

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

STREAM: HUDSON CREEK SEGMENT A
 GCG: 3-MS
 SITE ID: 386
 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): Timber harvest - not yet replanted.

Dominant riparian vegetation: Shrubs (willow, salmonberry, some small alder)

Primary channel length (meters) and area (m²): 1,673 : 7,061

Secondary channel length (meters) and area (m²) 110 : 214

VWI average: 1.8 VWI Range: 1 - 3 Average Gradient: 1.5%

Pieces LWD per 100m: 27.4 Wood Volume (m³) per 100m: 19.6

Percent pools: 43% Complex pools (LWD pieces \geq 3): 23 Pools \geq 1m deep: 2

<u>Percent substrate (avg):</u>	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	9	28	29	13	6	15
Pool units	16	33	19	9	6	17
Fast water units	3	24	32	16	5	20

COMMENTS:

This is a pre-treatment, restoration survey. The crew noted debris jams throughout the surveyed length. They also noted observing juvenile coho. Evidence of amphibians included rough-skinned newts, dunn's salamander, a tadpole, and a pacific treefrog. They also noted observing a garter snake and various animal tracks.

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

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Survey Date: 7/1/2008

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T27S-R11W-S3SW

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	1.8	VWI Range:	1 - 3

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	1,673	7,061	1
Secondary	110	214	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: 8.8	12.0 (7.3 - 18)	11.7 (8.2 - 18.1)
Depth: 0.28	Height: 0.6	1.1 (1 - 1.2)	1.4 (1.2 - 1.6)

W:D ratio: 15.5

Stream Flow Type: LF

Average Unit Gradient: 1.5%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.4

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

Habitat Units/100m (primary channel length): 6.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	YT
Riparian Vegetation:	S	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 71%
Undercut Banks:	6%	Range: 28 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	459	27.4
Volume (m ³):	328	19.6
Key pieces (>=12m x 0.60m):	4	0.2

OREGON DEPT OF FISH AND WILDLIFE

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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
CASCADE/BEDROCK	2	56	3.7	0.06	270	34	0	5	13	3	3	78
CASCADE/BOULDERS	2	38	2.9	0.08	161	58	8	48	8	3	8	28
DRY UNIT	3	33	4.3	0.00	142	12	3	32	35	13	17	0
POOL-BACKWATER	2	8	2.9	0.50	22	2	53	35	3	0	3	8
POOL-ISOLATED	1	10	7.0	0.70	70	0	80	20	0	0	0	0
POOL-LATERAL SCOUR	41	727	4.2	0.54	3,035	225	15	33	18	9	6	18
POOL-PLUNGE	4	30	4.5	0.56	129	16	19	36	24	6	8	8
RAPID/BEDROCK	5	181	5.0	0.07	962	77	0	6	5	5	2	82
RAPID/BOULDERS	9	182	4.5	0.06	882	234	3	19	23	31	11	12
RIFFLE	17	298	3.4	0.08	1,022	143	1	23	51	19	2	5
RIFFLE W/ POCKETS	6	173	2.7	0.09	437	22	12	48	27	6	4	4
STEP/BOULDERS	2	10	3.5	0.00	36	25	0	23	8	15	41	13
STEP/COBBLE	12	29	2.6	0.07	73	11	0	11	66	20	2	1
STEP/LOG	4	10	2.7	0.06	33	0	0	53	33	10	3	3
Total:	110	1,783	3.8	0.28	7,275	859	Avg: 9	28	29	13	6	15

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	18	4.2	0.57	92	1.26%	2	2.2
Scour Pools	45	757	4.3	0.55	3,164	43.50%	241	7.6
Glides	0	0			0	0.00%	0	0.0
Riffles	23	470	3.2	0.08	1,458	20.05%	165	11.3
Rapids	14	362	4.7	0.07	1,845	25.36%	311	16.9
Cascades	4	94	3.3	0.07	431	5.93%	92	21.3
Step/Falls	18	49	2.7	0.06	142	1.96%	36	25.3
Dry	3	33	4.3	0.00	142	1.95%	12	8.5
Culverts	0	0			0	0.00%	0	0.0

