

REACH 1

T13S-R7W-29

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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	0
Open V-shape	0	Wide Floodplain	100

Valley Width Index avg: 11.6 range: 8.0-20.0

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	1,426	0
Secondary	25	33	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	2.4	Width	9.7	51.3	10.0
Depth	0.34	Height	0.7	1.4	0.9
		W:D ratio	13.4	Entrenchment	4.8

Stream Flow Type: MF Water Temp: 13.0-13.0°C  
 Avg. Unit Gradient: 1.5% Habitat Units/100m: 9.9

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	4%	Reach avg: 75%
Undercut Banks	1%	Range: 33-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	47	9.4
Volume (m <sup>3</sup> )	112	22.3
Key pieces ( $\geq 10m \times 0.6m$ )	12	2.4

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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
CULVERT CROSSING	1	12	0.7	0.15	8	0	0	15	25	40	20	0
DRY UNITS	1	10	1.0	0.00	10	0	0	75	25	0	0	0
POOL-BACKWATER	4	17	1.4	0.28	25	0	11	58	31	0	0	0
POOL-LATERAL SCOUR	23	275	2.8	0.54	835	7	7	34	52	7	0	0
POOL-PLUNGE	1	16	7.5	1.80	120	0	15	55	25	5	0	0
RIFFLE	13	168	2.3	0.10	397	0	1	20	69	9	0	0
STEP/COBBLE	8	29	2.1	0.12	63	0	0	14	76	10	0	0
STEP/STRUCTURE	1	0	0.4	0.07	0	0	10	55	30	5	0	0
<b>Total:</b>	<b>52</b>	<b>527</b>	<b>2.4</b>	<b>0.34</b>	<b>1,459</b>	<b>7</b>	<b>Avg: 5</b>	<b>30</b>	<b>56</b>	<b>8</b>	<b>1</b>	<b>0</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	#/100m <sup>2</sup>
Dammed & BW Pools	4	17	1.4	0.28	25	1.72	0	0.0
Scour Pools	24	291	3.0	0.59	955	65.46	7	0.7
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	13	168	2.3	0.10	397	27.20	0	0.0
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	9	29	1.9	0.12	64	4.35	0	0.0
Dry	1	10	1.0	0.00	10	0.69	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	28	53.1
Pools ≥1m deep:	2	3.8
Complex pools (LWD pieces ≥3):	5	9.5
Pool Frequency (channel widths/pool):	1.9	
Residual pool depth (avg)	0.47m	

STREAM SUMMARY

SEELEY CREEK #1 (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	
52	527	2.4	0.34	1,459	5	30	56	8	1	0	7

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Scour Pool	955	65.5
Backwater Pools	25	1.7
Glide	0	0.0
Riffle	397	27.2
Rapid	0	0.0
Cascade	0	0.0
Step	64	4.4
Dry	10	0.7

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	1,687
Total conifers/1000 ft	41
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	4.3	0.0	9.0	0.3	9.0	0.3	22.3
15-30cm	0.0	0.0	0.0	2.7	0.3	1.3	0.3	4.0
30-50cm	0.0	0.0	0.0	0.7	0.0	0.3	0.0	1.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	0.0	4.3	0.0	12.3	0.7	11.0	0.2	9.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	59		84		83	
Shrub cover	17		14		45	
Grass/forb cover	82		86		48	

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	33		33		33	
Low terrace	67		67		50	
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 (%)	0		7		6	

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	1,687
Total conifers/1000 ft	41
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	0.3	22.3
15-30cm	0.3	4.0
30-50cm	0.0	1.0
50-90cm	0.0	0.3
>90cm	0.0	0.0

