

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

STREAM: Walker Creek (MC-379)  
BASIN: Siuslaw River  
SURVEY TYPE: Reference  
DATE: February 12, 2008  
SURVEY CREW: Kyle Brachter, Bobby Gomez, Jeremy Romer  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 6.4 km<sup>2</sup>  
USGS MAPS: Walton  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Walker Creek habitat survey extended 760 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 4.5 (range: 1.5-6). Land use for the reach was large growth timber (30-50cm dbh) and second growth timber (15-30cm dbh). The average unit gradient was 3.1 percent. Rapids (37%) and scour pools (31%) dominated stream habitat. Gravel (48%) and sand (18%) dominated stream substrate. Wood volume was 36.1m<sup>3</sup>/100m.

**COMMENTS:**

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

Beaver activity was noted throughout the survey. Adult Coho, rough-skinned newts, and a Coho carcass were observed during the survey.

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

**WALKER CREEK  
GCG: 2-MC SITE ID: 379**

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

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

**T18S-R08W-S02NE**

**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	4.5	VWI Range:	1.5 - 6

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	760	4,509	0
Secondary	242	379	6

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.7	Width: 5.6	7.9 ( 5.8 - 10.8 )	9.1 ( 7 - 10.8 )
Depth: 0.46	Height: 0.4	0.7 ( 0.6 - 0.8 )	1.2 ( 0.85 - 1.8 )

W:D ratio: 16.2

Stream Flow Type: MF

Average Unit Gradient: 3.1%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 9.3

Habitat Units/100m (primary channel length): 12.2

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	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):	127	16.7
Volume (m <sup>3</sup> ):	275	36.1
Key pieces (>=12m x 0.60m):	11	1.4

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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
DRY CHANNEL	1	10	0.8	0.00	8	0	10	30	20	30	10	0
DRY UNIT	2	23	0.8	0.18	23	0	60	40	0	0	0	0
POOL-BACKWATER	1	4	3.0	0.40	12	0	5	29	29	5	33	0
POOL-DAMMED	5	72	5.3	0.88	363	0	0	22	60	13	2	2
POOL-ISOLATED	1	5	1.1	0.20	6	0	40	60	0	0	0	0
POOL-LATERAL SCOUR	26	231	4.8	0.74	1,213	0	20	23	48	5	3	2
POOL-PLUNGE	10	60	6.1	0.83	349	0	0	13	56	8	10	14
PUDDLED UNIT	3	36	0.9	0.18	31	0	38	38	23	0	0	0
RAPID/BEDROCK	1	38	6.0	0.30	228	0	0	0	5	0	10	85
RAPID/BOULDERS	14	313	4.5	0.26	1,622	0	0	8	52	20	14	5
RIFFLE	8	168	4.8	0.26	786	0	4	15	68	10	3	0
RIFFLE W/ POCKETS	1	5	2.5	0.35	13	0	5	25	50	20	0	0
STEP/BEDROCK	3	3	6.2	0.17	19	0	0	5	12	2	22	60
STEP/BOULDERS	1	1	5.0	0.20	5	0	0	0	10	0	90	0
STEP/COBBLE	5	18	4.7	0.13	113	0	0	10	65	21	4	0
STEP/LOG	11	17	5.0	0.12	98	0	9	21	54	7	7	1
<b>Total:</b>	<b>93</b>	<b>1,002</b>	<b>4.7</b>	<b>0.46</b>	<b>4,889</b>	<b>0</b>	<b>Avg: 10</b>	<b>18</b>	<b>48</b>	<b>9</b>	<b>8</b>	<b>6</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	7	81	4.3	0.71	380	7.78%	0	0.0
Scour Pools	36	291	5.2	0.76	1,562	31.95%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	9	173	4.5	0.27	799	16.34%	0	0.0
Rapids	15	351	4.6	0.26	1,850	37.84%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	20	39	5.1	0.13	236	4.82%	0	0.0
Dry	6	69	0.8	0.15	62	1.26%	0	0.0
Culverts	0	0			0	0.00%	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:	43	42.9	56.5
Pools >=1m deep:	11	11.0	14.5
Complex pools (LWD pieces>=3):	8	8.0	10.5
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.51		

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COMMENT SUMMARY

MONITORING AREA: 2-MC      SITE ID: 379      STREAM: WALKER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	12.8	BV	
3	LP	01	25.3	BV	
4	RB	01	42.5	BV	
5	LP	01	47.9	BV	
6	RP	02	47.9	BV	
7	LP	03	47.9	BV	
8	SL	03	47.9	BV	
9	LP	03	47.9	BV	
10	SL	04	47.9	BV	
11	LP	04	47.9	BV	
12	PD	04	47.9	BV	
13	LP	02	47.9	AM,BV	ROUGH-SKINNED NEWT
14	LP	02	47.9	BV	
15	PD	02	47.9	BV	
16	DU	03	47.9	BV	
17	DP	01	68	BV	
18	SL	01	69	BV	
19	LP	01	82.7	BV	
20	LP	01	94.7	BV	
21	LP	01	107.5	BV	COHO ADULT
22	RI	01	123.9	BV	VEG;D30, S, CH FORMCT, VAL FORMCT;LAND USE ST,LT
25	LP	01	132.1	BV	

