

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

STREAM: CRUISER CREEK TRIBUTARY
 GCG: 1-NC
 SITE ID: 389
 BASIN: TRASK
 TREATMENT DATE: 2008
 SURVEY DATE: 7/29/2008
 SURVEY CREW: Sarah Yue / LaNoah Babcock
 USGS MAPS: GOBBLERS KNOB
 ECOREGION: Volcanics
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by hillslopes
 Dominant landuse(s): Second growth timber (15-30 cm dbh)
 Dominant riparian vegetation: Deciduous trees: size class 3-15cm dbh
 Primary channel length (meters) and area (m²): 964 : 2,453
 Secondary channel length (meters) and area (m²) 69 : 108
 VWI average: 4.4 VWI Range: 1 - 10 Average Gradient: 2.2%
 Pieces LWD per 100m: 23.6 Wood Volume (m³) per 100m: 27.1
 Percent pools: 38% Complex pools (LWD pieces>=3): 16 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	6	21	35	28	3	7
Pool units	6	34	32	18	2	8
Fast water units	0	9	39	41	5	6

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted observing juvenile coho during the survey. They also noted beaver activity near the beginning and several debris jams near the middle and end of the survey. Evidence of wildlife during the survey included numerous elk trails and tracks and a pacific giant salamander.

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

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Report Date: 12/29/2008

T02S-R06W-S06SW

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	0%
Open V-shape	100%	Wide Floodplain	0%
Valley Width Index	4.4	VWI Range:	1 - 10

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	964	2,453	0
Secondary	69	108	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 2.3	Width: 7.2	13.5 (8.4 - 24)	13.5 (11.5 - 15.5)
Depth: 0.25	Height: 0.5	1.0 (0.9 - 1.1)	1.5 (1.5 - 1.5)

W:D ratio: 14.5

Stream Flow Type: LF

Average Unit Gradient: 2.2%

Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.8

Habitat Units/100m (total channel length): 11.9

Habitat Units/100m (primary channel length): 12.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D3	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	24%	Reach avg: 92%
Undercut Banks:	2%	Range: 36 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	228	23.6
Volume (m ³):	261	27.1
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

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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
CULVERT CROSSING	1	25	2.9	0.10	73	0	0	15	45	40	0	0
DRY CHANNEL	1	5	1.2	0.00	6	0	80	20	0	0	0	0
POOL-BACKWATER	3	7	1.6	0.32	12	0	17	33	10	13	27	0
POOL-ISOLATED	5	12	1.4	0.18	18	0	57	23	18	2	0	0
POOL-LATERAL SCOUR	37	320	2.4	0.43	794	12	6	33	32	20	2	7
POOL-PLUNGE	12	50	3.8	0.56	188	2	6	38	33	12	1	9
RAPID/BEDROCK	3	43	2.3	0.12	113	5	0	5	15	33	5	42
RAPID/BOULDERS	12	154	2.5	0.10	394	29	0	7	27	54	10	1
RIFFLE	29	361	2.1	0.09	824	13	0	9	48	37	2	3
RIFFLE W/ POCKETS	2	35	2.7	0.13	100	5	0	25	14	36	5	20
STEP/BEDROCK	2	6	0.7	0.06	3	0	0	3	5	26	0	66
STEP/COBBLE	5	8	2.2	0.09	19	0	0	3	23	72	0	2
STEP/LOG	11	8	2.0	0.05	20	0	1	22	64	11	0	3
Total:	123	1,033	2.3	0.25	2,562	66	Avg: 6	21	35	28	3	7

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	8	19	1.5	0.23	29	1.15%	0	0.0
Scour Pools	49	370	2.7	0.46	982	38.32%	14	1.4
Glides	0	0			0	0.00%	0	0.0
Riffles	31	396	2.1	0.10	924	36.06%	18	1.9
Rapids	15	197	2.5	0.11	507	19.78%	34	6.7
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	18	22	1.9	0.06	42	1.63%	0	0.0
Dry	1	5	1.2	0.00	6	0.23%	0	0.0
Culverts	1	25	2.9	0.10	73	2.83%	0	0.0

POOL SUMMARY

	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	57	55.2	59.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	16	15.5	16.6
Pool frequency (channel widths/pool):	2.5		
Residual pool depth (avg):	0.38		

