

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

STREAM: OJALLA CREEK
 GCG: 2-MC
 SITE ID: 459
 BASIN: SILETZ
 TREATMENT DATE: 2011
 SURVEY DATE: 4/9/2012
 SURVEY CREW: Lora Tennant and Kara Anlauf-Dunn
 USGS MAPS: MOWREY LANDING
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Lora Tennant

REACH: 1 LOCATION: T09S-R10W-S29NE

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Agricultural crop or dairy land.
 Dominant riparian vegetation: Conifers: size class 50-90cm dbh
 Primary channel length (meters) and area (m²): 1,640 : 5,750
 Secondary channel length (meters) and area (m²) 67 : 117
 VWI average: 20.0 VWI Range: 20 - 20 Average Gradient: 1.3%
 Pieces LWD per 100m: 10.2 Wood Volume (m³) per 100m: 10.7
 Percent pools: 41% Complex pools (LWD pieces>=3): 18 Pools >=1m deep: 7
Percent substrate (avg): Silt / organics Sand Gravel Cobble Boulder Bedrock
 All units 9 39 35 4 1 12
 Pool units 10 46 26 2 0 15
 Fast water units 3 28 51 8 0 11

SURVEY COMMENTS:

This is a post-restoration habitat survey. Numerous log habitat structures and debris jams were noted in the upper half of the survey site. The lower section of this site is heavily influenced by the Siletz River – sinuous and low gradient.

Survey Date: 4/9/2012

Report Date: 11/13/2012

T09S-R10W-S29NE

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	20.0	VWI Range:	20 - 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	1,640	5,750	0
Secondary	67	117	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 7	<u>First Terrace</u> n = 7
Width: 3.5	Width: 4.7	7.0 (5.8 - 11.1)	13.8 (8.2 - 23)
Depth: 0.44	Height: 0.7	1.3 (1.2 - 1.4)	4.9 (1.35 - 10)

W:D ratio: 7.2

Stream Flow Type: MF

Average Unit Gradient: 1.3%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 7.6

Habitat Units/100m (primary channel length): 7.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	RR
Riparian Vegetation:	C50	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	22%	Reach avg: 86%
Undercut Banks:	20%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	168	10.2
Volume (m ³):	175	10.7
Key pieces (>=12m x 0.60m):	4	0.2

OREGON DEPT OF FISH AND WILDLIFE

OJALLA CREEK

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T09S-R10W-S29NE

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	1	6	0.5	0.10	3
CULVERT CROSSING	1	14	1.0	0.25	14	5	0	10	0	0	90	0
POOL-BACKWATER	7	38	2.4	0.55	95	0	35	51	7	2	1	5
POOL-LATERAL SCOUR	52	577	3.9	0.69	2,245	8	10	48	27	3	0	12
POOL-PLUNGE	4	18	3.7	0.73	69	0	13	31	20	0	0	35
POOL-STRAIGHT SCOUR	4	21	3.9	0.61	81	0	13	38	18	1	0	30
RIFFLE	42	992	3.2	0.21	3,214	4	3	28	51	8	0	11
STEP/BEDROCK	2	16	3.1	0.25	51	0	0	19	18	0	0	63
STEP/COBBLE	4	13	4.2	0.13	55	0	1	35	58	4	0	2
STEP/LOG	12	12	3.9	0.19	40	0	13	45	39	2	0	0
STEP/STRUCTURE	1	1	1.0	0.10	1	2	0	10	0	0	90	0
Total:	130	1,707	3.5	0.44	5,867	19	Avg: 9	39	35	4	1	12

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	38	2.4	0.55	95	1.62%	0	0.0
Scour Pools	60	616	3.9	0.69	2,395	40.82%	8	0.3
Glides	0	0			0	0.00%	0	0.0
Riffles	42	992	3.2	0.21	3,214	54.78%	4	0.1
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	6	0.5	0.10	3	0.05%	0	0.0
Step/Falls	19	41	3.7	0.18	147	2.50%	2	1.4
Dry	0	0			0	0.00%	0	0.0
Culverts	1	14	1.0	0.25	14	0.23%	5	37.0

