

REACH 1

T1N-R7W-S11W

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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 avg: 6.1 range: 5.5-7.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	100
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	502	1,908	0
Secondary	113	112	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.2	Width	6.6	13.7	16.7
Depth	0.25	Height	0.8	1.5	1.7
		W:D ratio	9.4	Entrenchment	2.3

Stream Flow Type: Water Temp: 6.0-6.0°C  
 Avg. Unit Gradient: 5.1% Habitat Units/100m: 8.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D30	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	19%	Reach avg: 89%
Undercut Banks	9%	Range: 56-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	92	18.3
Volume (m <sup>3</sup> )	115	23.0
Key pieces ( $\geq 10m \times 0.6m$ )	2	0.4

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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbbl	Bldr	Bdrk
CASCADE/BOULDERS	2	38	1.5	0.20	63	19	10	20	55	10	5	0
DRY UNITS	1	10	0.8	0.00	8	2	11	5	63	21	0	0
GLIDE	3	46	3.1	0.33	148	17	18	40	35	4	3	0
POOL-LATERAL SCOUR	11	94	3.1	0.51	297	33	19	47	23	7	0	4
POOL-PLUNGE	2	13	3.3	0.45	43	12	7	39	39	10	5	0
RAPID/BOULDERS	19	314	3.7	0.16	1,142	188	7	26	47	14	6	0
RIFFLE	6	61	2.9	0.15	177	26	8	38	40	12	2	0
STEP/BOULDERS	5	25	4.0	0.12	111	40	6	17	44	25	9	0
STEP/COBBLE	2	15	2.2	0.16	31	10	5	15	51	24	5	0
<b>Total:</b>	<b>51</b>	<b>615</b>	<b>3.2</b>	<b>0.25</b>	<b>2,020</b>	<b>347</b>	<b>Avg:10</b>	<b>31</b>	<b>41</b>	<b>13</b>	<b>4</b>	<b>1</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Percent	Large Boulders Number	Boulders #/100m <sup>2</sup>
Dammed & BW Pools	0	0	-	-	0	0.00	0	0.0
Scour Pools	13	107	3.1	0.50	340	16.81	45	13.3
Glides	3	46	3.1	0.33	148	7.34	17	11.5
Riffles	6	61	2.9	0.15	177	8.74	26	14.7
Rapids	19	314	3.7	0.16	1,142	56.56	188	16.5
Cascades	2	38	1.5	0.20	63	3.11	19	30.3
Step/Falls	7	40	3.5	0.13	142	7.04	50	35.1
Dry	1	10	0.8	0.00	8	0.41	2	24.4

POOL SUMMARY

All Pools	<u>Total</u> 13	<u>#/Km</u> 21.2
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	3	4.9
Pool Frequency (channel widths/pool):	7.2	
Residual pool depth (avg)	0.31m	

STREAM SUMMARY

BEN SMITH CREEK - SUMM. REST.

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area					Total Large Boulder	
					S/O	Sand	Grvl	Cbbl	Bldr		Bdrk
51	615	3.2	0.25	2,020	10	31	41	13	4	1	347

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	340	16.8
Backwater Pools	0	0.0
Glide	148	7.3
Riffle	177	8.7
Rapid	1,142	56.6
Cascade	63	3.1
Step	142	7.0
Dry	8	0.4

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	752
Total conifers/1000 ft	0
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	0.0	0.0	1.7	0.0	0.3	0.0	2.0
15-30cm	0.0	1.0	0.0	0.3	0.0	0.0	0.0	1.3
30-50cm	0.0	3.0	0.0	1.3	0.0	2.0	0.0	6.3
50-90cm	0.0	1.0	0.0	1.0	0.0	0.3	0.0	2.3
>90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Total/100m <sup>2</sup>	0.0	5.0	0.0	4.7	0.0	2.7	0.0	4.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	83		83		78	
Shrub cover	37		31		47	
Grass/forb cover	58		67		46	

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	100		100		83	
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 (%)	10		0		16	

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

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

Total hardwoods/1000 ft	752
Total conifers/1000 ft	
Total conifers >20" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	2.0
15-30cm	0.0	1.3
30-50cm	0.0	6.3
50-90cm	0.0	2.3
>90cm	0.0	0.3

