

REACH 1

T5N-R10W-S10NW

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: 4.1 range: 3.5-5.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	0
Bedrock	0	Multiple Channel	0
Terrace	0	Braided Channel	0
Alt. Terrace/Hill	100		
Landuse	0		

Channel Characteristics

<u>Type</u>	<u>Length(m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	516	3,674	0
Secondary	52	112	0

Channel Dimensions(m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 6.5	Width 7.8	19.3	20.4
Depth 0.28	Height 0.7	1.4	1.5
	W:D ratio 11.1	Entrenchment 2.5	

Stream Flow Type: LF Water Temp: 12.0-12.0°C  
 Avg. Unit Gradient: 2.4% Habitat Units/100m: 4.6

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	YT
Riparian Vegetation:	M30	M15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 90%
Undercut Banks	6%	Range: 78- 94

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	55	10.7
Volume (m <sup>3</sup> )	29	5.6
Key pieces ( $\geq 10m \times 0.6m$ )	0	0.0

REACH 1

T5N-R10W-S10NW

REACH 1

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
GLIDE	1	17	7.2	0.20	123	0	5	5	5	10	0	75
POOL-LATERAL SCOUR	5	71	7.5	0.68	549	0	5	5	40	44	6	0
POOL-STRAIGHT SCOUR	1	21	8.3	0.60	177	0	5	5	10	40	0	40
RAPID/BEDROCK	2	36	6.0	0.25	216	0	5	5	18	33	5	35
RAPID/BOULDERS	6	161	5.9	0.15	994	0	5	5	30	50	10	0
RIFFLE	10	256	6.2	0.16	1,687	0	5	8	30	36	7	15
STEP/COBBLE	1	6	7.0	0.05	41	0	5	5	40	40	10	0
<b>Total:</b>	<b>26</b>	<b>568</b>	<b>6.5</b>	<b>0.28</b>	<b>3,786</b>	<b>0</b>	<b>Avg: 5</b>	<b>6</b>	<b>30</b>	<b>40</b>	<b>7</b>	<b>13</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	/100m <sup>2</sup>
Dammed & BW Pools	0	0	-	-	0	0.00	0	0.0
Scour Pools	6	92	7.6	0.67	726	19.17	0	0.0
Glides	1	17	7.2	0.20	123	3.25	0	0.0
Riffles	10	256	6.2	0.16	1,687	44.56	0	0.0
Rapids	8	197	5.9	0.18	1,209	31.94	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	6	7.0	0.05	41	1.07	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	6	10.6
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	1	1.8
Pool Frequency (channel widths/pool):	12.2	
Residual pool depth (avg)	0.59m	

STREAM SUMMARY

MAIL CREEK (PRE SUM 99)

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	
26	568	6.5	0.28	3,786	5	6	30	40	7	13	0

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	726	19.2
Backwater Pools	0	0.0
Glide	123	3.3
Riffle	1,687	44.6
Rapid	1,209	31.9
Cascade	0	0.0
Step	41	1.1
Dry	0	0.0

---

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	569
Total conifers/1000 ft	1,524
Total conifers >20" dbh/1000 ft	20
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	1.3	0.7	0.0	0.0	0.7	0.7	2.0	1.3
15-30cm	8.3	1.7	2.3	1.7	3.0	2.3	13.7	5.7
30-50cm	4.0	0.3	1.7	1.3	3.3	0.7	9.0	2.3
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	13.7	2.7	4.0	3.0	7.3	3.7	8.3	3.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	75		73		78	
Shrub cover	23		23		27	
Grass/forb cover	78		78		73	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
Hillslope	33		33		50	
High terrace	67		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 (%)	9		11		18	

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	569
Total conifers/1000 ft	1,524
Total conifers >20" dbh/1000 ft	20

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	2.0	1.3
15-30cm	13.7	5.7
30-50cm	9.0	2.3
50-90cm	0.3	0.0
>90cm	0.0	0.0

