

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

STREAM: SWANSON CREEK  
 GCG: 5-SC  
 SITE ID: 148  
 BASIN: FLORAS  
 TREATMENT DATE: 2002  
 SURVEY DATE: 3/31/2009  
 SURVEY CREW: David Jones / Ryan Emig  
 USGS MAPS: SIXES, LANGLOIS  
 ECOREGION: Coastal Lowlands  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T31S-R15W-S22NW

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces

Dominant landuse(s): Rural residential

Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh

Primary channel length (meters) and area (m<sup>2</sup>): 754 : 1,551

Secondary channel length (meters) and area (m<sup>2</sup>): 47 : 48

VWI average: 8.9 VWI Range: 1.5 - 18 Average Gradient: 2.4%

Pieces LWD per 100m: 16.8 Wood Volume (m<sup>3</sup>) per 100m: 22.0

Percent pools: 32% Complex pools (LWD pieces $\geq$ 3): 13 Pools  $\geq$ 1m deep: 0

<u>Percent substrate (avg):</u>	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	2	17	61	17	2	1
Pool units	1	21	58	16	2	1
Fast water units	1	10	65	19	2	2

**SURVEY COMMENTS:**

The Swanson Creek habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout the survey. Juvenile coho salmon were observed in pools throughout the survey. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2003. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes increased slightly except complex pools, which showed a significant increase.

Survey Date: 3/31/2009

Report Date: 2/16/2010

T31S-R15W-S22NW

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	8.9	VWI Range:	1.5 - 18

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 (m<sup>2</sup>)</u>	<u>Dry Units</u>
Primary	754	1,551	0
Secondary	47	48	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 2.0	Width: 2.3	2.9 ( 2.3 - 3.8 )	5.2 ( 4.3 - 6 )
Depth: 0.30	Height: 0.2	0.5 ( 0.4 - 0.6 )	1.0 ( 0.7 - 1.5 )

W:D ratio: 9.7

Stream Flow Type: MF

Average Unit Gradient: 2.4%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 12.1

Habitat Units/100m (primary channel length): 12.9

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	LT
Riparian Vegetation:	D30	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):	127	16.8
Volume (m <sup>3</sup> ):	166	22.0
Key pieces (>=12m x 0.60m):	7	0.9

Survey Date: 3/31/2009

Report Date: 2/16/2010

T31S-R15W-S22NW

REACH 1

HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	4	0.4	0.02	2	0	35	35	30	0	0	0
CULVERT CROSSING	1	42	1.7	0.45	71	0	0	5	60	20	15	0
POOL-BACKWATER	2	6	1.8	0.33	10	0	15	33	53	0	0	0
POOL-LATERAL SCOUR	37	204	2.2	0.49	448	0	1	19	59	17	3	0
POOL-PLUNGE	5	20	3.6	0.51	68	0	2	34	48	8	1	7
RAPID/BEDROCK	1	20	1.8	0.15	36	0	0	5	10	10	5	71
RAPID/BOULDERS	16	159	1.8	0.14	296	0	1	9	63	24	3	0
RIFFLE	27	340	1.9	0.14	654	0	1	11	70	17	2	0
STEP/BEDROCK	1	1	1.7	0.05	2	0	35	45	20	0	0	0
STEP/COBBLE	2	3	1.6	0.20	4	0	3	15	50	33	0	0
STEP/LOG	4	4	1.9	0.11	8	0	4	33	57	6	0	0
<b>Total:</b>	97	802	2.0	0.30	1,599	0	<b>Avg:</b> 2	17	61	17	2	1

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	2	6	1.8	0.33	10	0.62%	0	0.0
Scour Pools	42	223	2.4	0.49	516	32.25%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	27	340	1.9	0.14	654	40.88%	0	0.0
Rapids	17	179	1.8	0.14	332	20.78%	0	0.0
Cascades	1	4	0.4	0.02	2	0.10%	0	0.0
Step/Falls	7	7	1.8	0.13	14	0.90%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	42	1.7	0.45	71	4.47%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE  
HABITAT INVENTORY

SWANSON CREEK  
GCG: 5-SC SITE ID: 148

---

Survey Date: 3/31/2009

Report Date: 2/16/2010

T31S-R15W-S22NW

REACH 1

---

**POOL SUMMARY**

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	44	54.9	58.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	13	16.2	17.2
Pool frequency (channel widths/pool):	8.1		
Residual pool depth (avg):	0.37		

