

REACH 1

T1N-R7W-S11NW

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 avg: 7.0 range: 6.0-8.0

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	451	1,821	0
Secondary	100	143	3

Channel Dimensions (m)

	<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>		<u>First Terrace</u>
Width	3.6	Width	11.0		18.0		23.7
Depth	0.28	Height	0.5		1.1		1.2
		W:D ratio	20.4	Entrenchment	1.7		

Stream Flow Type: LF Water Temp: 10.0-10.0°C  
 Avg. Unit Gradient: 3.8% Habitat Units/100m: 7.1

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	6%	Reach avg: 96%
Undercut Banks	6%	Range: 78-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	141	31.3
Volume (m <sup>3</sup> )	130	28.7
Key pieces ( $\geq 10m \times 0.6m$ )	3	0.7

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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
DRY UNITS	1	9	2.4	0.00	22	0	0	20	20	50	10	0
GLIDE	1	17	5.7	0.25	95	3	3	25	41	18	14	0
POOL-BACKWATER	2	9	1.6	0.25	13	0	15	25	3	15	28	15
POOL-ISOLATED	3	7	1.9	0.11	15	0	33	33	12	10	12	0
POOL-LATERAL SCOUR	7	76	3.9	0.64	306	3	4	14	42	19	16	5
POOL-PLUNGE	1	6	3.3	0.70	21	2	0	10	50	10	30	0
PUDDLED CHANNEL	2	35	1.5	0.15	52	2	10	10	18	30	33	0
RAPID/BOULDERS	15	308	4.4	0.20	1,140	43	2	9	25	29	36	0
RIFFLE	2	35	2.5	0.17	75	0	14	19	40	23	5	0
RIFFLE W/ POCKETS	2	37	4.6	0.30	169	3	3	13	38	30	18	0
STEP/BOULDERS	3	13	3.8	0.10	58	2	0	9	14	23	55	0
<b>Total:</b>	<b>39</b>	<b>552</b>	<b>3.6</b>	<b>0.28</b>	<b>1,964</b>	<b>58</b>	<b>Avg: 6</b>	<b>14</b>	<b>27</b>	<b>24</b>	<b>27</b>	<b>2</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Wetted Area Percent	Large Boulders Number	Boulders #/100m <sup>2</sup>
Dammed & BW Pools	5	16	1.7	0.16	29	1.47	0	0.0
Scour Pools	8	82	3.9	0.64	326	16.60	5	1.5
Glides	1	17	5.7	0.25	95	4.82	3	3.2
Riffles	4	72	3.6	0.23	244	12.41	3	1.2
Rapids	15	308	4.4	0.20	1,140	58.02	43	3.8
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	3	13	3.8	0.10	58	2.95	2	3.4
Dry	3	44	1.8	0.10	73	3.73	2	2.7

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	13	23.6
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	4	7.3
Pool Frequency (channel widths/pool):	3.9	
Residual pool depth (avg)	0.49m	

STREAM SUMMARY

BEN SMITH CREEK POST-TX (#71)

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	
39	552	3.6	0.28	1,964	6	14	27	24	27	2	58

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	326	16.6
Backwater Pools	29	1.5
Glide	95	4.8
Riffle	244	12.4
Rapid	1,140	58.0
Cascade	0	0.0
Step	58	3.0
Dry	73	3.7

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	955
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	20

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	1.3	0.0	1.7	0.0	0.3	0.0	3.3
15-30cm	0.0	2.7	0.0	1.3	0.7	2.3	0.7	6.3
30-50cm	0.0	1.7	0.0	2.0	0.0	1.3	0.0	5.0
50-90cm	0.0	0.3	0.0	0.7	0.3	0.0	0.3	1.0
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m <sup>2</sup>	0.0	6.0	0.3	5.7	1.0	4.0	0.4	5.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	74		78		75	
Shrub cover	39		66		76	
Grass/forb cover	61		34		24	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	0		33		50
High terrace	100		67		50	
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 (%)	5		10		17	

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	955
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	41

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	3.3
15-30cm	0.7	6.3
30-50cm	0.0	5.0
50-90cm	0.3	1.0
>90cm	0.3	0.0