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T09S-R10W-S29NE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	67	39.2	40.9
Pools >=1m deep:	7	4.1	4.3
Complex pools (LWD pieces>=3):	18	10.5	11.0
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.48		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

GCG: 2-MC

OJALLA CREEK
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Survey Date 4/9/2012

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Report Date: 11/13/2012

Summary of Riparian Zone (0-30m) 5 transects

Total hardwoods/1000 ft	219
Total conifers/1000 ft	268
Total conifers >20" dbh/1000 ft	85
Total conifers >35" dbh/1000 ft	24

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	0.4	1.0	0.6	1.0	0.8	0.6	1.8	2.6
15-30cm	0.2	0.4	0.2	0.0	0.0	0.4	0.4	0.8
30-50cm	0.2	0.0	0.2	0.0	0.4	0.0	0.8	0.0
50-90cm	0.4	0.0	0.0	0.2	0.6	0.0	1.0	0.2
>90cm	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Total/100m ²	1.6	1.4	1.0	1.2	1.8	1.0	1.5	1.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	55		36		25	
Shrub cover	24		22		11	
Grass/forb cover	67		78		90	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		40		10	
High terrace	50		50		80	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		10		10	
Riprap	0		0		0	
Surface slope (%)	28		12		2	

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

5 transects

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

Total hardwoods/1000 ft	219
Total conifers/1000 ft	268
Total conifers >20" dbh/1000 ft	85
Total conifers >35" dbh/1000 ft	24

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	1.8	2.6
15-30cm	0.4	0.8
30-50cm	0.8	0.0
50-90cm	1.0	0.2
>90cm	0.4	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		
29	LF	1	HT	0	40	10	90	Conifer							4M HS @ SLOPE 60%
								Hardwood		1					
29	LF	2	HS	42	65	0	100	Conifer		1					
								Hardwood				1			
29	LF	3	HS	22	90	0	100	Conifer				2			
								Hardwood	2						
29	RT	1	HS	65	20	70	30	Conifer							
								Hardwood							
29	RT	2	RB	0	20	30	70	Conifer							3.5M HS @ SLOPE 55%
								Hardwood							
29	RT	3	HT	0	10	5	95	Conifer							
								Hardwood		1					
57	LF	1	HS	62	65	60	40	Conifer							
								Hardwood							
57	LF	2	HS	25	80	30	70	Conifer	1			1			
								Hardwood							
57	LF	3	HT	0	70	60	40	Conifer	2						
								Hardwood							
57	RT	1	HS	74	60	30	70	Conifer							
								Hardwood	1						
57	RT	2	HT	0	30	65	35	Conifer							1.0M HS
								Hardwood							
57	RT	3	HT	0	0	5	95	Conifer							
								Hardwood							
67	LF	1	HS	45	65	35	65	Conifer							
								Hardwood	1	1					
67	LF	2	HS	35	40	60	40	Conifer							
								Hardwood	2						
67	LF	3	HT	0	0	10	90	Conifer	1						
								Hardwood			1				
67	RT	1	HS	33	60	20	80	Conifer	2						1
								Hardwood	2						
67	RT	2	HS	15	20	35	65	Conifer							
								Hardwood	3						
67	RT	3	RB	0	0	20	80	Conifer							RB=6M, HT=4M
								Hardwood	1						
84	LF	1	HT	0	30	0	100	Conifer							
								Hardwood							
84	LF	2	HT	0	75	0	100	Conifer	2						
								Hardwood							

