

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

STREAM: Hawley Creek (NC-371)
BASIN: Necanicum River
SURVEY TYPE: Post-Tx
DATE: February 27, 2008
SURVEY CREW: Sharon Tippery, Matt Weeber
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 3.5 km²
USGS MAPS: Tillamook Head
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Hawley Creek habitat survey extended 701 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 10.6 (range: 6-20). Land use for the reach was second growth timber (15-30cm dbh) and young trees (3-15cm dbh). The average unit gradient was 3.5 percent. Riffles (41%) and rapids (28%) dominated stream habitat. Gravel (43%) and cobble (37%) dominated stream substrate. Wood volume was 17.5m³/100m.

COMMENTS:

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

The crew noted several habitat structures and two debris jams during the survey.

Fish were observed during the survey.

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

**HAWLEY CREEK
GCG: 1-NC SITE ID: 371**

Survey Date: 3/24/2008

Report Date: 5/6/2008

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	10.6	VWI Range:	6 - 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	701	2,306	0
Secondary	16	24	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.3	Width: 4.1	5.3 (3.6 - 6.7)	7.8 (6.5 - 9.4)
Depth: 0.29	Height: 0.3	0.6 (0.6 - 0.7)	0.8 (0.7 - 0.9)

W:D ratio: 12.6

Stream Flow Type: MF

Average Unit Gradient: 3.5%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 7.1

Habitat Units/100m (primary channel length): 7.3

Riparian, Bank, and Wood Summary

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

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):	69	9.8
Volume (m ³):	123	17.5
Key pieces (>=12m x 0.60m):	9	1.3

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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	2	44	4.0	0.18	171	0	0	3	28	60	10	0
POOL-BACKWATER	1	3	2.3	0.45	8	0	0	20	75	5	0	0
POOL-DAMMED	2	21	3.9	0.48	80	0	10	25	33	31	0	0
POOL-ISOLATED	1	3	1.5	0.30	4	0	75	25	0	0	0	0
POOL-LATERAL SCOUR	13	94	3.4	0.45	335	0	4	18	42	32	3	1
POOL-PLUNGE	2	7	5.3	0.53	36	0	2	2	52	43	0	0
POOL-STRAIGHT SCOUR	2	15	2.8	0.70	39	0	8	21	38	31	3	0
RAPID/BOULDERS	10	217	2.9	0.16	664	0	0	3	38	54	5	0
RIFFLE	13	307	3.2	0.19	966	0	3	8	47	38	4	0
STEP/COBBLE	1	3	2.5	0.10	6	0	0	5	70	25	0	0
STEP/LOG	2	3	3.7	0.13	13	0	5	27	55	12	0	0
STEP/STRUCTURE	2	1	5.1	0.10	6	0	0	8	58	35	0	0
Total:	51	717	3.3	0.29	2,330	0	Avg: 4	12	43	37	3	0

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	4	27	2.9	0.43	92	3.93%	0	0.0
Scour Pools	17	115	3.5	0.49	411	17.62%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	13	307	3.2	0.19	966	41.48%	0	0.0
Rapids	10	217	2.9	0.16	664	28.51%	0	0.0
Cascades	2	44	4.0	0.18	171	7.35%	0	0.0
Step/Falls	5	7	4.0	0.11	26	1.10%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

