

**ODFW AQUATIC INVENTORY PROJECT  
RESTORATION MONITORING  
STREAM HABITAT REPORT**

STREAM: LOBSTER CREEK  
 GCG: 2-MC  
 SITE ID: 374  
 BASIN: ALSEA  
 TREATMENT DATE: 2007  
 SURVEY DATE: 6/4/2008  
 SURVEY CREW: Ryan Jacobsen / Ryan Emig  
 USGS MAPS: DIGGER MOUNTAIN  
 ECOREGION: Mid-Coastal Sedimentary  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces  
 Dominant landuse(s): Second growth timber (15-30 cm dbh)  
 Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh  
 Primary channel length (meters) and area (m<sup>2</sup>): 1,746 : 17,506  
 Secondary channel length (meters) and area (m<sup>2</sup>) 293 : 929  
 VWI average: 8.0 VWI Range: 4.5 - 14 Average Gradient: 1.0%  
 Pieces LWD per 100m: 17.9 Wood Volume (m<sup>3</sup>) per 100m: 51.7  
 Percent pools: 68% Complex pools (LWD pieces>=3): 23 Pools >=1m deep: 22  
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	6	19	50	16	6	4
Pool units	6	23	45	14	7	4
Fast water units	2	13	59	17	8	2

**COMMENTS:**

This is a post-treatment, restoration survey. The crew noted habitat structures and juvenile coho throughout the surveyed length. They also noted beaver activity. Evidence of amphibians during the survey included a rough-skinned newt.

**OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY**

**LOBSTER CREEK  
GCG: 2-MC SITE ID: 374**

**Survey Date: 6/4/2008**

**Report Date: 12/29/2008**

**T15S-R08W-S15SE**

**REACH 1**

**Valley and Channel Summary**

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	0%	Constraining Terraces	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	8.0	VWI Range:	4.5 - 14

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	1,746	17,506	0
Secondary	293	929	5

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 7
Width: 7.8	Width: 11.4	17.4 ( 12.4 - 35 )	21.4 ( 14.7 - 40 )
Depth: 0.61	Height: 0.5	1.1 ( 0.6 - 2 )	1.9 ( 1.3 - 3 )

W:D ratio: 24.0

Stream Flow Type: LF

Average Unit Gradient: 1.0%

Water temperature (°C): 8.5 - 8.5

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 4.0

Habitat Units/100m (primary channel length): 4.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 70%
Undercut Banks:	4%	Range: 43 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	313	17.9
Volume (m <sup>3</sup> ):	902	51.7
Key pieces (>=12m x 0.60m):	86	4.9

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**HABITAT DETAIL**

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	2	25	0.7	0.05	17	4	8	28	29	12	24	0
DRY CHANNEL	1	20	1.9	0.00	38	0	0	0	70	30	0	0
DRY UNIT	1	13	2.0	0.00	26	0	0	10	80	10	0	0
POOL-ALCOVE	1	13	7.0	0.50	91	0	30	70	0	0	0	0
POOL-BACKWATER	5	27	2.2	0.48	62	0	13	38	42	7	0	0
POOL-ISOLATED	3	32	2.4	0.35	74	1	33	13	40	7	7	0
POOL-LATERAL SCOUR	34	1,160	10.3	1.11	12,601	137	6	23	45	14	7	4
PUDDLED UNIT	3	83	3.3	0.02	354	0	0	13	50	33	5	0
RAPID/BOULDERS	3	68	9.7	0.30	669	63	0	12	29	21	26	11
RIFFLE	22	562	7.1	0.25	4,090	15	2	12	66	17	4	0
STEP/BEDROCK	1	1	0.3	0.10	0	0	0	0	0	0	0	100
STEP/COBBLE	6	36	10.9	0.22	413	14	0	7	57	25	8	3
<b>Total:</b>	<b>82</b>	<b>2,038</b>	<b>7.8</b>	<b>0.61</b>	<b>18,435</b>	<b>234</b>	<b>Avg: 6</b>	<b>19</b>	<b>50</b>	<b>16</b>	<b>6</b>	<b>4</b>

**HABITAT SUMMARY**

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	9	72	2.8	0.44	227	1.23%	1	0.4
Scour Pools	34	1,160	10.3	1.11	12,601	68.35%	137	1.1
Glides	0	0			0	0.00%	0	0.0
Riffles	22	562	7.1	0.25	4,090	22.19%	15	0.4
Rapids	3	68	9.7	0.30	669	3.63%	63	9.4
Cascades	2	25	0.7	0.05	17	0.09%	4	23.5
Step/Falls	7	36	9.4	0.20	413	2.24%	14	3.4
Dry	5	116	2.7	0.01	418	2.27%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

**POOL SUMMARY**

	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	43	21.1	24.6
Pools >=1m deep:	22	10.8	12.6
Complex pools (LWD pieces>=3):	23	11.3	13.2
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.89		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
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RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 5 transects

