

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

STREAM: BUMMER CREEK
 GCG: 2-MC
 SITE ID: 9
 BASIN: ALSEA
 TREATMENT DATE: 2002
 SURVEY DATE: 1/6/2009
 SURVEY CREW: Sharon Tippery / Miles Johnson / Charlie Stein
 USGS MAPS: PRAIRIE PEAK
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T14S-R08W-S25SE

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Young forest trees (3-15 cm dbh)
 Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh
 Primary channel length (meters) and area (m²): 454 : 3,073
 Secondary channel length (meters) and area (m²) 178 : 334
 VWI average: 5.8 VWI Range: 4 - 7 Average Gradient: 2.9%
 Pieces LWD per 100m: 20.7 Wood Volume (m³) per 100m: 15.0
 Percent pools: 23% Complex pools (LWD pieces>=3): 5 Pools >=1m deep:3
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	10	11	29	35	12	2
Pool units	9	19	30	30	7	5
Fast water units	0	5	33	44	18	0

SURVEY COMMENTS:

The Bummer Creek habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout the first half of the survey. Adult coho salmon were observed spawning throughout the survey. Other wildlife included an American Dipper. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2004. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes increased except wood volume and pieces of LWD, which showed a slight decrease.

Survey Date: 1/6/2009

Report Date: 2/16/2010

T14S-R08W-S25SE

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.8	VWI Range:	4 - 7

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m²)</u>	<u>Dry Units</u>
Primary	454	3,073	0
Secondary	178	334	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 5.2	Width: 9.4	15.6 (11 - 19.5)	16.9 (11.7 - 20.5)
Depth: 0.53	Height: 0.5	1.1 (1 - 1.1)	1.4 (1.1 - 1.55)

W:D ratio: 17.7

Stream Flow Type: HF

Average Unit Gradient: 2.9%

Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.7

Habitat Units/100m (total channel length): 5.4

Habitat Units/100m (primary channel length): 7.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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):	94	20.7
Volume (m ³):	68	15.0
Key pieces (>=12m x 0.60m):	1	0.2

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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/BOULDERS	2	25	6.8	0.48	166	0	0	2	19	50	29	0
POOL-BACKWATER	1	6	2.5	0.60	14	0	13	40	7	27	13	0
POOL-LATERAL SCOUR	10	132	5.1	0.91	693	0	10	19	30	29	7	6
POOL-STRAIGHT SCOUR	1	13	6.0	1.00	75	0	0	17	33	39	11	0
PUDDLED UNIT	3	68	0.9	0.17	54	0	80	19	0	2	0	0
RAPID/BOULDERS	13	318	6.3	0.38	2,110	0	0	4	31	47	19	0
RIFFLE	2	58	3.8	0.25	204	0	0	10	62	23	5	0
STEP/COBBLE	2	14	5.3	0.20	90	0	0	3	49	36	9	3
Total:	34	632	5.2	0.53	3,406	0	Avg: 10	11	29	35	12	2

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	1	6	2.5	0.60	14	0.40%	0	0.0
Scour Pools	11	144	5.2	0.91	768	22.55%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	2	58	3.8	0.25	204	6.00%	0	0.0
Rapids	13	318	6.3	0.38	2,110	61.95%	0	0.0
Cascades	2	25	6.8	0.48	166	4.86%	0	0.0
Step/Falls	2	14	5.3	0.20	90	2.64%	0	0.0
Dry	3	68	0.9	0.17	54	1.60%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

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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:	12	19.0	26.4
Pools >=1m deep:	3	4.7	6.6
Complex pools (LWD pieces>=3):	5	7.9	11.0
Pool frequency (channel widths/pool):	5.6		
Residual pool depth (avg):	0.48		

