

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

STREAM: Oxbow Creek (MC-53)  
BASIN: Siuslaw River  
SURVEY TYPE: Post-Tx  
DATE: June 26, 2003  
SURVEY CREW: Jeremiah Bernier, Alex Higgins  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 9.6 km<sup>2</sup>  
USGS MAPS: Gunter  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Oxbow Creek habitat survey extended 528 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.3 (range: 4.5-8.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (59%) and scour pools (36%) dominated stream habitat. Bedrock (31%) and gravel (27%) dominated stream substrate. Wood volume was moderate at 20.7 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey.

REACH 1

T20S-R07W-S04SE

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 6.3		VWI Range: 4.5 - 8	

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	528	1,825	0
Secondary	48	0	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.2	Width	6.9	8.2	13.9
Depth	0.23	Height	0.4	0.8	1.4
W:D ratio		17.1	Entrenchment		1.2

Stream Flow Type: LF                      Water temp (C): 14.0 - 14.0  
 Avg. Unit Gradient: 1.9%                Habitat Units/100m: 5.6

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 100%
Undercut Banks:	14%	Range: 89 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	71	13.4
Volume (m <sup>3</sup> ):	109	20.7
Key pieces (>=10m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

OXBOW CREEK POST-TX (MC-53)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/26/03

REACH 1		T20S-R07W-S04SE					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
DRY CHANNEL	1	48	0.0	0.00	0	0	0	10	65	15	0	10
GLIDE	2	23	3.0	0.18	70	0	0	10	10	5	5	70
POOL-LATERAL SCOUR	11	125	4.1	0.40	543	2	4	22	22	10	5	37
POOL-STRAIGHT SCOUR	2	34	3.3	0.40	117	0	7	25	15	15	0	38
RIFFLE	14	309	2.9	0.11	989	17	0	14	32	25	8	19
RIFFLE W/ POCKETS	1	27	3.4	0.15	92	2	11	33	0	0	11	44
STEP/COBBLE	1	10	1.5	0.05	15	0	0	10	40	0	0	50
<b>Total:</b>	<b>32</b>	<b>577</b>	<b>3.2</b>	<b>0.23</b>	<b>1,825</b>	<b>21</b>	<b>Avg 2</b>	<b>18</b>	<b>27</b>	<b>16</b>	<b>6</b>	<b>31</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		48
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	0	0			0	0.00%	0	0.0	
Scour Pools	13	159	4.0	0.40	660	36.14%	2	0.3	
Glides	2	23	3.0	0.18	70	3.82%	0	0.0	
Riffles	15	336	2.9	0.12	1,081	59.24%	19	1.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	10	1.5	0.05	15	0.80%	0	0.0	
Dry	1	48	0.0	0.00	0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	Total	# / Km
All Pools:	13	22.5
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	4	6.9
Pool frequency (channel widths/pool):	6.4	
Residual pool depth (avg):	0.34	

**STREAM SUMMARY**

**OXBOW CREEK POST-TX (MC-53)**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
32	577	3.2	0.23	1,825	2	18	27	16	6	31	21

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	660	36.14%
Glides	70	3.82%
Riffles	1,081	59.24%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	15	0.80%
Dry	0	0.00%
Culverts	0	0.00%

**RIPARIAN ZONE VEGETATION SUMMARY**

**REACH 1** **REACH 1**

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

Total hardwoods/1000	671
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-meter wide band**

Diameter class (cm)	Zone 1		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	1.0	0.3	1.0	0.0	0.3	0.3	2.3
15-30cm	0.0	3.7	0.7	1.0	0.0	0.3	0.7	5.0
30-50cm	0.0	2.0	1.3	0.3	0.7	0.3	2.0	2.7
50-90cm	0.0	0.3	0.7	0.7	0.0	0.0	0.7	1.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	7.0	3.0	3.0	0.7	1.0	1.2	3.7

**Canopy closure and ground cover**

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	79		83		74	
Shrub cover	54		46		40	
Grass/forb cover	34		42		33	

**Predominant landform in each zone**

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		67		50	
High terrace	67		33		33	
Low terrace	0		0		0	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	5		18		15	

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	671
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	41
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	0.3	2.3
15-30cm	0.7	5.0
30-50cm	2.0	2.7
50-90cm	0.7	1.0
>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		
13	LF	2	HS	35	85	10	80	Conifer			2			
								Hardwood						
13	LF	3	HS	35	85	10	80	Conifer			2			
								Hardwood						
13	RT	1	FP	0	90	80	10	Conifer						
								Hardwood	1	7	2			
13	RT	2	HT	0	80	90	10	Conifer						
								Hardwood						
13	RT	3	HT	0	80	90	10	Conifer						
								Hardwood			1			
13	LF	1	HS	30	75	20	70	Conifer						
								Hardwood	2	2				
19	RT	1	HT	0	95	90	10	Conifer						
								Hardwood			2			
19	RT	2	HS	20	95	85	10	Conifer						
								Hardwood				2		
19	LF	3	HS	47	95	70	20	Conifer						
								Hardwood						
19	LF	2	HS	35	95	10	60	Conifer	1	2				ROAD/DIRT
								Hardwood	2	1				
19	LF	1	HT	0	85	60	20	Conifer						
								Hardwood		1				
19	RT	3	RB	0	90	0	0	Conifer						PAVED ROAD BED
								Hardwood						
26	LF	1	HT	0	70	65	25	Conifer						
								Hardwood			2			
26	LF	2	HT	0	70	70	20	Conifer				1		
								Hardwood		2	1			
26	LF	3	HT	0	75	60	30	Conifer						
								Hardwood	1	1				
26	RT	1	HT	0	60	10	70	Conifer						
								Hardwood		1		1		
26	RT	2	HS	15	70	10	70	Conifer			1	2		
								Hardwood	1					
26	RT	3	HS	10	20	10	60	Conifer						ASPHALT ROADBED
								Hardwood						

