Action	108	38	86	0	27	0
302						
Landscape	175	6	39	72	14	104
No Action	184	0	125	56	10	34
303						
Landscape	462	102	36	306	56	52
No Action	504	78	113	252	25	42
309						
Landscape	497	112	363	489	203	350
No Action	546	23	635	249	258	303
311						
Landscape	41	9	83	124	5	38
No Action	39	0	174	36	17	36
313						
Landscape	221	55	66	11	2	3
No Action	223	56	68	2	10	0
316						
Landscape	7	38	2	104	3	0
No Action	6	42	0	101	4	0
319						
Landscape	235	17	1	0	0	0
No Action	235	17	1	0	0	0
321						
Landscape	53	82	192	270	106	83

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	75	26	337	232	13	102
322						
Landscape	41	10	3	20	0	0
No Action	19	11	27	18	0	0
323						
Landscape	9	25	3	6	1	0
No Action	9	0	5	28	3	0
326						
Landscape	81	92	53	87	4	0
No Action	80	46	55	136	1	0
327						
Landscape	193	183	151	157	92	206
No Action	176	175	307	94	111	120
328						
Landscape	159	6	24	28	16	67
No Action	160	6	46	0	59	28
334						
Landscape	394	38	68	423	87	237
No Action	374	35	339	332	6	160
335						
Landscape	225	89	183	335	57	105
No Action	238	64	301	266	46	78
339						
Landscape	79	19	15	0	0	0
No Action	78	20	15	0	0	0
341						
Landscape	5	8	32	27	20	22
No Action	33	0	9	60	1	9
343						
Landscape	28	6	31	37	62	2
No Action	30	3	44	74	15	0
344						
Landscape	190	16	153	236	12	5
No Action	172	9	213	178	38	3
347						
Landscape	159	5	63	98	98	88
No Action	164	7	86	85	1	169
348						
Landscape	60	4	27	58	0	0
No Action	62	2	32	41	13	0
349						

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	14	68	0	34	49	10
No Action	14	40	62	57	1	0
350						
Landscape	44	13	0	0	22	0
No Action	44	13	20	2	0	0
353						
Landscape	19	94	12	191	28	1
No Action	19	248	50	23	5	0
354						
Landscape	206	14	55	175	58	49
No Action	206	14	78	160	62	36
356						
Landscape	54	10	35	31	3	17
No Action	63	7	35	22	16	6
357						
Landscape	1,448	419	305	964	141	112
No Action	1,483	422	629	703	126	25
360						
Landscape	92	18	22	18	1	72
No Action	92	37	1	0	91	2
361						
Landscape	52	2	7	13	23	0
No Action	52	7	9	5	23	0
363						
Landscape	0	16	7	9	10	0
No Action	2	0	0	21	15	4
370						
Landscape	29	85	87	64	2	0
No Action	13	50	154	40	7	2
371						
Landscape	24	10	35	12	19	18
No Action	21	35	33	0	30	0
372						
Landscape	10	1	1	74	65	0
No Action	15	0	41	73	0	22
374						
Landscape	33	12	0	0	25	0
No Action	32	0	12	20	5	0
379						
Landscape	491	16	136	364	95	79
No Action	497	25	216	332	30	81

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
380						
Landscape	546	13	210	463	176	119
No Action	557	37	329	349	121	133
381						
Landscape	76	0	0	2	0	0
No Action	76	0	0	2	0	0
383						
Landscape	90	97	12	205	63	79
No Action	91	94	90	115	20	138
385						
Landscape	57	4	93	91	3	8
No Action	50	11	173	14	1	8
387						
Landscape	156	2	81	129	19	37
No Action	130	0	167	71	12	45
388						
Landscape	88	0	1	124	3	79
No Action	88	0	0	148	17	43
389						
Landscape	67	12	49	22	12	0
No Action	71	13	59	18	1	0
390						
Landscape	102	87	71	31	79	8
No Action	102	77	113	42	35	8
393						
Landscape	134	4	4	2	8	0
No Action	134	1	4	13	1	0
401						
Landscape	41	88	52	97	137	38
No Action	42	77	113	42	173	6
402						
Landscape	11	0	2	13	3	0
No Action	11	3	2	13	0	0
403						
Landscape	159	100	40	105	206	2
No Action	185	55	48	100	221	2
405						
Landscape	354	71	121	165	83	36
No Action	365	60	223	112	48	21
411						
Landscape	150	0	0	148	29	52

