

COMPLETION REPORT
PHASE I
CONTRACT NO. EG-77-S-07-1691

VOLUME C
APPENDIX I
WASHINGTON REACH DATA TABLES CONTINUED

**A RESOURCE SURVEY OF
LOW-HEAD HYDROELECTRIC POTENTIAL
PACIFIC NORTHWEST REGION**

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FORWARD

Due to the tremendous volume of information presented in this report, final publication has been split into ten volumes. The first volume (Volume A) contains the main report which describes study methodologies and sample data tables. The remaining nine volumes (Volumes B-J) contain sets of complete data tables for all the streams studied. Page iii of this volume contains a listing of the contents of all of the volumes. A listing of the distribution of the different report volumes is contained on pages 98 and 99 of Volume A.

Those desiring information from or copies of any of the reach sheets should contact the Idaho Water Resources Research Institute or the water research institute in the particular state in which the stream or streams of interest are located. Institute addresses are shown on the distribution list.

REPORT VOLUME CONTENTS

- Volume A Main Report and Sample Appendices
- Volume B Appendix I, Washington Reach Data Tables
- Volume C Appendix I, Washington Reach Data Tables continued
- Volume D Appendix I, Washington Reach Data Tables continued
- Volume E Appendix II Oregon Reach Data Tables
- Volume F Appendix II Oregon Reach Data Tables continued
- Volume G Appendix II Oregon Reach Data Tables continued
- Volume H Appendix III Idaho, Nevada and Wyoming Reach Data Tables
- Volume I Appendix III Idaho, Nevada and Wyoming Reach Data Tables
continued
- Volume J Appendix IV Montana Reach Data Tables

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VOLUME B

Appendix I contains

*Table II
Feasibility transmission
and Load Considerations*

*Reach Hydro-Potential
Characteristic Sheets* *W6-1 to W10-426*

VOLUME D

Appendix I contains

*Reach Hydro-Potential
Characteristic Sheets* *W26-904 to W62-1421*

Washington Reach Index

STREAM NAME	REACH NUMBER	PAGE THRU PAGE
Nooksack River	01-023-000-000-000-R0001 - R0035	W1-1 - W1-35
Silesia Creek	01-024-000-000-000-R0001 - R0004	W1-36 - W1-39
Chilliwack River	01-025-000-000-000-R0001 - R0007	W1-40 - W1-46
Sumas River	01-026-000-000-000-R0001 - R0004	W1-47 - W1-50
Samish River	01-060-000-000-000-R0001 - R0006	W3-51 - W3-56
Skagit River	01-061-000-000-000-R0001 - R0184	W4-57 - W4-240
Stillaguamish River	01-022-000-000-000-R0001 - R0033	W5-241 - W5-273
Snohomish River	01-034-000-000-000-R0001 - R0092	W7-274 - W7-365
Sammamich River	01-020-000-000-000-R0001 - R0003	W8-366 - W8-368
Cedar River	01-021-000-000-000-R0001 - R0008	W8-369 - W8-376
Green River	01-028-000-000-000-R0001 - R0014	W9-377 - W9-390
Puyallup River	01-001-000-000-000-R0001 - R0036	W10-391 - W10-426
Nisqually River	01-029-000-000-000-R0001 - R0032	W11-427 - W11-458
Chambers Creed	01-005-000-000-000-R0001	W12-459
Deschutes River	01-006-000-000-000-R0001 - R0002	W13-460 - W13-461
Sherwood Creek	01-014-000-000-000-R0001	W14-462
Gosnell Creek	01-015-000-000-000-R0001	W14-463
Goldsborough Creek	01-018-000-000-000-R0001 - R0002	W14-464 - W14-465
Tahuya	01-004-000-000-000-R0001	W15-466
Lilliwaup Creek	01-027-000-000-000-R0001	W16-467
Dosewallips River	01-030-000-000-000-R0001 - R0007	W16-468 - W16-474
Duckabush River	01-031-000-000-000-R0001 - R0006	W16-475 - W16-480
Hamma Hamma River	01-032-000-000-000-R0001 - R0010	W16-481 - W16-490
Skokomish River	01-033-000-000-000-R0001 - R0030	W16-441 - W16-510
Little Quilcene River	01-019-000-000-000-R0001 - R0002	W17-511 - W17-512
Big Quilcene River	01-063-000-000-000-R0001 - R0006	W17-513 - W17-518
Dungeness River	01-004-000-000-000-R0001 - R0008	W18-519 - W18-526
Morse Creek	01-002-000-000-000-R0001 - R0002	W18-527 - W18-528
Elwha River	01-003-000-000-000-R0001 - R0019	W18-529 - W18-547
Sekiu River	01-008-000-000-000-R0001 - R0002	W19-548 - W19-549
Hoko River	01-009-000-000-000-R0001 - R0005	W19-550 - W19-554
Clallam River	01-010-000-000-000-R0001 - R0002	W19-555 - W19-556
Pysht River	01-011-000-000-000-R0001 - R0003	W19-557 - W19-559
Deep Creek	01-012-000-000-000-R0001	W19-560
Lyre Creek	01-013-000-000-000-R0001 - R0002	W19-561 - W19-562

STREAM NAME	REACH NUMBER	PAGE THRU PAGE
Sooes River	01-035-000-000-000-R0001 - R0002	W20-563 - W20-564
Ozette Creek	01-036-000-000-000-R0001 - R0002	W20-565 - W20-566
Dickey River	01-038-000-000-000-R0001 - R0006	W20-567 - W20-572
Quillayute River	01-037-000-000-000-R0001 - R0039	W20-573 - W20-611
Goodman Creek	01-039-000-000-000-R0001 - R0004	W20-612 - W20-615
Mosquito Creek	01-040-000-000-000-R0001 - R0002	W20-616 - W20-617
Hoh River	01-041-000-000-000-R0001 - R0020	W20-618 - W20-637
Cedar Creek	01-042-000-000-000-R0001	W20-638
Queets River	01-043-000-000-000-R0001 - R0027	W21-639 - W21-665a
Raft River	01-044-000-000-000-R0001 - R0007	W21-666 - W21-672
Quinault River	01-045-000-000-000-R0001 - R0039	W21-673 - W21-711
Moclips River	01-046-000-000-000-R0001 - R0002	W21-712 - W21-713
Copalis River	01-047-000-000-000-R0001 - R0003	W21-714 - W21-716
Humptulips River	01-048-000-000-000-R0001 - R0014	W22-717 - W22-730
Hoquim River	01-049-000-000-000-R0001 - R0006	W22-731 - W22-736
Wishkah River	01-050-000-000-000-R0001 - R0009	W22-737 - W22-745
Johns River	01-052-000-000-000-R0001	W22-746
Elk River	01-053-000-000-000-R0001	W22-747
Chehalis River	01-051-000-000-000-R0001 - R0093	W23-748 - W23-840
North River	01-054-000-000-000-R0001 - R0009	W24-841 - W24-849
Smith River	01-055-000-000-000-R0001 - R0004	W24-850 - W24-853
Willapa River	01-056-000-000-000-R0001 - R0012	W24-854 - W24-865
Bear River	01-059-000-000-000-R0001	W24-866
Palix River	01-062-000-000-000-R0001 - R0003	W24-867 - W24-869
North Nemah River	01-057-000-000-000-R0001 - R0003	W24-870 - W24-872
Naselle River	01-058-000-000-000-R0001 - R0009	W24-873 - R24-881
Grays River	01-500-002-000-000-R0001 - R0009	W25-882 - R25-890
Skamokawa River	01-500-004-000-000-R0001 - R0005	W25-891 - W25-895
Elochoman River	01-500-006-000-000-R0001 - R0003	W25-896 - W25-898
Mill Creek	01-500-008-000-000-R0001	W25-899
Abernathy Creek	01-500-010-000-000-R0001 - R0002	W25-900 - R25-901
German Creek	01-500-012-000-000-R0001	W25-902
Coal Creek	01-500-014-000-000-R0001	W25-903
Cowlitz River	01-500-020-000-000-R0001 - R0144	W26-904 - W26-1047
Kalama River	01-500-038-000-000-R0001 - R0011	W27-1048 - W27-1058
Lewis River	01-500-040-000-000-R0001 - R0036	W27-1059 - W27-1094
Salmon Creek	01-500-042-000-000-R0001 - R0002	W28-1095 - W28-1096

STREAM NAME	REACH NUMBER	PAGE THRU PAGE
LaCamas Creek	01-500-044-000-000-R0001 - R0003	W28-1097 - W28-1099
Washougal River	01-500-046-000-000-R0001 - R0011	W28-1100 - W28-1110
Hamilton Creek	01-500-048-000-000-R0001	W28-1111
Rock Creek	01-500-096-000-000-R0001 - R0002	W29-1112 - W29-1113
Wind River	01-500-100-000-000-R0001 - R0013	W29-1114 - W29-1126
Little White Salmon River	01-500-106-000-000-R0001 - R0003	W29-1127 - W29-1129
White Salmon River	01-500-120-000-000-R0001 - R0016	W29-1130 - W29-1145
Klickitat River	01-500-160-000-000-R0001 - R0029	W30-1146 - W30-1174
Walla Walla River	01-500-238-000-000-R0001 - R0030	W32-1175 - W32-1194
Palouse River	01-500-240-020-000-R0001 - R0003	W34-1195 - W34-1197
Asotin Creek	01-500-240-050-000-R0001 - R0002	W35-1198 - W35-1199
Tucannon River	01-500-240-010-000-R0001 - R0003	W35-1200 - W35-1202
Grande Ronde River	01-500-240-060-000-R0001 - R0006	W35-1203 - R35-1208
Yakima River	01-500-260-000-000-R0001 - R0058	W37-1209 - W37-1266
Columbia River	01-500-000-000-000-R0001	W40-1267
Crab Creek	01-500-280-000-000-R0001 - R0002	W41-1268 - W41-1269
Wenatchee River	01-500-300-000-000-R0001 - R0044	W45-1270 - W45-1313
Entiat River	01-500-320-000-000-R0001 - R0010	W46-1314 - W47-1323
Chelan River	01-500-340-000-000-R0001 - R0026	W47-1324 - W47-1349
Pasayten River	01-064-000-000-000-R0001 - R0002	W48-1350 - W48-1351
Methow River	01-500-360-000-000-R0001 - R0022	W48-1352 - W48-1373
Okanogan River	01-500-380-000-000-R0001 - R0013	W49-1374 - W49-1386
Nespelem River	01-500-390-000-000-R0001 - R0002	W51-1387 - W41-1388
Sanpoil River	01-500-400-000-000-R0001 - R0005	W52-1389 - W52-1393
Spokane River	01-500-420-000-000-R0001 - R0012	W54-1394 - W54-1405
Colville River	01-500-440-000-000-R0001 - R0006	W59-1406 - W59-1411
Kettle River	01-500-460-000-000-R0001 - R0006	W60-1412 - W60-1417
Big Sheep Creek	01-500-470-000-000-R0001 - R0002	W61-1418 - W61-1419
Pend Oreille River	01-500-480-000-000-R0001 - R0002	W62-1420 - W62-1421

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T18N R1E</u>
D. Latitude, Longitude	<u>47°02' 121°44'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/10.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

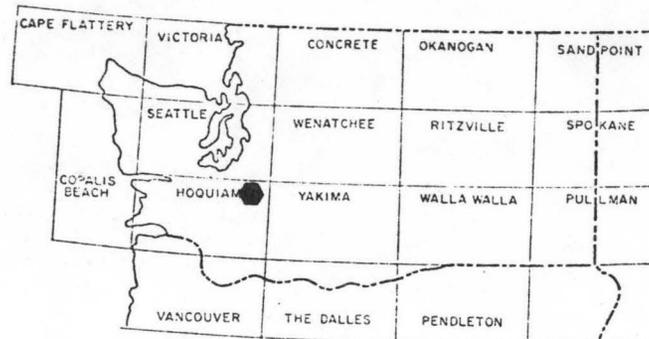
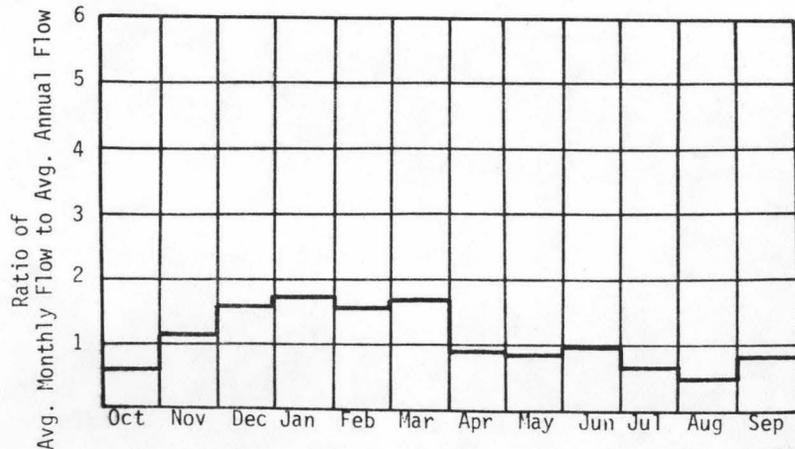
A. Upstream Elevation of Reach	<u>85.0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0.0</u>	Ft. MSL
C. Total Available Head in Reach	<u>85</u>	Ft.
D. Average Slope in Reach	<u>8.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>711.7</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

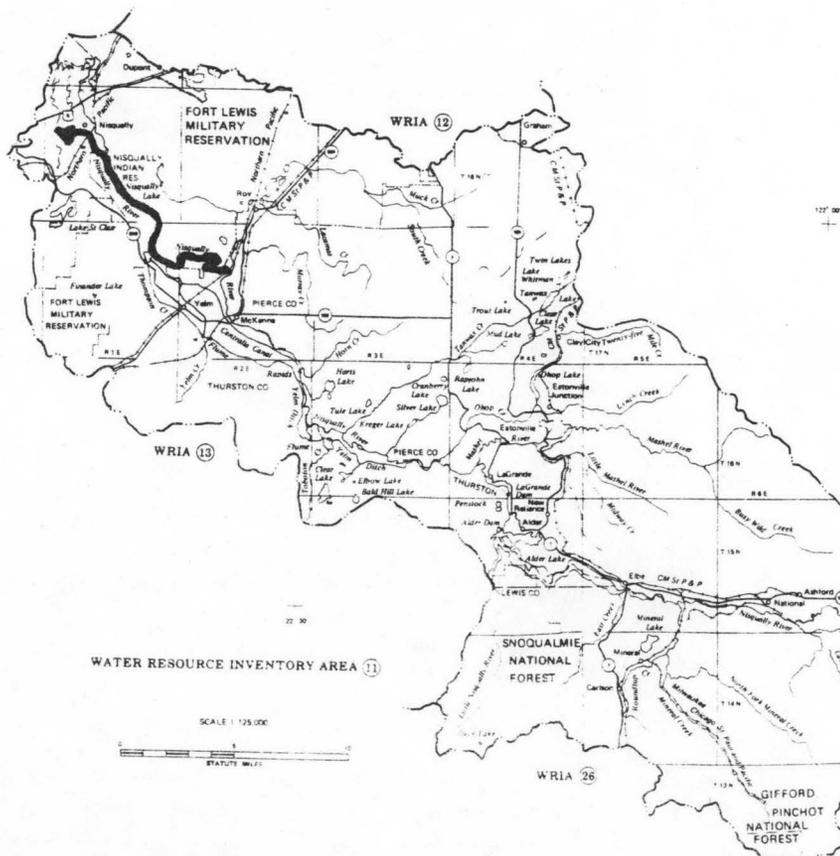
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	218	1.57	13.8	1.00
80	635	4.57	36.8	0.92
50	1810	13.0	84.2	0.74
30	2440	17.6	100	0.65
10	3490	25.1	112	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1984 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Thurston</u>
C. Township, Range	<u>T17N R1E</u>
D. Latitude, Longitude	<u>46°58' 122°35'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>10.5/30.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

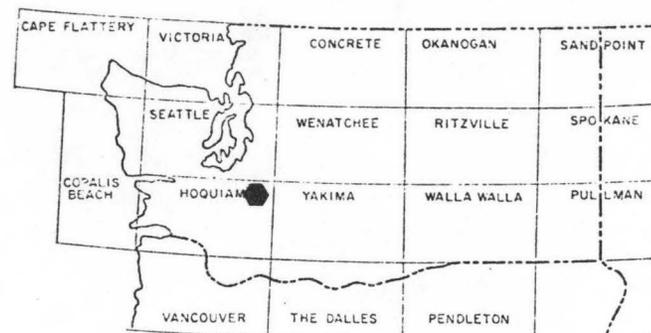
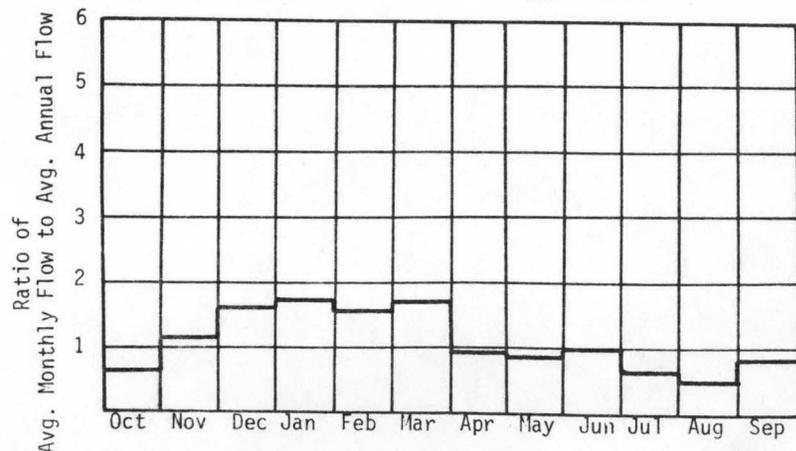
A. Upstream Elevation of Reach	<u>370</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>85</u>	Ft. MSL
C. Total Available Head in Reach	<u>285</u>	Ft.
D. Average Slope in Reach	<u>14.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>587.3</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

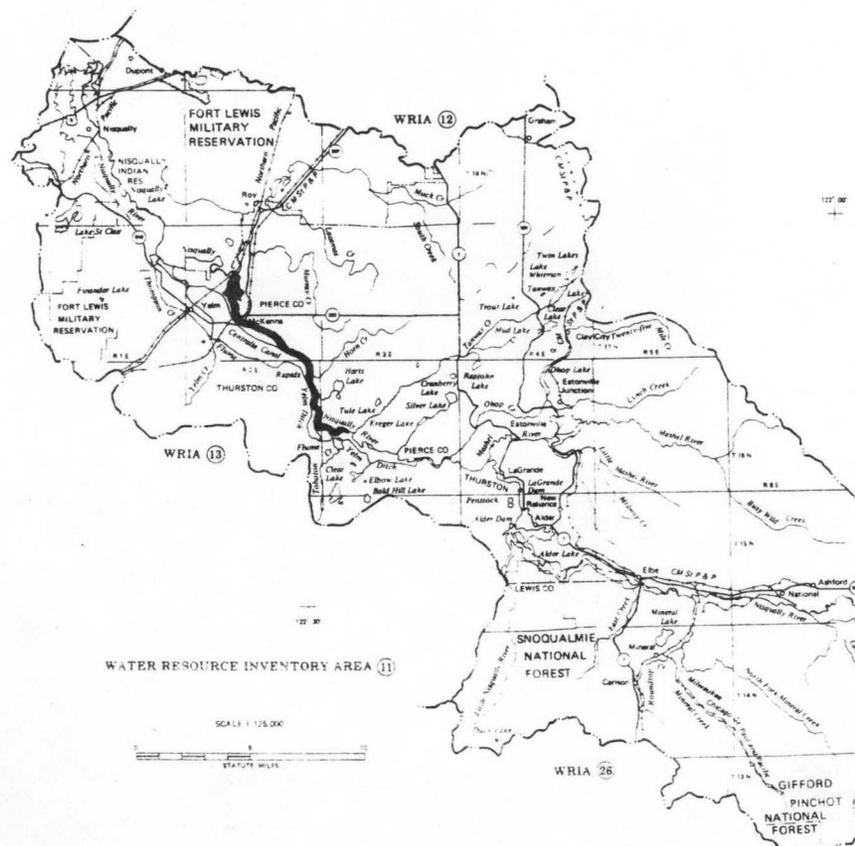
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	602	14.5	127	1.00
80	912	22.0	185	0.96
50	1750	42.2	296	0.80
30	2500	60.3	359	0.68
10	3230	77.9	389	0.57

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1824 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T16N R3E</u>
D. Latitude, Longitude	<u>46°50' 122°20'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>30.3/36.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

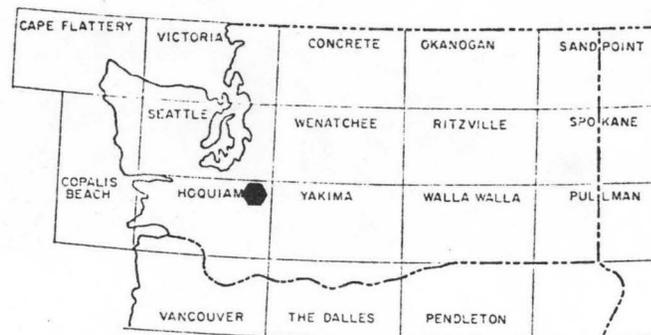
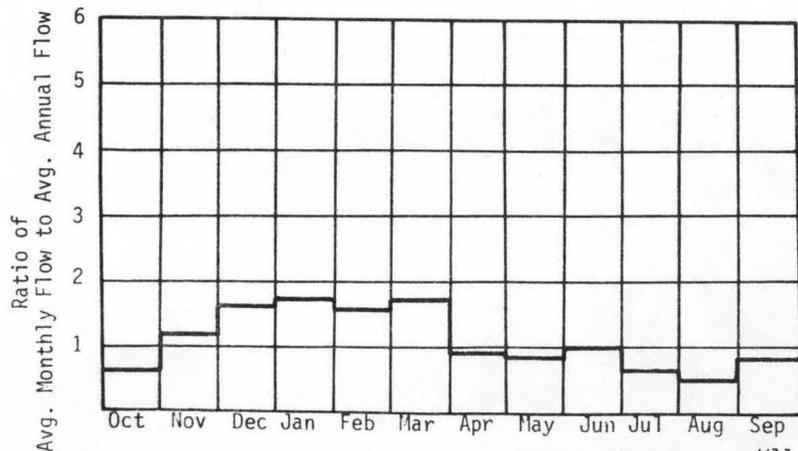
A. Upstream Elevation of Reach	<u>440</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>370</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>10.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>443.9</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

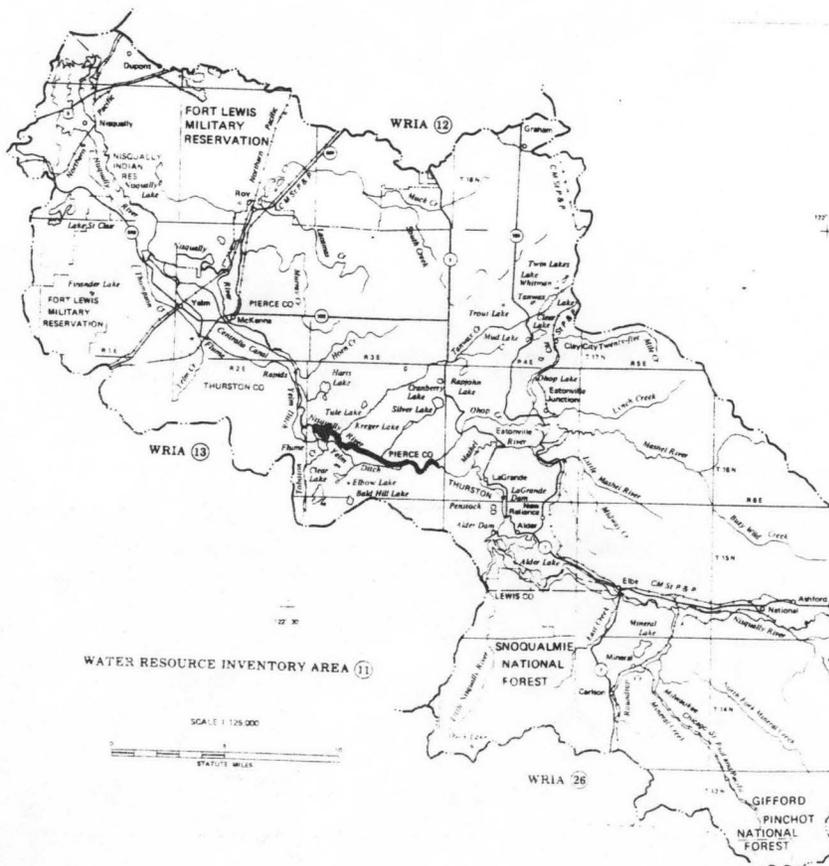
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	570	3.38	30.0	1.00
80	870	5.13	43.1	0.96
50	1660	9.85	69.0	0.80
30	2370	14.1	83.7	0.68
10	3070	18.2	90.7	0.57

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1732 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T16N R3E</u>
D. Latitude, Longitude	<u>46°50' 122°20'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>36.8/39.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

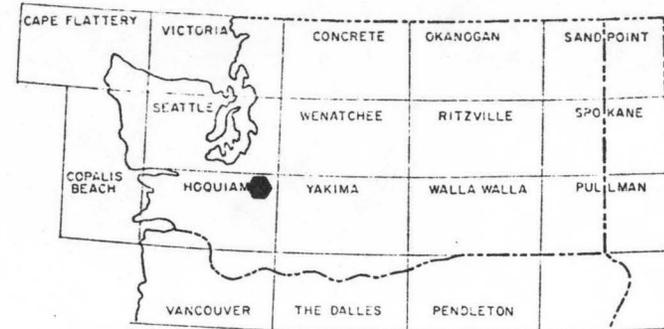
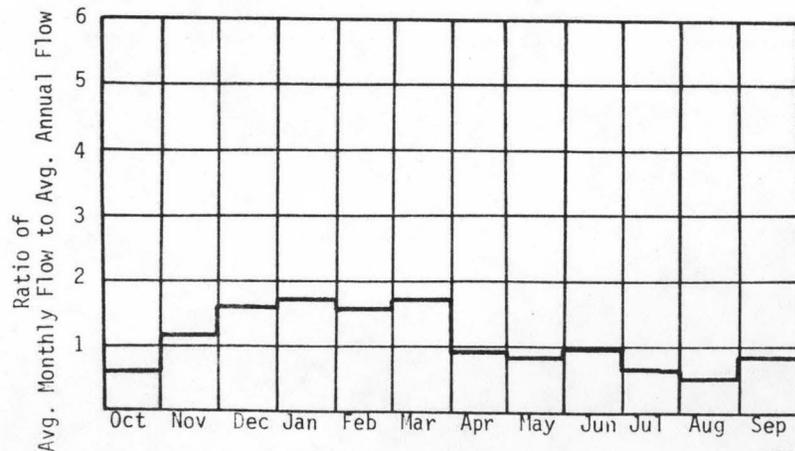
A. Upstream Elevation of Reach	<u>475</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>440</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>15.91</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>378.4</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

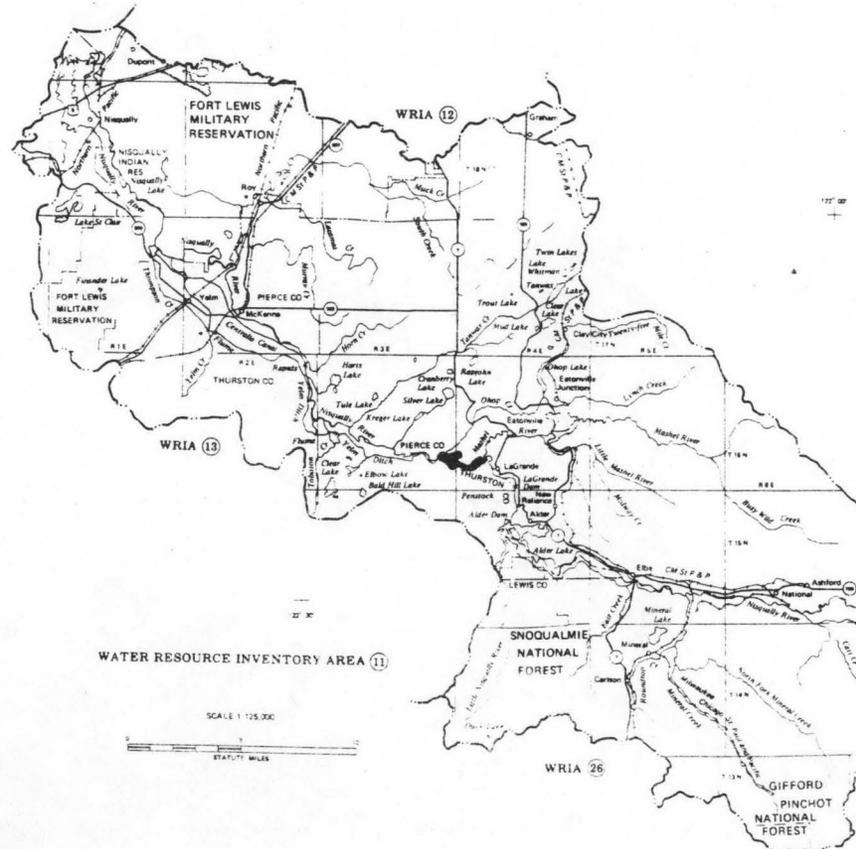
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	478	1.41	12.4	1.00
80	774	2.29	19.1	0.95
50	1370	4.05	29.1	0.82
30	1980	5.85	35.4	0.69
10	2620	7.76	38.7	0.57

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1646 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0005

I. LOCATION

A. State Washington
 B. County Pierce
 C. Township, Range T16N R3E
 D. Latitude, Longitude 46°50' 122°20'
 E. Stream Name Nisqually River
 F. Major Basin Name Nisqually
 G. River Mile 39.0/43.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

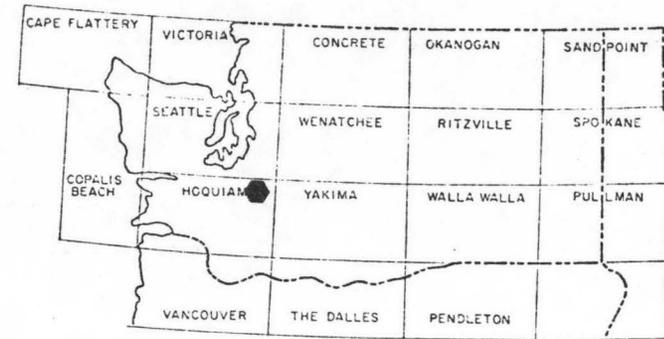
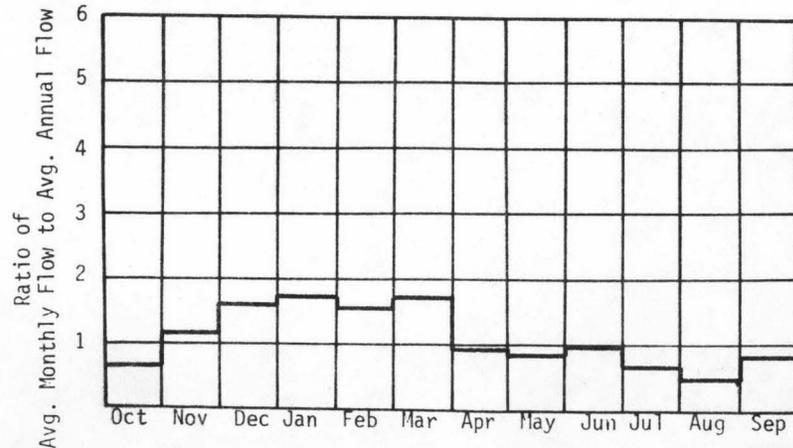
A. Upstream Elevation of Reach 780 Ft. MSL
 B. Downstream Elevation of Reach 475 Ft. MSL
 C. Total Available Head in Reach 305 Ft.
 D. Average Slope in Reach 62 Ft./Mi.
 E. Drainage Area above Reach Mouth 293.2 Sq.Mi.
 F. Inflow Classification Regulated

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

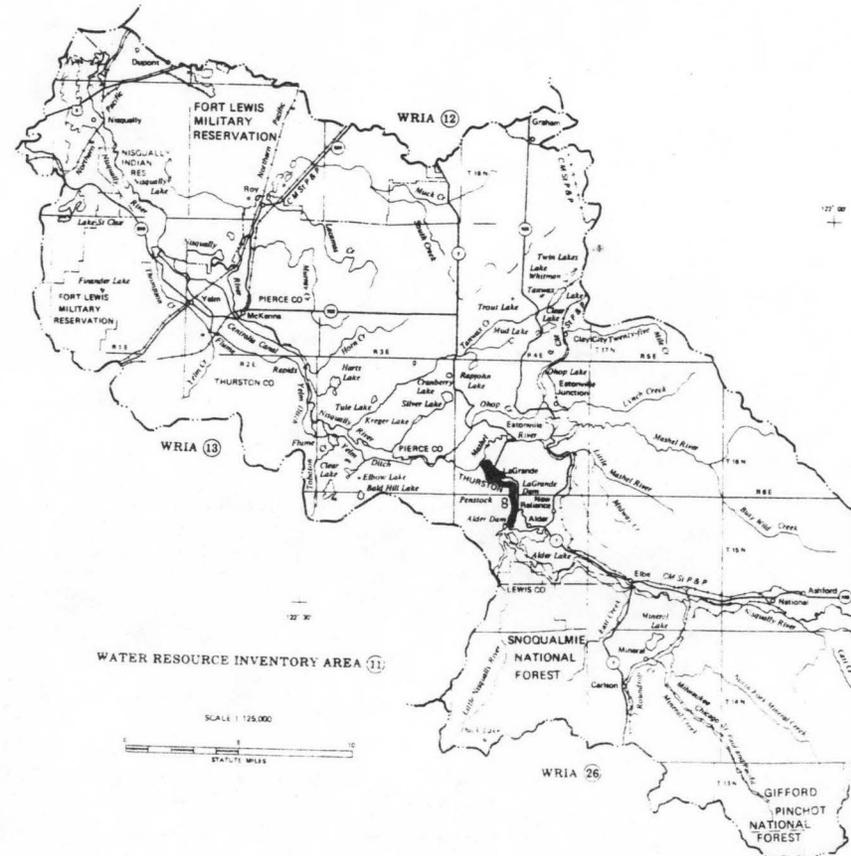
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	407	10.5	92.0	1.00
80	660	17.0	142	0.95
50	1170	30.1	216	0.82
30	1680	43.5	263	0.69
10	2230	57.6	288	0.57

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1404 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T15N R5E</u>
D. Latitude, Longitude	<u>46°46' 122°10'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>52.7/55.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

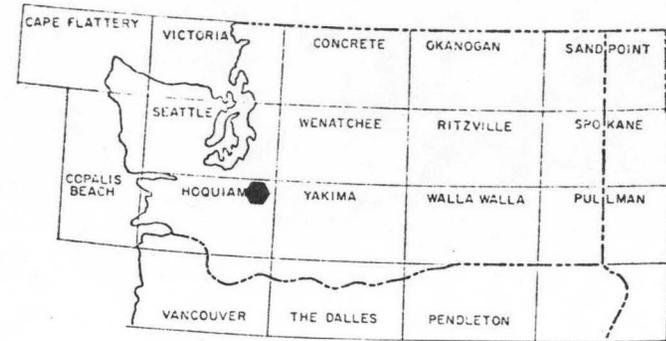
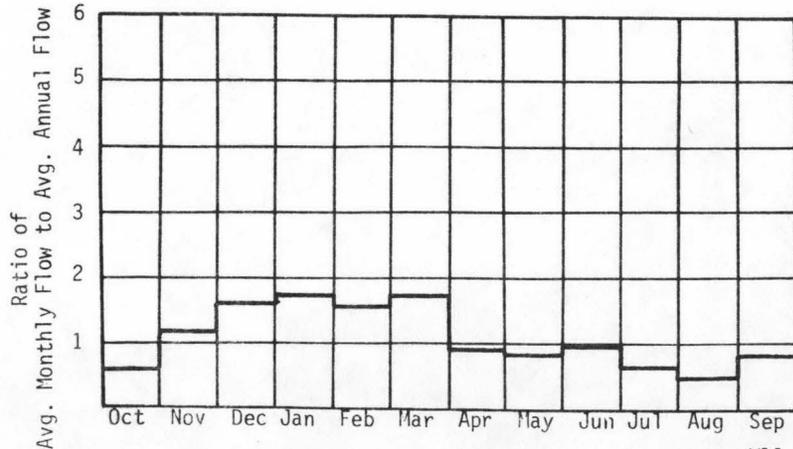
A. Upstream Elevation of Reach	<u>1320</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1200</u>	Ft. MSL
C. Total Available Head in Reach	<u>120</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>226.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

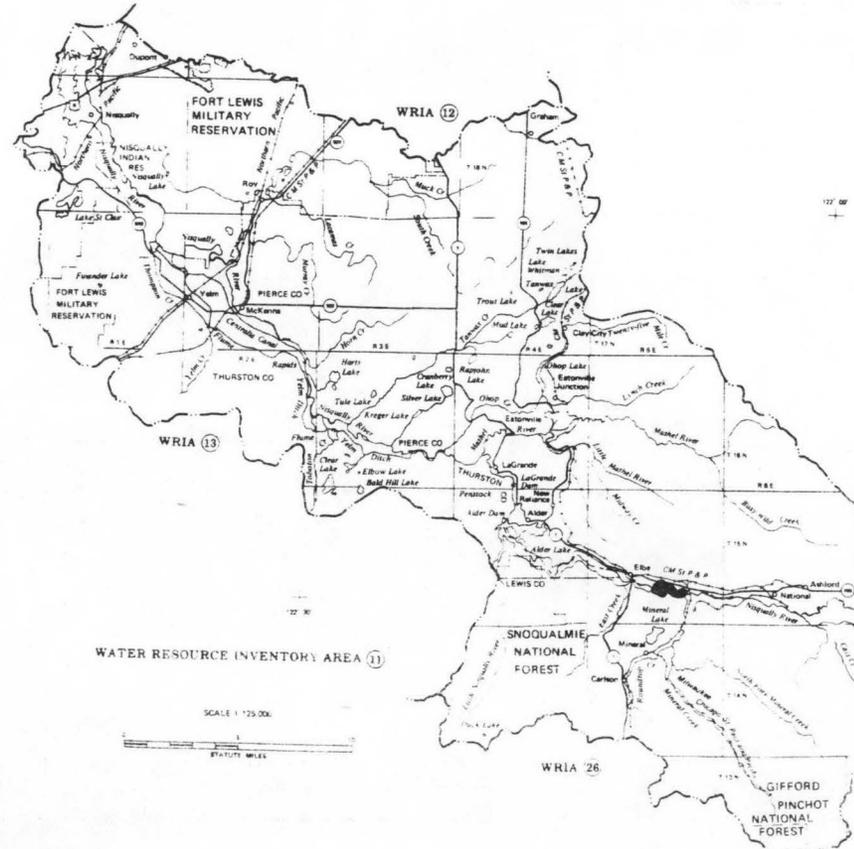
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	410	4.16	36.5	1.00
80	598	6.07	51.0	0.96
50	949	9.65	71.8	0.85
30	1310	13.3	84.1	0.72
10	2070	21.1	97.8	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1172 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T14N R5E</u>
D. Latitude, Longitude	<u>46°45' 122°05'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>55.1/61.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

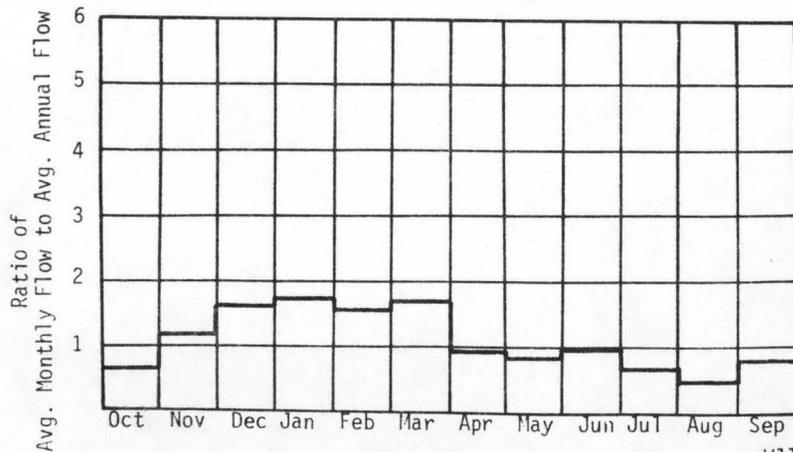
A. Upstream Elevation of Reach	<u>1560</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1320</u>	Ft. MSL
C. Total Available Head in Reach	<u>240</u>	Ft.
D. Average Slope in Reach	<u>39.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>143.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

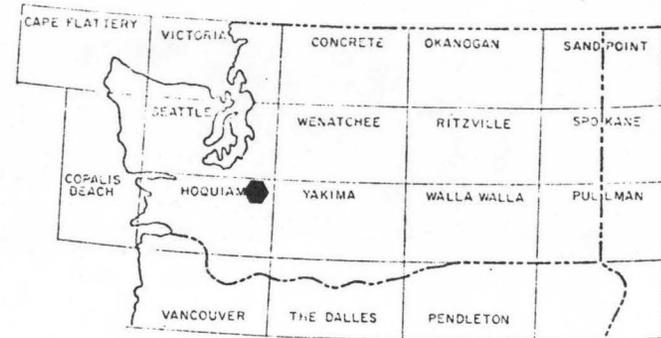
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	260	5.29	46.3	1.00
80	379	7.71	64.8	0.96
50	603	12.2	91.1	0.85
30	833	16.9	107	0.72
10	1320	26.8	124	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

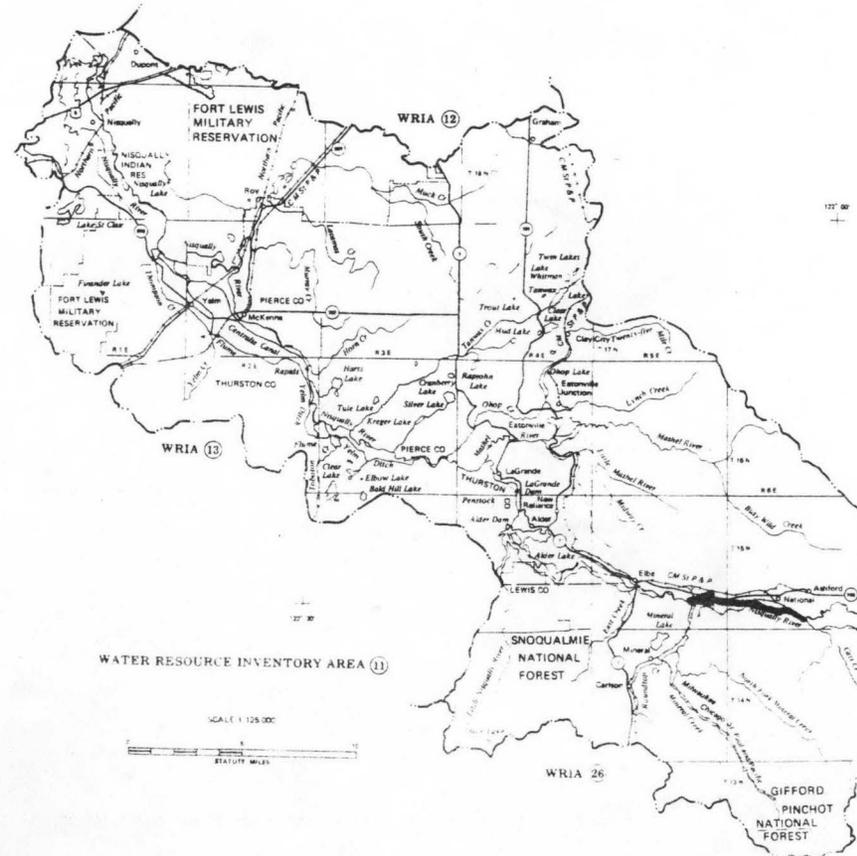
QMR = 744 cfs



W11-433



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T15N R7E</u>
D. Latitude, Longitude	<u>46°45' 121°59'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>62.5/70.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

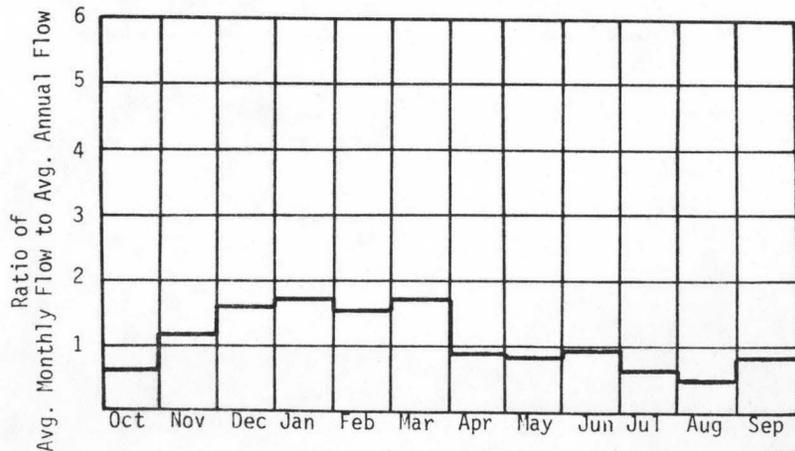
A. Upstream Elevation of Reach	<u>2040</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1560</u>	Ft. MSL
C. Total Available Head in Reach	<u>480</u>	Ft.
D. Average Slope in Reach	<u>58.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>87.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

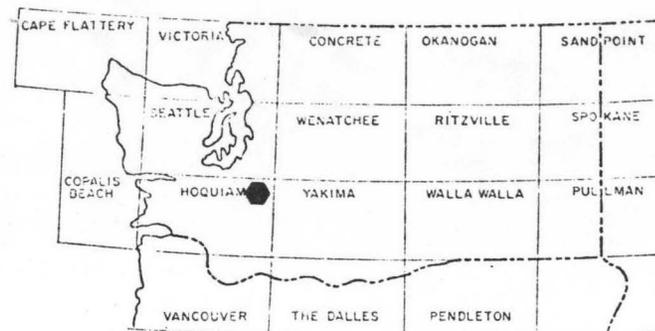
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	153	6.21	54.4	1.00
80	223	9.05	76.2	0.96
50	352	14.4	107	0.85
30	489	19.9	125	0.72
10	774	31.4	146	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 437 cfs



W11-434



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T15N R7E</u>
D. Latitude, Longitude	<u>46°44' 121°54'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>70.7/71.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

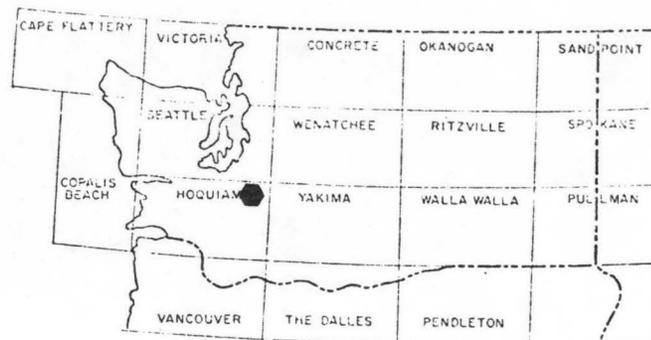
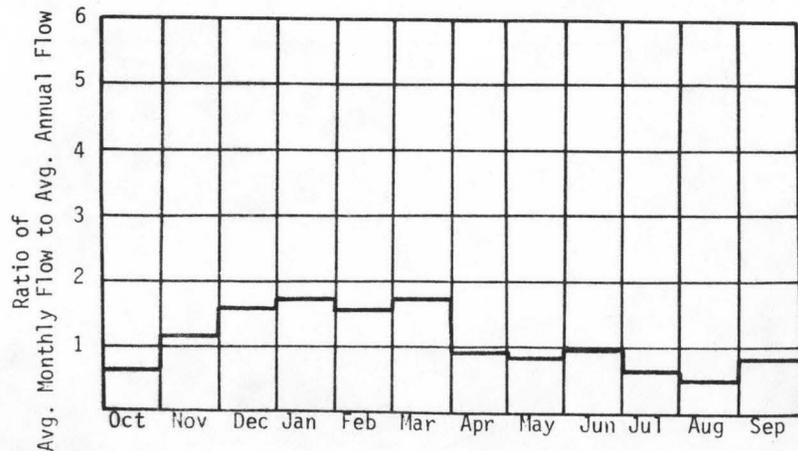
A. Upstream Elevation of Reach	<u>2120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2040</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>114.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>53.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	108	0.73	6.41	1.00
80	158	1.07	8.97	0.96
50	250	1.69	12.6	0.85
30	346	2.34	14.8	0.72
10	547	3.70	17.2	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 309 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T14N R7E</u>
D. Latitude, Longitude	<u>46°44' 121°55'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>71.4/72.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

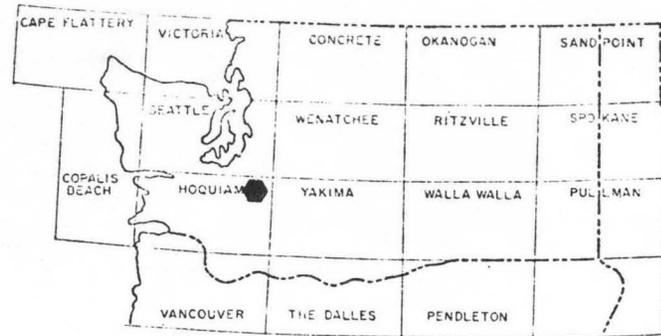
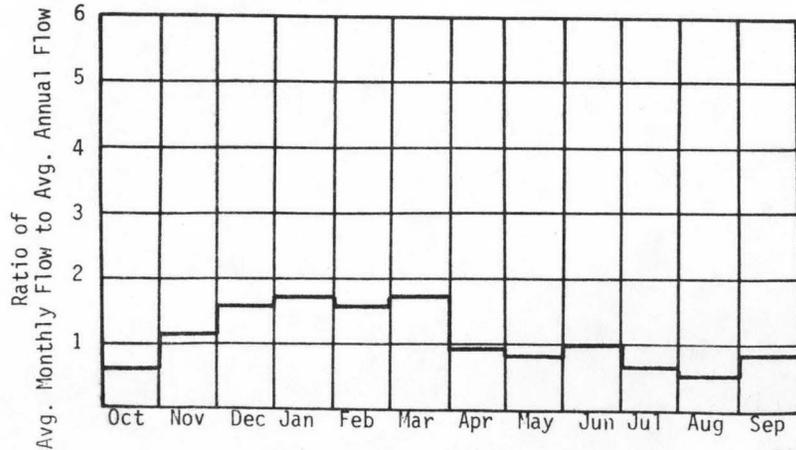
A. Upstream Elevation of Reach	<u>2220</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2120</u>	Ft. MSL
C. Total Available Head in Reach	<u>100</u>	Ft.
D. Average Slope in Reach	<u>90.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>42.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	85.8	0.73	6.36	1.00
80	125	1.06	8.89	0.96
50	199	1.68	12.5	0.85
30	274	2.32	14.7	0.72
10	434	3.67	17.0	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 245 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T15N R8E</u>
D. Latitude, Longitude	<u>46°51' 121°48'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>72.5/73.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

