APPENDIX E AQUATIC

E.1 ECA Values for LNS WAA by SWB and Precipitation Zones

SWB NAME	ECA ACRES (0 YRS.)	ECA % (O YRS.)	ECA ACRES (10+ YRS.)	ECA % (10+ YRS.)	ECA ACRES (40+ YRS.)	ECA % (40+ YRS.)	ECA ACRES (80+ YRS.)	ECA % (80+ YRS.)
BTTL AXE	610	11.5	537	10.1	511	9.7	534	10.1
TRZ	5	0.6	22	2.5	5	0.6	21	2.4
SNOW	605	13.7	515	11.7	506	11.5	513	11.6
CNYN CREEK	1592	18.2	2834	32.4	1627	18.6	2641	30.2
RAIN	456	17.3	486	18.4	514	19.5	446	16.9
TRZ	963	18.1	2054	38.5	876	16.4	1906	35.7
SNOW	173	22.6	295	38.6	237	31.1	289	37.9
CEDA R CREEK	467	7.8	336	5.6	296	5.0	273	4.6
RAIN	0	0.0	0	0.0	0	0.0	o	0.0
TRZ	192	8.5	121	5.4	109	4.9	119	5.3
SNOW	275	7.4	215	5.8	187	5.0	154	4.2
DRY CREEK	847	14.1	662	11.0	700	11.6	521	8.7
RAIN	85	12.9	137	20.7	76	11.6	119	18.1
TRZ	261	9.3	218	7.7	196	7.0	180	6.4

SNOW	501	19.7	307	12.1	428	16.9	222	8.7
ELKHR CREEK	1747	20.6	1588	18.7	1862	22.0	1341	15.8
RAIN	75	13.6	64	11.6	71	12.9	61	11.1
TRZ	549	15.3	477	13.3	659	18.4	466	13.0
SNOW	1123	25.8	1047	24.2	1132	26.1	814	18.8
EVANS CREEK	1136	22.1	1454	28.3	979	19.1	1214	23.6
RAIN	322	29.4	424	38.7	307	28.0	364	33.2
TRZ	487	16.9	725	25.1	365	12.7	609	21.1
SNOW	327	28.3	305	26.5	307	26.6	241	20.9
GOLD CREEK	251	3.6	327	4.7	220	3.2	314	4.5
TRZ	18	0.6	102	3.6	21	0.7	102	3.6
SNOW	233	5.7	225	5.5	199	4.9	212	5.2
HNLN CREEK	245	8.8	244	8.7	243	8.7	244	8.8
RAIN	0	0.0	O	0.0	0	0.0	0	0.0
TRZ	72	4.9	72	4.9	72	4.9	73	4.9
SNOW	173	13.2	172	13.3	171	13.1	171	13.1
KIEL CREEK	2018	20.5	4556	46.2	2115	21.4	4597	46.6
RAIN	1260	22.4	2651	47.2	1428	25.4	2615	46.6
TRZ	690	17.0	1863	45.8	662	16.3	1941	47.7
SNOW	68	37.3	42	23.3	25	13.8	41	22.6
OPAL CREEK	461	6.8	349	5.1	250	3.7	254	3.8
TRZ	5	0.4	9	0.8	5	0.4	9	0.8

SNOW	456	8.2	340	6.1	245	4.4	245	4.4
SINKR CREEL	1396	22.8	2098	34.2	1550	25.3	2021	32.9
RAIN	541	32.5	560	33.6	671	40.3	483	29.0
TRZ	693	18.0	1165	30.2	734	19.0	1087	28.2
SNOW	162	26.6	373	61.3	145	23.8	451	74.0
LNS WTRS D	10770	14.9	14985	20.8	10353	14.3	13954	19.3
RAIN	2739	22.4	4322	35.3	3067	25.1	4088	33.4
TRZ	3935	12.2	6827	21.9	3704	11.9	6513	20.9
SNOW	4096	14.3	3836	13.4	3582	12.5	3353	11.7

E2. Statistical Summary of Significant Differences in Water Quality Between Stations

