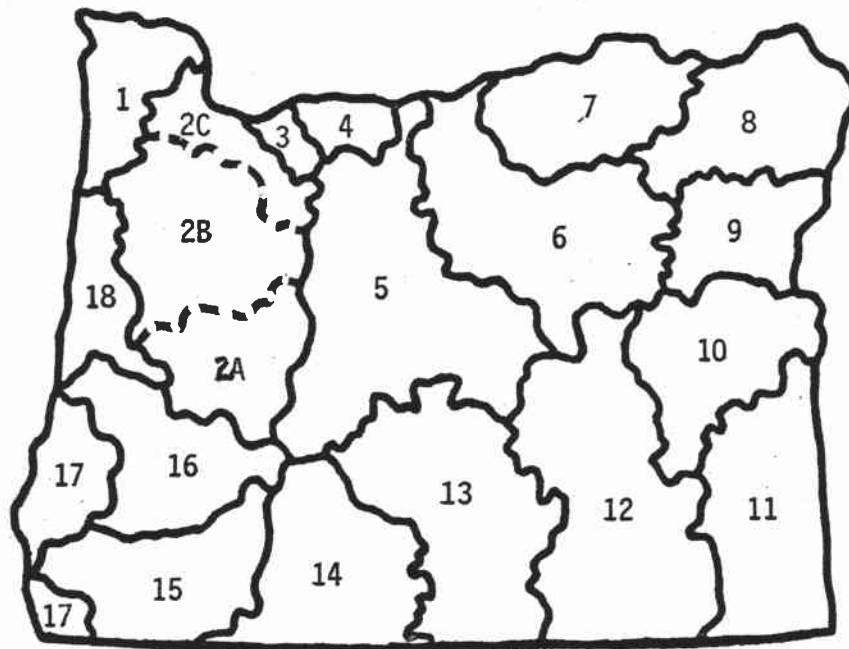


A RESOURCE SURVEY OF RIVER ENERGY
AND LOW-HEAD HYDROELECTRIC POWER POTENTIAL
IN OREGON

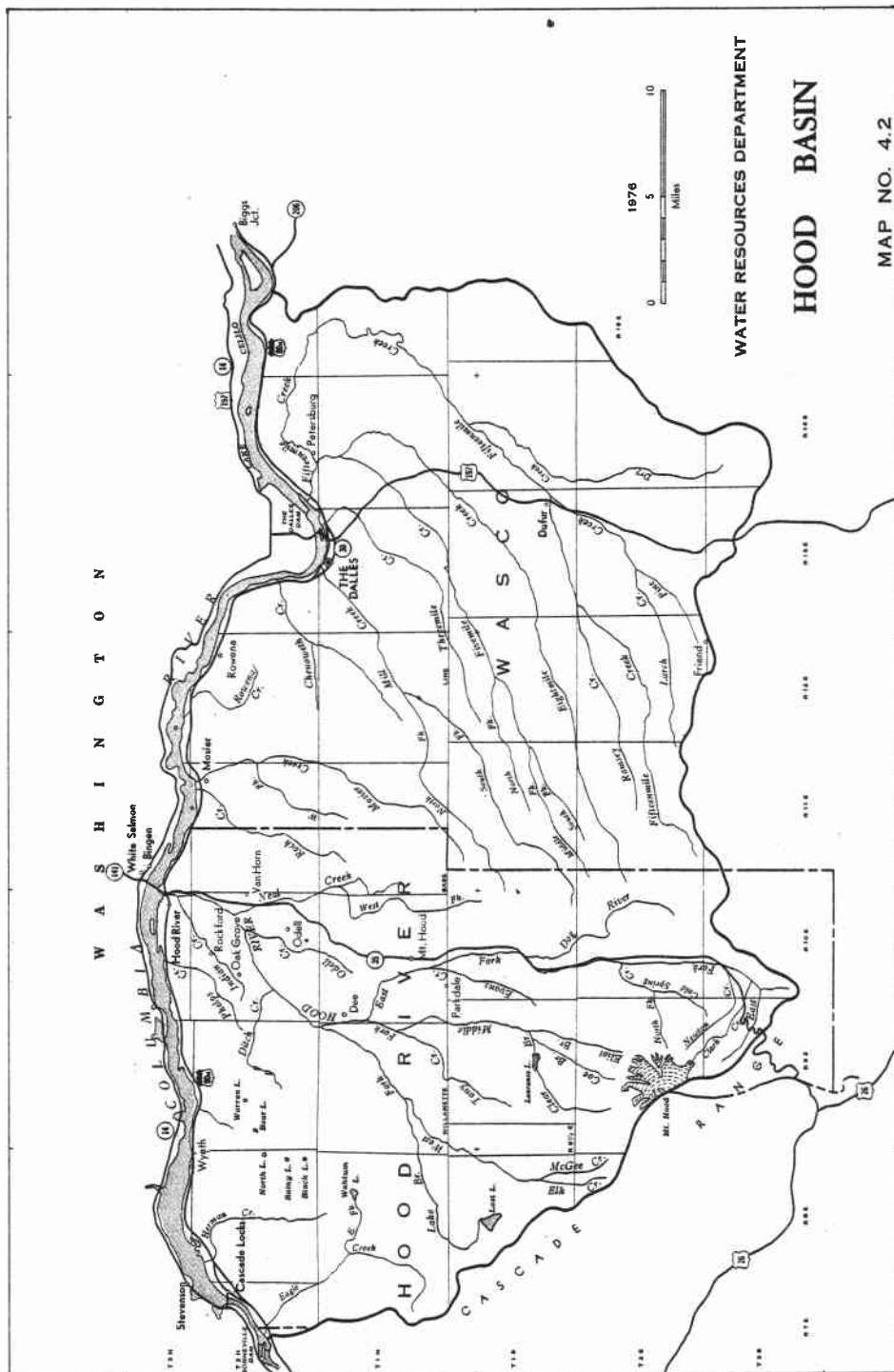
APPENDIX 4: HOOD BASIN



WATER RESOURCES RESEARCH INSTITUTE
Oregon State University
Corvallis, Oregon 97331

INDEX TO APPENDIX 4, HOOD BASIN

Drainage Basin Map	4-ii
Reach Hydro Potential Characteristics Sheets	
Eagle Creek	4-1 to 4-2
Hood River & Tribs.	4-3 to 4-15
Fifteenmile Creek	4-16 to 4-17
Reach Feasibility Analysis Sheets	4-18 to 4-19



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-125-000-000-R0001

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T2N, R7E
D. Latitude, Longitude	45°37'N, 121°36'W
E. Stream Name	Eagle Creek
F. Major Basin Name	Hood
G. River Mile	0.0 to 4.7

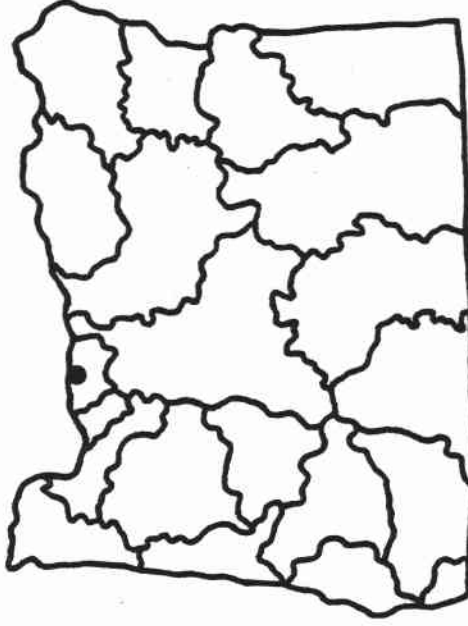
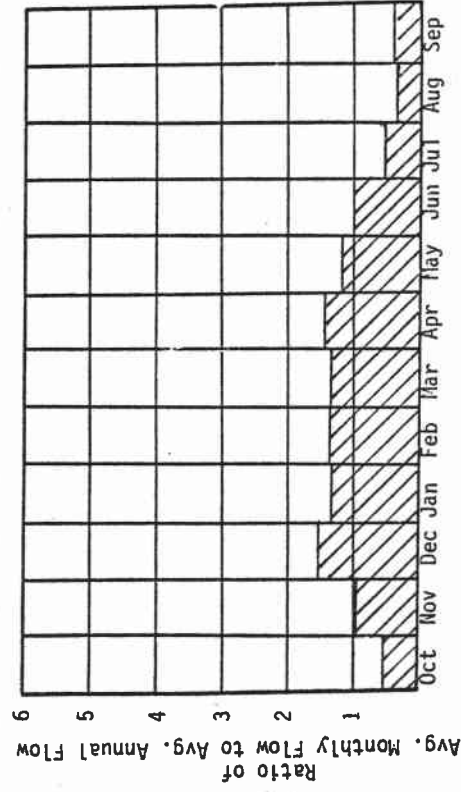
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	776	Ft. MSL
B. Downstream Elevation of Reach	72	Ft. MSL
C. Total Available Head in Reach	704	Ft.
D. Average Slope in Reach	149.8	Ft./Mi.
E. Drainage Area above Reach Mouth	33.7	Sq. Mi.
F. Inflow Classification	Natural	