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	
84	LF	3	HT	0	70	5	95	Conifer	1			2		
								Hardwood						
84	RT	1	HT	0	20	10	90	Conifer						TRANSITIONA
								Hardwood						L SLOPE 20%
84	RT	2	HT	0	30	0	100	Conifer						
								Hardwood						
84	RT	3	HT	0	10	0	100	Conifer				1		
								Hardwood						
100	LF	1	HT	0	90	0	100	Conifer		1	1		1	4M TRANS
								Hardwood						SLOPE @ 60%
100	LF	2	HT	0	0	0	100	Conifer						
								Hardwood						
100	LF	3	HT	0	0	0	100	Conifer						
								Hardwood						
100	RT	1	HT	0	100	0	0	Conifer				2		100% DUFF,
								Hardwood	1					5M TRANS
100	RT	2	HT	0	0	0	100	Conifer						SLP @ 70%
								Hardwood						PASTURE-
100	RT	3	HT	0	0	0	100	Conifer						LLAMAS!
								Hardwood						PASTURE

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 4/9/2012

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	SP	00	4.9		START 426330/4957391 START, CONFL OJALLA & SILETZ
1	2	SL	00	5.2		HT=0.3, HT=0.2
1	3	SL	00	8.7		SLP=7%
1	6	SL	00	42.5		HT=0.1
1	8	SL	00	47.15		HT=0.2
1	11	SL	00	56.65		HT=0.2
1	13	RI	00	89.95		CT/CT S/G AG/RR, INFLU BY SILETZ, 426347/4957349, METRIC
1	14	LP	00	99.75		DYNAMIC POOL
1	16	LP	00	117.75		DYNAMIC POOL
1	17	RI	00	128.75		HS HAS SHIFTED IN FLOOD -- MANY LOGS ON BANK AND ORIENTED PARA TO STREAM, LOTS OF SILT

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	22	BW	10	176.15		YOY
1	27	RI	00	218.35		BDRCK ALONG RB
1	28	LP	00	233.15		CT/CT S/G AG/RR, RIP, 426342/4957254, T=8C
1	29	RI	00	254.75		RIP, METRIC
1	35	SL	00	295.25		HT=0.2
1	39	SL	00	313.85		HT=0.15
1	47	LP	01	397.15		BDRCK WALL RB
1	49	LP	00	409.85		WOOD DIVIDING POOLS
1	50	RI	00	422.75		PIC 563-SKUNK CABBAGE
1	53	LP	00	453.15		MASSIVE NURSE LOG CRTING LP

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OREGON PLAN MONITORING SITE
SURVEY DATE: 4/9/2012

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	54	LP	01	469.15	/TJ	
1	55	RI	11	469.15		ACW=1.4M, T=8.0C TRIB
1	56	CR	11	469.15		426246/4957125, TREE MIDCHNL, ROOTS CAUSE CR
1	57	RI	00	524.15	SS	CT/CT G/S LT/AG, 426200/4957120, SOME SM DEEPER SECTIONS, RIP
1	58	LP	00	535.15		COHO REDD FLAG TP OF LP
1	59	SL	00	535.45		HT=0.10
1	60	RI	00	574.55	SS	
1	61	LP	00	579.55		GOOD UNDRCT >0.7M
1	63	LP	00	610.95	SS/	BDRCK WALL RB
1	64	RI	00	660.95	SS/	

OREGON DEPT OF FISH AND WILDLIFE
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OREGON PLAN MONITORING SITE
SURVEY DATE: 4/9/2012

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	67	RI	00	743.45	/SS, AM	RSN
1	68	LP	00	748.05		CT/CT C30/S AG/LT, 426153/4956976
1	70	SP	00	790.35		BDRCK SLOT POOL
1	71	RI	00	832.75		END UNIT @ MASSIVE WOOD JAM
1	72	LP	00	838.75	HS	IN MID OF JAM, PIC 564-65
1	73	LP	00	852.85		PICS 546-JAM, 565-LOOKING US FROM JAM, JAM TRAPPING SAND
1	74	PP	00	856.85	/SS	STREAM ROUTED AROUND LARGE TREES
1	75	SL	00	857.55		HT=0.6
1	78	LP	00	899.95	HS	PIC 566-DJ
1	79	RI	00	931.55	SS	

