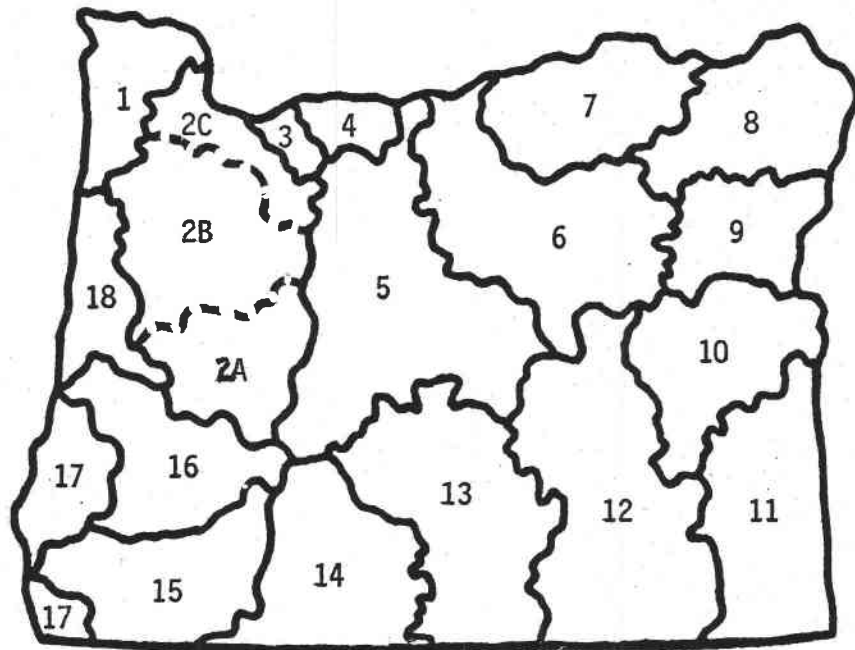


A RESOURCE SURVEY OF RIVER ENERGY
AND LOW-HEAD HYDROELECTRIC POWER POTENTIAL
IN OREGON

APPENDIX 9: POWDER BASIN



WATER RESOURCES RESEARCH INSTITUTE
Oregon State University
Corvallis, Oregon 97331

