

ODFW AQUATIC INVENTORY PROJECT
OREGON PLAN FOR SALMON & WATERSHEDS
STREAM RESTORATION HABITAT REPORT

STREAM: Hubbard Creek Tributary (S-381)
BASIN: Pacific Ocean
SURVEY TYPE: Pre-Tx
DATE: July 25, 2007
SURVEY CREW: Scott Kuhn, Drew Harper, Pat Burns
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 1.3 km²
USGS MAPS: Port Orford
ECOREGION: Southern Oregon Coastal Mountains

GENERAL DESCRIPTION:

The Hubbard Creek habitat survey extended 464 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 8.2 (range: 5.0-11.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.5 percent. Riffles (79%) and scour pools (20%) comprised stream habitat. Silt (59%) dominated stream substrate. Wood volume was low at 13.2 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

REACH 1

T33S-R15W-S03SE

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	8.2	VWI Range:	5 - 11

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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 Channel	464	846	0
Secondary Channel	0	0	0
Off-Channel Units	11	15	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.8	Width: 2.7	9.3 (3.8 - 14.5)	11.9 (7.5 - 17.3)
Depth: 0.29	Height: 0.4	0.7 (0.6 - 0.8)	1.0 (0.8 - 1.2)

W:D ratio: 7.4 Entrenchment (ACW:FPW ratio): 3.4
 Stream Flow Type: MF Habitat Units/100m (total channel length): 5.9
 Average Unit Gradient: 1.5% Habitat Units/100m (primary channel length): 6.0
 Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D3	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 73%
Undercut Banks:	4%	Range: 47 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	55	11.9
Volume (m ³):	61	13.2
Key pieces (>=12m x 0.60m):	2	0.4

OREGON DEPT OF FISH AND WILDLIFE HUBBARD CREEK TRIBUTARY PRE-TX (5-SC, 381)

HABITAT INVENTORY Report Date: 11/14/2007 Survey Date: 7/24/2007

REACH 1		T33S-R15W-S03SE					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	5	2.0	0.50	10	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	6	76	2.2	0.57	170	0	60	28	12	0	0	0
RIFFLE	1	11	1.8	0.20	20	0	60	15	25	0	0	0
RIFFLE W/ POCKETS	18	382	1.7	0.22	660	0	62	20	18	0	0	0
STEP/BEDROCK	1	0	1.2	0.05	0	0	0	0	0	0	0	100
STEP/LOG	1	0	0.7	0.07	0	0	14	29	57	0	0	0
Total:	28	475	1.8	0.29	861	0	Avg: 59	20	17	0	0	4

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	1	5	2.0	0.50	10	1.21%	0	0.0	
Scour Pools	6	76	2.2	0.57	170	19.76%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	19	393	1.7	0.22	680	78.95%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	1	1.0	0.06	1	0.08%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	7	14.7	15.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	25.0		
Residual pool depth (avg):	0.39		

Survey Date 7/24/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	1300
Total conifers/1000 ft	102
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	8.0	0.3	3.7	1.3	4.7	1.7	16.3
15-30cm	0.0	0.0	0.0	1.0	0.0	2.3	0.0	3.3
30-50cm	0.0	0.0	0.0	1.0	0.0	0.7	0.0	1.7
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	8.0	0.3	5.7	1.3	7.7	0.6	7.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	67		53		70	
Shrub cover	44		21		41	
Grass/forb cover	53		78		48	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		50		100	
High terrace	0		50		0	
Low terrace	50		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	28		50		98	

Summary of Riparian Zone (0-30m) for all reaches 3 transects

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

Total hardwoods/1000	1300
Total conifers/1000 ft	102
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	1.7	16.3
15-30cm	0.0	3.3
30-50cm	0.0	1.7
50-90cm	0.0	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