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	80	LP	00	950.85	HS	PIC 567-DJ
1	85	BW	10	1028.15		CT/MT C50/G AG/RR
1	86	LP	00	1050.65	HS	
1	87	SR	00	1059.65	HS	HT=0.4, LRG POOL IN MID OF JAM
1	88	RI	00	1105.15		VERY GRAVELY/SANDY RIFFLE
1	89	LP	00	1117.95	HS	PIC 568-DJ, PIC 567 OF HS
1	90	RI	00	1144.25		FENCE ACROSS STREAM
1	93	BW	10	1154.05		SHELTERED BW-DEEP! OVRHNG ROOT
1	94	LP	01	1166.35		BLDR PRT OF CULVERT STABILIZE
1	95	BW	10	1166.35	SS	

OREGON DEPT OF FISH AND WILDLIFE
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OREGON PLAN MONITORING SITE
SURVEY DATE: 4/9/2012

COMMENT SUMMARY

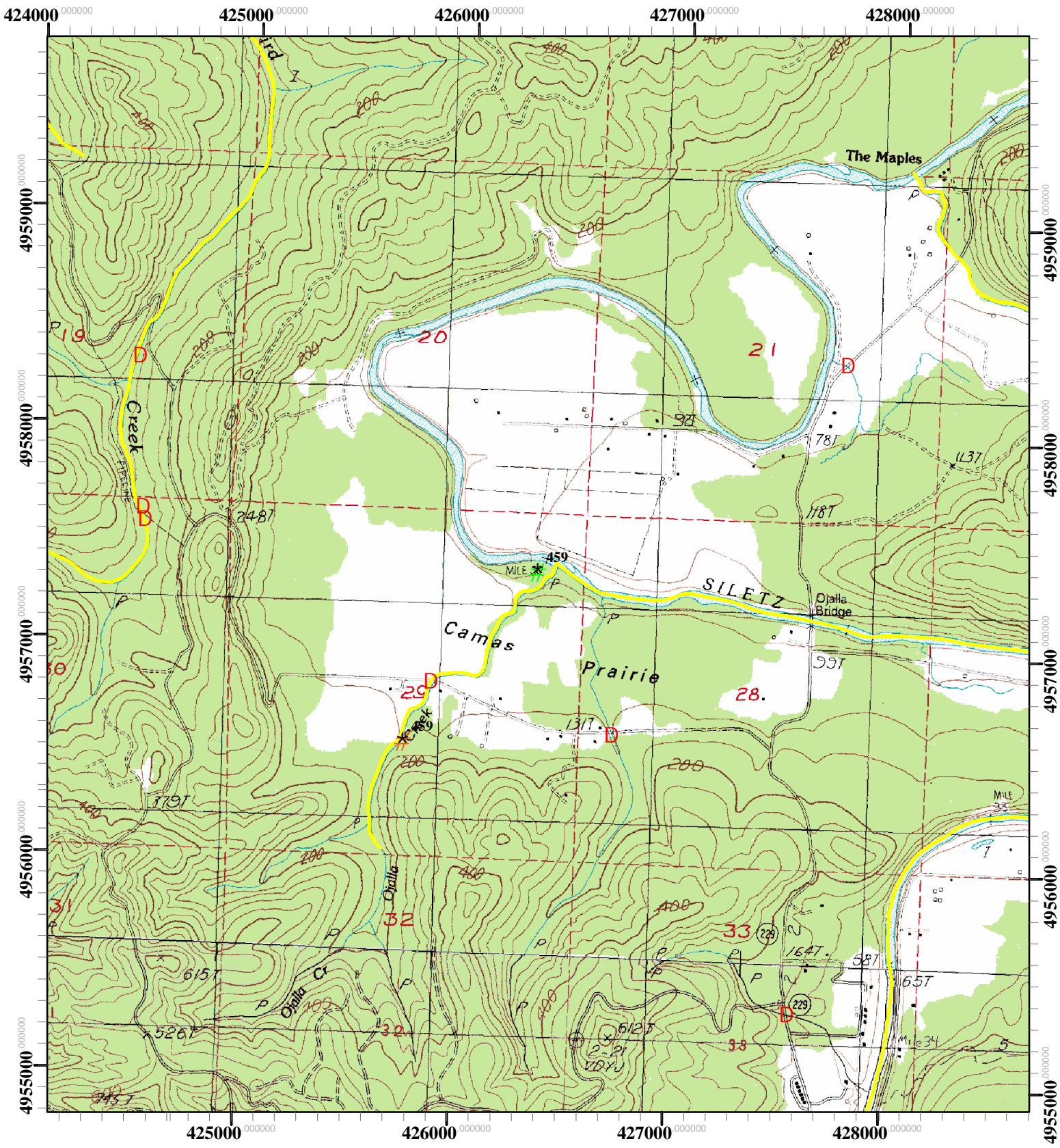
MONITORING AREA: 2-MC SITE ID: 459 STREAM: OJALLA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	96	SS	00	1166.85		HT=0.3 DROP
1	97	CC	00	1180.35	CC	2.1X2.1, MTL BOTTOM, OJALLA RD
1	100	RI	00	1247.25		CT/MT S/C50 RR/AG, 425873/4956754, COHO REDD FLAGGING
1	104	RI	00	1299.75		FENCE IN/ACROSS CRK
1	105	LP	00	1310.25		CATTLE CRS, BRIDGE-PVT RD
1	109	LP	01	1372.95	/TJ	
1	110	RI	11	1372.95		ACW=1.0, TEMP=10C, 425849/4956658, TRIB UNIT
1	112	LP	00	1417.15		MSSV CONF>2.0M ADJ TO UNIT
1	116	LP	00	1450.15	HS	
1	117	SL	00	1450.65		HT=0.25