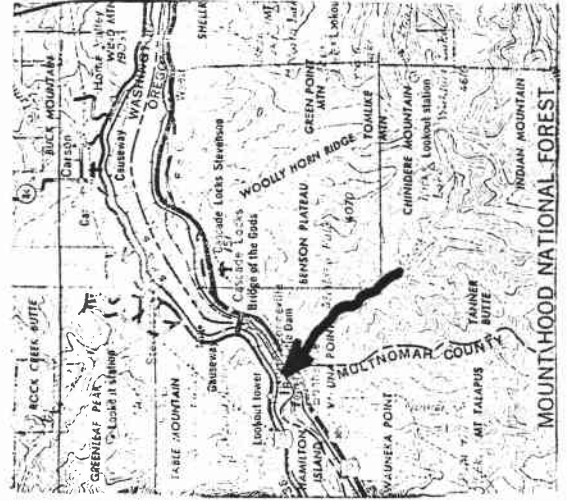
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I
I 95 I	I 19.2 I	I 1.15 I	I 10.04 I	I 1.000 I
I 80 I	I 28.2 I	I 1.68 I	I 14.15 I	I .960 I
I 50 I	I 57.3 I	I 3.42 I	I 24.03 I	I .803 I
I 30 I	I 108.7 I	I 6.49 I	I 34.78 I	I .612 I
I 10 I	I 231.7 I	I 13.82 I	I 47.64 I	I .393 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-125-000-000-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R8E
D. Latitude, Longitude	45°36'N, 121°37'W
E. Stream Name	Eagle Creek
F. Major Basin Name	Hood
G. River Mile	4.7 to H.W.

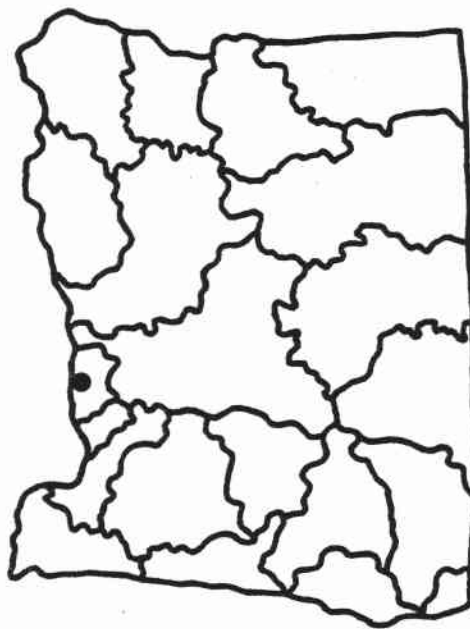
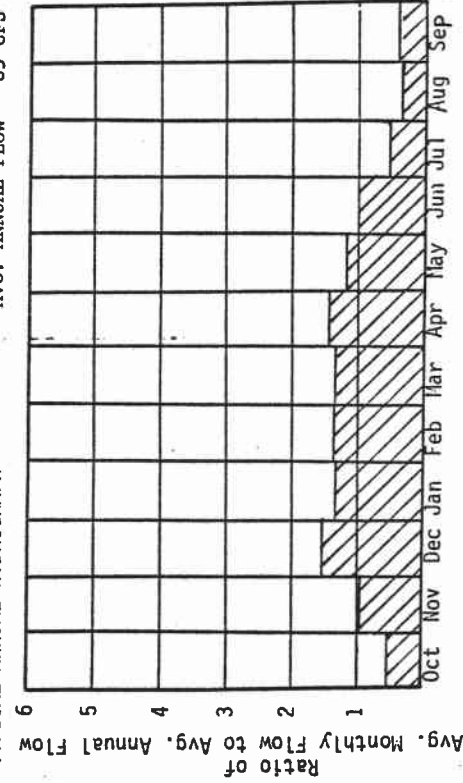
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	---	Ft. MSL
B. Downstream Elevation of Reach	---	Ft. MSL
C. Total Available Head in Reach	66	Ft.
D. Average Slope in Reach	---	Ft./Mi.
E. Drainage Area above Reach Mouth	24.6	Sq. Mi.
F. Inflow Classification	Natural	

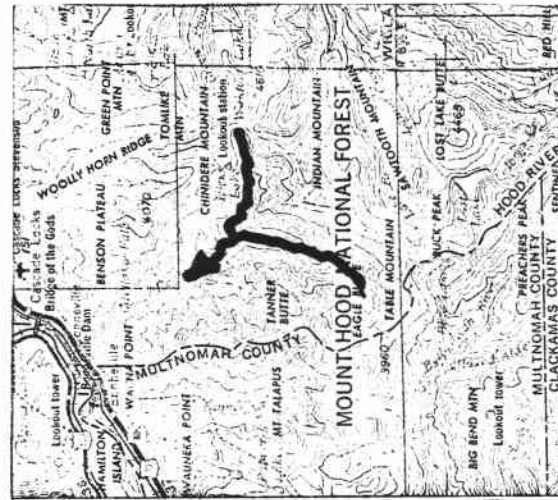
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I
I 95 I	I 16.0 I	I .09 I	I .79 I	I 1.000 I
I 80 I	I 23.5 I	I .13 I	I 1.11 I	I .960 I
I 50 I	I 47.6 I	I .27 I	I 1.87 I	I .803 I
I 30 I	I 91.3 I	I .51 I	I 2.73 I	I .610 I
I 10 I	I 197.6 I	I 1.11 I	I 3.77 I	I .390 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-000-000-R0001

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T2N, R10E, Sec. 1
D. Latitude, Longitude	45°41'N, 122°00'W
E. Stream Name	Hood River
F. Major Basin Name	Hood
G. River Mile	0.0 to 4.5

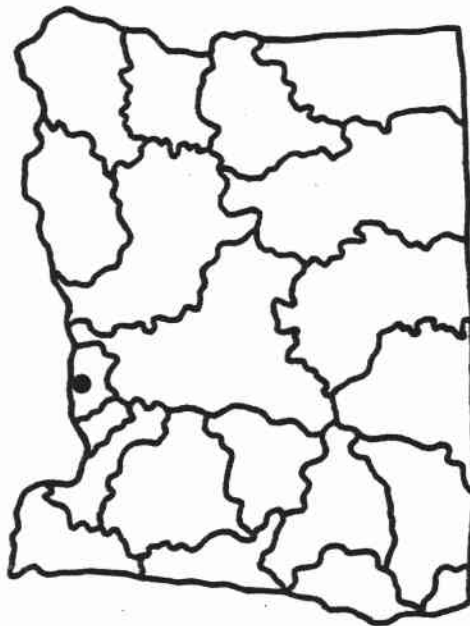
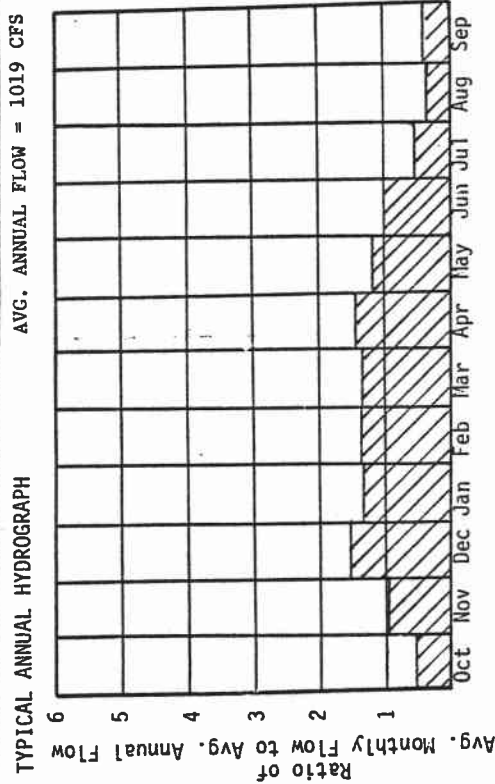
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	302	Ft. MSL
B. Downstream Elevation of Reach	47	Ft. MSL
C. Total Available Head in Reach	255	Ft.
D. Average Slope in Reach	56.7	Ft./Mi.
E. Drainage Area above Reach Mouth	340.1	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I	I DISCHARGE I	I THEORETICAL I	I ANNUAL ENERGY I	I PLANT I
I PERCENTAGE I	I CFS I	I PLANT SIZE I	I AVAILABLE I	I FACTOR I
I	I	I MW I	I GWH I	I
I 95	I 211.3	I 4.57	I 40.00	I 1.000
I 80	I 315.8	I 6.83	I 57.32	I .959
I 50	I 667.4	I 14.42	I 100.58	I .796
I 30	I 1100.4	I 23.78	I 133.36	I .640
I 10	I 1922.5	I 41.55	I 164.49	I .452

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-000-000-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T2N, R10E, Sec. 20
D. Latitude, Longitude	45°35'N, 121°55'W
E. Stream Name	Hood River
F. Major Basin Name	Hood
G. River Mile	4.5 to 12.2