OREGON DEPT OF FISH AND WILDLIFE  
HABITAT INVENTORY

OREGON PLAN MONITORING SITE  
SURVEY DATE: 3/31/2009

COMMENT SUMMARY

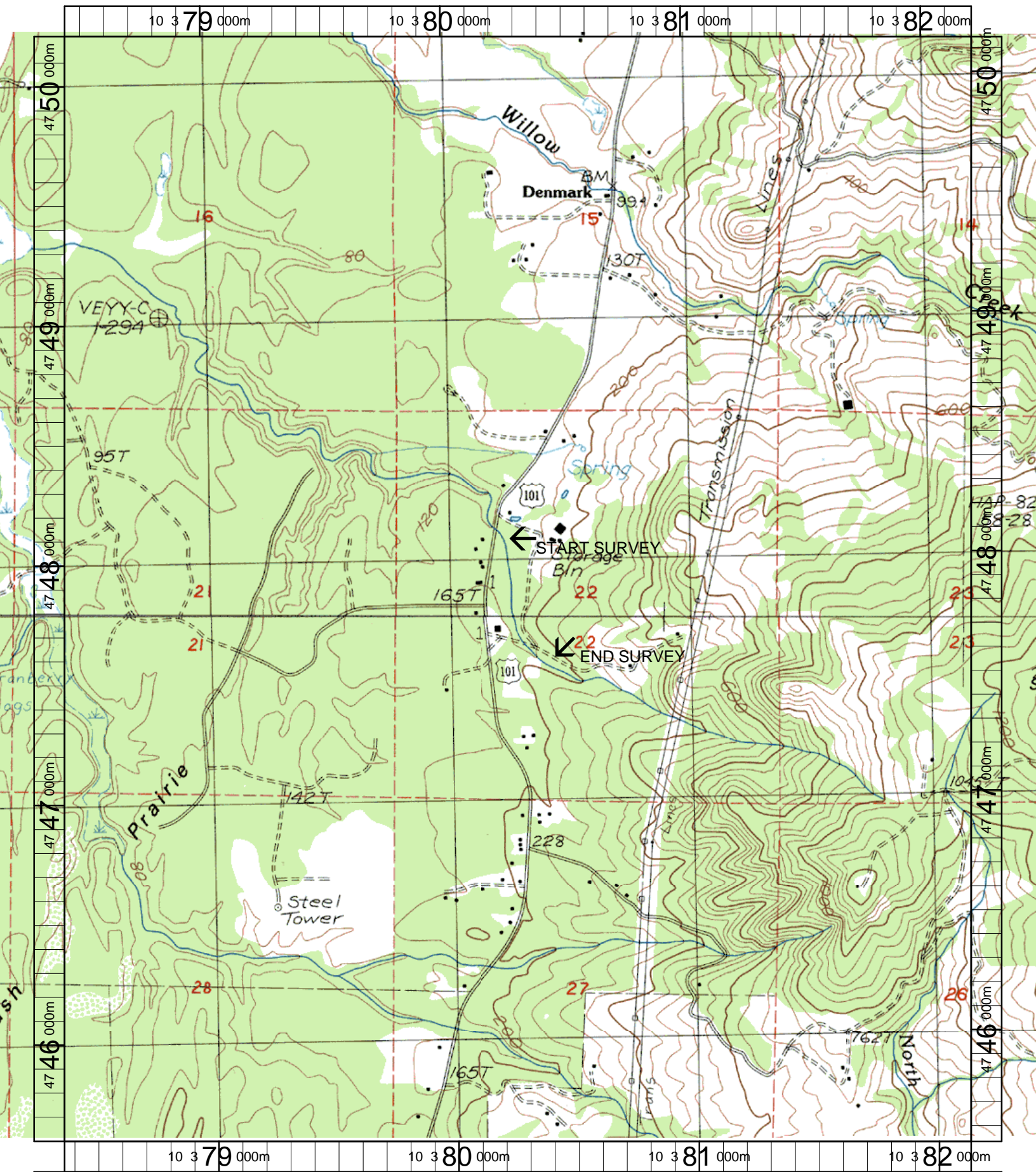
MONITORING AREA: 5-SC SITE ID: 148 STREAM: SWANSON CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	CC	00	42	CC	
1	3	LP	00	53	HS	
1	4	RI	01	71	HS,TJ/	
1	5	RB	11	71		ACW=1.1M, T=10C
1	6	CR	12	71		ACW=1.4M, T=10C
1	9	LP	00	87	HS,SS/	
1	12	BW	10	92.5	TJ/	TRIB DUMPS INTO BW
1	13	RI	11	92.5		ACW=1M, T=9.5C
1	18	SR	11	92.5		STEP OVER TREE ROOT
1	26	LP	01	173	TJ/	
1	27	RI	11	173		ACW=1.25M, T=9.5C
1	42	RI	00	286	SS/	
1	44	LP	00	295.7		UNKNOWN FRY IN POOL
1	49	PP	00	377.7	HS	
1	51	RI	00	385.4	HS	
1	54	LP	00	420.4	HS	
1	55	RI	00	441.4	HS	
1	56	LP	00	446.4	HS	
1	58	PP	00	454.4	HS	
1	62	RB	00	498.4	HS	
1	63	LP	00	503.4	HS	
1	65	LP	00	516.4	HS	
1	67	LP	00	528.4	HS	
1	81	LP	01	623.7	HS	
1	84	LP	00	648.2		COHO FRY IN POOL

**COMMENT SUMMARY**

MONITORING AREA: 5-SC      SITE ID: 148      STREAM: SWANSON CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	87	RI	00	666.2	BC	
1	88	LP	00	671.2	BC	COHO FRY IN POOL
1	90	PP	00	679.2	HS	
1	92	LP	00	695.2		COHO FRY IN POOL
1	94	LP	00	714.2	HS	COHO FRY IN POOL
1	95	RB	00	736.2	HS,BC	



Name: LANGLOIS  
 Date: 3/21/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 380280 E 4747875 N  
 Caption: SWANSON CREEK RESTORATION SITE - FLORAS BASIN

Swanson Creek (SC-148) 2009 Winter Habitat Survey Photographs



Unit 1 - Upstream view of Hwy. 101 culvert at start of survey. Hwy. 101 crosses here.



Unit 2 - Downstream view of upstream end of Hwy. 101 culvert.



Downstream view of placed logs habitat structure.



Upstream view of Pea Creek reach.



Upstream view of Pea Creek reach near end of survey.



Downstream view of stream at the end of the survey. Second bridge in background.