

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

STREAM: Charlie Creek (NC-332)
BASIN: Necanicum River
SURVEY TYPE: Pre-Tx
DATE: February 28, 2008
SURVEY CREW: Sharon Tippery, Matt Weeber
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 1.8 km²
USGS MAPS: Necanicum Junction
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Charlie Creek habitat survey extended 702 meters. The channel was constrained by multiple terraces in a broad valley floor. The average valley width index was 19.4 (range: 17-20). Land use for the reach was rural residential area and second growth timber (15-30cm dbh). The average unit gradient was 1.2 percent. Scour pools (47%) and riffles (42%) dominated stream habitat. Gravel (58%) and sand (21%) dominated stream substrate. Wood volume was 4.5m³/100m.

COMMENTS:

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

No beaver activity was noted in the survey. Three redds were observed in the survey.

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

**CHARLIE CREEK
GCG: 1-NC SITE ID: 332**

Survey Date: 2/28/2008

Report Date: 5/6/2008

T05N-R09W-S23NW

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	19.4	VWI Range:	17 - 20

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	702	1,479	0
Secondary	13	22	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.1	Width: 3.1	4.5 (2.1 - 6.8)	5.8 (2.8 - 7)
Depth: 0.29	Height: 0.2	0.5 (0.4 - 0.5)	0.9 (0.8 - 0.95)

W:D ratio: 13.2

Stream Flow Type: MF

Average Unit Gradient: 1.2%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 11.3

Habitat Units/100m (primary channel length): 11.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	ST
Riparian Vegetation:	M30	S

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):	43	6.1
Volume (m ³):	31	4.5
Key pieces (>=12m x 0.60m):	1	0.1

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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
CULVERT CROSSING	1	26	2.6	0.25	66	0	0	5	67	19	10	0
POOL-ALCOVE	1	6	2.3	0.35	14	0	50	50	0	0	0	0
POOL-BACKWATER	2	3	1.7	0.25	6	0	30	63	8	0	0	0
POOL-DAMMED	1	12	2.5	0.40	30	0	10	40	50	0	0	0
POOL-ISOLATED	1	4	0.8	0.25	3	0	90	0	0	10	0	0
POOL-LATERAL SCOUR	31	265	2.1	0.44	570	0	8	26	57	7	1	1
POOL-PLUNGE	1	6	4.5	0.95	27	0	10	30	50	10	0	0
POOL-STRAIGHT SCOUR	5	52	2.0	0.56	110	0	7	46	45	1	0	1
RIFFLE	28	325	2.0	0.14	642	0	4	9	71	14	1	0
STEP/COBBLE	6	14	2.0	0.08	29	0	0	0	65	24	11	0
STEP/LOG	4	3	1.9	0.06	5	0	20	41	36	3	0	0
Total:	81	715	2.1	0.29	1,501	0	Avg: 9	21	58	10	2	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	5	25	1.8	0.30	52	3.45%	0	0.0
Scour Pools	37	323	2.2	0.47	707	47.09%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	28	325	2.0	0.14	642	42.75%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	10	17	1.9	0.07	34	2.29%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	26	2.6	0.25	66	4.42%	0	0.0

