

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

STREAM: HUDSON CREEK SEGMENT B
 GCG: 3-MS
 SITE ID: 387
 BASIN: COQUILLE
 TREATMENT DATE: 2008
 SURVEY DATE: 7/1/2008
 SURVEY CREW: Peter Cole / Lisa Biggs
 USGS MAPS: COOS MOUNTAIN
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by hillslopes
 Dominant landuse(s): Second growth timber (15-30 cm dbh)
 Dominant riparian vegetation: Mixed conifer/deciduous: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 1,597 : 6,859
 Secondary channel length (meters) and area (m²) 86 : 147
 VWI average: 2.7 VWI Range: 1 - 6 Average Gradient: 1.9%
 Pieces LWD per 100m: 26.9 Wood Volume (m³) per 100m: 21.8
 Percent pools: 35% Complex pools (LWD pieces>=3): 25 Pools >=1m deep: 2
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	7	20	24	15	8	26
Pool units	15	26	16	11	6	26
Fast water units	2	14	26	19	10	30

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted beaver activity near the end of the survey. They also noted observing several large resident cutthroat trout. Evidence of wildlife during the survey included dunn's salamanders, pacific giant salamanders, red-legged frogs, and various animal tracks.

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

**HUDSON CREEK SEGMENT B
GCG: 3-MS SITE ID: 387**

Survey Date: 7/1/2008

Report Date: 12/29/2008

T27S-R11W-S35SW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.7	VWI Range:	1 - 6

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	1,597	6,859	0
Secondary	86	147	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 4
Width: 3.8	Width: 8.2	10.2 (7.5 - 13.9)	11.6 (8.9 - 16.4)
Depth: 0.26	Height: 0.6	1.1 (0.9 - 1.2)	1.6 (1.2 - 1.7)

W:D ratio: 14.8

Stream Flow Type: LF

Average Unit Gradient: 1.9%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 5.9

Habitat Units/100m (primary channel length): 6.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	M30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 91%
Undercut Banks:	7%	Range: 64 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	430	26.9
Volume (m ³):	348	21.8
Key pieces (>=12m x 0.60m):	4	0.3

OREGON DEPT OF FISH AND WILDLIFE

HUDSON CREEK SEGMENT B

HABITAT INVENTORY

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T27S-R11W-S35SW

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	Gvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	3	45	4.6	0.11	202	33	0	8	3	8	8	72
CASCADE/BOULDERS	7	147	3.3	0.13	587	374	2	10	15	36	30	7
DRY UNIT	1	7	3.1	0.00	20	0	0	90	10	0	0	0
POOL-BACKWATER	2	11	2.0	0.40	21	0	46	22	28	5	0	0
POOL-BEAVER DAM	1	19	4.0	0.40	76	0	30	30	30	10	0	0
POOL-LATERAL SCOUR	33	539	4.0	0.51	2,165	217	15	25	15	11	6	28
POOL-PLUNGE	2	14	6.0	0.60	79	11	9	24	17	23	15	11
POOL-STRAIGHT SCOUR	2	33	3.6	0.55	123	0	12	39	12	5	0	32
PUDDLED UNIT	1	19	0.8	0.15	15	10	0	11	5	21	42	21
RAPID/BEDROCK	10	318	5.5	0.07	1,812	163	0	6	5	2	0	86
RAPID/BOULDERS	12	236	4.5	0.10	1,111	254	0	15	26	30	15	13
RIFFLE	8	147	2.6	0.07	424	11	4	21	52	15	1	7
RIFFLE W/ POCKETS	6	118	2.5	0.11	281	14	4	20	50	17	3	7
STEP/BEAVER DAM	1	1	6.0	0.05	5	0	0	44	11	22	22	0
STEP/BOULDERS	1	6	2.4	0.07	14	9	0	22	44	22	11	0
STEP/COBBLE	7	22	2.7	0.06	64	12	0	14	65	14	3	5
STEP/LOG	2	2	3.3	0.02	6	0	0	5	15	5	0	75
Total:	99	1,683	3.8	0.26	7,007	1,108	Avg: 7	20	24	15	8	26