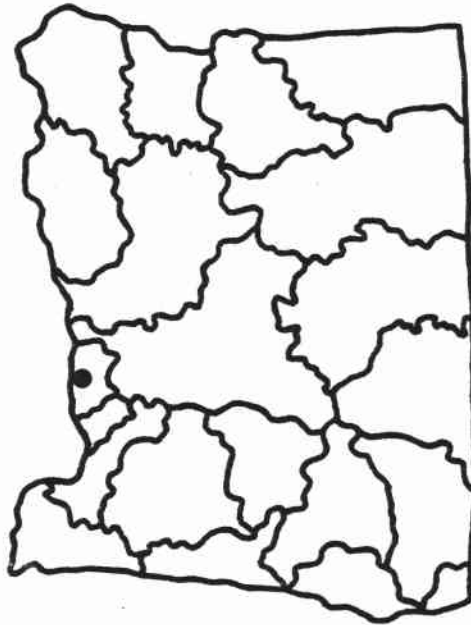
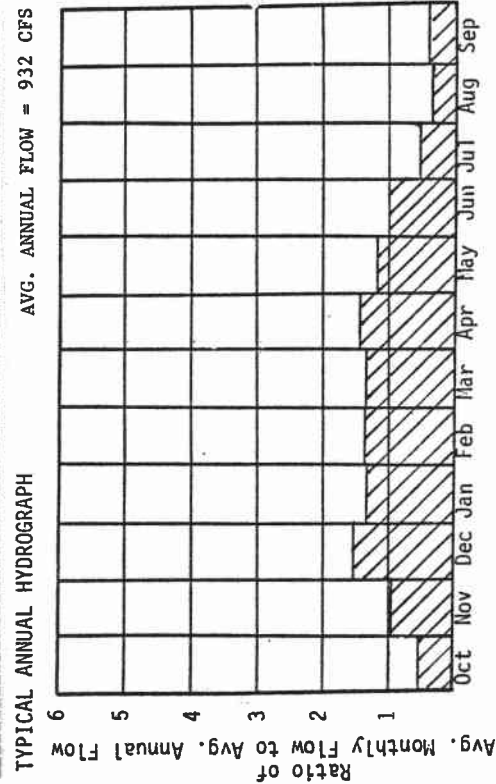
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	770	Ft. MSL
B. Downstream Elevation of Reach	302	Ft. MSL
C. Total Available Head in Reach	468	Ft.
D. Average Slope in Reach	60.8	Ft./Mi.
E. Drainage Area above Reach Mouth	325.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I
I 95 I	I 192.6 I	I 7.64 I	I 66.91 I	I 1.000 I
I 80 I	I 287.6 I	I 11.41 I	I 95.80 I	I .959 I
I 50 I	I 606.9 I	I 24.07 I	I 167.89 I	I .796 I
I 30 I	I 1006.0 I	I 39.90 I	I 223.36 I	I .639 I
I 10 I	I 1771.2 I	I 70.25 I	I 276.54 I	I .449 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-010-000-R0001

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R9E, Sec. 14
D. Latitude, Longitude	45°34'N, 121°50'30"
E. Stream Name	West Fork Hood River
F. Major Basin Name	Hood
G. River Mile	0.0 to 5.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

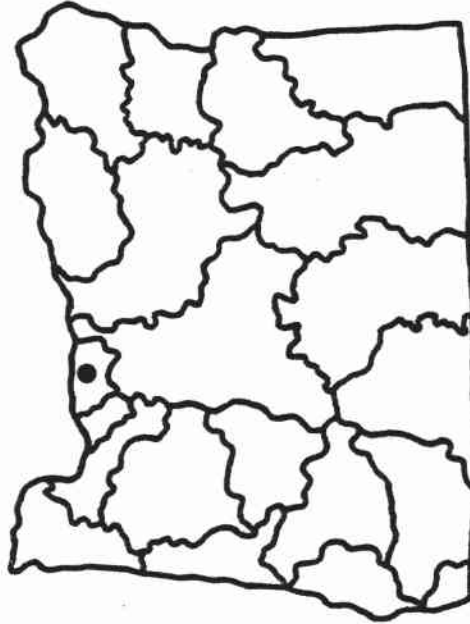
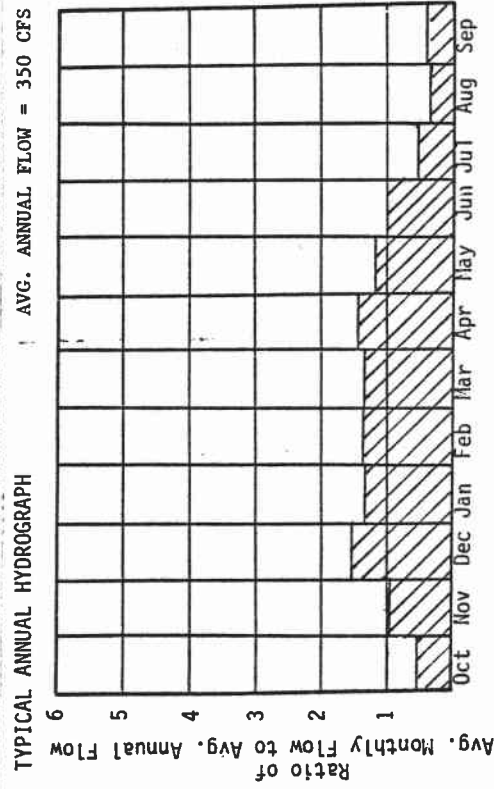
A. Upstream Elevation of Reach	1220	Ft. MSL
B. Downstream Elevation of Reach	770	Ft. MSL
C. Total Available Head in Reach	450	Ft.
D. Average Slope in Reach	81.8	Ft./Mi.
E. Drainage Area above Reach Mouth	102.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL

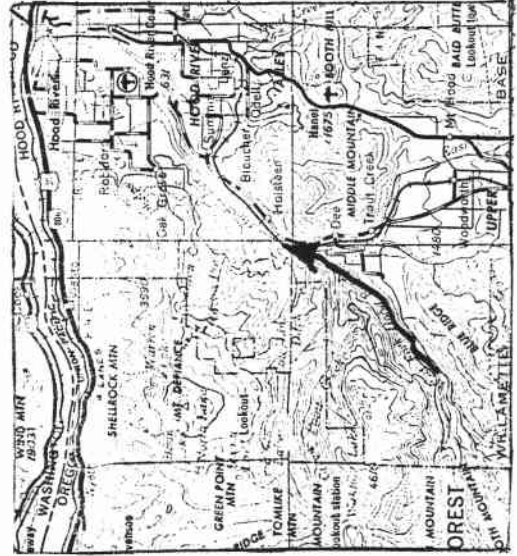
ENERGY CHARACTERISTICS

I	EXCEEDANCE I	DISCHARGE I	THEORETICAL I	ANNUAL ENERGY I	PLANT I
I	PERCENTAGE I	CFS I	PLANT SIZE I	AVAILABLE I	FACTOR I
I	I	I	MW I	GWH I	I
I 95	I 69.9	I 2.66	I 23.34	I 1.000	I
I 80	I 103.5	I 3.95	I 33.18	I .959	I
I 50	I 214.8	I 8.19	I 57.35	I .799	I
I 30	I 378.0	I 14.41	I 79.15	I .627	I
I 10	I 723.8	I 27.60	I 102.25	I .423	I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-010-002-R0001

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R9E, Sec. 29
D. Latitude, Longitude	45°32'30"N, 121°46'30"
E. Stream Name	Lake Branch
F. Major Basin Name	Hood
G. River Mile	0.0 to 2.5

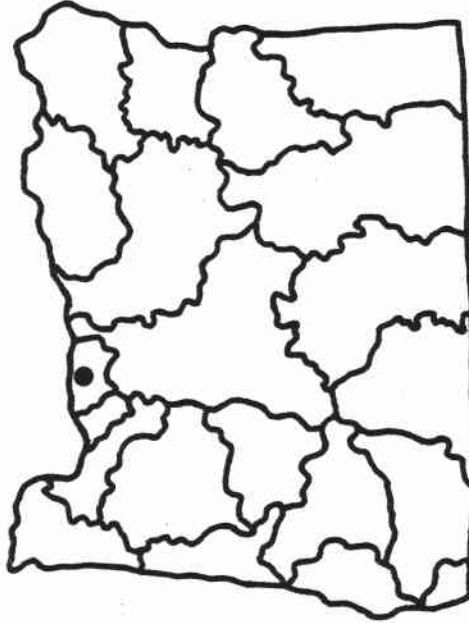
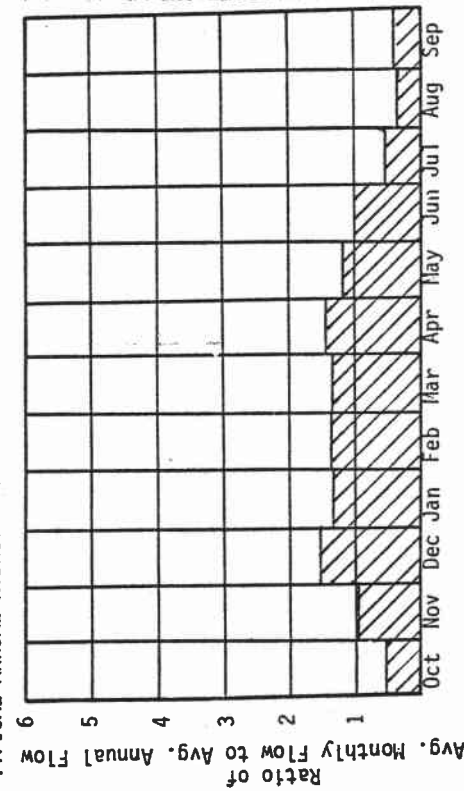
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	1516	Ft. MSL
B. Downstream Elevation of Reach	1220	Ft. MSL
C. Total Available Head in Reach	296	Ft.
D. Average Slope in Reach	118.4	Ft./Mi.
E. Drainage Area above Reach Mouth	29.6	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I
I 95 I	I 17.3 I	I .43 I	I 3.79 I	I 1.000 I
I 80 I	I 25.3 I	I .63 I	I 5.34 I	I .960 I
I 50 I	I 51.3 I	I 1.29 I	I 9.06 I	I .803 I
I 30 I	I 98.1 I	I 2.46 I	I 13.16 I	I .611 I
I 10 I	I 210.8 I	I 5.29 I	I 18.12 I	I .391 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-010-002-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R9E, Sec. 30
D. Latitude, Longitude	45°32'N, 121°45'W
E. Stream Name	Lake Branch
F. Major Basin Name	Hood
G. River Mile	2.5 to H.W.