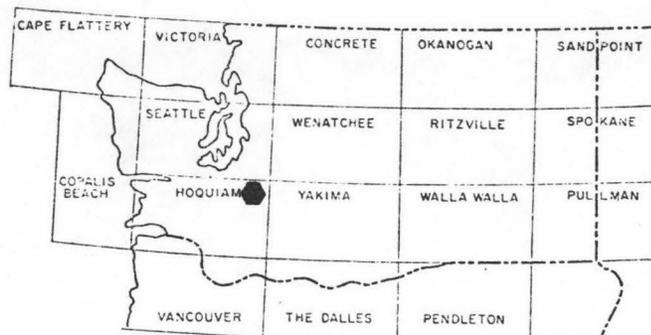
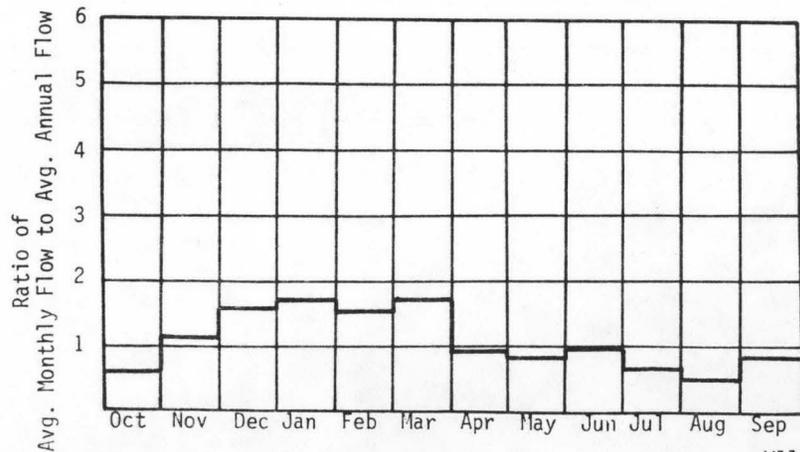
A. Upstream Elevation of Reach	<u>3140</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2220</u>	Ft. MSL
C. Total Available Head in Reach	<u>920</u>	Ft.
D. Average Slope in Reach	<u>1150</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>28.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	48.0	3.73	32.7	1.00
80	69.9	5.44	45.8	0.96
50	111	8.64	64.3	0.85
30	153	12.0	75.4	0.72
10	243	18.9	87.7	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 137 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce/Lewis</u>
C. Township, Range	<u>T15N R8E</u>
D. Latitude, Longitude	<u>46°48' 121°46'</u>
E. Stream Name	<u>Nisqually River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>73.3/80.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

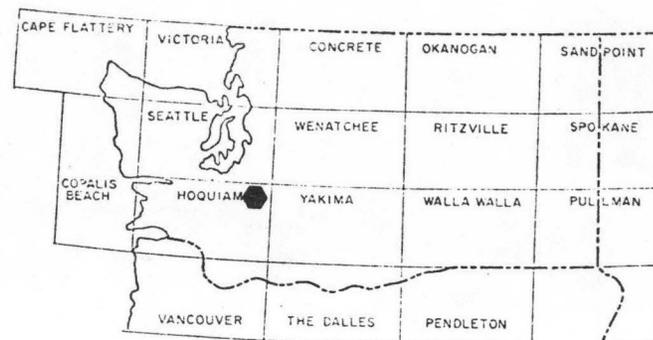
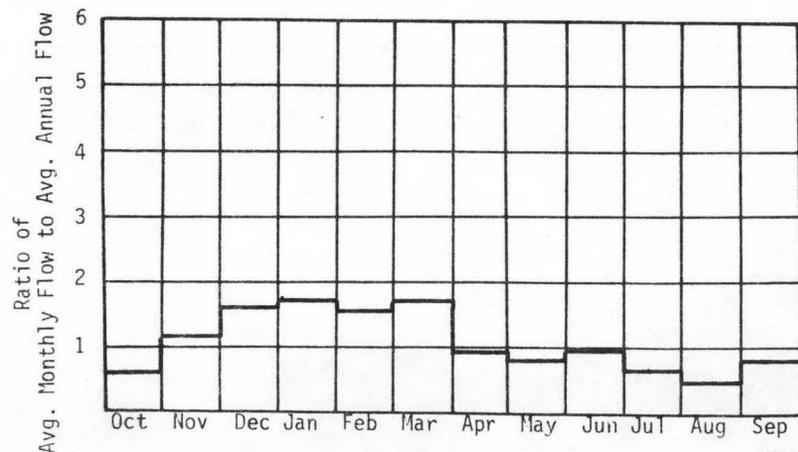
A. Upstream Elevation of Reach	<u>3680</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>3140</u>	Ft. MSL
C. Total Available Head in Reach	<u>540 + 66 = 606</u>	Ft.
D. Average Slope in Reach	<u>78.26</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.3	0.99	8.65	1.00
80	28.1	1.44	12.1	0.96
50	44.6	2.29	17.0	0.85
30	61.6	3.16	19.9	0.72
10	97.4	4.99	23.2	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 55 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T17N R3E</u>
D. Latitude, Longitude	<u>47°00' 122°30'</u>
E. Stream Name	<u>Muck Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/13.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

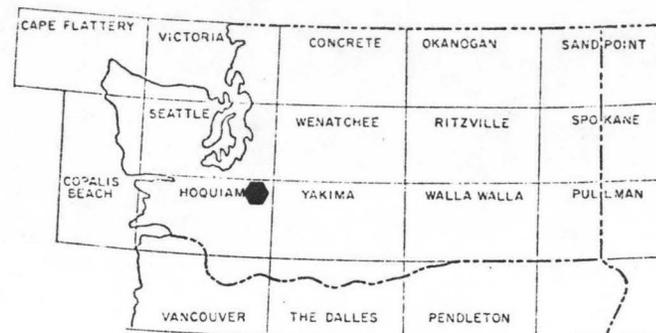
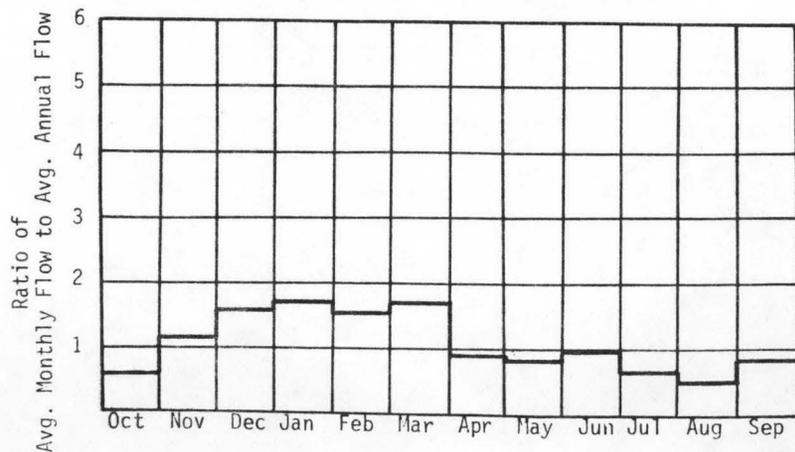
A. Upstream Elevation of Reach	<u>390</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>310 + 66 = 376</u>	Ft.
D. Average Slope in Reach	<u>28</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>90.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

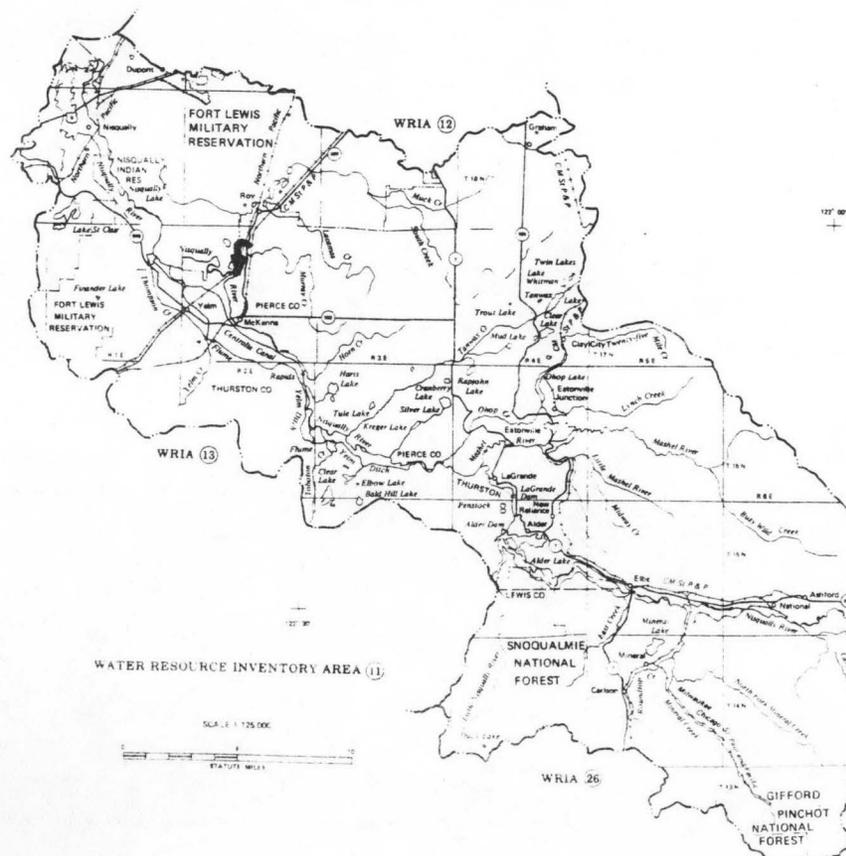
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	0.00	0.00	0.00	1.00
80	1.28	0.04	0.03	0.86
50	25.2	0.83	4.61	0.63
30	79.4	2.52	10.6	0.48
10	180	5.72	16.0	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 64 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T16N R3E</u>
D. Latitude, Longitude	<u>46°53' 122°20'</u>
E. Stream Name	<u>Ohop Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/6.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

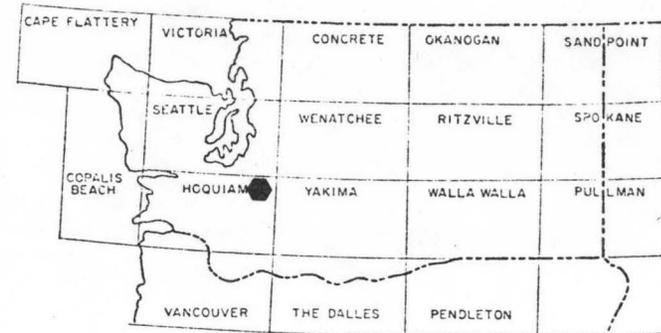
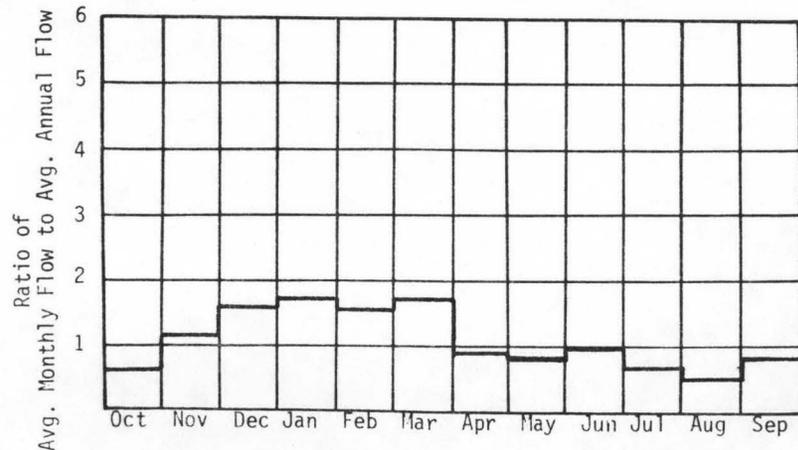
A. Upstream Elevation of Reach	<u>520</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>440</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>13.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>42.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

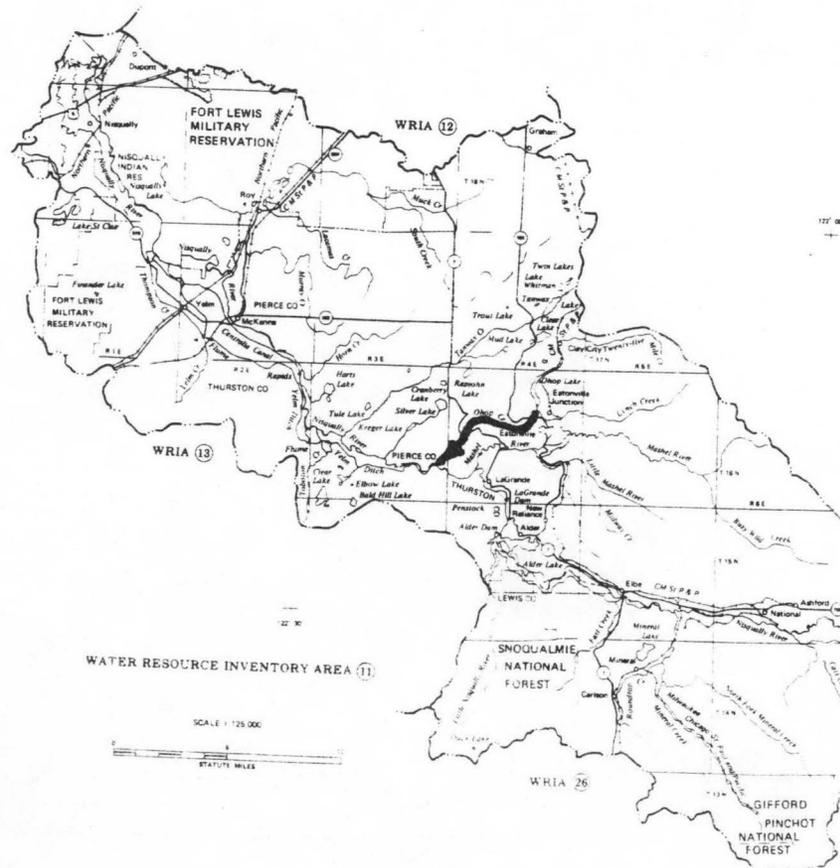
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.7	0.10	0.83	1.00
80	16.2	0.20	1.63	0.93
50	50.8	0.63	4.02	0.73
30	88.6	1.09	5.66	0.59
10	170	2.10	7.37	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 77 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T16N R3E</u>
D. Latitude, Longitude	<u>46°52' 122°22'</u>
E. Stream Name	<u>Masheh River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/4.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

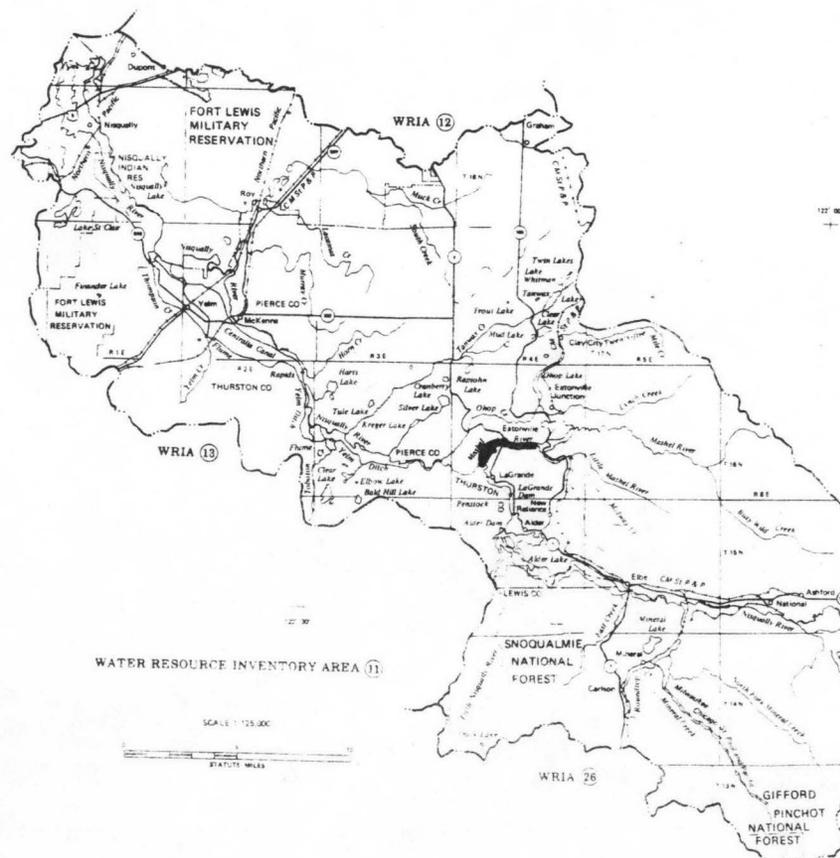
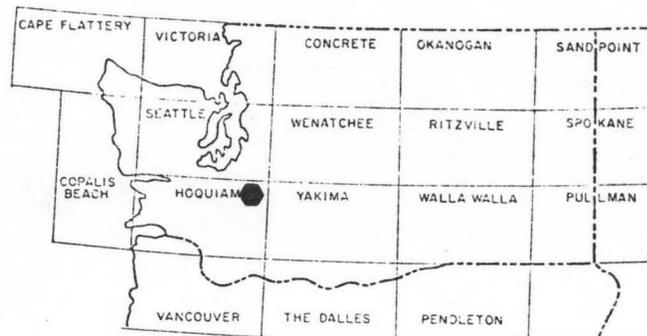
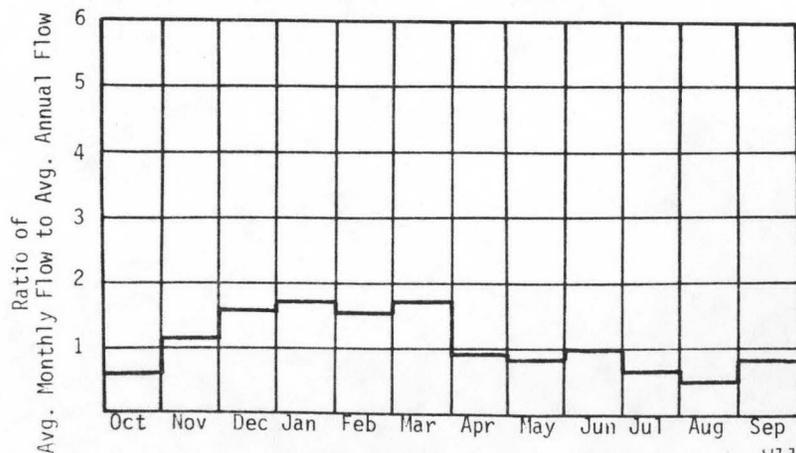
A. Upstream Elevation of Reach	<u>705</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>470</u>	Ft. MSL
C. Total Available Head in Reach	<u>235</u>	Ft.
D. Average Slope in Reach	<u>51.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>82.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.0	0.28	2.44	1.00
80	37.3	0.74	5.98	0.92
50	152	3.01	18.7	0.71
30	261	5.19	26.4	0.58
10	531	10.6	35.2	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 233 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T16N R5E</u>
D. Latitude, Longitude	<u>47°08' 122°10'</u>
E. Stream Name	<u>Masheh River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>4.6/10.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

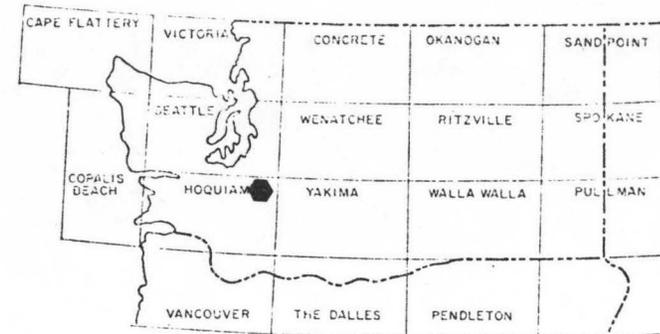
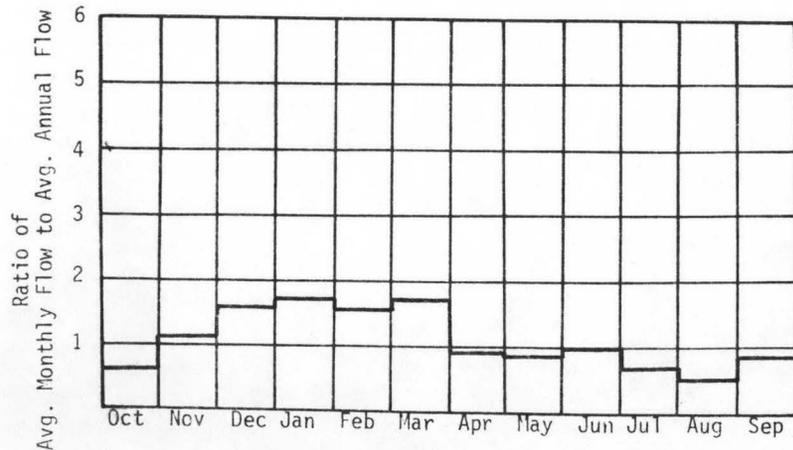
A. Upstream Elevation of Reach	<u>1270</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>705</u>	Ft. MSL
C. Total Available Head in Reach	<u>565</u>	Ft.
D. Average Slope in Reach	<u>92.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>54.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

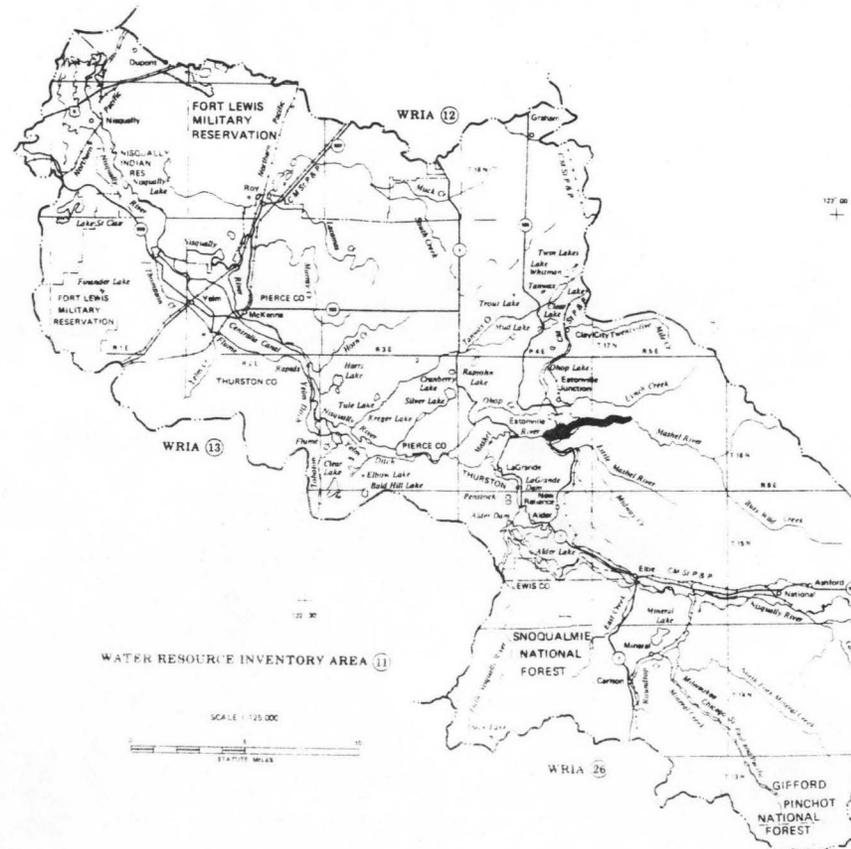
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.40	0.45	3.95	1.00
80	25.1	1.20	9.68	0.92
50	102	4.88	30.3	0.71
30	176	8.41	42.7	0.58
10	358	17.1	57.0	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 157 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T16N R5E</u>
D. Latitude, Longitude	<u>45°50' 122°10'</u>
E. Stream Name	<u>Mashe1 River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>10.7/14.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

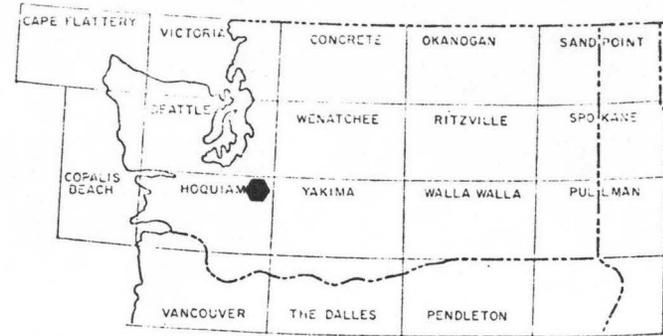
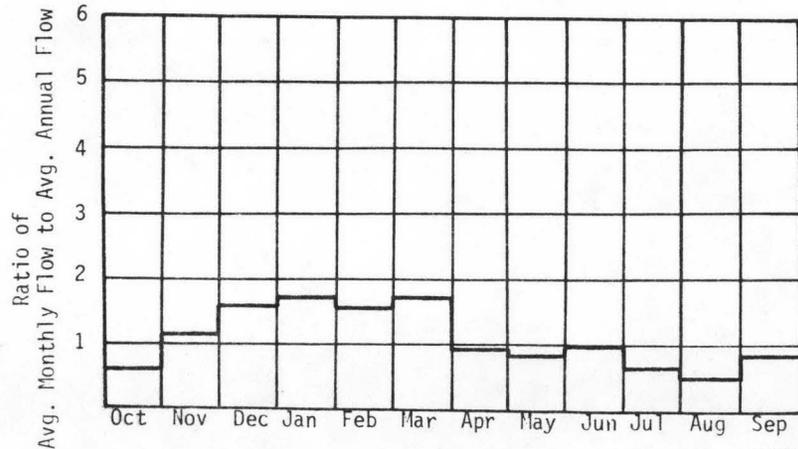
A. Upstream Elevation of Reach	<u>1640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1270</u>	Ft. MSL
C. Total Available Head in Reach	<u>370</u>	Ft.
D. Average Slope in Reach	<u>88.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>35.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

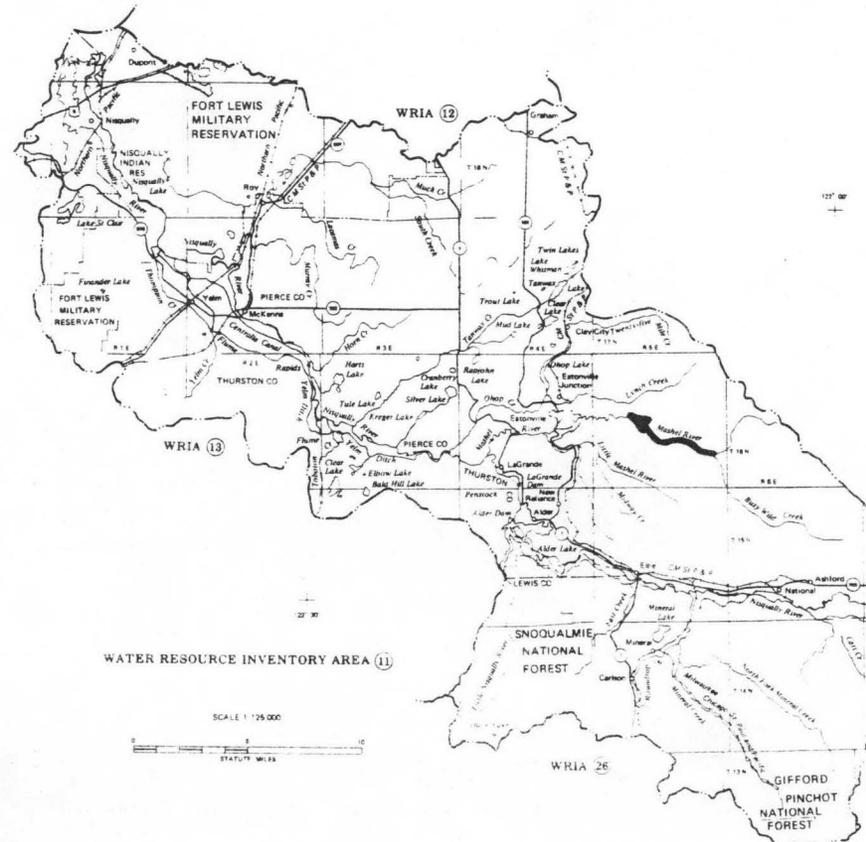
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.7	0.21	1.84	1.00
80	17.9	0.56	4.52	0.92
50	72.8	2.28	14.2	0.71
30	125	3.93	20.0	0.58
10	255	8.00	26.6	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 112 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0018

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T16N R5E</u>
D. Latitude, Longitude	<u>46°50' 122°10'</u>
E. Stream Name	<u>Mashel River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>14.9/16.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

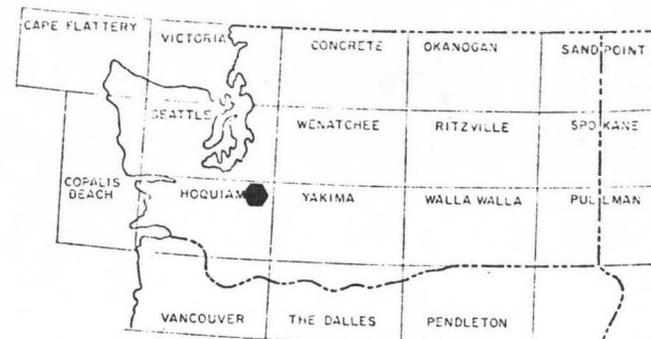
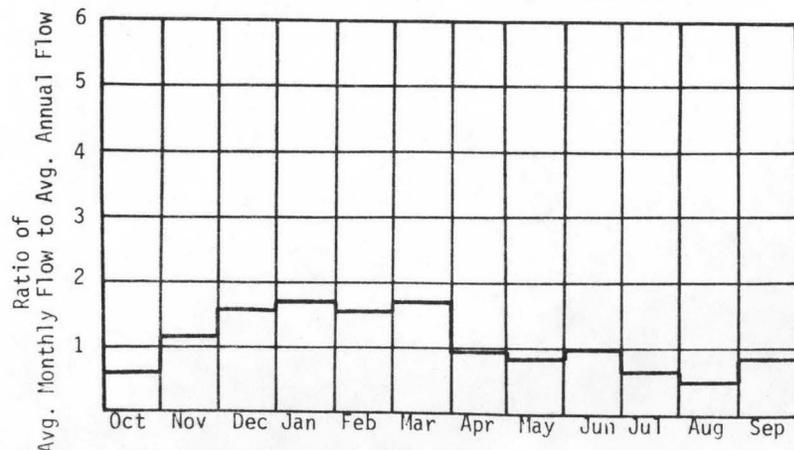
A. Upstream Elevation of Reach	<u>1800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1640</u>	Ft. MSL
C. Total Available Head in Reach	<u>160 + 66 = 226</u>	Ft.
D. Average Slope in Reach	<u>146.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>32.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

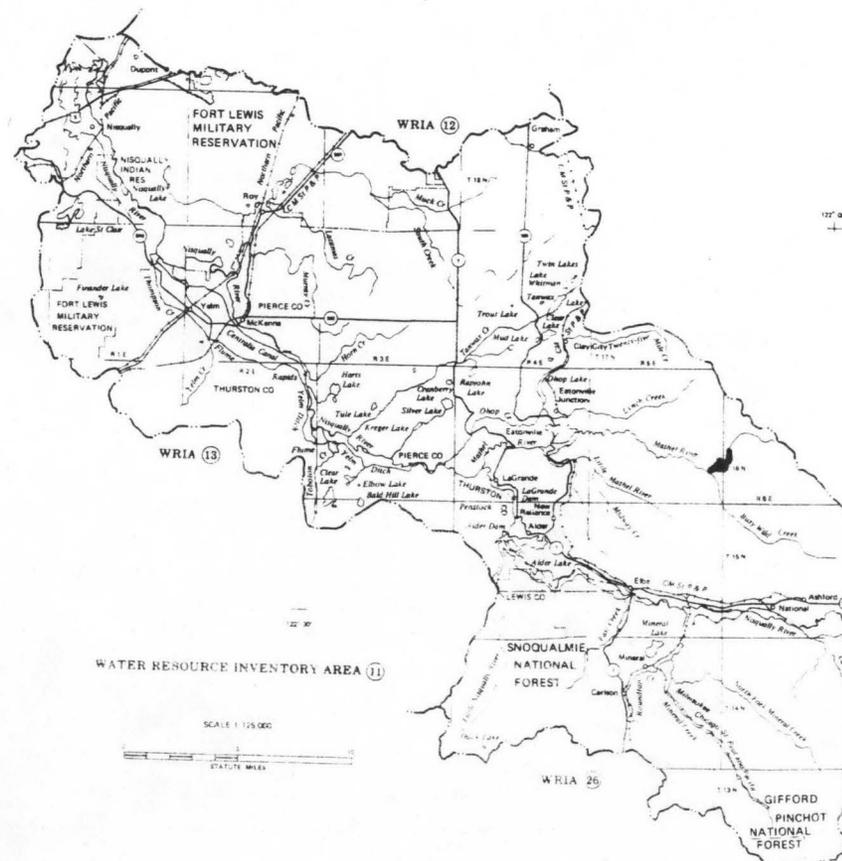
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.98	0.10	0.83	1.00
80	13.3	0.25	2.05	0.92
50	54.0	1.03	6.42	0.71
30	93.0	1.78	9.03	0.58
10	189	3.62	12.0	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 83 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T16N R3E</u>
D. Latitude, Longitude	<u>46°50' 122°15'</u>
E. Stream Name	<u>Little Mashel River</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/0.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

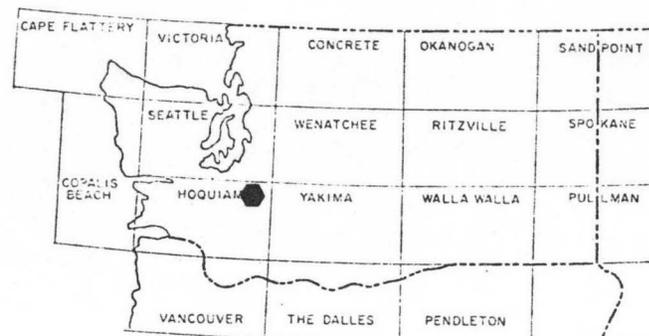
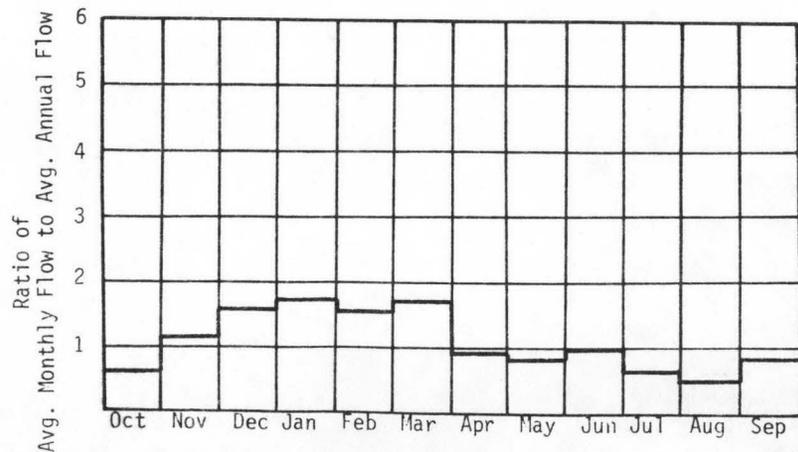
A. Upstream Elevation of Reach	<u>1200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>700</u>	Ft. MSL
C. Total Available Head in Reach	<u>500 + 66 = 566</u>	Ft.
D. Average Slope in Reach	<u>227.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>24.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

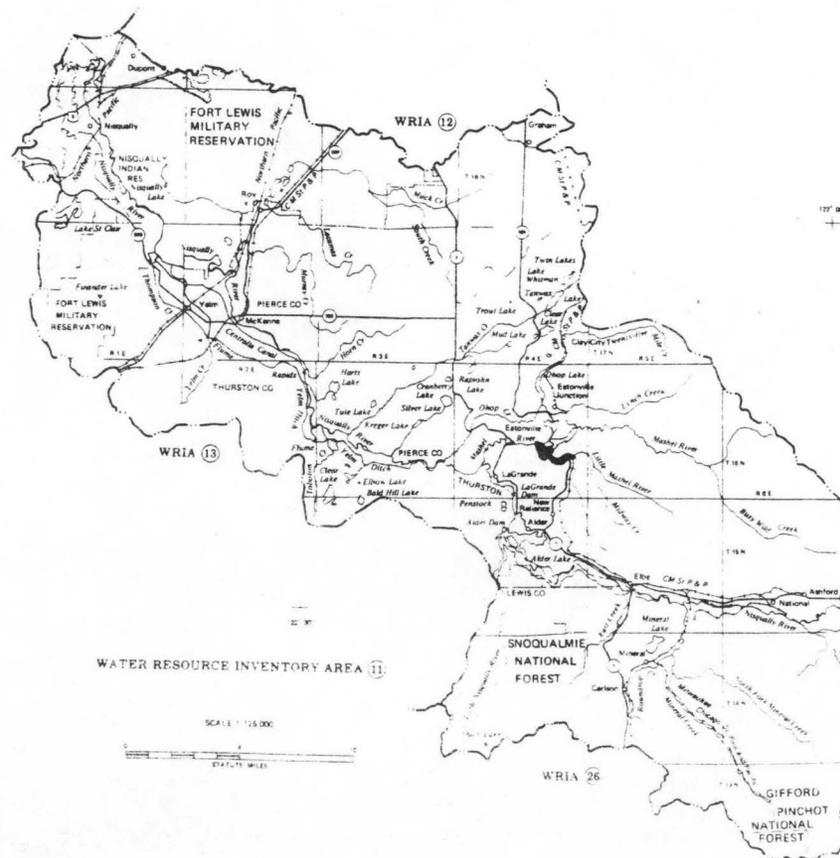
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.4	0.16	1.44	1.00
80	9.12	0.44	3.52	0.92
50	37.1	1.77	11.0	0.71
30	63.8	3.06	15.5	0.58
10	130	6.23	20.7	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 57 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0020

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R4E</u>
D. Latitude, Longitude	<u>46°45' 122°20'</u>
E. Stream Name	<u>Little Nisqually Riv.</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/0.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

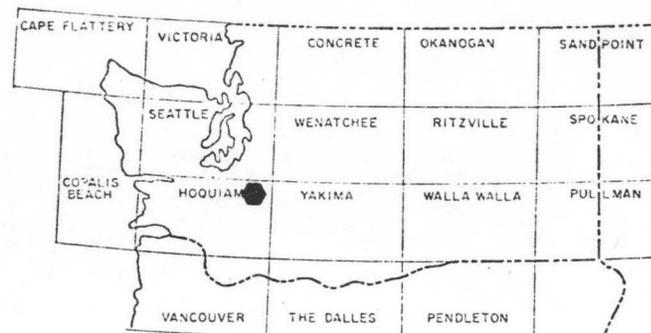
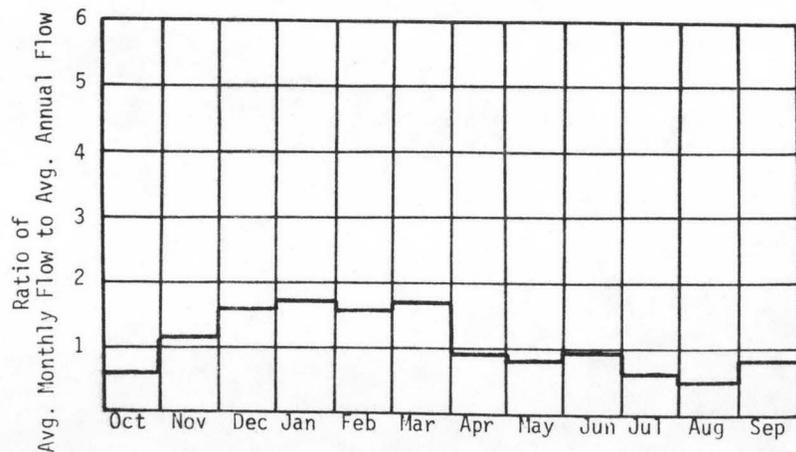
A. Upstream Elevation of Reach	<u>1195</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1195</u>	Ft. MSL
C. Total Available Head in Reach	<u>66</u>	Ft.
D. Average Slope in Reach	<u>--</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

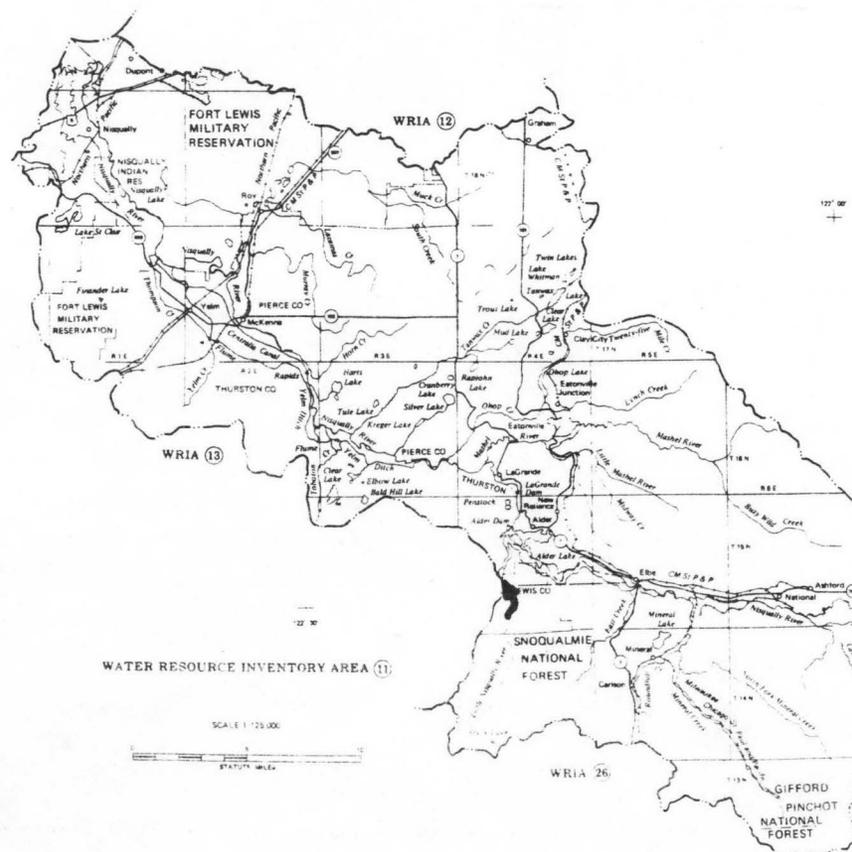
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.7	0.03	0.23	1.00
80	12.6	0.07	0.57	0.93
50	51.4	0.29	1.78	0.71
30	88.5	0.49	2.51	0.56
10	180	1.01	3.35	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 79 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0021

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R5E</u>
D. Latitude, Longitude	<u>46°52' 122°12'</u>
E. Stream Name	<u>Mineral Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

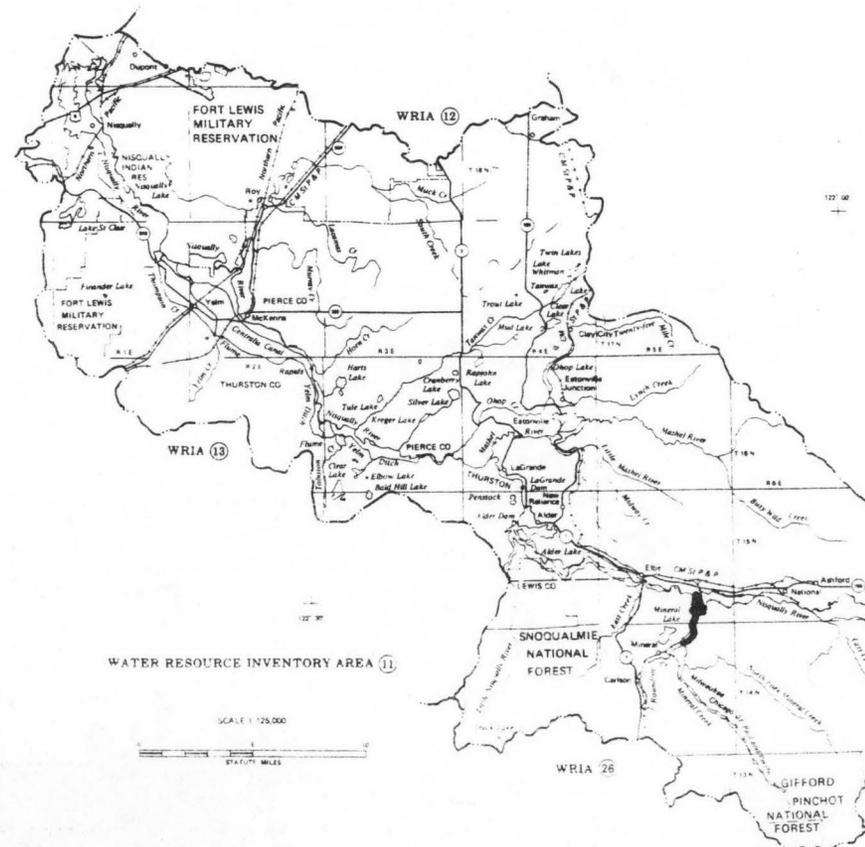
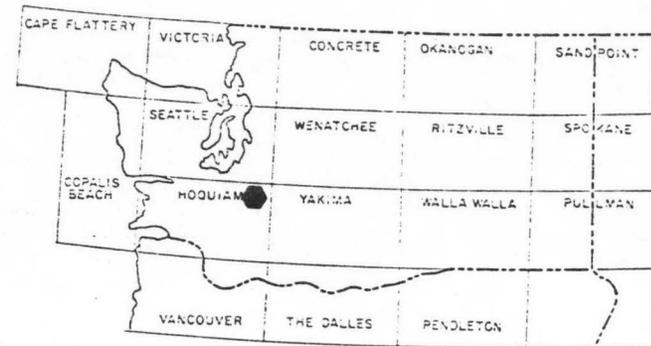
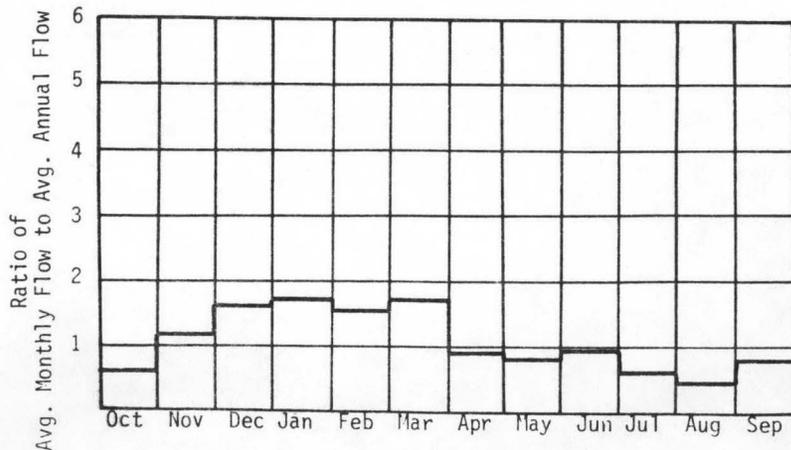
A. Upstream Elevation of Reach	<u>1370</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1280</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>32</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>76.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	32.3	0.25	2.16	1.00
80	61.0	0.46	3.83	0.94
50	244	1.86	11.6	0.71
30	409	3.12	15.8	0.58
10	793	6.04	20.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 359 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0022

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R5.5E</u>
D. Latitude, Longitude	<u>46°42' 122°12'</u>
E. Stream Name	<u>Mineral Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>2.8/3.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

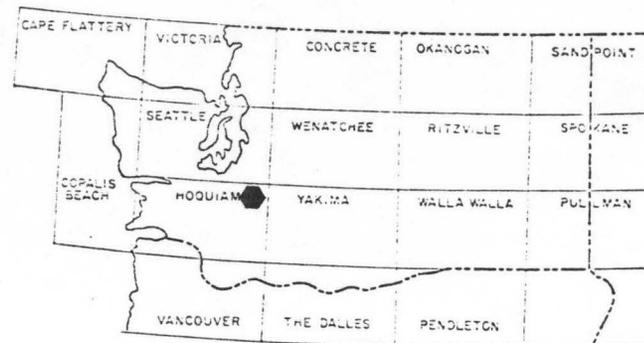
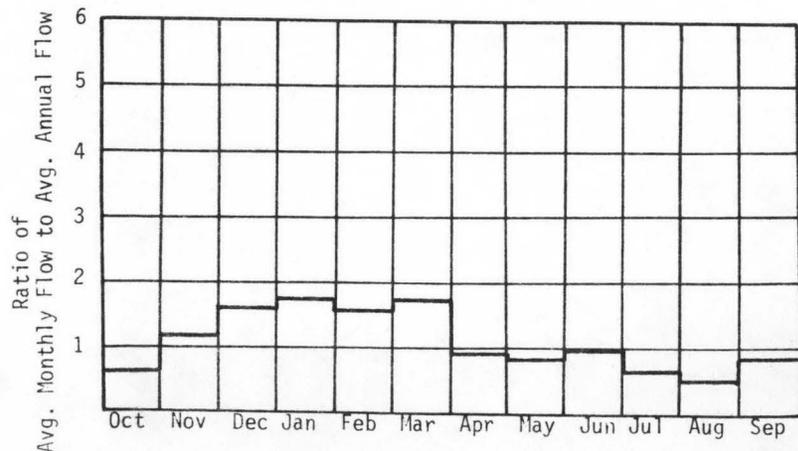
A. Upstream Elevation of Reach	<u>1420</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1370</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>56</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>57.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