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Drainage Basin Map 9-ii

Reach Hydro Potential Characteristics Sheets

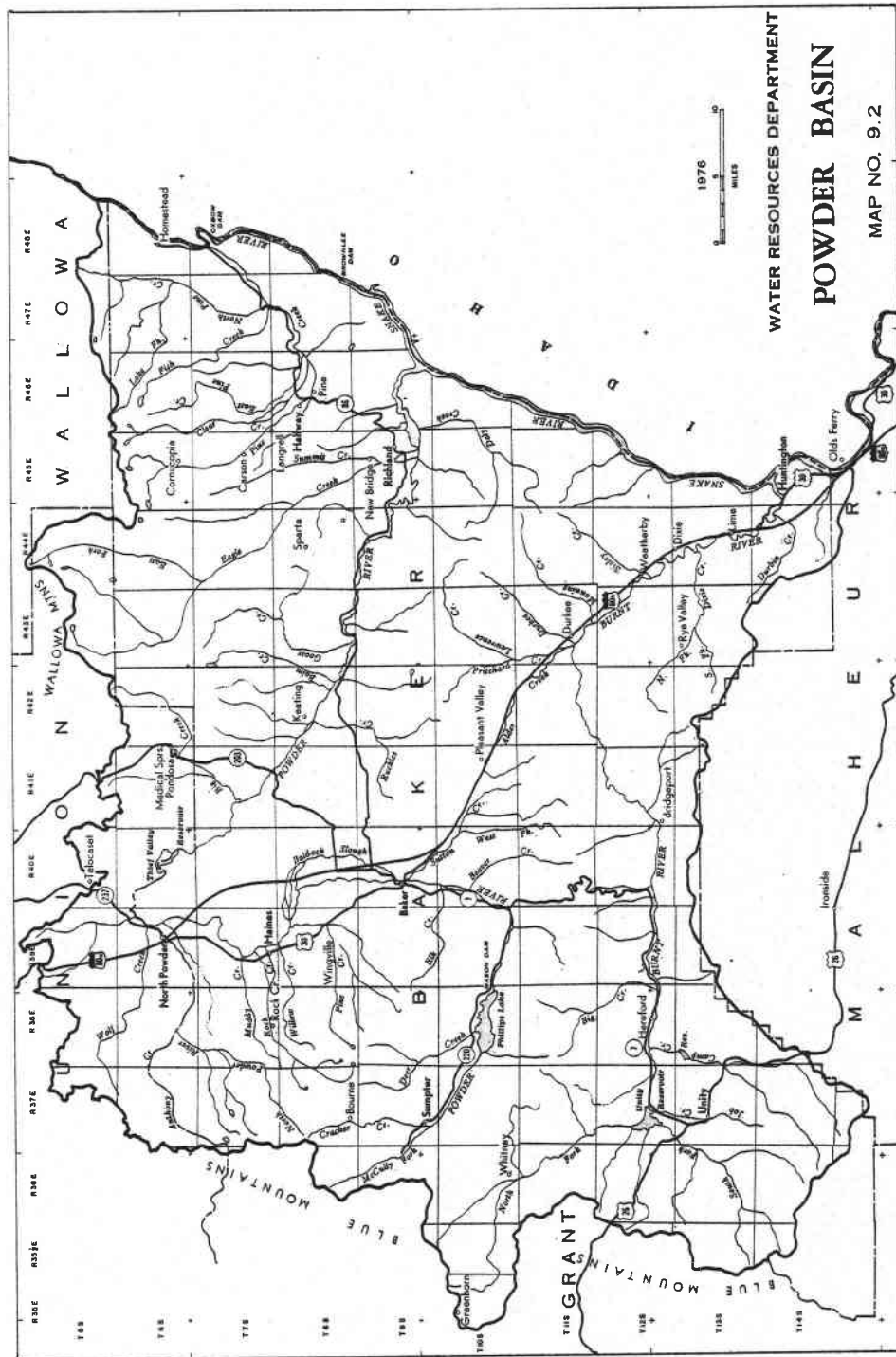
 Pine Creek 9-1 to 9-3

 Powder River Main Stem 9-4 to 9-17

 Eagle Creek 9-18 to 9-21

 Burnt River 9-22 to 9-31

Reach Feasibility Analysis Sheets 9-32 to 9-34



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-240-117-000-R0001

I. LOCATION

A. State	Oregon
B. County	Baker
C. Township, Range	Sec. 30, T7S, R48E
D. Latitude, Longitude	44° 56' N, 116° 54' W
E. Stream Name	Pine Creek
F. Major Basin Name	Powder
G. River Mile	0.0 to 7.8

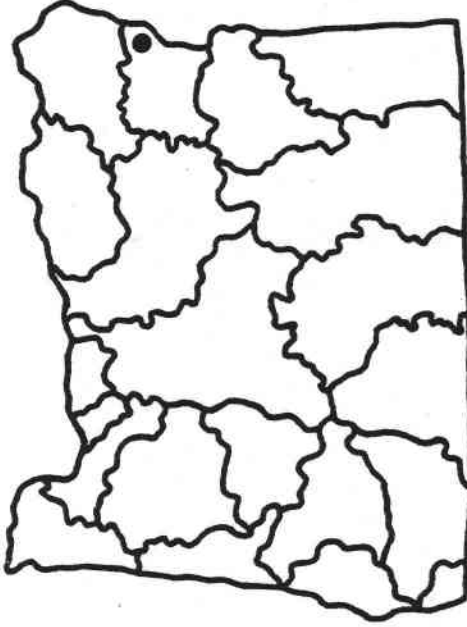
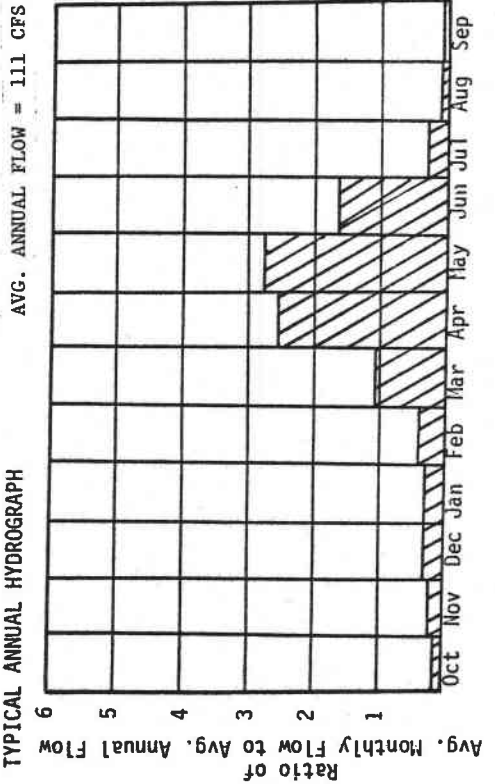
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	2240	Ft. MSL
B. Downstream Elevation of Reach	1680	Ft. MSL
C. Total Available Head in Reach	560	Ft.
D. Average Slope in Reach	71.8	Ft./Mi.
E. Drainage Area above Reach Mouth	302.1	Sq. Mi.
F. Inflow Classification	Natural	