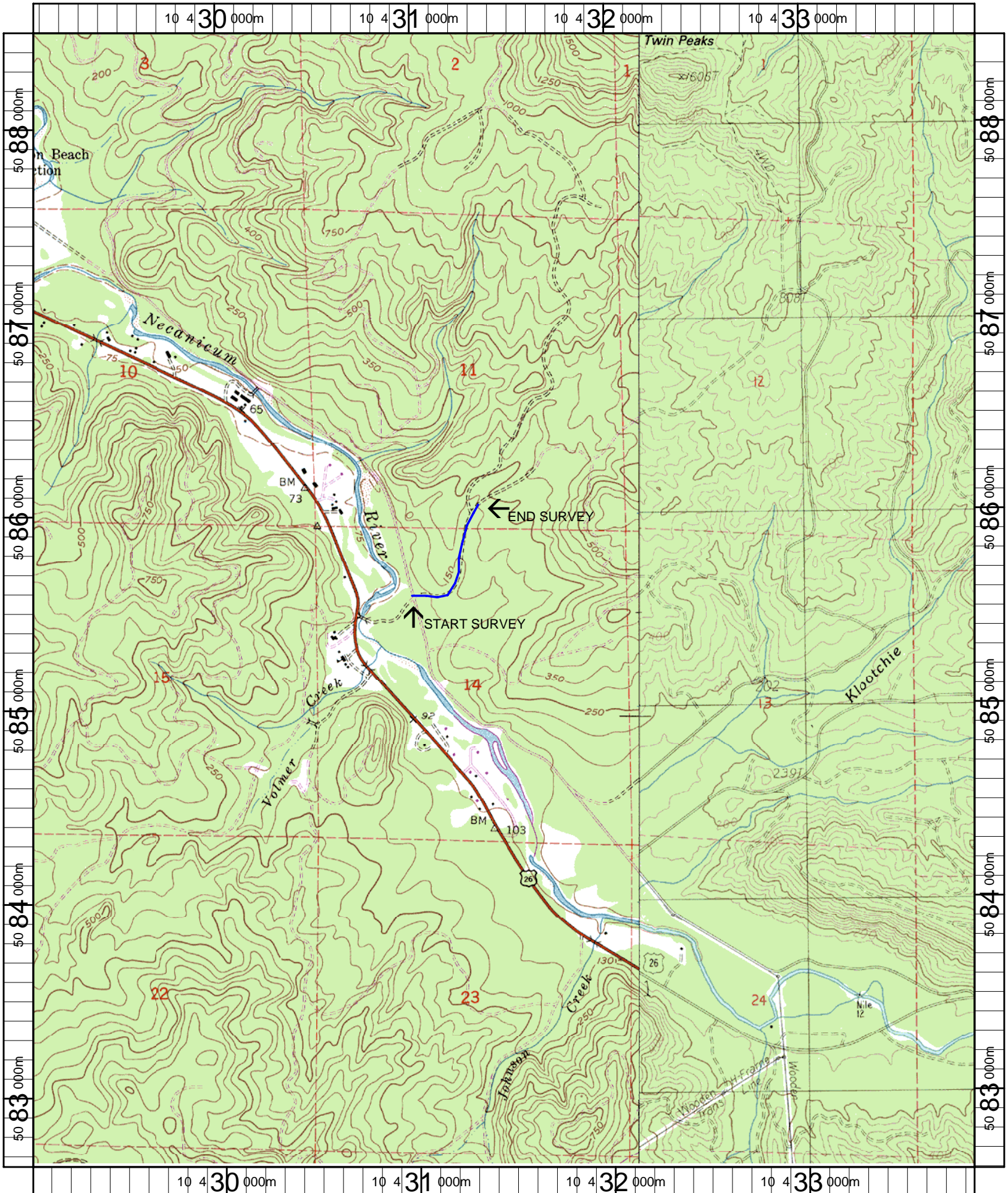
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	21	29.3	30.0
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	3	4.2	4.3
Pool frequency (channel widths/pool):	8.4		
Residual pool depth (avg):	0.32		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 371 STREAM: HAWLEY CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
4	RI	00	92.2	HS	PLACED LOGS
8	SS	00	121.4	HS	H=0.45M, PLACED LOGS
9	RI	00	135.2	HS	PLACED LOGS
11	RI	00	164.7	HS	PLACED LOGS
24	SS	00	383.9	HS	H=0.6M, PLACED LOGS
26	LP	00	389.4		FISH
27	RB	01	396.8		HAYBALES
29	RI	00	408.8	HS	PLACED LOGS
30	LP	00	417.8	/SS,RF	
31	RB	00	423.3	HS	PLACED LOGS
34	SL	00	447.6		H=0.4M
38	RB	00	505.7	DJ	WINDBLOWN ALDERS, BEDROCK=HARDPAN
40	RB	00	522.5	HS	PLACED LOGS
42	RI	00	579.8	HS,DJ	PLACED LOGS, WINDBLOWN
43	SL	00	582.3		H=0.4M
45	SC	00	594.8		H=0.2M
47	RI	01	649.1	/TJ	
49	RI	00	671.1	HS	SGS SIGN, PLACED LOGS



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