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	150	2	15	184	1	27
413						
Landscape	333	9	38	57	51	22
No Action	333	20	68	71	1	17
414						
Landscape	192	525	147	393	204	321
No Action	204	545	211	613	29	180
416						
Landscape	13	41	40	10	58	0
No Action	9	41	44	9	59	0
419						
Landscape	103	0	14	4	2	14
No Action	103	0	2	12	19	0
424						
Landscape	3	0	1	95	11	3
No Action	3	0	60	47	0	3
433						
Landscape	205	36	280	501	178	47
No Action	202	59	599	222	68	97
434						
Landscape	7	10	0	56	29	0
No Action	7	6	34	27	1	28
436						
Landscape	35	5	17	142	0	56
No Action	42	4	16	177	0	16
439						
Landscape	579	106	161	491	36	143
No Action	588	186	103	466	10	164
440						
Landscape	92	0	31	5	0	0
No Action	92	0	1	35	0	0
441						
Landscape	639	67	116	237	5	126
No Action	644	33	235	267	1	11
442						
Landscape	186	1	60	206	4	37
No Action	195	26	117	149	0	7
443						
Landscape	32	7	12	54	67	2
No Action	19	0	46	109	0	0
444						

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	2	19	10	39	0	0
No Action	2	0	10	56	3	0
445						
Landscape	125	38	47	22	28	0
No Action	126	38	35	60	0	0
446						
Landscape	134	45	44	239	5	22
No Action	130	61	125	166	0	8
452						
Landscape	1	0	0	22	0	0
No Action	23	0	0	0	0	0
453						
Landscape	101	7	5	52	0	4
No Action	101	10	11	47	0	0
454						
Landscape	54	28	5	23	0	0
No Action	54	33	23	0	0	0
455						
Landscape	425	51	113	220	1	3
No Action	435	65	265	45	0	1
456						
Landscape	35	0	20	2	0	10
No Action	35	3	14	6	0	10
459						
Landscape	2	25	26	1	0	0
No Action	2	25	27	0	0	0
460						
Landscape	66	0	1	2	3	51
No Action	65	1	0	3	0	53
461						
Landscape	11	10	46	2	0	0
No Action	9	58	0	1	0	1
463						
Landscape	17	4	29	9	0	0
No Action	16	33	8	2	0	0
464						
Landscape	35	3	53	7	1	0
No Action	34	6	58	0	1	0
466						
Landscape	139	20	18	122	3	0
No Action	146	17	16	119	0	3

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
467						
Landscape	11	13	6	9	0	0
No Action	10	14	13	2	0	0
468						
Landscape	158	2	17	31	0	77
No Action	158	3	31	26	0	68
470						
Landscape	20	1	29	16	1	0
No Action	21	1	20	25	0	0
471						
Landscape	197	13	0	0	0	0
No Action	197	13	0	0	0	0
472						
Landscape	48	1	28	89	1	13
No Action	45	17	35	80	2	1
474						
Landscape	29	3	1	0	0	0
No Action	30	2	1	0	0	0
477						
Landscape	2	1	9	2	0	0
No Action	5	0	0	9	0	0
478						
Landscape	118	0	68	46	66	0
No Action	133	0	64	39	63	0
479						
Landscape	608	141	144	182	114	45
No Action	609	148	178	229	7	64
481						
Landscape	22	6	0	32	8	0
No Action	22	6	16	24	0	0
483						
Landscape	640	5	3	113	0	1
No Action	635	4	3	118	0	4
484						
Landscape	87	0	0	0	0	0
No Action	87	0	0	0	0	0
488						
Landscape	43	3	109	6	4	0
No Action	59	0	105	0	0	0
489						
Landscape	13	0	0	39	16	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	13	0	0	55	0	0
490						
Landscape	407	28	276	78	143	14
No Action	438	23	316	59	110	0
491						
Landscape	7	37	0	0	0	0
No Action	7	38	0	0	0	0
492						
Landscape	64	0	0	0	0	0
No Action	64	0	0	0	0	0
493						
Landscape	2	0	13	0	10	0
No Action	2	13	0	10	0	0
494						
Landscape	109	153	127	69	0	0
No Action	133	187	118	20	0	0
496						
Landscape	432	6	34	64	76	14
No Action	432	40	32	71	23	29
497						
Landscape	166	17	61	83	61	24
No Action	164	24	98	45	56	25
498						
Landscape	874	11	137	284	102	14
No Action	881	55	65	374	47	2
499						
Landscape	46	9	30	29	0	40
No Action	49	7	21	79	0	0
501						
Landscape	115	1	46	206	14	190
No Action	119	3	121	103	76	151
504						
Landscape	1,267	84	423	579	242	228
No Action	1,313	54	680	540	70	166
505						
Landscape	22	0	37	0	4	54
No Action	19	0	40	14	3	40
506						
Landscape	71	0	71	130	39	26
No Action	72	38	66	149	4	8
508						

