

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

STREAM: Walker Creek (MC-378)  
BASIN: Siuslaw River  
SURVEY TYPE: Post-Tx  
DATE: February 13, 2008  
SURVEY CREW: Kyle Brachter, Bobby Gomez, Jeremy Romer  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 12.4 km<sup>2</sup>  
USGS MAPS: Walton  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Walker Creek habitat survey extended 1,886 meters. The channel was alternately constrained by terraces in a broad valley floor. The average valley width index was 10.8 (range: 6-20). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 2.1 percent. Scour pools (45%) and riffles (28%) dominated stream habitat. Gravel (53%) and cobble (20%) dominated stream substrate. Wood volume was 25.0m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures, four debris jams, and one active landslide during the survey.

Minimal beaver activity was noted in the survey. Adult steelhead, dark-eyed juncos, American dipper, and a winter wren were observed during the survey.

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

**WALKER CREEK  
GCG: 2-MC SITE ID: 378**

**Survey Date: 2/12/2008**

**Report Date: 5/8/2008**

**T18S-R08W-S01SW**

**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	10.8	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	1,886	13,440	0
Secondary	170	467	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.4	Width: 8.4	13.1 ( 10.1 - 16.5 )	15.2 ( 11.6 - 18.5 )
Depth: 0.60	Height: 0.5	0.9 ( 0.9 - 1 )	3.6 ( 1.25 - 11.8 )

W:D ratio: 17.8

Stream Flow Type: MF

Average Unit Gradient: 2.1%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.6

Habitat Units/100m (total channel length): 6.8

Habitat Units/100m (primary channel length): 7.4

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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):	397	21.1
Volume (m <sup>3</sup> ):	471	25.0
Key pieces (>=12m x 0.60m):	31	1.6

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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/BOULDERS	5	70	4.1	0.21	475	0	0	1	55	22	22	0
CULVERT CROSSING	1	15	3.2	0.50	47	0	0	0	0	100	0	0
POOL-BACKWATER	8	33	3.2	0.51	106	0	11	60	24	6	0	0
POOL-DAMMED	1	17	8.0	1.50	134	0	0	75	20	0	5	0
POOL-LATERAL SCOUR	53	747	7.2	0.92	5,610	0	0	16	57	19	6	1
POOL-PLUNGE	5	48	7.0	0.87	339	0	0	10	41	24	22	3
POOL-STRAIGHT SCOUR	5	54	6.7	0.95	363	0	0	5	54	20	21	0
RAPID/BOULDERS	14	408	6.1	0.35	2,580	0	0	6	42	30	22	0
RIFFLE	29	608	6.1	0.32	3,876	0	0	9	67	17	6	0
RIFFLE W/ POCKETS	1	8	3.3	0.30	25	0	0	10	60	20	10	0
STEP/BEDROCK	1	1	2.0	0.07	1	0	0	0	0	0	0	100
STEP/BOULDERS	5	13	6.5	0.22	92	0	0	0	14	23	64	0
STEP/COBBLE	8	33	7.2	0.32	241	0	0	1	62	31	6	0
STEP/LOG	3	3	6.8	0.20	18	0	0	2	81	14	3	0
<b>Total:</b>	139	2,056	6.4	0.60	13,908	0	<b>Avg:</b> 1	13	53	20	11	1

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	9	50	3.7	0.62	239	1.72%	0	0.0
Scour Pools	63	849	7.1	0.92	6,312	45.39%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	30	615	6.0	0.32	3,901	28.05%	0	0.0
Rapids	14	408	6.1	0.35	2,580	18.55%	0	0.0
Cascades	5	70	4.1	0.21	475	3.42%	0	0.0
Step/Falls	17	49	6.6	0.25	353	2.54%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	15	3.2	0.50	47	0.34%	0	0.0

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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:	72	35.0	38.2
Pools >=1m deep:	29	14.1	15.4
Complex pools (LWD pieces>=3):	31	15.1	16.4
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.55		

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**COMMENT SUMMARY**

MONITORING AREA: 2-MC      SITE ID: 378      STREAM: WALKER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	00	33.1		DARK-EYED JUNKOS
5	RI	00	75.1		FORM;CT,CT. VEG;D30,S. LAND USE;LT,ST.
10	RI	00	140		ADULT SALMONID, ROMER SCREAMED LIKE A GIRL
18	RI	00	234.9	CS/ BC	RAILROAD
20	LP	00	264.9	CS/	OLD BRIDGE
22	LP	00	291.9	CS/CS,BC	HWY 126 CROSSING
25	RI	00	326	BV	
26	LP	00	331.4	BV	
27	RI	00	338.2	BV	
28	LP	01	348.2	BV	
33	BW	10	383.4	BW	OFF 02 CHANNEL
38	LP	00	423.6	HS	
39	LP	00	437.3	DJ	
41	LP	01	490.3	/SS	SS LEADS UP TO MARSHY AREA WITH AMPHIBIAN EGGS
44	RI	01	567.6	HS,DJ	
46	RI	00	585.8		FORM;CA,CT. VEG;D15,S. USE;LT,ST.
47	LP	00	599.5	HS	
50	LP	00	641.7	HS	
54	RI	02	693.5	BV	
55	LP	00	713.5	HS	
56	SP	00	726.5	SS/	
58	LP	00	746.3	HS	

