

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

STREAM: Hawley Creek (NC-371)
BASIN: Necanicum River
SURVEY TYPE: Pre-Tx
DATE: March 5, 2007
SURVEY CREW: Jeff O'Leary, Sheri Etchemendy
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.5 km²
USGS MAPS: Tillamook Head
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Hawley Creek habitat survey extended 736 meters. The channel was alternately constrained by hillslope and terrace in a broad valley floor. The average valley width index was 7.5 (range: 3.5-20). Land use for the reach was second growth timber (15-30 cm dbh) and young timber (3-15 cm dbh). The average unit gradient was 3.6 percent. Rapids (58%) and cascades (26%) dominated stream habitat. Gravel (47%) and cobble (43%) dominated stream substrate. Wood volume was very low at 6.1 m³/100m.

COMMENTS:

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

No habitat structures were noted during the survey.

1 metal culvert (1.3 meters high, no step) and 1 metal culvert (1.6 meters high) were documented at 434 meters and 715 meters, respectively, into the survey reach.

REACH 1

T05N-R10W-S14NW

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	7.5	VWI Range:	3.5 - 20

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	736	3,015	0
Secondary Channel	13	13	0
Off-Channel Units	13	16	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.0	Width: 6.4	9.6 (6.5 - 14.3)	10.7 (7.4 - 16.3)
Depth: 0.38	Height: 0.6	1.2 (1 - 2)	1.5 (1.28 - 2.3)

W:D ratio: 11.4
 Stream Flow Type: HF
 Average Unit Gradient: 3.6%
 Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.5
 Habitat Units/100m (total channel length): 5.5
 Habitat Units/100m (primary channel length): 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	D30	C15

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	31	4.2
Volume (m ³):	45	6.1
Key pieces (>=12m x 0.60m):	2	0.3

OREGON DEPT OF FISH AND WILDLIFE

HAWLEY CREEK PRE-TX (1-NC, 371)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

3/5/2007

REACH 1		T05N-R10W-S14NW					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
CASCADE/BOULDERS	5	196	4.0	0.25	798	0	0	0	35	45	19	1
CULVERT CROSSING	2	25	1.8	0.40	46	0	0	0	43	50	8	0
POOL-BACKWATER	1	3	2.0	0.60	6	0	0	10	70	20	0	0
POOL-LATERAL SCOUR	8	53	4.2	0.57	221	0	1	4	56	35	3	1
POOL-PLUNGE	5	26	4.9	0.87	123	0	0	1	48	47	4	0
RAPID/BOULDERS	14	433	3.9	0.21	1,773	0	2	2	42	45	8	1
RIFFLE	1	13	1.0	0.05	13	0	0	5	65	25	0	5
STEP/COBBLE	2	10	5.0	0.18	48	0	0	0	45	50	5	0
STEP/LOG	4	4	4.7	0.24	18	0	0	1	51	44	4	0
Total:	42	763	4.0	0.38	3,045	0	Avg: 1	2	47	43	7	1

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	3	2.0	0.60	6	0.20%	0	0.0	
Scour Pools	13	79	4.5	0.68	344	11.28%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	1	13	1.0	0.05	13	0.44%	0	0.0	
Rapids	14	433	3.9	0.21	1,773	58.22%	0	0.0	
Cascades	5	196	4.0	0.25	798	26.20%	0	0.0	
Step/Falls	6	13	4.8	0.22	66	2.17%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	2	25	1.8	0.40	46	1.50%	0	0.0	