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	3	30	2.6	0.40	98	1.39%	0	0.0
Scour Pools	37	587	4.0	0.52	2,367	33.78%	228	9.6
Glides	0	0			0	0.00%	0	0.0
Riffles	14	265	2.6	0.09	705	10.06%	25	3.5
Rapids	22	554	4.9	0.09	2,924	41.73%	417	14.3
Cascades	10	192	3.7	0.12	789	11.27%	407	51.6
Step/Falls	11	30	3.1	0.06	89	1.27%	21	23.7
Dry	2	26	2.0	0.08	36	0.51%	10	28.1
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
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REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	40	23.8	25.0
Pools >=1m deep:	2	1.2	1.3
Complex pools (LWD pieces>=3):	25	14.9	15.7
Pool frequency (channel widths/pool):	5.2		
Residual pool depth (avg):	0.44		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 6 transects

Total hardwoods/1000	528
Total conifers/1000 ft	20
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	0.0	1.5	0.0	0.7	0.2	1.7	0.2	3.8
15-30cm	0.0	1.0	0.2	0.7	0.0	1.7	0.2	3.3
30-50cm	0.0	0.3	0.0	0.5	0.0	0.2	0.0	1.0
50-90cm	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	3.3	0.2	1.8	0.2	3.5	0.1	2.9

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	78	76	82
Shrub cover	32	25	29
Grass/forb cover	61	68	67

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	58	67	83
High terrace	33	17	8
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	8	0	0
Roadbed/Railroad	0	17	8
Riprap	0	0	0
Surface slope (%)	40	40	63

Summary of Riparian Zone (0-30m) for all reaches

6 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	528
Total conifers/1000 ft	20
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	0.2	3.8
15-30cm	0.2	3.3
30-50cm	0.0	1.0
50-90cm	0.0	0.5
>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		
11	LT	1	HS	60	90	50	20	Conifer							
								Hardwood		2					
11	LT	2	RB	0	95	15	60	Conifer							
								Hardwood							
11	LT	3	HS	90	100	45	45	Conifer							
								Hardwood							
11	RT	1	HS	80	10	100	0	Conifer							
								Hardwood							
11	RT	2	HS	85	55	100	0	Conifer							
								Hardwood							
11	RT	3	HS	85	95	60	40	Conifer							
								Hardwood	1	2					
24	LT	1	HS	75	95	55	45	Conifer							
								Hardwood		1	2	1			
24	LT	2	RB	0	0	5	35	Conifer							
								Hardwood							
24	LT	3	RB	0	20	25	30	Conifer							
								Hardwood							
24	RT	1	HS	80	90	0	100	Conifer							
								Hardwood	4						
24	RT	2	HS	65	85	0	100	Conifer							
								Hardwood	2	1					
24	RT	3	HS	65	85	5	95	Conifer							
								Hardwood			1				
44	LT	1	HT	0	75	5	95	Conifer							
								Hardwood							
44	LT	2	HT	0	90	5	95	Conifer							
								Hardwood							
44	LT	3	HS	75	80	5	95	Conifer							4.5M HT
								Hardwood	1	1					
44	RT	1	HS	90	90	10	90	Conifer							
								Hardwood				1			
44	RT	2	HS	90	85	10	90	Conifer							
								Hardwood		1					
44	RT	3	HS	90	85	5	95	Conifer							
								Hardwood	1						

