

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

STREAM: SOUTH FORK BEAR CREEK
 GCG: 2-MC
 SITE ID: 383
 BASIN: SIUSLAW
 TREATMENT DATE: 2008
 SURVEY DATE: 7/15/2008
 SURVEY CREW: Sarah Yue / LaNoah Babcock
 USGS MAPS: WINDY PEAK
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces

Dominant landuse(s): Young forest trees (3-15 cm dbh)

Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh

Primary channel length (meters) and area (m²): 1,128 : 3,186

Secondary channel length (meters) and area (m²) 104 : 174

VWI average: 16.6 VWI Range: 15 - 20 Average Gradient: 0.6%

Pieces LWD per 100m: 12.8 Wood Volume (m³) per 100m: 20.0

Percent pools: 76% Complex pools (LWD pieces>=3): 17 Pools >=1m deep: 1

Percent substrate (avg):	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	8	13	49	26	1	2
Pool units	7	18	52	18	1	3
Fast water units	1	4	50	41	1	3

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted habitat structures throughout much of the survey. They also noted observing salmonid fry throughout the survey. Evidence of wildlife included a pacific giant salamander, rough-skinned newts, a great horned owl, and deer and elk tracks.

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

**SOUTH FORK BEAR CREEK
GCG: 2-MC SITE ID: 383**

Survey Date: 7/15/2008

Report Date: 12/29/2008

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	16.6	VWI Range:	15 - 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	1,128	3,186	0
Secondary	104	174	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 2.3	Width: 5.7	10.3 (8.1 - 12.1)	13.8 (9.8 - 15.9)
Depth: 0.30	Height: 0.6	1.2 (1 - 1.4)	4.8 (1.4 - 12.8)

W:D ratio: 10.1

Stream Flow Type: LF

Average Unit Gradient: 0.6%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.8

Habitat Units/100m (total channel length): 6.5

Habitat Units/100m (primary channel length): 7.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D15	D3

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	5%	Reach avg: 93%
Undercut Banks:	7%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	144	12.8
Volume (m ³):	226	20.0
Key pieces (>=12m x 0.60m):	1	0.1

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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
DRY UNIT	3	24	2.8	0.00	55	0	6	9	75	9	0	0
POOL-BACKWATER	3	14	1.7	0.25	26	0	22	37	33	8	0	0
POOL-ISOLATED	4	23	1.5	0.23	33	0	63	18	16	4	0	0
POOL-LATERAL SCOUR	38	830	2.8	0.53	2,551	10	7	18	52	18	1	3
RIFFLE	30	339	1.8	0.07	694	28	1	4	50	41	1	3
STEP/COBBLE	1	1	0.6	0.01	0	0	0	0	40	60	0	0
STEP/LOG	1	2	0.4	0.10	1	0	20	60	20	0	0	0
Total:	80	1,231	2.3	0.30	3,360	38	Avg: 8	13	49	26	1	2

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	7	37	1.6	0.24	59	1.75%	0	0.0
Scour Pools	38	830	2.8	0.53	2,551	75.94%	10	0.4
Glides	0	0			0	0.00%	0	0.0
Riffles	30	339	1.8	0.07	694	20.65%	28	4.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	2	2	0.5	0.06	1	0.03%	0	0.0
Dry	3	24	2.8	0.00	55	1.63%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	45	36.5	39.9
Pools >=1m deep:	1	0.8	0.9
Complex pools (LWD pieces>=3):	17	13.8	15.1
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.48		

OREGON DEPARTMENT OF FISH AND WILDLIFE
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Survey Date 7/15/2008

RIPARIAN ZONE

Report Date: 12/29/2008

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	813
Total conifers/1000 ft	345
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 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	1.0	3.7	1.0	3.0	0.0	2.3	2.0	9.0
15-30cm	0.0	1.3	1.7	0.7	2.0	0.0	3.7	2.0
30-50cm	0.0	1.0	0.0	0.7	0.0	0.3	0.0	2.0
50-90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	6.3	2.7	4.3	2.0	2.7	1.9	4.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	86		78		78	
Shrub cover	71		68		68	
Grass/forb cover	23		16		18	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		17	
High terrace	50		100		83	
Low terrace	33		0		0	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	4		0		4	