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	800	112	140	62	86	59
No Action	799	11	283	140	25	0
510						
Landscape	355	34	95	94	29	1
No Action	371	35	78	98	13	14
513						
Landscape	336	17	100	263	105	188
No Action	367	22	203	193	74	150
514						
Landscape	907	13	465	314	219	60
No Action	949	17	514	279	39	179
517						
Landscape	25	0	0	0	0	0
No Action	25	0	0	0	0	0
519						
Landscape	36	0	20	87	18	29
No Action	36	0	60	52	43	0
520						
Landscape	547	9	85	75	25	0
No Action	552	11	78	95	5	0
521						
Landscape	133	31	124	302	8	171
No Action	148	24	123	374	10	89
522						
Landscape	75	0	4	50	12	47
No Action	75	0	83	26	5	0
523						
Landscape	1,120	35	222	435	119	34
No Action	1,136	30	386	352	25	36
524						
Landscape	21	0	0	33	0	0
No Action	21	0	27	6	0	0
525						
Landscape	62	0	0	1	0	28
No Action	62	0	28	1	0	0
526						
Landscape	3	0	0	4	2	0
No Action	3	0	1	6	0	0
527						
Landscape	62	3	11	109	3	0
No Action	59	0	9	117	3	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
530						
Landscape	296	38	204	373	130	239
No Action	372	38	362	242	84	181
534						
Landscape	643	15	83	362	0	21
No Action	649	14	93	366	2	0
541						
Landscape	61	31	143	76	0	6
No Action	27	33	177	80	0	0
542						
Landscape	267	0	35	55	0	15
No Action	268	0	88	17	0	0
543						
Landscape	298	196	387	47	0	0
No Action	344	347	189	47	0	0
544						
Landscape	28	8	65	21	0	0
No Action	34	5	64	19	0	0
545						
Landscape	42	0	22	46	0	1
No Action	25	0	22	63	1	0
546						
Landscape	226	114	261	0	0	0
No Action	230	63	242	66	0	0
547						
Landscape	9	0	22	82	54	57
No Action	11	1	42	118	0	52
548						
Landscape	16	0	14	51	2	18
No Action	22	0	10	66	3	0
550						
Landscape	25	17	18	110	7	53
No Action	18	17	70	51	13	62
551						
Landscape	442	93	103	0	0	0
No Action	434	109	96	0	0	0
552						
Landscape	73	13	56	0	0	0
No Action	77	10	56	0	0	0
553						
Landscape	431	124	294	2	0	0

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	454	206	112	77	0	0
557						
Landscape	69	30	146	0	15	0
No Action	60	46	73	66	15	0
558						
Landscape	79	8	64	0	0	0
No Action	81	13	57	0	0	0
562						
Landscape	673	502	1,150	39	2	0
No Action	795	489	862	57	162	0
563						
Landscape	1,782	674	380	38	0	0
No Action	1,813	514	474	72	0	0
564						
Landscape	678	341	665	20	0	0
No Action	682	341	553	72	57	0
565						
Landscape	1,179	168	496	59	0	0
No Action	1,188	230	335	144	0	0
566						
Landscape	468	83	45	0	0	0
No Action	485	64	43	3	0	0
567						
Landscape	132	0	102	34	8	0
No Action	135	18	83	32	8	0
568						
Landscape	302	16	108	16	0	1
No Action	307	16	102	15	0	1
569						
Landscape	170	53	162	0	0	0
No Action	193	47	82	62	1	0
570						
Landscape	171	0	85	46	2	21
No Action	171	9	102	43	1	0
571						
Landscape	180	112	83	0	0	0
No Action	209	103	32	30	0	0
572						
Landscape	108	58	79	6	0	0
No Action	117	63	39	2	31	0
573						

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	617	6	2	0	0	0
No Action	619	4	1	0	0	0
574						
Landscape	722	110	0	0	0	0
No Action	709	124	0	0	0	0
575						
Landscape	79	23	21	8	0	0
No Action	76	22	18	15	0	0
576						
Landscape	495	48	49	39	0	0
No Action	498	44	87	2	0	0
577						
Landscape	419	101	273	0	0	0
No Action	443	172	128	15	36	0
578						
Landscape	104	20	27	2	0	0
No Action	100	21	30	0	0	0
579						
Landscape	60	68	10	32	1	0
No Action	51	71	15	33	0	0
580						
Landscape	24	1	29	3	0	0
No Action	25	0	25	7	0	0
581						
Landscape	395	60	76	18	0	0
No Action	395	48	74	32	0	0
582						
Landscape	162	0	14	0	0	0
No Action	162	0	14	0	0	0
583						
Landscape	217	106	334	101	68	68
No Action	239	93	336	102	64	58
584						
Landscape	621	52	119	136	38	3
No Action	621	52	143	115	38	0
585						
Landscape	91	45	152	0	0	0
No Action	102	59	125	1	1	0
586						
Landscape	92	106	157	0	0	0
No Action	138	63	97	11	45	0