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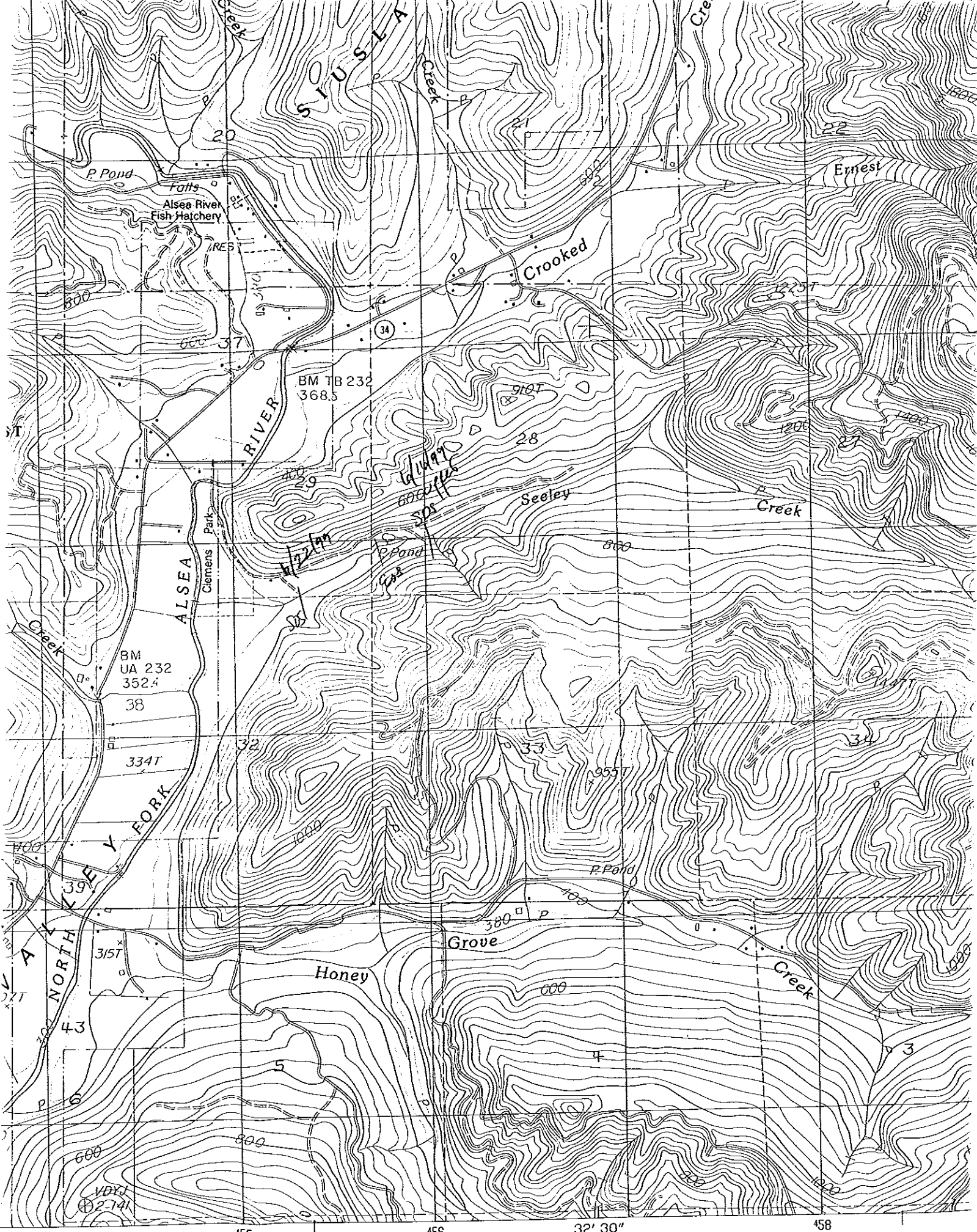
RIPARIAN ZONE VEGETATION

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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		
16	LF	1	LT	0.0	60	0	90	Conifer	0	0	0	0	0	
								Hardwood	4	0	0	0	0	10% SAND
16	LF	2	LT	0.0	85	5	95	Conifer	0	0	0	0	0	
								Hardwood	2	0	1	0	0	VINE MAPLES
16	LF	3	LT	0.0	95	5	95	Conifer	0	0	0	0	0	
								Hardwood	1	2	0	1	0	
16	RT	1	HT	0.0	70	80	20	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	
16	RT	2	HT	40.0	80	20	80	Conifer	0	0	0	0	0	
								Hardwood	4	0	0	0	0	4 PLANTED TREES, SM
16	RT	3	HT	0.0	100	40	40	Conifer	0	0	0	0	0	
								Hardwood	7	2	0	0	0	1.3 M DEAD CUT WOOD
29	LF	1	LT	0.0	70	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
29	LF	2	LT	0.0	70	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	2	1	0	0	ALDERS
29	LF	3	LT	0.0	30	90	10	Conifer	1	0	0	0	0	
								Hardwood	0	0	0	0	0	
29	RT	1	LT	0.0	85	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
29	RT	2	LT	0.0	90	0	100	Conifer	0	0	0	0	0	
								Hardwood	7	6	0	0	0	
29	RT	3	LT	0.0	90	20	60	Conifer	0	0	0	0	0	
								Hardwood	3	0	1	0	0	20% DEBRIS
39	LF	1	HT	0.0	10	20	80	Conifer	0	0	0	0	0	
								Hardwood	4	0	0	0	0	
39	LF	2	HT	0.0	95	35	65	Conifer	0	0	0	0	0	
								Hardwood	13	0	0	0	0	
39	LF	3	HT	0.0	95	20	80	Conifer	0	1	0	0	0	
								Hardwood	12	0	0	0	0	
39	RT	1	LT	0.0	60	0	100	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	
39	RT	2	LT	0.0	85	5	95	Conifer	0	0	0	0	0	
								Hardwood	1	0	0	0	0	
39	RT	3	HS	35.0	85	95	5	Conifer	0	0	0	0	0	
								Hardwood	4	0	0	0	0	VINE MAPLES



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INTERIOR—GEOLOGICAL SURVEY RESTON, VIRGINIA—1986

SCALE 1:24 000