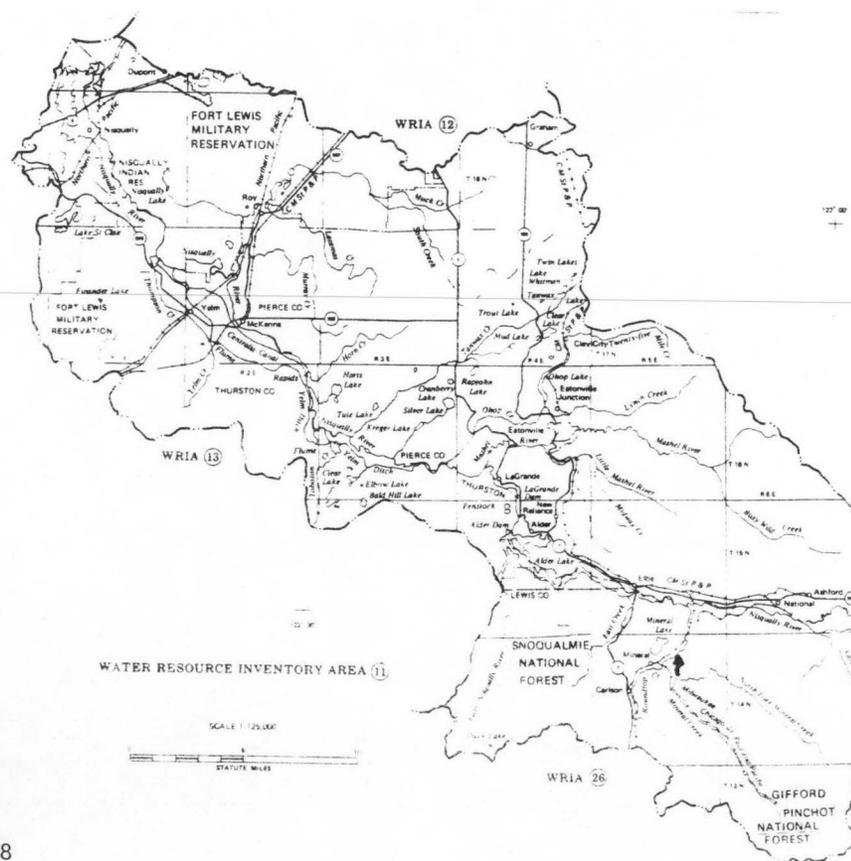
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.9	0.10	0.89	1.00
80	45.2	0.19	1.58	0.94
50	121	0.77	5.76	0.71
30	303	1.28	6.52	0.58
10	588	2.49	8.50	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 266 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0024

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R5E</u>
D. Latitude, Longitude	<u>56°40' 122°05'</u>
E. Stream Name	<u>Mineral Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>8.0/12.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

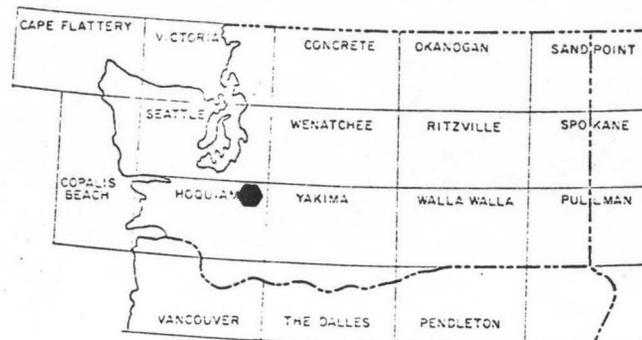
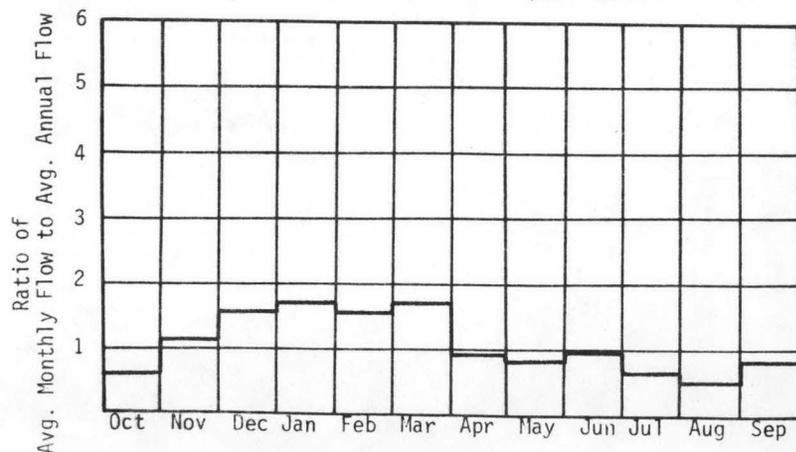
A. Upstream Elevation of Reach	<u>2480</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1920</u>	Ft. MSL
C. Total Available Head in Reach	<u>560+66 = 626</u>	Ft.
D. Average Slope in Reach	<u>130</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

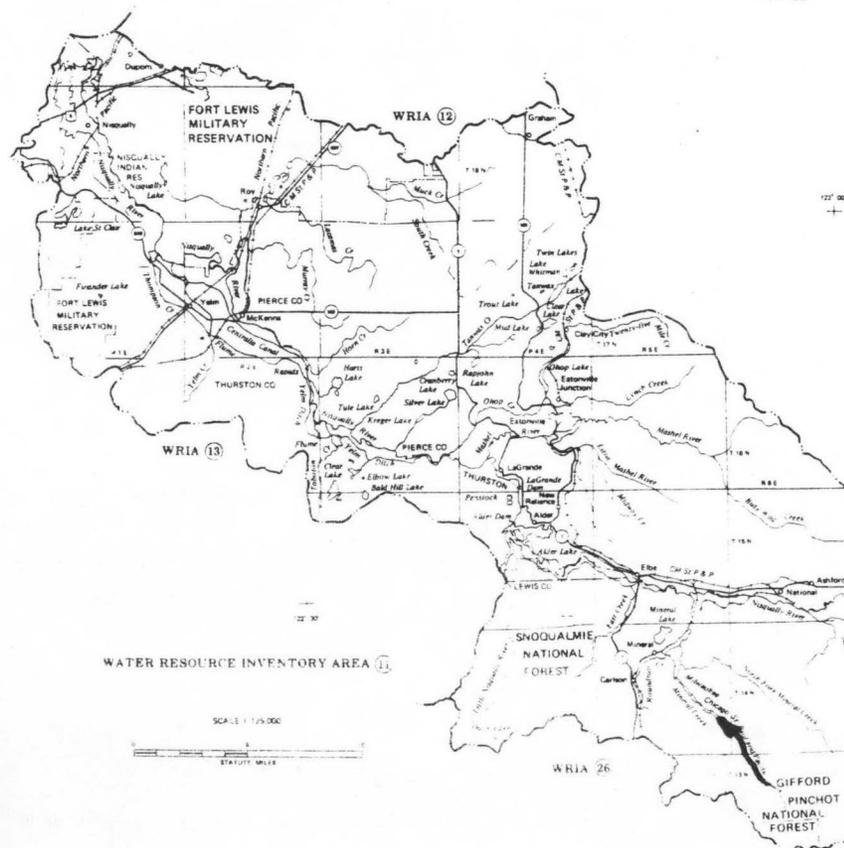
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.1	0.32	2.84	1.00
80	11.6	0.61	5.04	0.94
50	46.2	2.45	15.2	0.71
30	77.5	5.11	20.9	0.58
10	150	7.96	27.2	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 68 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0025

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R4E</u>
D. Latitude, Longitude	<u>46°40' 122°12'</u>
E. Stream Name	<u>Roundtop Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/0.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

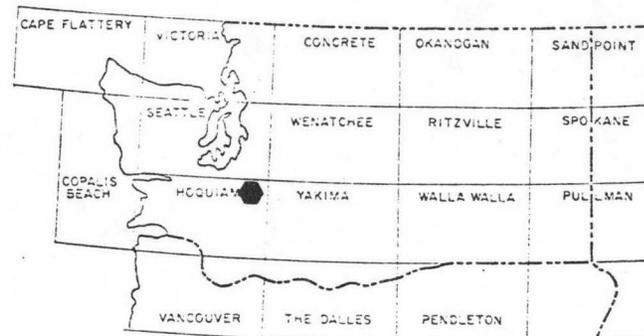
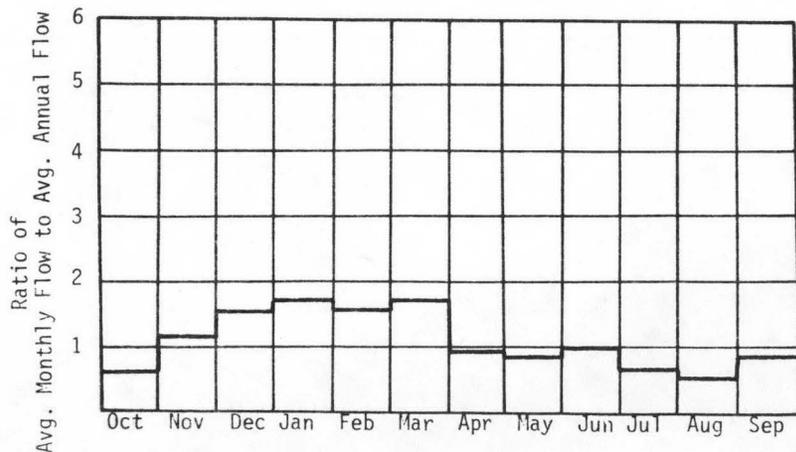
A. Upstream Elevation of Reach	<u>1380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1370</u>	Ft. MSL
C. Total Available Head in Reach	<u>10+66 = 76</u>	Ft.
D. Average Slope in Reach	<u>20</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

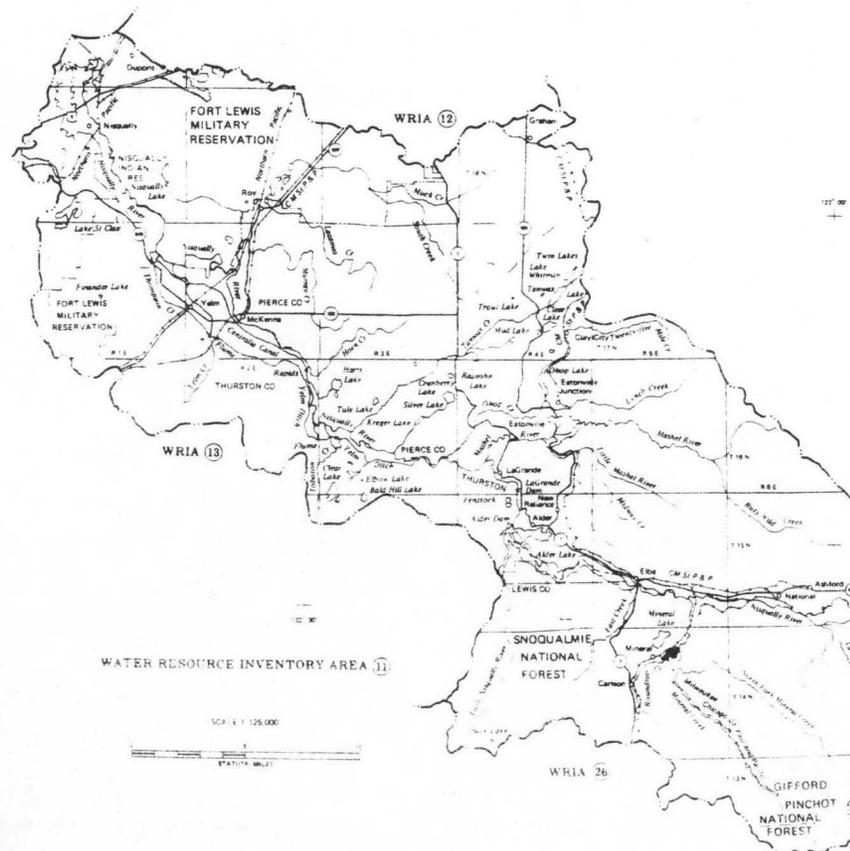
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.76	0.04	0.32	1.00
80	10.9	0.07	0.58	0.94
50	43.5	0.28	1.74	0.71
30	73.0	0.47	2.38	0.58
10	141	0.91	3.11	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 64 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0026

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R5E</u>
D. Latitude, Longitude	<u>46°42' 122°05'</u>
E. Stream Name	<u>N.F. Mineral Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/8.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

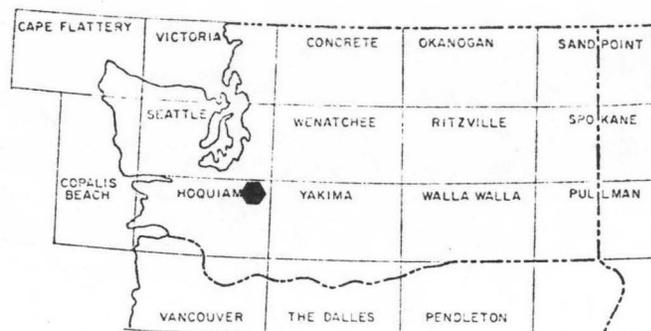
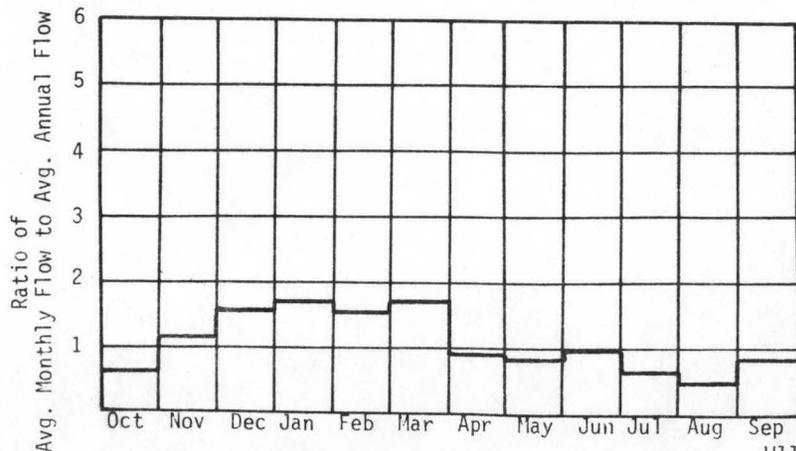
A. Upstream Elevation of Reach	<u>2560</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1420</u>	Ft. MSL
C. Total Available Head in Reach	<u>1140 + 66 = 1206</u>	Ft.
D. Average Slope in Reach	<u>130</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>26.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

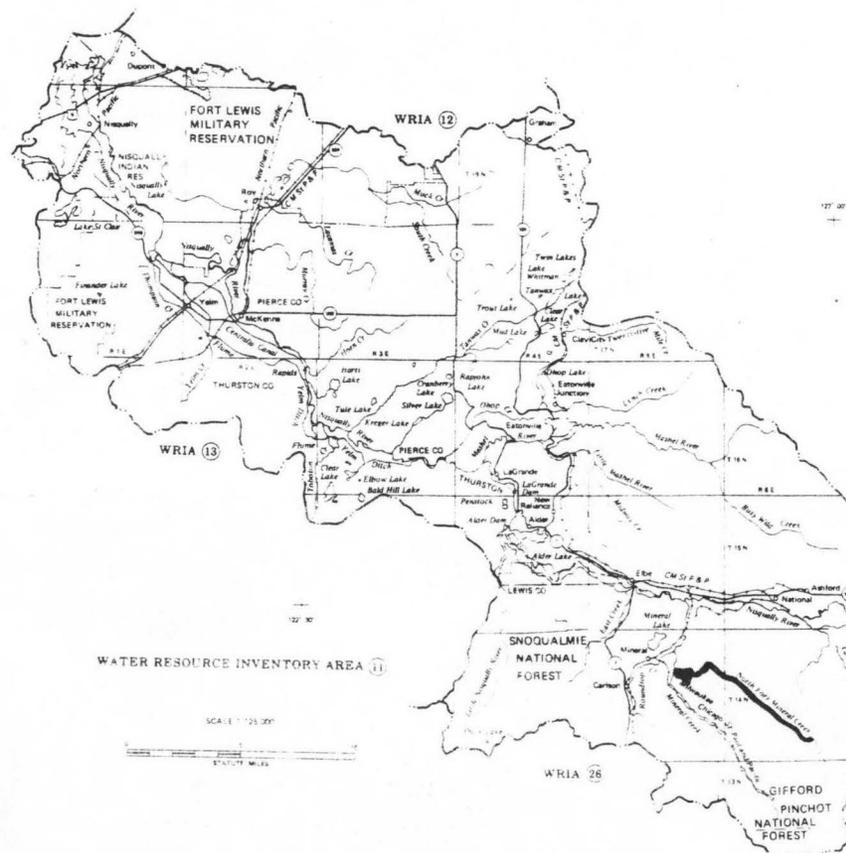
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.0	0.82	7.16	1.00
80	15.1	1.54	12.7	0.94
50	60.5	6.18	38.4	0.71
30	102	10.4	52.6	0.58
10	197	20.1	68.6	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 89 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0027

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R6E</u>
D. Latitude, Longitude	<u>46°44' 122°02'</u>
E. Stream Name	<u>Big Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/1.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

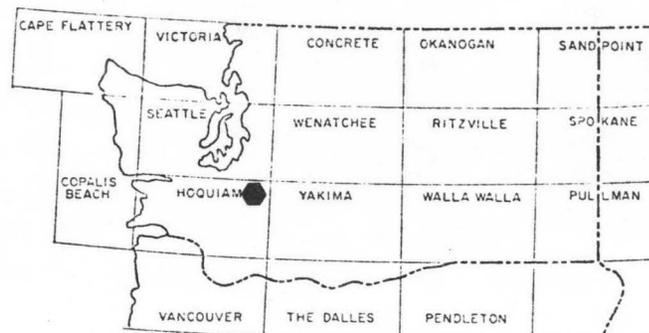
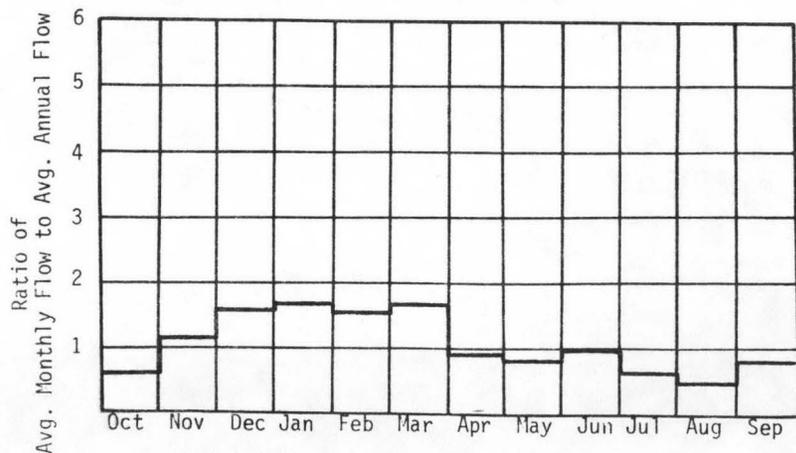
A. Upstream Elevation of Reach	<u>1640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1560</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>80</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

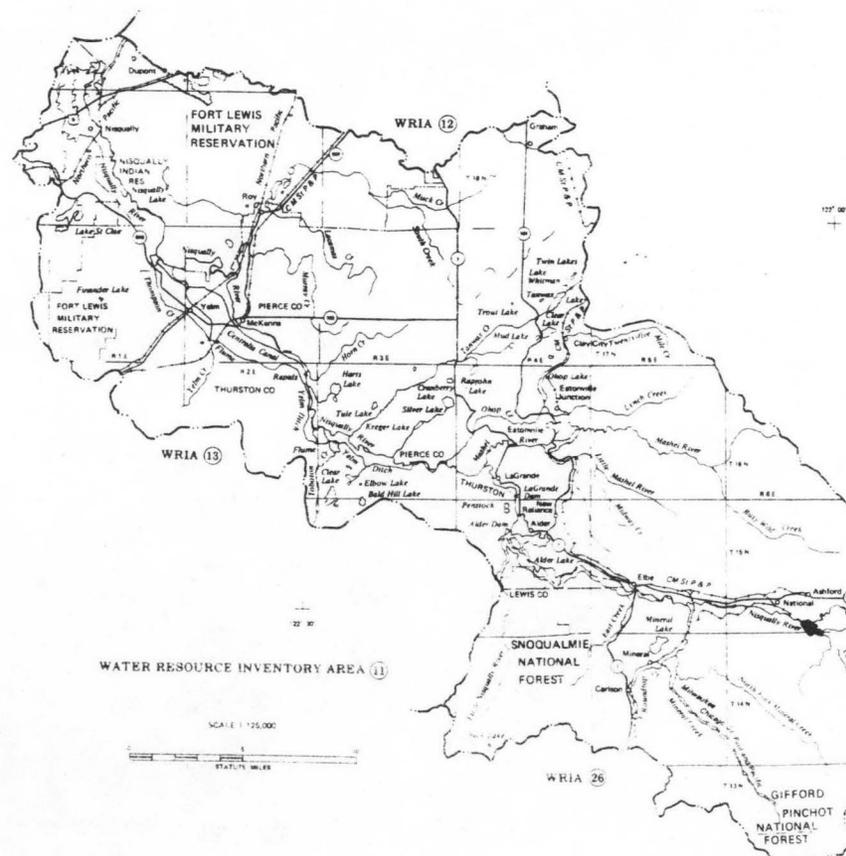
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	73.2	0.50	4.34	1.00
80	107	0.72	6.07	0.96
50	169	1.15	8.54	0.85
30	234	1.59	10.0	0.72
10	370	2.50	11.6	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 209 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0028

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R7E</u>
D. Latitude, Longitude	<u>46°44' 121°49'</u>
E. Stream Name	<u>Big Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/5.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

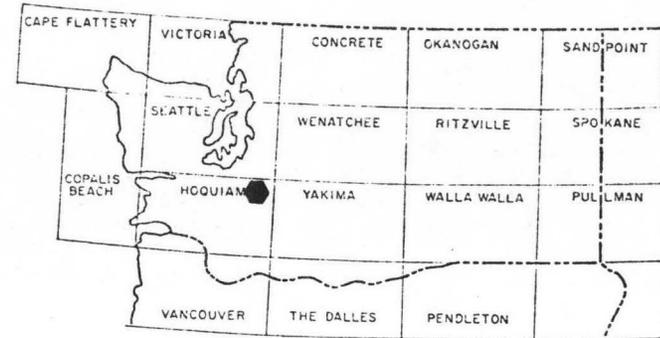
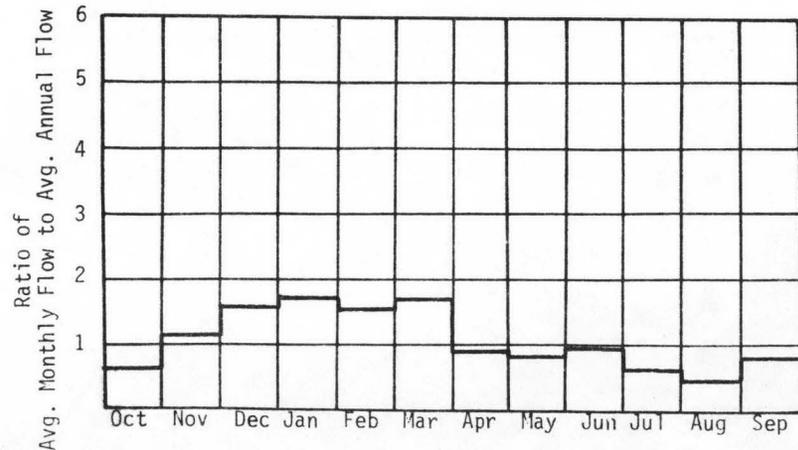
A. Upstream Elevation of Reach	<u>1980</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1640</u>	Ft. MSL
C. Total Available Head in Reach	<u>340 + 66 = 406</u>	Ft.
D. Average Slope in Reach	<u>59</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

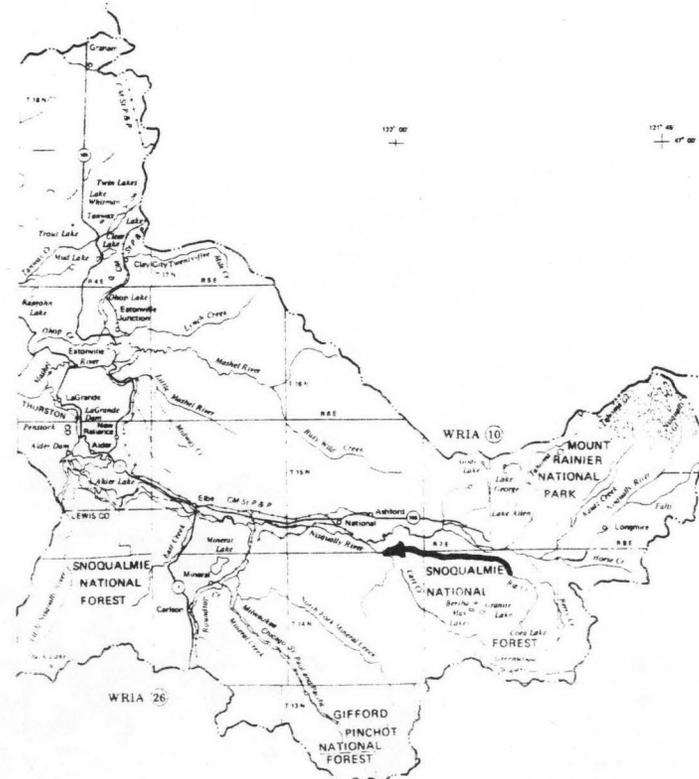
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	45.9	1.57	13.8	1.00
80	66.8	2.29	19.3	0.96
50	106	3.64	27.1	0.85
30	147	5.04	31.8	0.72
10	232	7.96	37.0	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 131 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0029

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R6E</u>
D. Latitude, Longitude	<u>46°42' 122°00'</u>
E. Stream Name	<u>Catt Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/5.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

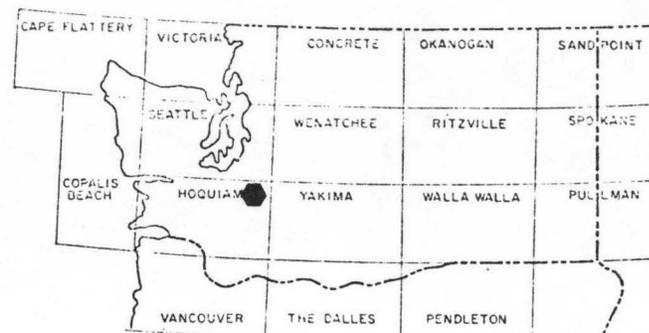
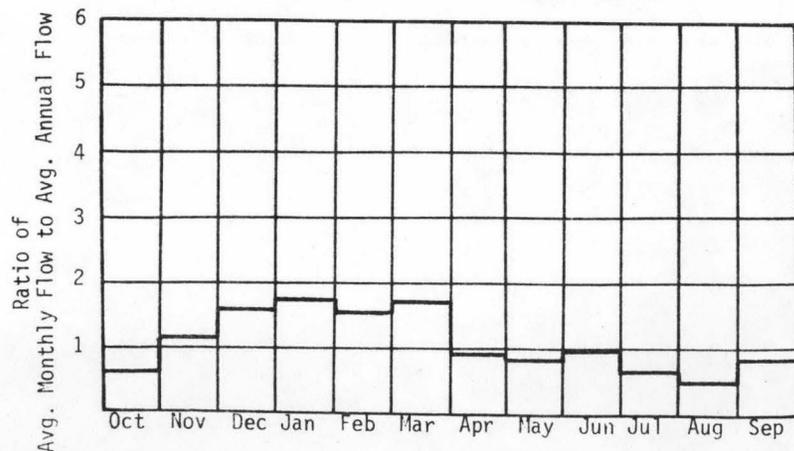
A. Upstream Elevation of Reach	<u>2480</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1640</u>	Ft. MSL
C. Total Available Head in Reach	<u>840 + 66 = 906</u>	Ft.
D. Average Slope in Reach	<u>168</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	31.2	2.39	20.9	1.00
80	45.4	3.48	29.3	0.96
50	72.1	5.53	41.1	0.85
30	99.7	7.64	48.2	0.72
10	158	12.1	56.1	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 89 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-029-000-000-000-R0032

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R7E</u>
D. Latitude, Longitude	<u>46°45' 121°54'</u>
E. Stream Name	<u>Kautz Creek</u>
F. Major Basin Name	<u>Nisqually</u>
G. River Mile	<u>0.0/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

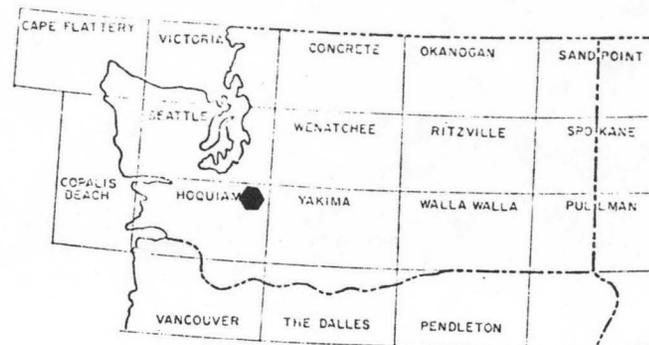
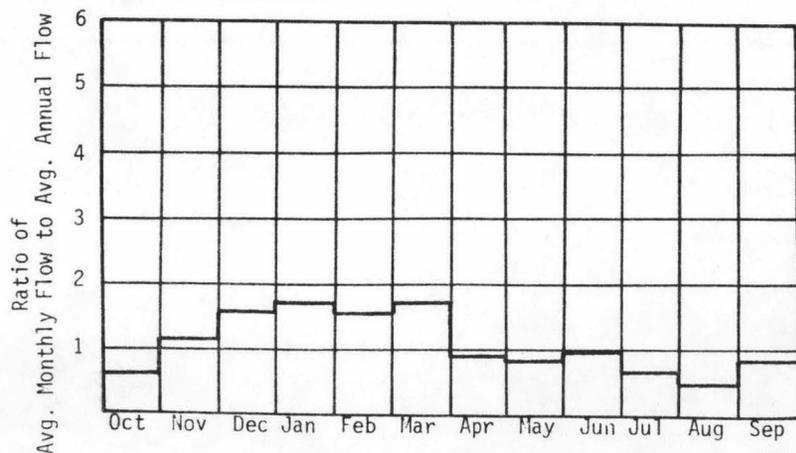
A. Upstream Elevation of Reach	<u>2800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2220</u>	Ft. MSL
C. Total Available Head in Reach	<u>580 + 66 = 646</u>	Ft.
D. Average Slope in Reach	<u>152.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>13.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

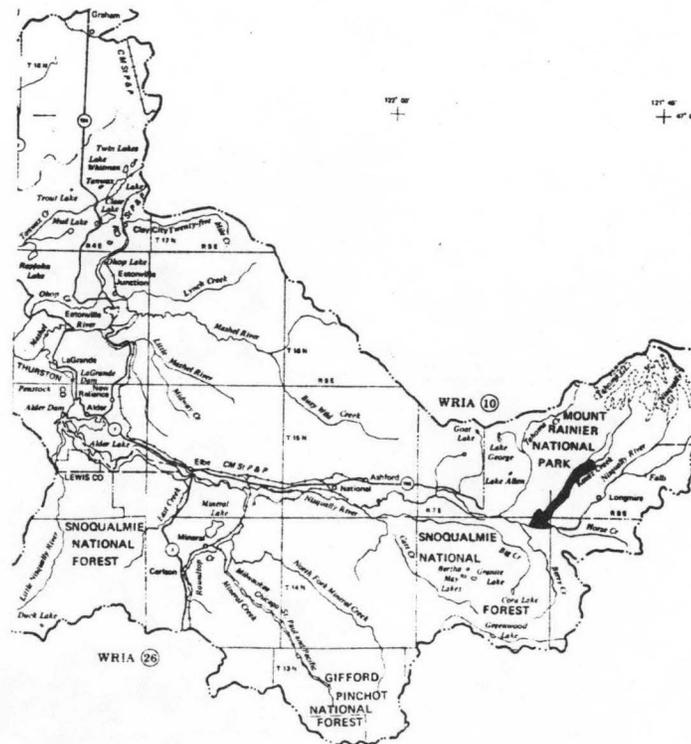
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.8	1.30	11.4	1.00
80	34.7	1.90	15.9	0.96
50	55.1	3.01	22.4	0.85
30	76.2	4.16	26.3	0.72
10	120	6.58	30.5	0.53

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 68 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-005-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pierce</u>
C. Township, Range	<u>T20N, R2E</u>
D. Latitude, Longitude	<u>122°32' 47"13'</u>
E. Stream Name	<u>Chambers Creek</u>
F. Major Basin Name	<u>Chambers Creek</u>
G. River Mile	<u>0/2.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

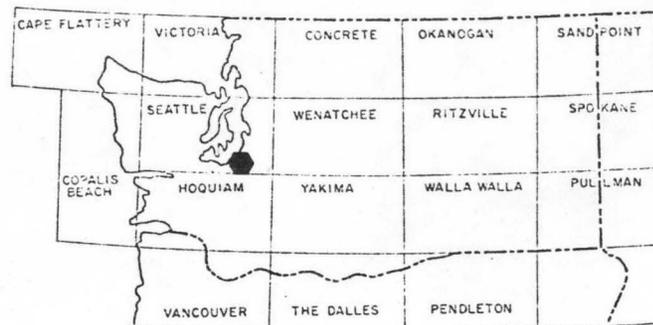
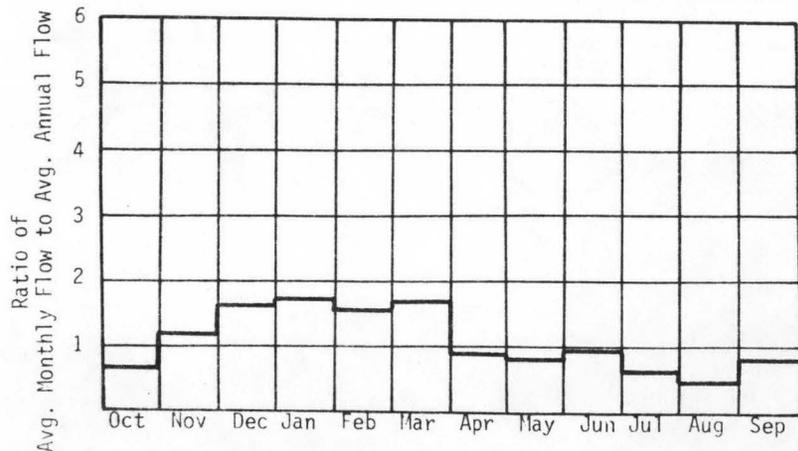
A. Upstream Elevation of Reach	<u>100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>30</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>120.0</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated & Diverted</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.2	0.37	3.27	1.00
80	43.2	0.53	4.48	0.96
50	85.3	1.05	7.29	0.79
30	138.0	1.71	9.57	0.64
10	225.0	2.77	11.42	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 108 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-006-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Thurston
C. Township, Range	T16N, R1E
D. Latitude, Longitude	122°45', 46°55'
E. Stream Name	Deschutes River
F. Major Basin Name	Deschutes River
G. River Mile	0/24.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

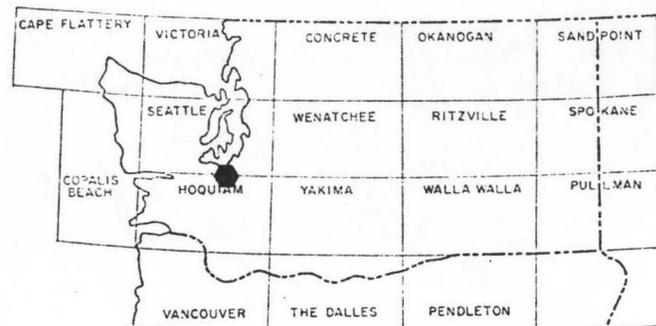
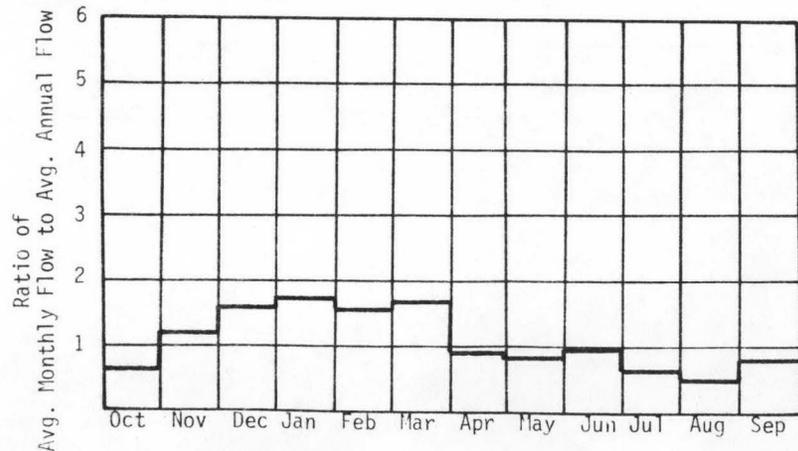
A. Upstream Elevation of Reach	365	Ft. MSL
B. Downstream Elevation of Reach	20	Ft. MSL
C. Total Available Head in Reach	345	Ft.
D. Average Slope in Reach	14	Ft./Mi.
E. Drainage Area above Reach Mouth	160.2	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

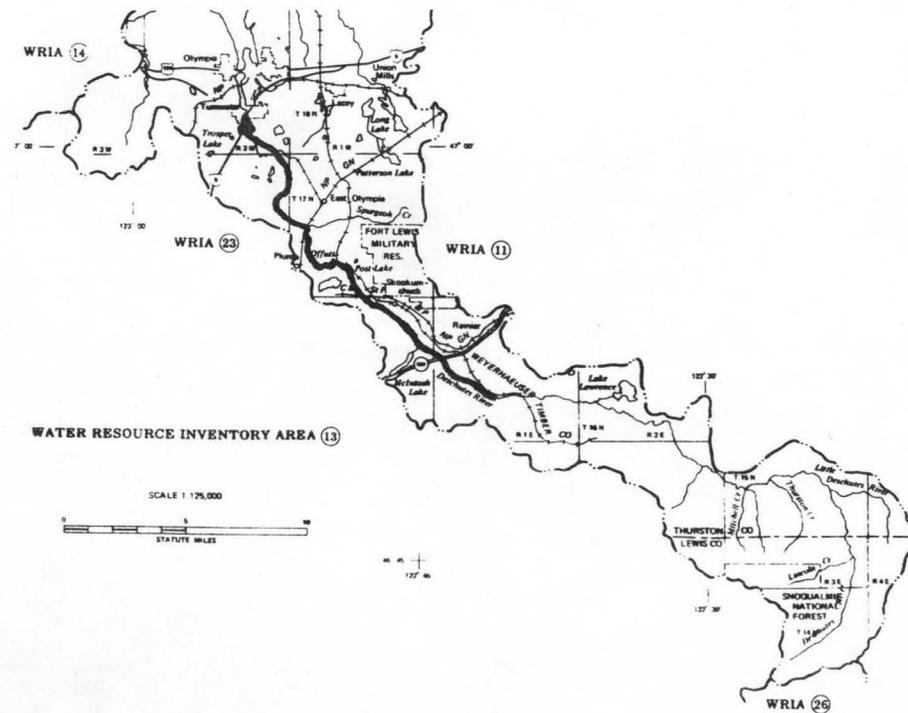
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	67.8	1.98	17.3	1.00
80	92.4	2.70	22.9	0.97
50	206	6.02	41.2	0.78
30	336	9.80	54.1	0.63
10	684	20.0	71.7	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 308 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-006-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T15N, R3E</u>
D. Latitude, Longitude	<u>122°30', 46°45'</u>
E. Stream Name	<u>Deschutes River</u>
F. Major Basin Name	<u>Deschutes River</u>
G. River Mile	<u>24.6/43.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

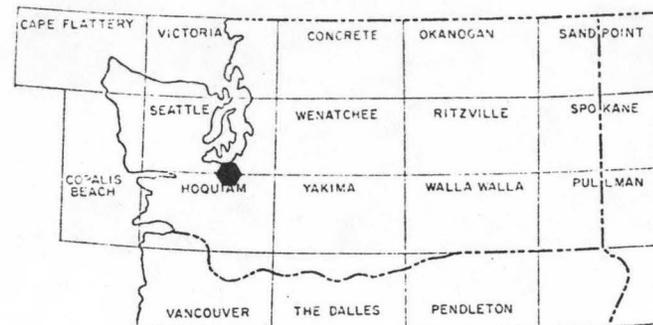
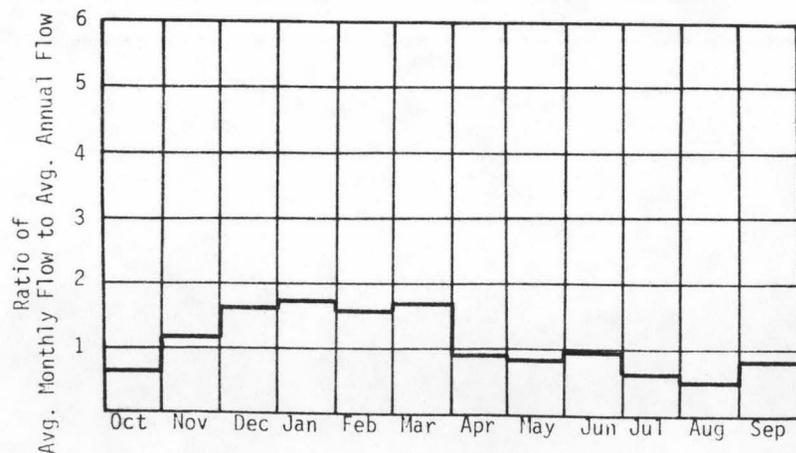
A. Upstream Elevation of Reach	<u>880</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>365</u>	Ft. MSL
C. Total Available Head in Reach	<u>515 + 66 = 581</u>	Ft.
D. Average Slope in Reach	<u>27</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>88.2</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

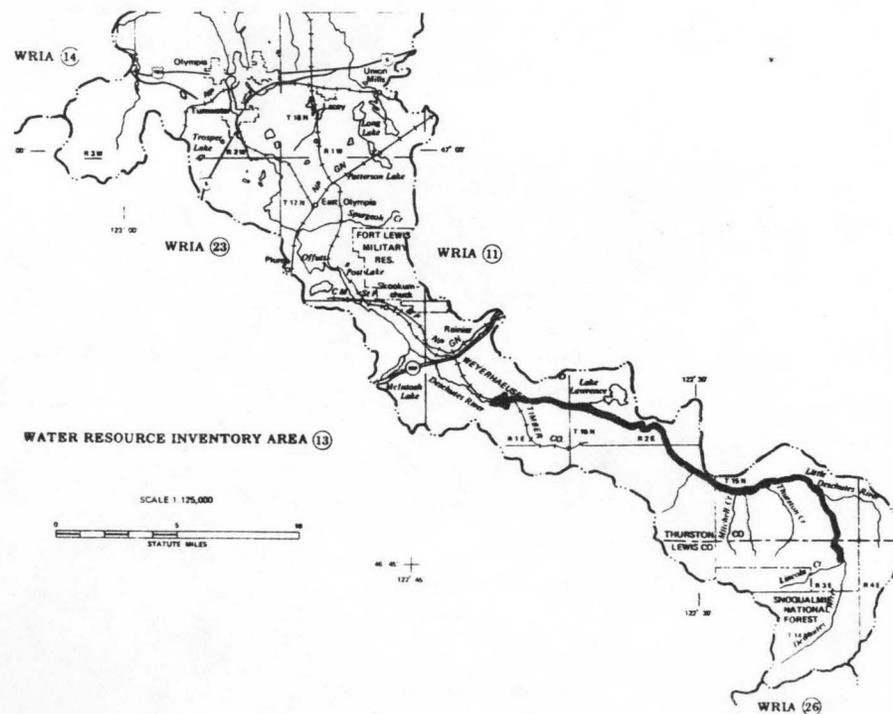
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.5	1.06	9.25	1.00
80	32.2	1.58	13.3	0.96
50	100	4.93	31.5	0.73
30	181	8.89	45.2	0.58
10	424	20.9	65.8	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 179 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-014-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T22N, R1W
D. Latitude, Longitude	47°22'30", 122°50'
E. Stream Name	Sherwood Creek
F. Major Basin Name	Sherwood Creek
G. River Mile	0/0.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

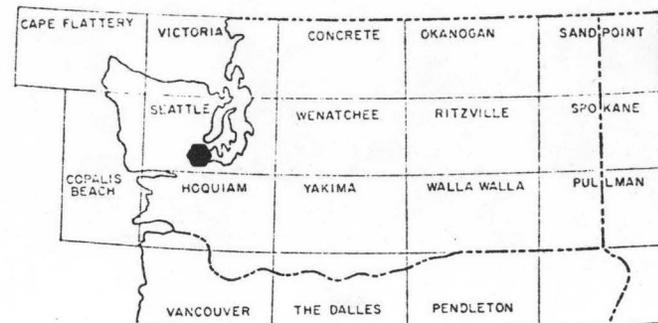
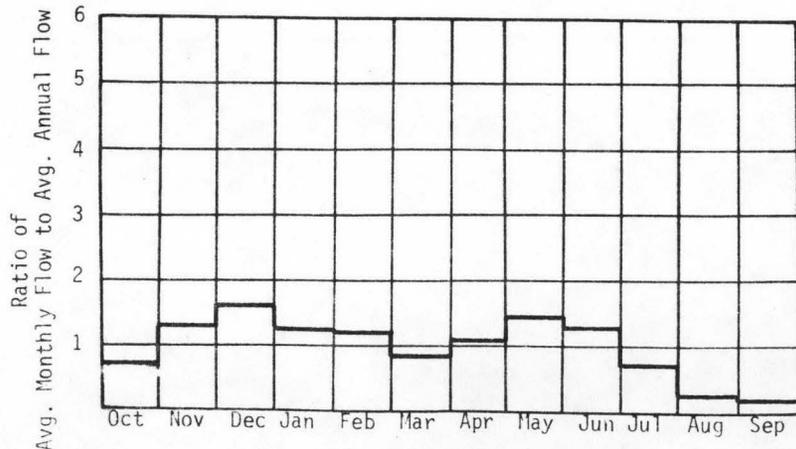
A. Upstream Elevation of Reach	20	Ft. MSL
B. Downstream Elevation of Reach	0	Ft. MSL
C. Total Available Head in Reach	86	Ft.
D. Average Slope in Reach	2.5	Ft./Mi.
E. Drainage Area above Reach Mouth	30.3	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

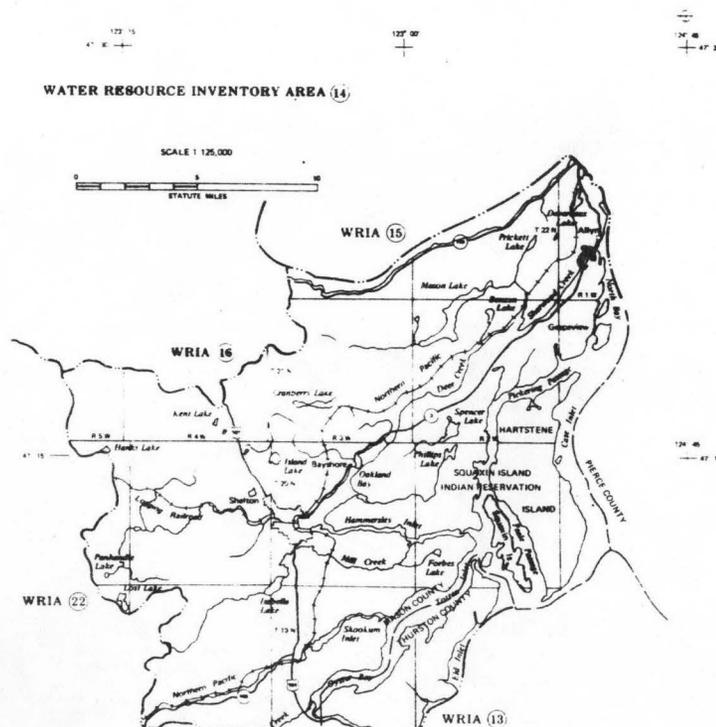
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.0	0.08	0.70	1.00
80	14.5	0.11	0.90	0.97
50	36.5	0.27	1.77	0.76
30	65.5	0.48	2.51	0.60
10	135	0.98	3.36	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 58 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-018-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T20N, R4W</u>
D. Latitude, Longitude	<u>47°14', 123°06'</u>
E. Stream Name	<u>Goldsborough Creek</u>
F. Major Basin Name	<u>Goldsborough Creek</u>
G. River Mile	<u>0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

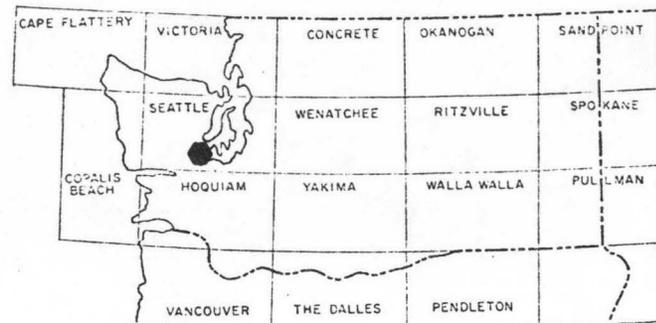
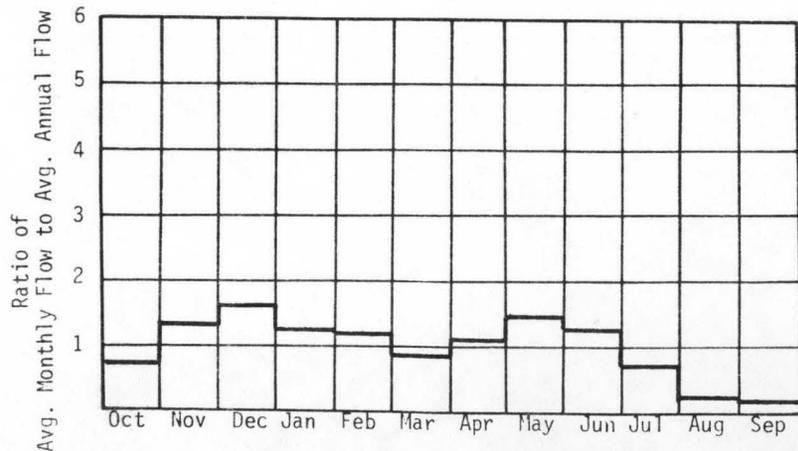
A. Upstream Elevation of Reach	<u>50</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>31.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>52.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