OREGON DEPARTMENT OF FISH AND WILDLIFE
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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	467
Total conifers/1000 ft	975
Total conifers >20" dbh/1000 ft	61
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	1.0	0.3	2.0	1.0	0.7	2.0	3.7	3.3
15-30cm	2.0	1.0	3.7	0.0	0.7	0.0	6.3	1.0
30-50cm	1.0	2.3	3.3	0.3	0.7	0.3	5.0	3.0
50-90cm	0.0	0.3	0.7	0.0	0.3	0.0	1.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	4.0	4.0	9.7	1.3	2.3	2.3	5.3	2.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	94	87	48
Shrub cover	6	5	9
Grass/forb cover	93	90	87

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	67	83
High terrace	50	33	17
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 (%)	18	12	19

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	467
Total conifers/1000 ft	975
Total conifers >20" dbh/1000 ft	61
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	3.7	3.3
15-30cm	6.3	1.0
30-50cm	5.0	3.0
50-90cm	1.0	0.3
>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	
31	LT	1	HT	25	90	5	85	Conifer	1	5	1			10% DIRT, TRANSITION SLOPE
								Hardwood						30% DIRT
31	LT	2	HT	0	95	5	65	Conifer	2	3	4			
								Hardwood	1					
31	LT	3	HT	0	95	10	90	Conifer	1	1				
								Hardwood	6		1			
31	RT	1	HT	0	95	10	90	Conifer	1					
								Hardwood	1					
31	RT	2	HS	25	90	5	95	Conifer		1				
								Hardwood	2		1			
31	RT	3	HS	30	45	10	65	Conifer			1	1		35% DIRT
								Hardwood						
61	LT	1	HT	0	95	10	90	Conifer						
								Hardwood			4	1		
61	LT	2	HT	0	75	10	90	Conifer			2			
								Hardwood						
61	LT	3	HS	25	45	10	90	Conifer						
								Hardwood						
61	RT	1	HS	20	95	0	100	Conifer	1	1	1			
								Hardwood		3				
61	RT	2	HS	22	95	5	95	Conifer	3	6	3			
								Hardwood						
61	RT	3	HS	24	10	5	95	Conifer			1			OLD DECOMMISSIO NED ROAD
								Hardwood						
93	LT	1	HS	40	95	5	95	Conifer			1			
								Hardwood			2			
93	LT	2	HS	15	85	5	95	Conifer						
								Hardwood						
93	LT	3	HS	22	80	5	95	Conifer	1	1				
								Hardwood						
93	RT	1	HS	25	95	5	95	Conifer						
								Hardwood			1			
93	RT	2	HS	10	80	0	100	Conifer	1	1	1	2		
								Hardwood						
93	RT	3	HS	10	10	15	85	Conifer						DECOMMISSIO NED ROAD ACROSS
								Hardwood						