---

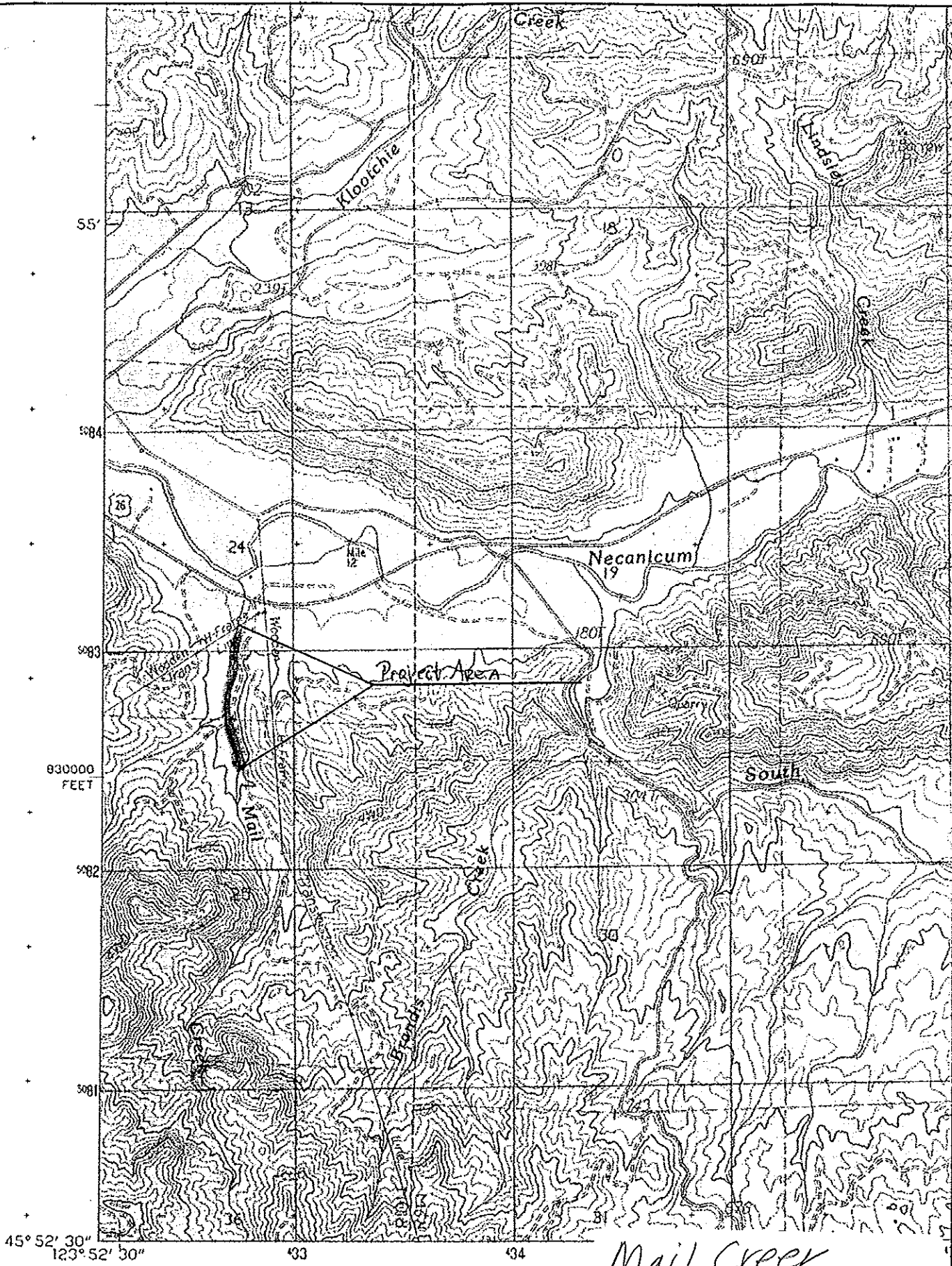
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