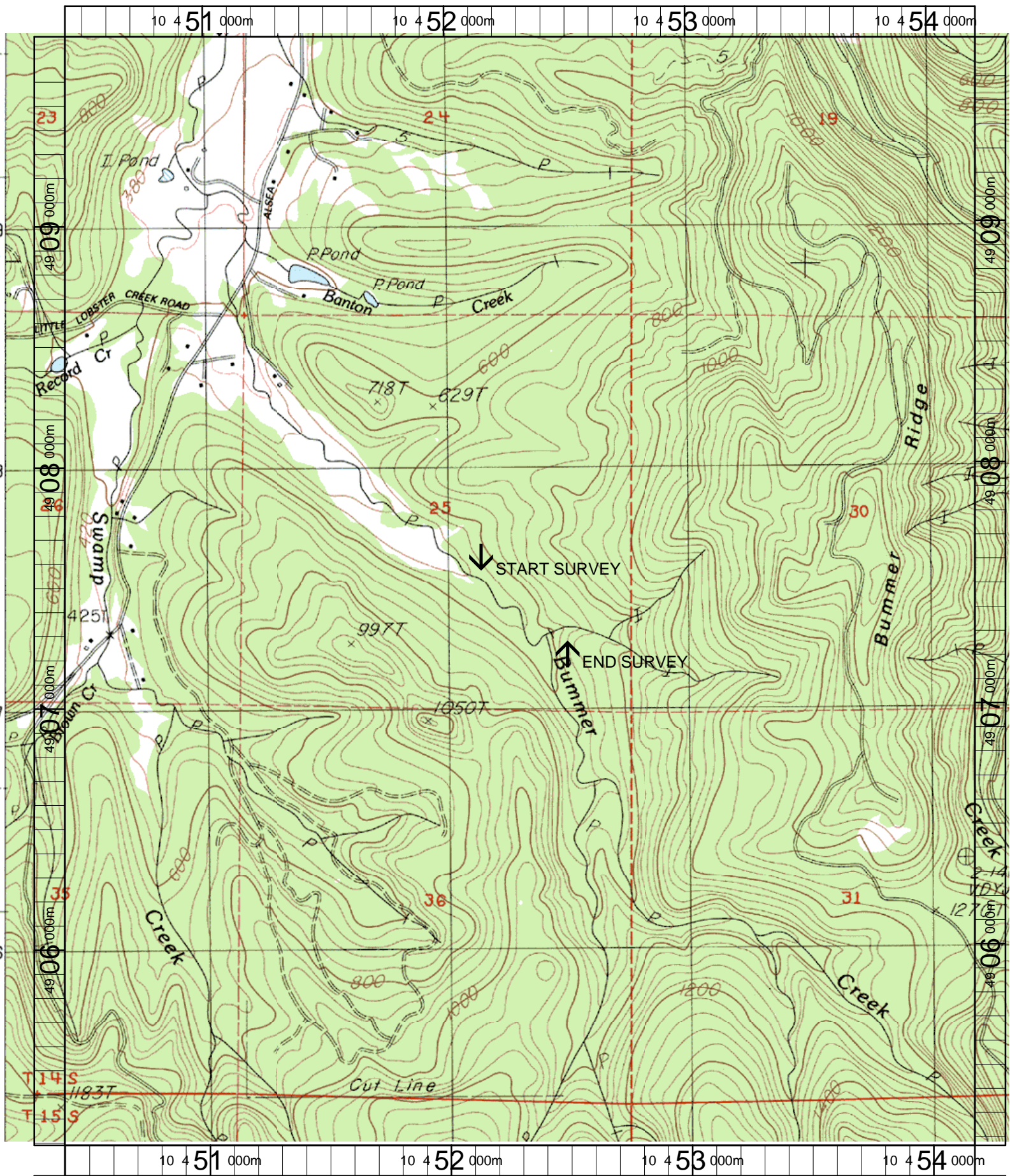
OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 1/6/2009

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 9 STREAM: BUMMER CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	LP	00	19	/SS,HS	START AT STEEL BRIDGE
1	5	RB	02	62.2	/SS	
1	6	SC	03	62.2		CT/MT-D15/S-YT/ST
1	7	LP	00	82	SS/	COHO REDD WITH LIVE SPAWNER
1	9	RB	00	132	WL	AMERICAN DIPPER
1	21	RB	00	233.5		CA/CT-D15/S-YT/ST
1	22	LP	00	246	HS	(3) COHO ADULT SPAWNERS
1	25	SP	00	267.3		(2) COHO ADULT SPAWNERS
1	27	LP	00	317.3		FALSE END SIGN D15 ALDER LEFT
1	28	RB	01	347.8	TJ/	UNNAMED TRIB, (2) COHO SPAWNERS
1	29	RB	11	347.8		ACW=1.7M, (2) COHO SPAWNERS
1	31	RB	00	417.8		CT/MT-D15/S-YT/ST
1	33	CB	00	446.1	/SS	CA/MT-D15/S-YT/ST
1	34	LP	00	453.7		(2) END SIGNS ON D15 ALDER LEFT



Name: PRAIRIE PEAK
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 452295 E 4907480 N
 Caption: BUMMER CREEK RESTORATION SITE - ALSEA BASIN

Bummer Creek (MC-9) 2009 Winter Habitat Survey Photographs



A downstream view of a debris jam.



Looking upstream with secondary channel.



Looking downstream with view of pre-existing large wood.