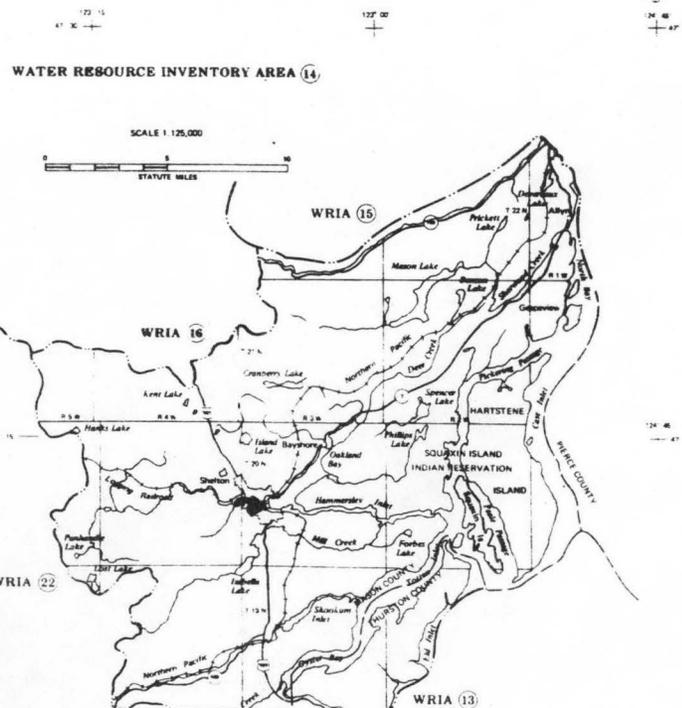
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.1	0.11	0.93	1.00
80	33.0	0.14	1.19	0.97
50	83.2	0.35	2.34	0.76
30	149	0.63	3.32	0.60
10	307	1.3	4.45	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 132 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-018-000-000-000-R0002

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T20N, R4W
D. Latitude, Longitude	47°14' 123°11'
E. Stream Name	Goldsborough Creek
F. Major Basin Name	Goldsborough Creek
G. River Mile	1.6/9.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

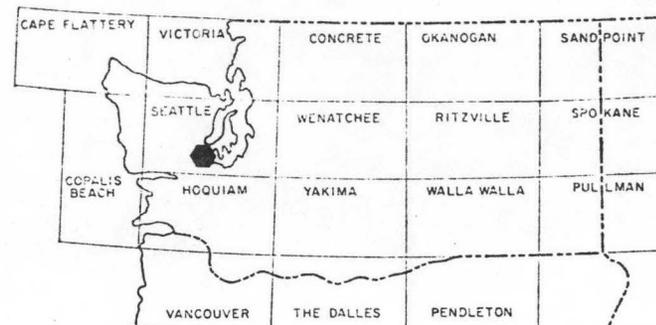
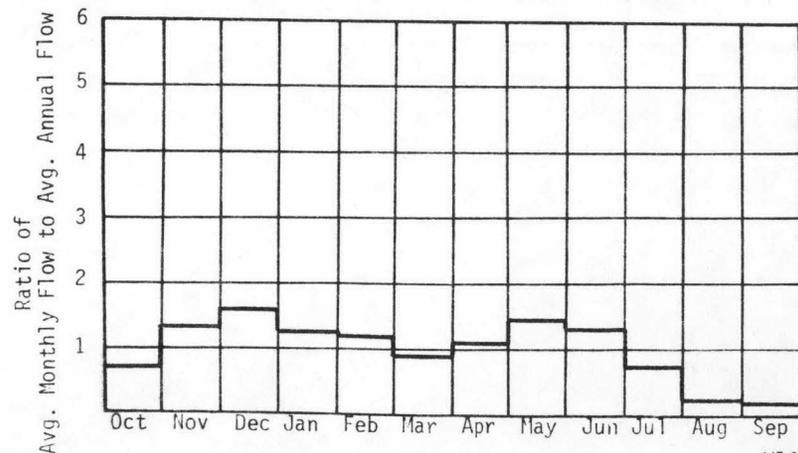
A. Upstream Elevation of Reach	235	Ft. MSL
B. Downstream Elevation of Reach	50	Ft. MSL
C. Total Available Head in Reach	251	Ft.
D. Average Slope in Reach	24.3	Ft./Mi.
E. Drainage Area above Reach Mouth	45.7	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

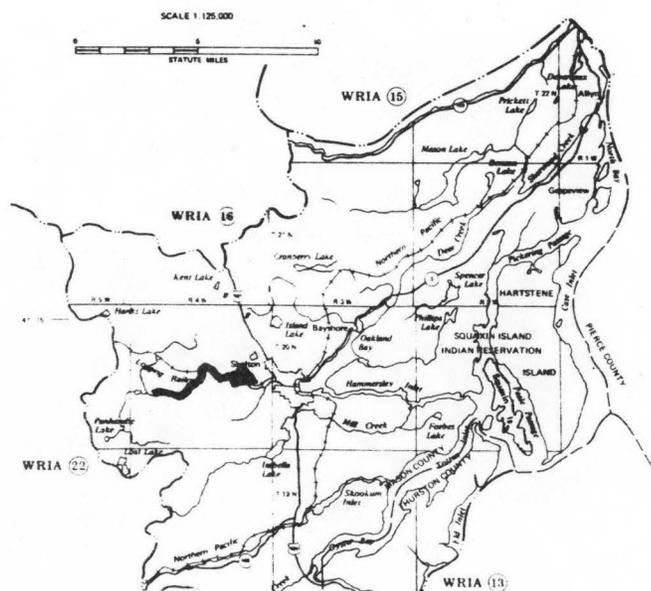
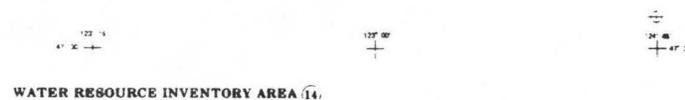
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.9	0.38	3.32	1.00
80	23.5	0.58	4.24	0.97
50	59.2	1.26	8.38	0.76
30	106	2.26	11.9	0.60
10	219	4.65	15.9	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 94 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-007-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T22N, R2W
D. Latitude, Longitude	47°25' 122°58'
E. Stream Name	Tahuya River
F. Major Basin Name	Tahuya River
G. River Mile	0/16.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

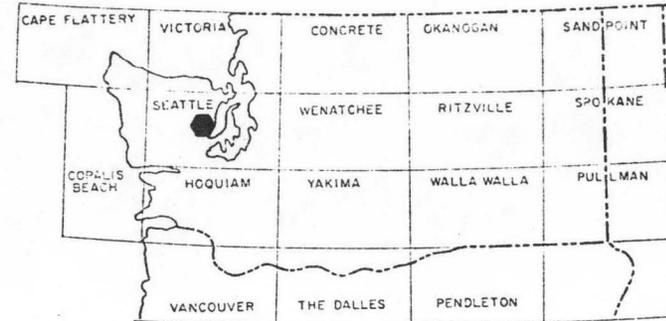
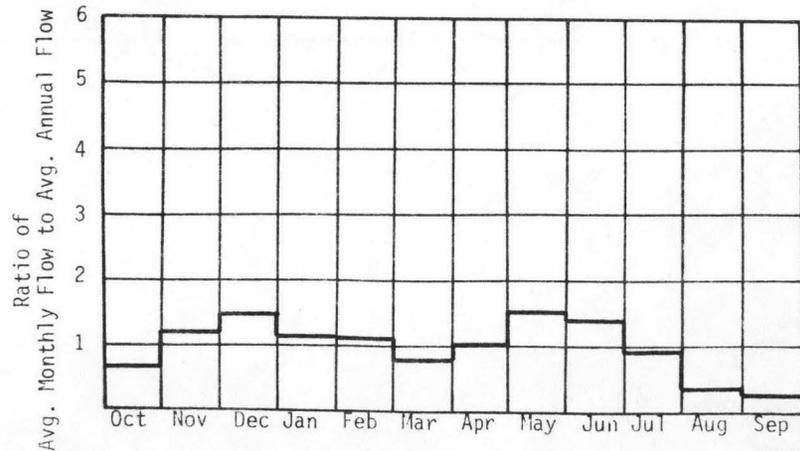
A. Upstream Elevation of Reach	250	Ft.	MSL
B. Downstream Elevation of Reach	0	Ft.	MSL
C. Total Available Head in Reach	256 + 66 = 316	Ft.	
D. Average Slope in Reach	23	Ft./Mi.	
E. Drainage Area above Reach Mouth	43.1	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

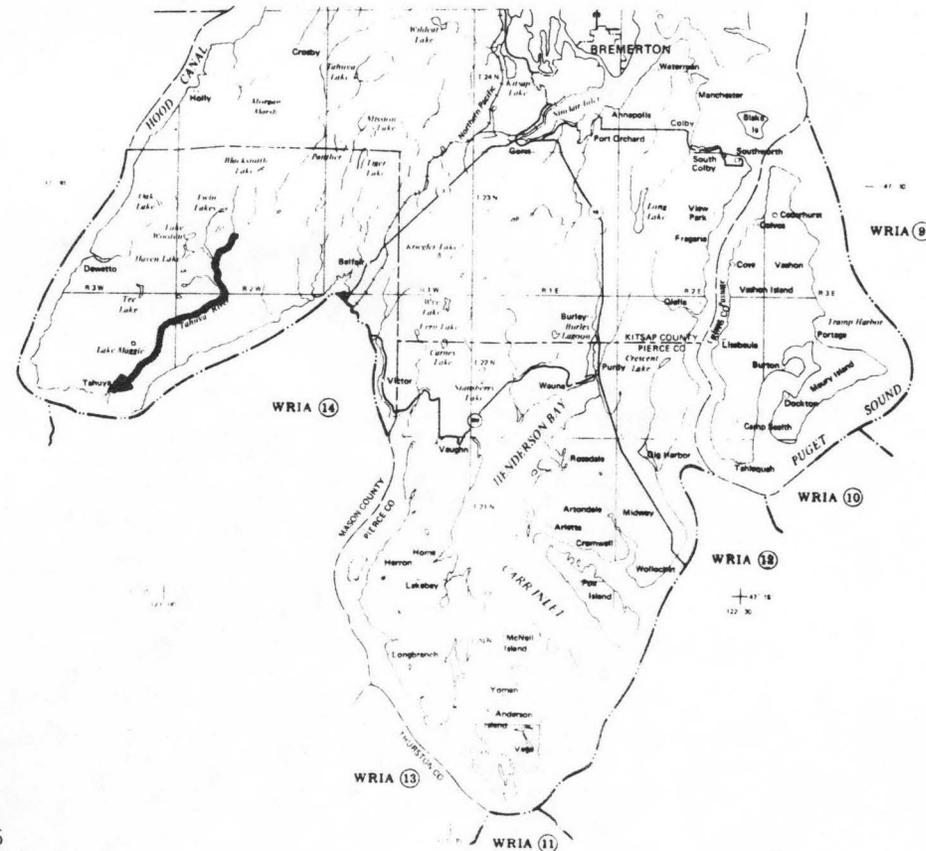
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.1	0.46	4.03	1.00
80	22.8	0.61	5.18	0.97
50	48.5	1.30	8.96	0.79
30	90.2	2.41	12.9	0.61
10	229	6.12	18.8	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 95 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-027-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T23N R4W</u>
D. Latitude, Longitude	<u>47°28' 123°08'</u>
E. Stream Name	<u>Lilliwaup Creek</u>
F. Major Basin Name	<u>Lilliwaup Creek</u>
G. River Mile	<u>0/2.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

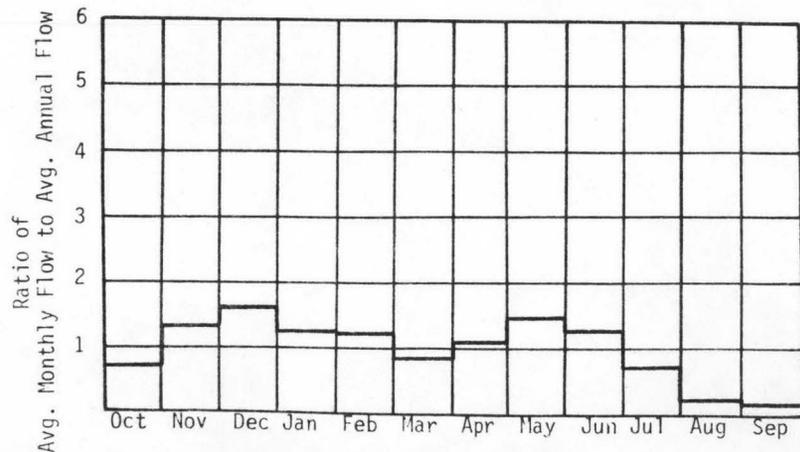
A. Upstream Elevation of Reach	<u>680</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>680 + 66 = 746</u>	Ft.
D. Average Slope in Reach	<u>234</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

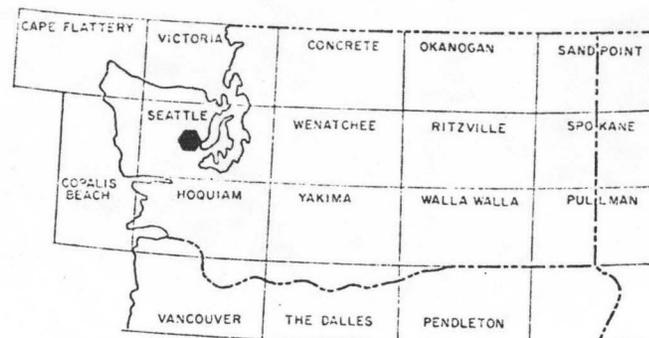
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.70	0.49	4.26	1.00
80	16.1	1.02	8.28	0.93
50	42.7	2.69	17.9	0.76
30	74.2	4.68	25.0	0.61
10	152	9.59	32.8	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

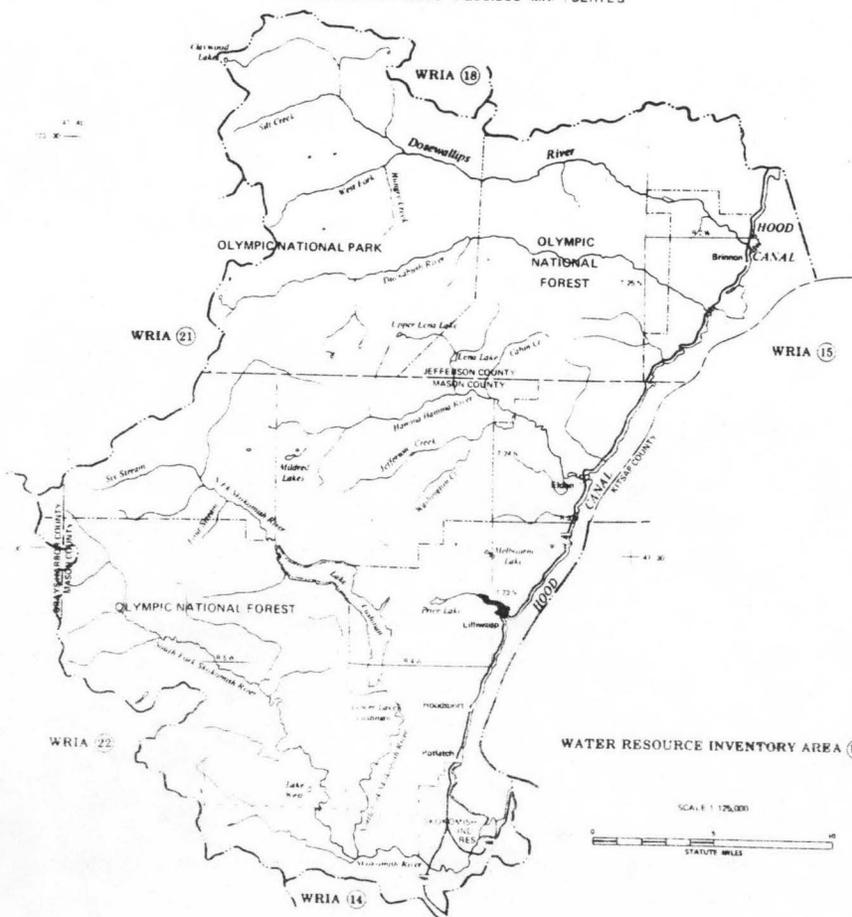
QMR = 70 cfs



W16-467



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-030-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T26N R2W</u>
D. Latitude, Longitude	<u>47°42' 122°55'</u>
E. Stream Name	<u>Dosewallips</u>
F. Major Basin Name	<u>Dosewallips</u>
G. River Mile	<u>0/3.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

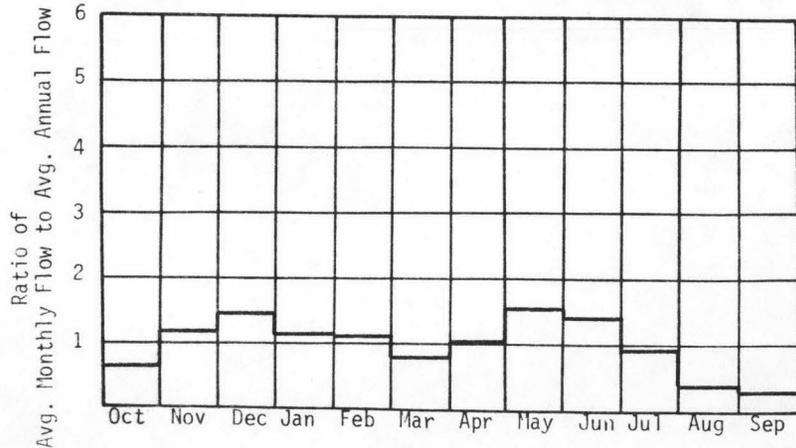
A. Upstream Elevation of Reach	<u>110</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>110</u>	Ft.
D. Average Slope in Reach	<u>34</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>116</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

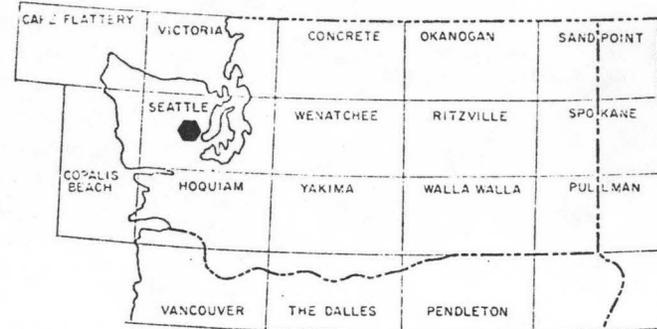
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	145	1.35	11.8	1.00
80	221	2.05	17.3	0.96
50	425	3.96	28.1	0.81
30	624	5.81	34.6	0.68
10	1040	9.66	40.6	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

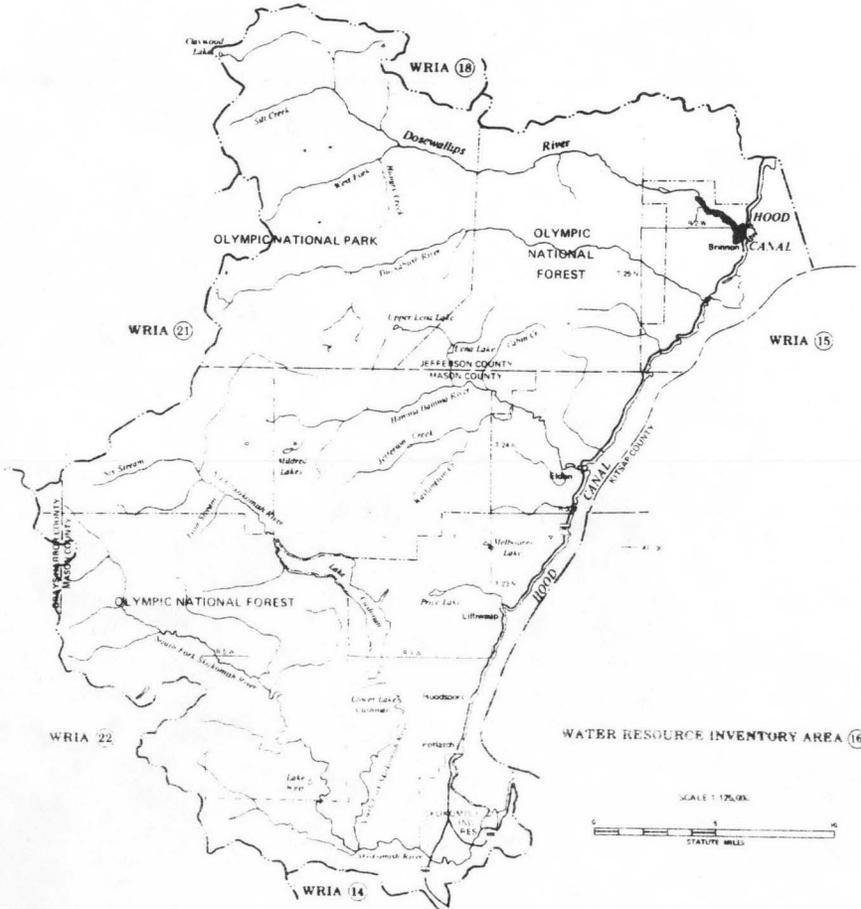
QMR = 538 cfs



W16-468



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-030-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R3W</u>
D. Latitude, Longitude	<u>47°44' 123°05'</u>
E. Stream Name	<u>Dosewallips</u>
F. Major Basin Name	<u>Dosewallips</u>
G. River Mile	<u>3.2/17.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

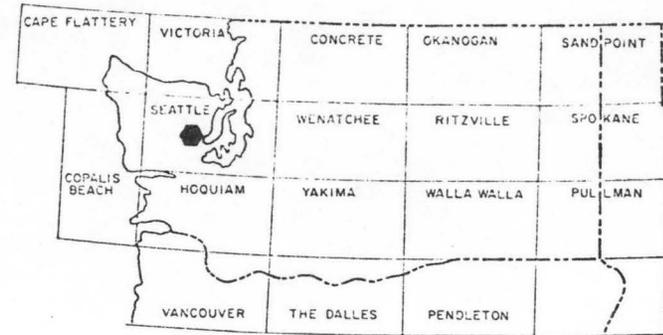
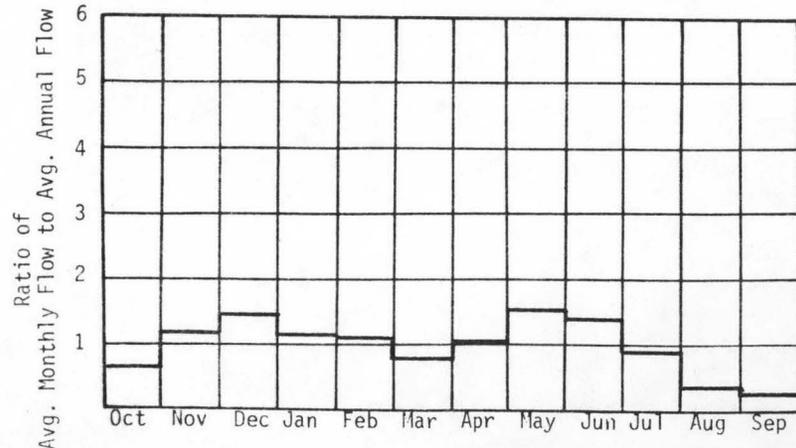
A. Upstream Elevation of Reach	<u>1800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>1690</u>	Ft.
D. Average Slope in Reach	<u>117</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>99.5</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

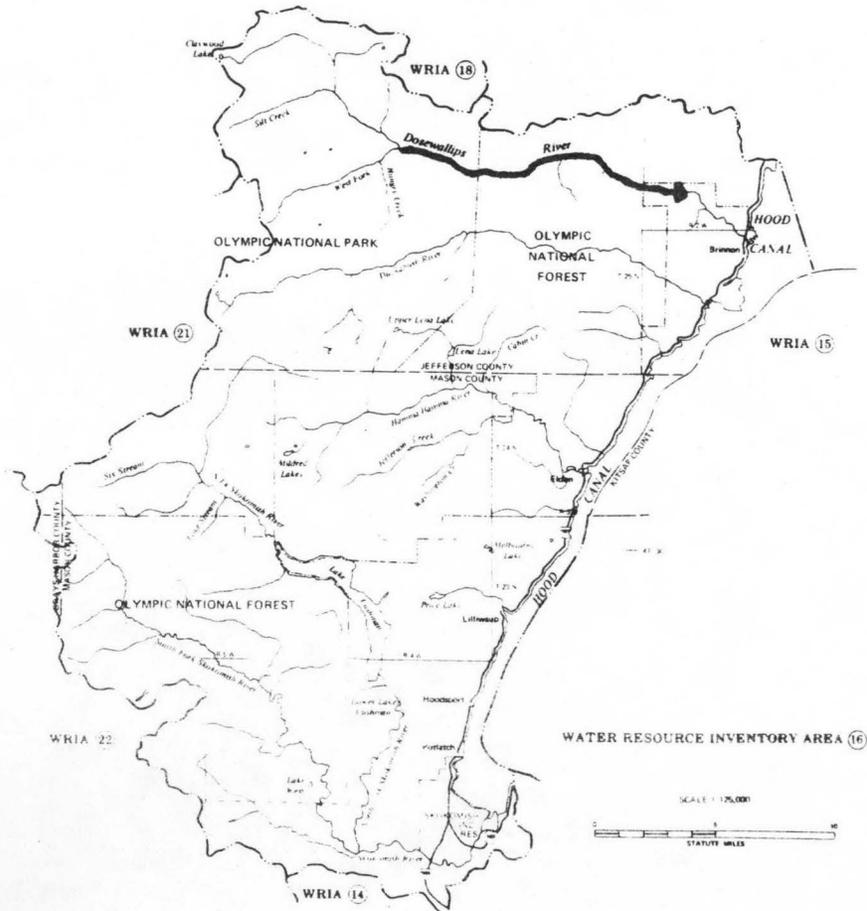
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	111	15.9	139	1.00
80	169	24.1	203	0.96
50	325	46.4	329	0.81
30	477	68.2	406	0.68
10	793	113	477	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 411 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-030-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R5W</u>
D. Latitude, Longitude	<u>47°46' 123°15'</u>
E. Stream Name	<u>Dosewallips</u>
F. Major Basin Name	<u>Dosewallips</u>
G. River Mile	<u>21.7/23.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

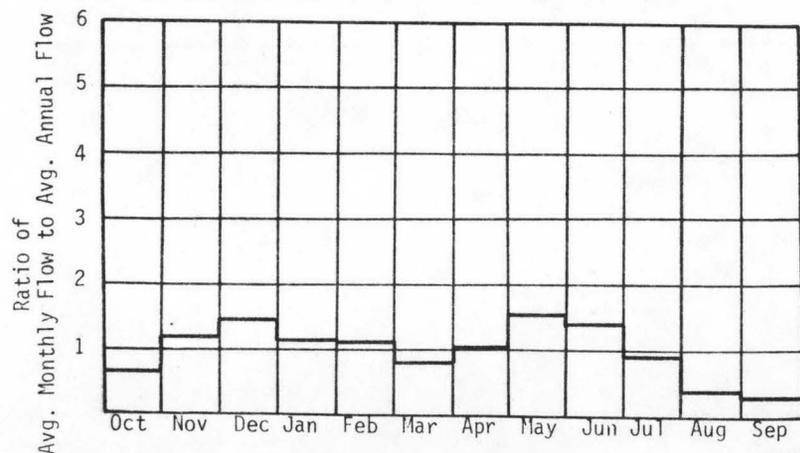
A. Upstream Elevation of Reach	<u>3050</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2550</u>	Ft. MSL
C. Total Available Head in Reach	<u>500 + 66 = 566</u>	Ft.
D. Average Slope in Reach	<u>357</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.4</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

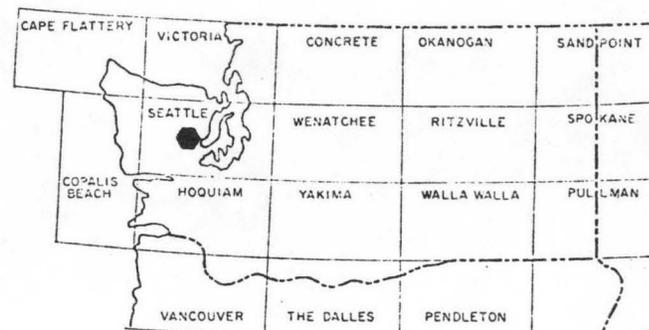
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.2	0.92	8.04	1.00
80	29.1	1.39	11.7	0.96
50	56.1	2.69	19.1	0.81
30	82.4	3.94	23.5	0.68
10	137	6.56	27.6	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

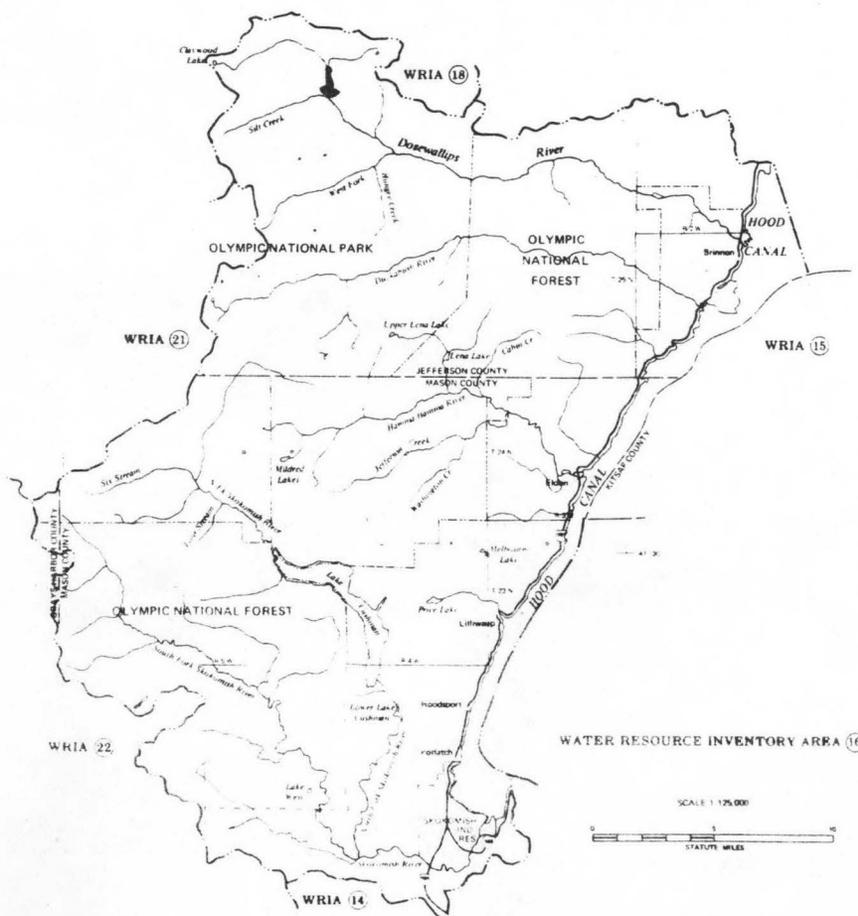
QMR = 71 cfs



W16-471



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 16



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-030-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R4W</u>
D. Latitude, Longitude	<u>47°44' 123°13'</u>
E. Stream Name	<u>W.F. Dosewallips</u>
F. Major Basin Name	<u>Dosewallips</u>
G. River Mile	<u>0/1.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

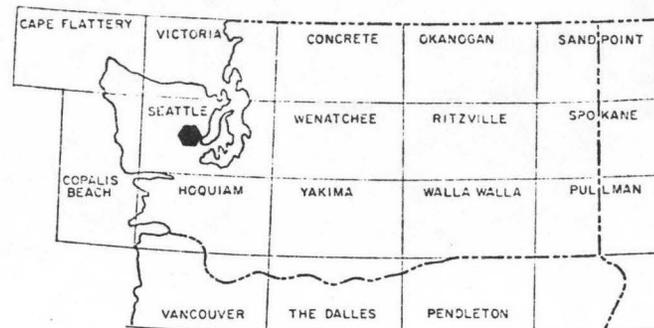
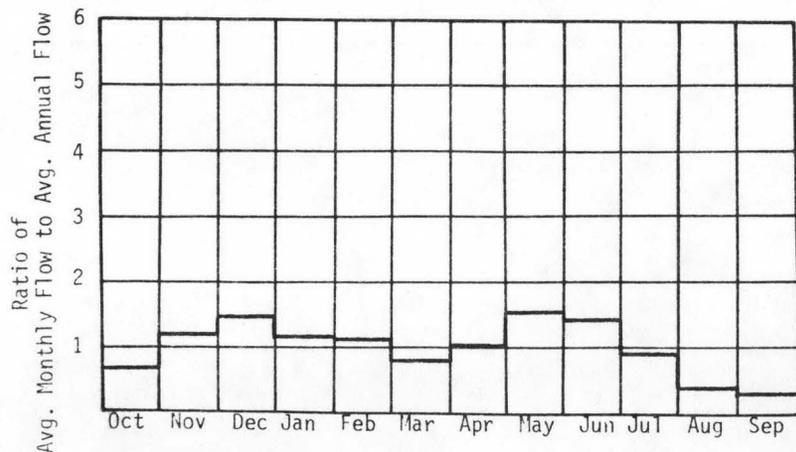
A. Upstream Elevation of Reach	<u>2100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1800</u>	Ft. MSL
C. Total Available Head in Reach	<u>300</u>	Ft.
D. Average Slope in Reach	<u>200</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

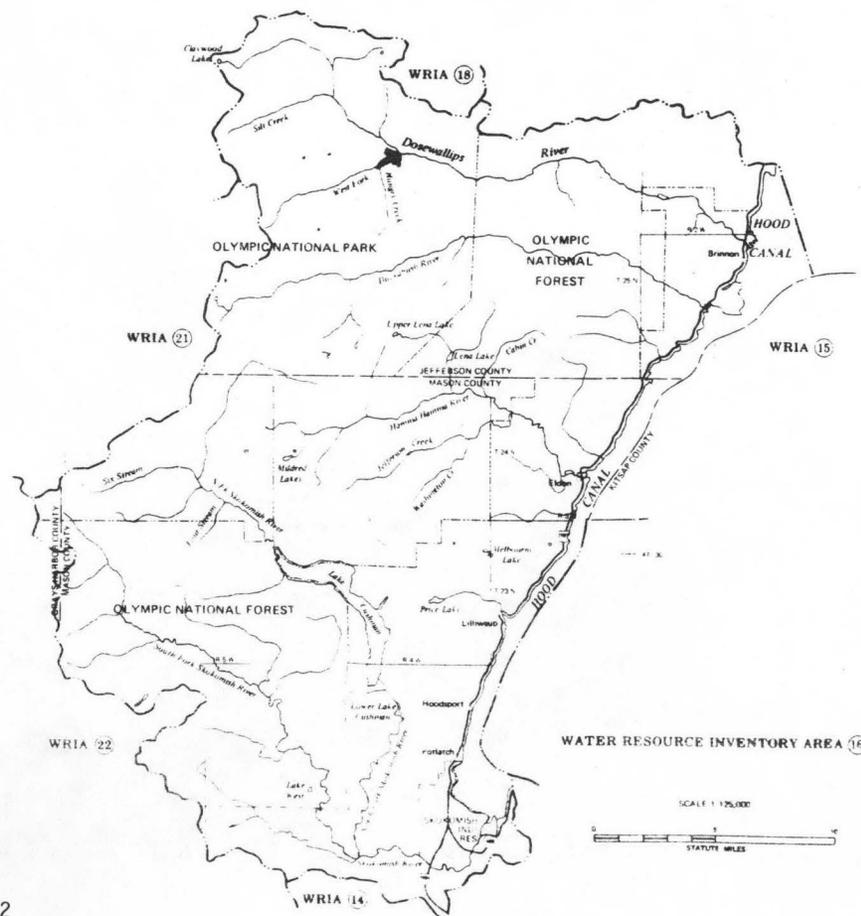
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	32.1	0.82	7.14	1.00
80	48.8	1.24	10.4	0.96
50	94.0	2.39	16.9	0.81
30	138	3.50	20.4	0.68
10	230	5.83	24.5	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 119 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-030-000-000-000-R0007

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R5W
 D. Latitude, Longitude 47°46' 123°17'
 E. Stream Name Silt Creek
 F. Major Basin Name Dosewallips
 G. River Mile 0/3.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

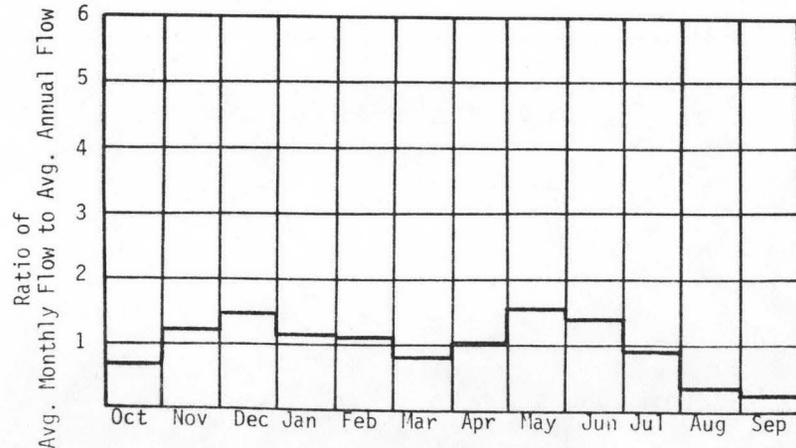
A. Upstream Elevation of Reach 3250 Ft. MSL
 B. Downstream Elevation of Reach 2550 Ft. MSL
 C. Total Available Head in Reach 700 + 66 = 766 Ft.
 D. Average Slope in Reach 194 Ft./Mi.
 E. Drainage Area above Reach Mouth 13.7 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

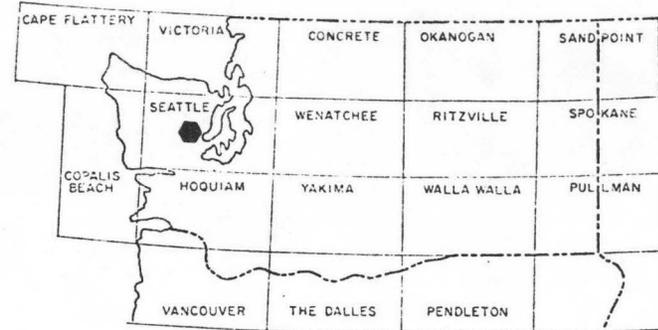
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.3	1.12	9.81	1.00
80	26.2	1.70	14.3	0.96
50	50.6	3.28	23.3	0.81
30	74.2	4.81	28.7	0.68
10	124	8.00	33.7	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

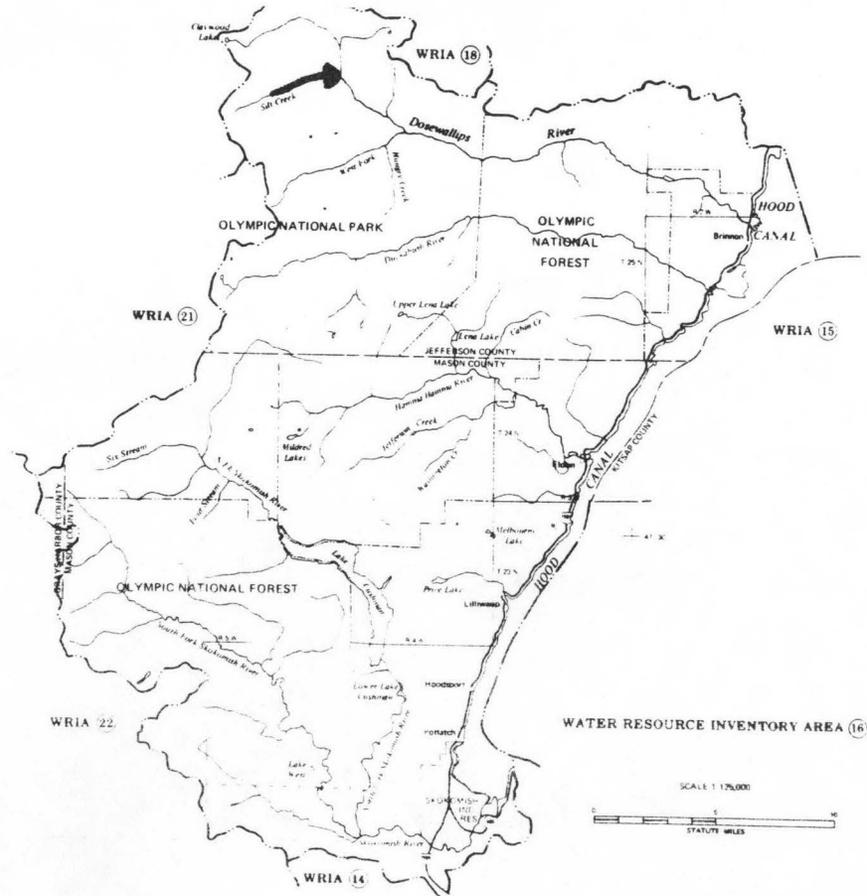
QMR = 64 cfs



W16-474



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T25N R2W
D. Latitude, Longitude	47°40' 122°59'
E. Stream Name	Duckabush
F. Major Basin Name	Duckabush
G. River Mile	0/7.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

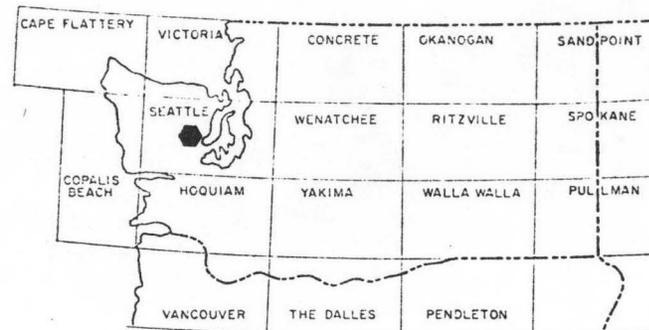
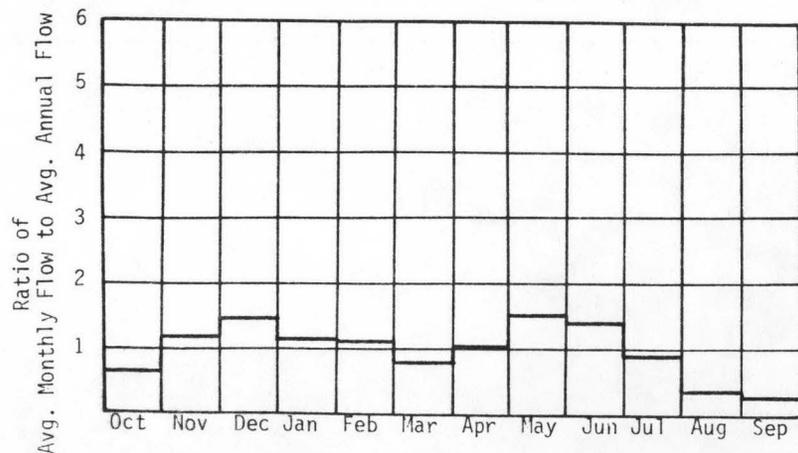
A. Upstream Elevation of Reach	450	Ft. MSL
B. Downstream Elevation of Reach	0	Ft. MSL
C. Total Available Head in Reach	450	Ft.
D. Average Slope in Reach	63	Ft./Mi.
E. Drainage Area above Reach Mouth	76.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

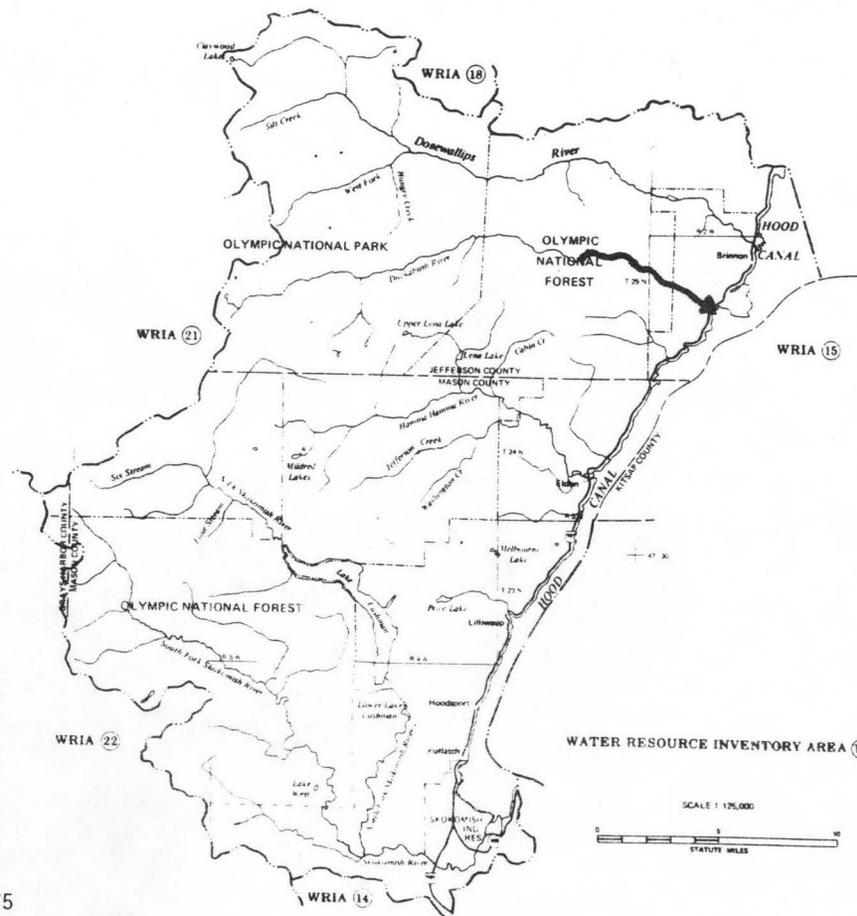
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	80.4	3.06	26.8	1.00
80	153	5.82	47.9	0.94
50	306	11.6	80.5	0.79
30	462	17.6	102	0.66
10	772	29.4	121	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 402 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R3W</u>
D. Latitude, Longitude	<u>47°41' 123°04'</u>
E. Stream Name	<u>Duckabush</u>
F. Major Basin Name	<u>Duckabush</u>
G. River Mile	<u>7.2/9.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

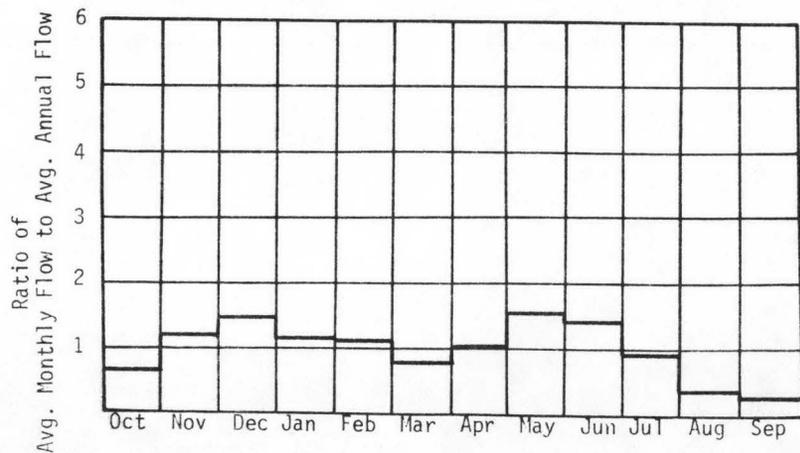
A. Upstream Elevation of Reach	<u>725</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>450</u>	Ft. MSL
C. Total Available Head in Reach	<u>275</u>	Ft.
D. Average Slope in Reach	<u>131</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>57.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

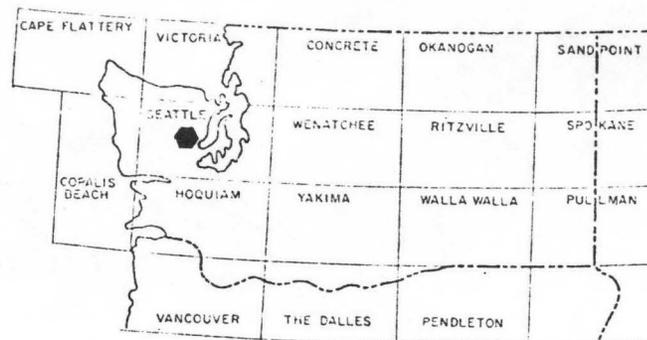
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	69.6	1.62	14.2	1.00
80	132	3.08	25.3	0.94
50	264	6.15	42.6	0.79
30	400	9.31	53.8	0.66
10	668	15.5	64.0	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

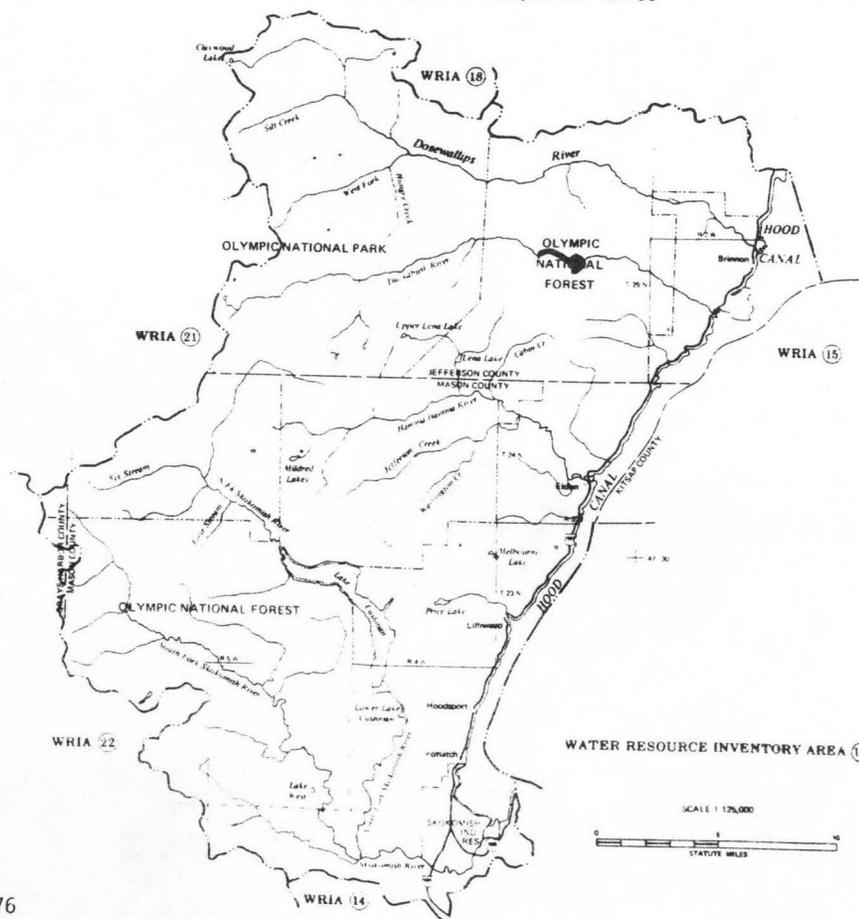
QMR = 348 cfs



W16-476



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 16



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R3W</u>
D. Latitude, Longitude	<u>47°42' 123°07'</u>
E. Stream Name	<u>Duckabush</u>
F. Major Basin Name	<u>Duckabush</u>
G. River Mile	<u>9.3/12.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