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	48	26.9	28.7
Pools >=1m deep:	2	1.1	1.2
Complex pools (LWD pieces>=3):	23	12.9	13.8
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.46		

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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	406
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	0.0	2.0	1.7	1.5	3.7	0.3	5.3	3.8
15-30cm	0.2	1.3	0.0	0.2	0.2	0.3	0.3	1.8
30-50cm	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.7
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	0.2	4.0	1.7	2.0	3.8	0.7	1.9	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	56	33	33
Shrub cover	60	43	44
Grass/forb cover	33	35	29

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	75	83
High terrace	33	0	0
Low terrace	8	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	8	0
Roadbed/Railroad	8	17	17
Riprap	0	0	0
Surface slope (%)	35	43	50

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	406
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	5.3	3.8
15-30cm	0.3	1.8
30-50cm	0.0	0.7
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		
22	LT	1	HS	35	45	35	55	Conifer							
								Hardwood	4	3					
22	LT	2	HS	80	70	60	40	Conifer	6						
								Hardwood							
22	LT	3	HS	85	85	75	25	Conifer	9	1					
								Hardwood							
22	RT	1	LT	0	100	85	10	Conifer							
								Hardwood	3	1					
22	RT	2	HS	20	20	100	0	Conifer	1						
								Hardwood							
22	RT	3	HS	20	0	100	0	Conifer							
								Hardwood							
37	LT	1	HT	0	75	80	20	Conifer							
								Hardwood				1			
37	LT	2	RB	0	0	15	75	Conifer							
								Hardwood							
37	LT	3	HS	90	85	25	65	Conifer	8						
								Hardwood							
37	RT	1	HS	60	90	90	10	Conifer							
								Hardwood			2				
37	RT	2	HS	40	55	80	20	Conifer	3						
								Hardwood	1						
37	RT	3	HS	35	60	85	15	Conifer	5						
								Hardwood							
48	LT	1	HT	0	90	90	10	Conifer							
								Hardwood		1		1			
48	LT	2	RB	0	90	20	70	Conifer							
								Hardwood	1		1				
48	LT	3	RB	0	85	30	60	Conifer							
								Hardwood		1					
48	RT	1	HS	110	70	85	15	Conifer							
								Hardwood	1	1					
48	RT	2	HS	95	45	90	10	Conifer							
								Hardwood	5						
48	RT	3	HS	80	40	95	5	Conifer							
								Hardwood	2						

63	LT	1	HT	0	35	50	45	Conifer Hardwood			
63	LT	2	SC	0	40	30	30	Conifer Hardwood	1	1	
63	LT	3	RB	0	0	10	5	Conifer Hardwood			
63	RT	1	HS	100	25	40	45	Conifer Hardwood			
63	RT	2	HS	100	5	5	10	Conifer Hardwood			HOT DRY CLEAR CUT
63	RT	3	HS	80	0	0	15	Conifer Hardwood			HOT DRY CLEAR CUT
83	LT	1	RB	0	5	5	45	Conifer Hardwood	1		TEMP IN SHADE=35C@ 2:30
83	LT	2	HS	80	0	5	5	Conifer Hardwood			HOT DRY CLEAR CUT. OLD RB
83	LT	3	HS	80	0	0	5	Conifer Hardwood			HOT DRY CLEAR CUT
83	RT	1	HS	35	25	15	80	Conifer Hardwood			
83	RT	2	HS	45	5	5	85	Conifer Hardwood			HOT DRY CLEAR CUT
83	RT	3	HS	75	0	10	80	Conifer Hardwood			HOT DRY CLEAR CUT
98	LT	1	HT	0	55	95	5	Conifer Hardwood			
98	LT	2	HS	35	60	100	0	Conifer Hardwood	1	1	
98	LT	3	HS	35	40	90	10	Conifer Hardwood		1	3M RB
98	RT	1	HS	85	55	45	55	Conifer Hardwood		1	
98	RT	2	HS	15	0	0	70	Conifer Hardwood	4	1	CLEARCUT
98	RT	3	HS	15	0	5	60	Conifer Hardwood			CLEARCUT