Turbidity:Full Year (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							
6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S	s		
13	S	S	S	S	S			

Turbidity: November-February (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11								
6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	S			

Turbidity: March-June (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							

6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	S			

Turbidity: July-October (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S		S					
11								
6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	s			

Total Solids: Full Year (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							
6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	S	S	S	

Total Solids:November-February (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							
6	S	S	S					
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	S	s	S	

Total Solids:March-June (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							
6	S	s						
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13							S	

Total Solids:July-October (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S	S						
6	S							
5	S	S	s	S				
4	S	S	S	S	S			
10	S	S		S				

13	S	S	S	S	S	S	S	

Alkalinity: Full Year (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S	s						
6	S	S						
5	S	S	S	S				
4	S	S	S	S	S		S	
10	S	S	S	S	S			
13	S	S	S	S	S	S	S	

Alkalinity: November-February (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S							
6	S							
5	S	S	S	S				
4	S	S	S	S	S			
10	S	S	S	S	S			
13	S	S	S	S	S	S	S	

Alkalinity:March-June (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3	S							
11	S	S						

6	S	S						
5	S	S	S	S				
4	S	S	S	S	s			
10	S	S	S	S	s			
13	S	S	S	s				

Alkalinity: July-October (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3								
11								
6	s							
5	S	S	S	S				
4	S	S	S	S	S		S	
10	S	S	S	S	S			
13	S	S	S	S	S	S	S	

Fecal Coliforms: Full Year (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2		S						
3								
11		S						
6	S	S	S					
5	S	S	S					
4	S	S	S	S	S			
10	S	S	S	S	S	S		
13	S	S	S	S	S	s		

Fecal Coliforms:November-February (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								

3								
11								
6	S		S					
5	S	S						
4	S	S	S	S	S			
10	S	S			s			
13	S	S	S	s	S			

Fecal Coliforms:March-June (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2								
3								
11		s						
6	S	S						
5	S	S						
4	S	S	S	S	S			
10	S	S	S	S	S	s		
13		S	S	S				

Fecal Coliforms:July-October (Station on top has significantly higher values than station on side if "S" appears in box)

STATION	2	3	11	6	5	4	10	13
2		S	S					
3								
11		S						
6		S	s					
5		S						
4	S	S	S	S	S			
10	S	S	S	S	S	S		
13	S	S	S	S	S	s		

Appendix E - 3 Summary of stream habitat parameters in the LNS WAA

P= poor; F= fair; G= good; E= excellent

Stream Name	Reach	Year Surv.	Length (miles)	Avg. A.C. Width (ft)	Pool Area (%)	Chan. Wid./ Pool	Key Pcs. LWD/ Mile	Rip. Conif./1000'	
								>20"	>35"
Big Cr.	1	1994	2.21	25	P	F	G	P	P
Canyon Cr.	1	1994	1.21	21	F	F	P	P	P
Canyon Cr.	2	1994	0.68	16	P	F	P	P	P
Elkhorn Cr.	1	1994	0.46	80	F	F	P	P	P
Elkhorn Cr.	2	1994	3.42	47	P	G	F	P	P
Elkhorn Cr.	3	1994	2.42	38	P	F	E	G	F
Elkhorn Cr.	4	1994	0.51	26	P	F	E	*	*
Elkhorn Cr.	5	1994	0.29	20	P	F	F	*	*
Fawn Cr.	1	1995	0.75	18	P	F	P	P	P
Fawn Cr.	2	1995	0.36	17	P	F	G	P	G
Fawn Cr.	3	1995	0.33	12	F	F	P	G	G
Fawn Cr.	4	1995	0.16	11	P	P	E	E	E
Fawn Cr.	5	1995	0.45	12	P	F	E	E	P
Jeeter Cr.	1	1995	1.54	20	P	P	P	P	P
Kiel Cr.	1	1995	0.91	27	P	P	G	P	P
Kiel Cr.	2	1995	1.23	16	P	P	F	P	P
Kiel Cr.	3	1995	0.66	19	P	P	G	P	P
L.N.F. Santiam	1	1991	5.69	107	G	G	P	*	*
L.N.F. Santiam	2	1991	4.16	91	G	G	P	*	*
L.N.F. Santiam	3	1991	2.78	127	G	G	P	*	*