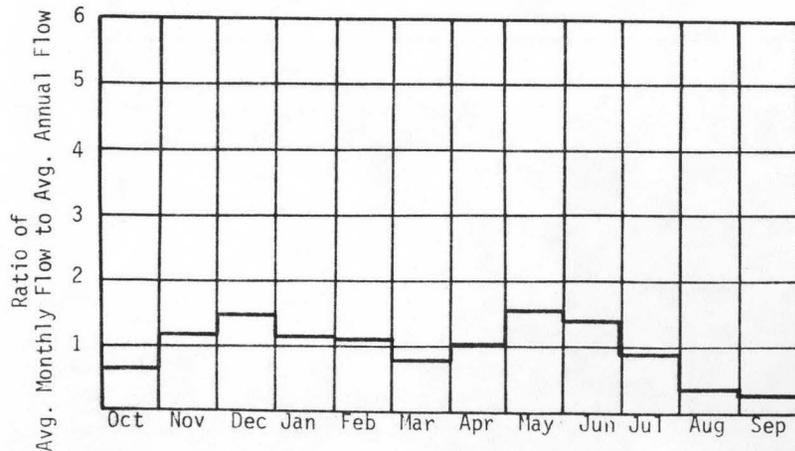
A. Upstream Elevation of Reach	<u>1220</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>725</u>	Ft. MSL
C. Total Available Head in Reach	<u>495</u>	Ft.
D. Average Slope in Reach	<u>150</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

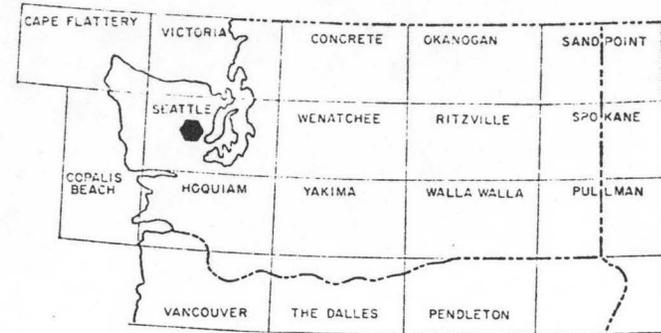
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	60.8	2.55	22.3	1.00
80	116	4.84	39.8	0.94
50	231	9.68	67.0	0.79
30	350	14.6	84.6	0.66
10	584	24.4	101	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

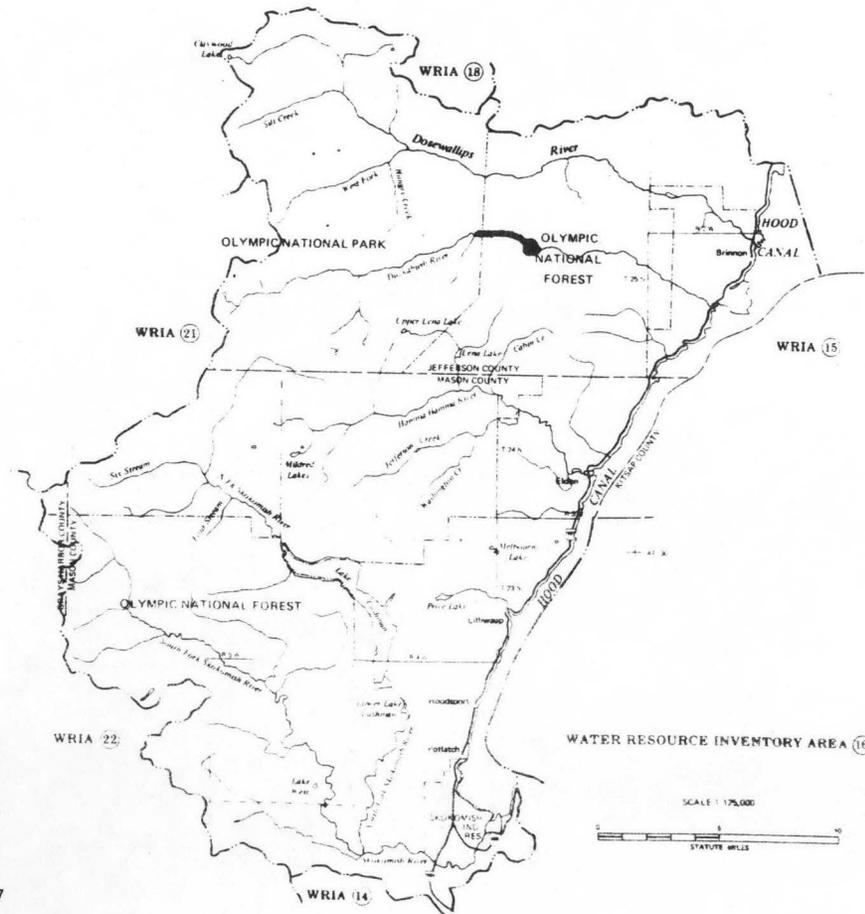
QMR = 304 cfs



W16-477



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-R0004

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T25N R4W
D. Latitude, Longitude	47°41' 123°11'
E. Stream Name	Duckabush
F. Major Basin Name	Duckabush
G. River Mile	12.3/18.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

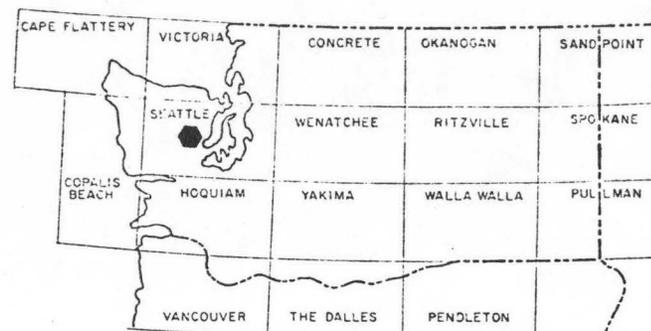
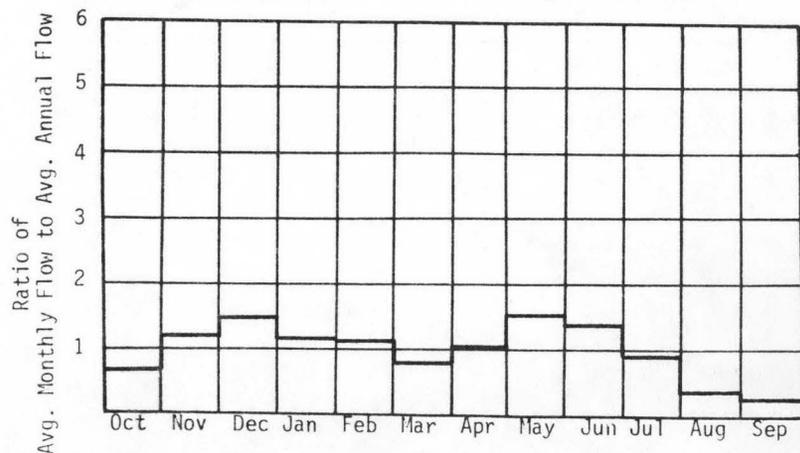
A. Upstream Elevation of Reach	2000	Ft. MSL
B. Downstream Elevation of Reach	1220	Ft. MSL
C. Total Available Head in Reach	780	Ft.
D. Average Slope in Reach	132	Ft./Mi.
E. Drainage Area above Reach Mouth	38.3	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

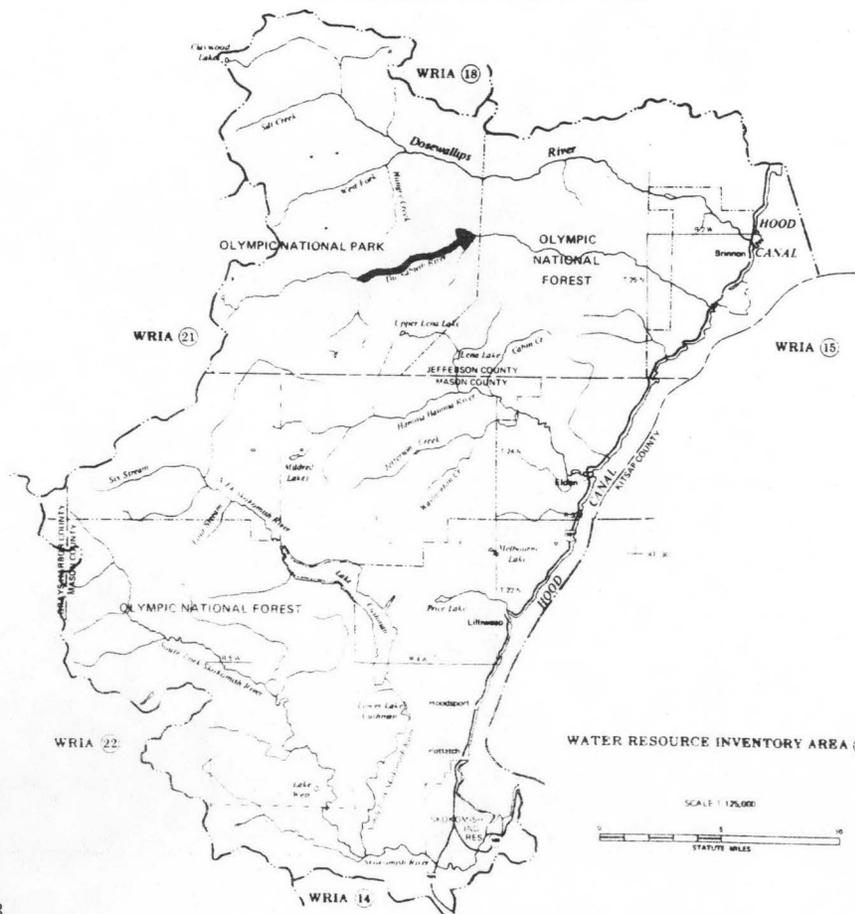
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	44.6	2.94	25.8	1.00
80	84.7	5.59	46.1	0.94
50	169	11.2	77.4	0.79
30	256	16.9	97.8	0.66
10	428	28.3	116	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 223 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R4W</u>
D. Latitude, Longitude	<u>47°40' 123°17'</u>
E. Stream Name	<u>Duckabush</u>
F. Major Basin Name	<u>Duckabush</u>
G. River Mile	<u>18.2/22.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

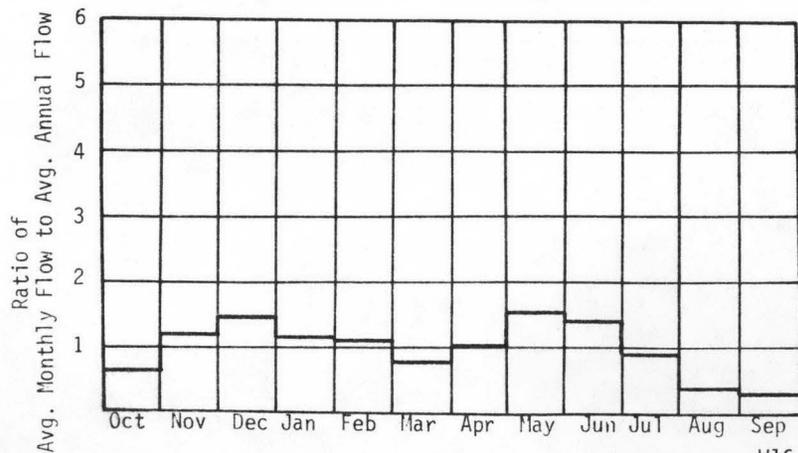
A. Upstream Elevation of Reach	<u>2675</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2000</u>	Ft. MSL
C. Total Available Head in Reach	<u>675 + 66 = 741</u>	Ft.
D. Average Slope in Reach	<u>173</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

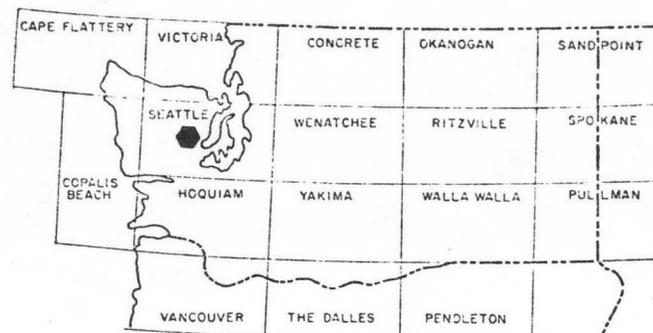
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	18.4	1.15	10.1	1.00
80	35.0	2.19	18.1	0.94
50	69.9	4.38	30.3	0.79
30	106	6.63	38.4	0.66
10	177	11.1	45.6	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 92 cfs



W16-479



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-031-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R4W</u>
D. Latitude, Longitude	<u>47°39' 123°15'</u>
E. Stream Name	<u>Crazy Creek</u>
F. Major Basin Name	<u>Duckabush</u>
G. River Mile	<u>0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

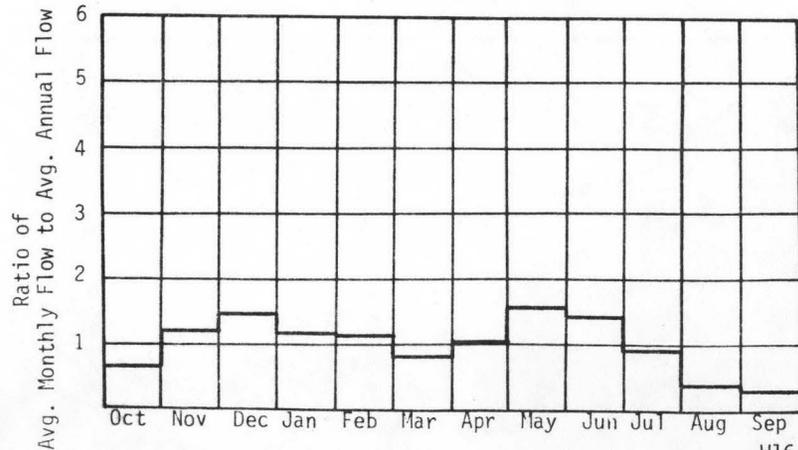
A. Upstream Elevation of Reach	<u>2600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2000</u>	Ft. MSL
C. Total Available Head in Reach	<u>600 + 66 = 666</u>	Ft.
D. Average Slope in Reach	<u>375</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

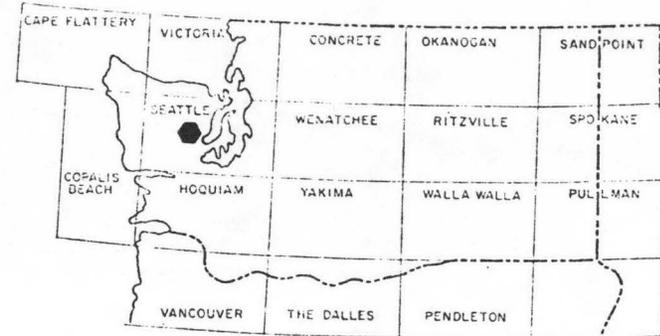
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.2	0.57	5.03	1.00
80	19.4	1.09	8.99	0.94
50	38.8	2.18	15.1	0.79
30	58.7	3.30	19.1	0.66
10	97.9	5.52	22.7	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

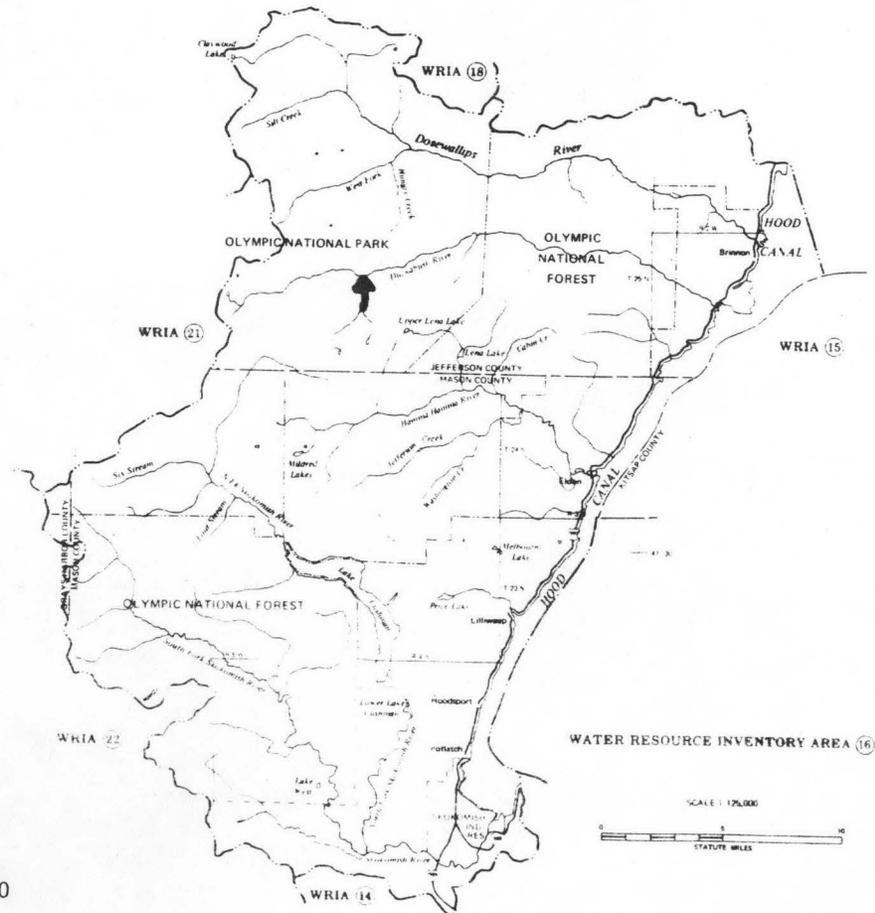
QMR = 51 cfs



W16-480



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R3W</u>
D. Latitude, Longitude	<u>47°34' 123°04'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>1.3/3.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

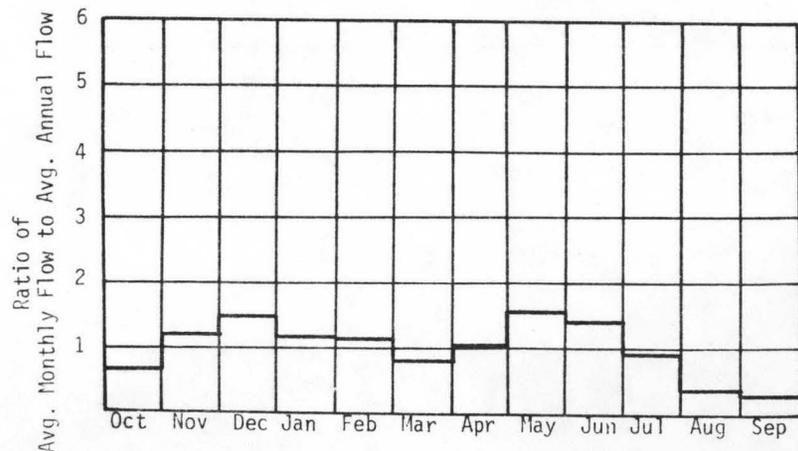
A. Upstream Elevation of Reach	<u>400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>400</u>	Ft.
D. Average Slope in Reach	<u>167</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>78.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

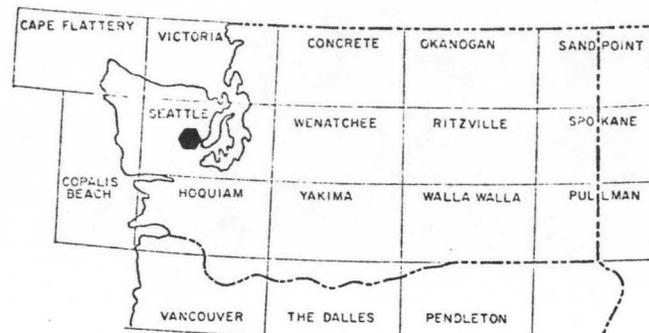
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	73.9	2.50	21.9	1.00
80	148	5.00	40.8	0.93
50	311	10.5	72.0	0.78
30	443	15.0	88.1	0.67
10	759	25.7	106	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 389 cfs



W16-481



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R3W</u>
D. Latitude, Longitude	<u>47°35' 123°05'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>3.7/5.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

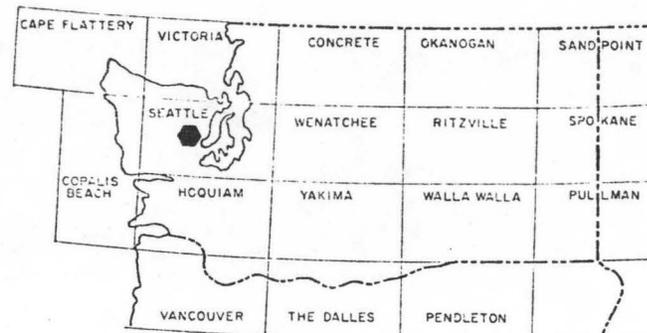
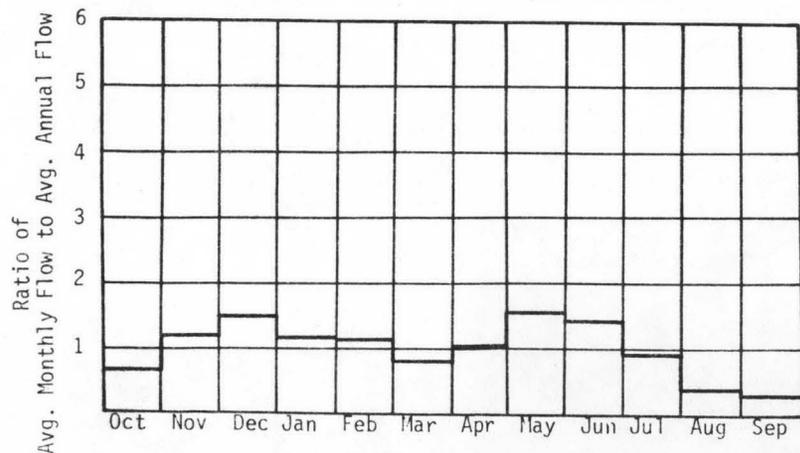
A. Upstream Elevation of Reach	<u>480</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>44</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>76.9</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

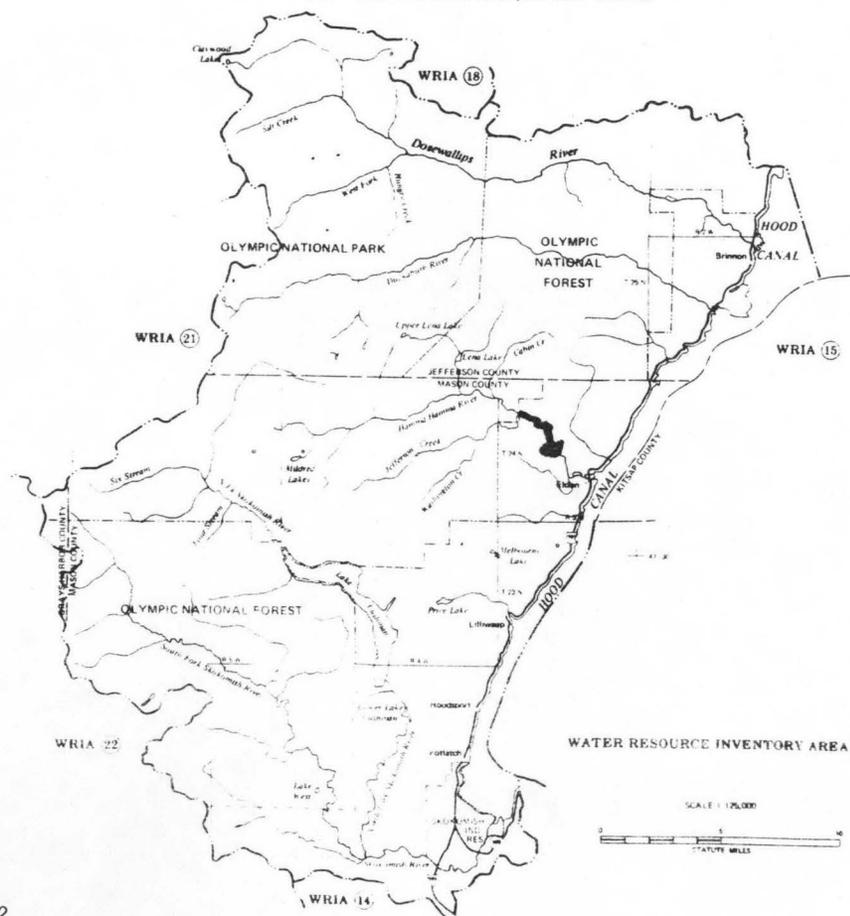
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	72.2	0.49	4.28	1.00
80	144	0.98	7.96	0.93
50	304	2.06	14.1	0.78
30	433	2.93	17.2	0.67
10	741	5.02	20.7	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 380 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R3W</u>
D. Latitude, Longitude	<u>47°35' 123°07'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>5.5/6.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

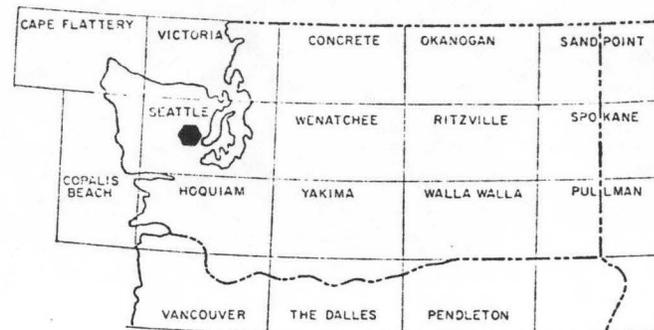
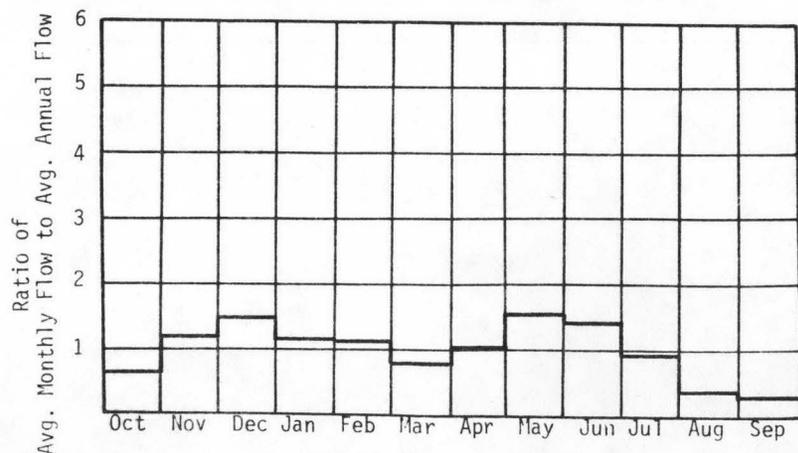
A. Upstream Elevation of Reach	<u>520</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>480</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>52.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

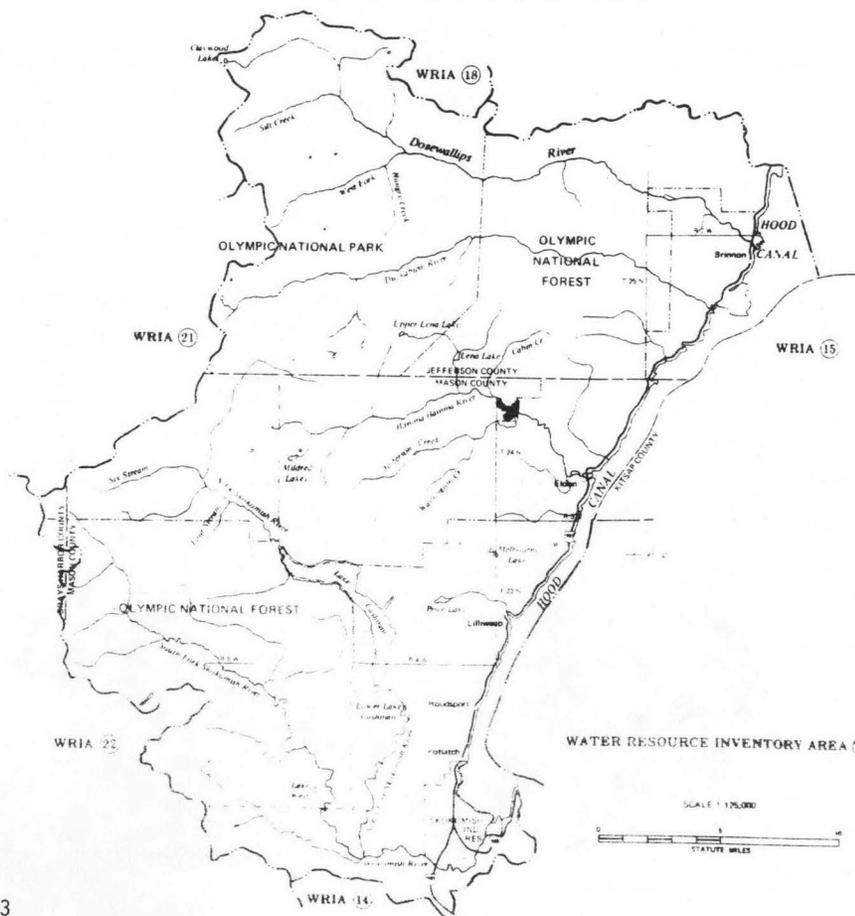
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	43.9	0.15	1.30	1.00
80	87.8	0.30	2.42	0.93
50	185	0.63	4.27	0.78
30	263	0.89	5.23	0.67
10	450	1.52	6.28	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 231 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 16



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R3W</u>
D. Latitude, Longitude	<u>47°36' 123°08'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>6.3/7.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

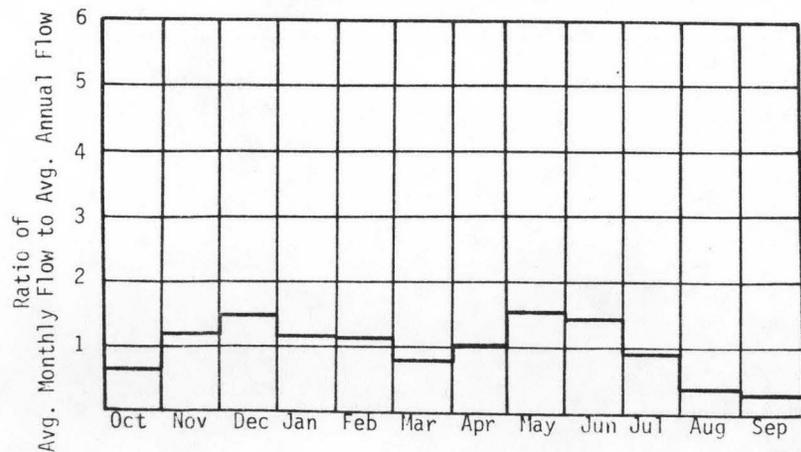
A. Upstream Elevation of Reach	<u>550</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>520</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>30</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.0</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

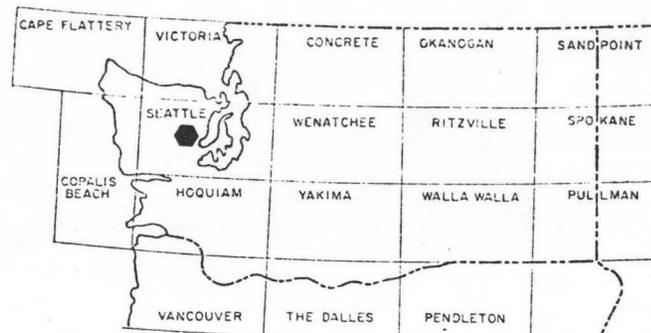
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	42.0	0.11	0.93	1.00
80	84.0	0.21	1.74	0.93
50	177	0.45	3.07	0.70
30	252	0.64	3.75	0.67
10	431	1.09	4.50	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

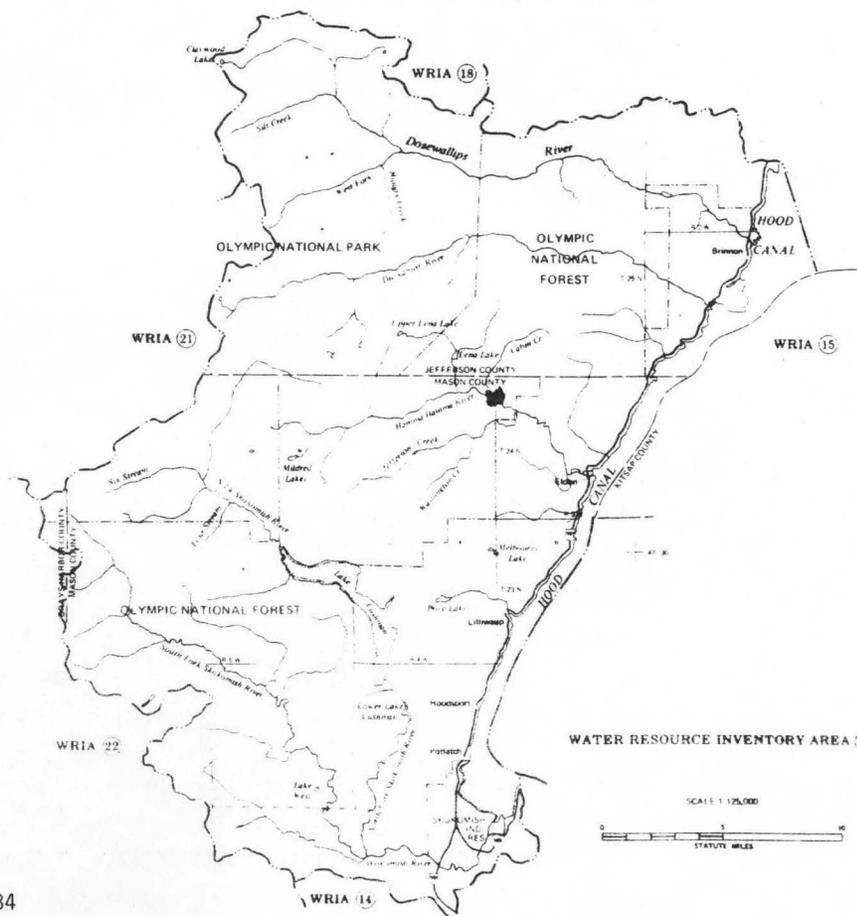
QMR = 221 cfs



W16-484



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R4W</u>
D. Latitude, Longitude	<u>47°35' 123°09'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>7.3/9.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

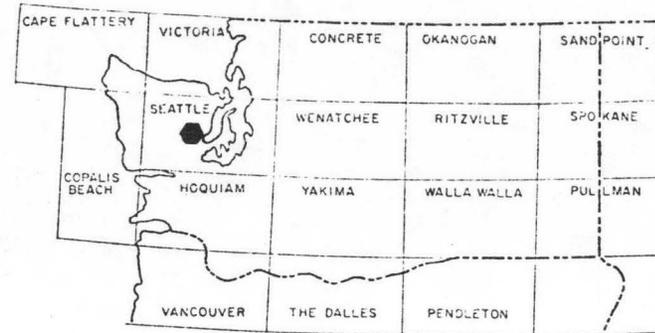
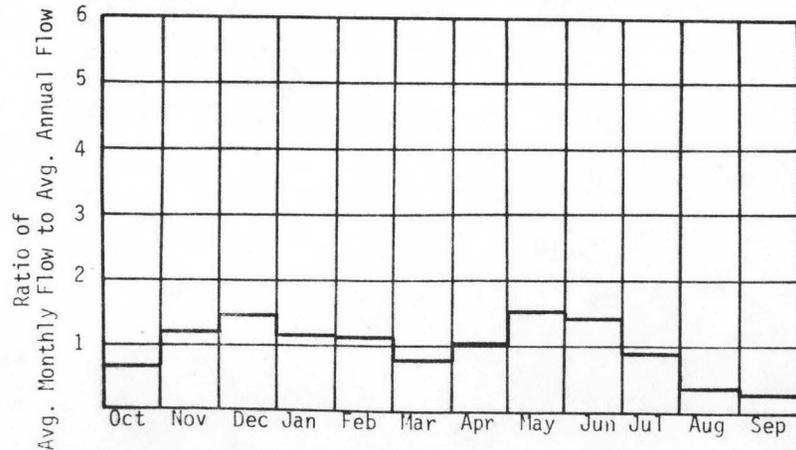
A. Upstream Elevation of Reach	<u>650</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>550</u>	Ft. MSL
C. Total Available Head in Reach	<u>100</u>	Ft.
D. Average Slope in Reach	<u>58.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>41.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

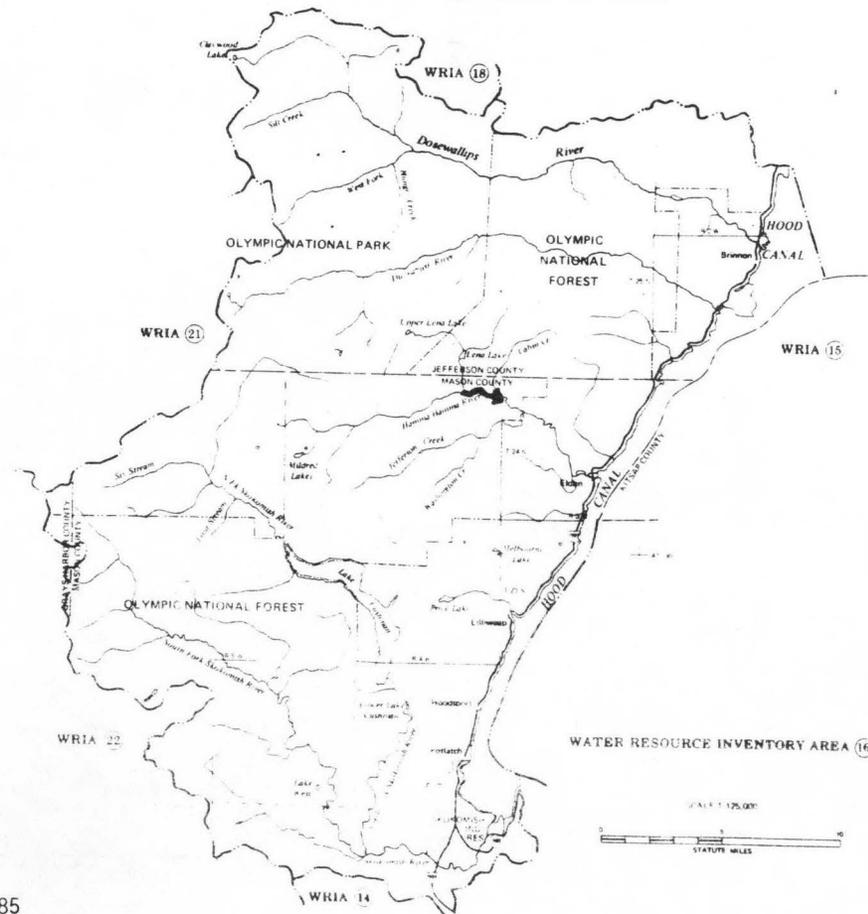
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	36.3	0.31	2.69	1.00
80	72.6	0.61	5.00	0.93
50	153	1.29	8.83	0.78
30	218	1.84	10.8	0.67
10	372	3.15	13.0	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 191 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R4W</u>
D. Latitude, Longitude	<u>47°35' 123°12'</u>
E. Stream Name	<u>Hamma Hamma</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>9.0/13.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

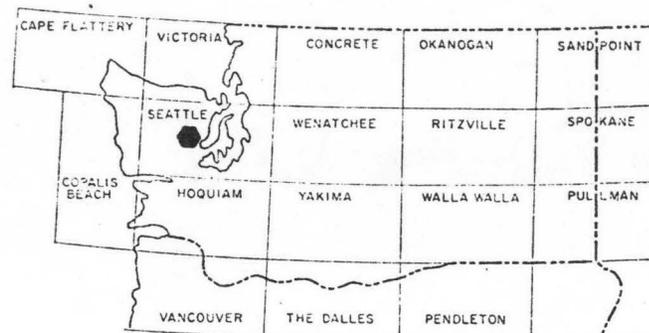
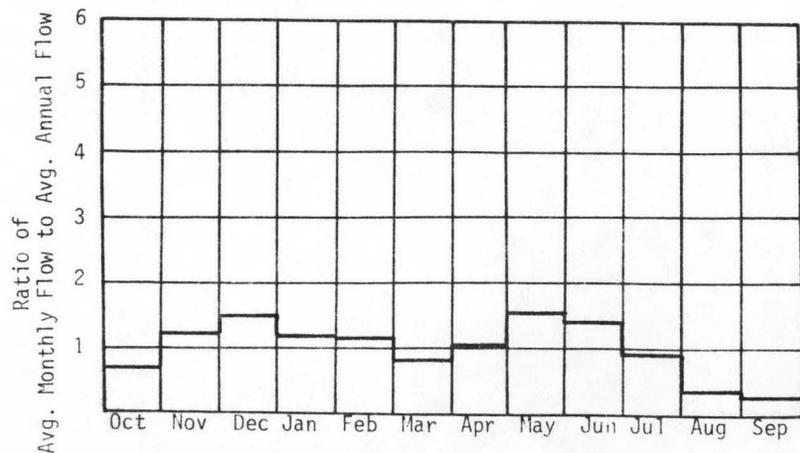
A. Upstream Elevation of Reach	<u>1520</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>650</u>	Ft. MSL
C. Total Available Head in Reach	<u>870</u>	Ft.
D. Average Slope in Reach	<u>207</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>28.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

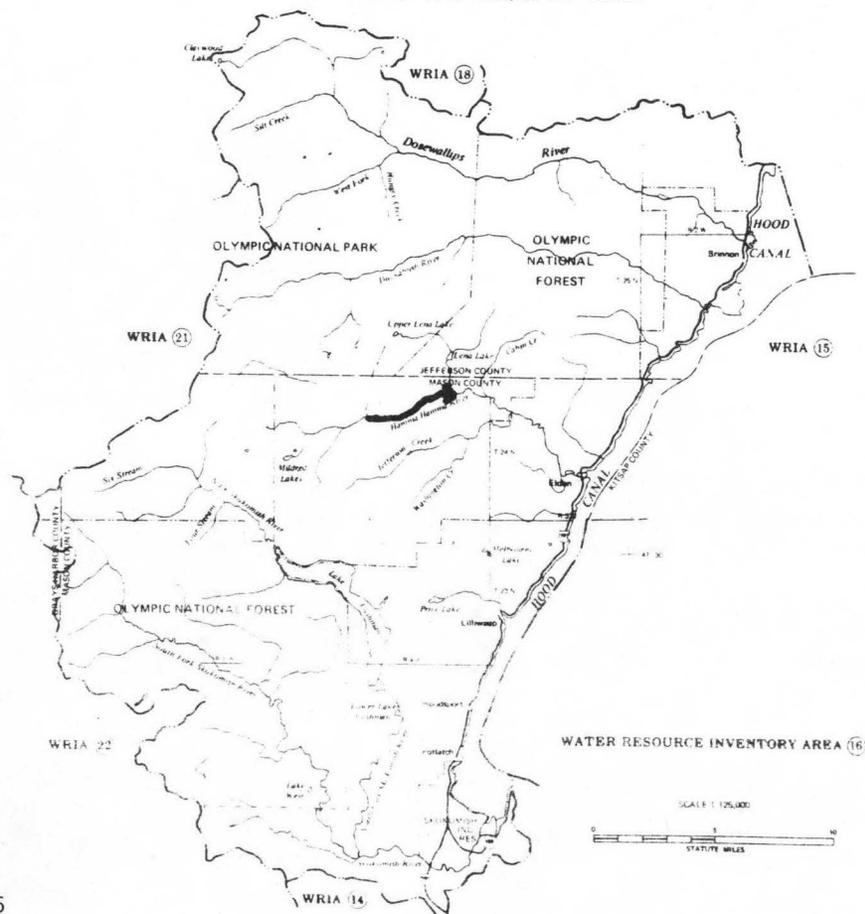
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.8	1.75	15.3	1.00
80	47.5	3.50	28.5	0.93
50	100	7.36	50.3	0.78
30	143	10.5	61.6	0.67
10	244	17.9	73.9	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 125 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0009

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T24N R4W
D. Latitude, Longitude	47°33' 123°11'
E. Stream Name	Jefferson Creek
F. Major Basin Name	Hamma Hamma
G. River Mile	3.0/6.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

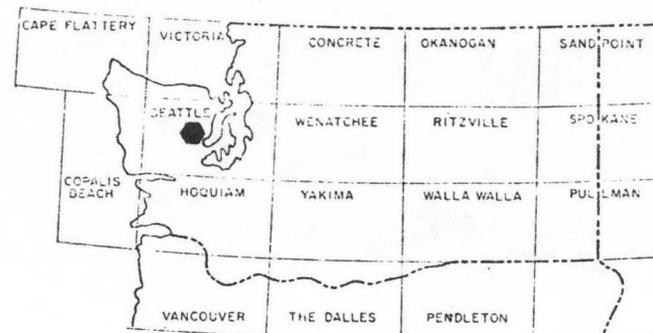
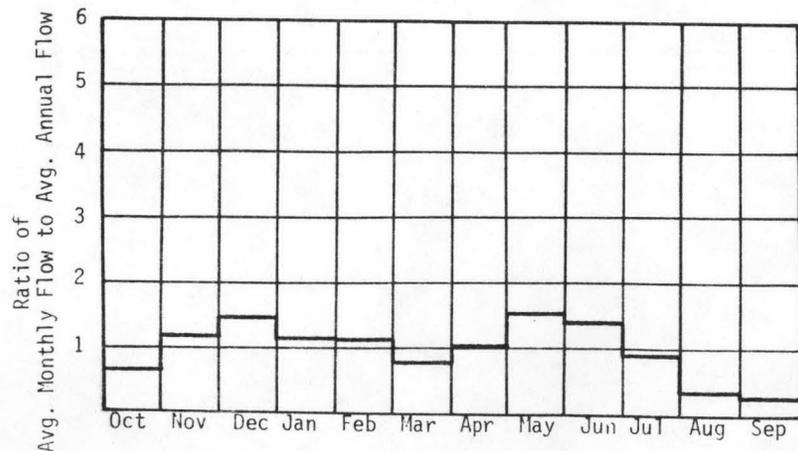
A. Upstream Elevation of Reach	1700	Ft. MSL
B. Downstream Elevation of Reach	1090	Ft. MSL
C. Total Available Head in Reach	610 + 66 = 676	Ft.
D. Average Slope in Reach	203	Ft./Mi.
E. Drainage Area above Reach Mouth	10.2	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

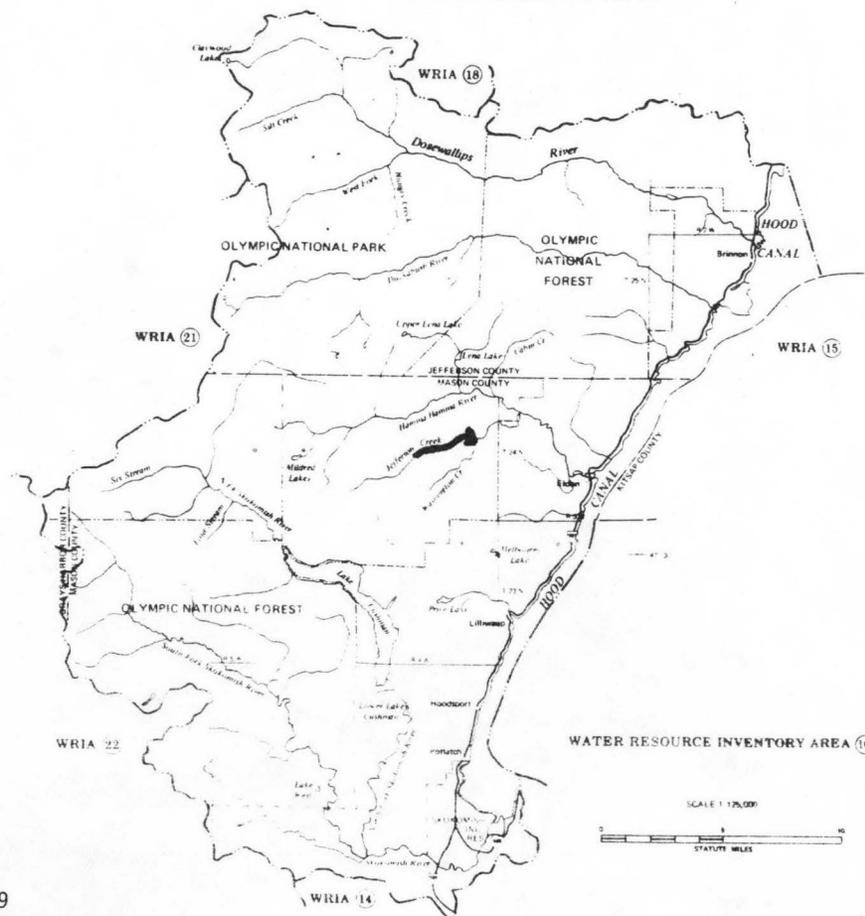
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.93	0.40	3.47	1.00
80	14.5	0.83	6.75	0.93
50	38.4	2.20	14.6	0.76
30	66.8	3.82	20.4	0.61
10	137	7.82	26.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 63 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-032-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R4W</u>
D. Latitude, Longitude	<u>47°34' 123°09'</u>
E. Stream Name	<u>Washington Creek</u>
F. Major Basin Name	<u>Hamma Hamma</u>
G. River Mile	<u>0/1.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

