

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

STREAM: Game Hog Creek (N-297)
BASIN: Wilson River
SURVEY TYPE: Pre-Tx
DATE: July 10, 2006
SURVEY CREW: Gordon Rose, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 4.5 km²
USGS MAPS: Woods Point
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Game Hog Creek habitat survey extended 775 meters. The channel was constrained by hillslopes in a steep V-shaped valley. The average valley width index was 3.3 (range: 1.2-10.0). Land use for the reach was timber harvest and second growth (15-30 cm dbh) trees. The average unit gradient was 3.8 percent. Rapids (64%) dominated stream habitat. Gravel (29%) and cobble (26%) dominated stream substrate. Wood volume was high at 33.2 m³/100m.

COMMENTS:

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

REACH 1

T02N-R06W-S33SW

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	3.3	VWI Range:	1.2 - 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 Channel	775	3,379	0
Secondary Channel	145	574	3
Off-Channel Units	22	34	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 4.2	Width: 8.4	9.7 (7.7 - 11.8)	12.2 (10.3 - 14)
Depth: 0.24	Height: 0.4	0.8 (0.7 - 0.8)	1.5 (1.3 - 1.6)

W:D ratio: 22.4

Entrenchment (ACW:FPW ratio): 1.1

Stream Flow Type: MF

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

Average Unit Gradient: 3.8%

Habitat Units/100m (primary channel length): 6.8

Water temperature (°C): -

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	7%	Reach avg: 77%
Undercut Banks:	3%	Range: 33 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	333	43.0
Volume (m ³):	257	33.2
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPT OF FISH AND WILDLIFE

GAME HOG CREEK PRE-TX (1-NC, 297)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/10/2006

REACH 1		T02N-R06W-S33SW					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	5	73	3.8	0.12	307	101	3	8	18	22	25	24
DRY CHANNEL	2	26	4.5	0.00	132	14	0	10	35	35	20	0
POOL-ALCOVE	1	12	2.0	0.30	24	0	20	30	30	20	0	0
POOL-ISOLATED	1	2	1.5	0.10	2	1	15	30	30	20	5	0
POOL-LATERAL SCOUR	11	104	3.8	0.44	380	23	10	15	29	21	12	13
POOL-PLUNGE	6	40	4.3	0.60	177	15	8	13	26	22	16	15
PUDDLED UNIT	1	17	3.0	0.01	50	2	0	15	35	30	10	10
RAPID/BEDROCK	1	50	5.0	0.15	250	13	0	0	5	5	10	80
RAPID/BOULDERS	14	523	4.4	0.16	2,306	610	4	9	28	28	26	6
RIFFLE	5	84	3.3	0.14	279	12	1	8	45	36	8	2
STEP/BOULDERS	1	1	5.0	0.05	3	5	0	0	10	20	70	0
STEP/COBBLE	1	5	7.0	0.13	35	4	0	5	25	50	20	0
STEP/LOG	4	7	6.3	0.04	43	0	6	10	34	29	13	9
Total:	53	941	4.2	0.24	3,986	800	Avg: 5	11	29	26	18	11

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	2	14	1.8	0.20	26	0.66%	1	3.8	
Scour Pools	17	144	4.0	0.50	557	13.97%	38	6.8	
Glides	0	0			0	0.00%	0	0.0	
Riffles	5	84	3.3	0.14	279	7.00%	12	4.3	
Rapids	15	573	4.4	0.16	2,556	64.11%	623	24.4	
Cascades	5	73	3.8	0.12	307	7.69%	101	33.0	
Step/Falls	6	12	6.2	0.06	81	2.02%	9	11.2	
Dry	3	43	4.0	0.00	182	4.55%	16	8.8	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths	
		# / Km	Primary Channel Length # / Km
All Pools:	19	20.2	24.5
Pools >=1m deep:	1	1.1	1.3
Complex pools (LWD pieces>=3):	11	11.7	14.2
Pool frequency (channel widths/pool):	5.9		
Residual pool depth (avg):	0.41		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