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	813
Total conifers/1000 ft	345
Total conifers >20" dbh/1000 ft	0
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	2.0	9.0
15-30cm	3.7	2.0
30-50cm	0.0	2.0
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		
20	LT	1	HT	0	95	10	50	Conifer	3						
								Hardwood	1		1				
20	LT	2	HT	0	95	0	0	Conifer	3	5					100% DUFF
								Hardwood							
20	LT	3	HT	0	100	0	10	Conifer		6					80% DUFF
								Hardwood							
20	RT	1	LT	10	90	90	10	Conifer							
								Hardwood		3	1				
20	RT	2	HT	0	90	85	15	Conifer							
								Hardwood			1				
20	RT	3	HS	25	95	75	25	Conifer							
								Hardwood			1				
46	LT	1	HT	0	95	90	10	Conifer							
								Hardwood	1						
46	LT	2	HT	0	85	90	10	Conifer							
								Hardwood	3						
46	LT	3	HT	0	90	90	10	Conifer							
								Hardwood	1						
46	RT	1	FP	6	80	95	5	Conifer							
								Hardwood			1				
46	RT	2	HT	0	90	95	5	Conifer							
								Hardwood	2	2	1				
46	RT	3	HT	0	90	90	10	Conifer							
								Hardwood	2						
59	LT	1	HT	0	85	55	45	Conifer							
								Hardwood	9						
59	LT	2	HT	0	90	45	55	Conifer							
								Hardwood	3						
59	LT	3	HT	0	90	55	45	Conifer							
								Hardwood	4						
59	RT	1	LT	9	70	85	15	Conifer							
								Hardwood			1	1			
59	RT	2	HT	0	15	90	10	Conifer							
								Hardwood	1						
59	RT	3	HT	0	5	95	5	Conifer							
								Hardwood							

