

ODFW AQUATIC INVENTORY PROJECT
OREGON PLAN FOR SALMON & WATERSHEDS
STREAM RESTORATION HABITAT REPORT

STREAM: Gourlay Creek (L-201)
BASIN: Scappoose Creek
SURVEY TYPE: Pre-Tx
DATE: July 2, 2003
SURVEY CREW: Trevor Diemer, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 9.0 km²
USGS MAPS: Dixie Mtn.
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Gourlay Creek habitat survey extended 493 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.4 (range: 3.5-5.0). Land use for the reach was mature (50-90 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 3.6 percent. Rapids (68%) dominated stream habitat. Gravel (52%) and cobble (31%) dominated stream substrate. Wood volume was low at 9.1 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

OREGON DEPARTMENT OF FISH AND WILDLIFE

GOURLAY CREEK PRE-TX (L-201)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/2/03

REACH 1		T03N-R02W-S17SE					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	
DRY CHANNEL	1	22	2.0	0.01	43	0	5	5	60	30	0	0	
POOL-BACKWATER	1	8	2.0	0.45	16	0	10	15	20	5	0	50	
POOL-ISOLATED	1	1	3.3	0.50	4	0	25	35	40	0	0	0	
POOL-LATERAL SCOUR	5	47	3.1	0.42	147	0	9	11	60	20	0	0	
RAPID/BOULDERS	18	353	3.4	0.14	1,250	123	1	7	51	38	3	0	
RIFFLE	7	105	3.6	0.15	364	15	1	8	59	31	0	1	
STEP/BOULDERS	1	2	4.9	0.10	10	10	0	0	20	30	50	0	
Total:	34	537	3.4	0.20	1,835	148	Avg 3	9	52	31	3	2	

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		45
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	2	9	2.7	0.48	20	1.08%	0	0.0	
Scour Pools	5	47	3.1	0.42	147	8.02%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	105	3.6	0.15	364	19.86%	15	4.1	
Rapids	18	353	3.4	0.14	1,250	68.16%	123	9.8	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	2	4.9	0.10	10	0.53%	10	102.0	
Dry	1	22	2.0	0.01	43	2.34%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	Total	# / Km
All Pools:	7	13.0
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	1	1.9
Pool frequency (channel widths/pool):	10.2	
Residual pool depth (avg):	0.32	

STREAM SUMMARY

GOURLAY CREEK PRE-TX (L-201)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
34	537	3.4	0.20	1,835	3	9	52	31	3	2	148

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	20	1.08%
Scour Pools	147	8.02%
Glides	0	0.00%
Riffles	364	19.86%
Rapids	1,250	68.16%
Cascades	0	0.00%
Step/Falls	10	0.53%
Dry	43	2.34%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	427
Total conifers/1000 ft	102
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	0.0	0.0	0.7	0.0	0.0	0.0	0.7
15-30cm	0.3	0.0	0.0	2.0	0.0	1.0	0.3	3.0
30-50cm	0.7	2.0	0.0	0.3	0.3	0.7	1.0	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	2.3	0.0	3.0	0.3	1.7	0.6	2.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	65	68	73
Shrub cover	58	47	58
Grass/forb cover	43	42	40

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	50	83
High terrace	67	17	17
Low terrace	33	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	33	0
Riprap	0	0	0
Surface slope (%)	0	21	32

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	427
Total conifers/1000 ft	102
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	0.7
15-30cm	0.3	3.0
30-50cm	1.0	3.0
50-90cm	0.3	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