GAME HOG CREEK PRE-TX
GCG: 1-NC SITE ID: 297

Survey Date 7/10/2006

RIPARIAN ZONE

Report Date: 3/5/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	406
Total conifers/1000 ft	163
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	0.3	3.0	0.0	0.7	1.0	0.3	1.3	4.0
30-50cm	0.0	1.3	0.7	0.0	0.7	0.7	1.3	2.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	4.7	0.7	1.0	1.7	1.0	0.9	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	65		56		58	
Shrub cover	3		5		6	
Grass/forb cover	88		61		56	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		100		100	
High terrace	33		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 (%)	28		48		48	

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	406
Total conifers/1000 ft	163
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	1.3	4.0
30-50cm	1.3	2.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

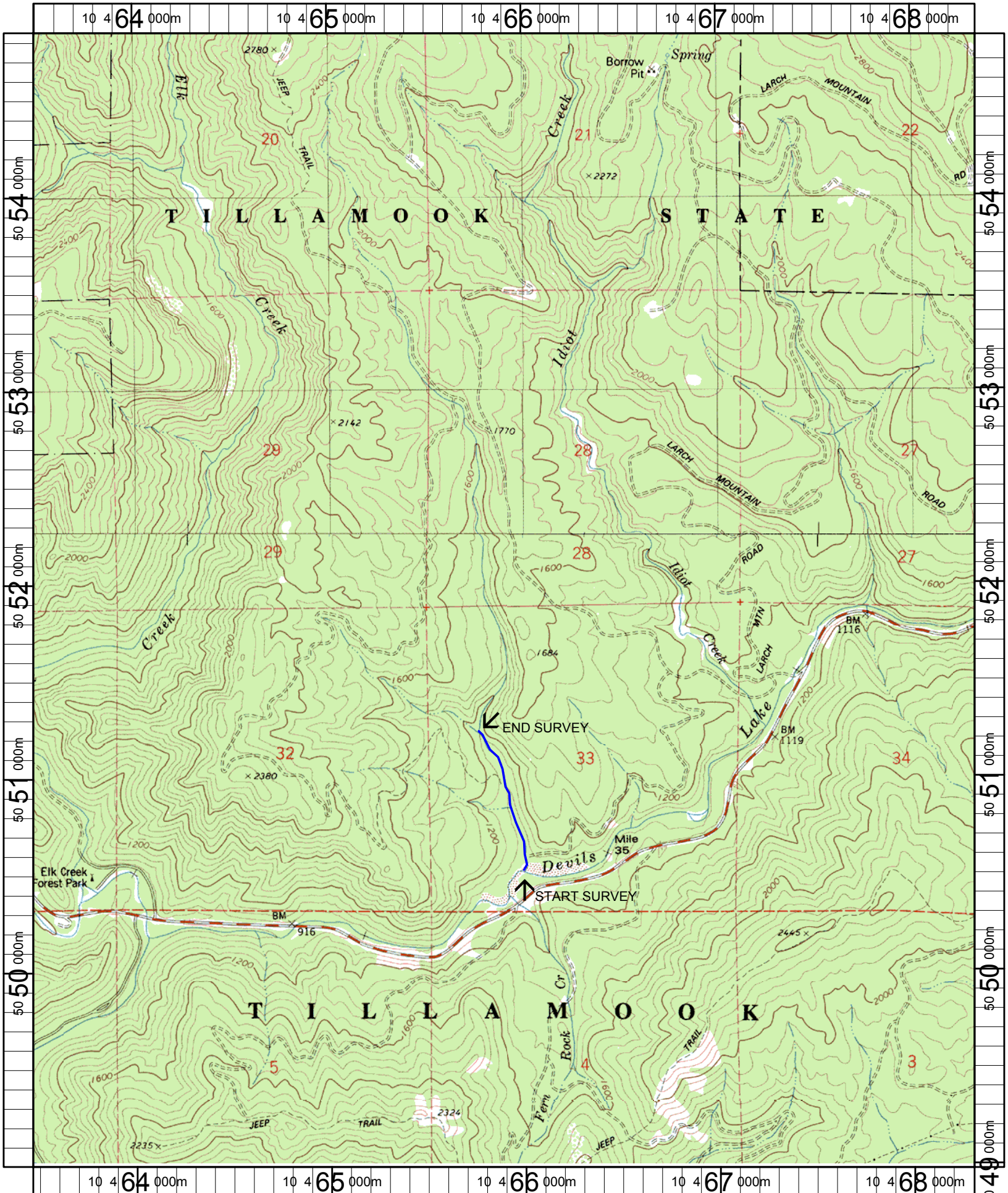
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
11	LF	1	HS	30	75	0	100	Conifer							UTM 0466031-5050600-2D
								Hardwood			2				
11	LF	3	HS	40	90	5	80	Conifer							
								Hardwood		1	2				
11	RT	1	HT	0	0	0	65	Conifer							LOGGING ROAD ALL 3 ZONES
								Hardwood							
11	RT	3	HS	60	25	0	0	Conifer							
								Hardwood							
11	LF	2	HS	45	90	5	90	Conifer							
								Hardwood	1						
11	RT	2	HS	60	0	0	0	Conifer							
								Hardwood							
22	RT	3	HS	60	80	10	80	Conifer			1				
								Hardwood							
22	RT	2	HS	60	80	10	80	Conifer			1				