L.N.F. Santiam	4	1991	2.04	64	G	F	P	*	*
Stream Name	Reach	Year Surv.	Length (miles)	Avg. A.C. Width (ft)	Pool Area (%)	Chan. Wid./ Pool	Key Pcs. LWD/ Mile	Rip. Conif./1000'	
								>20"	>35"
L.N.F. Santiam	5	1991	7.51	49	G	G	P	*	*
Opal Cr.	1	1991	0.31	53	G	G	P	*	*
Opal Cr.	2	1991	1.16	37	G	G	F	*	*
Opal Cr.	3	1991	0.34	48	F	G	F	*	*
Opal Cr.	4	1991	0.30	24	G	G	E	*	*
Opal Cr.	5	1991	0.99	31	F	G	G	*	*
Opal Cr.	6	1991	0.61	21	F	G	P	*	*
Opal Cr.	7	1991	0.30	31	G	G	E	*	*
Opal Cr.	8	1991	0.72	18	F	F	P	*	*

*: Riparian survey not conducted

~: Unable to calculate

Appendix - E4 - ODFW Benchmarks of Stream Habitat Parameters for "Desirable" (good) and "Undesirable" (poor) Conditions (measurements that fall between "desirable" and "undesirable" are considered "fair").

"Good" habitat conditions are based on values from surveys of reference areas with known productive capacity for salmonids and from the 65th percentile of values obtained in surveys of late successional forests. "Poor" habitat conditions are based on values associated with known problem areas and from the lower 25th percentile of combined data for each region.

Percent pool area (pool quantity): "desirable" - >35%; "undesirable" - <10%.
Channel widths per pool (pool frequency): "desirable" - <8; "undesirable" - >20
Avg. residual pool depth (pool quality):

Low gradient streams (<3%) or small (<7m feet active channel width)

"desirable" - >0.5m

"undesirable" - <0.2m

High gradient streams (>3%) or large (>7m feet active channel width)

"desirable" - >1.0m

"undesirable" - <0.5m

Gravel quantity (percent area in riffles): "desirable" - ≥35; "undesirable" - <15
Gravel quality (percent of fines, ie. silt, sand & organics present in surface layers of spawning gravels): "desirable" - <10; "undesirable" - >25
Off-channel habitat(percent area of secondary channels): "desirable" - ≥10; "undesirable" - <10
Large woody debris:

# of pieces per 100m stream length (minimum size 15cm diam. & 3m length)

"desirable" - >20; "undesirable" - <10

of "key pieces" per 100m stream length (minimum size >50cm diam. & >active channel width in length)

"desirable" - >3; "undesirable" - <1

Riparian conifers within 30m of stream on both sides:

>20 in. dbh per 1,000 ft. of stream length: "desirable" - >300; "undesirable" - <150

>35 in. dbh per 1,000 ft. of stream length: "desirable" - >200; "undesirable" - <75

APPENDIX F HUMAN RESOURCE COMPONENTS

F 1. Summary of Recorded Cultural Sites in LNS WAA

T. 8 S., R. 2 E.

SHS 834 Silver Falls Timber Co. logging camps and railroad logging grades. These camps may have included Chinese construction workers and were in use during the 1920's and '30's.

T. 9 S., R. 2 E.

SHS 695 Elkhorn County Road. In 1893, this road was built to connect Mehama and the post office in Elkhorn, established in 1892 . Past Elkhorn, this route was designated "Miner's and Settler's Trail" on GLO survey maps. In 1913, the road was extended to the Silver Star Mine and continued beyond that mine as a trail to Battle Axe Mountain and on eastward.

SHS 800 Cox to Shaw Wagon Road. Named for early settlers, Cox and Shaw, this road links to the county road on the south side of the Little North Fork. It was extended to the Elkhorn school in 1886.