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
587						
Landscape	298	194	147	3	0	0
No Action	290	201	54	96	0	0
588						
Landscape	60	102	161	0	0	0
No Action	82	133	109	0	0	0
589						
Landscape	99	66	17	0	0	0
No Action	111	57	3	0	11	0
590						
Landscape	80	14	44	0	0	0
No Action	80	15	42	1	0	0
591						
Landscape	144	24	41	0	0	0
No Action	143	29	36	0	0	0
592						
Landscape	100	57	0	0	0	0
No Action	98	58	0	0	0	0
593						
Landscape	89	51	41	1	0	0
No Action	96	43	44	0	0	0
596						
Landscape	90	39	0	0	0	0
No Action	89	16	24	0	0	0
597						
Landscape	257	4	155	43	10	75
No Action	269	0	186	7	6	75
598						
Landscape	90	57	117	53	66	0
No Action	88	57	175	40	24	0
602						
Landscape	352	39	110	0	0	3
No Action	364	32	105	1	2	0
603						
Landscape	84	45	4	72	9	10
No Action	88	37	4	71	17	8
604						
Landscape	17	16	129	2	0	0
No Action	20	43	100	0	0	0
605						
Landscape	13	7	2	60	1	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	8	8	28	39	0	0
606						
Landscape	176	11	51	29	1	3
No Action	176	7	47	37	3	1
608						
Landscape	207	61	42	4	2	0
No Action	216	50	36	15	0	0
609						
Landscape	829	373	990	1	0	0
No Action	852	231	951	158	0	0
613						
Landscape	44	2	45	0	0	0
No Action	41	2	33	15	0	0
614						
Landscape	131	10	100	2	0	0
No Action	134	9	98	1	1	0
615						
Landscape	313	74	300	14	3	1
No Action	323	70	297	10	3	1
616						
Landscape	59	28	55	0	0	0
No Action	59	28	55	0	0	0
617						
Landscape	89	48	159	19	0	0
No Action	83	45	158	28	0	0
618						
Landscape	201	46	63	0	0	0
No Action	198	42	70	0	0	0
619						
Landscape	59	60	71	0	0	0
No Action	51	57	83	0	0	0
620						
Landscape	202	34	77	0	0	0
No Action	202	20	83	9	0	0
621						
Landscape	138	40	37	0	0	0
No Action	136	22	56	0	0	0
622						
Landscape	55	32	98	10	7	2
No Action	82	14	94	12	1	0
623						

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	47	65	57	0	0	0
No Action	55	25	56	33	0	0
624						
Landscape	35	22	63	0	0	0
No Action	35	42	43	0	0	0
625						
Landscape	294	47	177	0	0	0
No Action	294	43	119	62	0	0
627						
Landscape	266	62	118	13	0	0
No Action	271	56	130	0	0	0
629						
Landscape	35	20	0	0	0	0
No Action	35	20	0	0	0	0
630						
Landscape	238	344	356	187	28	0
No Action	289	313	359	39	32	121
631						
Landscape	20	0	5	0	0	0
No Action	20	0	2	2	0	0
632						
Landscape	20	0	0	0	0	0
No Action	20	0	0	0	0	0
635						
Landscape	177	77	50	0	0	0
No Action	177	46	52	29	0	0
636						
Landscape	327	123	15	0	0	0
No Action	328	101	21	14	0	0
637						
Landscape	176	58	44	0	0	0
No Action	176	33	31	39	0	0
638						
Landscape	523	159	77	2	0	0
No Action	525	150	83	2	1	0
639						
Landscape	254	39	17	2	0	0
No Action	257	36	17	2	0	0
640						
Landscape	547	231	805	0	0	0
No Action	602	247	678	56	0	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
642						
Landscape	74	92	87	0	0	0
No Action	68	102	83	0	0	0
643						
Landscape	542	279	151	55	13	0
No Action	548	274	153	23	42	0
644						
Landscape	375	101	29	0	0	0
No Action	376	83	46	0	0	0
645						
Landscape	159	146	261	124	87	14
No Action	177	147	246	111	104	7
648						
Landscape	152	106	263	397	16	289
No Action	185	159	402	238	102	136
649						
Landscape	874	170	81	0	0	0
No Action	874	72	150	30	0	0
650						
Landscape	27	17	12	0	0	0
No Action	22	20	14	0	0	0
651						
Landscape	86	0	31	172	40	51
No Action	88	35	43	171	1	43
653						
Landscape	84	35	24	0	0	0
No Action	84	31	26	2	0	0
654						
Landscape	911	505	11	5	0	0
No Action	913	467	48	4	0	0
658						
Landscape	333	3	170	6	10	6
No Action	332	4	168	9	10	3
659						
Landscape	8	4	8	0	0	0
No Action	8	5	8	0	0	0
660						
Landscape	925	422	103	4	0	0
No Action	930	296	169	59	0	0
662						
Landscape	102	13	98	72	1	1

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	84	47	81	73	0	1
663						
Landscape	4	10	0	0	0	0
No Action	2	10	2	0	0	0
664						
Landscape	207	15	24	0	0	0
No Action	208	15	22	0	0	0
666						
Landscape	254	21	98	72	10	10
No Action	255	31	143	24	2	10
667						
Landscape	708	150	31	258	7	0
No Action	718	172	37	226	1	0
668						
Landscape	241	34	78	127	68	83
No Action	266	33	82	111	13	126
669						
Landscape	2,535	414	383	1,031	179	53
No Action	2,541	539	635	711	54	114
670						
Landscape	160	4	49	80	1	5
No Action	159	13	63	59	0	5
671						
Landscape	461	16	12	33	0	0
No Action	461	19	4	36	0	0
672						
Landscape	1,242	14	103	148	138	156
No Action	1,251	46	184	106	40	173
673						
Landscape	2,307	191	462	402	74	78
No Action	2,344	232	502	302	55	78
674						
Landscape	1,796	298	152	72	5	0
No Action	1,809	341	56	117	0	0
675						
Landscape	146	5	43	75	5	0
No Action	149	8	58	57	3	0
676						
Landscape	1,585	78	507	635	127	130
No Action	1,602	97	743	399	84	138
677						

