

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

STREAM: Gales Creek (W-391)
BASIN: Tualatin River
SURVEY TYPE: Pre-Tx
DATE: February 25, 2008
SURVEY CREW: Matt Weeber, Sharon Tippery
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: km²
USGS MAPS: Gales Creek
ECOREGION: Willamette Valley Plain and Foothills

GENERAL DESCRIPTION:

The Gales Creek habitat survey extended 1,341 meters. The channel was constrained by multiple terraces in a broad valley floor. The average valley width index was 20 (range: 20-20). Land use for the reach was agriculture and young trees (3-15cm dbh). The average unit gradient was 0.4 percent. Scour pools (64%) and riffles (32%) dominated stream habitat. Gravel (49%), cobble (18%) and sand (15%) dominated stream substrate. Wood volume was 1.9m³/100m.

COMMENTS:

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

The crew noted four unscreened diversion pipes during the survey.

Beaver activity, dace, deer tracks, and a cattle crossing were observed during the survey.

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

**GALES CREEK
GCG: 8-W SITE ID: 391**

Survey Date: 2/25/2008

Report Date: 5/8/2008

T01N-R04W-S57SE

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	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	20.0	VWI Range:	20 - 20

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	1,341	22,741	0
Secondary	42	54	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 13.8	Width: 22.3	39.9 (30 - 47)	42.8 (32 - 52)
Depth: 0.72	Height: 1.0	1.9 (1.8 - 2)	2.1 (2 - 2.2)

W:D ratio: 23.4

Stream Flow Type: MF

Average Unit Gradient: 0.4%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.9

Habitat Units/100m (total channel length): 1.4

Habitat Units/100m (primary channel length): 1.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	YT
Riparian Vegetation:	D15	S

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	42	3.1
Volume (m ³):	25	1.9
Key pieces (>=12m x 0.60m):	0	0.0

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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
CASCADE/BEDROCK	1	8	0.8	0.07	6	0	0	5	5	0	0	90
CASCADE/BOULDERS	1	8	0.8	0.10	6	0	0	15	50	25	10	0
POOL-BACKWATER	2	26	1.7	0.28	41	0	47	30	20	3	0	0
POOL-LATERAL SCOUR	8	854	17.4	1.19	14,648	0	1	17	58	18	1	5
RAPID/BEDROCK	1	35	19.0	0.60	665	0	0	10	10	5	10	67
RIFFLE	7	452	16.2	0.52	7,428	0	0	10	59	27	3	1
Total:	20	1,383	13.8	0.72	22,795	0	Avg: 5	15	49	18	2	10

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	26	1.7	0.28	41	0.18%	0	0.0
Scour Pools	8	854	17.4	1.19	14,648	64.26%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	7	452	16.2	0.52	7,428	32.59%	0	0.0
Rapids	1	35	19.0	0.60	665	2.92%	0	0.0
Cascades	2	16	0.8	0.09	13	0.06%	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

