ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	West Fork Dairy Creek (W-363)
BASIN:	Tualatin River
SURVEY TYPE:	Pre-Tx
DATE:	February 1, 2007
SURVEY CREW:	Jason Hatfield, Scott Sebring
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	7.8 km^2
USGS MAPS:	Buxton
ECOREGION:	Coast Range Willapa Hills

GENERAL DESCRIPTION:

The West Fork Dairy Creek habitat survey extended 968 meters. The channel was constrained by hillslopes in a moderate V-shape valley. The average valley width index was 1.7 (range: 1-2.5). Land use for the reach was young timber (3-15 cm dbh) and second growth timber (15-30 cm dbh). The average unit gradient was 4.5 percent. Rapids (59%) and cascades (20%) dominated stream habitat. Gravel (38%) and cobble (25%) dominated stream substrate. Wood volume was moderate at 20.0 m^3/100m.

COMMENTS:

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

Several debris jams were recorded. Beaver activity was noted throughout the survey. Juvenile salmonids were observed during the survey.

OREGON DEPT OF FISH AND WILDLIFE **WEST FORK DAIRY CREEK PRE-TX (8-W, 363)**

HABITAT INVENTORY Report Date: 4/25/2007 Survey Date: 2/1/2007

REACH 1 **T03N-R04W-S20NE** **REACH 1**

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%

Valley Width Index 1.7 VWI Range: 1 - 2.5

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary Channel	968	2,580	0
Secondary Channel	0	0	0
Off-Channel Units	57	61	0

Channel Dimensions (m)

Wetted		Active		Floodprone *n* = 5		First Terrace *n* = 1	
Width:	2.7	Width:	4.6	7.3	(4.1 - 10.3)	8.2	(8.2 - 8.2)
Depth:	0.29	Height:	0.6	1.1	(0.9 - 1.5)	1.4	(1.4 - 1.4)

W:D ratio: 8.2
Entrenchment (ACW:FPW ratio): 1.6
Stream Flow Type: MF
Habitat Units/100m (total channel length): 4.9
Average Unit Gradient: 4.5%
Habitat Units/100m (primary channel length): 5.2
Water temperature (°C): 3.0 - 3.0

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	YT	ST
Riparian Vegetation:	S	D30

Bank Condition and Shade

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

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	222	22.9
Volume (m^3):	193	20.0
Key pieces (>=12m x 0.60m):	5	0.5

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REACH 1 **T03N-R04W-S20NE** **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/BEDROCK	1	8	1.1	0.05	9	0		0	10	35	5	0	50
CASCADE/BOULDERS	8	255	2.3	0.18	530	0		11	13	46	21	9	1
CULVERT CROSSING	1	30	0.4	0.30	12	0		0	12	6	6	0	76
POOL-DAMMED	3	47	3.8	0.68	183	0		42	13	36	10	0	0
POOL-LATERAL SCOUR	8	63	3.5	0.51	202	0		17	14	34	18	2	14
POOL-PLUNGE	5	22	3.4	0.67	72	0		10	11	27	31	15	7
RAPID/BEDROCK	1	27	2.2	0.15	59	0		0	5	10	10	5	70
RAPID/BOULDERS	16	541	2.6	0.16	1,507	0		3	10	40	39	5	4
RIFFLE	2	20	2.3	0.10	42	0		8	10	58	25	0	0
STEP/BOULDERS	2	4	1.0	0.13	4	0		3	10	28	13	48	0
STEP/COBBLE	1	5	2.5	0.10	13	0		10	10	70	10	0	0
STEP/LOG	2	3	3.1	0.06	8	0		8	15	55	23	0	0
Total:	50	1,024	2.7	0.29	2,641	0	**Avg:**	10	11	38	25	7	8

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Percent	Large Boulders Number	(# / $100m^2$)
Dammed & BW Pools	3	47	3.8	0.68	183	6.95%	0	0.0
Scour Pools	13	85	3.4	0.57	275	10.40%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	2	20	2.3	0.10	42	1.59%	0	0.0
Rapids	17	567	2.6	0.16	1,565	59.27%	0	0.0
Cascades	9	263	2.1	0.17	539	20.41%	0	0.0
Step/Falls	5	12	2.1	0.09	25	0.94%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	30	0.4	0.30	12	0.45%	0	0.0

POOL SUMMARY

	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	16	15.6	16.5
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	5.9	6.2
Pool frequency (channel widths/pool):	14.0		
Residual pool depth (avg):	0.43		

