

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

STREAM: Kenusky Creek (NC-394)  
BASIN: Nehalem River  
SURVEY TYPE: Pre-Tx  
DATE: March 27, 2008  
SURVEY CREW: Kyle Brachter, Bobby Gomez  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 19.3 km<sup>2</sup>  
USGS MAPS: Baker Point  
ECOREGION: Coast Range Willapa Hills

**GENERAL DESCRIPTION:**

The Kenusky Creek habitat survey extended 6,485 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 11.5 (range: 1-20). Land use for the reach was young trees (3-15cm dbh) and second growth timber (15-30 cm dbh). The average unit gradient was 1.7 percent. Scour pools (55%), rapids (23%) and riffles (17%) dominated stream habitat. Gravel (47%) and sand (28%) dominated stream substrate. Wood volume was 15.1m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several debris jams and six landslides during the survey.

Beaver activity was noted throughout the survey. A rough-skinned newt, a winter wren, and chestnut-backed chickadee were observed during the survey.

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

**KENUSKY CREEK  
GCG: 1-NC SITE ID: 394**

**Survey Date: 3/24/2008**

**Report Date: 5/6/2008**

**T04N-R04W-S01NE**

**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	11.5	VWI Range:	1 - 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	6,485	26,434	1
Secondary	181	310	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 12	<u>First Terrace</u> n = 11
Width: 3.9	Width: 4.9	8.0 ( 5.1 - 12.1 )	10.7 ( 6.5 - 18.2 )
Depth: 0.45	Height: 0.5	1.1 ( 0.8 - 1.5 )	1.4 ( 1 - 3 )

W:D ratio: 9.4  
 Stream Flow Type: MF  
 Average Unit Gradient: 1.7%  
 Water temperature (°C): 5.0 - 5.0

Entrenchment (ACW:FPW ratio): 1.7  
 Habitat Units/100m (total channel length): 7.5  
 Habitat Units/100m (primary channel length): 7.8

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D30	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):	1,084	16.7
Volume (m <sup>3</sup> ):	982	15.1
Key pieces (>=12m x 0.60m):	8	0.1

OREGON DEPT OF FISH AND WILDLIFE

KENUSKY CREEK

HABITAT INVENTORY

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REACH 1

HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate					
							Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	6	4.0	0.15	24	0	0	0	15	10	10	65
DRY UNIT	2	29	2.8	0.00	80	0	23	53	20	3	3	0
POOL-BACKWATER	1	8	4.0	0.40	32	0	0	100	0	0	0	0
POOL-DAMMED	1	13	5.0	0.90	63	0	0	80	20	0	0	0
POOL-ISOLATED	3	10	3.0	0.37	32	0	33	62	3	2	0	0
POOL-LATERAL SCOUR	224	3,103	4.2	0.70	14,285	0	1	40	37	7	2	13
POOL-PLUNGE	22	123	3.6	0.63	462	0	3	32	43	13	7	2
POOL-STRAIGHT SCOUR	6	36	4.1	0.55	151	0	0	33	44	12	9	3
RAPID/BEDROCK	4	110	2.5	0.21	312	0	0	0	13	9	5	73
RAPID/BOULDERS	105	1,814	3.3	0.20	5,873	0	0	9	55	24	10	1
RIFFLE	83	1,256	3.6	0.23	4,613	0	0	22	65	9	2	2
STEP/BEDROCK	1	2	3.9	0.20	6	0	0	0	20	0	0	80
STEP/COBBLE	26	108	5.5	0.20	626	0	0	9	69	19	3	0
STEP/LOG	24	48	3.7	0.15	186	0	0	38	48	11	1	2
<b>Total:</b>	<b>503</b>	<b>6,666</b>	<b>3.9</b>	<b>0.45</b>	<b>26,745</b>	<b>0</b>	<b>Avg: 1</b>	<b>28</b>	<b>47</b>	<b>12</b>	<b>4</b>	<b>7</b>

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	5	31	3.6	0.48	127	0.47%	0	0.0
Scour Pools	252	3,262	4.2	0.69	14,898	55.71%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	83	1,256	3.6	0.23	4,613	17.25%	0	0.0
Rapids	109	1,924	3.2	0.20	6,185	23.13%	0	0.0
Cascades	1	6	4.0	0.15	24	0.09%	0	0.0
Step/Falls	51	158	4.6	0.18	818	3.06%	0	0.0
Dry	2	29	2.8	0.00	80	0.30%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

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REACH 1

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	257	38.6	39.6
Pools >=1m deep:	44	6.6	6.8
Complex pools (LWD pieces>=3):	67	10.1	10.3
Pool frequency (channel widths/pool):	5.3		
Residual pool depth (avg):	0.49		