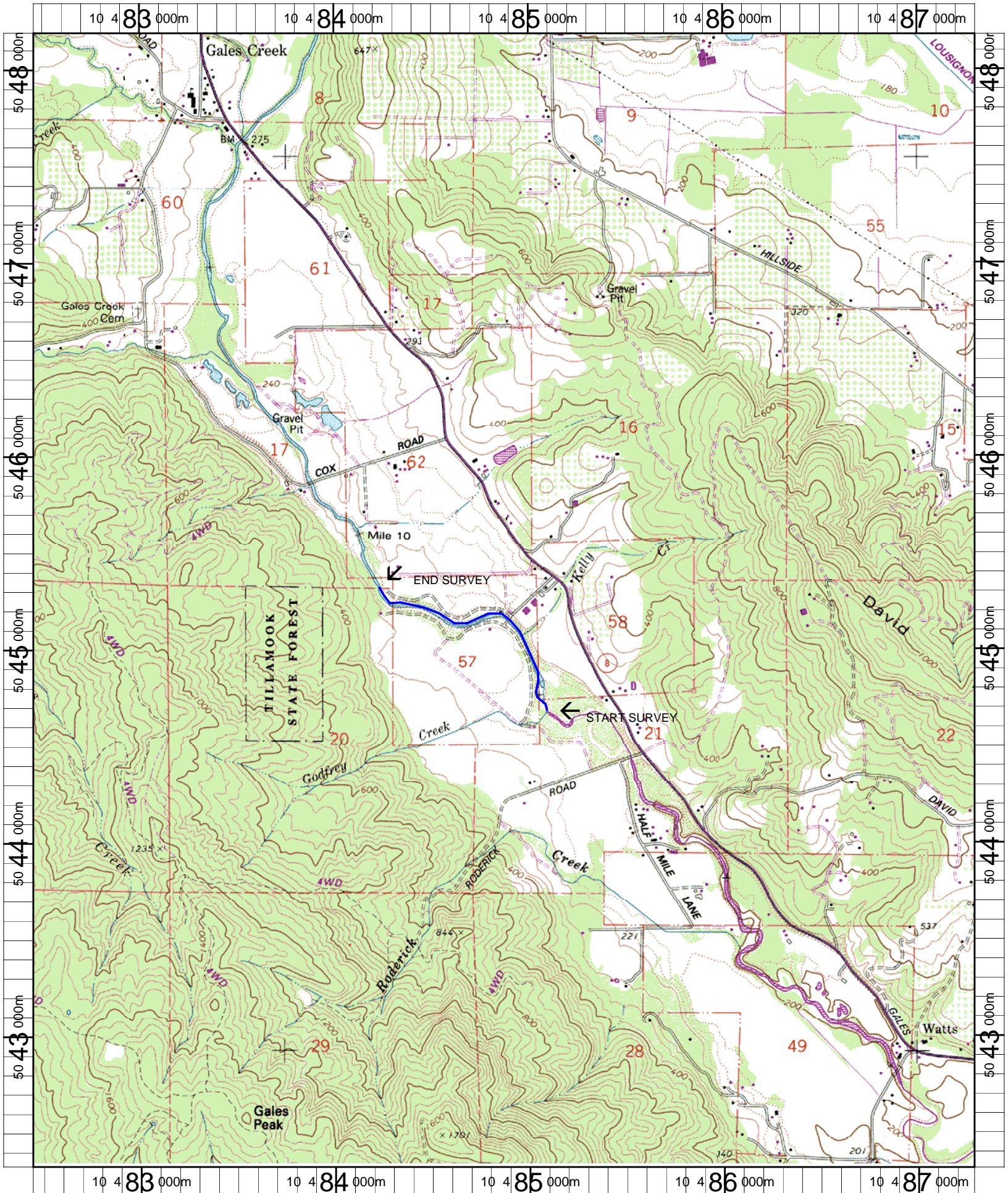
POOL SUMMARY

	<u>Total</u>	<u>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	10	7.2	7.5
Pools >=1m deep:	8	5.8	6.0
Complex pools (LWD pieces>=3):	7	5.1	5.2
Pool frequency (channel widths/pool):	6.2		
Residual pool depth (avg):	0.59		

COMMENT SUMMARY

MONITORING AREA: 8-W SITE ID: 391 STREAM: GALES CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	BW	10	54		DACE
3	LP	00	244	UD,BV	BV SLIDE & CHEWED STICKS, LAMPREY AMNOCOETE, 0.15M IRRIGATION PIPE
5	LP	01	464	UD/TJ,/SS	0.15M IRRIGATION PIPE
7	RI	00	519	BV	CHEWED STICKS
8	RR	00	554	BC	PRIVATE FARM DRIVE
9	LP	00	616	UD/	0.10M IRRIGATION PIPE
12	RI	00	905	BV,/CS,/UD	CHEWED STICKS, CS=BOULDERS, 0.15M IRRIGATION PIPE
13	LP	00	1011	/CS, AM	CS=BOULDERS, ROUGH-SKINNED NEWT
15	LP	00	1104		CATTLE CROSSING
17	CB	11	1210		ACW=1.0M
18	LP	00	1278.5	BV	CHEWED STICKS
19	RI	01	1340.5	WL, BV	DEER TRACKS, CHEWED STICKS
20	BW	10	1340.5	BV	CHEWED STICKS



Name: GALES CREEK
 Date: 1/10/2008
 Scale: 1 inch equals 2000 feet

Location: 10 0484870 E 5045254 N NAD 27
 Caption: GALES CREEK RESTORATION SITE - TUALATIN BASIN