SHS 834 Silver Falls Timber Co. logging camps and railroad logging grades. These camps may have included Chinese construction workers and were in use during the 1920's and '30's.

SHS 868 Cabin recorded in a General Land Office (GLO) note dated to 1928.

OR-08-51 (SHS 604) Polly Creek cabin use dates from the late 1930's into the early 1940's. It probably reflects the "subsistence lifestyle" of the Great Depression era.

Mehama (outside the watershed analysis area) was named for Mehama Smith, wife of James X. Smith who laid out the townsite and operated the North Santiam River Ferry. The town's first post office was established in March, 1877, shortly after the town was

laid out.

T. 8 S., R. 3 E.

OR-08-144 (SHS 840) Logging camp of the C & H Logging Company which held a timber patent on the site and surrounding area from the O & C Administration between 1941 and 1945.

SHS 600 Wm. W. Downing of Portland attempted to homestead this site area in 1918 and built a cabin. The effort failed and the homestead entry was canceled in 1923.

SHS 691 This trail to Lookout Mountain Lookout was built in the 1930's possibly by the CCC workers at Little North Fork or Mill City camps. It was maintained by the Clackamas-Marion Fire Protection Agency and in use until the early 1950's.

SHS 693 Mapped by GLO surveyors in 1892, this trail ran between Silverton and the Abiqua Basin area. It was believed by the surveyors to be an old Indian trail.

SHS 834 Silver Falls Timber Co. logging camps and grades from the 1920's and '30's. These camps may have included Chinese construction workers. In the near vicinity of SHS 834 camps in this township, two homestead attempts were made but failed. These date from 1919-1925 and 1929-1935.

SHS 838 This site consists of railroad logging grades inside and outside the watershed and a logging camp outside the watershed. These logging facilities were built by the Silver Falls Timber Co. which extensively logged the area using railroad transport from 1912 through 1938. Logs were hauled to Bethany, near Silverton. Many of the grades were later built over into roads and are in use today. A large forest fire in 1929 caused irreparable losses to the company which nevertheless struggled on until the Great Depression finally finished it in 1938.

Lookout Mountain Lookout was built in 1938 probably by CCC crews from the Mill City camp and operated and maintained by the Clackamas-Marion Fire Protection Agency. The first lookout was perched on a 34 ft. tower. This lookout was improved by CCC crews in 1940 and remained in use until 1965 when it was removed and replaced with a 40 ft. tower lookout.

House Mountain Lookout was built by the CCC's in 1937 for the Clackamas-Marion Fire Protection Agency. This lookout had an 82 ft. tower and remained in use until 1965.

T. 9 S., R. 3 E.

OR-08-IA-3 is a complete obsidian knife blade that occurred as an isolated find.

9-3-15-ASE is the mid-section from an obsidian knife that occurred as an isolated find.

OR-08-131 (35MA60) is a small disturbed lithic scatter site with chert and jasper flake material predominating. One obsidian flake was identified.

SHS 617 This site is identified as the King cabin in a 1910 GLO note. King made a homestead attempt between 1912 and 1913, which failed. Goldie M. Trine (later married Josephsen) filed a homestead claim for the same parcel in 1914 and built a house in 1916. This attempt ultimately failed also. Smith, Davis, and Hauptman had cabins on homestead attempts in the area between 1912 and 1914 as well, but these attempts also failed.

SHS 620 The Sprague homesite was built in 1942 in trespass on public land. A permit for the home was issued in 1944 and renewed in 1954.

SHS 691 This trail to Lookout Mountain Lookout was built in the 1930's possibly by the CCC workers at Little North Fork or Mill City camps. It was maintained by the Clackamas-Marion Fire Protection Agency and in use until the early 1950's.

SHS 692 This trail runs between House Mountain and Mill City. It was probably built by the CCC's in the 1930's and provided access to House Mountain Lookout.