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 386 STREAM: HUDSON CREEK SEGMENT A

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	PP	01	9.6	/TJ, DJ	T=14C AT 11:00, START SURVEY
2	DU	11	9.6		TRIB A, ACW=2.5M
3	BW	10	9.6		PHOTO #0721
4	SL	00	13.1		H=1.8M, UNDER DJ
6	LP	00	59.9		COHO PRESENT, HARDPAN
7	SL	01	64	DJ	H=1.3M
8	BW	10	64		UNDER DJ
9	DU	00	75.3		UNDERGROUND FLOW, ACW=6.9M
17	RI	00	171		3/4" BLACK POLYPIPE IN RIFFLE
18	LP	00	192.1	AM	SITE B5, ROUGH-SKINNED NEWT, LOTS OF 10-15CM TROUT
20	LP	00	213.9	WL	GARTER SNAKE @ EDGE OF POOL
21	RI	00	257.5		SITE B6
22	LP	00	272.9		RIPARIAN 1
24	LP	01	283.9	TJ/	
25	CB	11	283.9		TRIB B
35	LP	00	454.7		SITE B8
37	CR	00	546.3		SITE B9, RIPARIAN 2
38	RR	01	596.8	/TJ	
39	CR	11	596.8		TRIB C, T=14C, ACW=2.4M
41	LP	00	640.7		T=13C @ 9:30AM
43	LP	00	662.7		SITE B10
47	RB	00	785.3		SITE B11