COMMENT SUMMARY

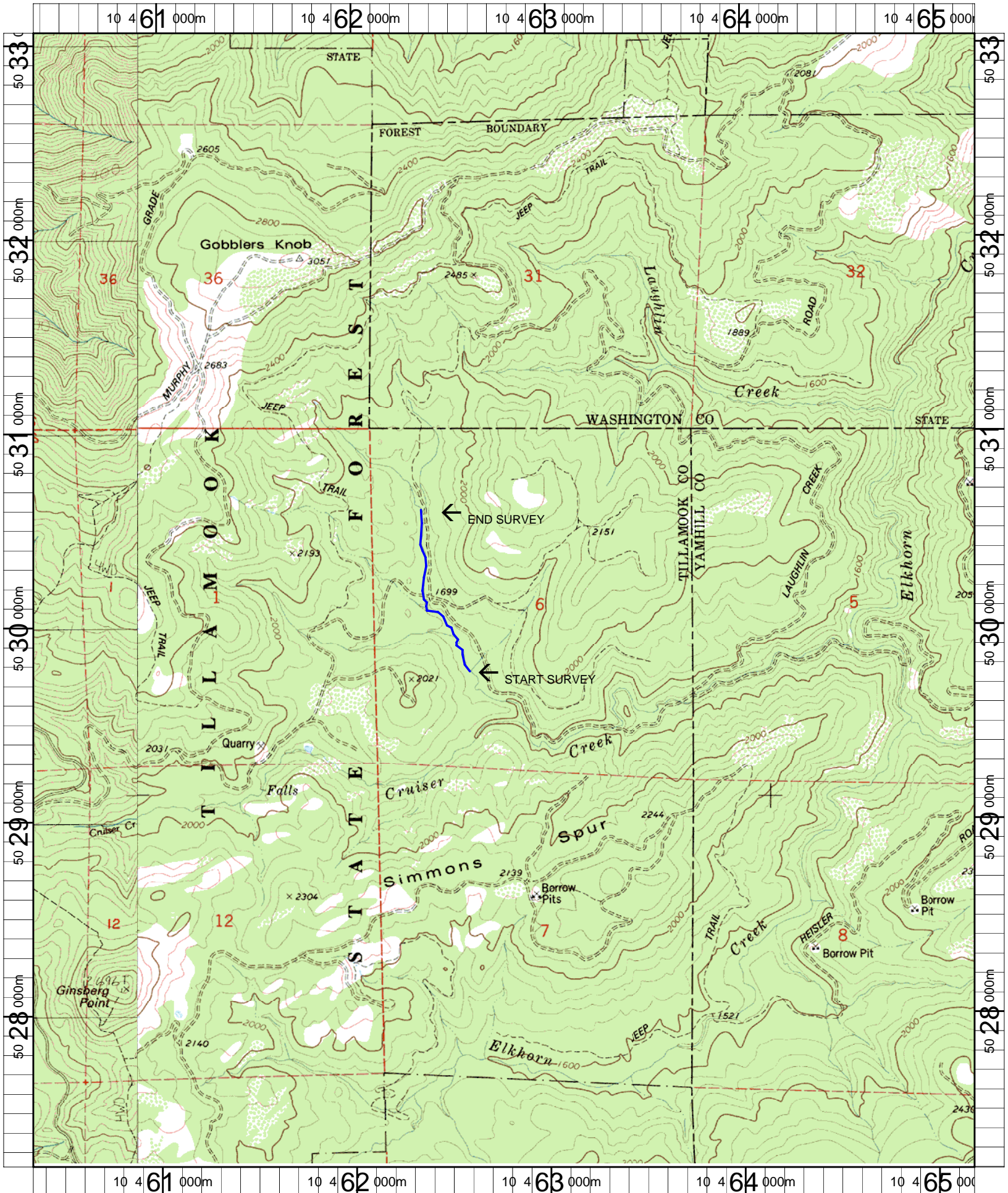
MONITORING AREA: 1-NC SITE ID: 389 STREAM: CRUISER CREEK TRIBUTARY

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
4	IP	10	31.3		CH/OV, D3/C30, ST, METRIC AT THE BEGINNING OF UNIT 5
8	LP	00	77.7	BV	
15	SR	01	134.6	M	H=0.50
19	RI	01	173.4	/TJ	
20	SR	11	173.4		ACW=1.2M, T=10C
23	LP	01	208.5	TJ/	
24	RB	11	208.5		ACW=3.3M, T=9C
26	SL	11	208.5		H=0.45M
28	LP	00	216.3	DJ	
31	RI	00	264.6		CA/CT, C15/D15, ST/YT
32	LP	00	275.7	AM	LARGE PACIFIC GIANT SALAMANDER
33	SC	00	276.7		H=0.20M
47	RI	01	448	TJ/	
48	RB	11	448		ACW=4.0M, T=11C
50	SL	11	448		H=0.60M
52	SC	00	449.5		H=0.35M
56	LP	00	470.3		COHO FRY
57	RB	00	478.8	CC	NO WATER DROP
58	CC	00	503.8	CC	SUNK IN CORRUGATED METAL PIPE, HEIGHT 1.8M
61	RB	00	563.6		CA/CT, C30/D30, ST
63	RI	00	577.3	DJ	
64	SL	00	577.9		H=0.45M

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 389 STREAM: CRUISER CREEK TRIBUTARY

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
66	LP	00	591.4	DJ	
73	SL	00	645.1		H=0.20M
75	SL	00	647.70000		H=0.20M
78	LP	00	672.20000	WL	ELK TRACKS
86	SL	00	723.70000		H=0.45M
93	RI	00	804.6		CH/OV, C15/D30, ST/YT
94	PP	00	809.6	SS/	
97	RB	00	840.6	DJ	
100	PP	00	865.4	DJ	
101	SL	00	866.1		H=0.60M
104	SL	00	874.1		H=0.30M
105	RI	01	881.7	WL	ELK TRACK
108	SL	00	886.6		H=0.20M
113	RI	01	919.2	DJ	
120	SL	00	940.31		H=0.15M
123	LP	00	964.11	WL	ELK TRACK, CH/OV, C30/D30, ST/YT



Name: GOBBLERS KNOB
 Date: 12/18/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0462772 E 5030132 N NAD 27
 Caption: CRUISER CREEK TRIBUTARY RESTORATION SURVEY -
 TRASK BASIN

NC-389 Cruiser Creek Tributary (Pre-Treatment) 2008 Summer Habitat Survey Photographs



Downstream at start of survey



Upstream at start of survey