

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

STREAM: Barn Gulch (MS-181)
BASIN: Tenmile Lake
SURVEY TYPE: Pre-Tx
DATE: July 7, 2003
SURVEY CREW: Lisa Biggs, Chelsey Girt
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 1.7 km²
USGS MAPS: Trail Butte
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Barn Gulch habitat survey extended 530 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 7.6 (range: 6.0-10.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 1.7 percent. Riffles (63%) and scour pools (35%) dominated stream habitat. Gravel (44%) and fines (31%) dominated stream substrate. Wood volume was very low at 3.6 m³/100m.

COMMENTS:

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

OREGON DEPARTMENT OF FISH AND WILDLIFE

BARN GULCH PRE-TX (MS-181)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/7/03

REACH 1		T23S-R12W-S13SE					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	
POOL-ALCOVE	5	18	0.9	0.21	16	0	36	36	28	0	0	0	
POOL-ISOLATED	1	2	1.6	0.20	4	0	86	10	5	0	0	0	
POOL-LATERAL SCOUR	16	131	2.1	0.43	289	0	51	26	23	0	0	0	
POOL-STRAIGHT SCOUR	2	11	4.9	0.95	54	0	86	7	5	0	2	0	
RIFFLE	21	346	1.6	0.08	566	0	9	21	69	1	0	0	
RIFFLE W/ POCKETS	2	42	1.2	0.80	51	0	11	42	47	0	0	0	
Total:	47	550	1.8	0.28	979	0	Avg 31	24	44	0	0	0	

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		20
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	6	20	1.0	0.20	19	1.98%	0	0.0	
Scour Pools	18	142	2.4	0.49	343	35.06%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	23	388	1.6	0.14	617	62.96%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	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		
	Total	# / Km
All Pools:	24	43.6
Pools >=1m deep:	1	1.8
Complex pools (LWD pieces>=3):	0	0.0
Pool frequency (channel widths/pool):	6.8	
Residual pool depth (avg):	0.45	

STREAM SUMMARY

BARN GULCH PRE-TX (MS-181)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (>0.5m)
					S/O	Percent Wetted Area					
					Snd	Grvl	Cbl	Bldr	Bdrk		
47	550	1.8	0.28	979	31	24	44	0	0	0	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	19	1.98%
Scour Pools	343	35.06%
Glides	0	0.00%
Riffles	617	62.96%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	0	0.00%
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	1585
Total conifers/1000 ft	61
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		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	0.0	5.7	0.7	8.3	0.7	15.0
15-30cm	0.0	0.7	0.0	0.7	0.0	3.7	0.0	5.0
30-50cm	0.0	2.7	0.0	2.7	0.3	0.3	0.3	5.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	4.3	0.0	9.0	1.0	12.7	0.3	8.7

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	81		1493		82	
Shrub cover	3		16		23	
Grass/forb cover	74		89		73	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		50		83	
High terrace	83		50		17	
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 (%)	12		28		40	

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	1585
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

<u>Diameter class (cm)</u>	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.7	15.0
15-30cm	0.0	5.0
30-50cm	0.3	5.7
50-90cm	0.0	0.3
>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		
12	LF	1	HT	0	80	0	20	Conifer							NO TREES
								Hardwood							
12	LF	2	HT	0	85	20	50	Conifer							
								Hardwood	1		1				
12	LF	3	HS	25	75	80	10	Conifer							
								Hardwood	2						
12	RT	1	HT	0	60	0	75	Conifer							ALDER
								Hardwood			2				
12	RT	2	HS	40	75	5	95	Conifer							ALDER
								Hardwood		1	2				
12	RT	3	HS	45	60	0	95	Conifer							BIG LEAF MAPLE
								Hardwood	2	2		1			
20	RT	1	HS	65	95	5	80	Conifer							MAPLE, MYRTLE
								Hardwood	1		6				
20	RT	3	HS	55	90	5	95	Conifer				1			
								Hardwood	5	4					
20	RT	2	HS	70	95	5	90	Conifer							HUCKLE
								Hardwood	2						
20	LF	2	HT	0	90	5	95	Conifer							ALDER
								Hardwood	7	1	1				
20	LF	3	HT	0	90	5	95	Conifer	1						MOST ALDER
								Hardwood	15	5	1				
20	LF	1	HT	0	95	0	90	Conifer							ALDER
								Hardwood		2					
32	RT	3	HS	60	85	40	50	Conifer							
								Hardwood	1						
32	RT	2	HT	5	85	5	90	Conifer							
								Hardwood			2				
32	RT	1	HT	0	70	5	85	Conifer							NO TREES
								Hardwood							
32	LF	3	HS	55	90	5	95	Conifer	1						
								Hardwood							
32	LF	2	HS	55	90	25	75	Conifer							ALDER
								Hardwood	7		2				
32	LF	1	HT	5	85	5	95	Conifer							CASCARA, ELDERBERRY
								Hardwood	2						

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: **3-MS** SITE ID: **181** **BARN GULCH PRE-TX (MS-181)**