SHS 695 Elkhorn County Road. In 1893, this road was built to connect Mehama and the post office in Elkhorn, established in 1892 . Past Elkhorn, this route was designated "Miner's and Settler's Trail" on GLO survey maps. In 1913, the road was extended to the Silver Star Mine and continued beyond that mine as a trail to Battle Axe Mountain and on eastward.

SHS 698, Elkhorn Trail, was first shown on a GLO map in 1874. The trail provided access to the North Santiam Mining District and Elkhorn from the 1860's until the 1893, when it was replaced by the Elkhorn County Road. The road may follow the trail grade in some locations.

SHS 699 Creek Trail served as a miners' access trail from the 1860's to 1874. It ran along the north side of the Little North Fork.

SHS 845 Wolfe and Holland Sawmill, built in 1938, included a log pond and mill. Remnants of the mill pond and its brow logs are still visible. This mill is on private land. The Hallin Lumber Co. had a timber patent on the adjacent public (BLM) land in 1938 and possibly had the logs cut at this mill.

SHS 864 The Looney cabin was built by William Looney of Gates who mined in the area in 1917.

SHS 865 Cabin site whose structure was built a few years before 1936. In 1936, the cabin was occupied by a family who rented the private property immediately south of the tract.

SHS 866 Plotted as an "old cabin" on a 1938 GLO survey note. This and the cabin, SHS 865, are probably representatives of the local residents response to economic hardship during the Great Depression. Many people moved out onto public land and made a "subsistence living" for themselves and their families by gardening, hunting, berry picking, raising a few animals, and harvesting and selling their own production and minor forest products.

OR-08-76 (SHS 621) called Elkhorn cabin, was probably built shortly after 1900. It was apparently abandoned as a regularly occupied site in the mid-1930's although evidence of more recent use is present. A nearby old growth fir had blazes and barbed wire embedded in the bark.
There are no homestead entries for this tract nor any mention of the cabin in GLO survey notes. The cabin may represent a squatter's activities or may have been a rest station/overnight stop along Elkhorn Trail.

T. 8 S., R. 4 E.

USFS 102 is an isolated flake of obsidian.

USFS 18-04-149 (35MA49), Shady Cove archeological site, is a lithic scatter site with flakes of different materials.

USFS 18-04-232, MDR, is a lithic scatter consisting of obsidian flakes.

USFS 40249 is an isolated flake of obsidian.

USFS 18-04-335 (35MA112), Michael's Memory, is a lithic scatter site with flakes of different materials.

USFS 18-04-038H, Crown Mine, was developed around 1910 and continued in operation until at least 1933. The mine had 1,000 feet of tunnel, a compressor and drilling equipment and a cabin.

USFS 18-04-039, Wolz Mine (also called Bonanza Mine?), consisted of an open cut and two short adits in 1939. Initial date of development is not known.

USFS 18-04-040H, Silver Star Mine, developed by 1931, included the mine tunnel and a cabin.

USFS 18-04-233, Black Eagle Camp, is a mining camp, remains of which include a road bed, tailings pile and two foundation areas for structures. Black Eagle Mine was owned by the Black Eagle Mining and Milling Company in 1916 and facilities at the mine consisted of 1,000 feet of tunnel, a sawmill, power plant, bunkhouses and a concentrating mill.

Silver King Mine was developed most extensively in the 1920's. Facilities at the mine included tunnels, blacksmith and machine shops, bunk and cookhouses, a water powered generator, air compressor and several smaller buildings. There were about 15 men working at the mine during its peak production.

Silver King Group consists of 12 claims where gold, silver and zinc were mined. The claims were located prior to 1916.

SHS 694 was a trail connecting Silverton to the Ogle Mountain mines via Lookout Mountain and Henline Mountain. It was plotted on an 1893 GLO survey map.

SHS 698, Elkhorn Trail, was first shown on a GLO map in 1874. The trail provided access to the North Santiam Mining District and Elkhorn from the 1860's until the 1893, when it was replaced by the Elkhorn County Road. The road may follow the trail grade in some locations.