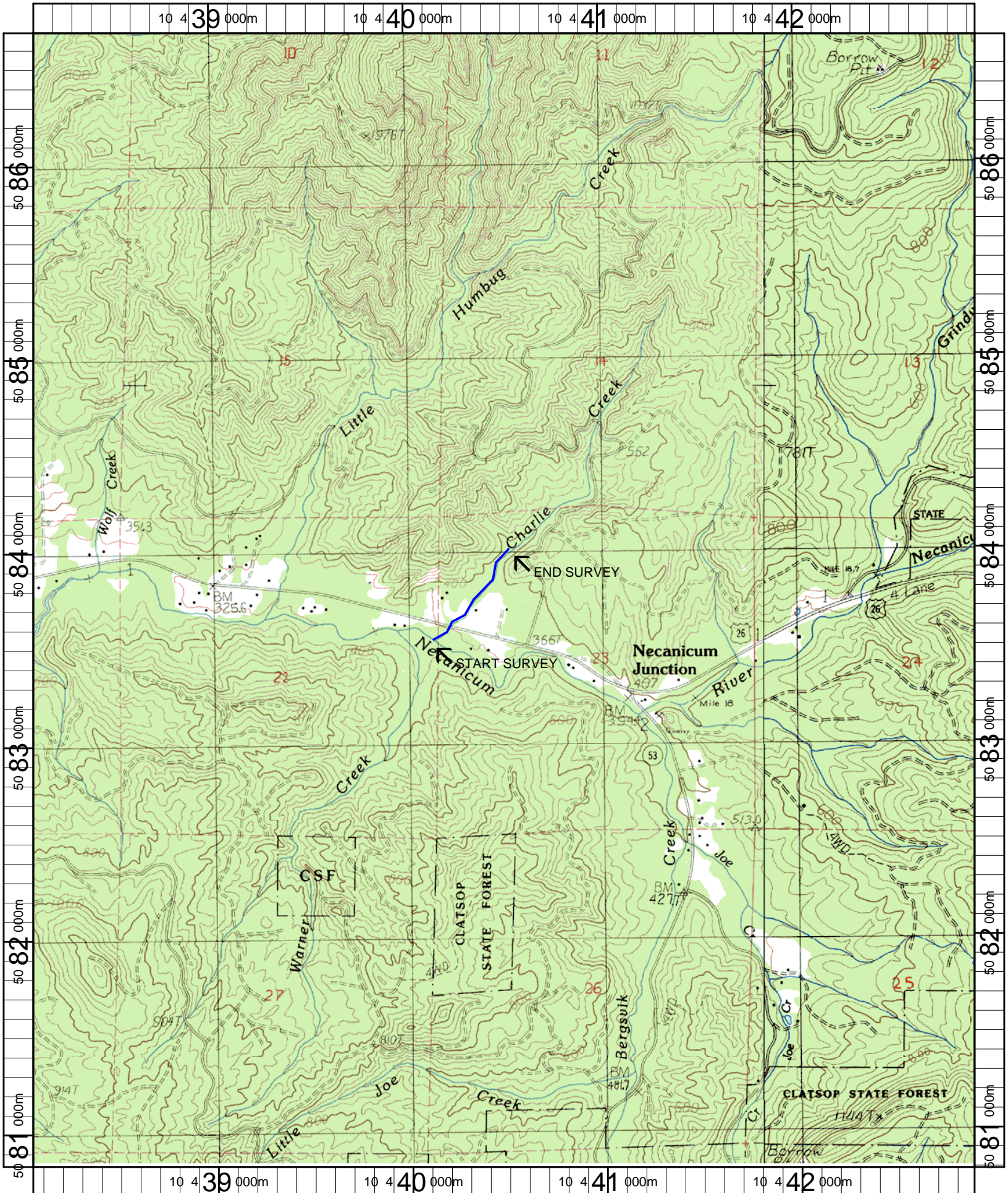
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	42	58.8	59.8
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	5.6	5.7
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.36		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 332 STREAM: CHARLIE CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	RI	00	33.4	SS/	
5	RI	01	52.7	SS/	
12	LP	00	84.1		REDD AT TAIL SPILL
13	LP	00	94.6		LP X2
19	LP	00	143.4		1.5M UNDERCUT BANK
27	LP	00	193.4		SCULPIN, .5M UNDERCUT
28	RI	00	202.2	/SS	
30	RI	00	213.7	/SS	
31	LP	00	220.7		.7M UNDERCUT/
33	CC	00	253.3	CC, CS/CS	CORRUGATED REINFORCED W/0.8M CONCRETE, SUBSTRATE FILLED
34	RI	00	276.3	/SS	
35	LP	00	283.8	BC, /CS	CHARLIE CREEK RANCH DRIVEWAY BRIDGE
38	LP	00	319.1		UNDERCUT / UNDERCUT
42	LP	00	349		UNDERCUT/
56	PP	00	445.5		FISH SP?
61	LP	00	483.1	CS/	
63	DP	00	495.3	BC	FOOTBRIDGE
69	RI	00	562.9	BC	FOOTBRIDGE
70	LP	00	567.4		UNDERCUT /
76	RI	01	661	BC	FOOTBRIDGE
79	RI	00	687		2 OLDER REDDS
81	RI	00	702		OLD CARCASS PIECES



Name: NECANICUM JUNCTION
 Date: 5/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 440493 E 5083741 N
 Caption: CHARLIE CREEK RESTORATION SITE - NECANICUM BASIN