

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

STREAM: Necanicum River (NC-370)
BASIN: Necanicum River
SURVEY TYPE: Post-Tx
DATE: February 27, 2008
SURVEY CREW: Sharon Tippery, Matt Weeber
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 4.0 km²
USGS MAPS: Saddle Mountain
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Necanicum River habitat survey extended 681 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 4.2 (range: 2.5-5.5). Land use for the reach was second growth timber (15-30cm dbh). The average unit gradient was 2.3 percent. Riffles (59%) and scour pools (23%) dominated stream habitat. Gravel (60%) and cobble (17%) dominated stream substrate. Wood volume was 41.9m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

Minimal beaver activity was noted in the survey. A 20cm trout, a fresh redd, and deer tracks were observed during the survey.

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

**NECANICUM RIVER
GCG: 1-NC SITE ID: 370**

Survey Date: 2/27/2008

Report Date: 5/6/2008

T05N-R08W-S18SW

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	4.2	VWI Range:	2.5 - 5.5

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	681	2,924	0
Secondary	187	274	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.6	Width: 9.5	16.6 (8.8 - 25)	24.2 (15.5 - 35)
Depth: 0.31	Height: 0.5	1.0 (0.9 - 1.2)	1.2 (1.1 - 1.5)

W:D ratio: 19.1

Stream Flow Type: LF

Average Unit Gradient: 2.3%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.8

Habitat Units/100m (total channel length): 6.7

Habitat Units/100m (primary channel length): 8.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	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):	178	26.1
Volume (m ³):	285	41.9
Key pieces (>=12m x 0.60m):	24	3.5

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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/BEDROCK	1	8	0.8	0.10	6	0	14	5	24	33	0	24
GLIDE	1	12	2.8	0.25	33	0	17	11	72	0	0	0
POOL-BACKWATER	7	33	2.3	0.41	73	0	19	34	39	8	1	0
POOL-LATERAL SCOUR	16	163	4.2	0.57	692	0	1	10	72	15	2	1
POOL-PLUNGE	2	10	4.5	0.48	49	0	7	10	57	21	2	2
PUDDLED UNIT	2	70	1.0	0.10	70	0	70	25	5	0	0	0
RAPID/BOULDERS	3	63	4.0	0.22	265	0	0	7	49	36	7	2
RIFFLE	21	489	3.6	0.17	1,890	0	4	10	69	15	2	0
STEP/BEDROCK	1	3	0.5	0.05	1	0	25	0	45	10	0	20
STEP/COBBLE	2	12	7.0	0.18	92	0	0	0	23	64	13	0
STEP/LOG	2	6	4.5	0.15	27	0	0	8	78	15	0	0
Total:	58	868	3.6	0.31	3,198	0	Avg: 8	13	60	17	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	7	33	2.3	0.41	73	2.27%	0	0.0
Scour Pools	18	173	4.2	0.56	741	23.15%	0	0.0
Glides	1	12	2.8	0.25	33	1.03%	0	0.0
Riffles	21	489	3.6	0.17	1,890	59.10%	0	0.0
Rapids	3	63	4.0	0.22	265	8.28%	0	0.0
Cascades	1	8	0.8	0.10	6	0.20%	0	0.0
Step/Falls	5	20	4.7	0.14	121	3.77%	0	0.0
Dry	2	70	1.0	0.10	70	2.19%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	25	28.8	36.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	9	10.4	13.2
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.40		