Elkhorn post office was opened on March 21, 1892 with William D. Morehouse as postmaster. This post office succeeded an earlier one called Ivie which had been established in the area in 1890. In 1892, Elkhorn Valley had become a small community with a school house. The post office was the only other community building. The post office closed in June, 1917. The town is supposedly named after the many elk what once wintered in the valley.

Henline Mountain Lookout was built in 1934, probably by CCC crews. The lookout was used until 1963 and removed in 1967. Henline Mountain was named for an early settler who had an interest in a nearby mining enterprise.

USFS 18-04-438, Pearl Creek Guard Station (built CCC crews?).

T. 9 S., R. 4 E.

OR-08-27 (35MA17) is a lithic scatter site consisting of obsidian (40%) and cryptochrystalline (60%) flaking debris. Two cobble choppers and two utilized flakes were recorded on the site.

OR-08-117 (35MA54) is a lithic scatter site with both obsidian and cryptochrystalline materials present.

USFS 58 is described as a prehistoric campsite with artifacts. The site's specific location within the township is unverified.

USFS 40143 is an isolate consisting of three obsidian flakes.

SHS 867 Trail from Gates dating to 1917.

Rocky Top Lookout, built in 1936 and in use until 1963, was maintained and operated by the Clackamas-Marion Fire Protection Agency.

Mt. Horeb was named in 1873 by David Smith, a local biblical enthusiast.

T. 8 S., R. 5 E.

USFS 40061 is an isolated obsidian flake.

USFS 76 is a unverified find of an obsidian projectile point fragment and a scrapper and a biface fragment of cryptocrystalline.

USFS 40076 are two obsidian flakes occurring as an isolated find.

USFS 18-04-086, Stone Ridge site, is a lithic scatter site.

USFS 40189 is a cryptocrystalline flake found as an isolate.

USFS 40097 is four obsidian flakes.

USFS 18-04-158 (35-MA-50) is a lithic scatter site.

USFS 18-04-159, Whetstone Trail Archeological Site, is a lithic scatter.

USFS 18-04-160, Whetstone Trail Archeological Site II, is a lithic scatter.

USFS 18-04-163, Stoney Ridge Meadows Archeological Site, is a lithic scatter.

USFS 18-04-182, Jaws Archeological Site, is a large lithic scatter.

USFS 18-04-190, Beachie Battle Two, is a lithic scatter with obsidian and cryptochrystalline flakes.

USFS 665NA21 (35MA40), is a lithic scatter site.

USFS 40098H is a historic rock cairn.

USFS 18-04-145H, Gold Creek Flats Mine, includes a group structures, dumps and other features related to a mining camp. Mine development on Gold Creek started in about 1900 and continued into the 1950's.

USFS 18-04-146H, North Santiam Historic Mill site, consists of

the remains of a sawmill and machinery. It may date to the early 1940's.

USFS 18-04-147H, Dolores #10 Historic Cabin, includes the remains of a cabin with a woodstove and other debris.

USFS 18-04-148H, North Santiam Explosives Shack, includes the remains of a shack.

USFS 18-04-164H, Gold Creek Fork Historic Mining Camp, includes the remains of a mining camp. Mine development on Gold Creek started in about 1900 and continued into the 1950's.

USFS 18-04-165H, Gold Creek Historic Road, consists of the remains of a road related to mining activities in the Gold Creek area.

USFS 18-04-173H, Upper Camp Amalgamated Mines, was developed in the early 1930's. These mines were also called the Ruth Mines.

USFS 18-04-174H, Poor Boy Mill Site, consists of the remains of a sawmill site, date unknown.

USFS 18-04-175H, Lower Camp Amalgamated Mines and Jawbone Flats Miners Camp, were developed and in use during in the early 1930's. These mines were also called the Ruth Mines.

USFS 18-04-176H, Lower Battle Axe Road, consists of the remains of a road.

USFS 665 EA 78H, Whetstone Mountain Lookout, was built in 1933 by CCC crews probably from the Little North Fork camp. It was removed about 1965. Whetstone Mountain was named because of the prevalence of a rock type popular for sharpening knives.