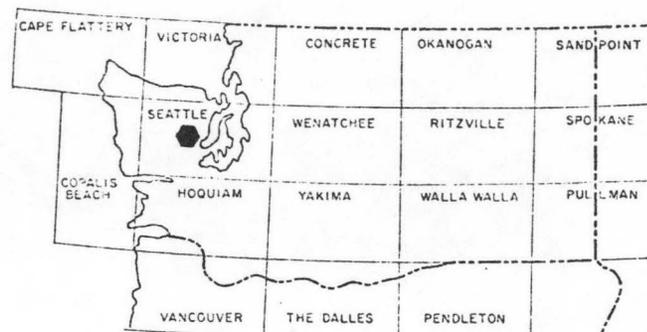
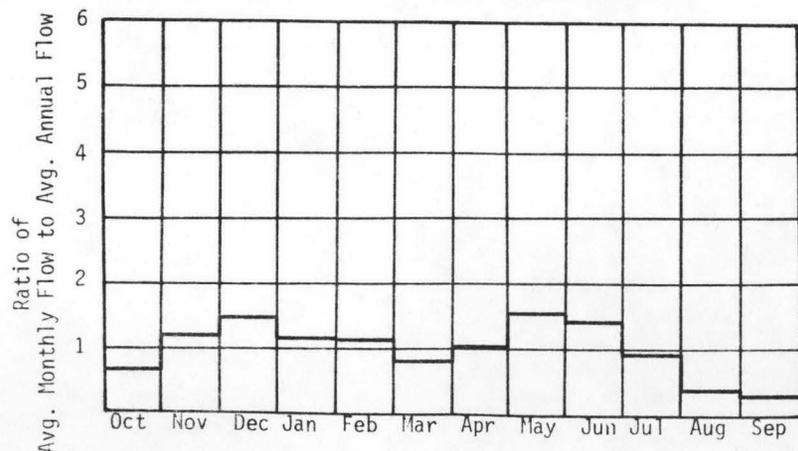
A. Upstream Elevation of Reach	<u>1350</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1090</u>	Ft. MSL
C. Total Available Head in Reach	<u>260 + 66 = 326</u>	Ft.
D. Average Slope in Reach	<u>260</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

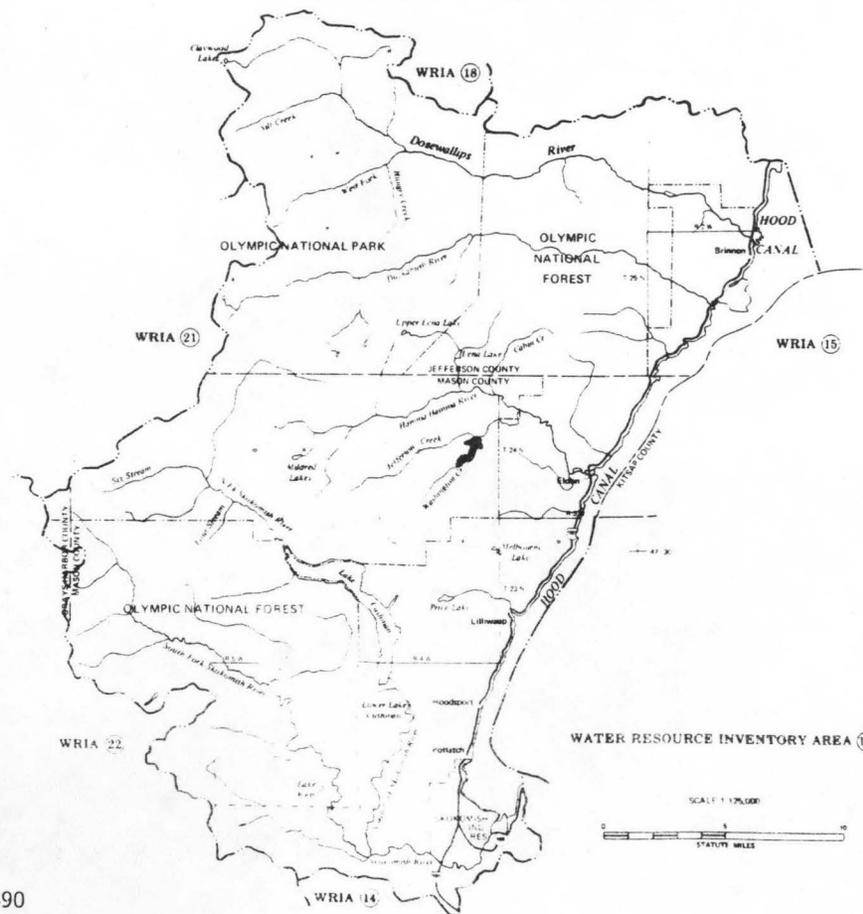
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.83	0.16	1.41	1.00
80	12.2	0.34	2.74	0.93
50	32.3	0.89	5.94	0.76
30	56.2	1.55	8.28	0.61
10	115	3.17	10.8	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 53 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T21N R4W</u>
D. Latitude, Longitude	<u>47°17' 123°10'</u>
E. Stream Name	<u>Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/7.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

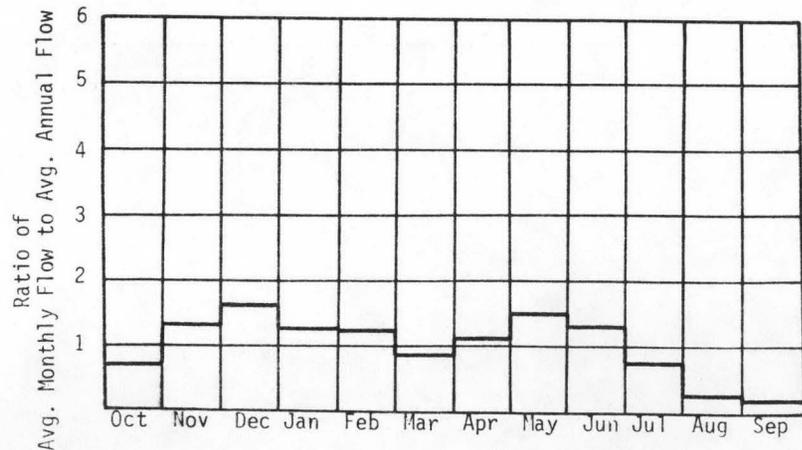
A. Upstream Elevation of Reach	<u>35</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>4.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>240</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

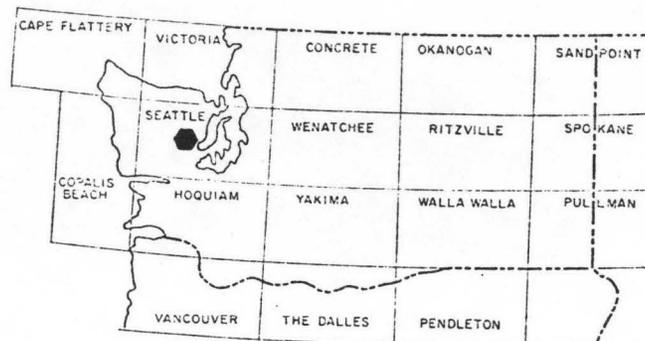
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	172	0.51	4.45	1.00
80	275	0.81	6.77	0.95
50	744	2.20	14.7	0.76
30	1180	3.49	19.3	0.63
10	2560	7.59	25.9	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

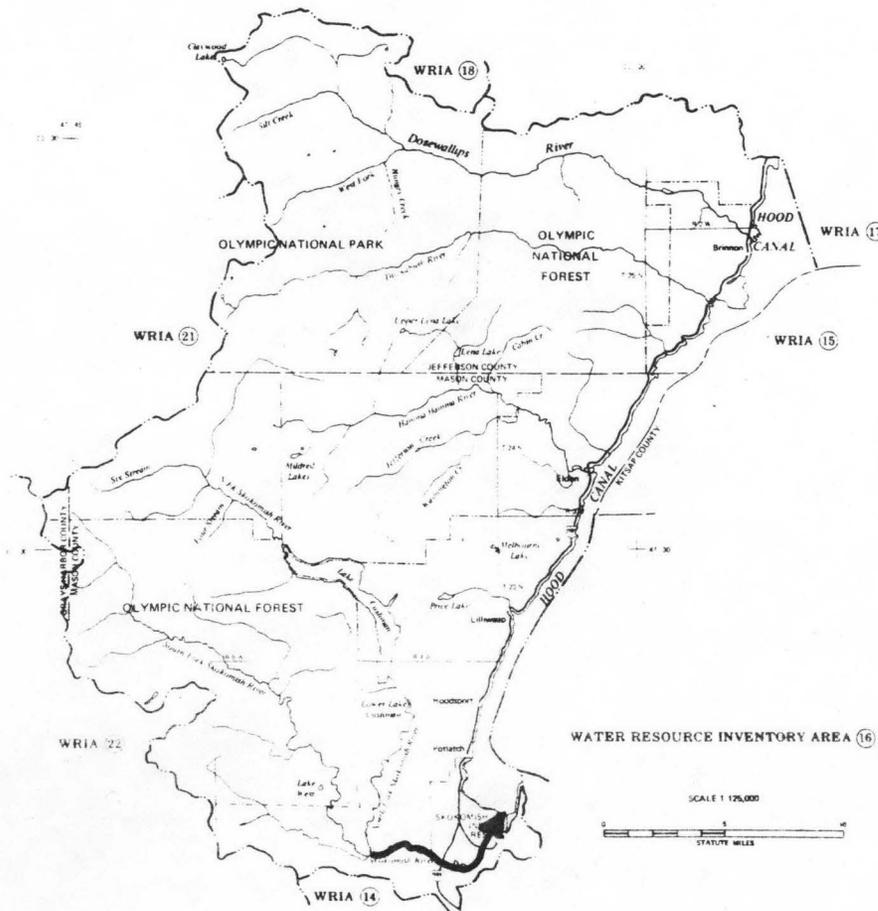
QMR = 1144 cfs



W16-491



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R4W</u>
D. Latitude, Longitude	<u>47°21' 123°15'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/8.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

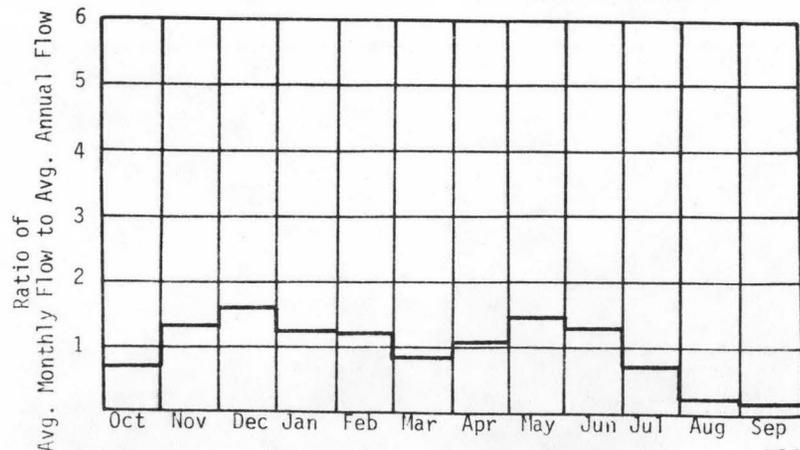
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>35</u>	Ft. MSL
C. Total Available Head in Reach	<u>165</u>	Ft.
D. Average Slope in Reach	<u>20.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>120</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

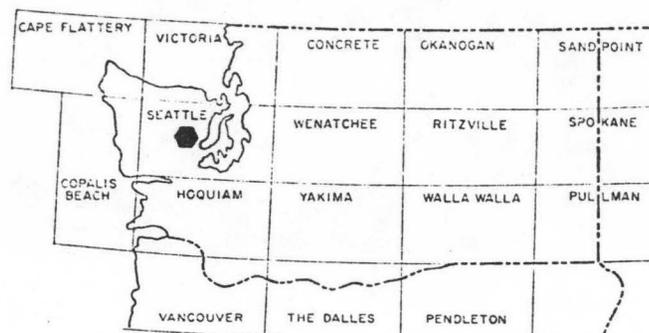
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.54	0.09	0.80	1.00
80	13.1	0.18	1.50	0.94
50	48.0	0.67	4.16	0.71
30	99.2	1.38	6.67	0.55
10	261	3.64	10.5	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

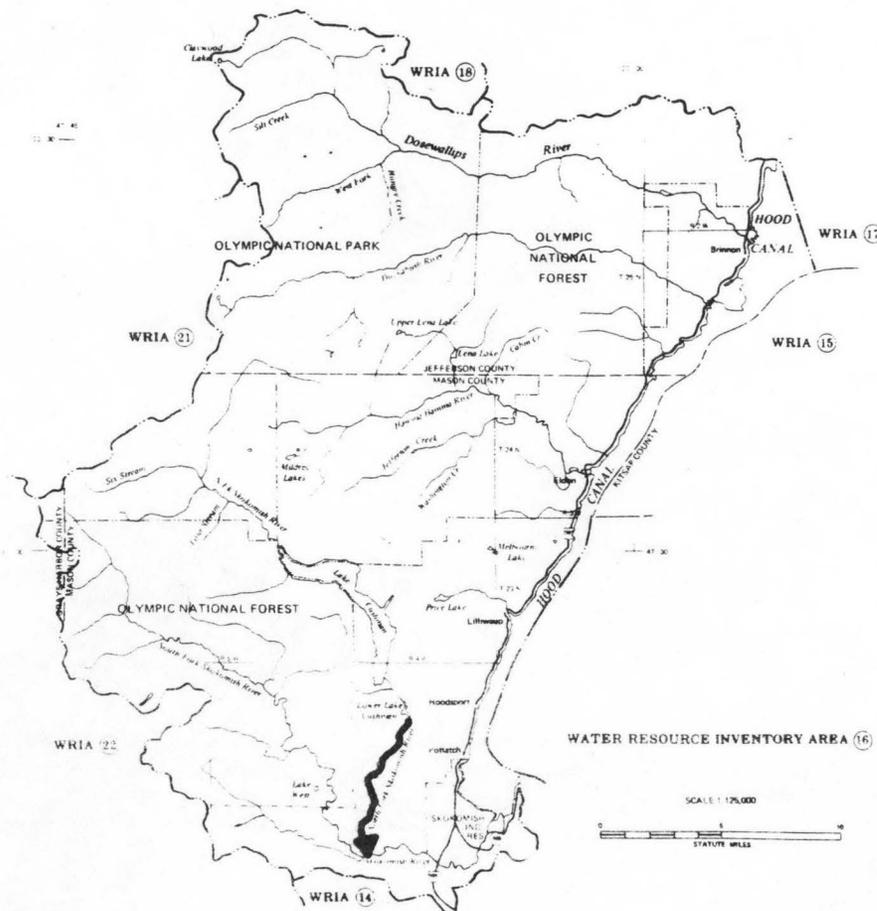
QMR = 109 cfs



W16-492



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T23N R5W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>18.1/21.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

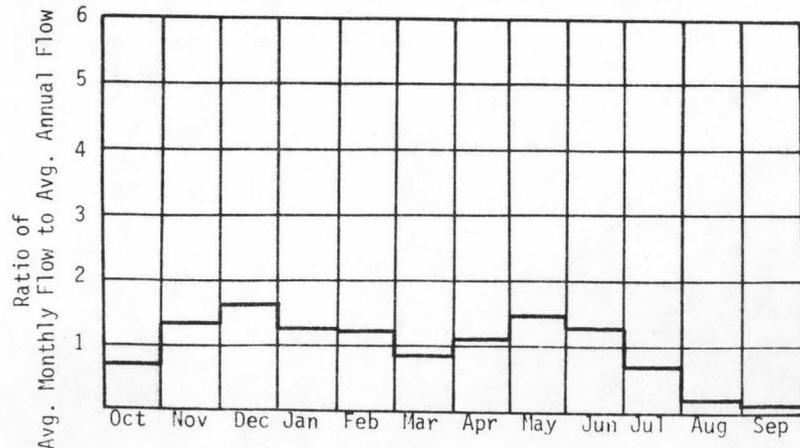
A. Upstream Elevation of Reach	<u>960</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>740</u>	Ft. MSL
C. Total Available Head in Reach	<u>220</u>	Ft.
D. Average Slope in Reach	<u>59.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>64.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

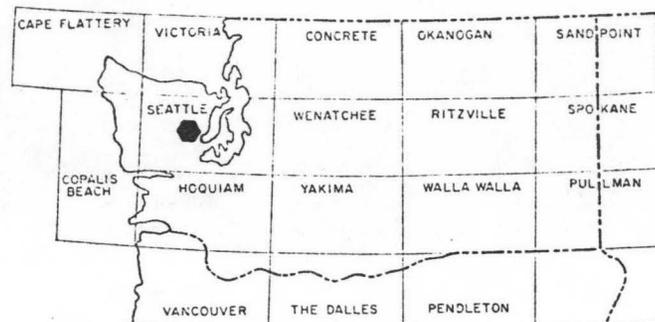
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	63.8	1.19	10.4	1.00
80	146	2.72	22.1	0.93
50	342	6.37	42.9	0.77
30	515	9.59	53.8	0.64
10	898	16.7	65.9	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

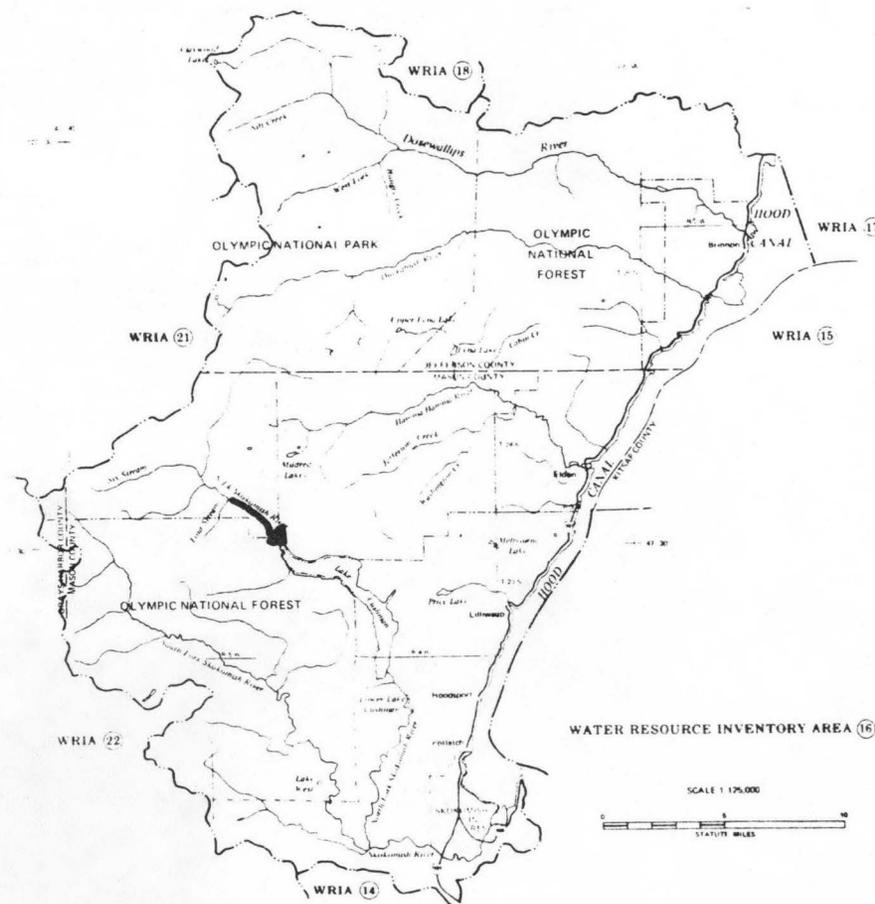
QMR = 456 cfs



W16-493



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R5W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>21.5/22.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

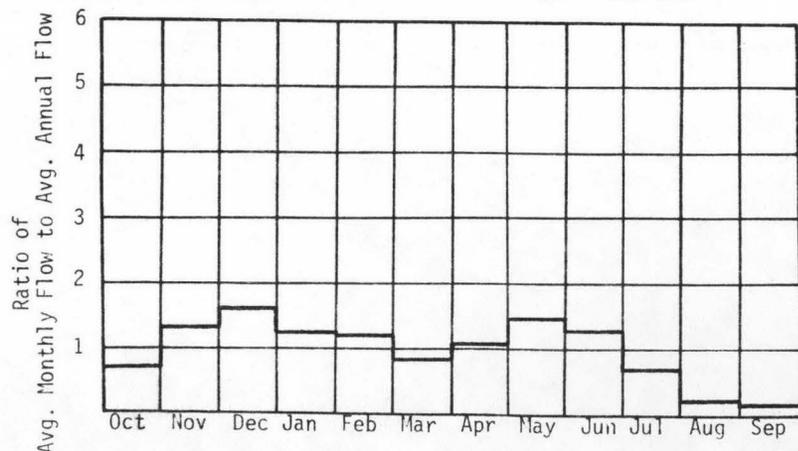
A. Upstream Elevation of Reach	<u>1080</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>960</u>	Ft. MSL
C. Total Available Head in Reach	<u>120</u>	Ft.
D. Average Slope in Reach	<u>6.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>44.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

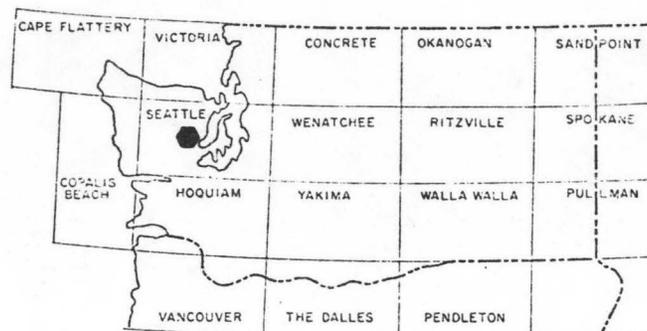
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	54.7	0.56	4.87	1.00
80	125	1.27	10.4	0.93
50	293	2.98	20.1	0.77
30	442	4.49	25.2	0.64
10	770	7.82	30.8	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 391 cfs



W16-494



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>22.9/23.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

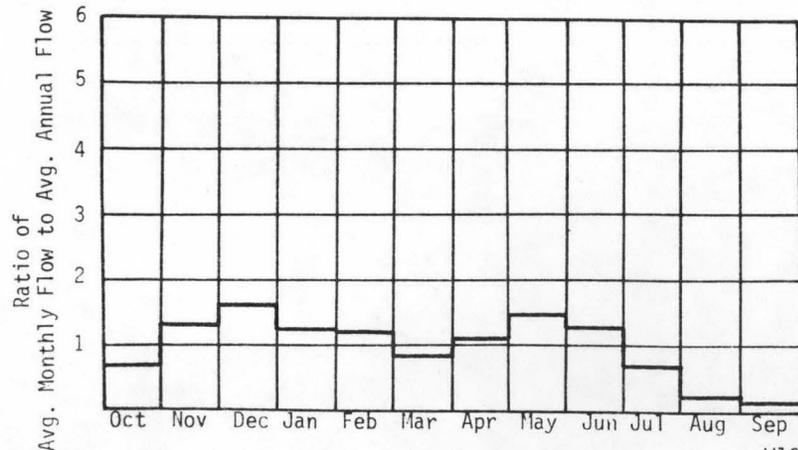
A. Upstream Elevation of Reach	<u>1100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1080</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>100</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>35.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

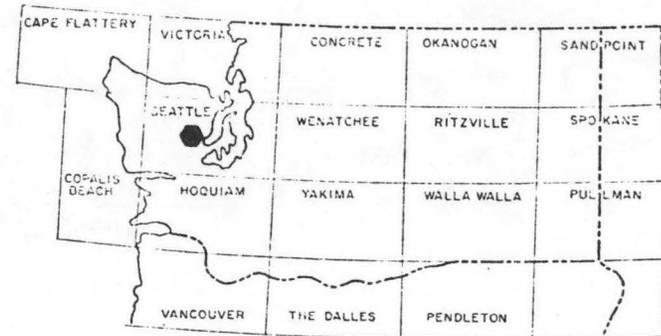
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	42.1	0.07	0.62	1.00
80	93.6	0.16	1.33	0.93
50	226	0.38	2.58	0.77
30	340	0.58	3.23	0.64
10	593	1.00	3.96	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

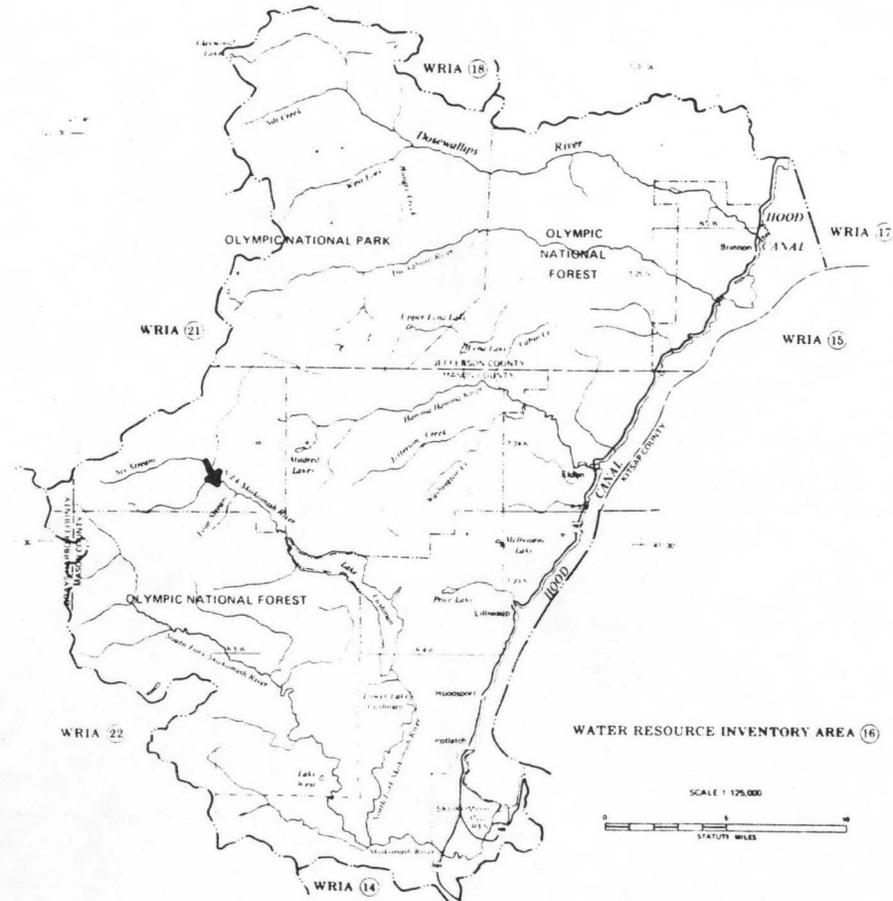
QMR = 301 cfs



W16-495



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 16

SCALE 1:125,000

STATUTE MILES

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>23.1/25.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

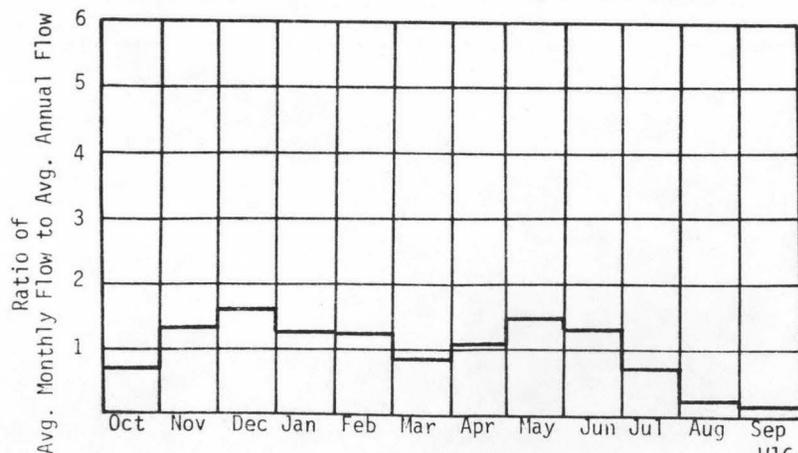
A. Upstream Elevation of Reach	<u>1400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1100</u>	Ft. MSL
C. Total Available Head in Reach	<u>300</u>	Ft.
D. Average Slope in Reach	<u>136</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>35.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

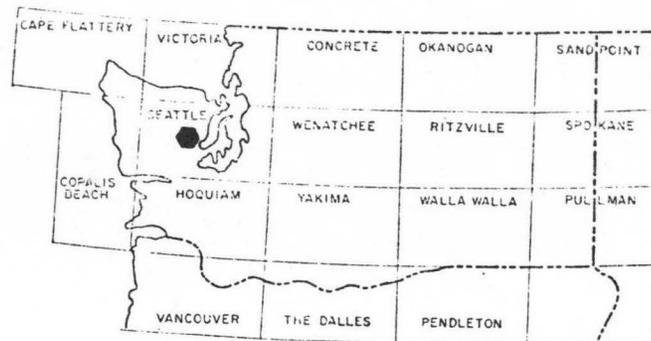
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	32.2	0.84	7.38	1.00
80	75.8	1.92	15.7	0.93
50	178	4.51	30.4	0.77
30	268	6.80	38.1	0.64
10	467	11.9	46.7	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

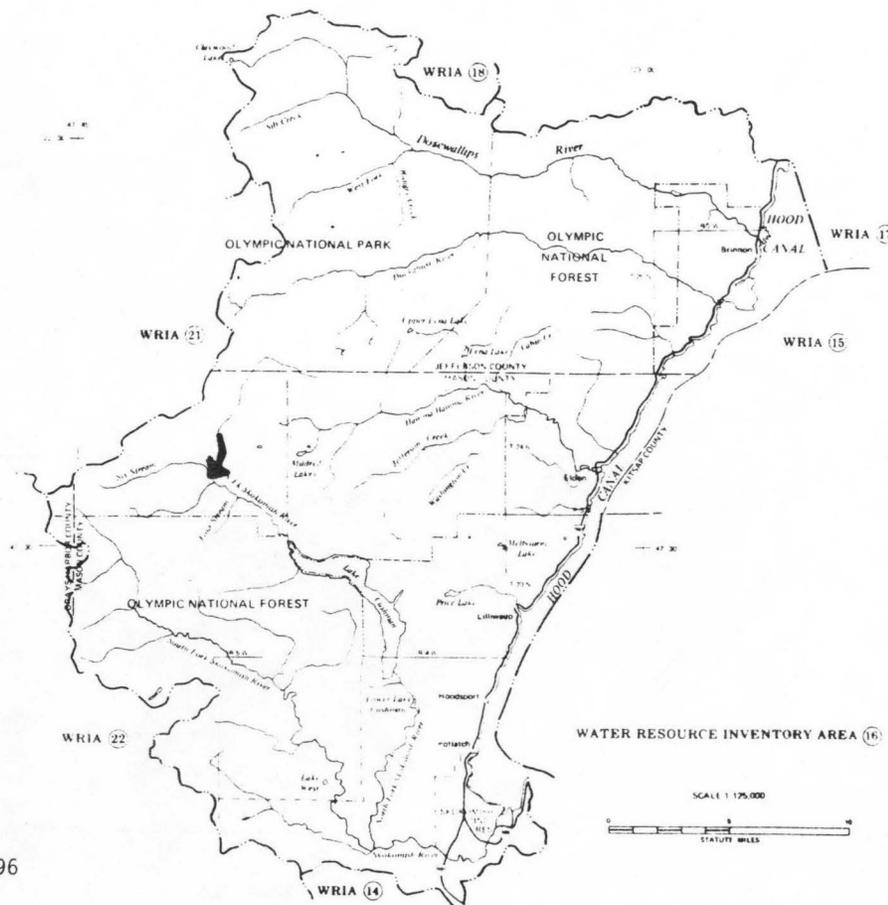
QMR = 237 cfs



W16-496



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>N.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>25.3/29.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

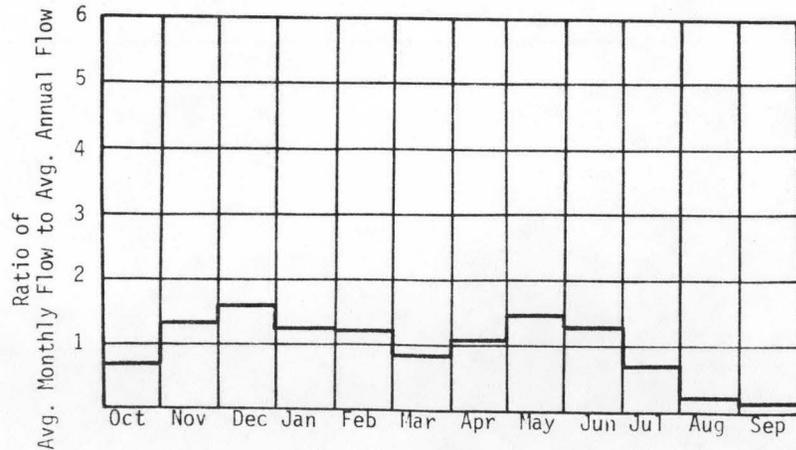
A. Upstream Elevation of Reach	<u>2100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1400</u>	Ft. MSL
C. Total Available Head in Reach	<u>700 + 66 = 766</u>	Ft.
D. Average Slope in Reach	<u>189</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

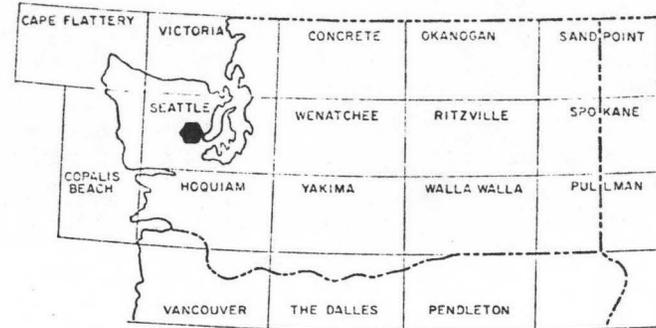
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	15.7	1.02	8.90	1.00
80	35.8	2.32	18.9	0.93
50	84.0	5.44	36.7	0.77
30	127	8.20	46.0	0.64
10	221	14.3	56.4	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

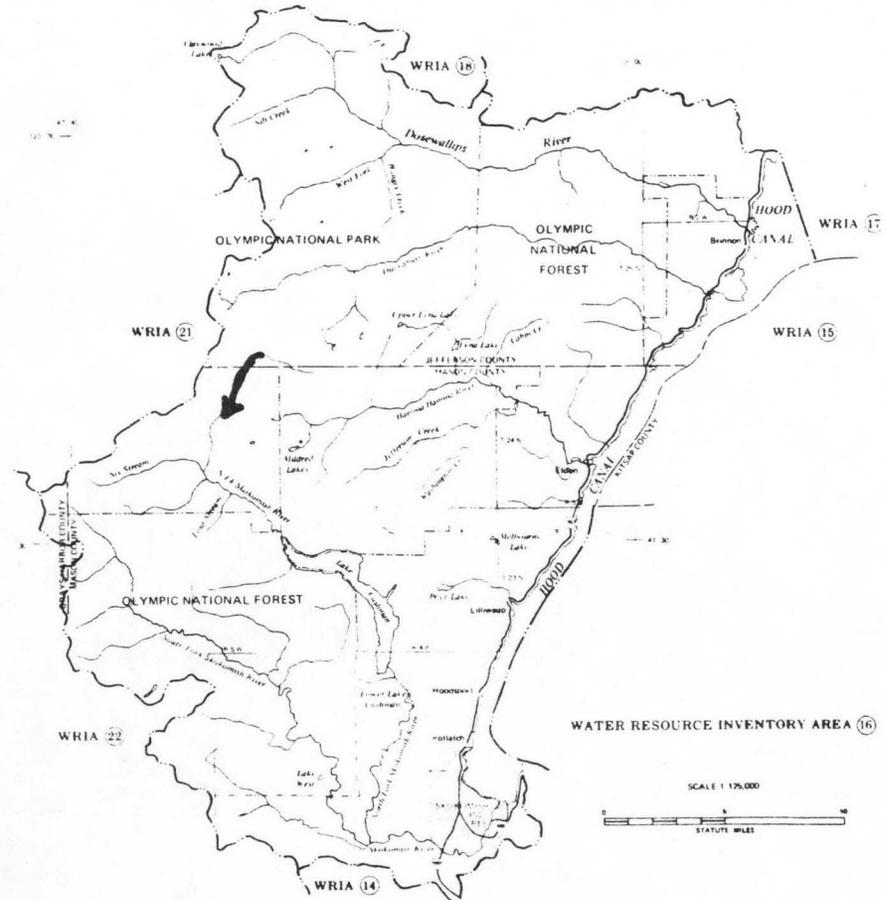
QMR = 112 cfs



W16-497



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>Five Stream</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

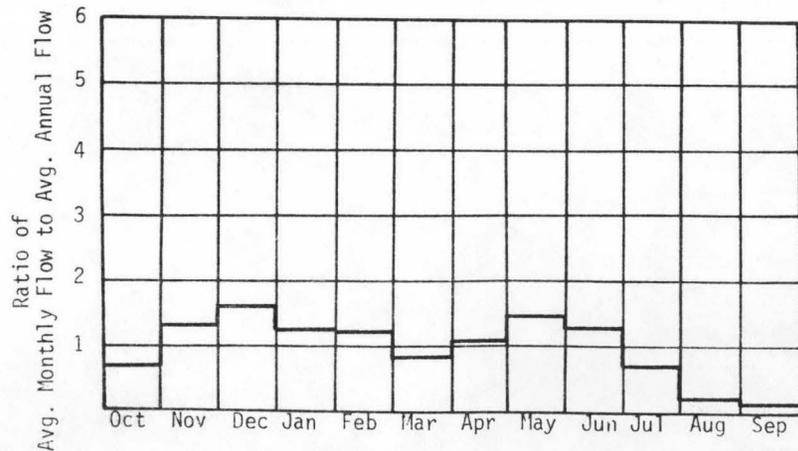
A. Upstream Elevation of Reach	<u>1600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1080</u>	Ft. MSL
C. Total Available Head in Reach	<u>520 + 66 = 586</u>	Ft.
D. Average Slope in Reach	<u>325</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>7.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

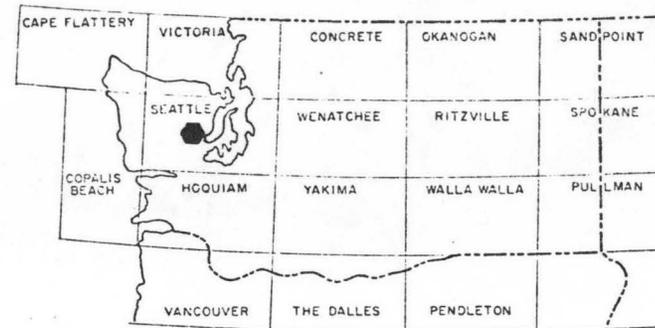
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.42	0.37	3.22	1.00
80	17.0	0.84	6.85	0.93
50	39.8	1.97	13.3	0.77
30	59.9	2.97	16.7	0.64
10	104	5.18	20.4	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

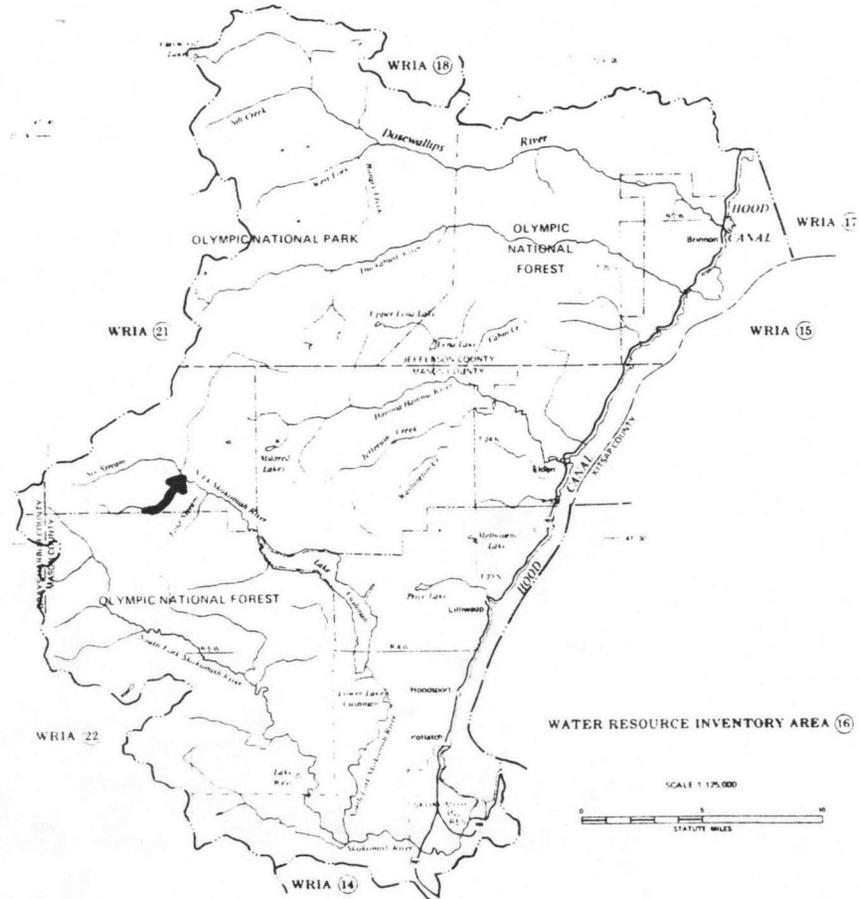
QMR = 53 cfs



W16-498



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°33' 123°25'</u>
E. Stream Name	<u>Six Stream</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/2.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

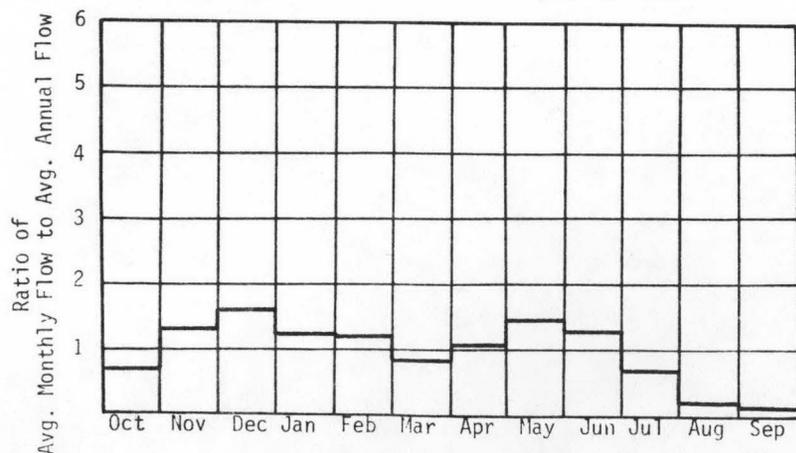
A. Upstream Elevation of Reach	<u>1750</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1120</u>	Ft. MSL
C. Total Available Head in Reach	<u>630 + 66 = 696</u>	Ft.
D. Average Slope in Reach	<u>217</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

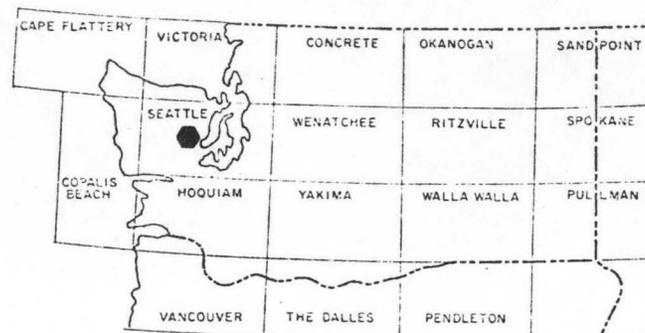
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.4	0.61	5.34	1.00
80	23.7	1.39	11.4	0.93
50	55.5	3.27	22.0	0.77
30	83.6	4.92	27.6	0.64
10	146	8.58	33.8	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

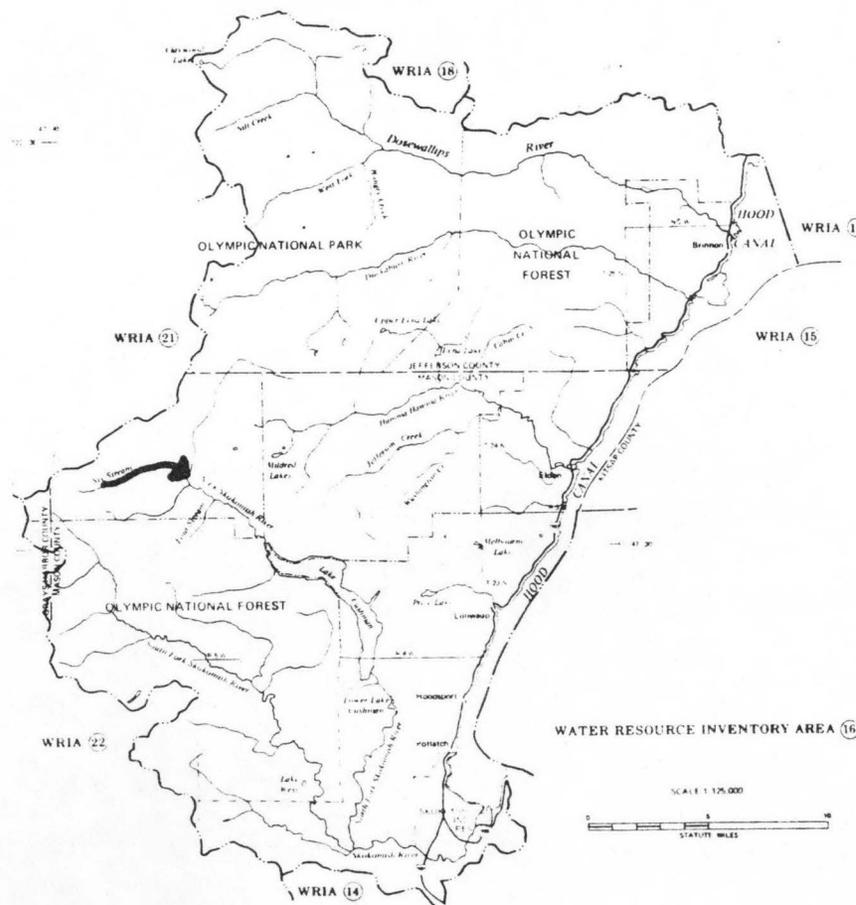
QMR = 74 cfs



W16-499



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°21' 123°16'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>8.1/16.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

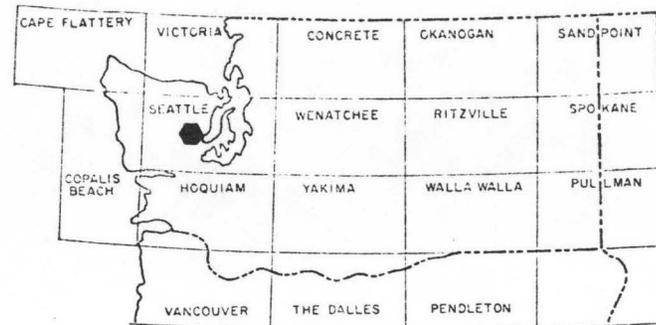
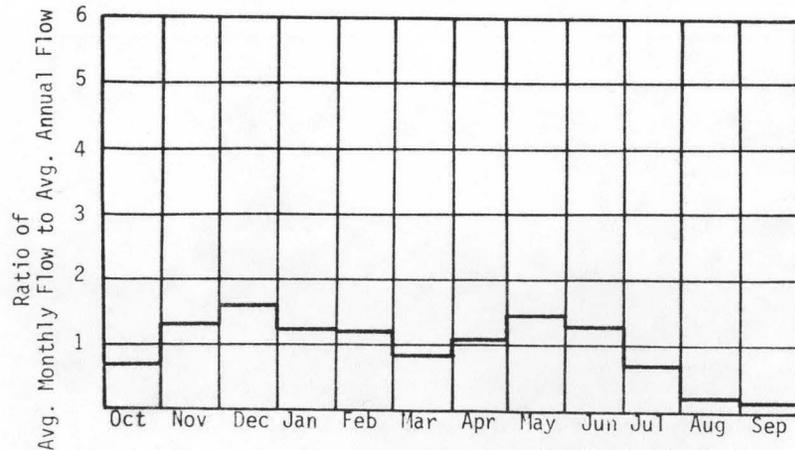
A. Upstream Elevation of Reach	<u>400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>35</u>	Ft. MSL
C. Total Available Head in Reach	<u>365</u>	Ft.
D. Average Slope in Reach	<u>41.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>76.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

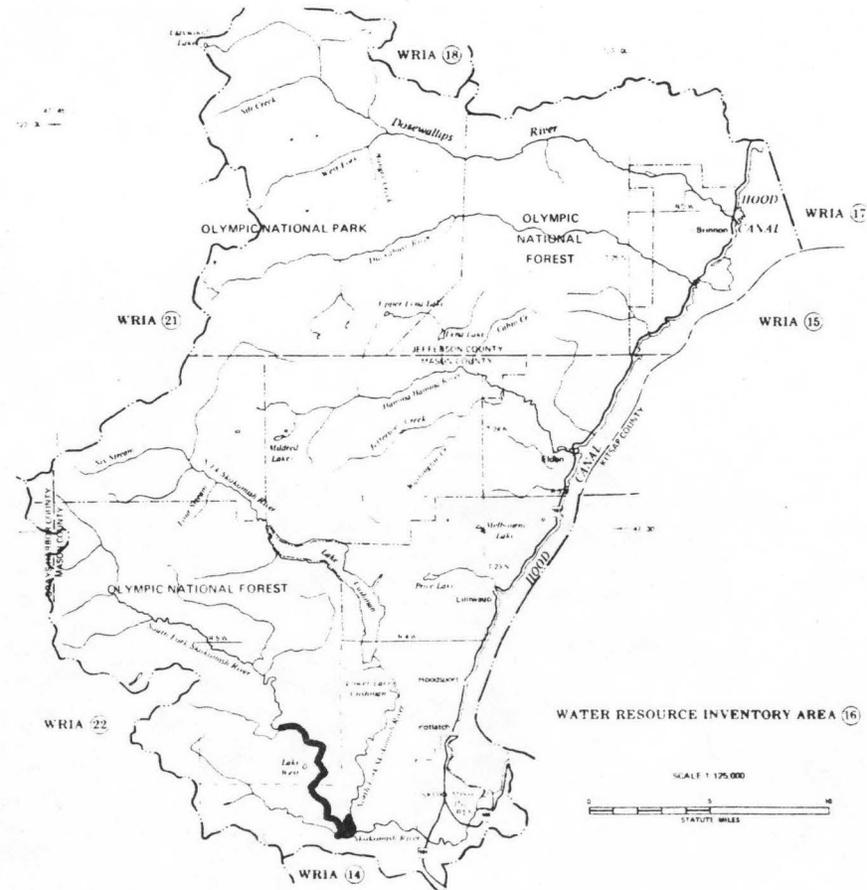
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	89.3	2.76	24.2	1.00
80	151	4.67	38.8	0.95
50	433	13.4	87.8	0.75
30	714	22.1	118	0.61
10	1480	46.8	157	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 687 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°23' 123°17'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>16.9/21.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