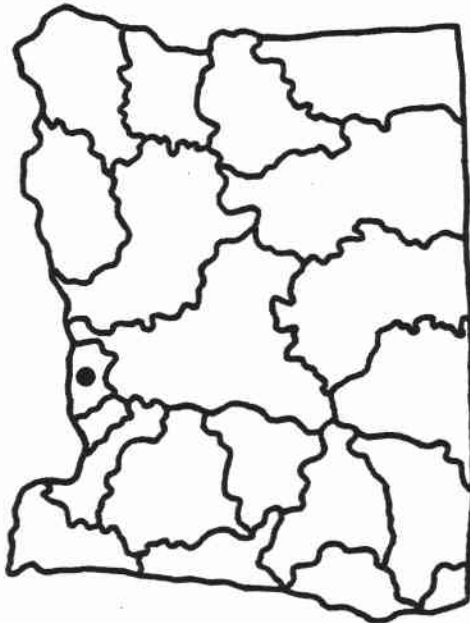
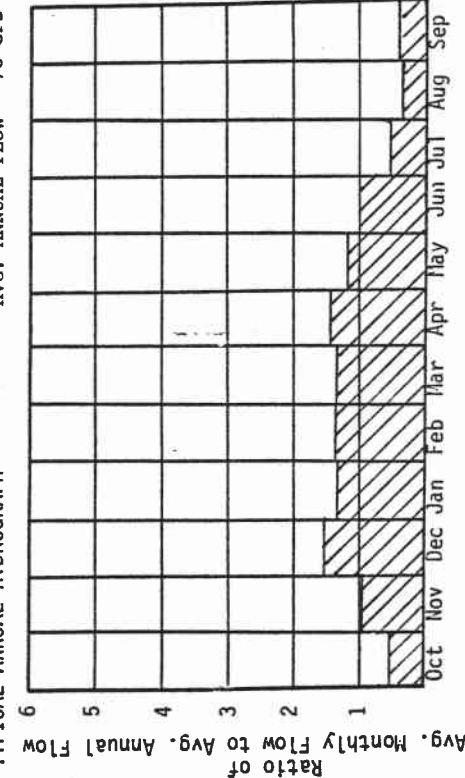
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	--	Ft. MSL
B. Downstream Elevation of Reach	--	Ft. MSL
C. Total Available Head in Reach	66	Ft.
D. Average Slope in Reach	--	Ft./Mi.
E. Drainage Area above Reach Mouth	22.2	Sq.Mi.
F. Inflow Classification	Natural	

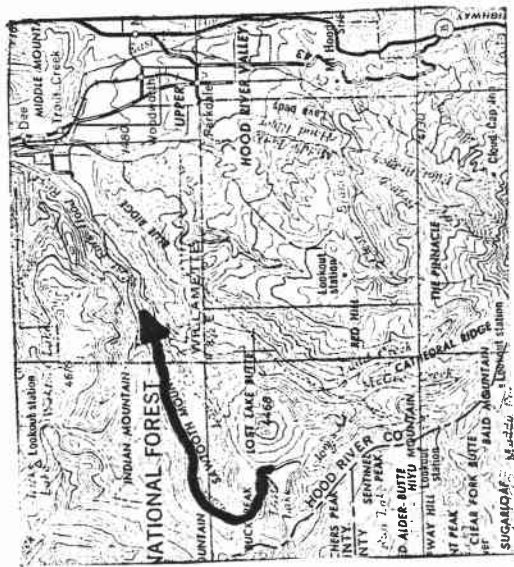
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL

ENERGY CHARACTERISTICS				REACH FLOW DURATION AND THEORETICAL POTENTIAL			
I EXCEEDANCE I	I DISCHARGE I	I THEORETICAL I	I ANNUAL ENERGY I	I PLANT I	I AVAILABLE I	I FACTOR I	I
I PERCENTAGE I	I CFS I	I PLANT SIZE I	I MW I	I GWH I	I	I	I
I 95 I	I 14.7 I	I .08 I	I .72 I	I 1.000 I			
I 80 I	I 21.5 I	I .12 I	I 1.01 I	I .960 I			
I 50 I	I 43.4 I	I .24 I	I 1.71 I	I .803 I			
I 30 I	I 83.7 I	I .47 I	I 2.50 I	I .609 I			
I 10 I	I 182.5 I	I 1.02 I	I 3.47 I	I .388 I			

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-010-000-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R9E, Sec. 31
D. Latitude, Longitude	45°31'30"N, 121°45'W
E. Stream Name	West Fork Hood River
F. Major Basin Name	Hood
G. River Mile	5.5 to 11.9

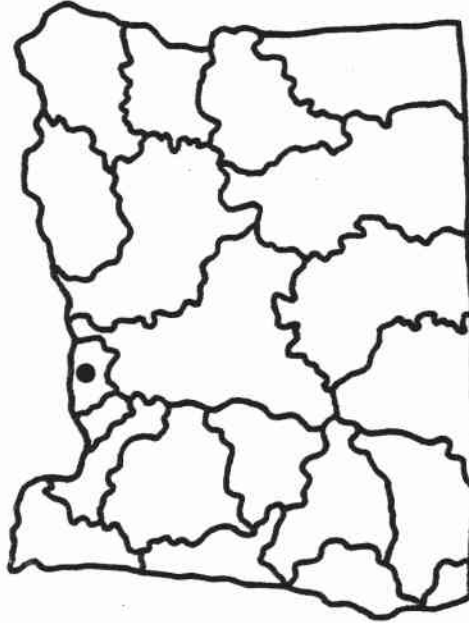
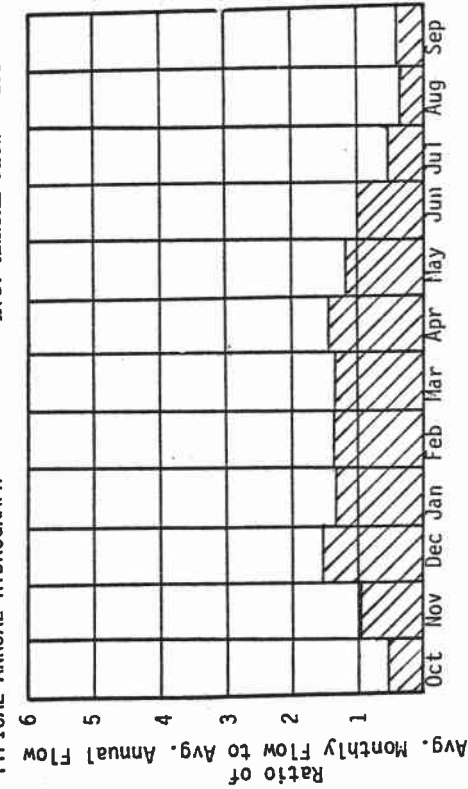
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	1943	Ft. MSL
B. Downstream Elevation of Reach	1220	Ft. MSL
C. Total Available Head in Reach	723	Ft.
D. Average Slope in Reach	113	Ft./Mi.
E. Drainage Area above Reach Mouth	38.5	Sq.Mi.
F. Inflow Classification	Natural	

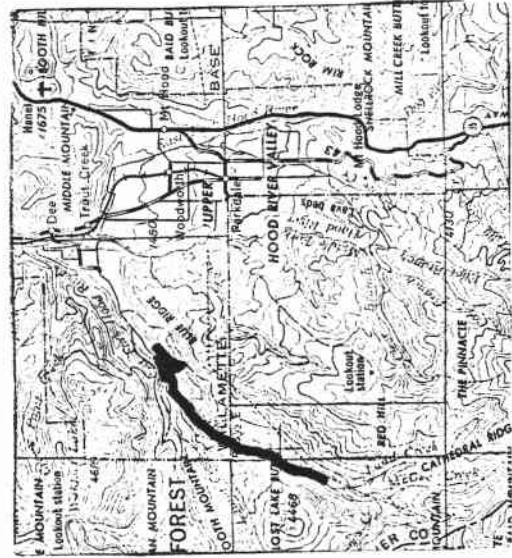
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I I
I 95 I	I 22.0 I	I 1.35 I	I 11.78 I	I 1.000 I
I 80 I	I 32.2 I	I 1.98 I	I 16.62 I	I .960 I
I 50 I	I 65.7 I	I 4.02 I	I 28.27 I	I .802 I
I 30 I	I 123.7 I	I 7.58 I	I 40.72 I	I .614 I
I 10 I	I 260.6 I	I 15.97 I	I 55.43 I	I .396 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-010-000-R0003

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1S, R8E, Sec. 13
D. Latitude, Longitude	45°28'30"N, 121°43'W
E. Stream Name	West Fork Hood River
F. Major Basin Name	Hood
G. River Mile	11.9 to H.W.