COMMENT SUMMARY

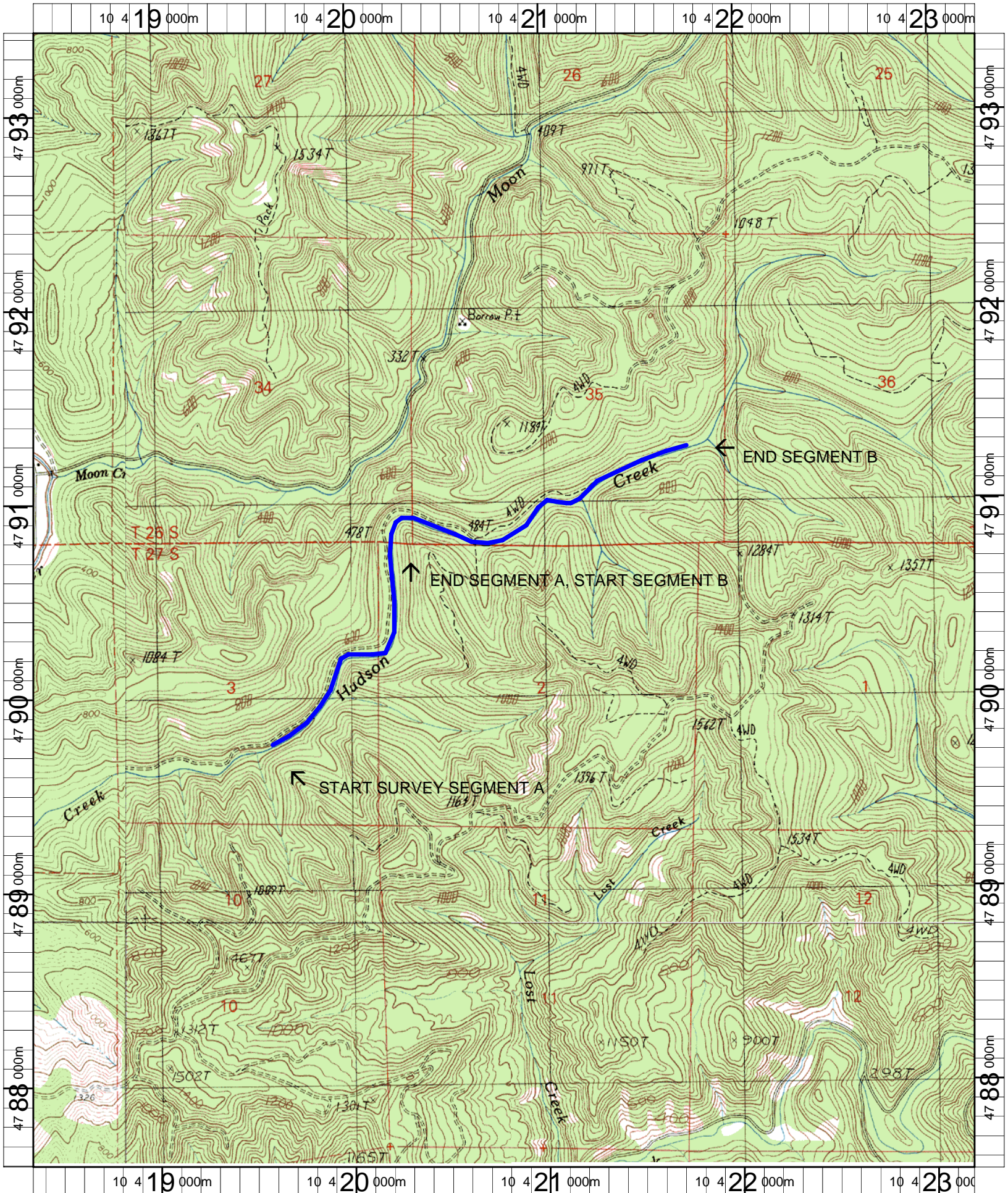
MONITORING AREA: 3-MS SITE ID: 386 STREAM: HUDSON CREEK SEGMENT A

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
48	LP	00	803.8	AM, WL	5CM RED-LEGGED FROG ON BANK, BEAR TRACKS, RIPARIAN 3
58	SL	00	935		H=0.30M
60	LP	00	983.7	AM,DJ	(4) ROUGH-SKINNED NEWTS IN POOL
63	RP	01	1053.2	/LA,DJ	RIPARIAN BUFFER ZONE FELL INTO CR, /LA: 10M X 8M, RIPARIAN 4
64	LP	01	1066.3	/LA	/LA EXTENDS INTO NEXT 3 UNITS: 23M X 5M
65	RP	02	1066.3		ACW=3.4M
66	DU	02	1066.3		ACW=3.4M
67	LP	00	1077.2	DJ	SITE B12, POOL UNDER DJ
69	RP	00	1094.5	DJ	UNDER DJ
70	RP	01	1117.9		PHOTO # 0722
71	IP	10	1117.9	WL	FULL OF POISON HEMLOCK, LOTS OF ELK TRACKS
72	LP	01	1137.2	/TJ	
73	RB	11	1137.2	AM	TRIB D, ACW=0.60M, T=16C, 5CM DUNNS SALAMANDER ON BANK
77	LP	00	1200.9	DJ	
82	RI	00	1263.8		PHOTOS # 0723 & 0724
83	LP	00	1271.8		COHO STILL PRESENT, RIPARIAN 5
85	LP	00	1330.9	AM	ROUGH-SKINNED NEWT
87	LP	00	1366.9	DJ	
88	RI	00	1377.3	DJ	
91	LP	00	1417.4	SS/	
92	RP	00	1456.8		SITE B13
97	LP	00	1533.8	AM	TAILED FROG TADPOLE AT TAILOUT OF POOL

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 386 STREAM: HUDSON CREEK SEGMENT A

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
98	SC	00	1537.7		RIPARIAN 6
102	RB	00	1593.7		SITE B14
104	RB	00	1642.8	AM	HEARD A PACIFIC TREEFROG
108	SL	00	1665.8		H=0.70M
110	PP	00	1672.7		WE ENDED WHERE WINTER HAB CREW ENDED



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