SHS 582 Trail along the northeast edge of the watershed linking to the Baty Butte-Silver King portion of the South Fork Trail System. Portions of this long trail system originated aboriginally.

Bluejay Mine. A number of mines called the Bueche Group were developed along Battle Axe Creek starting in 1929.

T 9. S., R. 5 E.

USFS 01 is a reported lithic scatter which has not been field verified.

USFS 03 is a reported lithic scatter which has not been field verified.

USFS 04 is a reported lithic scatter which has not been field verified.

USFS 18-04-085, Cedar Basket Trees, consists of cedar trees with stripping scars from aboriginal collection of cedar bark.

USFS 18-04-104, Battle Creek Point, is a lithic scatter site.

USFS 126 is an obsidian flake found as an isolate.

USFS 40187 is an obsidian flake found as an isolate.

USFS 40188 is an obsidian flake found as an isolate.

USFS 18-04-188 (35MA81), Battle Axe Headwaters, is a lithic scatter site.

USFS 18-04-189, Beachie Battle One, is a scatter of obsidian and cryptochrystalline flakes.

USFS 18-04-309 (35MA101), Beachie Saddle, is a lithic scatter site.

USFS 18-04-343 (35MA8), Shannons First, is a lithic scatter site.

USFS 18-04-402 (35MA34), Phantom's Shadow, is a lithic scatter with obsidian and cryptochrystalline flakes.

USFS 18-04-412 (35MA131), Cedar Saddle, is a lithic scatter site.

35MA115 is a lithic site on Martens Butte.

35MA117 is a lithic site on Martens Butte.

USFS 39 is a reported rock platform whose specific location has not been verified.

USFS 61 is the reported remains of a cabin whose specific location has not been verified.

Battle Axe Lookout site was first used in about 1918 when an alidade was located on Battle Axe Mountain. This site was used in World War I as a lookout for enemy fire bombs or air attacks. In 1922, a cupola style lookout was built and remained in use

until 1953 when it was replaced. Battle Axe Mountain either was named for its shape or for a brand of chewing tobacco used by North Santiam miners and woodsmen in the 1890's.

Martens Buttes were named in the 1940's or '50's because trappers caught many martens there.

F 2. Recreation Opportunity Spectrum (ROS)

The Recreation Opportunity Spectrum (ROS) is the planning framework that was used to inventory both private and public lands in the Thomas Creek Watershed. Three major components that affect visitor use and preference are setting, activity, and desired experience. Visitors participating in the same activity may be seeking different settings and experiences. For example, one camper may desire a wilderness setting to experience solitude and challenge. Another camper may want highly developed facilities that offer more comfort and social opportunities. To meet these different needs, ROS is a system that is divided into seven major classes that provide a spectrum of opportunities, ranging from more primitive to more developed.

Primitive: Characterized by an unmodified natural environment of fairly large size where evidence of humans and human-induced restrictions and controls is essentially absent and motorized access is not permitted. Very low social interaction.

Semi-Primitive / Non-Motorized: Characterized by a predominantly natural environment of moderate to large size where evidence of humans and human controls is present but low. Motorized use is not permitted. Social interaction is low.

Semi-Primitive / Motorized: This class is similar to the previous one, however, motorized use is allowed.

Roaded Natural: Characterized with a predominantly natural environment with moderate evidence of human modification and control, that are in harmony with a natural setting. Moderate social interaction

Roaded Modified: Forest or other natural environment, with obvious modifications such as logging or miniing, etc., road access and limited facility development, within an open space context. Moderate social interaction.

Rural: Characterized by an environment that is culturally modified to the point that it is dominant feature. Cultural modifications are usually associated with agricultural activities, residental activities, and utility corridors. Moderate social interaction.

Urban: This class is similar to rural however facility development is intensified and the environment though natural appearing is often landscaped. Modifications are designed to enhance specific recreational activities.

APPENDIX G RESOURCES, BIBLIOGRAPHY, ETC.

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