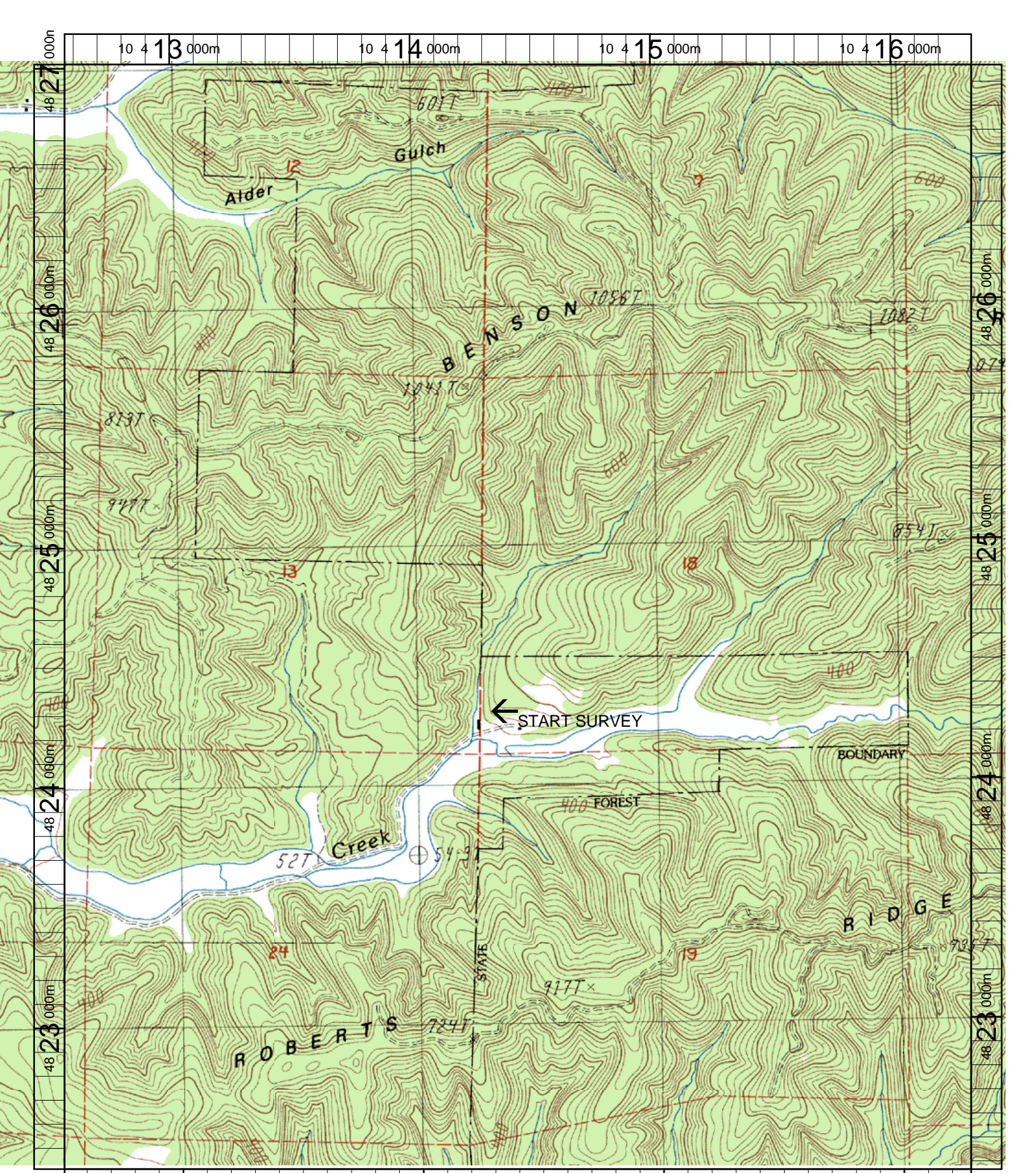
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RP	00	20	WL	CLEAR CUT RIGHT	DEER, SALMONIDS
2	LP	00	24.6		POOLS .35+ DEEP	
5	RI	01	58			SALMONIDS
7	RI	00	76.2			SALMONIDS
8	LP	00	82.7			LONG POOLS AGAINST ONE
12	RI	01	147.3			SALMONIDS
15	RI	00	158.4			COHO
18	RI	00	226.8			SCULPIN (3"), COHO
20	LP	01	257.3	WL		FROG (RED LEGGED?)
23	IP	10	265.9			SALMONID
24	SP	00	271.5	WL		COHO FRY, 6" SALMONID, D
25	RP	00	293.7			COHO
26	LP	00	297.7			COHO
29	RI	00	329.1	WL		CRAWDAD (DEAD)
30	LP	00	337.1	WL		RACCOON, DEER
32	LP	00	364.6			SALMONIDS
33	RI	00	389.6	WL		COYOTE
35	LP	00	401.8	WL		CRAWDAD (DEAD)
37	LP	00	428.2			COHO
38	RI	00	445.7	WL		COW ACTIVITY ALONG BANK
42	RI	00	476.9	WL		PGS

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 3-MS SITE ID: 181 BARN GULCH PRE-TX (MS-181)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
43	SP	00	482.4	WL		COHO, SCULPIN
44	RI	00	507.9	/SS		



Name: TRAIL BUTTE
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 414417 E 4824695 N
 Caption: BARN GULCH RESTORATION SITE - TENMILE LAKE BASIN