

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: WALKER CREEK
 GCG: 2-MC
 SITE ID: 379
 BASIN: SIUSLAW RIVER
 TREATMENT DATE: NO TREATMENT:
 SURVEY DATE: 1/15/2009
 SURVEY CREW: Sharon Tippery / Miles Johnson
 USGS MAPS: WALTON
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T18S-R08W-S02NE

SURVEY DESCRIPTION:

Channel morphology: Constrained alternately by high terraces and hillslopes

Dominant landuse(s): Second growth timber (15-30 cm dbh)

Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh

Primary channel length (meters) and area (m²): 775 : 3,562

Secondary channel length (meters) and area (m²) 117 : 297

VWI average: 4.2 VWI Range: 2 - 6 Average Gradient: 2.8%

Pieces LWD per 100m: 21.8 Wood Volume (m³) per 100m: 50.4

Percent pools: 40% Complex pools (LWD pieces>=3): 14 Pools >=1m deep:7

<u>Percent substrate (avg):</u>	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	5	28	35	19	8	6
Pool units	4	43	34	9	5	4
Fast water units	1	8	32	31	15	13

SURVEY COMMENTS:

The Walker Creek survey is a reference site. The crew noted a large beaver complex at the start of the survey that extended upstream approximately 140 meters. They also noted observing live adult coho salmon, carcasses and redds. Evidence of wildlife included bobcat tracks. There were no potential barriers to upstream fish migration observed within the survey reach.

Survey Date: 1/15/2009

Report Date: 2/16/2010

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	4.2	VWI Range:	2 - 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	775	3,562	0
Secondary	117	297	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.5	Width: 7.7	16.4 (6.8 - 37)	11.8 (7.3 - 18.3)
Depth: 0.44	Height: 0.5	1.0 (0.8 - 1.4)	1.1 (0.9 - 1.5)

W:D ratio: 16.1

Stream Flow Type: MF

Average Unit Gradient: 2.8%

Water temperature (°C): 5.0 - 5.0

Entrenchment (ACW:FPW ratio): 2.0

Habitat Units/100m (total channel length): 8.9

Habitat Units/100m (primary channel length): 10.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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):	169	21.8
Volume (m ³):	391	50.4
Key pieces (>=12m x 0.60m):	16	2.1

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 ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	3	84	4.6	0.20	379	0	0	0	5	11	10	74
CASCADE/BOULDERS	5	77	3.7	0.20	303	0	1	8	27	35	26	2
POOL-BACKWATER	3	28	1.9	0.23	49	0	48	43	8	0	0	0
POOL-DAMMED	2	21	5.3	0.70	110	0	3	63	14	7	11	2
POOL-ISOLATED	1	2	1.5	0.25	3	0	70	30	0	0	0	0
POOL-LATERAL SCOUR	25	251	4.9	0.78	1,224	0	4	43	36	8	5	3
POOL-PLUNGE	6	28	5.7	0.78	149	0	3	43	33	16	2	4
POOL-STRAIGHT SCOUR	1	12	5.7	0.45	69	0	0	10	14	5	14	57
RAPID/BEDROCK	1	33	4.2	0.35	137	0	0	0	5	10	24	62
RAPID/BOULDERS	8	168	3.9	0.21	692	0	2	10	27	35	21	5
RIFFLE	8	156	3.8	0.18	583	0	0	12	52	35	1	0
STEP/BOULDERS	1	1	3.0	0.30	2	0	0	0	37	32	32	0
STEP/COBBLE	5	24	5.3	0.19	122	0	0	6	53	35	6	0
STEP/LOG	10	10	4.6	0.12	39	0	2	32	47	17	2	0
Total:	79	892	4.5	0.44	3,859	0	Avg: 5	28	35	19	8	6

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	6	50	2.9	0.39	162	4.19%	0	0.0
Scour Pools	32	291	5.0	0.77	1,442	37.35%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	8	156	3.8	0.18	583	15.10%	0	0.0
Rapids	9	201	3.9	0.23	830	21.49%	0	0.0
Cascades	8	161	4.0	0.20	682	17.67%	0	0.0
Step/Falls	16	34	4.7	0.15	162	4.19%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

WALKER CREEK
GCG: 2-MC SITE ID: 379

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REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	38	42.6	49.0
Pools >=1m deep:	7	7.8	9.0
Complex pools (LWD pieces>=3):	14	15.7	18.1
Pool frequency (channel widths/pool):	3.0		
Residual pool depth (avg):	0.54		