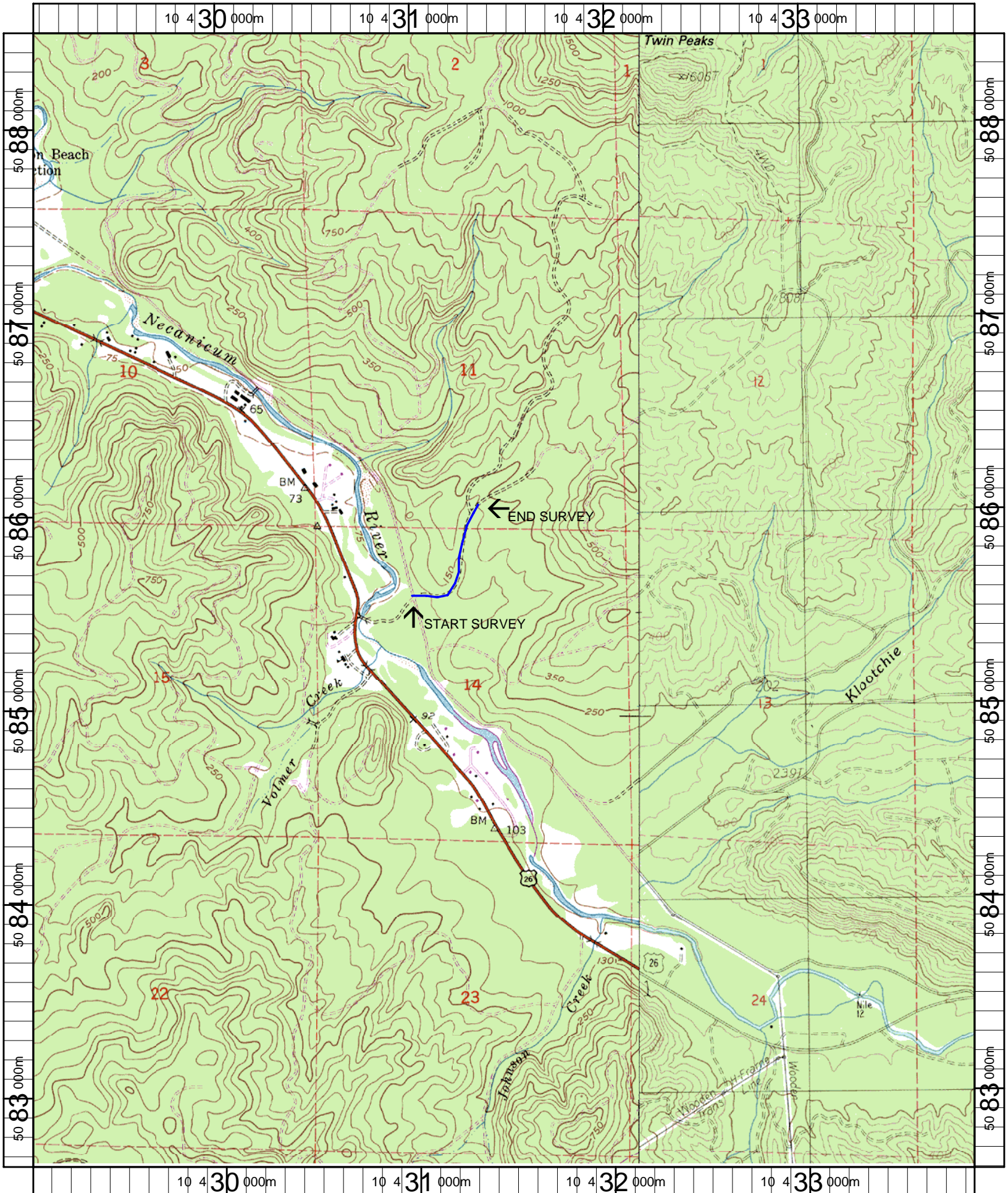
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	14	18.4	19.0
Pools >=1m deep:	1	1.3	1.4
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	8.5		
Residual pool depth (avg):	0.45		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 1-NC SITE ID: 371 HAWLEY CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
26	CC	00	434.8	CC	METAL CULV 1.3M HIGH. NO STEP
38	LP	00	635.3		COHO FRY OBSERVED
41	CC	00	715.4	CC	METAL CULVERT 1.6M HIGH.



Name: TILLAMOOK HEAD
 Date: 1/3/2007
 Scale: 1 inch equals 2000 feet

Location: 10 431457 E 5085547 N
 Caption: HAWLEY CREEK RESTORATION SITE - NECANICUM BASIN