Total hardwoods/1000	792
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	3.0	0.4	1.6	0.4	1.4	0.8	6.0
15-30cm	0.0	1.8	0.0	1.2	0.2	2.8	0.2	5.8
30-50cm	0.0	0.6	0.0	0.2	0.0	0.4	0.0	1.2
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	5.4	0.4	3.0	0.6	4.6	0.3	4.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	74	75	74
Shrub cover	51	60	71
Grass/forb cover	37	34	23

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	20	30
High terrace	70	70	60
Low terrace	10	10	10
Floodplain	20	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	2	4	8

**Summary of Riparian Zone (0-30m) for all reaches**

**5 transects**

**Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream**

Total hardwoods/1000	792
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-m wide band**

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.8	6.0
15-30cm	0.2	5.8
30-50cm	0.0	1.2
50-90cm	0.0	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
15	LF	1	HT	5	40	0	100	Conifer							
								Hardwood							
15	LF	2	HT	0	60	40	60	Conifer							
								Hardwood							
15	LF	3	HT	0	100	60	40	Conifer							
								Hardwood		2					
15	RT	1	FP	0	20	0	40	Conifer							
								Hardwood	1						
15	RT	2	LT	12	80	40	60	Conifer							
								Hardwood	1						
15	RT	3	LT	10	20	80	20	Conifer							
								Hardwood							
24	LF	1	HT	5	100	60	40	Conifer							
								Hardwood			2				
24	LF	2	HT	5	80	80	20	Conifer							
								Hardwood		3	1				
24	LF	3	HT	5	80	80	20	Conifer							
								Hardwood		5	1				
24	RT	1	FP	5	80	60	40	Conifer							
								Hardwood							
24	RT	2	HT	0	80	40	60	Conifer							
								Hardwood							
24	RT	3	HT	0	80	80	20	Conifer							
								Hardwood							
49	LF	1	HT	0	95	60	25	Conifer							
								Hardwood	2	2					
49	LF	2	HT	0	80	60	20	Conifer							
								Hardwood	2	1					
49	LF	3	HT	0	80	60	25	Conifer							
								Hardwood	2	2					
49	RT	1	HT	0	85	70	30	Conifer							
								Hardwood							
49	RT	2	HS	10	90	65	25	Conifer							
								Hardwood	1	1					
49	RT	3	HS	15	90	65	25	Conifer							
								Hardwood	1	1					

57	LF	1	HT	0	80	75	20	Conifer		
								Hardwood	2	
57	LF	2	HT	0	70	80	15	Conifer		
								Hardwood		
57	LF	3	HT	0	70	75	15	Conifer	1	1
								Hardwood	3	
57	RT	1	HT	0	70	80	10	Conifer		
								Hardwood		4
57	RT	2	HS	10	50	80	15	Conifer	2	
								Hardwood		
57	RT	3	HS	20	65	80	15	Conifer		
								Hardwood	1	2
74	LF	1	LT	0	90	20	50	Conifer		
								Hardwood	12	
74	LF	2	HT	3	80	30	50	Conifer		
								Hardwood	2	1
74	LF	3	HT	0	75	60	30	Conifer		
								Hardwood		1
74	RT	1	HT	0	80	80	15	Conifer		
								Hardwood	1	1
74	RT	2	HT	0	80	80	15	Conifer		
								Hardwood	2	
74	RT	3	HS	30	75	65	20	Conifer		
								Hardwood	1	1

COMMENT SUMMARY

MONITORING AREA: 2-MC      SITE ID: 374      STREAM: LOBSTER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RB	01	42	TJ/	RANGEFINDER USED
2	CB	11	42		T=10C, ACW=1.20M
3	LP	00	56		CA/CT, D30/S
4	LP	00	82		ST/LT
5	SC	00	86.5		START T=9C
6	LP	00	132.5	HS, BV	COHO FRY
8	LP	00	157.5	HS	
9	RI	01	183.5		/BW
10	BW	10	183.5	DJ, HS	
11	LP	01	237.5	HS	
18	LP	01	377.3	HS, DJ	
19	AL	10	377.3	AM	COHO FRY
20	RI	00	389.3		CT/CT, D50/S
21	LP	00	400.3		ST/LT
24	RI	01	529.3	TJ/	
25	DC	11	529.3		DRY, ACW=2.30M
26	LP	00	553.3	HS, DJ	
28	LP	00	617.3	HS, DJ	COHO FRY
30	LP	01	648.3		COHO FRY, CT/CT, ST/LT
32	LP	01	718.3	DJ, HS	COHO FRY
33	RI	02	718.3		COHO FRY
34	LP	02	718.3	HS, AM	