COMMENT SUMMARY

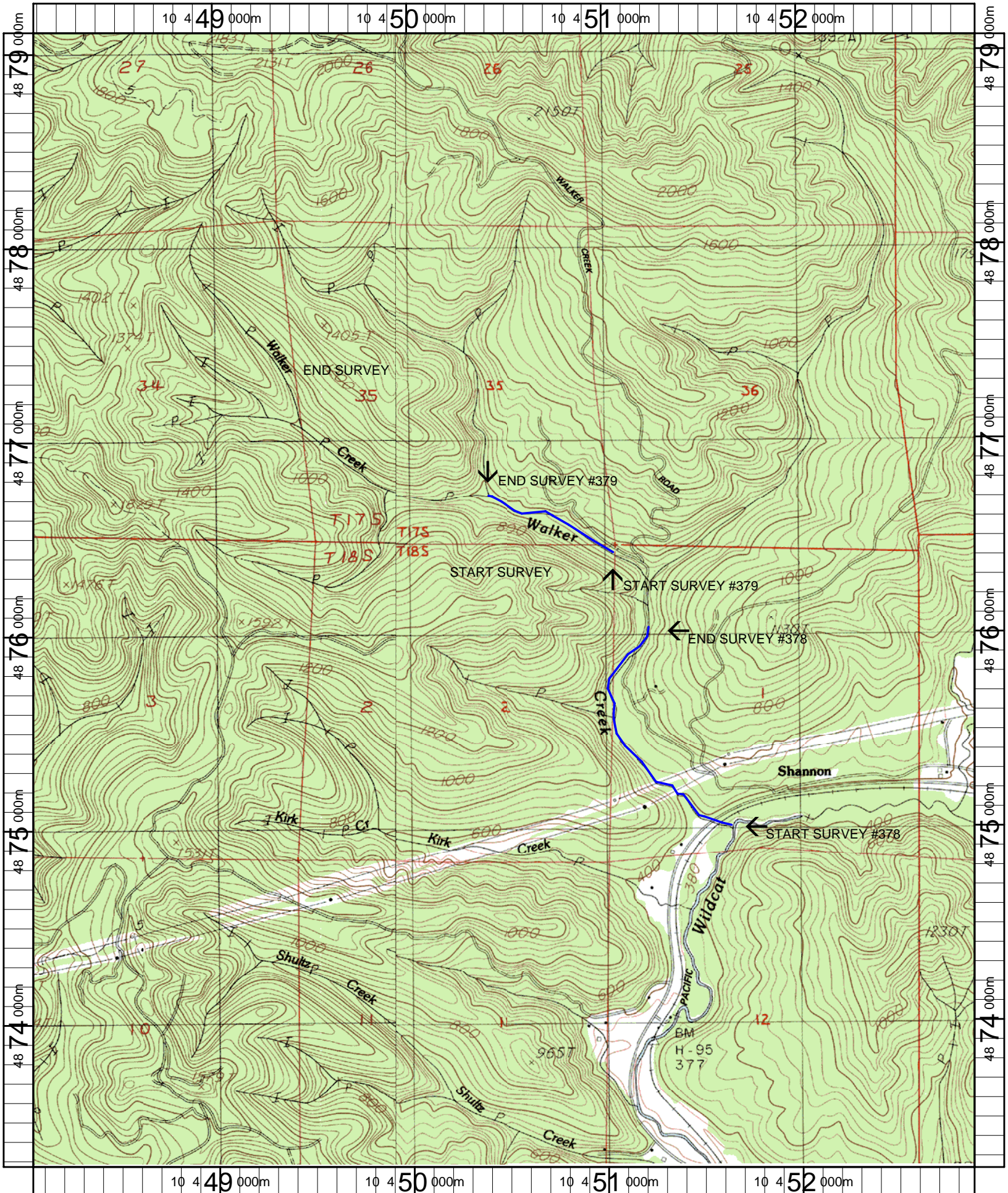
MONITORING AREA: 2-MC      SITE ID: 379      STREAM: WALKER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
26	LP	02	132.1	BV	
27	SC	02	132.1	BV	
28	LP	02	132.1	BV	
29	SC	02	132.1	BV	
30	LP	02	132.1	BV	
32	LP	02	132.1	BV	
33	DU	02	132.1	BV	
34	RI	00	148.5	BV	
35	LP	00	161.3	BV	
36	RI	00	188.5	BV	BLOWN OUT BEAVER DAM
37	LP	00	197.6	BV	
38	SC	00	201.6	BV	
39	PP	00	211.4	BV	
40	IP	10	211.4	/SS	
41	RI	01	254	BV,TJ,DJ	T=7.5C, HATCHERY COHO CARCASS, REACH CHANGE, CT,CT - D3,S - ST,LT
42	RB	11	254	BV	T=9C, ACW=1.2M
50	LP	00	345.5	BV	
53	RI	02	355.9	TJ/	
55	LP	01	377.7	DJ	
57	LP	01	387.6	/TJ	
59	RB	00	403.1	BV	FORM;CT,CT. VEG;M30,S. LAND USE;LT,ST
60	PP	00	407.6	BV	

COMMENT SUMMARY

MONITORING AREA: 2-MC      SITE ID: 379      STREAM: WALKER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
62	DP	00	427.6	BV	
63	RB	00	477.6	BV	ADULT COHO
65	RI	01	508.1	BV	
66	BW	10	508.1	BV	
70	RB	01	576	/TJ	
71	RB	11	576		ACW=1.3M T=8C
76	SL	00	621.9	DJ	
86	SL	00	700.3	DJ	
96	RB	00	760.4		FORM;CH,MV. VEG;D50,S. LAND 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