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COMMENT SUMMARY

MONITORING AREA: 1-NC      SITE ID: 394      STREAM: KENUSKY CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	RI	00	33.8		FORM:CT,CT. USE:YT,ST. VEG:D30,S.
6	LP	00	98.3	BV,DJ	
11	LP	00	181.7	DJ	
12	LP	00	216.9	BV	
14	LP	00	254	BC	
29	RI	00	457.2		FORM:CA,CT. USE:YT,ST. VEG:D30,S.
43	LP	00	732.2	SS/	
49	LP	01	800.7	/TJ	
50	RI	11	800.7		TEMPERATURE=7C, ACW=1.4M
51	RI	00	807.7		REDDS ( SMALL)
58	PP	00	907.9	DJ,BV	
62	LP	00	947.1	SS/	
64	RI	00	980.8		FORM:CT,CT. USE:YT,ST. VEG:M30,G.
71	RI	00	1086.5	LI	
72	LP	00	1110.2	BV	
82	RB	00	1283.3		FORM:CH,MV. USE:ST,TH. VEG:D30,S.
85	LP	00	1310.6	DJ	
88	SL	00	1368.1	DJ	
93	RB	00	1404.8	LA	
105	RB	00	1536.1	DJ	
107	RB	00	1556.1	DJ	
115	RB	01	1643.6	DJ,LA	WINTER WREN

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
123	RB	01	1790.8	TJ,DJ	
124	RR	11	1790.8		TEMPERATURE=7C, ACW=1.2M
128	RB	00	1844.3	DJ	FORM:CA,CT. USE:ST. VEG:D30,S. RUFOUS HUMMINGBIRD
131	SP	00	1870.8	DJ	
140	RB	00	1951.3		CHESTNUT-BACKED CHICKADEE, STELLARS JAY
159	RB	00	2139.3	DJ	
161	RB	11	2144.2		TEMPERATURE=6C, ACW=2.3M
166	RB	00	2225.7	AM	ROUGH-SKINNED NEWT
168	RB	00	2262.7	DJ	
170	RB	00	2318.3		FORM:CT,CT. USE:ST. VEG:D30,S.
171	RB	00	2334.3	DJ	
178	LP	00	2398.7	DJ	
183	LP	00	2451.2	DJ	
186	SL	00	2471.3	DJ	
188	RB	01	2488.8	/TJ	
189	RI	00	2497.8		ACW=2.5M, TEMPERATURE=5.5C
197	LP	00	2574.6	DJ	
203	LP	00	2648.8	DJ	
205	LP	00	2663.5	SS/	
206	RB	00	2677.5	DJ	
208	RB	00	2741.5		
230	LP	00	2924.2	DJ	

COMMENT SUMMARY

MONITORING AREA: 1-NC      SITE ID: 394      STREAM: KENUSKY CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
238	RB	01	3009.2	TJ/	
239	RB	00	3019.2		TEMPERATURE=5C, ACW=1M
246	LP	00	3093.9	DJ	
255	RI	00	3213.8		FORM:CT,CT. USE:YT,ST. VEG:D.30,S.
261	SL	00	3293.1	DJ	
263	RI	00	3339.6	BV,	
264	LP	00	3343.6	BV	
266	PP	00	3360.6	/SS	
269	RI	00	3388.8	BV	
275	PP	00	3439.6	BV	
277	LP	00	3455.5	BV,DJ	
280	RB	00	3472.8	BV,/SS	
281	LP	00	3480.3	BV	
283	LP	00	3494.2	BV	
284	SC	00	3496.7	BV	
285	LP	00	3507.7	DJ	
292	LP	00	3597.9	SS/	
295	RI	01	3641.2	DJ	
300	RR	01	3712.9	BV	FORM:CA,CT. USE:YT,ST. VEG:D30,S.
302	RI	02	3712.9	/LA	
304	LP	00	3741.4	BV	
306	LP	00	3772.7	DJ,BV	

