

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

STREAM: CRAB CREEK
 GCG: 2-MC
 SITE ID: 20
 BASIN: ALSEA
 TREATMENT DATE: 2002
 SURVEY DATE: 7/23/2008
 SURVEY CREW: Sarah Yue / Jon Nott
 USGS MAPS: FIVE RIVERS
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Large timber (30-50 cm dbh)
 Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 605 : 2,687
 Secondary channel length (meters) and area (m²) 47 : 83
 VWI average: 8.6 VWI Range: 5 - 18 Average Gradient: 0.3%
 Pieces LWD per 100m: 21.5 Wood Volume (m³) per 100m: 14.9
 Percent pools: 82% Complex pools (LWD pieces>=3): 13 Pools >=1m deep: 0
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	13	36	41	6	1	2
Pool units	13	44	27	7	1	7
Fast water units	6	14	72	8	0	0

COMMENTS:

This is a post-treatment, long term monitoring site. The crew noted observing various species of juvenile salmonids and dace throughout the survey. They also noted beaver activity near the beginning of the survey. Several habitat structures and debris jams were noted throughout the surveyed length. Evidence of amphibians included several rough-skinned newts.

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

**CRAB CREEK
GCG: 2-MC SITE ID: 20**

Survey Date: 7/23/2008

Report Date: 12/29/2008

T15S-R10W-S12SE

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	8.6	VWI Range:	5 - 18

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	605	2,687	0
Secondary	47	83	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.1	Width: 9.5	15.9 (11.8 - 19)	18.4 (13 - 22.5)
Depth: 0.32	Height: 0.7	1.3 (1.3 - 1.4)	1.7 (1.5 - 1.8)

W:D ratio: 14.4

Stream Flow Type: LF

Average Unit Gradient: 0.3%

Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.7

Habitat Units/100m (total channel length): 6.1

Habitat Units/100m (primary channel length): 6.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	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:	9%	Reach avg: 70%
Undercut Banks:	4%	Range: 44 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	130	21.5
Volume (m ³):	90	14.9
Key pieces (>=12m x 0.60m):	3	0.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

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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/BOULDERS	1	6	0.2	0.01	1	0	70	0	30	0	0	0
POOL-BACKWATER	8	33	2.3	0.29	72	0	25	57	15	2	1	0
POOL-ISOLATED	3	7	1.4	0.12	10	0	13	60	27	0	0	0
POOL-LATERAL SCOUR	14	456	4.6	0.61	2,275	3	13	44	27	7	1	7
RIFFLE	14	149	2.7	0.12	412	0	2	15	75	9	0	0
Total:	40	652	3.1	0.32	2,770	3	Avg: 13	36	41	6	1	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	11	41	2.0	0.24	82	2.95%	0	0.0
Scour Pools	14	456	4.6	0.61	2,275	82.13%	3	0.1
Glides	0	0			0	0.00%	0	0.0
Riffles	14	149	2.7	0.12	412	14.88%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	6	0.2	0.01	1	0.04%	0	0.0
Step/Falls	0	0			0	0.00%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	25	38.3	41.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	13	19.9	21.5
Pool frequency (channel widths/pool):	2.7		
Residual pool depth (avg):	0.50		

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**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	549
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.7
15-30cm	0.0	1.0	0.0	1.3	0.0	1.3	0.0	3.7
30-50cm	0.0	2.0	0.0	0.7	0.3	0.3	0.3	3.0
50-90cm	0.0	1.3	0.0	0.3	0.0	0.0	0.0	1.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	4.7	0.0	2.7	0.3	1.7	0.1	3.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	71		42		48	
Shrub cover	57		52		62	
Grass/forb cover	43		48		38	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		67		67	
High terrace	83		33		33	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	6		20		18	

Summary of Riparian Zone (0-30m) for all reaches**3 transects****Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream**

Total hardwoods/1000	549
Total conifers/1000 ft	20
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	0.7
15-30cm	0.0	3.7
30-50cm	0.3	3.0
50-90cm	0.0	1.7
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