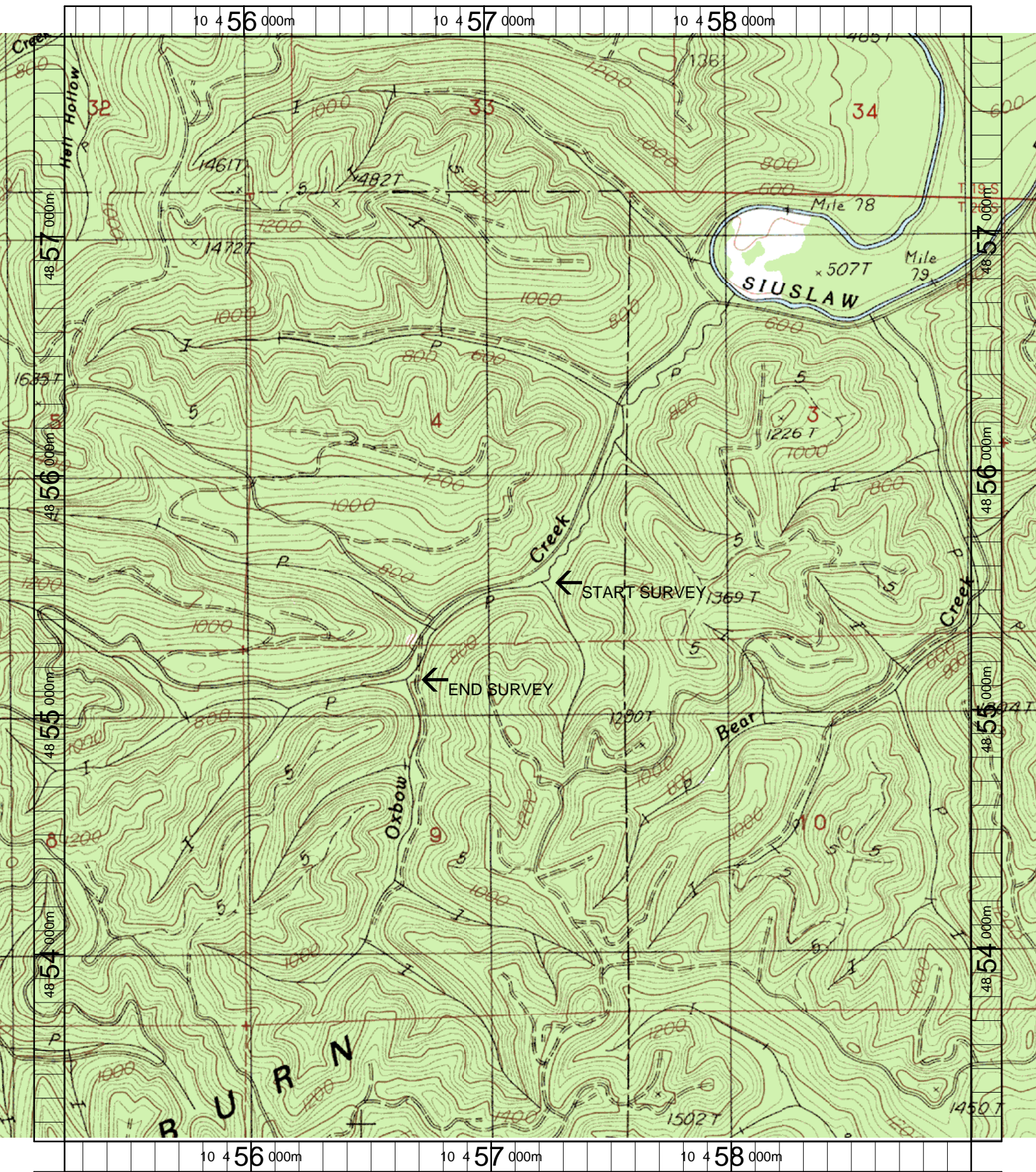
# Comment Summary

## Oregon Plan Monitoring Sites 2003

MONITORING AREA: **2-MC**      SITE ID: **53**      **OXBOW CREEK POST-TX (MC-53)**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	6.6		T= 14	
10	LP	01	93.1	DJ		ORANGEFLAG 11
11	DC	02	93.1		ACW=4.1	
13	LP	00	136.2			ODFW AQI FLAG 7-8-98
19	RI	00	262.1			RIP 2 PHOTO 19
26	RI	00	410.6			RIP 3 PHOTO 20
27	RI	00	458.3	DJ		ORANGE FLAG 12,13
30	SC	00	503.9			YELLOW SIGN SEC PROJEC
32	LP	00	528.1			END PHOTO 21





Name: GUNTER  
 Date: 3/20/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 457121 E 4855519 N  
 Caption: OXBOW CREEK RESTORATION SITE - SIUSLAW BASIN