								Hardwood							
22	RT	1	HT	0	80	10	80	Conifer		1					HT/HS
								Hardwood		4					
22	LF	3	HS	20	0	0	0	Conifer							
								Hardwood							
22	LF	2	HS	20	0	5	10	Conifer							LOGGING ROAD ZONES 2-3
								Hardwood							
22	LF	1	HS	30	70	0	100	Conifer							UTM 0465958-5050810-2D
								Hardwood		3	1				
42	RT	2	HS	55	85	5	90	Conifer							
								Hardwood			1				
42	RT	1	HS	55	85	5	90	Conifer							
								Hardwood		2					
42	LF	3	HS	50	70	5	95	Conifer			2				
								Hardwood							
42	LF	2	HS	45	80	5	95	Conifer							
								Hardwood			2				
42	RT	3	HS	55	85	15	80	Conifer			1	1			
								Hardwood							
42	LF	1	HS	50	80	5	95	Conifer							UTM 0465927-5050998-2D
								Hardwood	1		1				

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 297 GAME HOG CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	10			PART OF WILSON 02 CH
2	LP	01	30.2			COHO FRY
3	AL	10	30.2		PART OF WILSON 02 WINTE	
7	RI	00	74.2		OUT OF WILSON INFLUENC	
11	RB	00	153.2		RIPARIAN #1	
13	SL	01	164.2	RF	H=0.30M	OLD ROAD FORD
14	PP	01	171.2	RF		OLD ROAD FORD
16	SL	00	174.2	DJ	H=0.30M	
22	RB	00	387.7	DJ	RIPARIAN #2	
24	SB	00	393.2		H=0.25M	
27	RB	02	437.2	TJ/		
31	CB	01	499.7	DJ		
36	SL	00	507.7		H=0.25M	
38	SL	00	518.2		H=0.30M	
40	SC	00	531.2		H=0.20M	
42	RB	00	556.2		RIPARIAN #3	
50	CB	00	751.7	DJ		
52	CB	00	767.7	DJ		



Name: WOODS POINT
 Date: 1/6/2005
 Scale: 1 inch equals 2000 feet

Location: 10 465899 E 5051916 N
 Caption: GAME HOG CREEK RESTORATION SITE - WILSON BASIN