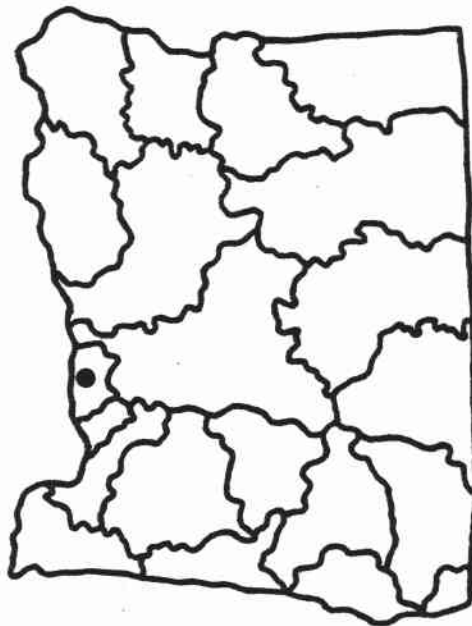
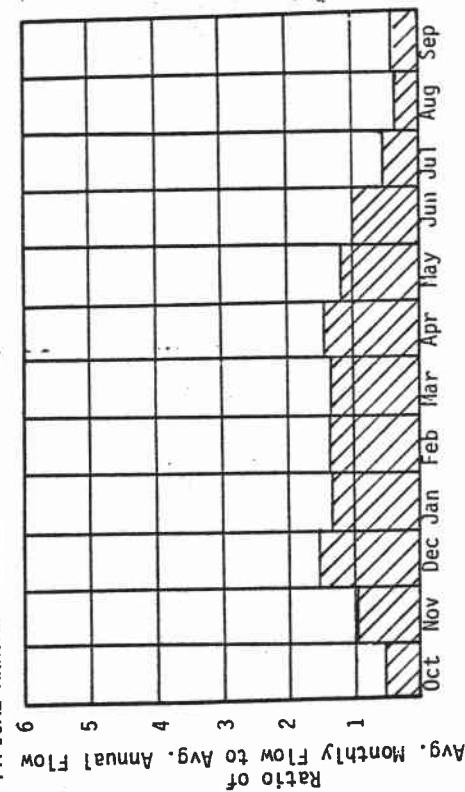
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	--	Ft. MSL
B. Downstream Elevation of Reach	--	Ft. MSL
C. Total Available Head in Reach	66	Ft.
D. Average Slope in Reach	--	Ft./Mi.
E. Drainage Area above Reach Mouth	20.2	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL

ENERGY CHARACTERISTICS									
I EXCEEDANCE I	I DISCHARGE I	I THEORETICAL I	I ANNUAL ENERGY I	I PLANT I	I	I	I	I	I
I PERCENTAGE I	I CFS I	I PLANT SIZE I	I AVAILABLE I	I FACTOR I	I	I	I	I	I
I	I	I MW I	I GWH I	I	I	I	I	I	I
I 95 I	I 14.7 I	I .08 I	I .72 I	I 1.000 I	I	I	I	I	I
I 80 I	I 21.5 I	I .12 I	I 1.01 I	I .960 I	I	I	I	I	I
I 50 I	I 43.5 I	I .24 I	I 1.71 I	I .803 I	I	I	I	I	I
I 30 I	I 84.0 I	I .47 I	I 2.51 I	I .609 I	I	I	I	I	I
I 10 I	I 183.0 I	I 1.02 I	I 3.48 I	I .388 I	I	I	I	I	I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-000-000-R0003

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R10E, Sec. 7
D. Latitude, Longitude	45°35'30"N, 121°52'W
E. Stream Name	Hood River
F. Major Basin Name	Hood
G. River Mile	12.2 to 14.6

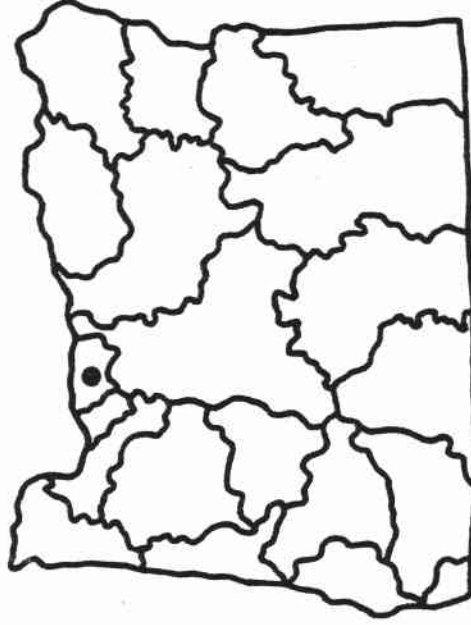
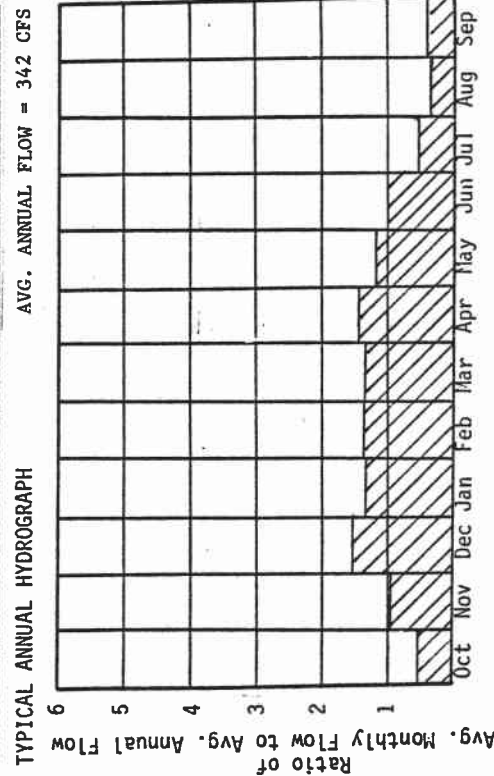
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	977	Ft. MSL
B. Downstream Elevation of Reach	770	Ft. MSL
C. Total Available Head in Reach	207	Ft.
D. Average Slope in Reach	86.3	Ft./Mi.
E. Drainage Area above Reach Mouth	154.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS I	I THEORETICAL I PLANT SIZE I MW I	I ANNUAL ENERGY I AVAILABLE I GWH I	I PLANT I FACTOR I
I 95 I	I 68.0 I	I 1.19 I	I 10.44 I	I 1.000 I
I 80 I	I 100.7 I	I 1.77 I	I 14.84 I	I .959 I
I 50 I	I 208.8 I	I 3.66 I	I 25.65 I	I .799 I
I 30 I	I 368.0 I	I 6.46 I	I 35.43 I	I .626 I
I 10 I	I 706.4 I	I 12.39 I	I 45.83 I	I .422 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



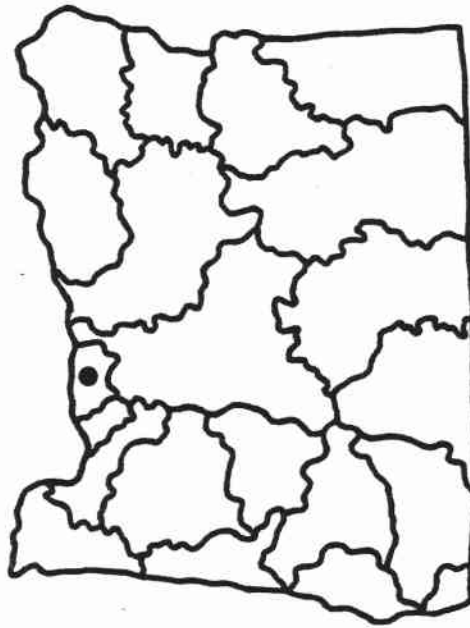
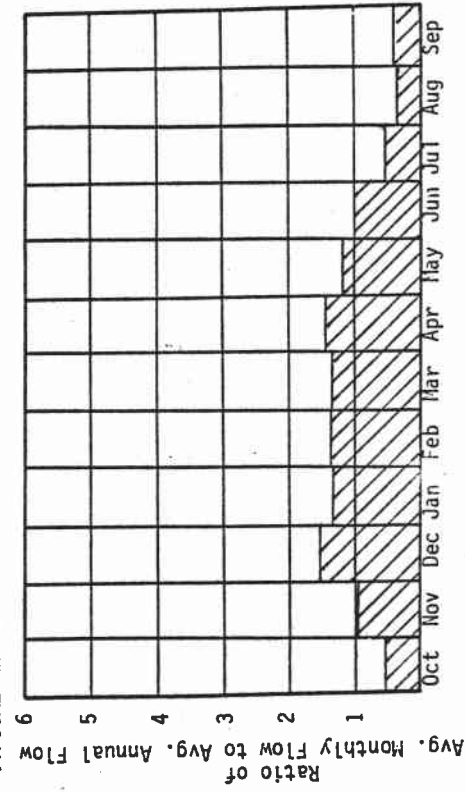
REACH # 02-500-140-020-000-R0001