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	1,254	133	445	424	78	793
No Action	1,312	160	518	354	49	733
679						
Landscape	70	40	2	0	0	0
No Action	70	40	2	0	0	0
680						
Landscape	125	1	10	32	20	0
No Action	128	5	15	34	7	0
681						
Landscape	134	35	100	111	2	5
No Action	163	49	86	86	0	1
683						
Landscape	105	5	0	113	155	38
No Action	105	15	15	61	40	180
684						
Landscape	724	147	2	135	22	
No Action	724	149	130	7	4	16
685						
Landscape	288	133	282	17	20	10
No Action	293	119	296	18	19	4
686						
Landscape	315	27	98	39	46	38
No Action	325	106	29	20	45	38
687						
Landscape	358	143	50	163	0	4
No Action	357	158	67	136	0	0
688						
Landscape	277	84	91	0	0	0
No Action	291	80	82	0	0	0
689						
Landscape	394	23	240	215	94	40
No Action	399	45	175	270	82	35
690						
Landscape	349	136	79	471	6	0
No Action	355	130	176	372	1	5
692						
Landscape	96	41	177	12	11	22
No Action	97	49	172	17	17	7
693						
Landscape	889	53	20	6	0	0
No Action	889	57	22	0	0	0

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
694						
Landscape	344	2	39	118	18	0
No Action	344	38	44	94	0	0
697						
Landscape	1,104	28	43	193	29	0
No Action	1,104	28	43	188	32	2
698						
Landscape	124	7	45	9	2	0
No Action	124	7	43	14	0	0
699						
Landscape	37		26	25	4	17
No Action	38		17	53	0	1
700						
Landscape	211	12	120	44	0	0
No Action	219	41	82	45	0	0
701						
Landscape	70	15	18	120	12	14
No Action	68	11	31	127	0	13
702						
Landscape	379	28	121	408	46	69
No Action	384	56	122	357	84	50
703						
Landscape	346	16	31	33	52	7
No Action	349	18	31	32	45	11
705						
Landscape	138	8	0	2	8	0
No Action	138	8	0	2	8	0
706						
Landscape	335	65	112	284	36	5
No Action	344	165	126	166	18	17
707						
Landscape	491	2	43	31	67	0
No Action	491	5	29	42	67	0
708						
Landscape	202	79	83	171	62	3
No Action	224	86	79	207	0	3
709						
Landscape	665	18	54	79	92	44
No Action	669	47	76	67	49	44
710						
Landscape	1,046	143	197	225	116	3

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	1,077	198	258	145	47	6
712						
Landscape	346	4	49	60	1	0
No Action	349	3	107	1	0	1
713						
Landscape	47	2	51	5	41	0
No Action	54	0	52	41	0	0
714						
Landscape	28	6	20	22	16	7
No Action	29	6	24	31	2	5
715						
Landscape	43	0	18	0	0	0
No Action	42	0	20	0	0	0
716						
Landscape	673	45	64	73	20	0
No Action	670	101	29	77	0	0
717						
Landscape	49	49	0	43	0	0
No Action	45	48	25	25	0	0
718						
Landscape	124	36	78	149	36	43
No Action	128	84	84	116	10	43
719						
Landscape	74	0	0	7	0	0
No Action	74	0	0	6	0	0
720						
Landscape	313	44	134	220	79	160
No Action	322	93	201	151	27	158
721						
Landscape	384	5	241	113	11	13
No Action	412	22	263	49	6	17
722						
Landscape	448	20	79	139	85	41
No Action	452	31	112	150	40	28
723						
Landscape	21	12	17	5	0	5
No Action	26	12	16	0	0	5
724						
Landscape	87	16	12	45	7	0
No Action	87	16	12	45	7	0
725						

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	20	10	25	37	2	1
No Action	26	10	24	24	0	12
726						
Landscape	304	58	54	43	0	0
No Action	298	56	95	9	0	0
727						
Landscape	657	167	222	474	133	48
No Action	731	263	176	374	69	86
728						
Landscape	18	0	11	6	29	0
No Action	20	2	11	1	32	0
729						
Landscape	854	97	32	190	89	1
No Action	854	110	70	167	62	1
730						
Landscape	400	94	61	123	15	44
No Action	414	104	58	113	5	43
731						
Landscape	79	37	23	6	0	7
No Action	79	56	6	4	0	7
732						
Landscape	96	1	6	65	22	0
No Action	101	16	12	61	0	0
733						
Landscape	365	57	16	26	0	0
No Action	365	93	5	0	0	0
734						
Landscape	11	3	6	7	1	0
No Action	14	2	3	7	0	0
735						
Landscape	1,754	134	121	60	0	0
No Action	1,745	204	63	58	0	0
736						
Landscape	222	60	53	38	9	0
No Action	212	86	40	35	9	0
737						
Landscape	124	0	0	32	0	0
No Action	118	1	0	33	5	0
738						
Landscape	118	3	1	42	49	0
No Action	118	9	13	46	27	0