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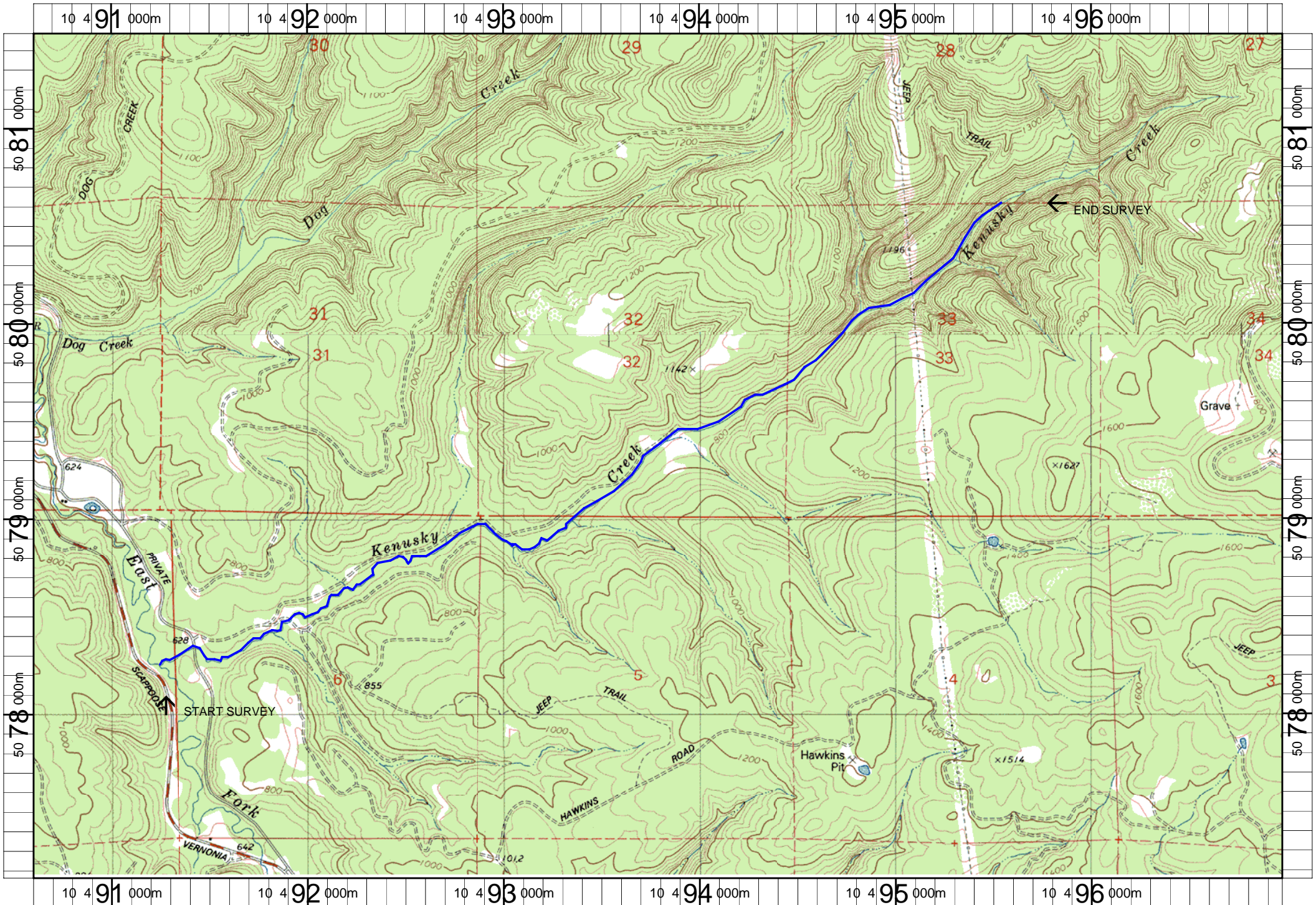
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
312	LP	00	3853.5	DJ	
316	RI	00	3887.5	BV	
318	LP	01	3919	BV	
325	RR	01	3971.4	/TJ	
326	RI	11	3971.4		TEMPERATURE=5C ACW=1.4M
331	RB	11	4001.1		TEMPERATURE=5C ACW=4.3M
332	RB	01	4033.1	BV	
351	RB	00	4257.6	DJ	FORM:CA,CT. USE:ST. VEG: D30,S.
363	LP	01	4426.7	DJ	
383	LP	00	4605.1	DJ	
385	LP	00	4644.1	DJ	
387	LP	01	4665.8	/TJ	
388	RB	11	4665.8		TEMPERATURE=5C ACW=1.9M
408	LP	00	4859	DJ	
411	RI	00	4887.7	/SS	FORM:CA,CT. USE:ST,YT. VEG:D30,S.
416	SC	00	4947.4	DJ	
422	LP	00	5044.7	DJ	
430	RI	11	5157.9		TEMPERATURE=5C ACW=1.3M
432	RB	00	5198.1	BV	
436	LP	00	5263.6	DJ	
446	LP	00	5407.6	DJ	
455	RB	00	5511	DJ	



COMMENT SUMMARY

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
456	LP	00	5522.9	BV	
458	LP	01	5566.6	TJ/	
459	PP	11	5566.6		TEMPERATURE=5C ACW=5.2M
462	LP	00	5621.5	DJ	
465	RI	01	5648.7	TJ/	
466	RB	11	5648.7		TEMPERATURE=5C ACW=1.3M
467	LP	00	5684.1	BV	
469	LP	00	5728.9	6	
470	SC	00	5731.4		FORM:CT,CT. VEG:G,D1. USE:YT,ST.
472	LP	01	5778.8	/TJ,DJ,SS	/LA
473	RB	11	5778.8		TEMPERATURE=5C ACW=0.9M
474	RI	00	5794.5	/LA	
478	LP	00	5874.8	SS/	
482	LP	00	6017.9	BV	
484	LP	00	6082.9	BV,DJ	
489	RI	00	6142	BV	
490	LP	00	6199	DJ	
495	LP	00	6273.8	DJ	
496	RI	00	6323.8	/SS	
500	RI	11	6398.5		TEMPERATURE=5C ACW=1M



Name: BAKER POINT  
 Date: 1/2/2008  
 Scale: 1 inch equals 2000 feet

Location: 10 0493788 E 5079321 N NAD 27  
 Caption: KENUSKY CREEK RESTORATION SITE - NEHALEM BASIN