Oregon
Hood River
T1N, R10E, Sec. 30
45°32'N, 121°52'W
Middle Fork Hood River
Hood
0.0 to 6.3

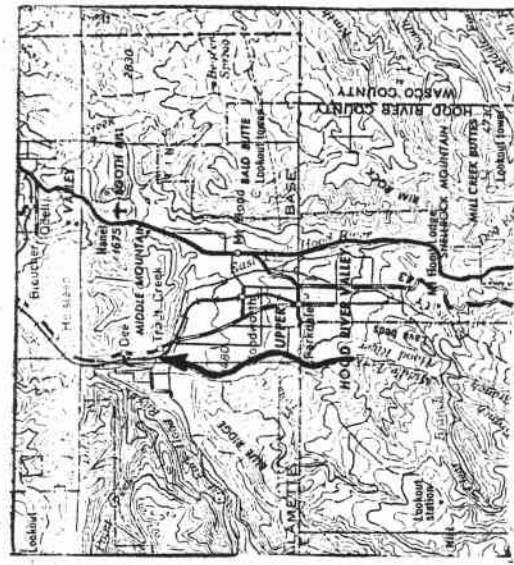
1945	Ft. MSL
ch 977	Ft. MSL
ch 968	Ft.
153.6	Ft./Ml.
45.9	Sq.Ml.
Natural	

I	EXCEEDANCE	DISCHARGE	THEORETICAL	ANNUAL ENERGY	PLANT
I	PERCENTAGE	CFS	PLANT SIZE	AVAILABLE	FACTOR
I	I	I	MM	GWH	I
I	95	I 19.5	I 1.60	I 13.99	I 1.000
I	80	I 28.6	I 2.34	I 19.72	I .960
I	50	I 58.1	I 4.76	I 33.50	I .803
I	30	I 110.2	I 9.04	I 48.47	I .612
I	10	I 234.5	I 19.24	I 66.34	I .394

AVG. ANNUAL FLOW = 102 CFS



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-020-000-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1S, R9E, Sec. 11
D. Latitude, Longitude	45°30'N, 121°52'W
E. Stream Name	Middle Fork Hood River
F. Major Basin Name	Hood
G. River Mile	6.3 to H.W.

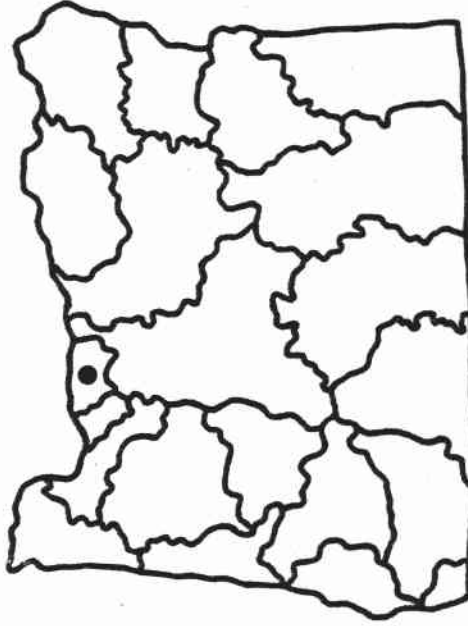
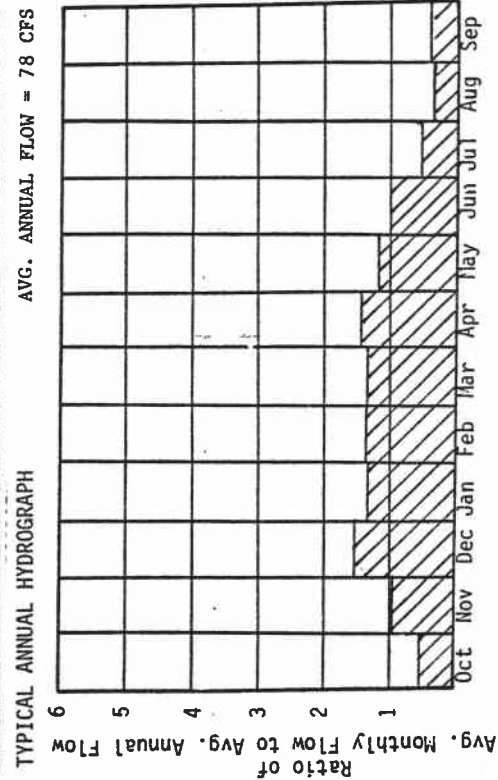
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	--	Ft. MSL
B. Downstream Elevation of Reach	--	Ft. MSL
C. Total Available Head in Reach	66	Ft.
D. Average Slope in Reach	--	Ft./Mi.
E. Drainage Area above Reach Mouth	27.4	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I	PERCENTAGE	I	DISCHARGE	I	THEORETICAL	I	ANNUAL ENERGY	I	PLANT
I	I	I	CFS	I	PLANT SIZE	I	AVAILABLE	I	FACTOR
I	I	I	I	I	MW	I	GW/H	I	I
I	95	I	14.7	I	.08	I	.72	I	1.000
I	80	I	21.5	I	.12	I	1.01	I	.960
I	50	I	43.5	I	.24	I	1.71	I	.803
I	30	I	83.9	I	.47	I	2.50	I	.609
I	10	I	182.8	I	1.02	I	3.47	I	.388

IV. TYPICAL ANNUAL HYDROGRAPH



U. S. G. S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-030-000-R0001

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1N, R10E, Sec. 33
D. Latitude, Longitude	45°31'30"N, 121°55'W
E. Stream Name	East Fork Hood River
F. Major Basin Name	Hood
G. River Mile	0.0 to 10.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

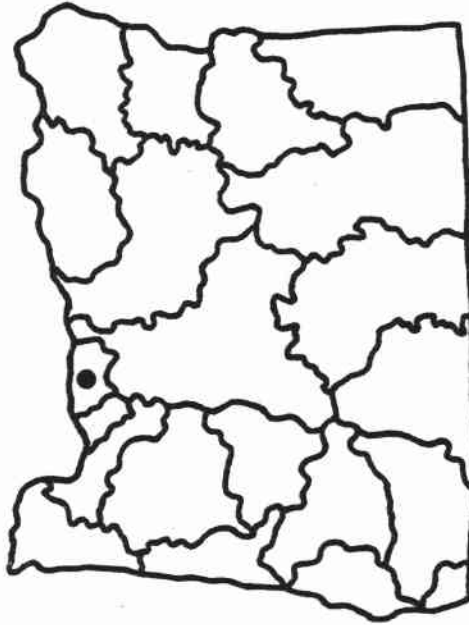
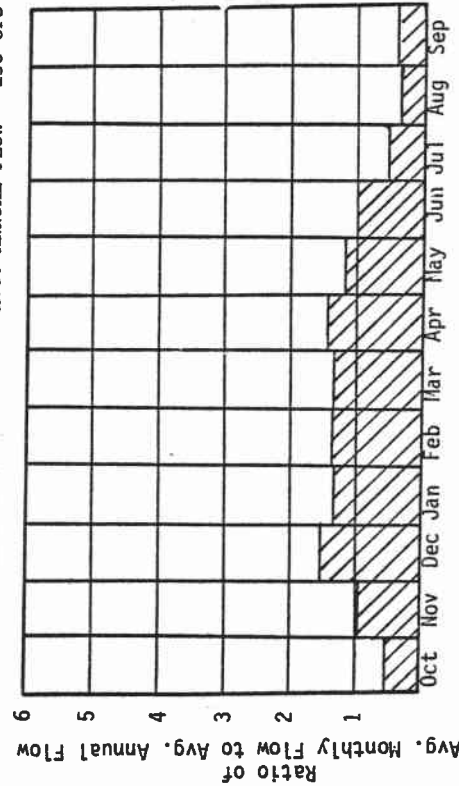
A. Upstream Elevation of Reach	2152	Ft. MSL
B. Downstream Elevation of Reach	977	Ft. MSL
C. Total Available Head in Reach	1175	Ft.
D. Average Slope in Reach	117.5	Ft./Mi.
E. Drainage Area above Reach Mouth	105.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL

ENERGY CHARACTERISTICS									
I EXCEEDANCE I	I DISCHARGE I	I THEORETICAL I	I ANNUAL ENERGY I	I PLANT I	I	I	I	I	I
I PERCENTAGE I	I CFS I	I PLANT SIZE I	I AVAILABLE I	I FACTOR I	I	I	I	I	I
I	I	I MW I	I GWH I	I	I	I	I	I	I
I 95	I 26.4 I	I 2.63 I	I 23.03 I	I 1.000 I	I	I	I	I	I
I 80	I 38.8 I	I 3.87 I	I 32.51 I	I .960 I	I	I	I	I	I
I 50	I 79.3 I	I 7.90 I	I 55.46 I	I .802 I	I	I	I	I	I
I 30	I 147.7 I	I 14.71 I	I 79.34 I	I .616 I	I	I	I	I	I
I 10	I 306.7 I	I 30.54 I	I 107.07 I	I .400 I	I	I	I	I	I

IV. TYPICAL ANNUAL HYDROGRAPH

AVG. ANNUAL FLOW = 138 CFS



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-140-030-000-R0002

I. LOCATION

A. State	Oregon
B. County	Hood River
C. Township, Range	T1S, R10E, Sec. 32
D. Latitude, Longitude	45°26'30"N, 121°55'W
E. Stream Name	East Fork Hood River
F. Major Basin Name	Hood
G. River Mile	10.0 to 15.1