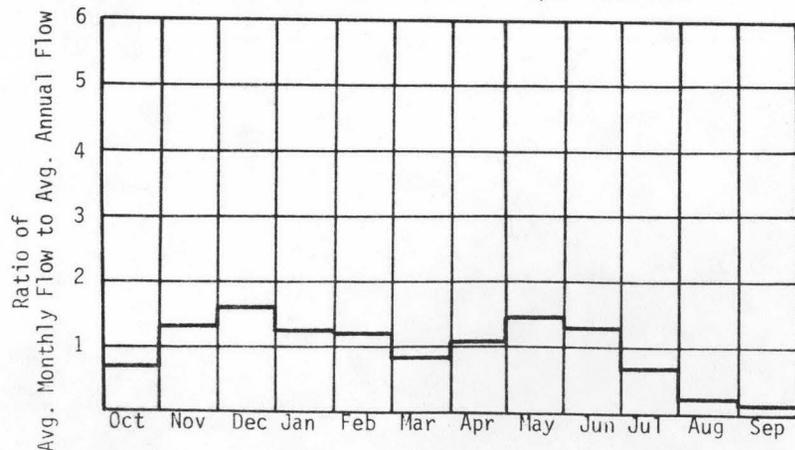
A. Upstream Elevation of Reach	<u>550</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>150</u>	Ft.
D. Average Slope in Reach	<u>34.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>61.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

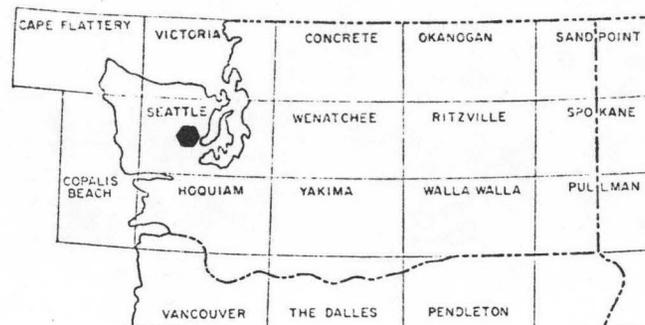
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	75.0	0.95	8.34	1.00
80	138	1.76	14.5	0.94
50	381	4.83	31.8	0.75
30	617	7.83	42.6	0.62
10	1250	15.8	55.4	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

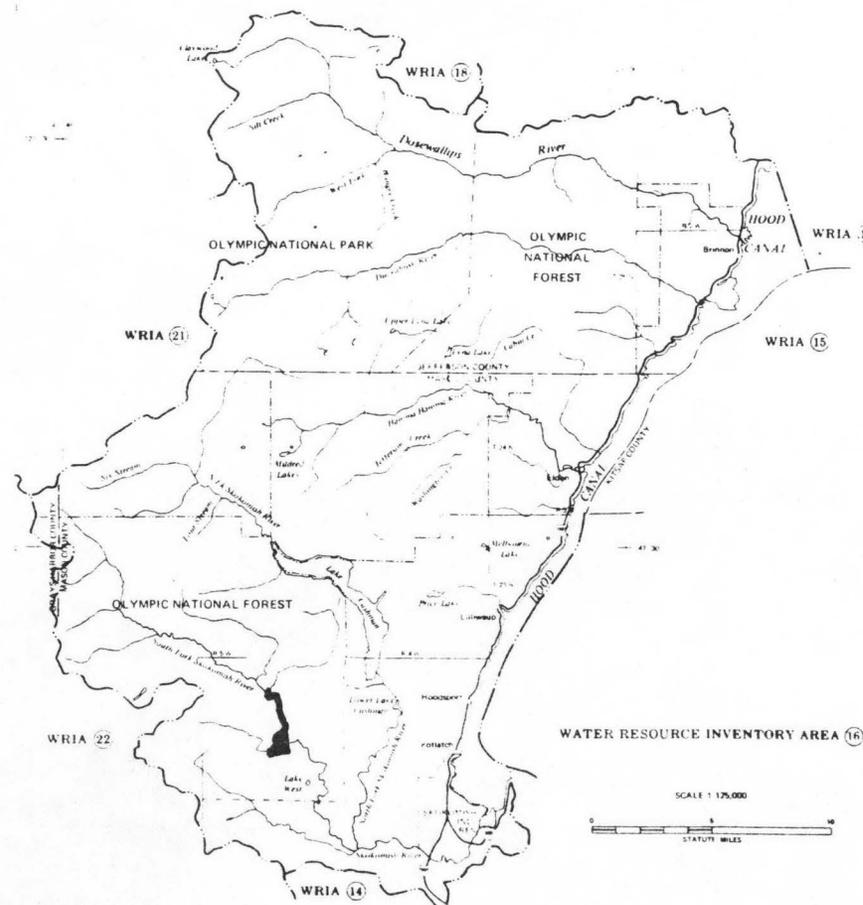
QMR = 577 cfs



W16-501



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°25' 123°20'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>21.3/22.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

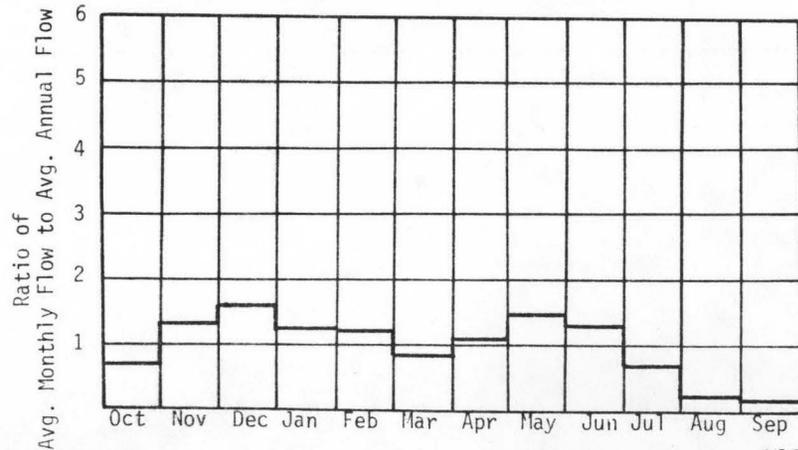
A. Upstream Elevation of Reach	<u>580</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>550</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>42.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

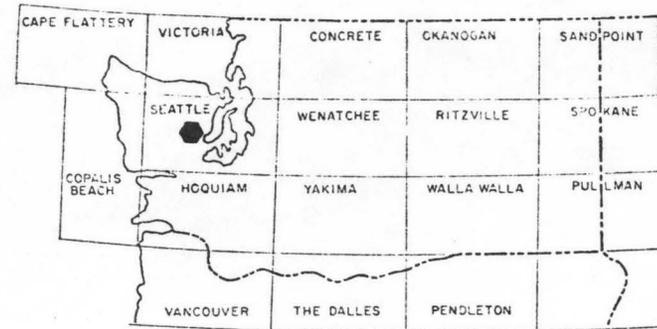
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	65.0	0.16	1.45	1.00
80	120	0.30	2.51	0.94
50	330	0.84	5.50	0.75
30	535	1.36	7.37	0.62
10	1080	2.74	9.60	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

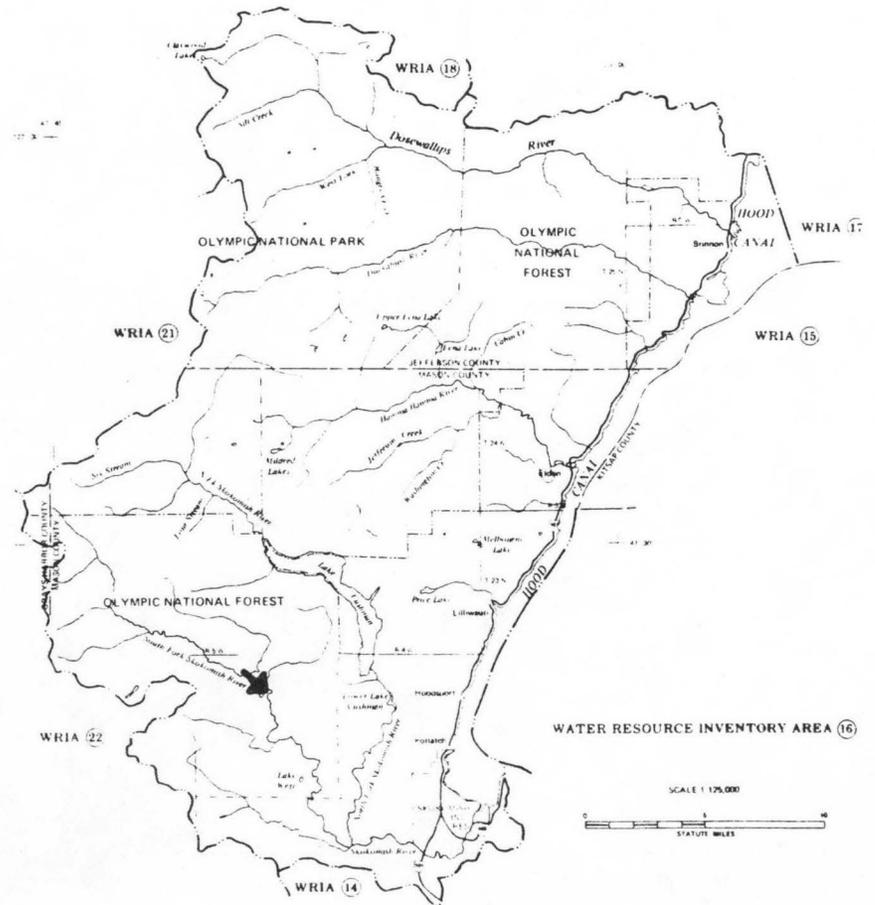
QMR = 500 cfs



W16-502



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°26' 123°20'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>22.0/26.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

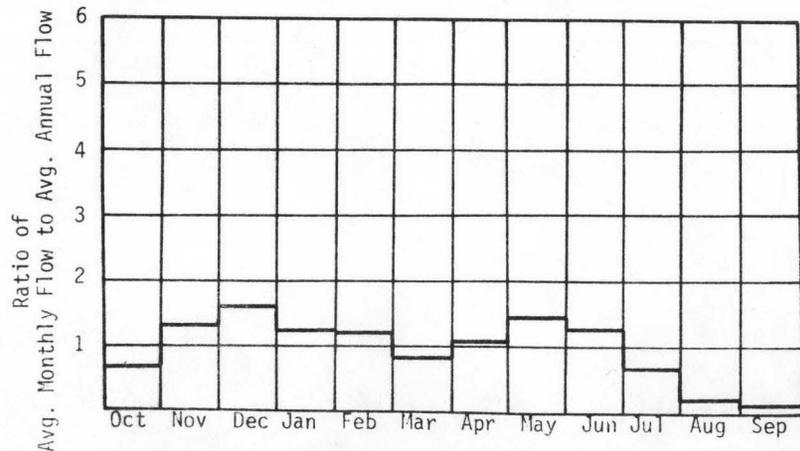
A. Upstream Elevation of Reach	<u>700</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>580</u>	Ft. MSL
C. Total Available Head in Reach	<u>120</u>	Ft.
D. Average Slope in Reach	<u>26.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

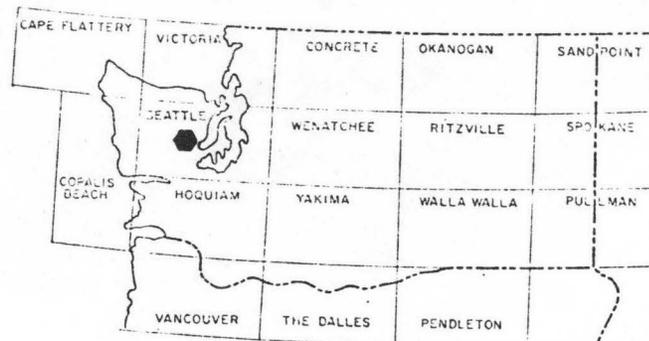
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	49.0	0.50	4.36	1.00
80	90.0	0.92	7.56	0.94
50	249	2.53	16.6	0.75
30	403	4.10	22.2	0.62
10	814	8.27	29.0	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

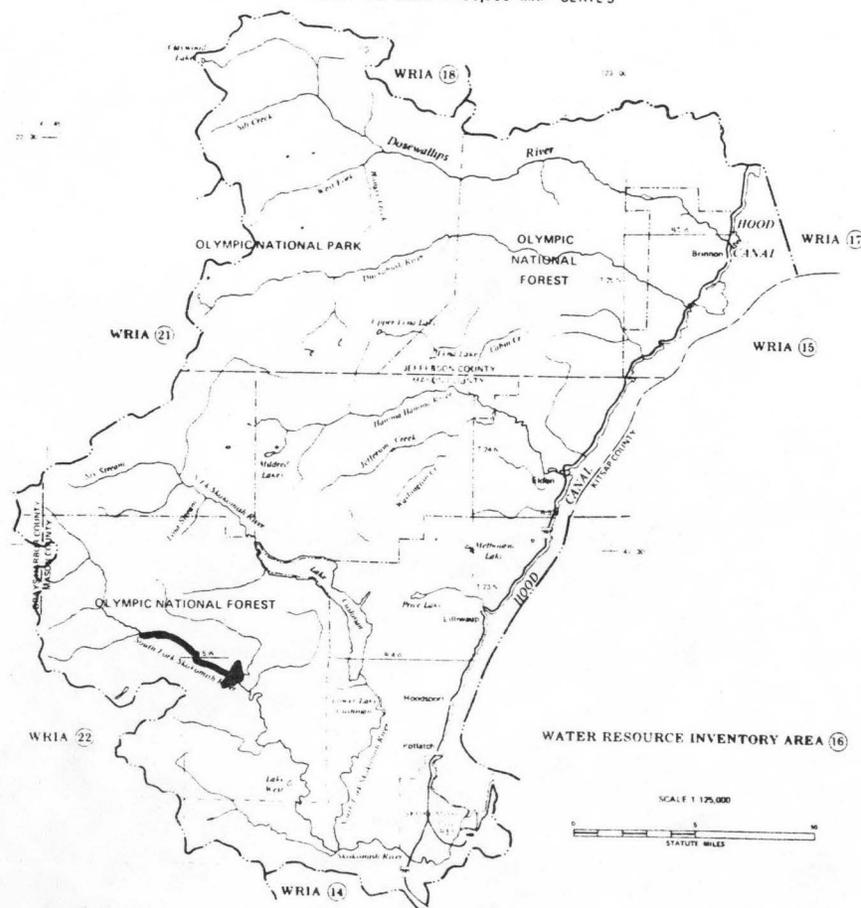
QMR = 377 cfs



W16-503



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T23N R6W</u>
D. Latitude, Longitude	<u>47°27' 123°26'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>26.5/33.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

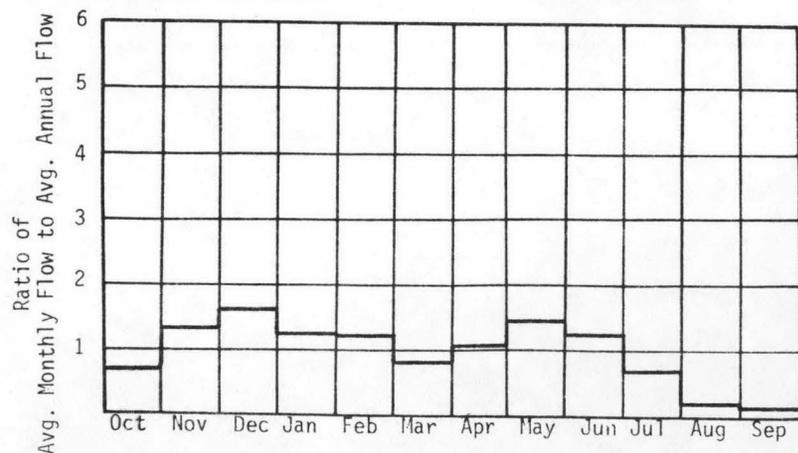
A. Upstream Elevation of Reach	<u>1300</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>700</u>	Ft. MSL
C. Total Available Head in Reach	<u>600</u>	Ft.
D. Average Slope in Reach	<u>89.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>26.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

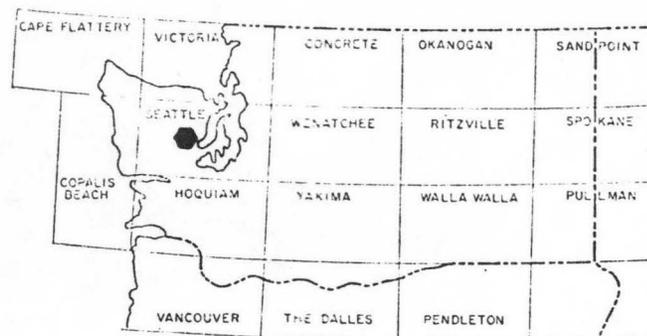
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.9	1.31	11.5	1.00
80	48.0	2.42	20.0	0.94
50	131	6.67	43.8	0.75
30	213	10.8	58.7	0.62
10	430	21.8	76.5	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

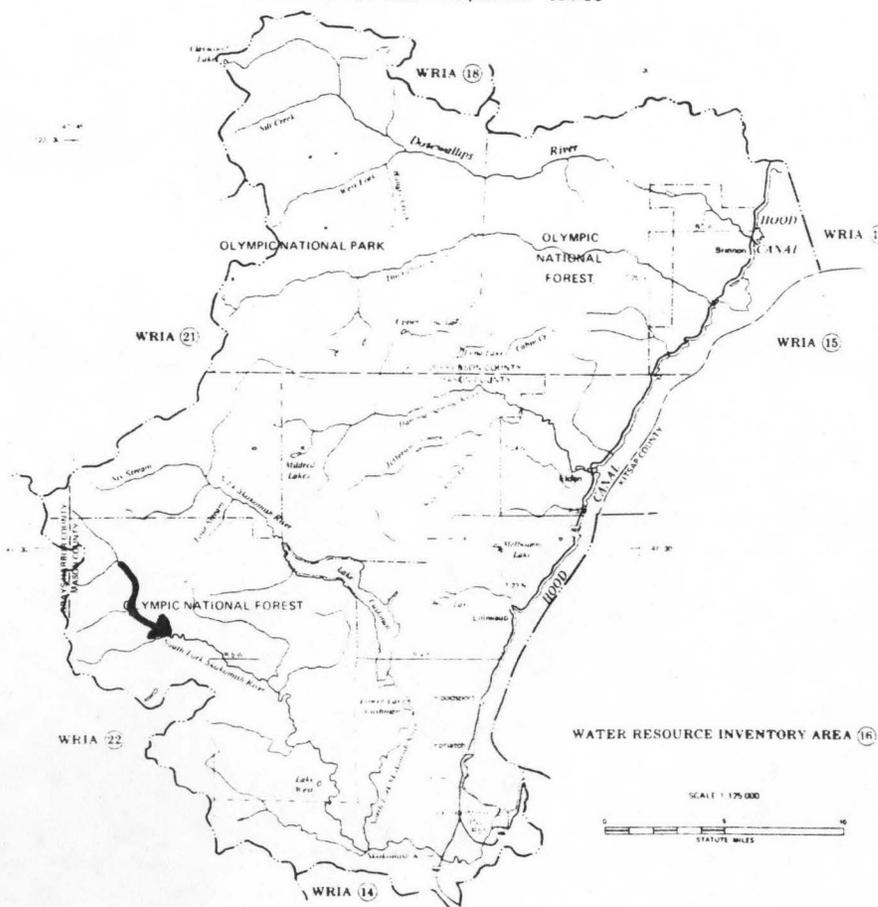
QMR = 199 cfs



W16-504



LOCATIONS FOR USGS 250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T23N R6W</u>
D. Latitude, Longitude	<u>47°30' 123°30'</u>
E. Stream Name	<u>S.F. Skokomish</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>33.2/35.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

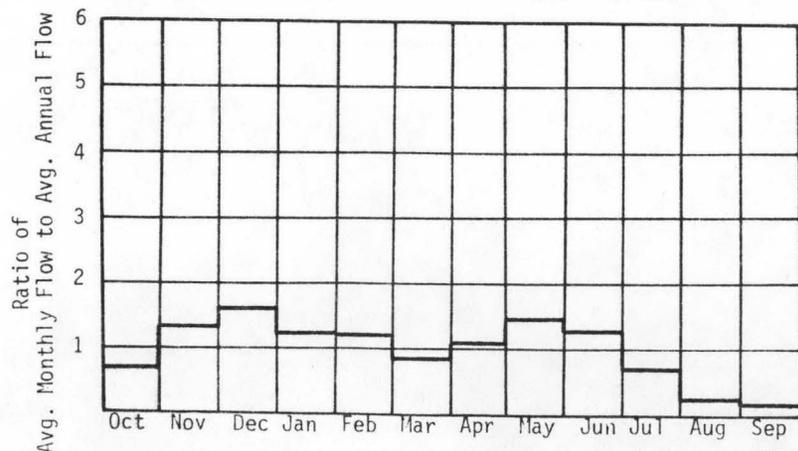
A. Upstream Elevation of Reach	<u>1700</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1300</u>	Ft. MSL
C. Total Available Head in Reach	<u>400 + 66 = 466</u>	Ft.
D. Average Slope in Reach	<u>222</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.3</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

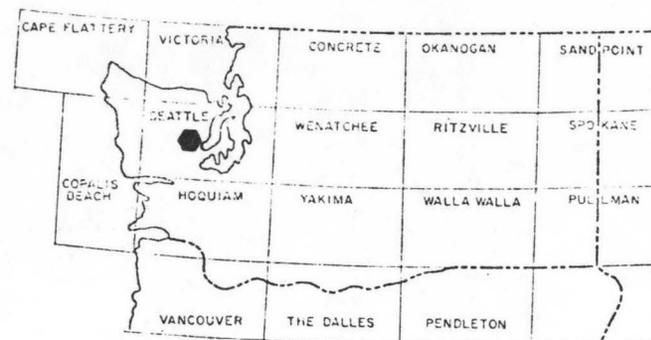
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.7	0.42	3.68	1.00
80	19.7	0.78	6.39	0.94
50	54.1	2.13	14.0	0.75
30	87.7	3.46	18.8	0.62
10	177	6.98	24.5	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

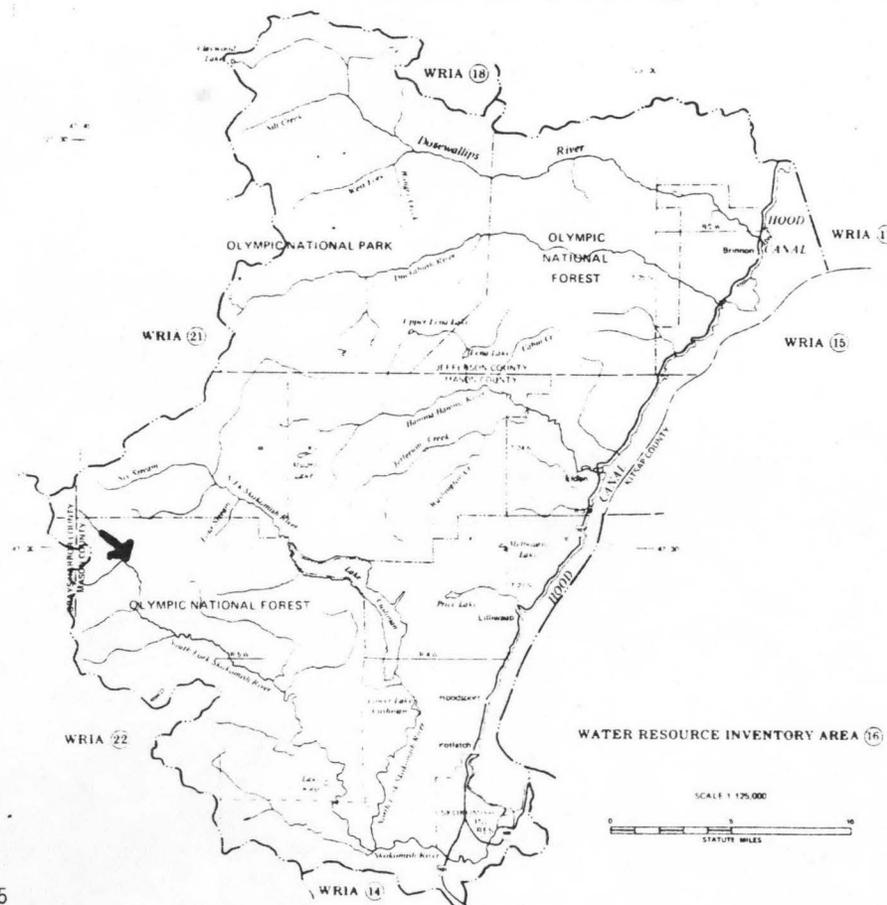
QMR = 82 cfs



W16-505



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°22' 123°19'</u>
E. Stream Name	<u>Flat Creek</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/1.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

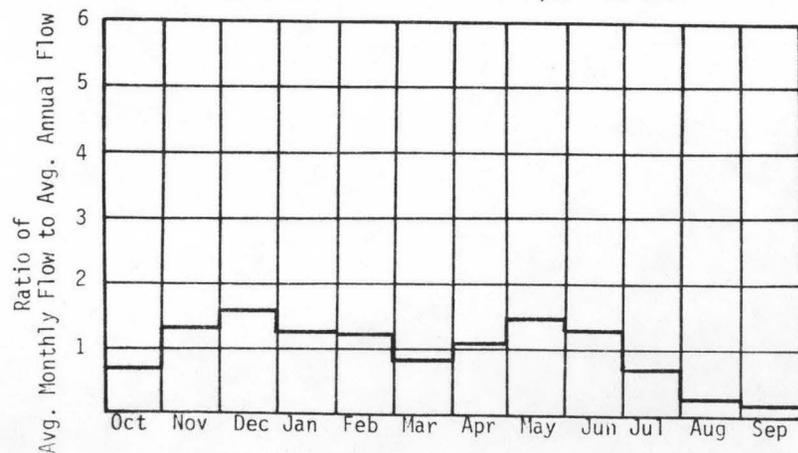
A. Upstream Elevation of Reach	<u>840</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>440 + 66 = 506</u>	Ft.
D. Average Slope in Reach	<u>314</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>6.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

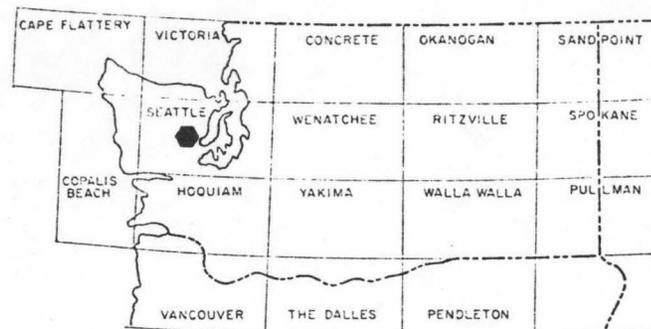
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.67	0.33	2.88	1.00
80	13.0	0.56	4.62	0.95
50	37.2	1.59	10.5	0.75
30	61.4	2.63	14.0	0.61
10	127	5.46	18.6	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

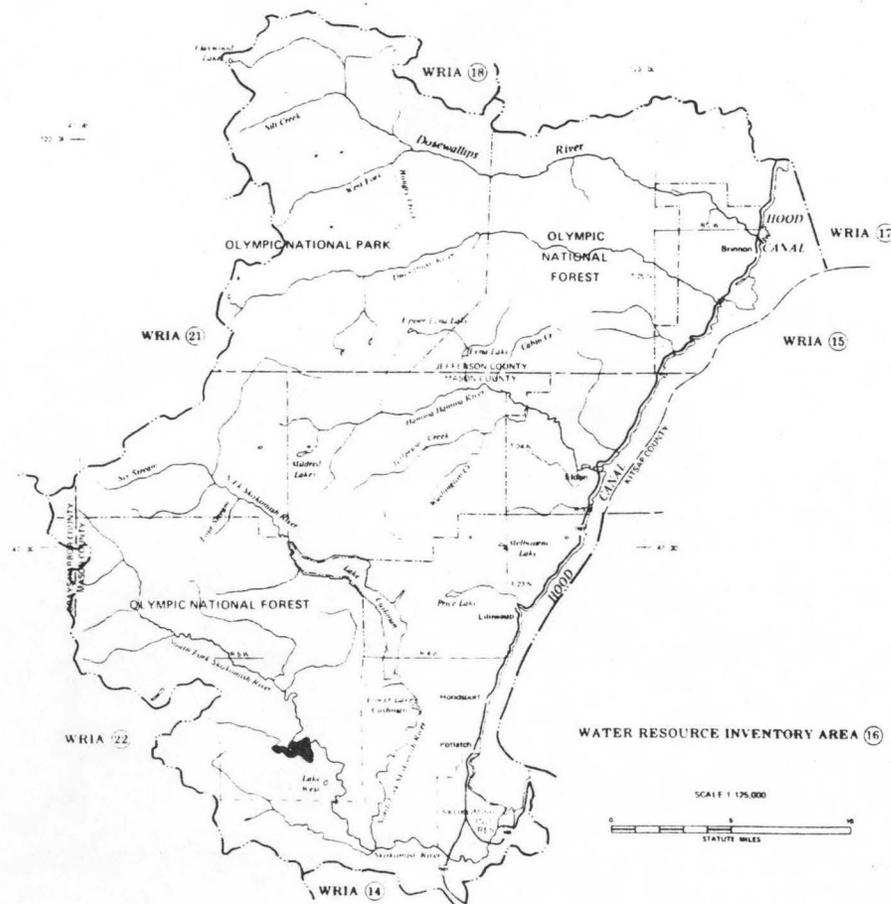
QMR = 59 cfs



W16-506



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°25' 123°16'</u>
E. Stream Name	<u>Brown Creek</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/3.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

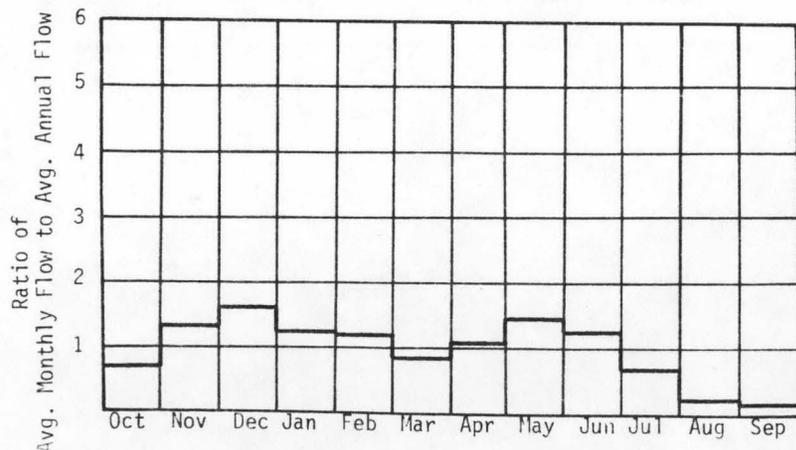
A. Upstream Elevation of Reach	<u>930</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>550</u>	Ft. MSL
C. Total Available Head in Reach	<u>380 + 66 = 446</u>	Ft.
D. Average Slope in Reach	<u>127</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

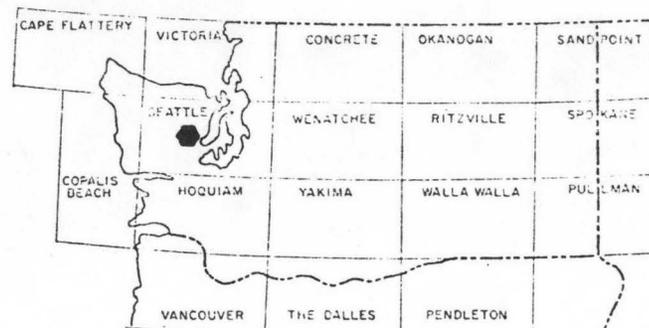
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.37	0.24	2.11	1.00
80	11.8	0.44	3.65	0.94
50	32.3	1.22	8.02	0.75
30	52.4	1.98	10.7	0.62
10	106	3.99	14.0	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

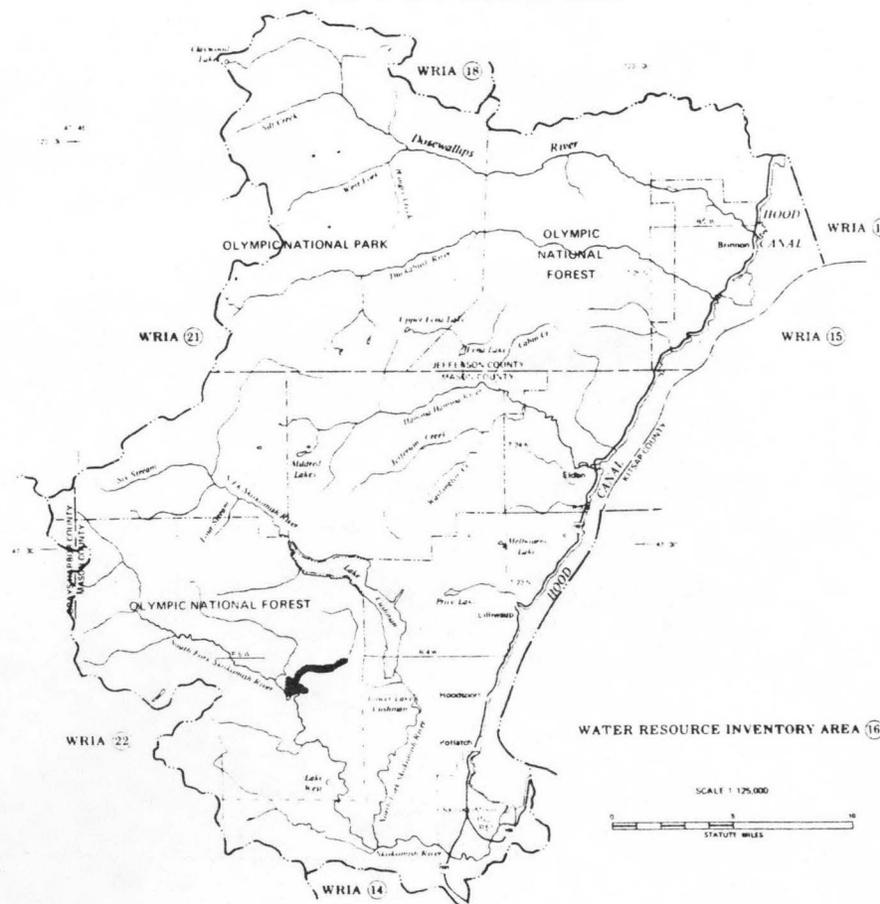
QMR = 49 cfs



W16-507



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-033-000-000-000-R0018

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R4W</u>
D. Latitude, Longitude	<u>47°25' 123°17'</u>
E. Stream Name	<u>LeBar Creek</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/3.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

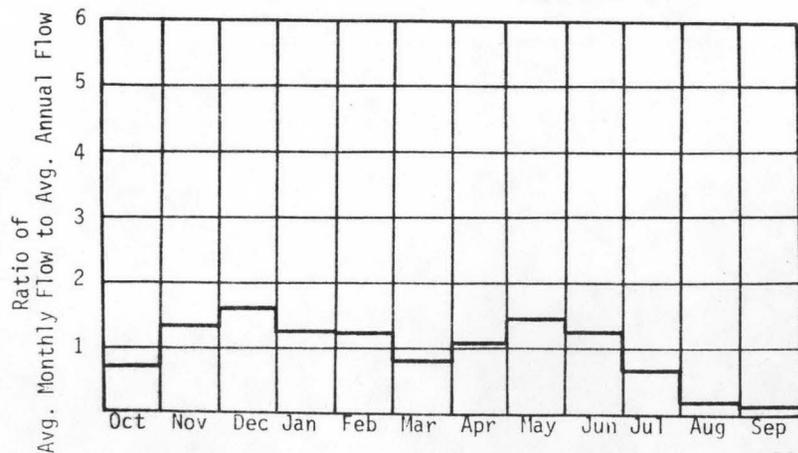
A. Upstream Elevation of Reach	<u>1200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>580</u>	Ft. MSL
C. Total Available Head in Reach	<u>620 + 66 = 686</u>	Ft.
D. Average Slope in Reach	<u>159</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

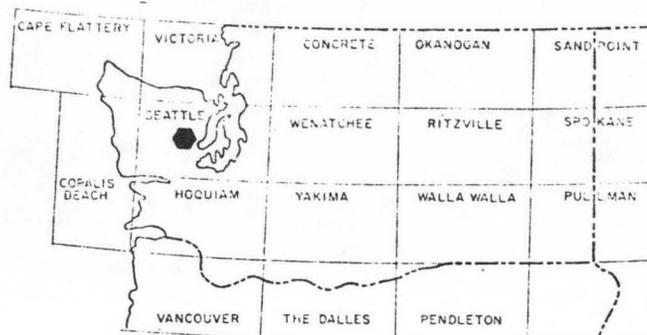
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.97	0.52	4.56	1.00
80	16.6	0.96	7.91	0.94
50	45.5	2.64	17.4	0.75
30	73.8	4.28	23.3	0.62
10	149	8.65	30.3	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

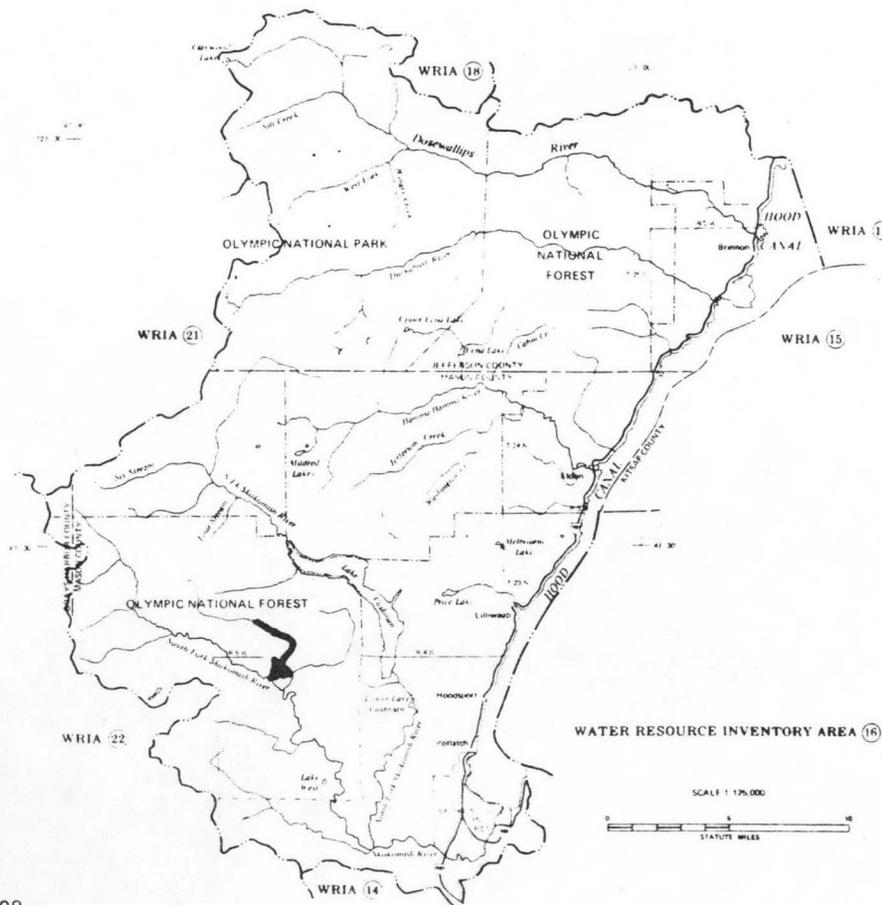
QMR = 69 cfs



W16-508



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA (16)

SCALE 1:125,000
STATUTE MILES

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T21N R5W</u>
D. Latitude, Longitude	<u>47°20' 123°16'</u>
E. Stream Name	<u>Vance Creek</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>0/3.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

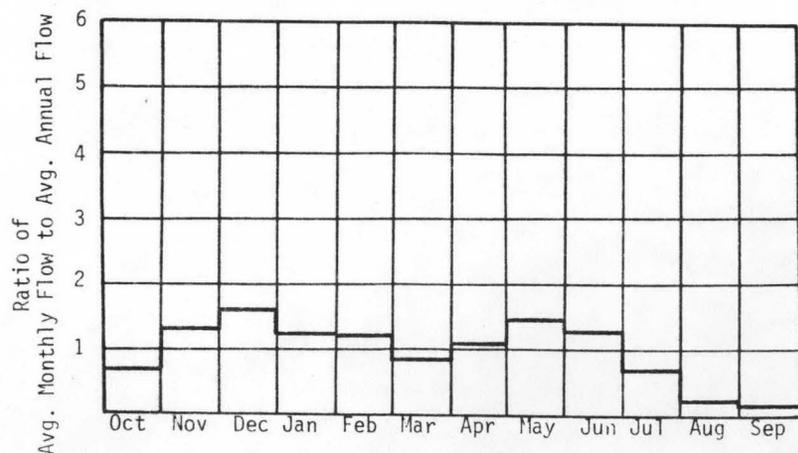
A. Upstream Elevation of Reach	<u>170</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>130</u>	Ft.
D. Average Slope in Reach	<u>36.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>24.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

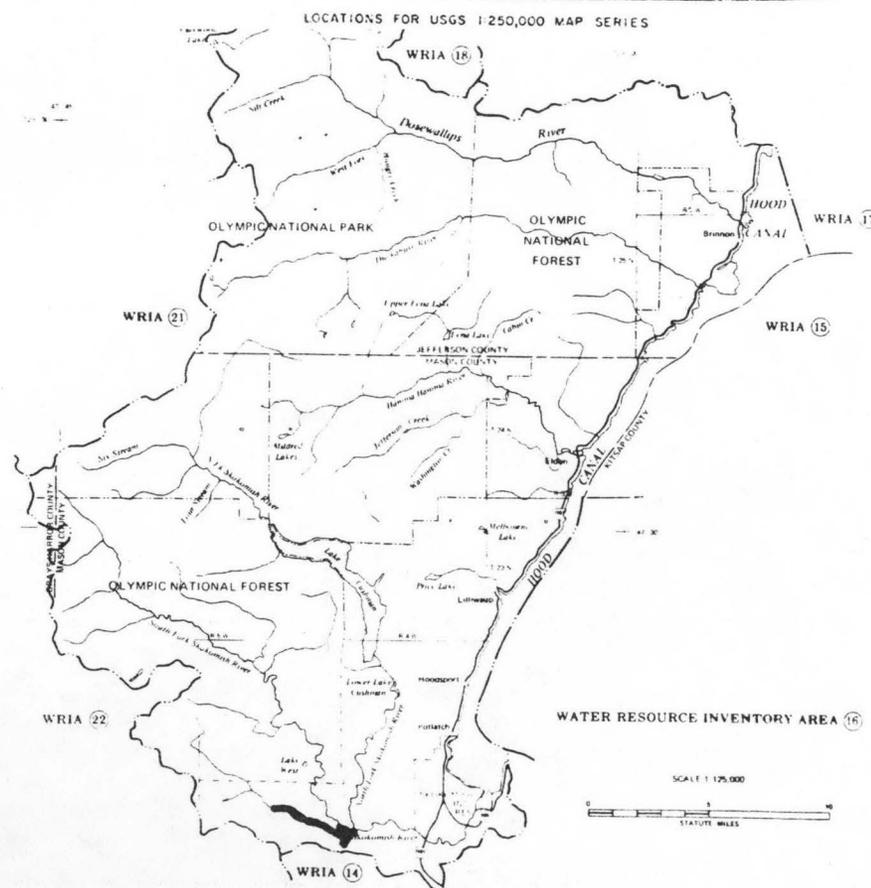
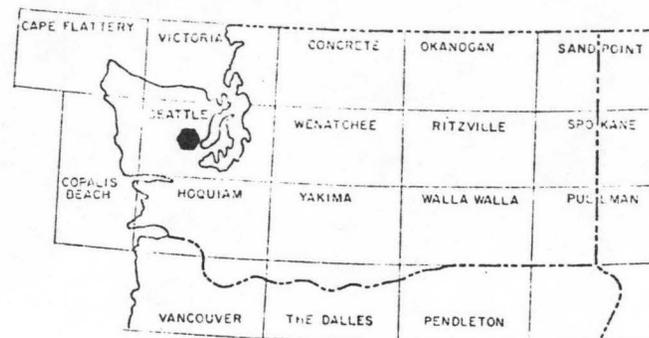
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	29.5	0.32	2.84	1.00
80	49.9	0.55	4.57	0.95
50	143	1.57	10.3	0.75
30	236	2.60	13.9	0.61
10	490	5.39	18.4	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 227 cfs



W16-509



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0020

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T22N R5W</u>
D. Latitude, Longitude	<u>47°20' 123°21'</u>
E. Stream Name	<u>Vance Creek</u>
F. Major Basin Name	<u>Skokomish</u>
G. River Mile	<u>3.6/8.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

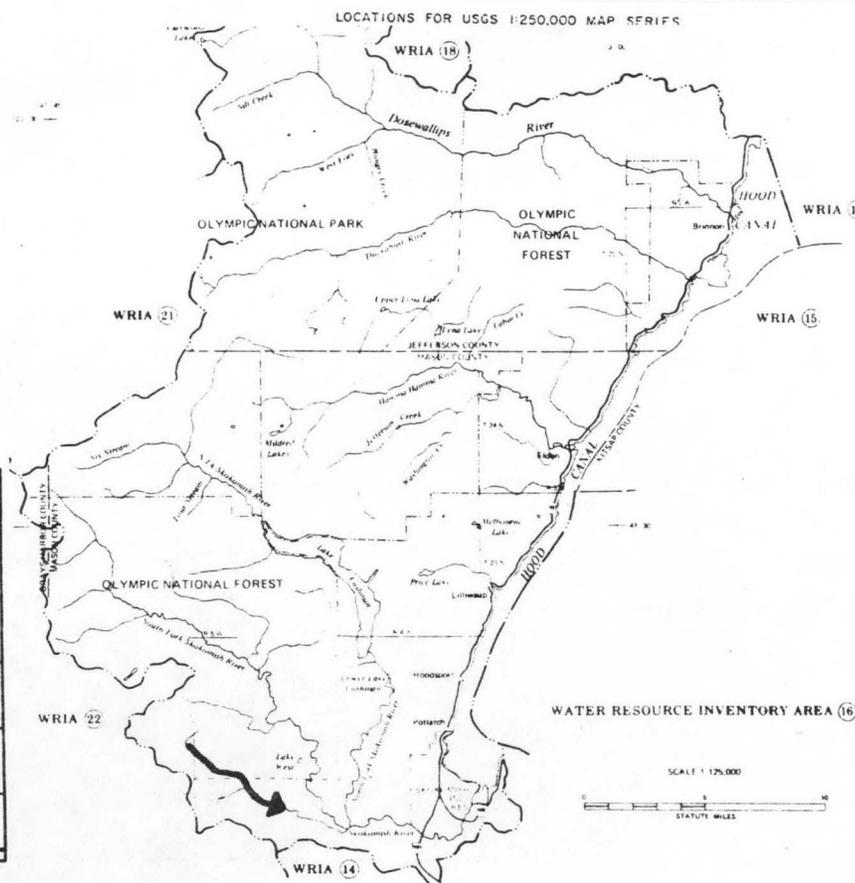
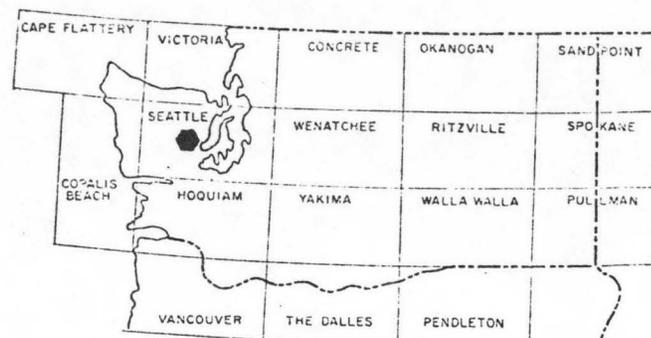
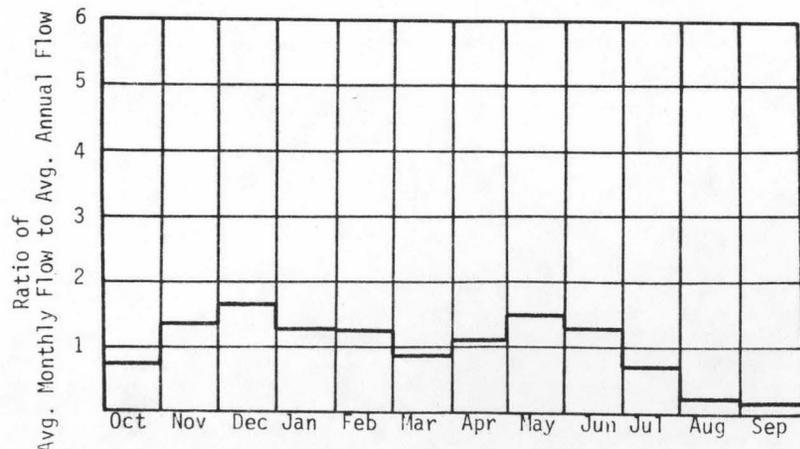
A. Upstream Elevation of Reach	<u>800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>170</u>	Ft. MSL
C. Total Available Head in Reach	<u>630 + 66 = 696</u>	Ft.
D. Average Slope in Reach	<u>126</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>19.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.0	0.94	8.25	1.00
80	27.1	1.59	13.3	0.95
50	77.0	4.56	30.0	0.75
30	128	7.53	40.3	0.61
10	266	15.6	53.5	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 123 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-019-000-000-R0001

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T27N R2W
 D. Latitude, Longitude 47°50' 122°53'
 E. Stream Name Little Quilcene River
 F. Major Basin Name Little Quilcene
 G. River Mile 0.0/1.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

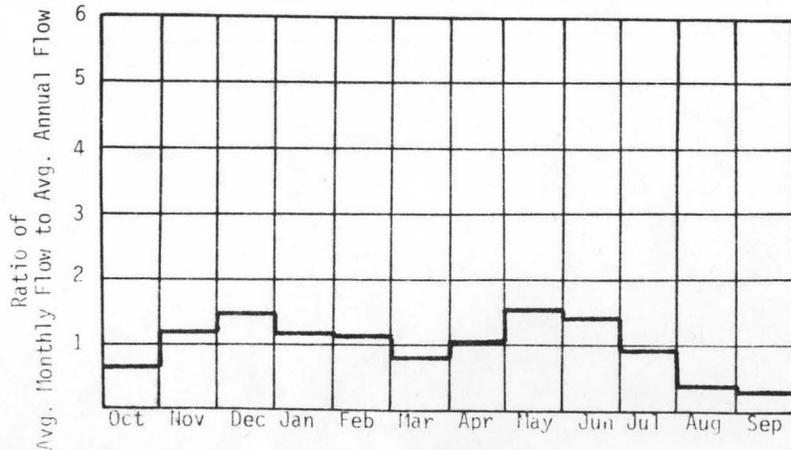
A. Upstream Elevation of Reach 95 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 95 Ft.
 D. Average Slope in Reach 55.9 Ft./Mi.
 E. Drainage Area above Reach Mouth 35 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