COMMENT SUMMARY

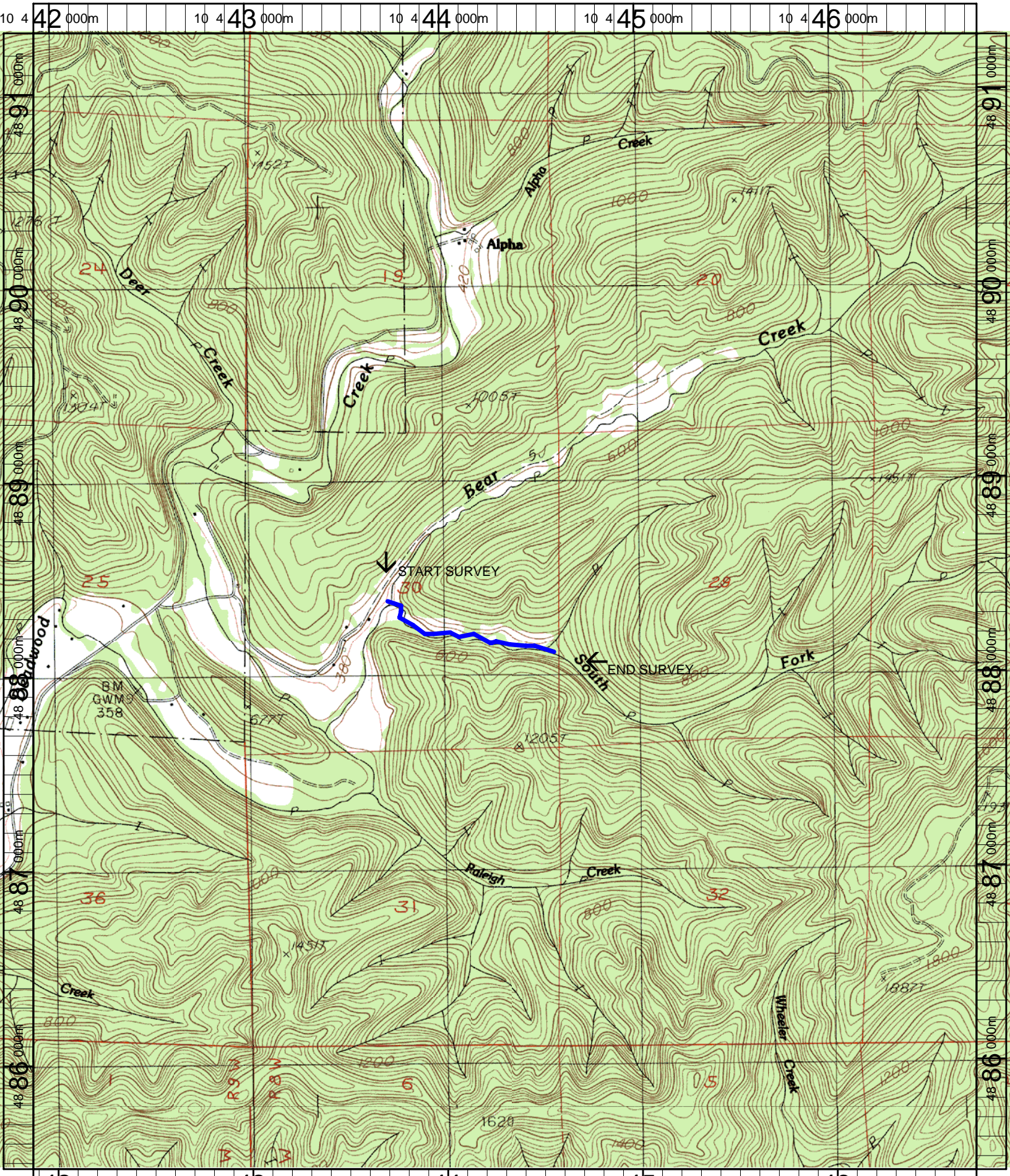
MONITORING AREA: 2-MC SITE ID: 383 STREAM: SOUTH FORK BEAR CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	00	25.2		CT/MT,D15/G,YT/
2	LP	01	38.8	DJ	FRY
3	IP	10	38.8	AM	(6) ROUGH-SKINNED NEWTS, FRY
8	LP	01	91.6	WL	HEARD GREAT HORNED OWL
11	RI	00	103.8	WL	ELK TRAIL
15	LP	00	201.7	WL	DEER TRACK, LOTS OF COHO
17	LP	00	237.9	HS	
20	RI	00	271.9		CA/CT, D15/D3, YT
21	LP	00	283.4	HS	POOL WITH A BUNCH OF SMALL TREES HANGING OVER, PHOTO
23	LP	00	341.8	HS	
27	SC	01	370.2		H=0.25M
28	LP	02	370.2	AM	ROUGH-SKINNED NEWT
30	LP	00	387.7	WL	DEER TRACK, SCULPIN
32	LP	01	415.3	HS	
41	LP	00	549.1	HS	
42	SL	00	550.6		H=1.0M
43	LP	01	594.6	HS	
45	LP	02	594.6	HS	
46	RI	00	603.3		CT/CT, S/D3, ST/
49	LP	00	657.9	HS	
59	RI	00	800.6		CT/MT, D3/S, ST/
62	LP	00	833	HS	

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 383 STREAM: SOUTH FORK BEAR CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
64	LP	01	863	DJ	
69	RI	00	924.6	AM	LITTLE PACIFIC GIANT SALAMANDER
72	LP	00	1011.7	AM	ROUGH-SKINNED NEWT
74	LP	00	1054.7	WL	DEER TRACK
76	LP	00	1082.1	DJ	
82	RI	00	1127.5		CT/CT, D50/S, LT/



Name: WINDY PEAK
 Date: 12/11/2007
 Scale: 1 inch equals 2000 feet

Location: 10 444311 E 4888377 N
 Caption: SOUTH FORK BEAR CREEK RESTORATION SITE - SIUSLAW BASIN

MC-383 South Fork Bear Creek (Pre-Treatment) 2008 Summer Habitat Survey Photographs



Downstream at start of survey



Upstream at start of survey