60	LT	1	HT	0	90	55	45	Conifer					
								Hardwood				1	
60	LT	2	HS	70	95	25	75	Conifer				1	
								Hardwood					
60	LT	3	HS	70	95	10	90	Conifer					
								Hardwood				1	
60	RT	1	HS	85	90	5	95	Conifer					
								Hardwood				1	
60	RT	2	HS	95	90	35	65	Conifer					
								Hardwood					
60	RT	3	HS	95	90	75	25	Conifer					
								Hardwood	3		1		
75	LT	1	HS	15	95	0	100	Conifer					4.5M LT
								Hardwood	3		1		
75	LT	2	HS	15	90	0	100	Conifer					
								Hardwood	1				
75	LT	3	HS	15	80	5	95	Conifer				1	
								Hardwood					
75	RT	1	SC	0	55	25	20	Conifer					
								Hardwood	2				
75	RT	2	HS	20	60	45	55	Conifer					
								Hardwood	1		1		
75	RT	3	HS	85	65	25	75	Conifer					
								Hardwood			1		
92	LT	1	HT	0	85	30	70	Conifer					
								Hardwood				1	
92	LT	2	HS	35	90	10	90	Conifer					4M RB
								Hardwood			1	3	
92	LT	3	HS	80	95	35	65	Conifer					
								Hardwood	3		2		
92	RT	1	HT	0	65	50	50	Conifer					
								Hardwood					
92	RT	2	HT	0	80	45	55	Conifer					
								Hardwood					
92	RT	3	HT	0	95	50	50	Conifer					3M HS
								Hardwood	1		2		