COMMENT SUMMARY

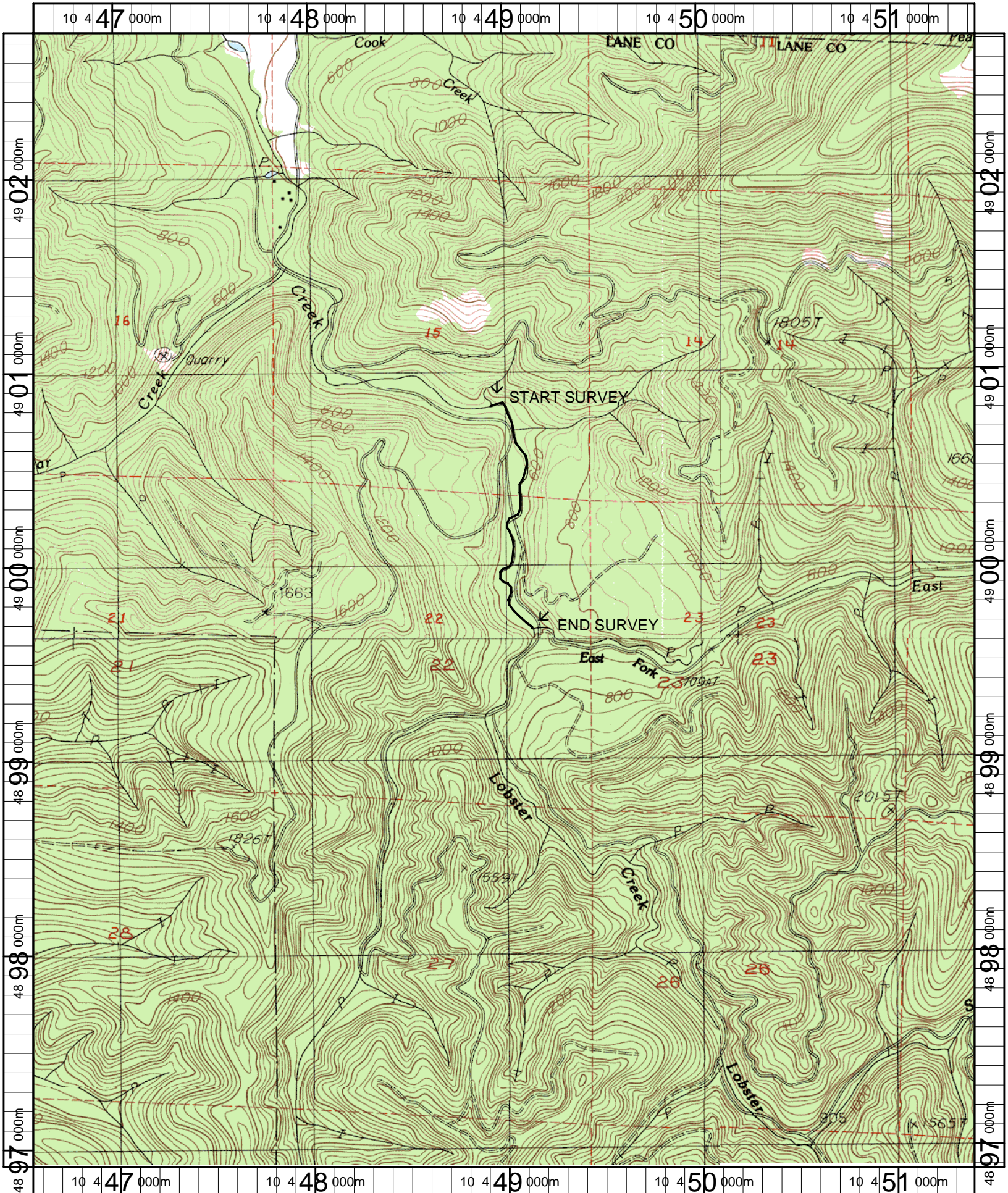
MONITORING AREA: 2-MC      SITE ID: 374      STREAM: LOBSTER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
35	PD	02	718.3	AM	
37	RI	00	751.3	HS	
41	LP	01	852.3	HS, DJ	
42	LP	02	852.3	AM	
45	LP	00	876.8	HS, DJ	
46	RI	00	942.8	HS	END AT BC UP FROM QUARRY
47	LP	00	1028.9	BC, CS	START AT BC
48	LP	00	1063.9	/SS	
53	LP	00	1201.7	HS, DJ	
55	LP	00	1252.5	HS	
58	LP	01	1318.8	HS, /TJ	
59	SR	11	1318.8	/TJ	
60	IP	10	1318.8	AM	ROUGH-SKINNED NEWT
64	LP	00	1462.9	HS,BV,/LA	
65	RB	00	1473.9	LA/	
66	LP	01	1505.9	CS, /CE	
67	RI	01	1542.9	HS, CS/	
68	BW	10	1542.9	HS	
71	PD	02	1560.9	/TJ	
73	LP	00	1616.9	BV	
75	LP	00	1657.1	HS	
76	RI	00	1677.1	HS	

**COMMENT SUMMARY**

MONITORING AREA: 2-MC      SITE ID: 374      STREAM: LOBSTER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
78	LP	01	1703.6	/DJ	
81	BW	10	1729.2	HS	
82	LP	01	1745.6	HS, BV	



Name: DIGGER MT (OR)  
 Date: 4/25/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 0448992 E 4899816 N  
 Caption: LOBSTER CREEK RESTORATION SITE - LOBSTER BASIN

MC-374 Lobster Creek (Post-Treatment) 2008 Summer Habitat Survey Photographs



Boulder rapid at start of survey



Lower reach photo



Large wood habitat structure below bridge crossing



Large wood habitat structure and backwater pool



Large wood habitat structures above bridge crossing



Upper reach photo