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
739						
Landscape	31	23	18	21	0	0
No Action	31	23	3	35	0	0
740						
Landscape	109	0	0	0	0	0
No Action	109	0	0	0	0	0
741						
Landscape	35	1	0	27	27	0
No Action	35	1	0	30	24	0
742						
Landscape	72	4	100	89	0	0
No Action	81	31	95	58	0	0
744						
Landscape	1,220	25	134	246	57	87
No Action	1,229	78	179	155	5	123
745						
Landscape	142	15	30	117	6	42
No Action	144	6	34	123	2	41
746						
Landscape	477	151	117	377	192	36
No Action	502	229	142	352	69	54
747						
Landscape	97	15	30	20	12	0
No Action	98	29	16	20	0	12
748						
Landscape	351	23	241	480	135	222
No Action	376	42	313	482	78	161
749						
Landscape	302	0	0	0	0	0
No Action	302	0	0	0	0	0
750						
Landscape	256	0	1	31	0	0
No Action	256	31	1	0	0	0
751						
Landscape	1,305	89	27	64	61	0
No Action	1,288	90	46	91	31	0
752						
Landscape	127	36	14	107	68	42
No Action	126	5	30	143	48	42
753						
Landscape	46	2	4	96	49	13

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	49	10	1	147	0	4
754						
Landscape	92	38	60	52	28	0
No Action	93	89	18	71	0	0
755						
Landscape	22	0	0	15	6	31
No Action	26	11	4	1	2	29
756						
Landscape	56	2	1	5	47	0
No Action	57	4	4	1	45	0
757						
Landscape	111	14	0	2	0	0
No Action	111	14	0	2	0	0
758						
Landscape	716	27	55	224	112	1
No Action	719	67	119	167	56	6
759						
Landscape	326	11	81	46	2	0
No Action	330	33	77	26	0	0
760						
Landscape	102	12	33	104	10	5
No Action	82	33	41	101	0	10
761						
Landscape	9	0	3	5	11	0
No Action	8	6	4	2	9	0
762						
Landscape	13	0	15	23	0	0
No Action	14	1	14	22	0	0
763						
Landscape	99	18	68	86	48	2
No Action	106	18	49	79	60	8
764						
Landscape	92	0	14	0	0	0
No Action	92	8	6	0	0	0
765						
Landscape	92	0	0	5	0	0
No Action	92	0	3	2	0	0
766						
Landscape	237	37	7	0	0	0
No Action	237	37	7	0	0	0
767						

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	69	0	0	31	3	0
No Action	69	0	1	32	0	0
768						
Landscape	60	0	0	8	0	0
No Action	60	0	0	8	0	0
769						
Landscape	55	0	18	0	0	0
No Action	55	0	18	0	0	0
770						
Landscape	1,535	40	14	171	20	46
No Action	1,535	54	33	137	22	46
771						
Landscape	66	0	0	5	7	27
No Action	91	0	5	3	3	2
772						
Landscape	36	0	4	37	32	0
No Action	36	7	33		16	18
773						
Landscape	273	4	3	85	41	0
No Action	273	4	19	100	10	0
774						
Landscape	85	1	0	40	26	0
No Action	84	1	9	57	0	0
775						
Landscape	270	40	15	73	124	1
No Action	270	46	72	60	76	0
776						
Landscape	157	0	2	6	8	0
No Action	157	0	2	6	8	0
777						
Landscape	29	30	100	15	0	0
No Action	39	71	64	0	0	0
778						
Landscape	513	78	219	246	201	25
No Action	544	78	308	219	107	26
779						
Landscape	119	0	3	6	0	0
No Action	119	0	4	5	0	0
780						
Landscape	624	4	30	122	143	0
No Action	625	11	117	102	59	10

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
781						
Landscape	259	51	201	386	190	105
No Action	284	181	207	313	160	46
782						
Landscape	39	0	4	18	1	0
No Action	38	0	22	4	0	0
783						
Landscape	145	6	32	60	67	0
No Action	144	14	37	79	37	0
784						
Landscape	471	20	85	249	42	2
No Action	469	14	110	246	27	2
785						
Landscape	13	1	0	9	5	0
No Action	13	1	7	7	0	0
786						
Landscape	1,310	178	323	643	142	8
No Action	1,325	204	655	350	42	28
787						
Landscape	441	4	61	96	3	0
No Action	439	18	58	50	40	0
788						
Landscape	42	31	0	17	25	1
No Action	40	31	18	17	10	1
789						
Landscape	615	31	139	273	81	24
No Action	634	81	145	217	84	2
790						
Landscape	511	76	0	130	86	14
No Action	513	83	33	108	55	23
791						
Landscape	50	24	4	16	30	0
No Action	65	22	0	12	25	0
793						
Landscape	86	4	22	23	54	0
No Action	86	10	2	37	54	0
795						
Landscape	49	2	8	210	51	21
No Action	63	7	5	194	35	36
796						
Landscape	991	35	70	121	77	208