COMMENT SUMMARY

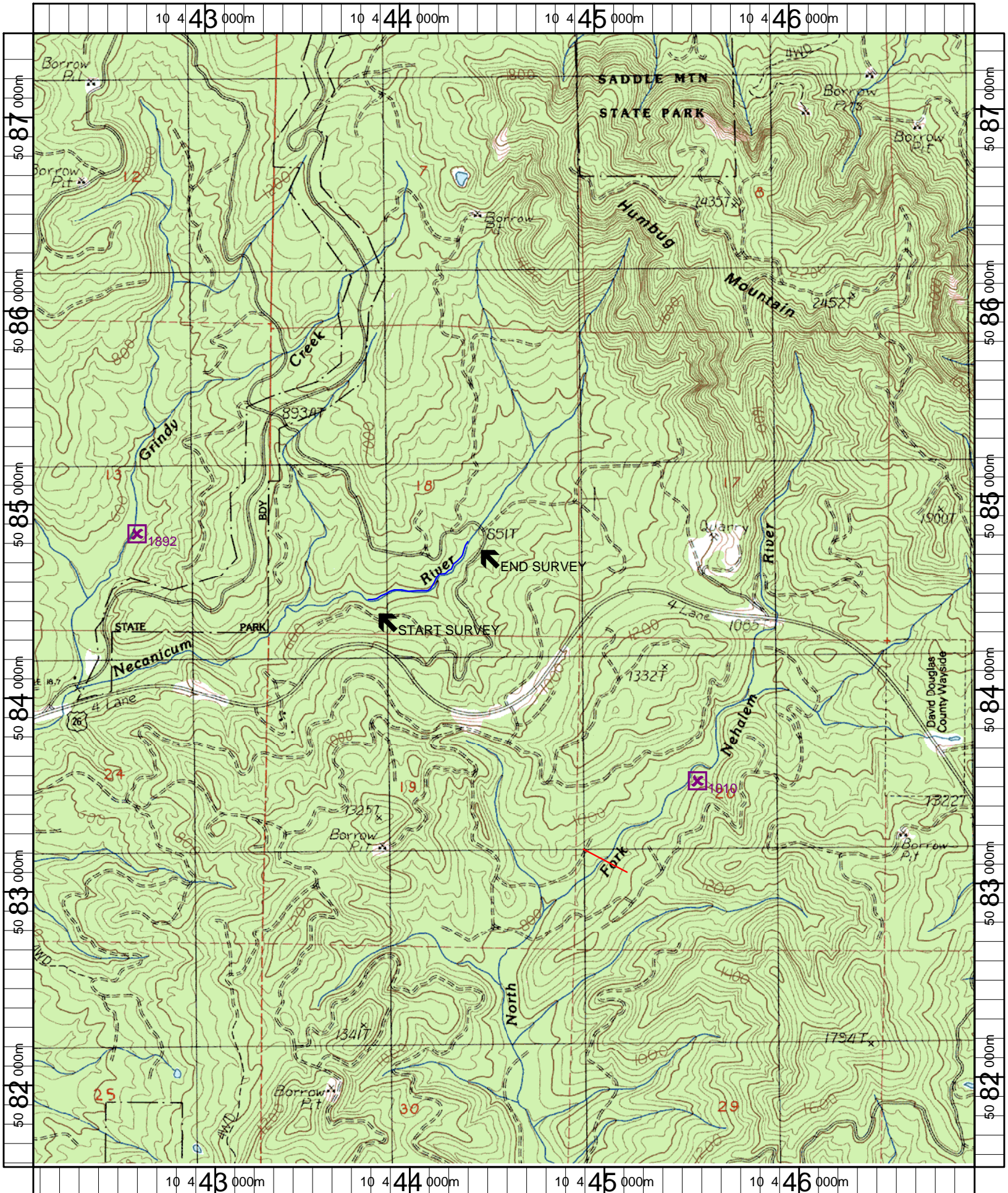
MONITORING AREA: 1-NC SITE ID: 370 STREAM: NECANICUM RIVER

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	BW	10	9.3	/SS	
3	LP	01	36.8	/TJ	
7	RB	00	91.2	HS	PLACED LOGS
11	RI	00	129.3	HS	PLACED LOGS
13	RI	00	192.8	HS	PLACED LOGS
14	RB	00	213.8	HS,BV	PLACED LOGS, CHEWED STICKS
15	RI	01	235.8	HS	PLACED LOGS
18	SL	01	249.9	HS	PLACED LOGS
19	RI	01	291.9	HS	PLACED LOGS
27	RI	01	305.6	/TJ	
32	PD	02	316.6	SS/	
33	RI	01	368.6	HS,/TJ	PLACED LOGS
35	LP	00	382.3	HS,WL	PLACED LOGS, DEER TRACKS & SCAT
36	RI	00	423.3	HS	PLACED LOGS
39	RI	00	437.5		20CM TROUT -PHOTO
40	LP	00	453		REDD -FRESH
41	RI	00	473.3	HS	PLACED LOGS
43	RI	01	517.4	HS	PLACED LOGS
44	BW	10	517.4	/SS	
46	RI	00	560.7	HS	PLACED LOGS
48	RI	00	582.6	HS	PLACED LOGS
50	RI	00	597.1	HS	PLACED LOGS

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 370 STREAM: NECANICUM RIVER

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
53	PD	02	637.8		BRANCHES OFF OF TRIB
57	RI	01	680.7	TJ/	



Name: SADDLE MT
 Date: 4/30/2008
 Scale: 1 inch equals 2000 feet

Location: 10 444509 E 5084485 N
 Caption: UPPER NECANICUM RIVER RESTORATION SITE - NECANICUM BASIN