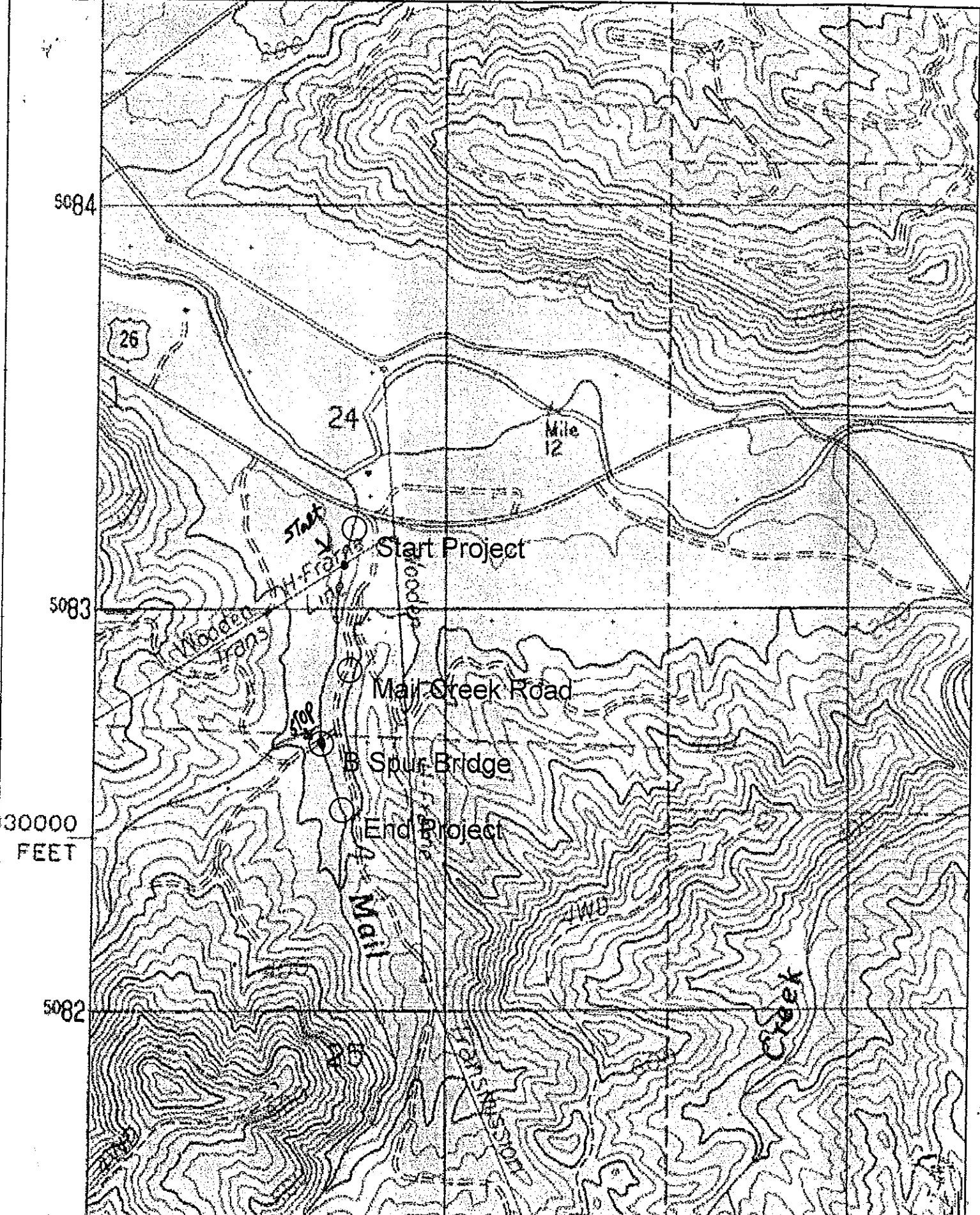
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
7	LF	1	HS	15.0	75	25	75	Conifer	2	3	1	0	0	
								Hardwood	1	0	0	0	0	
7	LF	2	HS	20.0	40	30	70	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	ROAD
7	LF	3	HS	29.0	65	40	60	Conifer	0	3	5	0	0	
								Hardwood	0	2	2	0	0	
7	RT	1	HT	5.0	85	25	75	Conifer	0	0	6	0	0	
								Hardwood	0	0	0	0	0	
7	RT	2	HT	10.0	85	40	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
7	RT	3	HT	12.0	85	30	70	Conifer	0	0	3	1	0	
								Hardwood	0	0	0	0	0	
15	LF	1	HT	5.0	80	30	70	Conifer	0	2	3	0	0	
								Hardwood	1	3	0	0	0	
15	LF	2	HT	11.0	80	25	75	Conifer	0	1	3	0	0	
								Hardwood	0	1	0	0	0	
15	LF	3	HS	18.0	85	30	70	Conifer	0	1	1	0	0	
								Hardwood	0	3	0	0	0	
15	RT	1	HT	4.0	75	35	65	Conifer	0	5	1	0	0	
								Hardwood	0	1	1	0	0	
15	RT	2	HT	8.0	80	25	75	Conifer	0	1	1	0	0	
								Hardwood	0	2	3	0	0	
15	RT	3	HT	9.0	80	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
24	LF	1	HT	5.0	70	10	90	Conifer	2	3	1	0	0	
								Hardwood	0	0	0	0	0	
24	LF	2	HT	8.0	75	10	90	Conifer	0	3	0	0	0	
								Hardwood	0	0	1	0	0	
24	LF	3	HT	13.0	70	30	70	Conifer	2	2	0	0	0	
								Hardwood	0	1	0	0	0	
24	RT	1	HS	18.0	65	10	90	Conifer	0	12	0	0	0	
								Hardwood	0	1	0	0	0	
24	RT	2	HS	10.0	75	5	95	Conifer	0	2	1	0	0	
								Hardwood	0	2	0	0	0	
24	RT	3	HS	28.0	80	10	90	Conifer	0	3	1	0	0	
								Hardwood	2	1	0	0	0	



45° 52' 30" 123° 52' 30" 33 34

PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY  
 CONTROL BY .....USGS, NOS NOAA, USCE  
 COMPILED FROM AERIAL PHOTOGRAPHS TAKEN ..... 1980  
 FIELD CHECKED .....1982. MAP EDITED ..... 1985  
 PROJECTION .....LAMBERT CONFORMAL CONIC  
 GRID: 1000-METER TRANSVERSE MERCATOR ..... ZONE 10

*Mail Creek  
 Quad: Necanicum Int*



Scale - 4 Markers, Length = 3511 feet

End Project - 045° 53' 41.1" N, 123° 52' 01.1" W

Mail Creek Road - 045° 53' 52.3" N, 123° 52' 00.4" W

Project - 045° 54' 03.7" N, 123° 52' 00.1" W

B Spur Bridge - 045° 53' 46.4" N, 123° 52' 03.6" W

Copyright (C) 1997, Maptech, Inc.