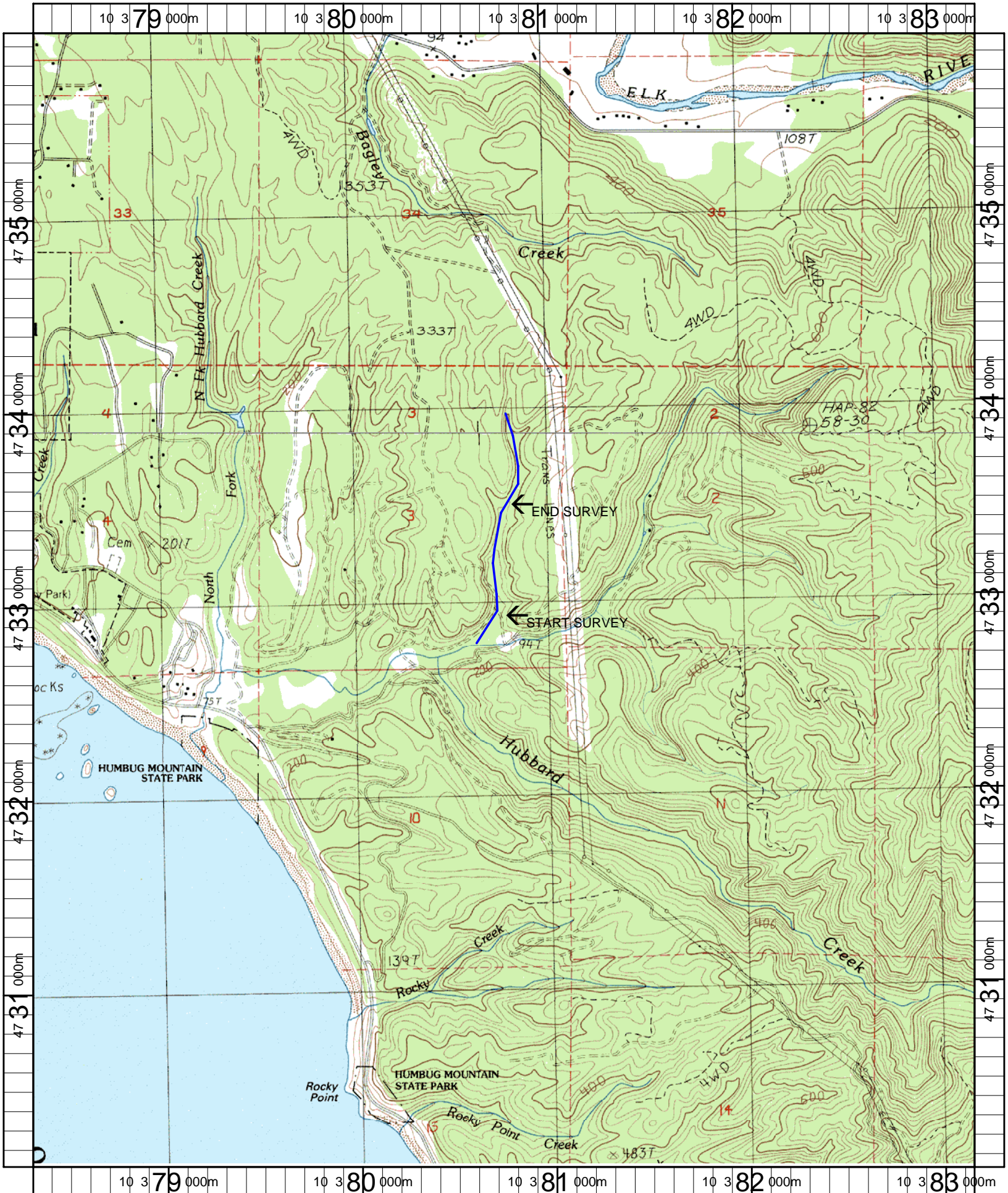
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
7	LT	1	HS	40	95	15	75	Conifer							
								Hardwood	7						
7	LT	2	HS	65	80	15	85	Conifer							
								Hardwood	2						
7	LT	3	HS	100	75	30	70	Conifer							
								Hardwood	1	2					
7	RT	1	LT	0	20	30	70	Conifer							
								Hardwood							
7	RT	2	HT	0	20	20	80	Conifer							2M-5.7M OF THIS ZONE IS ROADBE
								Hardwood	2						
7	RT	3	HS	100	65	90	10	Conifer	1						
								Hardwood							
15	LT	1	HS	40	95	25	75	Conifer							
								Hardwood	8						
15	LT	2	HS	75	90	15	80	Conifer							
								Hardwood	7	3	3				
15	LT	3	HS	85	80	35	65	Conifer							
								Hardwood	3						
15	RT	1	LT	3	75	40	60	Conifer							
								Hardwood	8						
15	RT	2	HT	75	10	10	90	Conifer							1ST 3M HS. LAST 7M RB
								Hardwood							
15	RT	3	HS	90	15	25	50	Conifer	2						
								Hardwood	1						
22	LT	1	HS	85	90	70	25	Conifer							
								Hardwood	1						
22	LT	2	HS	85	95	60	35	Conifer	1						
								Hardwood							
22	LT	3	HS	95	90	30	25	Conifer	1						
								Hardwood		4	1				
22	RT	1	LT	0	25	85	15	Conifer							
								Hardwood							
22	RT	2	HT	0	20	5	95	Conifer							1ST 6M RB
								Hardwood							
22	RT	3	HS	120	95	35	65	Conifer							
								Hardwood	9	1	1				

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 381 STREAM: HUBBARD CREEK TRIBUTARY PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	14.8		PICTURE TIME 1319
10	SR	00	178.2		BEDROCK=HARDPAN
11	RP	00	198.4		REMAINS OF AN OLD BEAVERDAM
22	RP	01	400.5	/TJ	



Name: PORT ORFORD
 Date: 7/10/2007
 Scale: 1 inch equals 2000 feet

Location: 10 380774 E 4733000 N
 Caption: HUBBARD CREEK TRIBUTARY RESTORATION SITE - OCEAN BASIN