

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

STREAM: CRUISER CREEK REACH 2
 GCG: 1-NC
 SITE ID: 388
 BASIN: TRASK
 TREATMENT DATE: 2008
 SURVEY DATE: 7/9/2008
 SURVEY CREW: Gwyn Woolley-Scott / Linda Campbell
 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 30-50cm dbh
 Primary channel length (meters) and area (m²): 870 : 3,746
 Secondary channel length (meters) and area (m²) 23 : 31
 VWI average: 2.0 VWI Range: 2 - 2 Average Gradient: 3.3%
 Pieces LWD per 100m: 24.8 Wood Volume (m³) per 100m: 34.6
 Percent pools: 9% Complex pools (LWD pieces>=3): 6 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	10	13	19	14	13	31
Pool units	17	19	24	9	10	21
Fast water units	7	11	20	20	14	29

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted a previous existing habitat structure near the middle of the survey. They also noted the presence of amphibians and other wildlife during the survey.

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

**CRUISER CREEK REACH 2
GCG: 1-NC SITE ID: 388**

Survey Date: 7/9/2008

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	100%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.0	VWI Range:	2 - 2

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	870	3,746	0
Secondary	23	31	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 4.0	Width: 8.0	11.2 (8.1 - 14.5)	13.0 (13 - 13)
Depth: 0.24	Height: 0.7	1.4 (1 - 1.6)	1.2 (1.2 - 1.2)

W:D ratio: 12.4

Stream Flow Type: MF

Average Unit Gradient: 3.3%

Water temperature (°C): 11.0 - 11.0

Entrenchment (ACW:FPW ratio): 1.4

Habitat Units/100m (total channel length): 5.5

Habitat Units/100m (primary channel length): 5.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	9%	Reach avg: 99%
Undercut Banks:	1%	Range: 89 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	216	24.8
Volume (m ³):	301	34.6
Key pieces (>=12m x 0.60m):	1	0.1

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	2	10	0.5	0.01	5	0	30	8	13	15	0	35
POOL-LATERAL SCOUR	9	48	3.8	0.43	178	26	18	24	27	11	8	12
POOL-PLUNGE	5	35	4.0	0.47	135	17	14	11	19	6	10	40
POOL-STRAIGHT SCOUR	1	4	3.0	0.35	12	10	30	20	20	5	20	5
RAPID/BEDROCK	10	268	4.4	0.17	1,190	132	5	6	12	8	10	59
RAPID/BOULDERS	7	204	4.3	0.18	910	155	5	12	20	20	26	18
RIFFLE	9	308	4.3	0.18	1,273	174	6	16	31	33	12	2
STEP/BEDROCK	4	16	4.0	0.14	71	2	5	1	0	0	1	93
STEP/BOULDERS	1	1	2.0	0.01	1	3	0	0	0	0	90	10
STEP/LOG	1	1	6.0	0.01	4	1	10	29	29	5	0	29
Total:	49	893	4.0	0.24	3,777	520	Avg: 10	13	19	14	13	31

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	0	0			0	0.00%	0	0.0
Scour Pools	15	87	3.8	0.44	324	8.59%	53	16.3
Glides	0	0			0	0.00%	0	0.0
Riffles	9	308	4.3	0.18	1,273	33.69%	174	13.7
Rapids	17	472	4.4	0.17	2,100	55.59%	287	13.7
Cascades	2	10	0.5	0.01	5	0.13%	0	0.0
Step/Falls	6	17	4.0	0.10	76	2.01%	6	7.9
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:	15	16.8	17.2
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	6.7	6.9
Pool frequency (channel widths/pool):	7.4		
Residual pool depth (avg):	0.38		

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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	589
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
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	1.3	0.0	1.3	0.0	3.0	0.0	5.7
15-30cm	0.3	0.0	0.7	0.7	0.0	0.0	1.0	0.7
30-50cm	0.7	1.7	0.0	1.0	1.0	0.3	1.7	3.0
50-90cm	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.3	3.3	0.7	3.0	1.0	3.3	1.0	3.2

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	77	70	73
Shrub cover	19	23	26
Grass/forb cover	81	74	74

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	83	100	100
High terrace	17	0	0
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 (%)	37	57	63

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	589
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
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	5.7
15-30cm	1.0	0.7
30-50cm	1.7	3.0
50-90cm	0.3	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