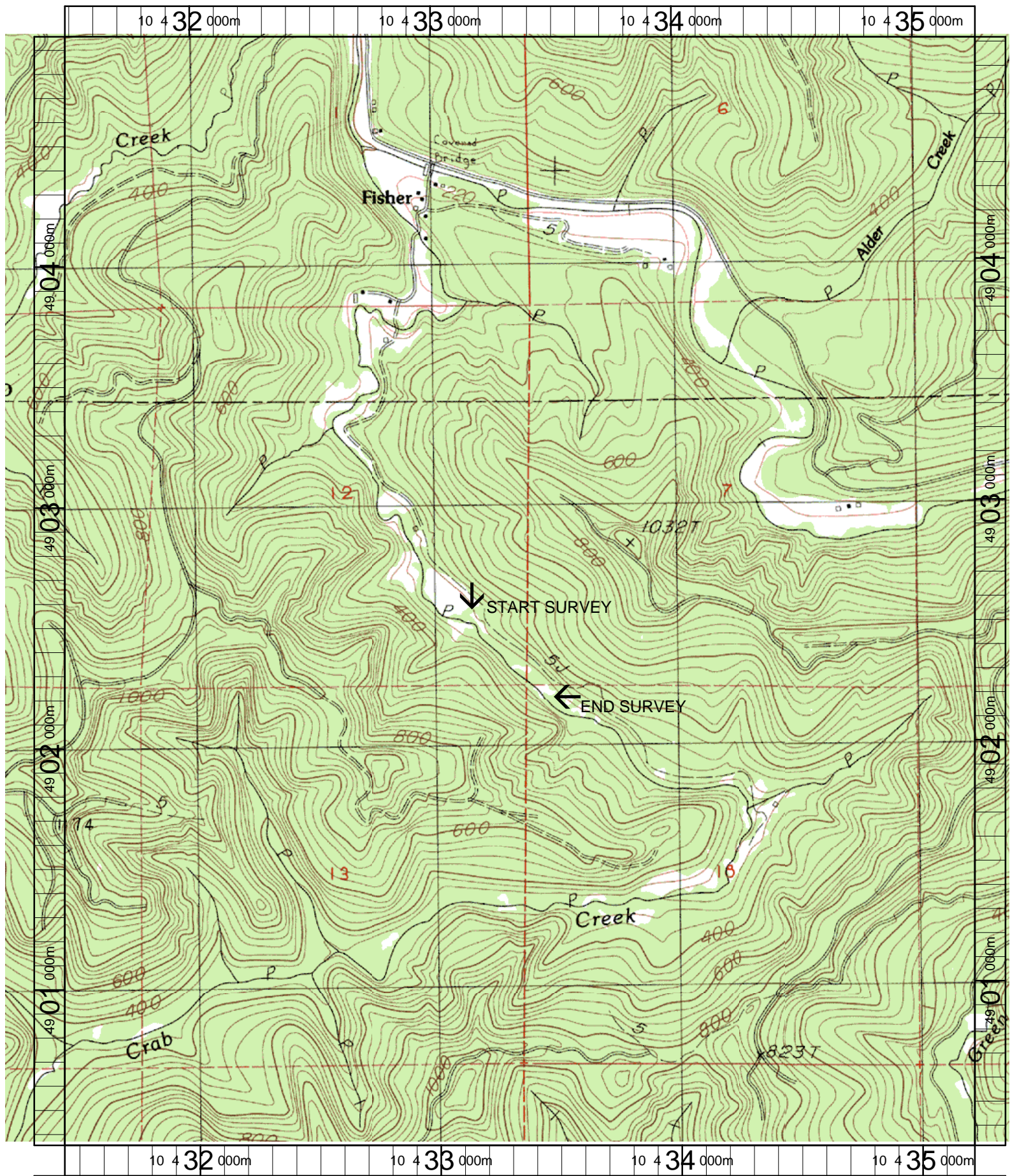
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
8	LT	1	HT	0	70	80	20	Conifer							GRASS ROAD ACROSS ZONE 1
								Hardwood							
8	LT	2	HS	25	30	80	20	Conifer							
								Hardwood		1	2				
8	LT	3	HS	15	40	100	0	Conifer			1				
								Hardwood			0				
8	RT	1	HT	0	85	90	10	Conifer							
								Hardwood		1	3	1			
8	RT	2	HS	35	80	60	40	Conifer							
								Hardwood	1	3					
8	RT	3	HS	40	60	90	10	Conifer							
								Hardwood		1					
18	LT	1	HT	0	70	10	90	Conifer							
								Hardwood				1			
18	LT	2	HT	0	10	0	100	Conifer							GRASS ROAD ACROSS ZONE 2
								Hardwood							
18	LT	3	HT	0	50	0	100	Conifer							
								Hardwood							
18	RT	1	HT	0	50	40	60	Conifer							
								Hardwood			2				
18	RT	2	HS	15	60	90	10	Conifer							
								Hardwood							
18	RT	3	HS	15	80	90	10	Conifer							
								Hardwood		2					
27	LT	1	HT	0	60	40	60	Conifer							
								Hardwood		2	1				
27	LT	2	HT	0	0	0	100	Conifer							
								Hardwood							
27	LT	3	HT	0	0	0	100	Conifer							
								Hardwood							
27	RT	1	HS	35	90	80	20	Conifer							
								Hardwood	1			2			
27	RT	2	HS	45	70	80	20	Conifer							
								Hardwood				1			
27	RT	3	HS	40	60	90	10	Conifer							
								Hardwood		1	1				

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 20 STREAM: CRAB CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	29.3	DJ	SURVEY STARTS 30M BELOW SIGN AT /TJ
2	RI	00	36.6		CT/CT, D30/S, LT/
3	LP	00	65.1	HS	
5	LP	01	120.9	TJ/, BV	SALMONID FRY, DACE PRESENT
6	CB	11	120.9		ACW=0.80M
8	RI	01	145.9		CT/CT, D30/S, LT/, GRASS ROAD ON LEFT TERRACE 6M FROM STREAM
13	LP	01	172.4		DACE PRESENT, CHINOOK AND STEELHEAD FRY?
14	BW	10	172.4	AM	ROUGH-SKINNED NEWT
18	RI	01	260.9		CT/CT, D50/S, LT/, NARROW VALLEY ON RIGHT, GRASS ROAD ON LEFT TERRACE
26	LP	00	400.4	HS, DJ	
27	RI	00	408.6		CT/CT, D50/S, LT/
38	LP	00	566.2	DJ	
40	LP	01	605.4	DJ	CT/CT, D30/G, LT/, SURVEY ENDS 10M ABOVE SIGN, METRICS @ END OF POOL
41	IP	10	605.4	AM	(3) ROUGH-SKINNED NEWTS



Name: FIVE RIVERS
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 433345 E 4902640 N
 Caption: CRAB CREEK RESTORATION SITE - ALSEA BASIN

MC-20 Crab Creek (Post-Treatment) 2008 Summer Habitat Survey Photographs



Downstream at start of survey



Upstream at start of survey