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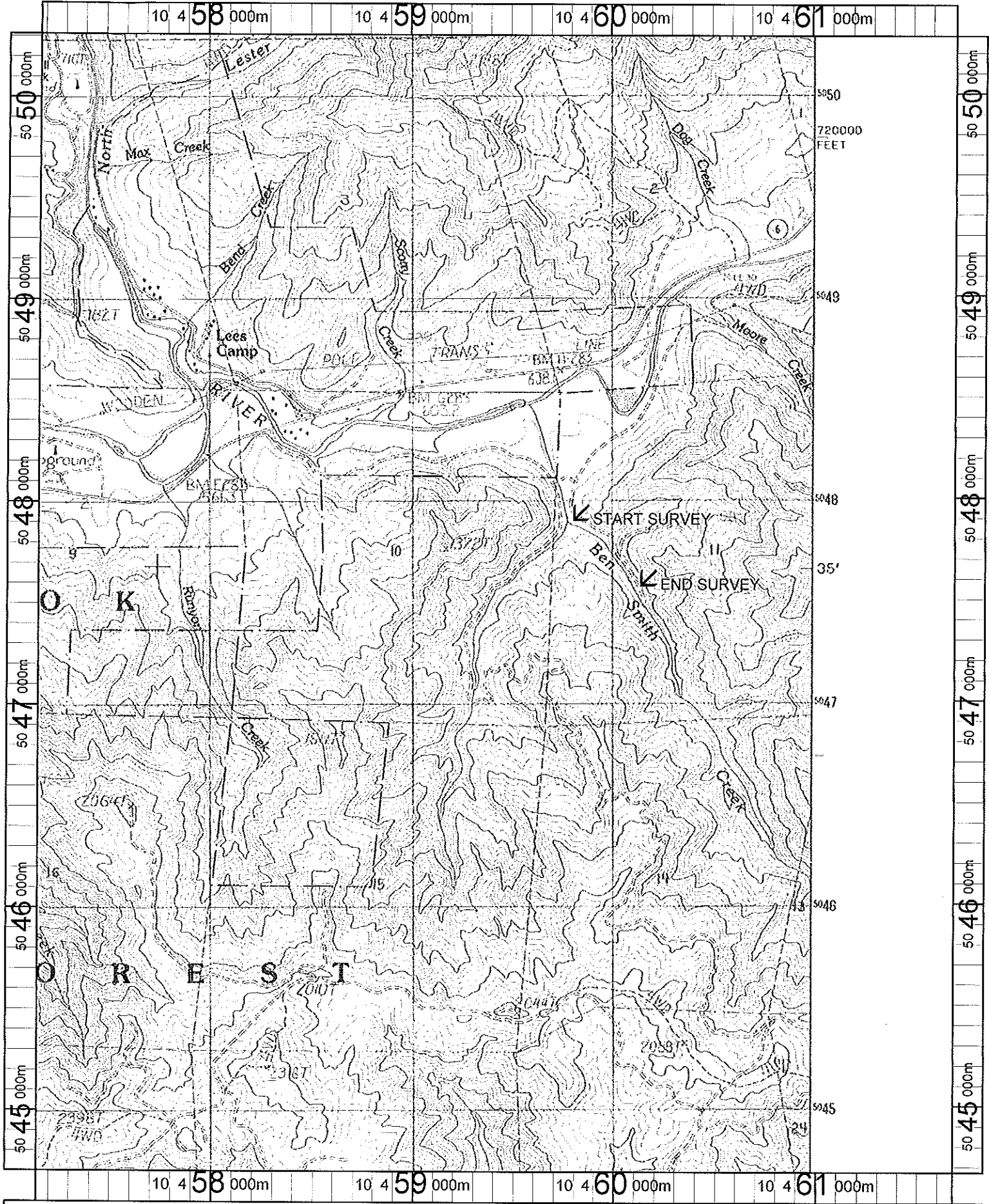
RIPARIAN ZONE VEGETATION

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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	
9	LF	1	HT	2.0	75	95	5	Conifer	0	0	0	0	0	
								Hardwood	0	1	2	0	0	
9	LF	2	HT	0.0	80	75	25	Conifer	0	0	0	0	0	
								Hardwood	1	1	3	0	0	ALDER
9	LF	3	HT	1.0	65	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
9	RT	1	HT	5.0	60	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
9	RT	2	HS	13.0	80	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
9	RT	3	HS	30.0	75	90	10	Conifer	0	0	0	1	0	
								Hardwood	0	0	2	0	0	FIR
26	LF	1	HT	5.0	80	30	70	Conifer	0	0	0	0	0	
								Hardwood	0	3	0	0	0	
26	LF	2	HT	1.0	80	70	30	Conifer	0	0	0	0	0	
								Hardwood	1	2	1	0	0	
26	LF	3	HT	0.0	80	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	1	2	0	0	
26	RT	1	HT	3.0	85	30	70	Conifer	0	0	0	0	0	
								Hardwood	3	0	3	0	0	
26	RT	2	HT	12.0	80	50	50	Conifer	0	0	0	0	0	
								Hardwood	3	1	1	0	0	
26	RT	3	HS	15.0	75	95	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
34	LF	1	HT	11.0	75	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	1	0	ALDER, SALMONBERRY
34	LF	2	HT	3.0	75	60	40	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	2	0	YELLO JACKETS
34	LF	3	HT	10.0	80	40	60	Conifer	0	0	0	0	0	
								Hardwood	1	1	0	0	0	
34	RT	1	HT	2.0	70	40	60	Conifer	0	0	0	0	0	
								Hardwood	1	2	0	0	0	
34	RT	2	HS	30.0	75	50	50	Conifer	0	0	0	0	1	
								Hardwood	0	0	0	0	0	
34	RT	3	HS	45.0	75	70	30	Conifer	0	2	0	0	0	
								Hardwood	0	3	0	0	0	



Name: JORDAN CREEK  
 Date: 1/10/2002  
 Scale: 1 inch equals 2000 feet

Location: 10 459426 E 5047493 N  
 Caption: BEN SMITH CREEK RESTORATION SITE - WILSON BASIN