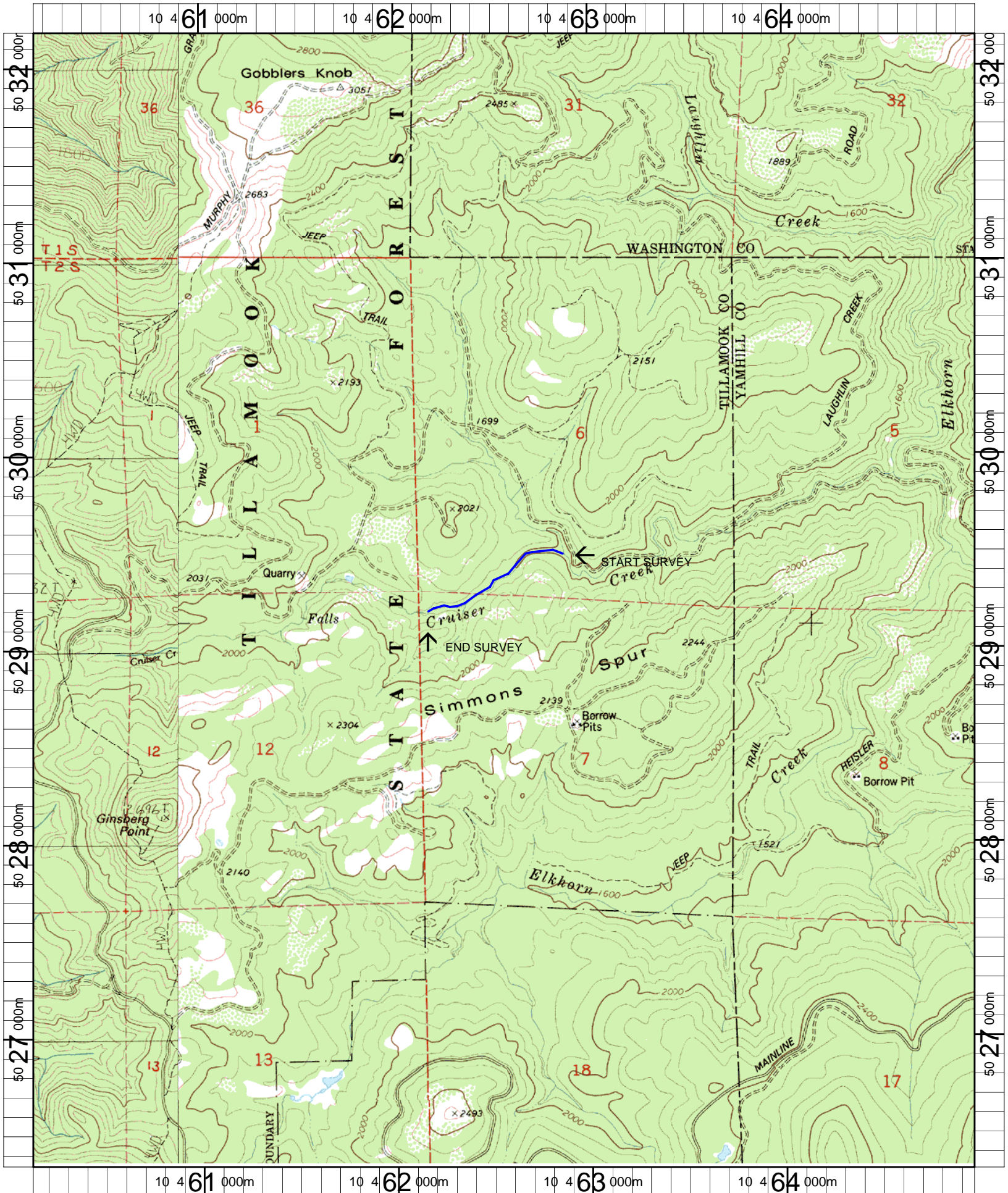
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes		
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90			
17	LF	1	HS	50	75	20	80	Conifer							
								Hardwood			1				
17	LF	2	HS	75	85	10	90	Conifer							
								Hardwood	4						
17	LF	3	HS	75	85	10	90	Conifer							
								Hardwood	8						
17	RT	1	HS	50	75	10	90	Conifer					1		
								Hardwood	1						
17	RT	2	HS	80	85	10	90	Conifer		2					
								Hardwood							
17	RT	3	HS	80	85	10	90	Conifer							
								Hardwood	1						
25	LF	1	HT	5	90	10	90	Conifer							
								Hardwood	3						
25	LF	2	HS	26	70	10	70	Conifer							
								Hardwood							
25	LF	3	HS	55	75	30	70	Conifer							
								Hardwood							
25	RT	1	HS	58	60	60	40	Conifer							
								Hardwood			1				
25	RT	2	HS	65	45	90	10	Conifer							
								Hardwood			3				
25	RT	3	HS	65	55	90	10	Conifer							
								Hardwood			2				
31	LF	1	HS	45	75	5	95	Conifer				2			
								Hardwood			3		1		
31	LF	2	HS	50	60	5	95	Conifer							
								Hardwood							
31	LF	3	HS	50	60	5	95	Conifer							
								Hardwood				1			
31	RT	1	HS	15	85	10	90	Conifer		1					
								Hardwood							
31	RT	2	HS	45	75	10	90	Conifer							
								Hardwood		2					
31	RT	3	HS	50	75	10	90	Conifer							
								Hardwood				1			

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 388 STREAM: CRUISER CREEK REACH 2

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	00	50	WL	
25	RR	00	509.7		/SHORT TERRACE
26	RR	00	534.9	WL	
27	LP	01	537.9	TJ/	
31	RB	01	662.9	TJ/, HS/	LOW TERRACE
32	CB	11	662.9		T=10C
40	RB	00	755.8	WL	
44	RB	00	835.5	/SS	
49	PP	00	870.4	AM, WL	



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

Location: 10 0462557 E 5029250 N NAD 27
 Caption: CRUISER CREEK REACH 2 RESTORATION SURVEY - TRASK BASIN

NC-388 Cruiser Creek Reach 2 (Pre-Treatment) 2008 Summer Habitat Survey Photographs



Bedrock step



Large wood



Reach photo



Scour pool with habitat and salmon spawning survey signs on right



Reach photo with bedrock step