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 1/15/2009

COMMENT SUMMARY

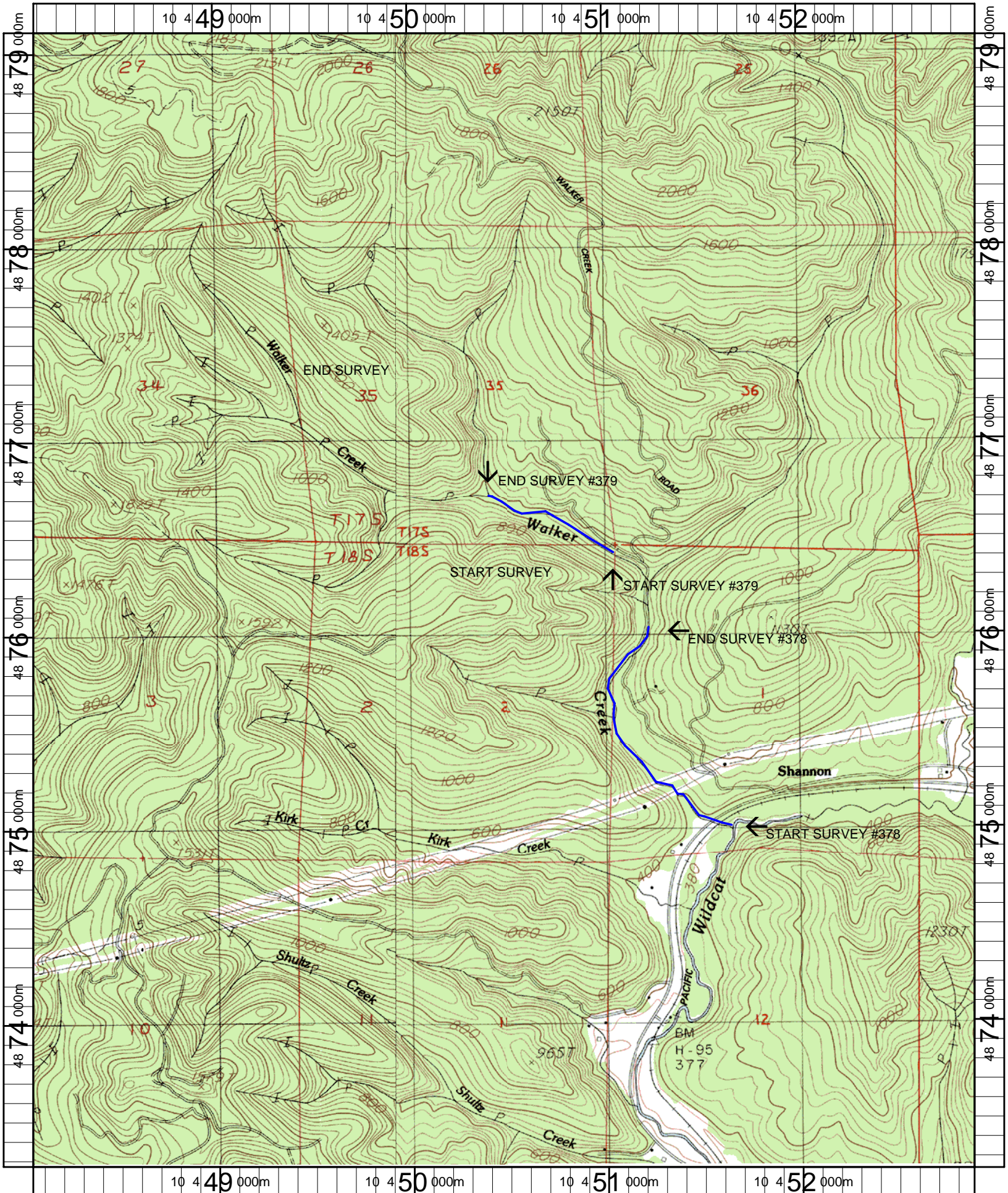
MONITORING AREA: 2-MC SITE ID: 379 STREAM: WALKER CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	SC	00	6.6	BV	H=0.10M, BEAVER COMPLEX
1	2	LP	01	18.7		US/WF-D15/S-ST
1	4	SL	01	25.6		H=0.25M
1	8	LP	01	55.5		2 SMALL POOLS
1	9	RB	02	55.5		GRAVEL/WOOD
1	10	LP	02	55.5	DJ	
1	11	LP	01	67.9		ADULT COHO
1	13	SL	00	69.4		H=0.25M
1	15	LP	01	93.6	WL	BOBCAT TRACKS
1	16	BW	10	93.6	BV	
1	17	SC	00	96.6		H=0.10M
1	21	LP	00	140.8		CARCASS, END OF BEAVER COMPLEX
1	23	IP	10	191.8	BV	
1	25	SC	00	206.6		H=0.15M
1	27	SL	00	216.7		H=0.20M
1	28	RI	01	258.9	/TJ	T=5C, CT/MT-D15/S-ST
1	29	CB	11	258.9		T=7C, ACW=1.2M, HARDPAN
1	30	PP	00	264.9		CARCASS
1	31	SL	00	265.2	DJ,BV	H=0.70M
1	36	SL	00	306.8		H=0.50M
1	46	SL	01	406	DJ	H=0.50M
1	49	RB	00	429.7		CA/CT-D15/S-ST
1	50	PP	00	433.7		REDD
1	51	SL	00	434.7		H=0.40M
1	53	RI	00	457.2	DJ	

COMMENT SUMMARY

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

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	61	CB	02	635.9	DJ,BV	CHEWED STICKS
1	62	SL	00	636.4		H=0.60M
1	64	CB	00	656.3		CH/MV-D30/S-ST/LT
1	71	SL	01	722.7		H=0.60M
1	73	SL	01	726.8		H=0.20M
1	76	SB	02	734.7		H=0.50M



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

Walker Creek (MC-379) 2009 Winter Habitat Survey Photographs



A downstream view of a large wood debris jam.



Downstream view of the Walker Creek reference survey.



Downstream view of stream and substrate.



A downstream view of the riparian area and in stream habitat.



A limited view of the stream at the end of the Walker Creek reference survey.