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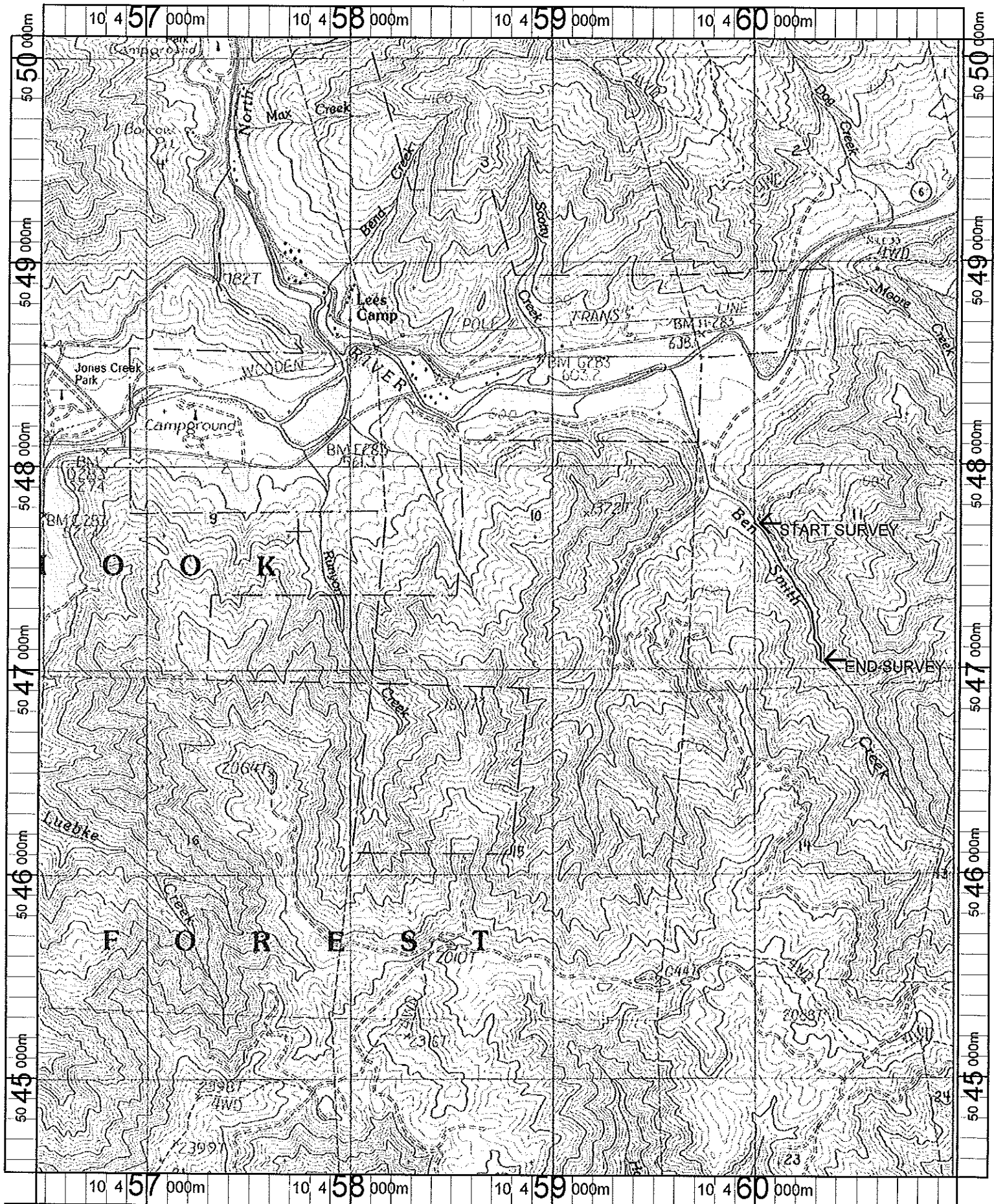
RIPARIAN ZONE VEGETATION

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VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)			Diameter class (cm)					Notes	
					Canopy	Shrub	Grass	3-15	15-30	30-50	50-90	>90		
10	LF	1	HT	-15.0	80	80	10	Conifer	0	0	0	0	0	
								Hardwood	0	1	4	0	0	ALDER
10	LF	2	HT	12.0	75	60	40	Conifer	0	0	0	0	0	
								Hardwood	5	0	0	0	0	VINEMAPLES
10	LF	3	HT	1.0	80	90	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	1	0	ALDER
10	RT	1	HT	15.0	80	5	95	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
10	RT	2	HT	-1.0	80	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	ALDER
10	RT	3	HS	45.0	90	85	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
29	LF	1	HT	4.0	90	20	75	Conifer	0	0	0	0	0	
								Hardwood	0	0	4	1	0	ALDER
29	LF	2	HT	-5.0	80	50	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
29	LF	3	HT	12.0	80	5	90	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	ALDER
29	RT	1	HT	12.0	85	5	95	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	2	0	ALDER
29	RT	2	HT	5.0	90	60	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	2	0	ALDER
29	RT	3	HT	15.0	90	90	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
43	LF	1	HT	25.0	85	80	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
43	LF	2	HT	2.0	90	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	1	MAPLE
43	LF	3	HT	15.0	40	5	90	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	ROAD CROSSING
43	RT	1	HT	20.0	75	30	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
43	RT	2	HT	-12.0	80	5	95	Conifer	0	0	0	0	0	
								Hardwood	0	0	3	1	0	
43	RT	3	HT	5.0	85	5	80	Conifer	0	0	0	0	0	
								Hardwood	1	0	3	0	0	ALDER AND MAPLE



Name: JORDAN CREEK  
 Date: 4/25/100  
 Scale: 1 inch equals 2000 feet

Location: 10 458646 E 5047291 N  
 Caption: BEN SMITH CREEK  
 RESTORATION SITE  
 ODFW 1999