COMMENT SUMMARY

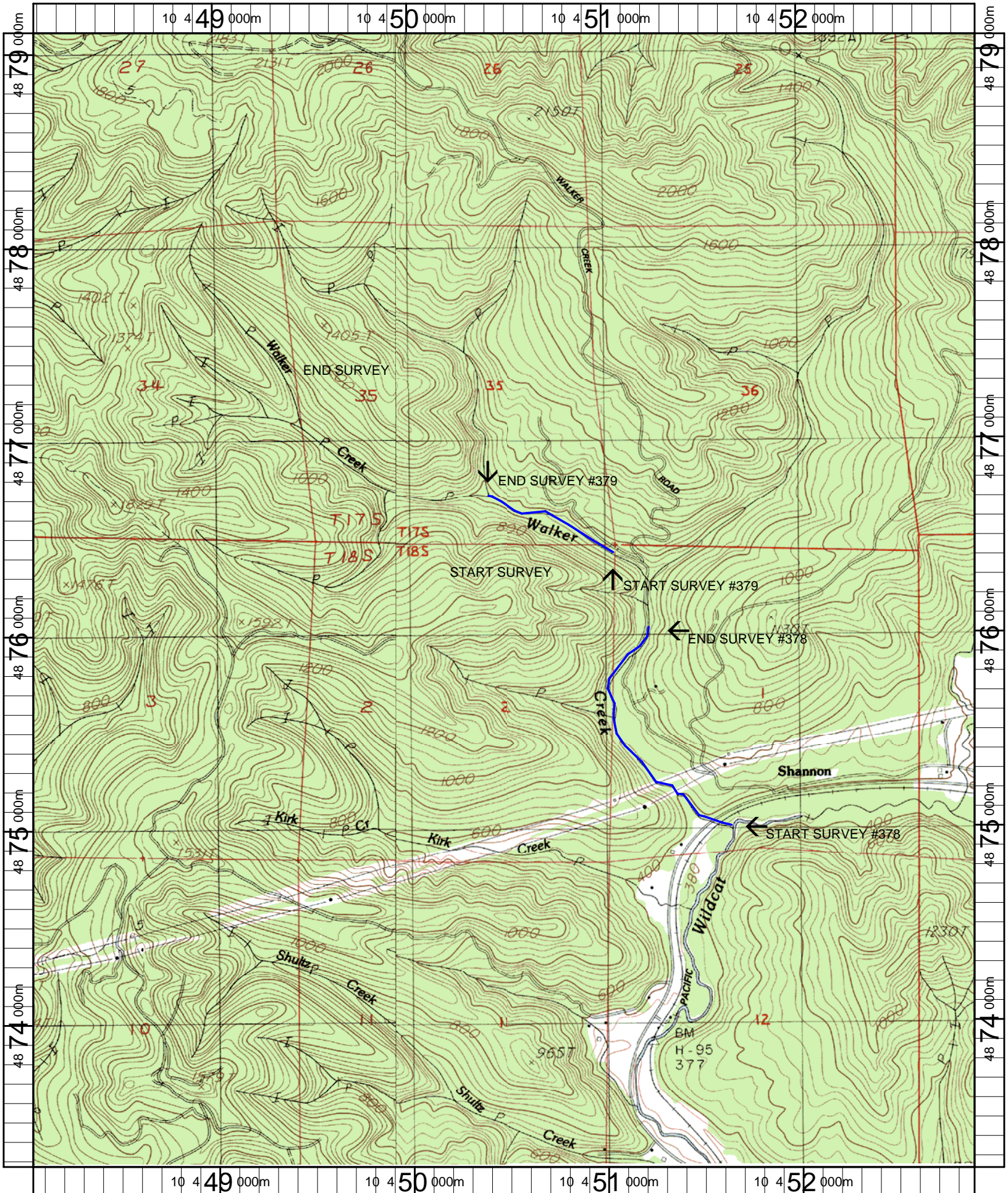
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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
60	LP	00	792.8	HS	AMERICAN DIPPER
61	LP	00	811		STEELHEAD ADULT
63	LP	00	839.1	HS,DJ	
64	RI	00	857.3	HS	
66	RP	01	873.8		MAX DEPTH 0.7M IN POCKET
70	LP	00	886.3	HS	
72	LP	00	905	HS	
73	RI	01	935		WINTER WREN. FORM; CA,CT. VEG;D15,S. USE;ST.
74	BW	10	935	HS	TEMP 7.5C
77	CB	00	984		POCKET POOL 0.5M DEEP
80	RB	01	1063.8	TJ/	
81	SR	11	1063.8		TRIB:8C, ACW=2.5M
83	BW	10	1075.6	HS	
84	RB	00	1125.6	HS	
102	LP	00	1239.3	/TJ	
103	CB	00	1245.3		TRIB:TEMP=10C ACW=2M
105	RB	00	1290.8		POCKET L=3.5M W=2.5M D=0.7M
107	RB	00	1314.2		FORM:CT,MT. VEG:D30,S. USE:ST.
113	CB	11	1381.4		TRIB:ACW=1.2M TEMP=8C
114	PP	00	1392.4	HS	
117	SL	00	1400.8	HS	
119	LP	00	1425.4	HS	

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
122	LP	00	1473.8	HS	
123	RB	00	1487.5	HS	
124	LP	00	1494.8	HS,LA	
125	LP	00	1518.8	DJ,HS,/SS	
126	CC	00	1533.4	CC	DIAM=3.8M
127	RB	00	1583.4	SA	
128	RB	00	1622.7	HS	
131	PP	00	1694.7	/SS	
134	CB	01	1742.1	/TJ	
135	CB	11	1742.1		TRIB:TEMP=8.5C ACW=2.3M
140	LP	01	1869.1	TJ/	
141	SB	00	1873.1		TRIB:ACW=2.7M TEMP=7C
142	RB	00	1885.9	HS	FORM:CT,MT VEG:D15,S. USE:LT,ST.



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

Location: 10 450480 E 4876175 N  
 Caption: WALKER CREEK TREATMENT (#378) AND REFERENCE (#379)  
 REACHES - SIUSLAW BASIN