COMMENT SUMMARY

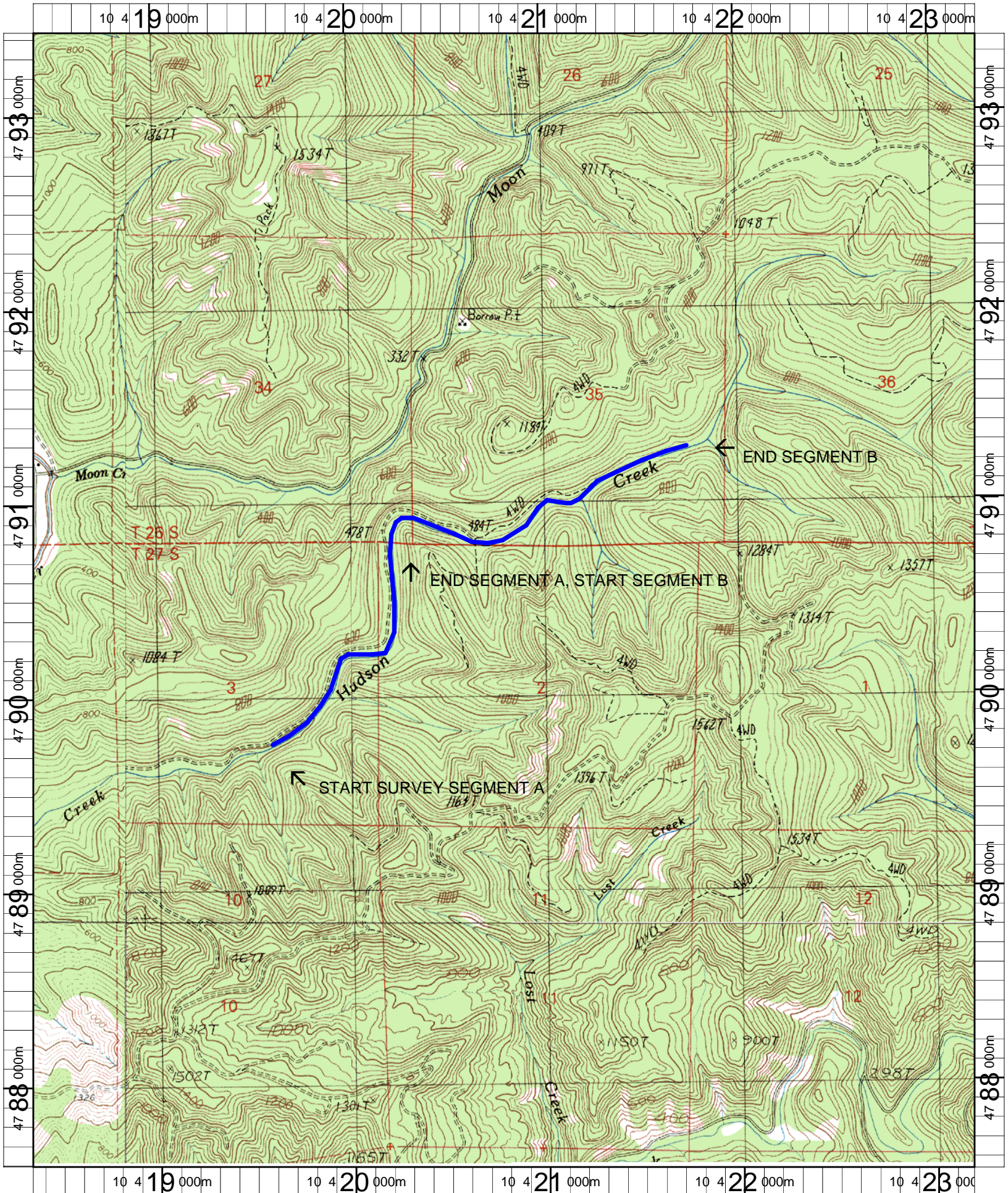
MONITORING AREA: 3-MS SITE ID: 387 STREAM: HUDSON CREEK SEGMENT B

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	CR	00	6		T=18.5C, PHOTO #0725
2	RR	00	43.2		SITE B15, CLEARCUT ENDS
3	SL	00	44.2		H=0.40M
4	LP	00	63.7	WL	BIG BEAR TRACKS
5	RR	00	113.7		SITE B16
8	RR	00	198.2		SITE B17
11	LP	00	257.4	AM	5CM PACIFIC GIANT SALAMANDER IN POOL, RIPARIAN 1
13	LP	00	277.3		SITE B18
17	LP	00	348.9		SEVERAL LARGE CUTTHROAT TROUT
18	RR	00	401.9		SITE B19
20	RI	00	461.8		SITE B20
22	SC	00	487.3	AM	(2) 5CM DUNNS SALAMANDERS UNDER ROCK NEXT TO WATER
24	RB	00	542	AM	T=18C @ 3:05PM, 5CM RED-LEGGED FROG IN STREAM, RIPARIAN 2
26	SL	00	561.1		H=0.40M
28	LP	00	594.6	BC	OLD RAILCAR BRIDGE
29	RB	01	605.9	DJ	DJ CAUSED THE THREE CHANNELS, SEE YELLOW NOTEBOOK & PHOTO
30	LP	01	614.1		T=13C @ 9:20AM
31	RP	01	652		12M UNDER DJ
32	PD	02	652		0.90M HIGH STEP OVER ROCK IN UNIT
33	LP	02	652		PART OF POOL UNDER DJ
36	SP	00	665.7		SITE B20
37	RP	00	680		PHOTO # 0726

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 387 STREAM: HUDSON CREEK SEGMENT B

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
40	PP	00	716.6		STEP OVER LOG INTO POOL IS NO LONGER A STEP
42	LP	01	743.7		SITE B22
44	RI	00	766.9		RIPARIAN 3
49	RB	00	847.4	DJ	
54	LP	00	939.1		SITE B23
56	LP	00	970.5	DJ	
60	LP	00	1032.4		RIPARIAN 4
64	LP	00	1089.4		SITE B25
68	RR	00	1174.1	LI	LI: 3M X 4M
70	LP	00	1220.4	AM	LARGE RED-LEGGED FROG
73	CB	01	1257.4	/TJ	ONE TRIB, BUT TWO CHANNELS FROM SAME TRIB ENTER THIS UNIT AND U75
74	CB	11	1257.4		TRIB A, ACW=2.7M, T=13C
75	RB	01	1282.4	WL	ELK TRAIL
76	CB	12	1282.4		DIFFERENT CHAN TRIB A, NEXT UNIT IS 1.6M STEP OVER HARDPAN, ACW=1M
79	CB	00	1351.3	DJ	
80	LP	00	1361.4		T=14C @ 10:00AM
82	LP	00	1387.8		2 SMALL STEPS OVER LOGS (<0.10M) IN POOL
87	RP	00	1438.4		SITE B27
91	LP	00	1507		HARDPAN
92	SC	00	1509.5		RIPARIAN 6
95	BP	00	1576.8	BV	VERY SMALL BEAVER DAM
99	SD	00	1596.9	BD	H=0.55M BEAVER DAM, END SURVEY



Name: COOS MT
 Date: 12/13/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0420789 E 4790488 N NAD 27
 Caption: HUDSON CREEK SEGMENTS A_B RESTORATION SITES -
 COQUILLE BASIN