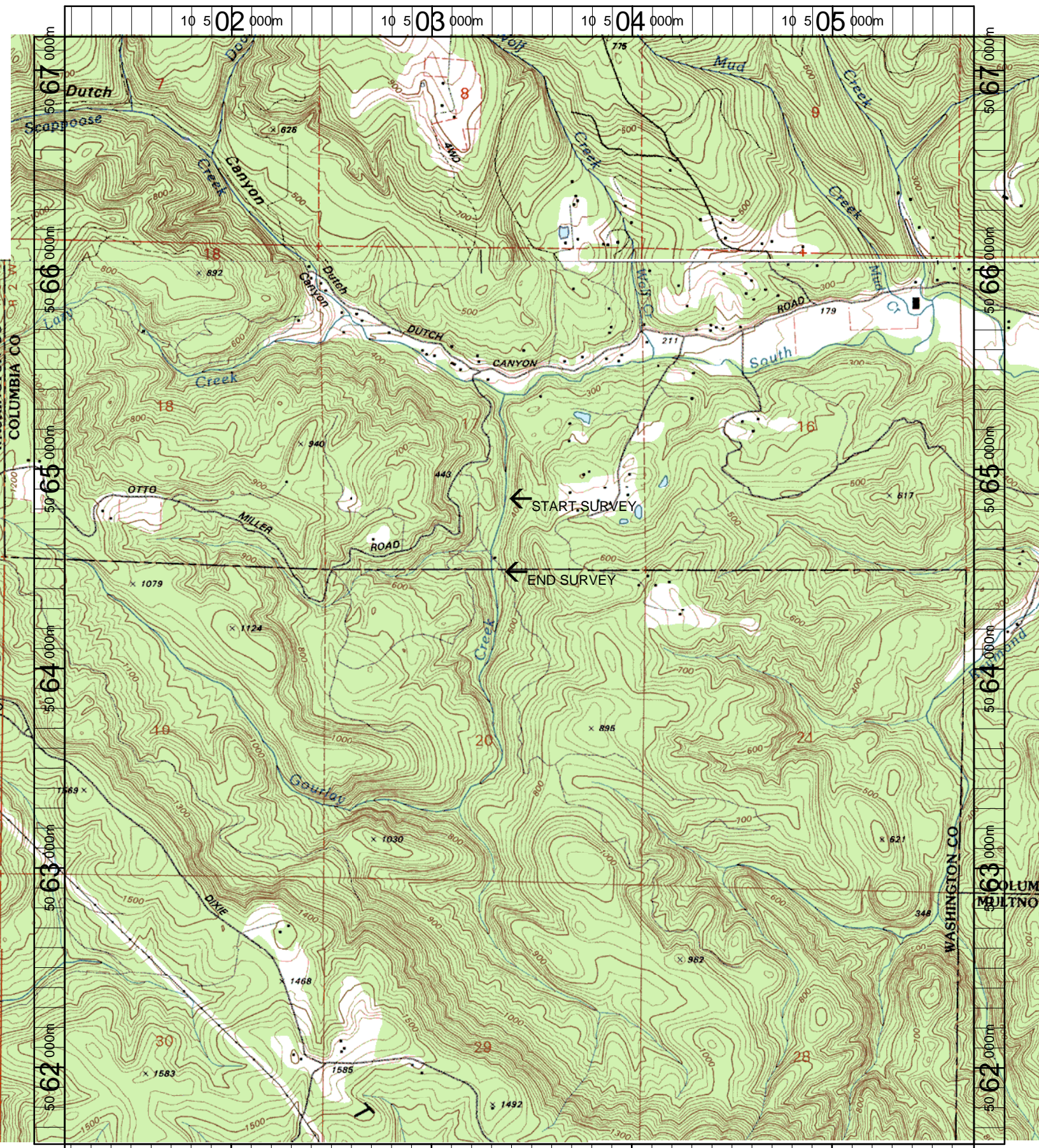
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
8	LF	2	HT	0	40	85	15	Conifer							
								Hardwood		1					
8	LF	3	HS	20	60	70	20	Conifer							
								Hardwood							
8	RT	1	HT	0	40	80	20	Conifer				2			
								Hardwood							
8	RT	2	HS	35	60	80	20	Conifer							
								Hardwood							
8	RT	3	HS	40	65	75	25	Conifer							
								Hardwood				1			
8	LF	1	HT	0	40	85	15	Conifer			1			10T 0503355	
								Hardwood				2		5064920	
15	LF	2	RB	0	75	25	60	Conifer							
								Hardwood	1	2					
15	RT	3	HS	65	85	10	85	Conifer							
								Hardwood			1				
15	RT	2	HS	60	85	10	80	Conifer							
								Hardwood				1			
15	LF	3	HS	35	80	60	40	Conifer							
								Hardwood			1	1			
15	LF	1	LT	0	75	25	75	Conifer						10T 0503348	
								Hardwood					1	5064795	
15	RT	1	HT	0	70	70	30	Conifer							
								Hardwood							
25	LF	3	HT	0	60	70	30	Conifer							
								Hardwood			1				
25	LF	1	HT	0	85	10	90	Conifer					1	10T 0503310	
								Hardwood			2	1		5064723	
25	LF	2	RB	0	65	10	45	Conifer							
								Hardwood							
25	RT	1	LT	0	80	75	25	Conifer							
								Hardwood				1			
25	RT	3	HS	33	85	60	40	Conifer				1			
								Hardwood							
25	RT	2	HS	30	85	70	30	Conifer							
								Hardwood	1	3					

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 7-L SITE ID: 201 GOURLAY CREEK PRE-TX (L-201)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	8			TEMP @ 10:30= 11 DEG C
3	RB	00	43.7			TROUT FRY
7	RB	02	93.3	/SS		
10	RB	00	129.4			NICE POCKET 3.0M X 2.5M X
15	SB	00	216		H=3.5	
18	LP	00	269.4			TROUT
22	BW	10	321.6			FROM BLOWN DOWN TREE
30	RB	01	423.1	/TJ		
34	RB	00	492.6	BC		GRAVEL LOGGING RD



Name: DIXIE MT
 Date: 12/17/2003
 Scale: 1 inch equals 2000 feet

Location: 10 503432 E 5064396 N
 Caption: GOURLAY CREEK RESTORATION SITE - SCAPPOOSE BASIN