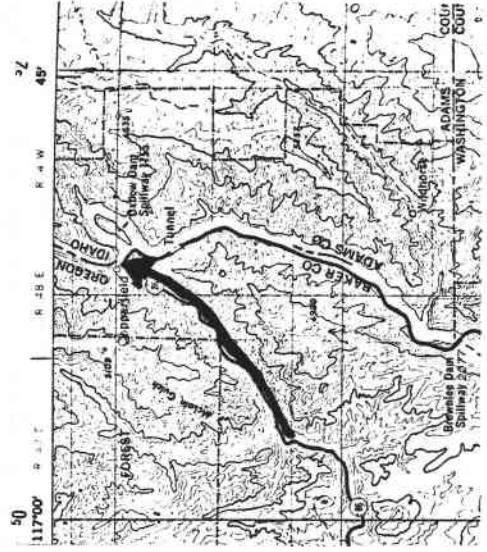
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

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 8.0 I	I .38 I	I 3.33 I	I 1.000 I
I 80 I	I 17.5 I	I .83 I	I 6.80 I	I .932 I
I 50 I	I 47.9 I	I 2.28 I	I 15.01 I	I .753 I
I 30 I	I 106.2 I	I 5.04 I	I 24.70 I	I .559 I
I 10 I	I 287.0 I	I 13.62 I	I 39.73 I	I .333 I

IV. TYPICAL ANNUAL HYDROGRAPH



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



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 02-500-240-117-000-R0002

I. LOCATION

A. State	Oregon
B. County	Baker
C. Township, Range	Sec. 8, T8S, R47E
D. Latitude, Longitude	44° 52' N, 116° 59' W
E. Stream Name	Pine Creek
F. Major Basin Name	Powder
G. River Mile	7.8 to 14.4

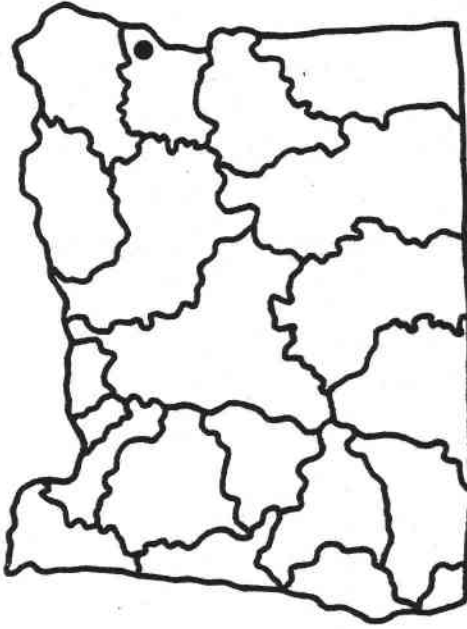
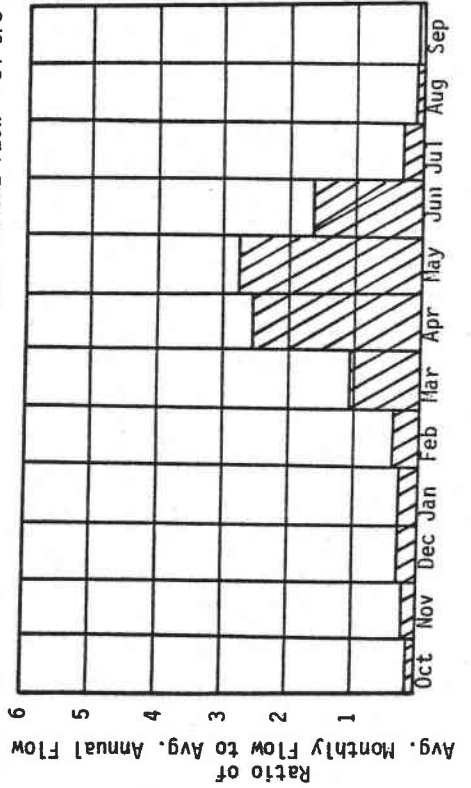
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	2430	Ft. MSL
B. Downstream Elevation of Reach	2240	Ft. MSL
C. Total Available Head in Reach	190	Ft.
D. Average Slope in Reach	28.8	Ft./Mi.
E. Drainage Area above Reach Mouth	197.0	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

I EXCEEDANCE I PERCENTAGE	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 6.0	I 1.0	I .84	I 1.000
I 80	I 13.4	I .22	I 1.76	I .931
I 50	I 37.7	I .61	I 3.99	I .750
I 30	I 80.8	I 1.30	I 6.42	I .563
I 10	I 209.1	I 3.37	I 10.04	I .340

IV. TYPICAL ANNUAL HYDROGRAPH



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