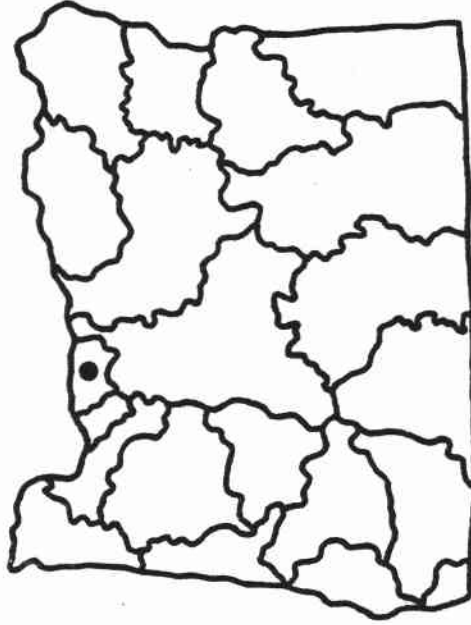
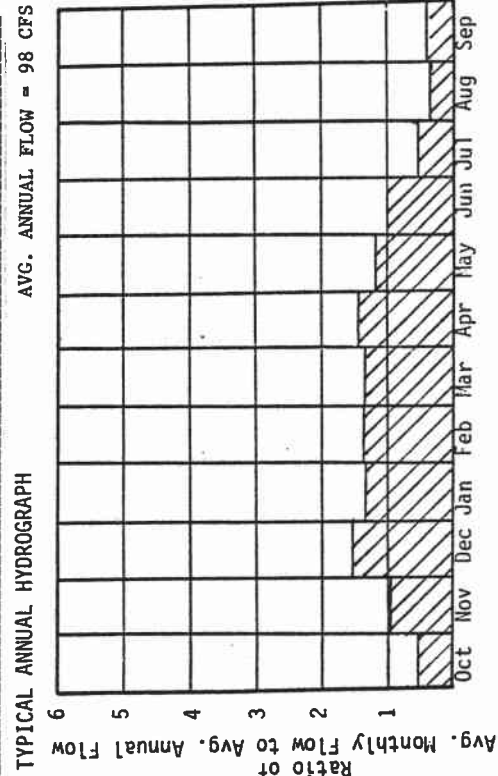
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	3000	Ft. MSL
B. Downstream Elevation of Reach	2152	Ft. MSL
C. Total Available Head in Reach	848	Ft.
D. Average Slope in Reach	166	Ft./Mi.
E. Drainage Area above Reach Mouth	71.5	Sq. Mi.
F. Inflow Classification	Natural	

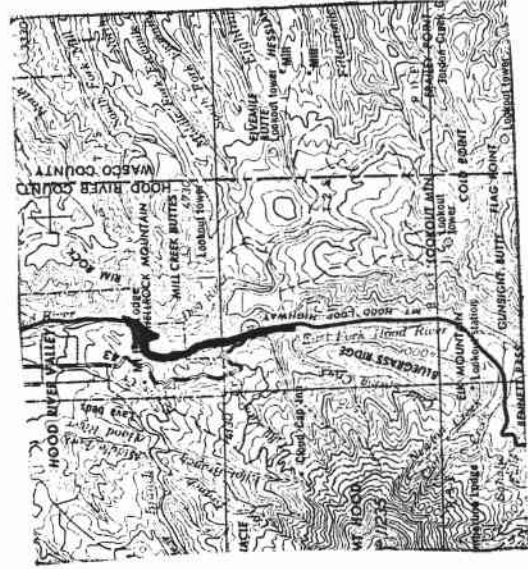
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE I	I DISCHARGE I CFS	I THEORETICAL I PLANT SIZE I MW	I ANNUAL ENERGY I AVAILABLE I GWH	I PLANT I FACTOR I
I 95 I	I 18.5 I	I 1.33 I	I 11.66 I	I 1.000 I
I 80 I	I 27.2 I	I 1.95 I	I 16.43 I	I .960 I
I 50 I	I 55.2 I	I 3.97 I	I 27.89 I	I .803 I
I 30 I	I 105.0 I	I 7.54 I	I 40.42 I	I .612 I
I 10 I	I 224.4 I	I 16.12 I	I 55.46 I	I .393 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



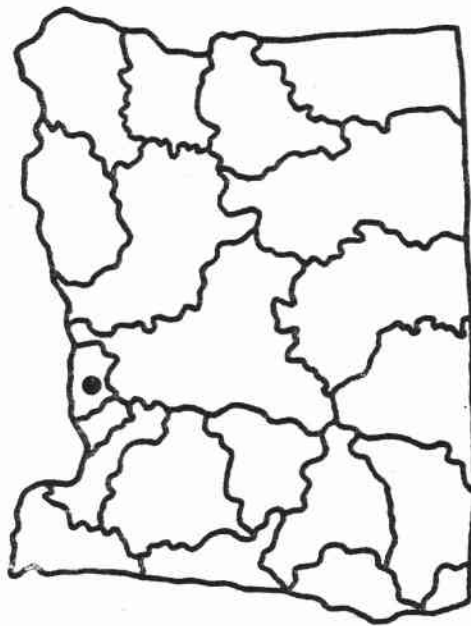
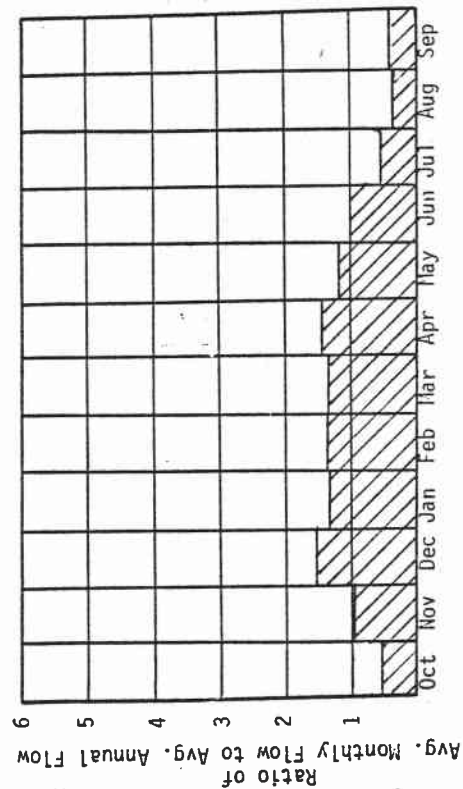
REACH # 02-500-140-030-000-R0003

A.	State	Oregon
B.	County	Hood River
C.	Township, Range	T2S, R10E, Sec. 8
D.	Latitude, Longitude	45°24'N, 121°56'W
E.	Stream Name	East Fork Hood River
F.	Major Basin Name	Hood
G.	River Mile	15.1 to H.W.

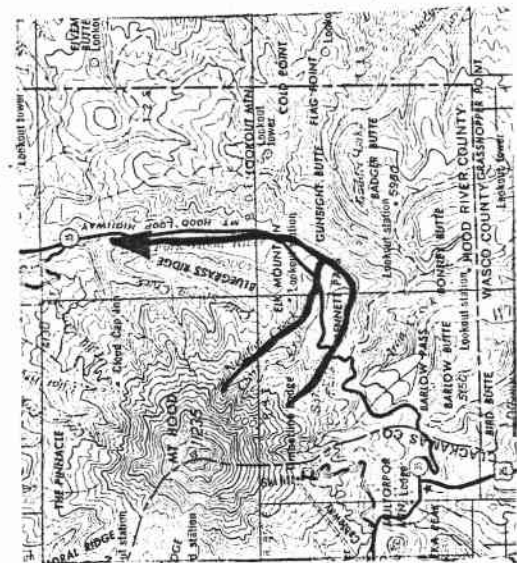
A.	Upstream Elevation of Reach	---	Ft. MSL
B.	Downstream Elevation of Reach	---	Ft. MSL
C.	Total Available Head in Reach	66	Ft.
D.	Average Slope in Reach		Ft./Mi.
E.	Drainage Area above Reach Mouth	39.6	Sq. Mi.
F.	Inflow Classification	Natural	

I	EXCEEDANCE I	DISCHARGE I	THEORETICAL I	ANNUAL ENERGY I	PLANT I
I	PERCENTAGE I	CFS I	PLANT SIZE I	AVAILABLE I	FACTOR I
I	I	I	MW I	GWH I	I
I 95	I	17.4 I	.10 I	.85 I	1.000 I
I 80	I	25.6 I	.14 I	1.20 I	.960 I
I 50	I	51.8 I	.29 I	2.04 I	.803 I
I 30	I	98.9 I	.55 I	2.96 I	.611 I
I 10	I	212.6 I	1.19 I	4.08 I	.391 I

Avg. Annual Flow = 92 CFS



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-165-000-000-R0001

I. LOCATION

A. State	Oregon
B. County	Wasco
C. Township, Range	T2N, R14E, Sec 31
D. Latitude, Longitude	45°36'30"N, 122°23'W
E. Stream Name	Fifteenmile Creek
F. Major Basin Name	Hood
G. River Mile	0.0 to 2.7