Comment Summary
Restoration Monitoring Sites 2007

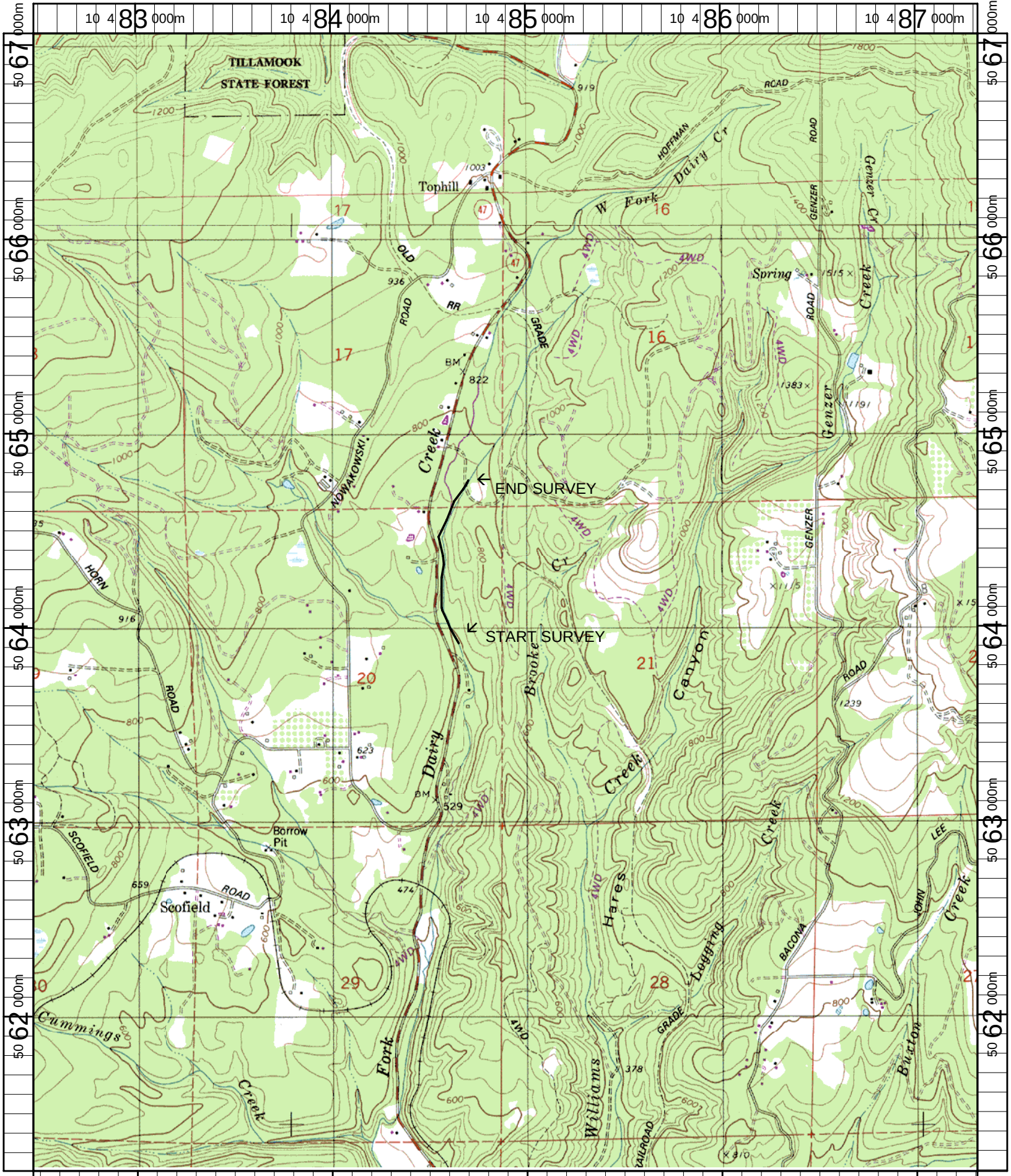
MONITORING AREA: **8-W** **SITE ID:** **363** **WEST FORK DAIRY CREEK PRE-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	RB	00	49	DJ	OLD SLIDE. 2 SMALL DEBRIS JAMS
7	RR	01	234.7	TJ/	
8	CC	11	234.7	CC	TEMP 3.0. ESTSLOPE AND LENGTH.
10	RB	01	290	/TJ	EST SLOPE NO VIS VINE MAPLE AC
11	RB	11	290		ACW=1.1
12	RB	00	339	DJ	SMALL WOOD DJ
13	RB	00	357	DJ	IVY COVERED TREES
14	LP	00	361.2		LEFT BANK UCB
17	RB	00	418.2		MANY BOULDER SIZE HUNKS OF CON
20	CB	00	448.8	BV	MORE CONCRETE BOULDERS
22	SB	00	456.4		CONCRETE SUB STEP
23	RI	00	469.7	BV	
26	LP	00	486.2	WL	JUV SALMONID
31	RB	00	528.3	BV	
33	CB	00	566.3	DJ, BV, WL	JUV SALMONID
34	DP	00	573.7	DJ, BV, WL	SEVERAL BV STICKS IN JAM
36	DP	00	608	DJ, BV	NO BV DAM
37	CB	01	657	TJ/	END REACH 1
38	RB	11	657		TEMP 4. AC 2.6
39	CB	00	706		EST SLOPE, NO VISIBILITY
41	SL	00	732.8	DJ, BV	BV ACTIVITY, NOT DAM

Comment Summary
Restoration Monitoring Sites 2007

MONITORING AREA: **8-W** **SITE ID:** **363** **WEST FORK DAIRY CREEK PRE-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
47	RB	01	883.4	/TJ	
48	CR	00	891.4		ACW=1.5
49	CB	00	940.4		EST SLOPE, NO VISIBILITY



Name: BUXTON
Date: 4/25/2007
Scale: 1 inch equals 2000 feet

Location: 10 0484893 E 5064127 N
Caption: WEST FORK DAIRY CREEK RESTORATION SITE - TUALATIN BASIN