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
No Action	992	99	151	47	14	198
797						
Landscape	484	11	93	69	22	0
No Action	488	27	94	55	15	0
798						
Landscape	198	53	20	0	6	39
No Action	203	50	19	0	6	39
799						
Landscape	113	9	51	155	6	3
No Action	118	24	50	137	6	1
802						
Landscape	476	6	191	209	10	241
No Action	471	5	196	174	6	281
804						
Landscape	141	0	31	82	155	0
No Action	68	13	48	177	102	2
805						
Landscape	44	5	0	56	84	0
No Action	54	6	0	44	84	0
806						
Landscape	866	23	130	331	86	0
No Action	881	51	91	349	60	5
807						
Landscape	51	1	6	35	0	0
No Action	52	1	40	0	0	0
808						
Landscape	1,269	111	107	132	4	166
No Action	1,277	115	98	151	1	148
810						
Landscape	1,337	15	107	165	88	65
No Action	1,350	42	122	160	70	33
811						
Landscape	215	0	22	26	0	0
No Action	215	10	12	26	0	0
820						
Landscape	980	68	25	76	42	8
No Action	980	78	92	3	45	0
823						
Landscape	483	0	14	40	15	0
No Action	483	0	14	55	0	0
829						

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
Landscape	161	5	66	286	55	31
No Action	175	32	137	229	0	31
832						
Landscape	89	1	0	1	0	3
No Action	89	1	3	1	0	0
833						
Landscape	250	21	59	355	12	220
No Action	279	43	309	251	29	7
834						
Landscape	36	0	0	0	0	0
No Action	36	0	0	0	0	0
836						
Landscape	50	0	57	204	54	0
No Action	55	60	72	124	53	0
837						
Landscape	110	20	106	539	5	404
No Action	132	47	225	466	0	314
838						
Landscape	459	13	78	71	0	7
No Action	454	13	161	0	0	0
839						
Landscape	403	29	111	416	3	175
No Action	398	29	158	504	40	8
842						
Landscape	644	91	165	315	112	146
No Action	648	125	243	287	6	165
844						
Landscape	223	9	70	121	27	210
No Action	223	0	97	150	16	174
845						
Landscape	194	11	61	70	64	14
No Action	195	16	66	123	0	14
846						
Landscape	793	20	129	418	37	310
No Action	806	47	124	428	0	303
847						
Landscape	60	0	20	254	61	145
No Action	60	20	21	334	68	38
849						
Landscape	185	41	478	694	26	564
No Action	195	103	756	447	68	420

Appendix E: Forest Conditions and Management

Number of Harvest Entries by Type 3 Watershed	0	1	2	3	4	5
852						
Landscape	112	18	138	198	30	216
No Action	120	61	170	125	25	212
856						
Landscape	25	0	0	37	7	31
No Action	43	0	2	13	1	41
858						
Landscape	0	0	8	8	0	0
No Action	0	0	0	8	8	0
860						
Landscape	88	17	212	2	0	0
No Action	86	37	195	3	0	0

■ Table E-13 Through E-23: Number of Harvest Entries by Method and Landscape, No Action Alternative

Table E-13. Clallam, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	4,147	2,303	3,607	147
	1	497	133	2,380	209
	2	46	380	1,370	460
	3	540	261	449	
	4	346			
Acres and percent of total area with potential high impacts					2,896 (17%)

Table E-14. Clearwater, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	32,787	3,763	5,794	11
	1	603	921	6,683	48
	2	335	323	1,286	2,055
	3	315	26	227	
	4	27			
Acres and percent of total area with potential high impacts					3,653 (7%)

Table E-15. Coppermine, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	9,540	1,533	1,748	12
	1	588	197	3,856	0
	2	102	31	1,129	454
	3	32	24		
Acres and percent of total area with potential high impacts					1,619 (8%)

Table E-16. Dickodochtedar, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	9,457	1,893	4,685	829
	1	1,248	851	4,976	58
	2	245	328	779	1,555
	3	531	119	282	
	4	209			
Acres and percent of total area with potential high impacts					3,622 (13%)

Table E-17. Goodman, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	10,362	613	5,286	312
	1	369	143	3,636	55
	2	230	231	560	1,061
	3	496	19	305	
	4	122			
Acres and percent of total area with potential high impacts					2,312 (10%)

Table E-18. Kalaloch, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	9,042	1,267	3,471	134
	1	353	104	1,776	77
	2	55	100	496	587
	3	275	20	212	
	4	153			
Acres and percent of total area with potential high impacts					1,526 (8%)

Table E-19. Queets, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	9,566	591	3,110	591
	1	411	61	3,317	78
	2	115	104	332	2,309
	3	54	1	140	
	4	26			
Acres and percent of total area with potential high impacts					3,451 (17%)