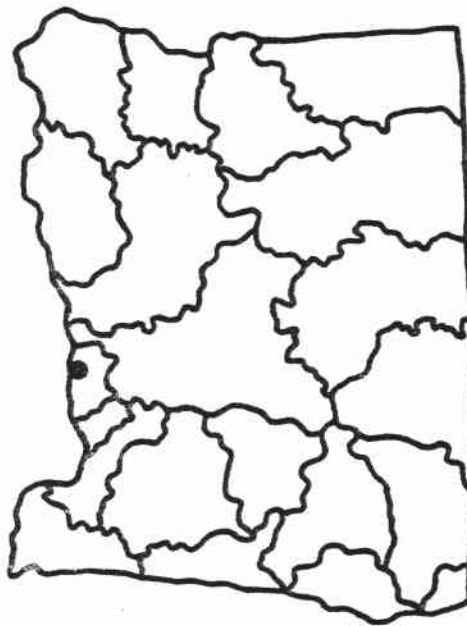
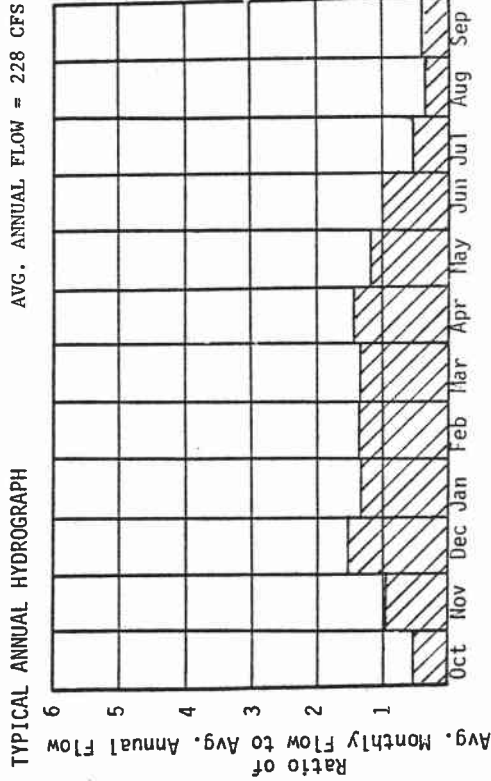
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	292	Ft. MSL
B. Downstream Elevation of Reach	160	Ft. MSL
C. Total Available Head in Reach	132	Ft.
D. Average Slope in Reach	48.9	Ft./Mi.
E. Drainage Area above Reach Mouth	370.5	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I	I DISCHARGE I	I THEORETICAL I	I ANNUAL ENERGY I	I PLANT I
I PERCENTAGE I	I CFS	I PLANT SIZE I	I AVAILABLE I	I FACTOR I
I	I	I MW	I GWH	I
I 95	I 44.6 I	I .50 I	I 4.37 I	I 1.000 I
I 80	I 65.9 I	I .74 I	I 6.20 I	I .960 I
I 50	I 135.7 I	I 1.52 I	I 10.65 I	I .800 I
I 30	I 245.2 I	I 2.74 I	I 14.94 I	I .622 I
I 10	I 487.3 I	I 5.45 I	I 19.68 I	I .412 I

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-165-000-000-R0002

I. LOCATION

A. State	Oregon
B. County	Wasco
C. Township, Range	T2N, R14E, Sec. 32
D. Latitude, Longitude	45°36'N, 122°25'W
E. Stream Name	Fifteenmile Creek
F. Major Basin Name	Hood
G. River Mile	2.7 to H.W.

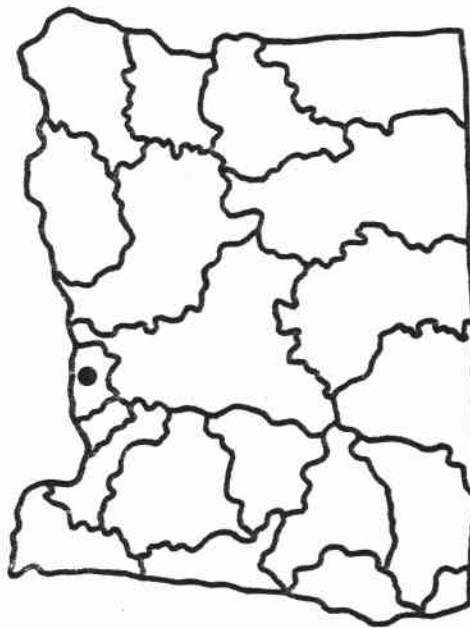
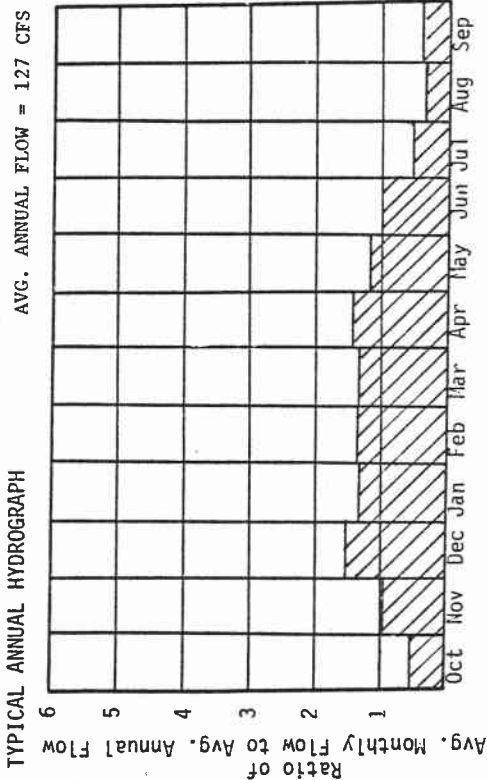
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	---	Ft. MSL
B. Downstream Elevation of Reach	---	Ft. MSL
C. Total Available Head in Reach	66	Ft.
D. Average Slope in Reach	---	Ft./Mi.
E. Drainage Area above Reach Mouth	251.6	Sq. Mi.
F. Inflow Classification	Natural	

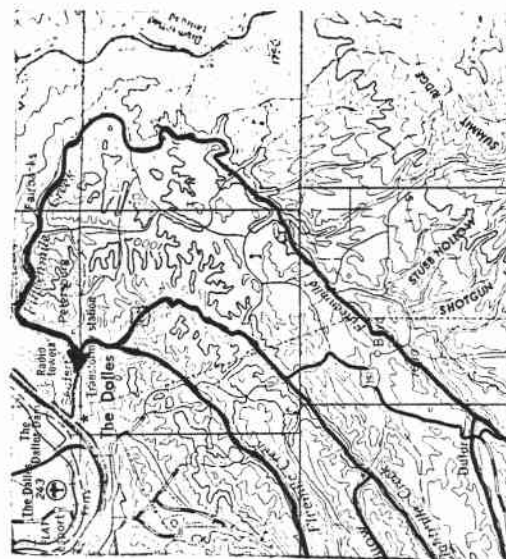
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I	PERCENTAGE	I	DISCHARGE	I	THEORETICAL	I	ANNUAL ENERGY	I	PLANT
I	I	I	CFS	I	PLANT SIZE	I	AVAILABLE	I	FACTOR
I	I	I	I	I	MW	I	GWH	I	I
I	95	I	24.3	I	.14	I	1.19	I	1.000
I	80	I	35.7	I	.20	I	1.68	I	.960
I	50	I	72.8	I	.41	I	2.86	I	.802
I	30	I	136.3	I	.76	I	4.10	I	.615
I	10	I	284.8	I	1.59	I	5.56	I	.398

IV. TYPICAL ANNUAL HYDROGRAPH



U.S.G.S. TOPO. SERIES
1:250,000 SCALE
MAP NAME: THE DALLES



FEASIBILITY, TRANSMISSION AND LOAD RESTRAINTS

REACH IDENTIFICATION NUMBER	FEASIBILITY RESTRAINT				TRANSMISSION AND LOAD CONSIDERATIONS			
	LAND USE RESTRICTIONS	UTILITY DISPLACEMENT	BUILDING DISPLACEMENT	SPECIAL FISH PROBLEMS	DISTANCE TO NEAREST LINE Miles	LINE CAPACITY KVA	LOCAL MARKET	DISTANCE TO CITY > 1000 Miles
02-500 -								
125-000-000-R0001	-	-	-	X	3.8	115-B	-	37
125-000-000-R0002	-	-	-	-	6.0	115-B	-	38
140-000-000-R0001	-	X	-	X	0.1	69-PPL	-	17
140-000-000-R0002	-	X	-	X	0.3	69-PPL	-	20
140-010-000-R0001	-	-	-	X	3.5	69-PPL	-	23
140-010-002-R0001	-	-	-	X	1.2	500-B	-	26
140-010-002-R0002	-	-	-	X	2.2	500-B	-	27
140-010-000-R0002	-	-	-	X	1.2	500-B	-	27
140-010-000-R0003	-	-	-	X	1.2	500-B	-	29
140-000-000-R0003	-	X	X	X	2.2	69-PPL	-	22
140-020-000-R0001	-	X	-	X	0.6	230-B	-	22
140-020-000-R0002	-	-	-	X	1.2	500-B	-	23
140-030-000-R0001	-	X	-	X	1.0	230-B	-	20

[illegible]