COMMENT SUMMARY

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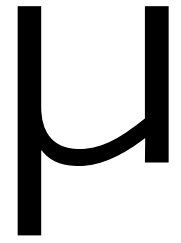
REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	121	LP	00	1506.65	HS	
1	125	LP	00	1572.65	HS	
1	126	LP	00	1584.65		BDRCK IS HRDPN
1	130	SP	00	1640.05		END, 425756/4956546, PIC 569-70



Site Number: 459
 Stream: Ojalla Cr
 T09S R10W S29
 County: Lincoln
 Quad: Mowrey Landing



- # Restoration Start
- # Restoration End
- D Potential Barrier
- Spawning Survey Segments



MC-459 Ojalla Creek (Siletz Basin) - 2012 Winter Restoration Survey



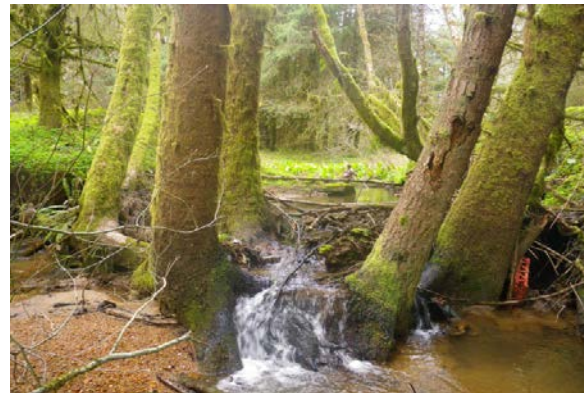
Start of survey looking downstream toward the Siletz River.



Start of survey looking upstream.



Log habitat structure debris jam.



Looking upstream from log habitat structure debris jam.



Log habitat structure.



Log habitat structure with surveyor.