Table E-20. Reade Hill, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	4,575	408	1,471	44
	1	40	30	897	64
	2	9	68	168	95
	3	315	84	115	
	4	95			
Acres and percent of total area with potential high impacts					570 (7%)

Table E-21. Sekiu, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	2,609	1,971	1,132	178
	1	202	200	2,183	0
	2	96	294	360	235
	3	256	121	96	
	4	82			
Acres and percent of total area with potential high impacts					990 (10%)

Table E-22. Sol Duc, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	6,282	1,546	4,524	201
	1	267	144	2,434	4
	2	35	221	557	877
	3	678	241	503	
	4	633			
Acres and percent of total area with potential high impacts					2,383(12%)

Table E-23. Willy Huel, No Action Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	20,250	5,864	5,799	0
	1	1,093	2,295	691	363
	2	138	762	16	111
	3	43	0	0	
	4	4			
Acres and percent of total area with potential high impacts					490 (1%)

■ Table E-24 Though E-34: Number of Harvest Entries by Method and Landscape, Landscape Alternative

Table E-24. Clallam, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	3,943	2,488	1,368	40
	1	653	689	3,537	113
	2	321	469	1,603	471
	3	40	776	737	
	4	27			
Acres and percent of total area with potential high impacts					3,739 (22%)

Table E-25. Clearwater, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	32,474	2,842	4,265	37
	1	457	1,149	8,419	63
	2	36	730	2,125	2,372
	3	120	55	43	
	4	17			
Acres and percent of total area with potential high impacts					4,695 (9%)

Table E-26. Coppermine, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	9,315	961	1,126	0
	1	158	816	4,191	0
	2	158	292	1,750	447
	3	2	29	1	
Acres and percent of total area with potential high impacts					2,227 (12%)

Table E-27. Dickodochtedar, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	9,453	1,939	2,154	310
	1	931	984	6,336	7
	2	187	1,010	1,580	1,481
	3	212	807	641	
	4	16			
Acres and percent of total area with potential high impacts					4,826 (17%)

Table E-28. Goodman, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	10,127	745	3,416	0
	1	368	254	4,432	67
	2	215	479	1,457	1,748
	3	113	109	265	
	4	3			
Acres and percent of total area with potential high impacts					3,646 (15%)

Table E-29. Kalaloch, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	8,794	1,218	3,023	154
	1	179	312	2,023	90
	2	18	340	1,293	550
	3	12	71	42	
	4	3			
Acres and percent of total area with potential high impacts					2,200 (12%)

Table E-30. Queets, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	9,445	474	1,904	223
	1	96	189	3,979	23
	2	179	275	626	3,149
	3	29	65	146	
	4	3			
Acres and percent of total area with potential high impacts					4,232 (20%)

Table E-31. Reade Hill, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	4,479	295	1,157	36
	1	42	82	1,093	97
	2	85	168	396	138
	3	135	123	148	
	4	6			
Acres and percent of total area with potential high impacts					938 (11%)

Table E-32. Sekiu, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning Entries	0	2,449	1,491	697	18
	1	65	435	2,559	0
	2	180	548	897	387
	3	67	63	149	
	4	7			
Acres and percent of total area with potential high impacts					1,514 (15%)

Table E-33. Sol Duc, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	6,039	1,777	1,501	51
	1	367	479	4,218	7
	2	281	724	715	1,233
	3	116	804	749	
	4	86			
Acres and percent of total area with potential high impacts					3,559 (19%)

Table E-34. Willy Huel, Landscape Alternative

		Variable retention harvest entries			
		(0 entries)	(1 entries)	(2 entries)	(3 entries)
Thinning entries	0	19,727	6,889	9,522	0
	1	460	241	370	17
	2	31	145	13	0
	3	12	0	0	
Acres and percent of total area with potential high impacts					30(>1%)

References

Bailey, J. D., & Tappeiner, J. C. (1998). Effects of thinning on structural development in 40- to 100-year-old Douglas-fir stands in western Oregon *Forest Ecology and Management*, 108(1), 99-113.

Curtis, R. O. (1982). A simple site index for stand density for Douglas-fir. *Forest Science*, 28, 92-94.

Long, A. J. (2006). *Environmentally Sound Forest Harvesting: School of Forest Resources and Conservation*, University of Florida, Gainesville, Florida.

Reutebuch, S. E., Harrington, C. A., Marshall, D. D., & Brodie, L. C. (2004). Use of Large-scale silvicultural studies to evaluate management options in Pacific Northwest forests of the United States. *For. Snow Landsc. Res*, 78(1/2), 191-208.

Washington State Department of Natural Resources. (2004). *Final Environmental Impact Statement on Alternatives for Sustainable Forest Management of State Lands in Western Washington and for Determining the Sustainable Harvest Level*: Washington State Department of Natural Resources, Olympia, Washington.

Wilson, D. S., & Puettmann, K. J. (2007). *Density management and biodiversity in young Douglas-fir forests: Challenges of managing across scales*. Department of Forest Service, Oregon State University, 321 Richardson Hall, Corvallis, Oregon.