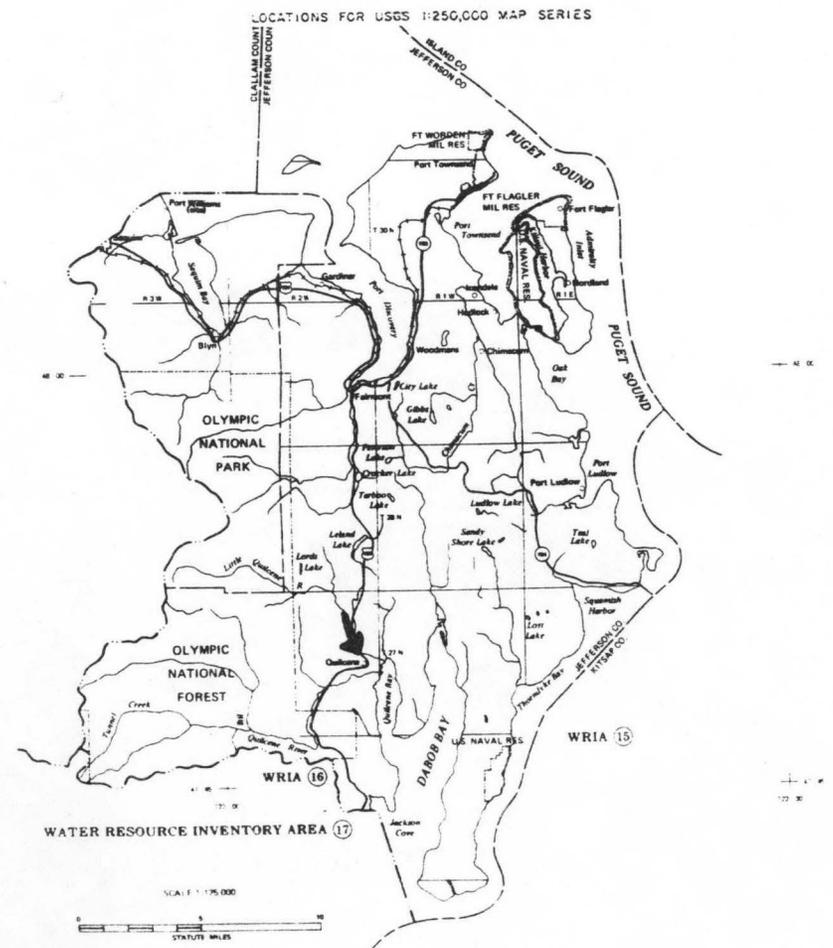
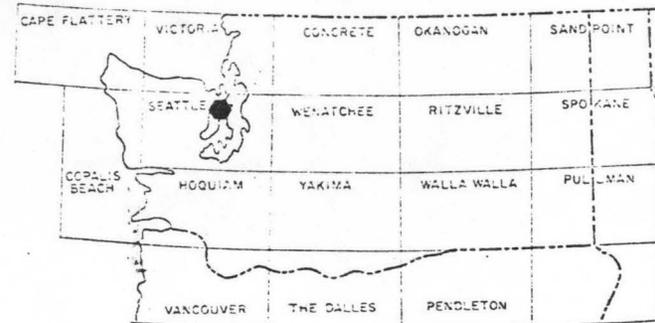
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.6	0.11	0.96	1.00
80	28.6	0.23	1.89	0.94
50	53.0	0.43	2.99	0.80
30	75.5	0.61	3.62	0.68
10	126	1.02	4.37	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 68 cfs



W17-511



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-019-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R2W</u>
D. Latitude, Longitude	<u>47°51' 122°53'</u>
E. Stream Name	<u>Little Quilcene River</u>
F. Major Basin Name	<u>Little Quilcene</u>
G. River Mile	<u>1.7/4.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

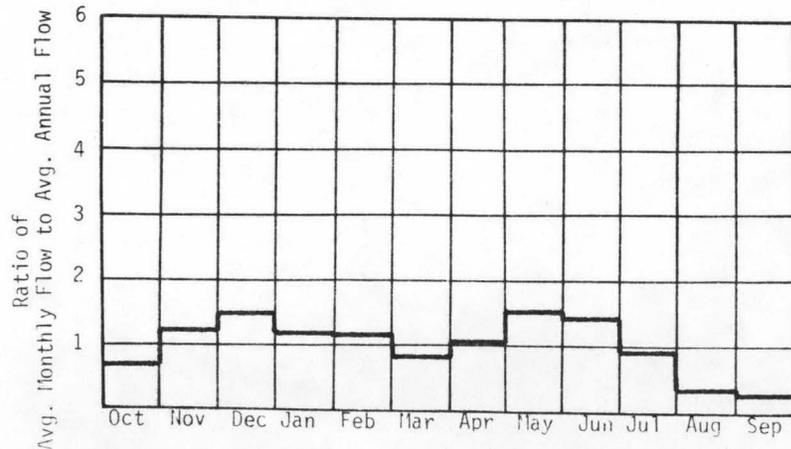
A. Upstream Elevation of Reach	<u>340</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>95</u>	Ft. MSL
C. Total Available Head in Reach	<u>245 + 66 = 311</u>	Ft.
D. Average Slope in Reach	<u>94.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>23</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

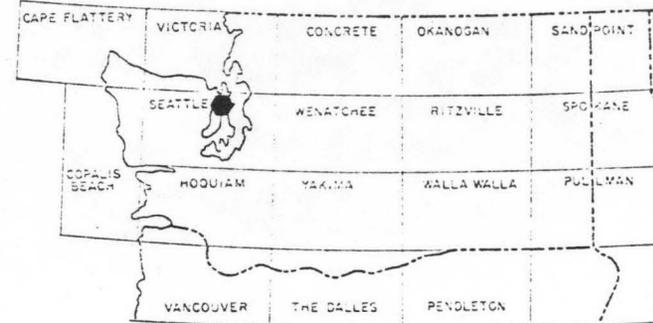
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	35.4	0.93	8.20	1.00
80	74.3	1.96	16.1	0.94
50	138	3.63	25.5	0.80
30	196	5.17	30.8	0.68
10	329	8.67	37.2	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

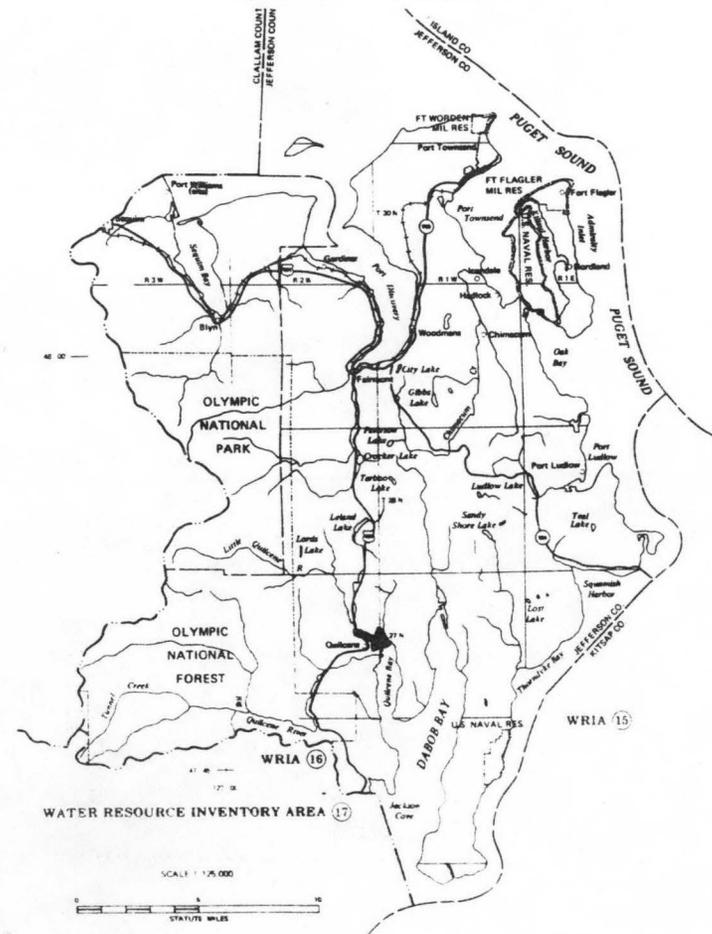
QMR = 177 cfs



W17-512



LOCATIONS FOR USGS 1:250,000 MAP SERIES



SCALE 1:125,000
STATUTE MILES

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-063-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R2W</u>
D. Latitude, Longitude	<u>47°49' 122°53'</u>
E. Stream Name	<u>Big Quilcene River</u>
F. Major Basin Name	<u>Big Quilcene</u>
G. River Mile	<u>0.0/2.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

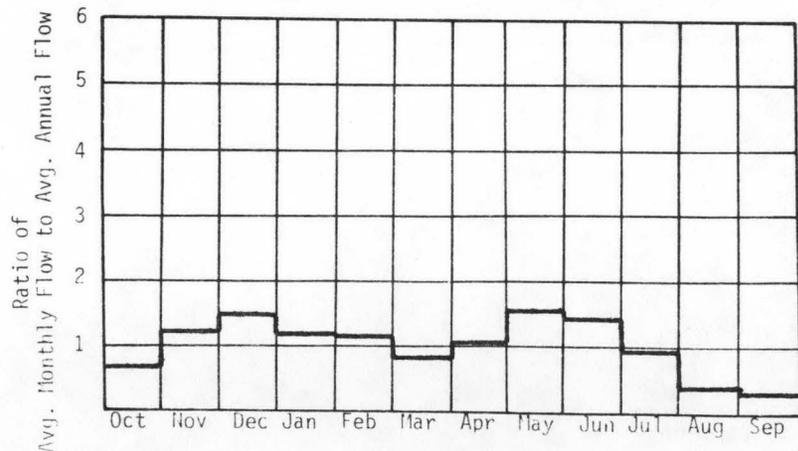
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0.</u>	Ft. MSL
C. Total Available Head in Reach	<u>120</u>	Ft.
D. Average Slope in Reach	<u>41.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>69</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

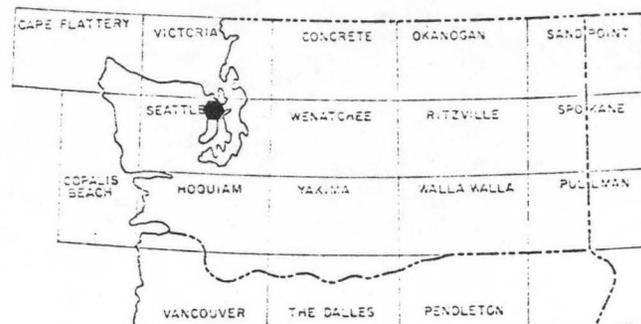
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	45.0	0.46	4.00	1.00
80	94.5	0.96	7.90	0.94
50	176	1.78	12.5	0.80
30	250	2.54	15.1	0.68
10	419	4.25	18.3	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

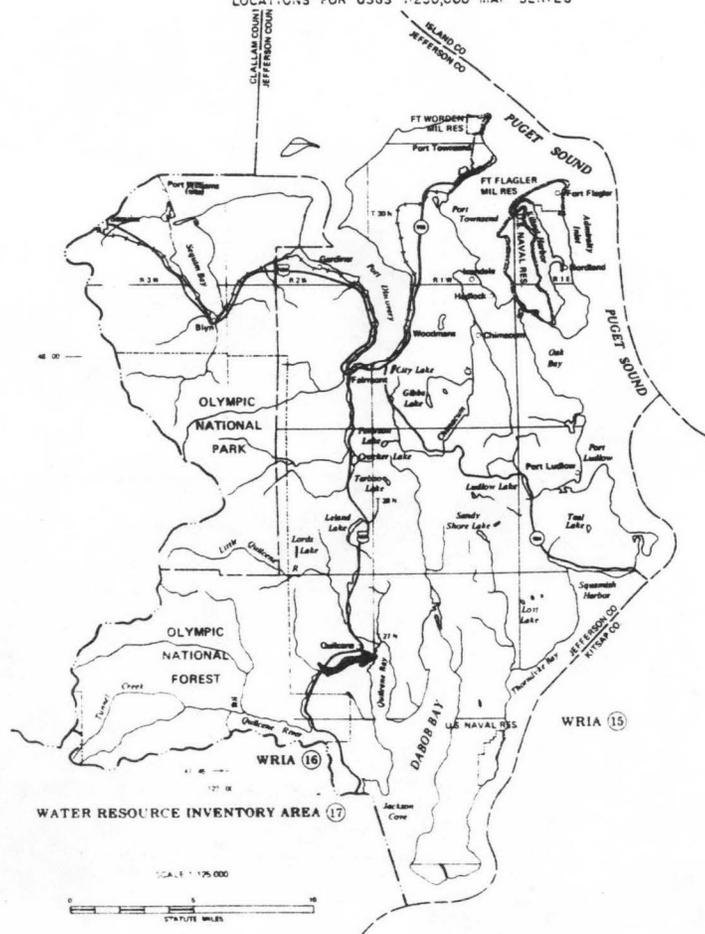
QMR = 225 cfs



W17-513



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-063-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R2W</u>
D. Latitude, Longitude	<u>47°47' 122°55'</u>
E. Stream Name	<u>Big Quilcene River</u>
F. Major Basin Name	<u>Big Quilcene</u>
G. River Mile	<u>2.9/6.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

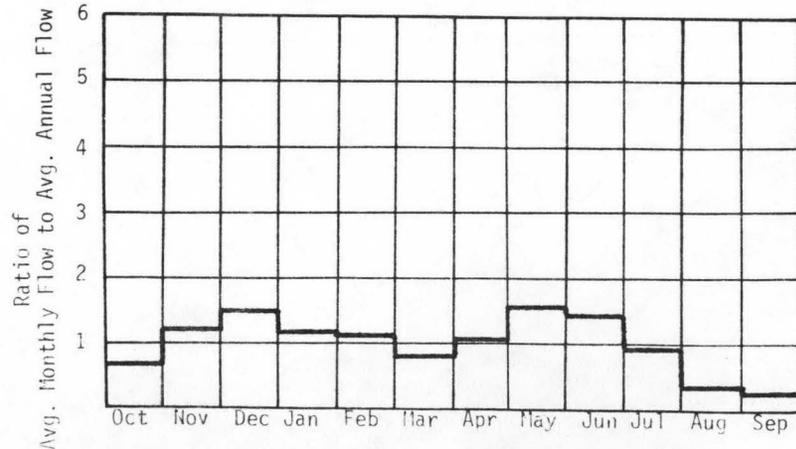
A. Upstream Elevation of Reach	<u>440</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>120</u>	Ft. MSL
C. Total Available Head in Reach	<u>320</u>	Ft.
D. Average Slope in Reach	<u>100</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>60</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

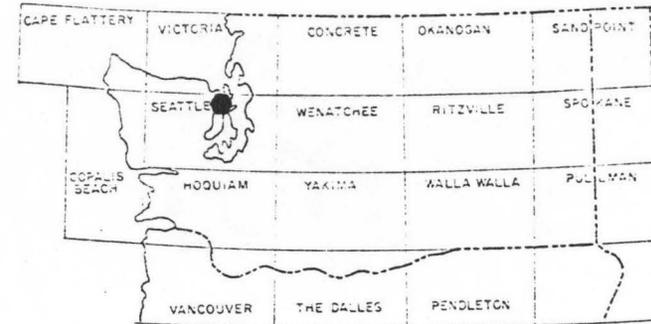
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	40.6	1.10	9.63	1.00
80	85.3	2.31	19.0	0.94
50	158	4.29	30.1	0.80
30	225	6.10	36.4	0.68
10	378	10.2	43.9	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

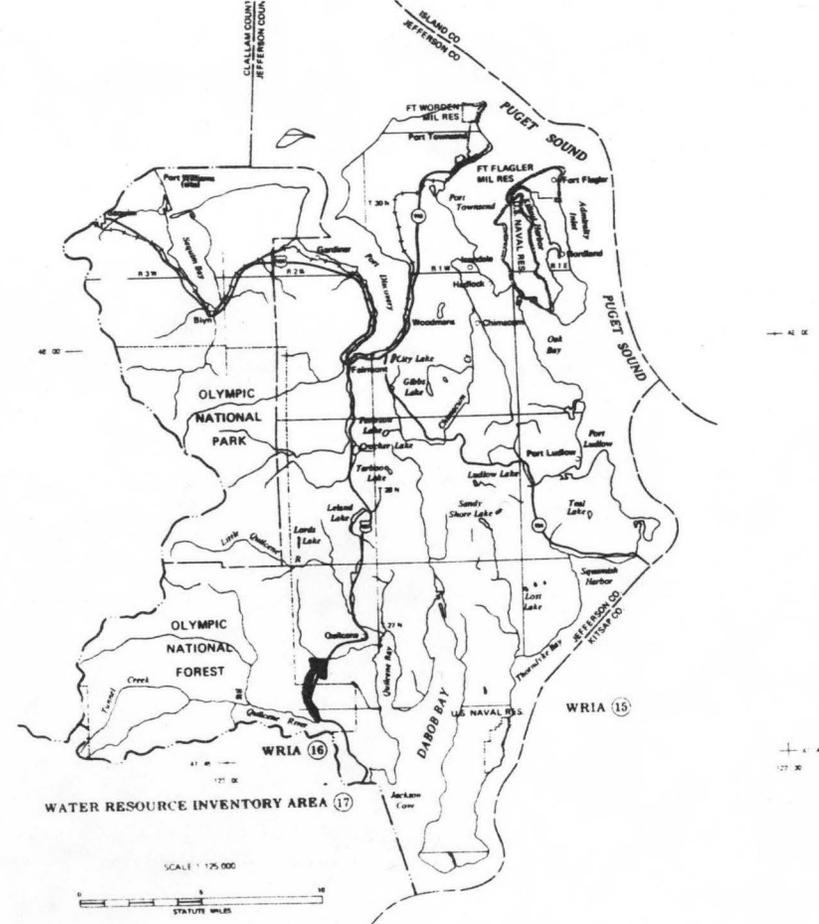
QMR = 203 cfs



W17-514



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-063-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R2W</u>
D. Latitude, Longitude	<u>47°46' 122°56'</u>
E. Stream Name	<u>Big Quilcene River</u>
F. Major Basin Name	<u>Big Quilcene</u>
G. River Mile	<u>6.1/9.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

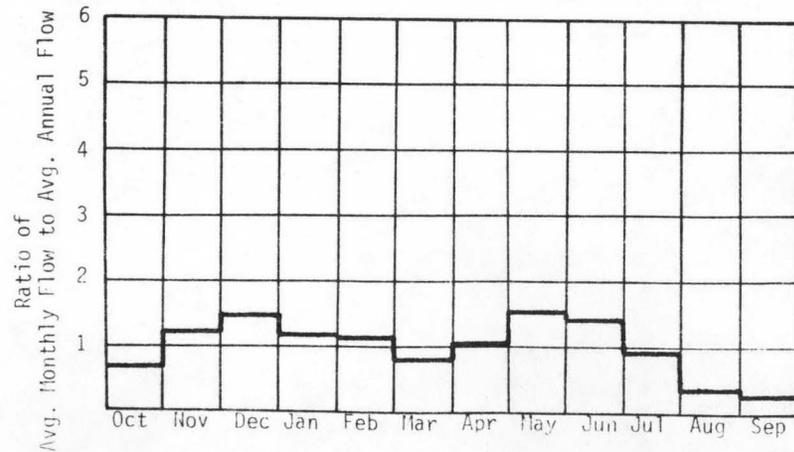
A. Upstream Elevation of Reach	<u>1025</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>440</u>	Ft. MSL
C. Total Available Head in Reach	<u>585</u>	Ft.
D. Average Slope in Reach	<u>158</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>55</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

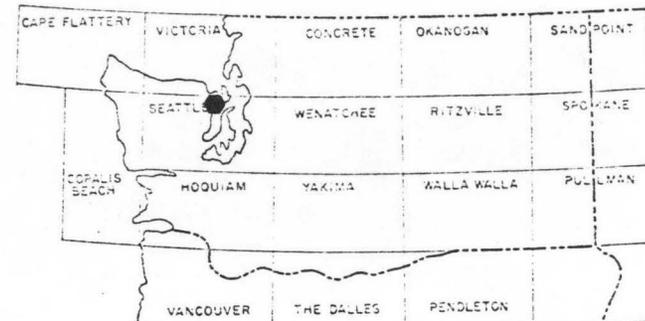
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	28.8	1.43	12.5	1.00
80	60.5	2.99	24.7	0.94
50	112	5.56	39.0	0.80
30	160	7.91	47.1	0.68
10	268	13.3	56.9	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

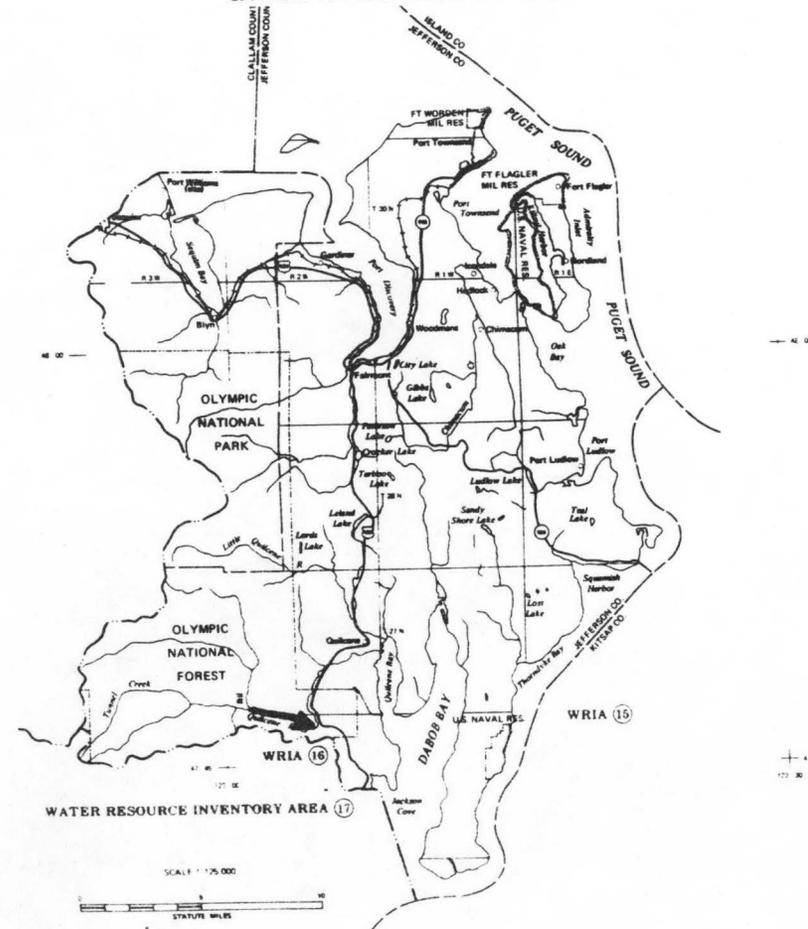
QMR = 144 cfs



W17-515



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-063-000-000-R0004

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R2W
 D. Latitude, Longitude 47°48' 122°59'
 E. Stream Name Big Quilcene River
 F. Major Basin Name Big Quilcene
 G. River Mile 9.8/11.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

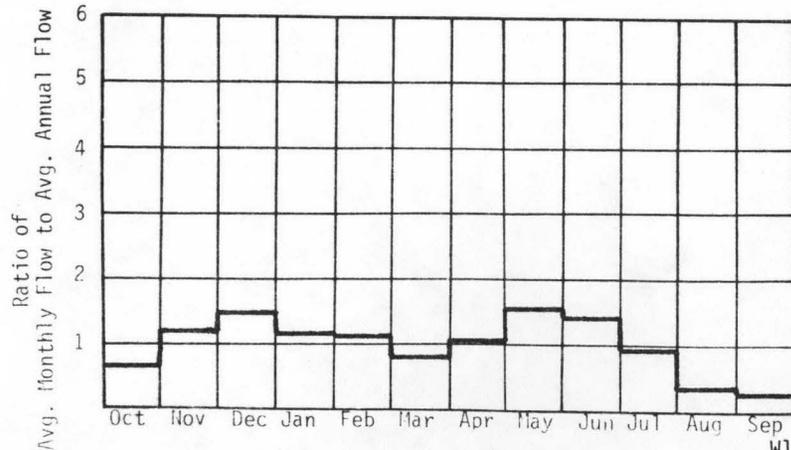
A. Upstream Elevation of Reach 1420 Ft. MSL
 B. Downstream Elevation of Reach 1025 Ft. MSL
 C. Total Available Head in Reach 395 Ft.
 D. Average Slope in Reach 208 Ft./Mi.
 E. Drainage Area above Reach Mouth 26 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

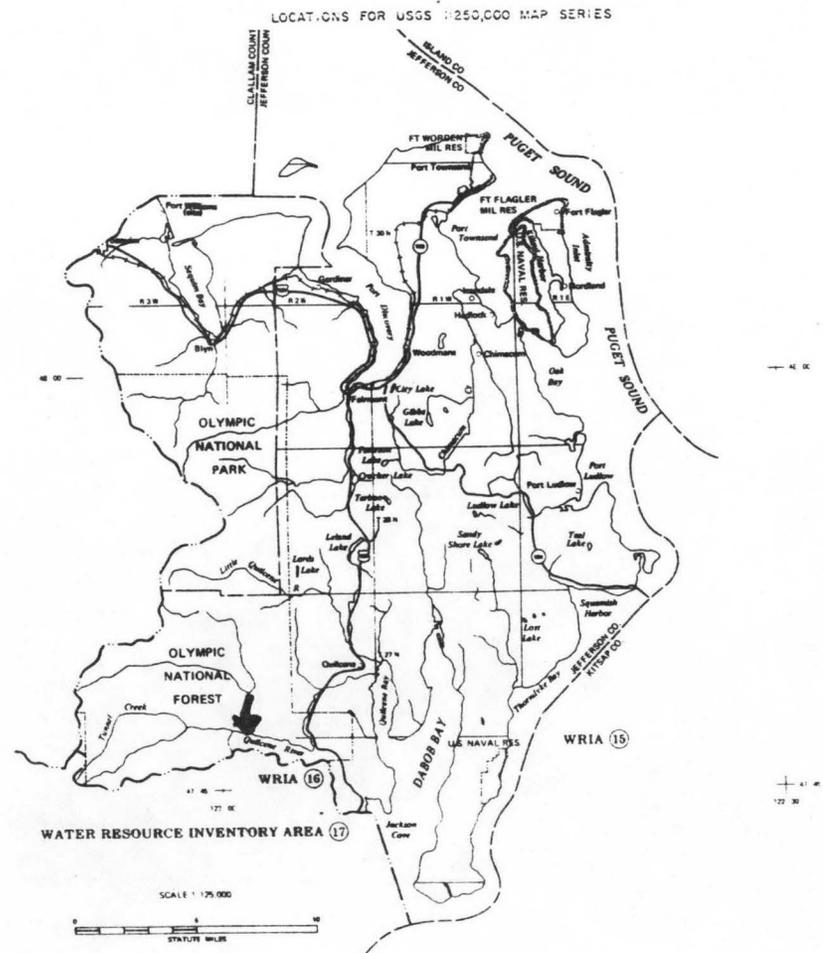
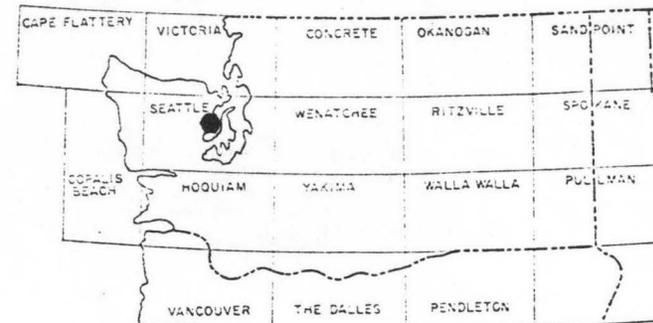
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.0	0.57	4.98	1.00
80	35.7	1.19	9.83	0.94
50	66.3	2.22	15.5	0.80
30	94.4	3.15	18.8	0.68
10	158	5.29	22.7	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 85 cfs



W17-516



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-063-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R2W</u>
D. Latitude, Longitude	<u>47°50' 123°00'</u>
E. Stream Name	<u>Big Quilcene River</u>
F. Major Basin Name	<u>Big Quilcene</u>
G. River Mile	

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

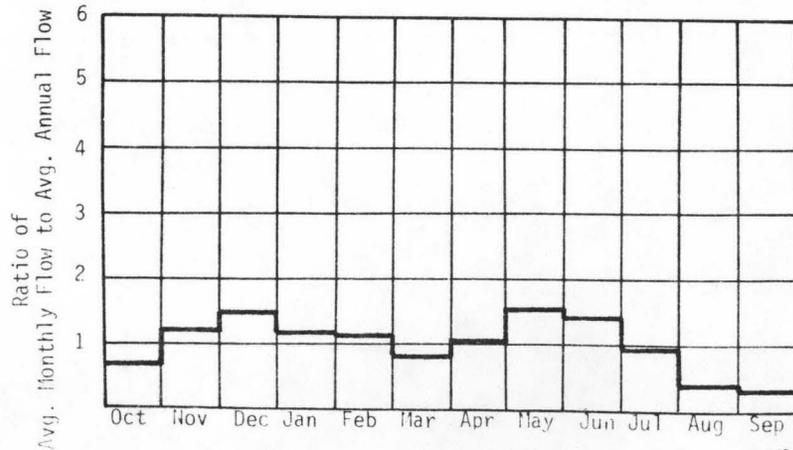
A. Upstream Elevation of Reach	<u>2800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1420</u>	Ft. MSL
C. Total Available Head in Reach	<u>1380</u>	Ft.
D. Average Slope in Reach	<u>40 + 66 = 106</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

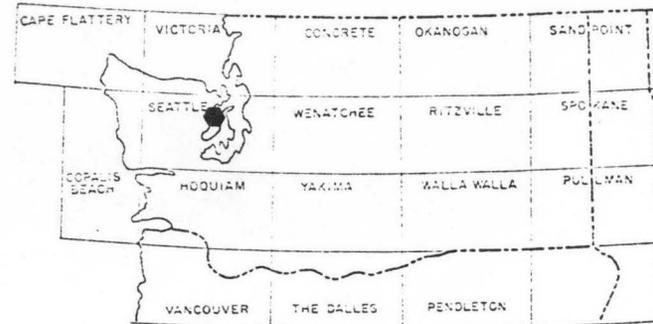
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.60	0.07	0.60	1.00
80	16.0	0.14	1.18	0.94
50	29.6	0.27	1.86	0.80
30	42.2	0.38	2.25	0.68
10	70.7	0.63	2.72	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

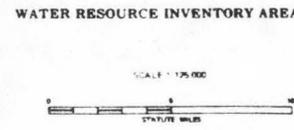
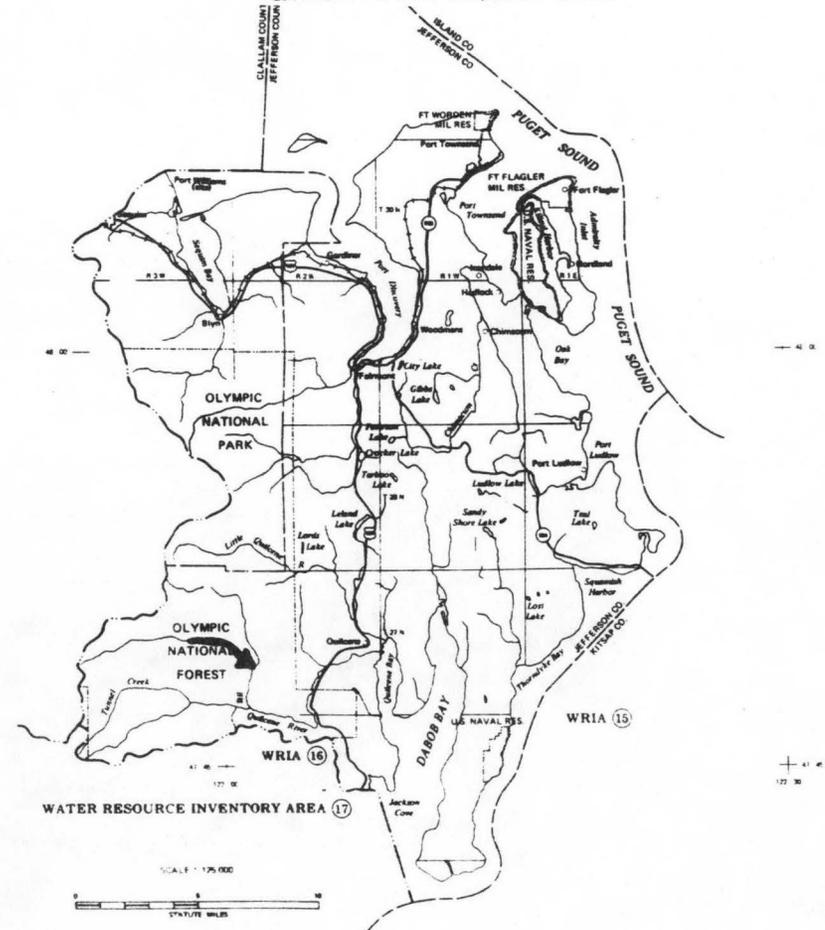
QMR = 38 cfs



W17-517



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-062-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R3W</u>
D. Latitude, Longitude	<u>47°47' 123°00'</u>
E. Stream Name	<u>Tunnel Creek</u>
F. Major Basin Name	<u>Big Quilcene</u>
G. River Mile	<u>0/2.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

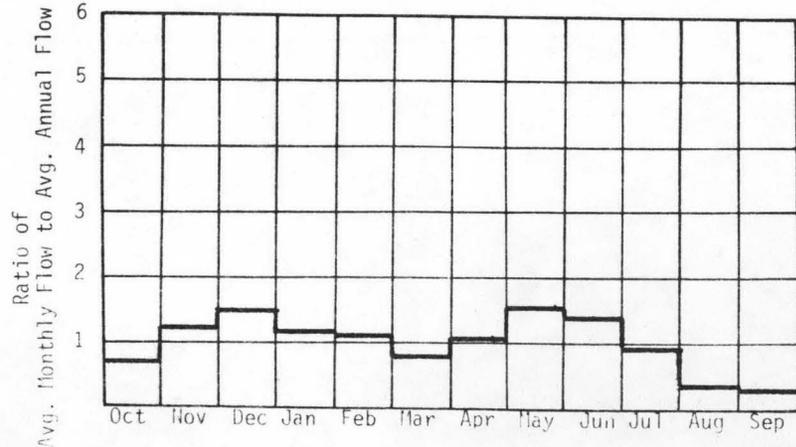
A. Upstream Elevation of Reach	<u>1650</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1025</u>	Ft. MSL
C. Total Available Head in Reach	<u>625 + 66 = 691</u>	Ft.
D. Average Slope in Reach	<u>240</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.3</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

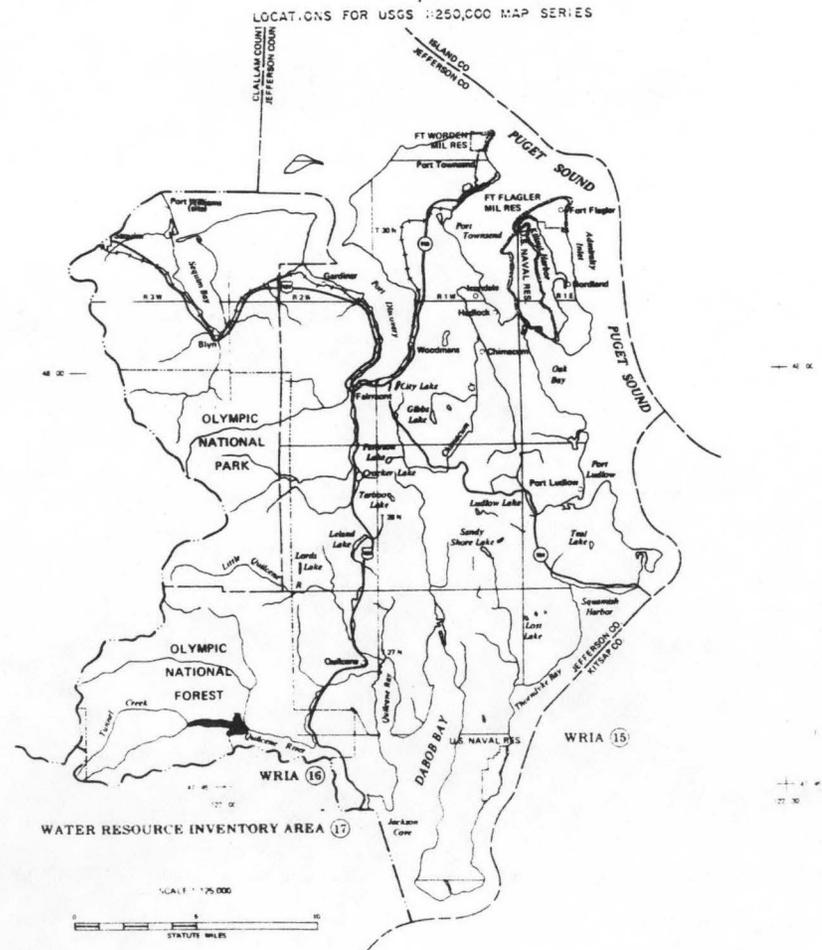
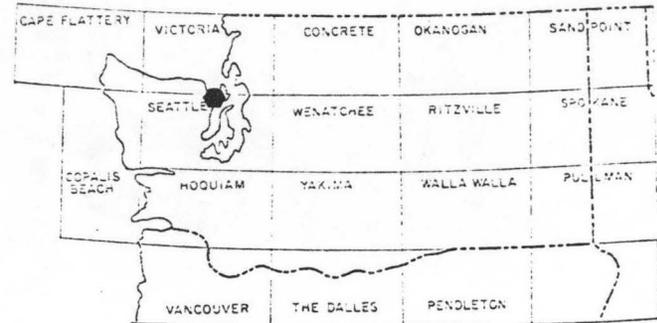
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.4	0.96	8.40	1.00
80	34.4	2.01	16.6	0.94
50	64.0	3.74	26.2	0.80
30	91.0	5.32	31.7	0.68
10	153	8.92	38.3	0.49

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 82 cfs



W17-518



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T29N R4W
 D. Latitude, Longitude 48°05' 123°07'
 E. Stream Name Dungeness River
 F. Major Basin Name Dungeness River
 G. River Mile 0/15.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

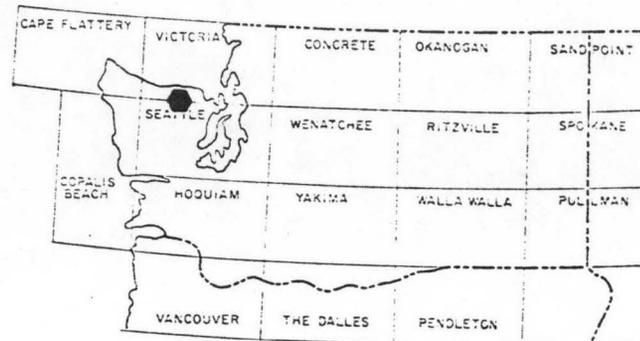
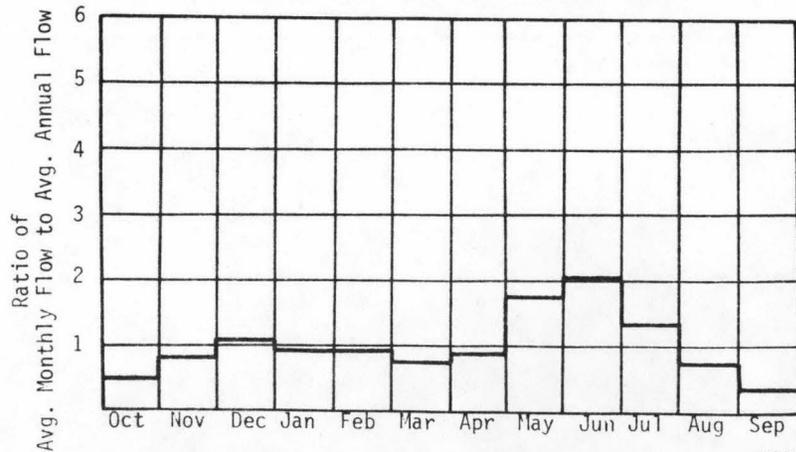
A. Upstream Elevation of Reach 800 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 800 Ft.
 D. Average Slope in Reach 51 Ft./Mi.
 E. Drainage Area above Reach Mouth 200.3 Sq.Mi.
 F. Inflow Classification Diversion

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

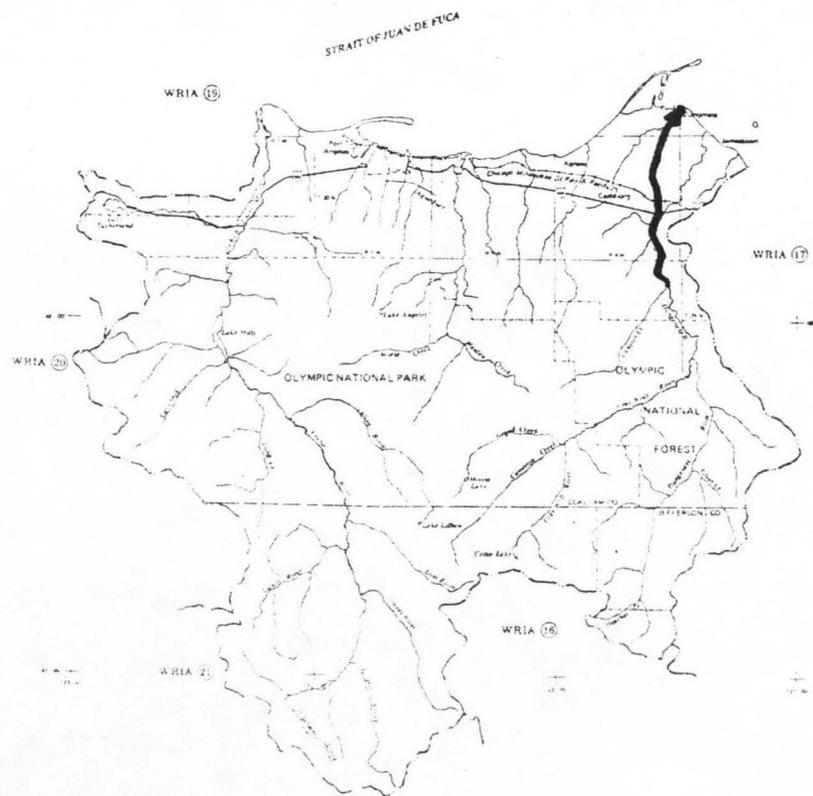
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	120	8.12	71.1	1.00
80	176	11.9	100.0	0.96
50	297	20.1	146.0	0.83
30	441	29.9	181.0	0.69
10	754	51.0	214.0	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 401 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0002

I. LOCATION

A. State	Washington
B. County	Clallam
C. Township, Range	T28N - R3W
D. Latitude, Longitude	47° 57' - 123° 06'
E. Stream Name	Dungeness River
F. Major Basin Name	Dungeness River
G. River Mile	15.7/19.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

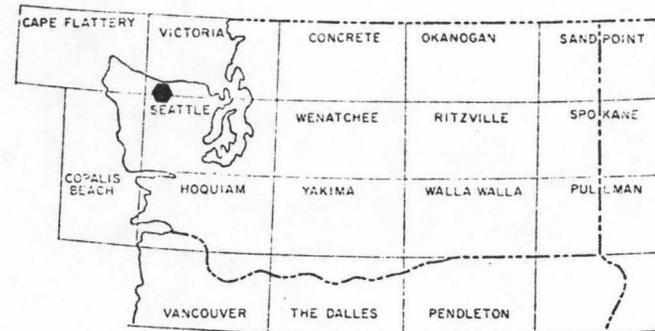
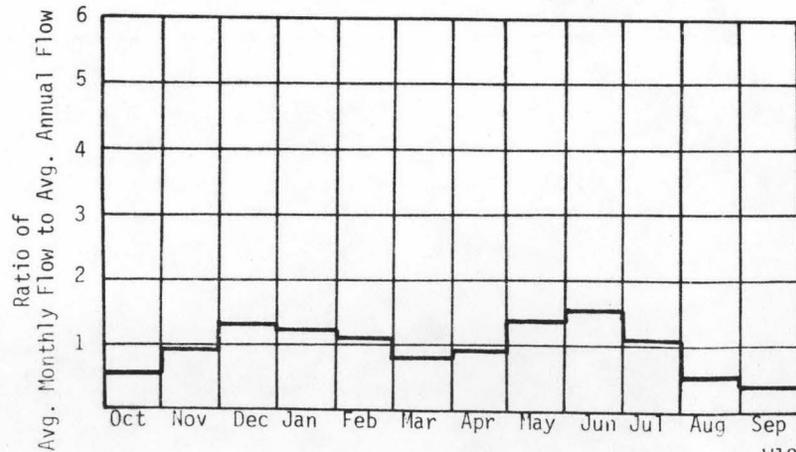
A. Upstream Elevation of Reach	1200	Ft. MSL
B. Downstream Elevation of Reach	800	Ft. MSL
C. Total Available Head in Reach	400	Ft.
D. Average Slope in Reach	121	Ft./Mi.
E. Drainage Area above Reach Mouth	73.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

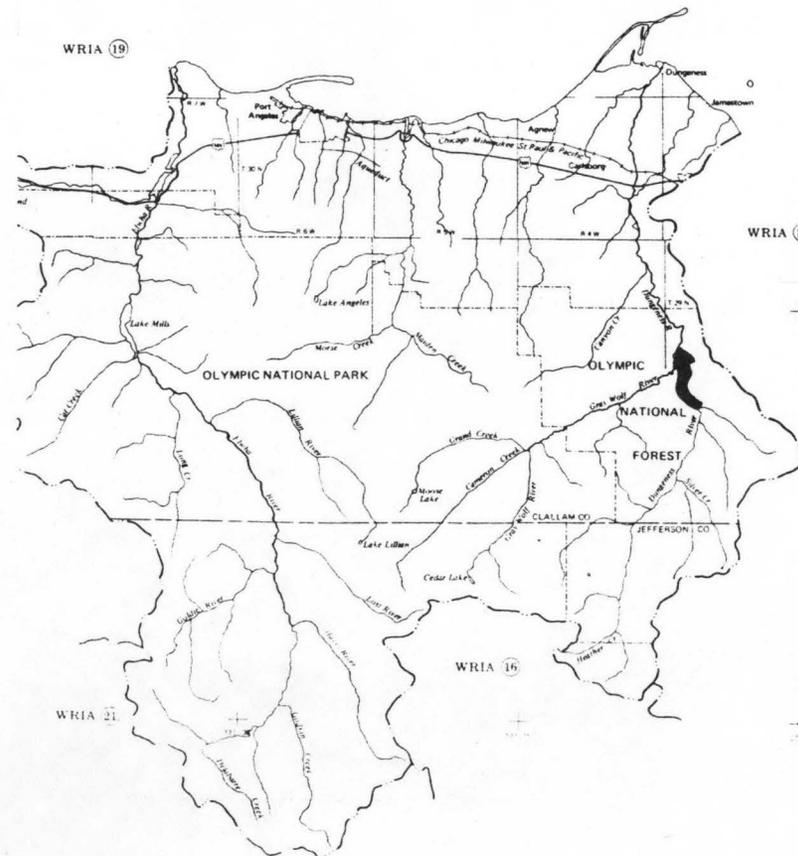
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	49.5	1.68	14.7	1.00
80	72.6	2.46	20.7	0.96
50	122	4.13	30.0	0.83
30	182	6.16	37.2	0.69
10	310	10.5	44.2	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 165 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N - R3W</u>
D. Latitude, Longitude	<u>47° 55' - 123° 8'</u>
E. Stream Name	<u>Dungeness</u>
F. Major Basin Name	<u>Dungeness</u>
G. River Mile	<u>19.0/22.8</u>

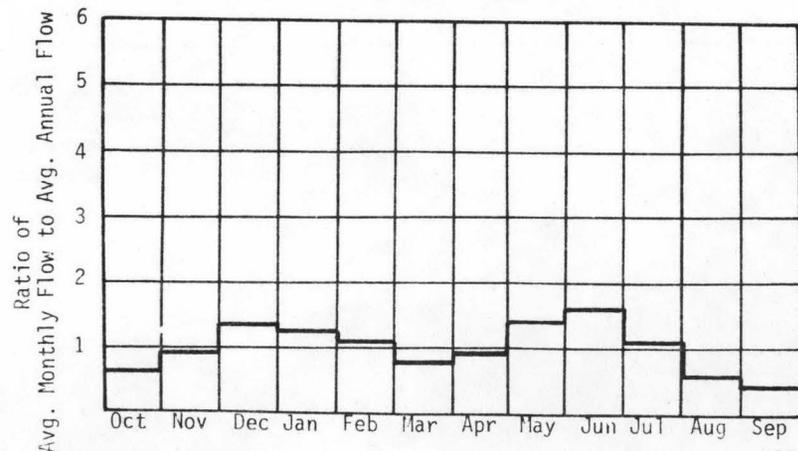
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	<u>2000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1200</u>	Ft. MSL
C. Total Available Head in Reach	<u>800</u>	Ft.
D. Average Slope in Reach	<u>211</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>59.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

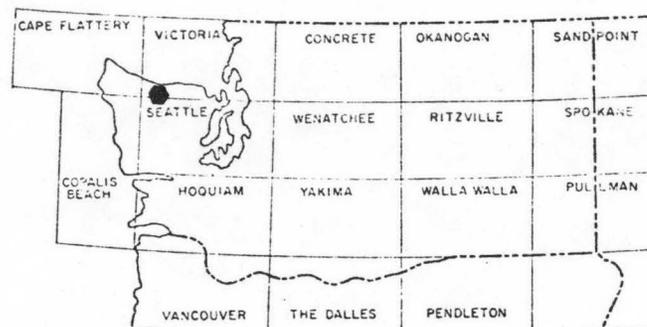
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	40.8	2.76	24.2	1.00
80	60.0	4.06	34.1	0.96
50	101	6.84	49.7	0.83
30	150	10.2	61.7	0.69
10	256	17.3	72.7	0.48

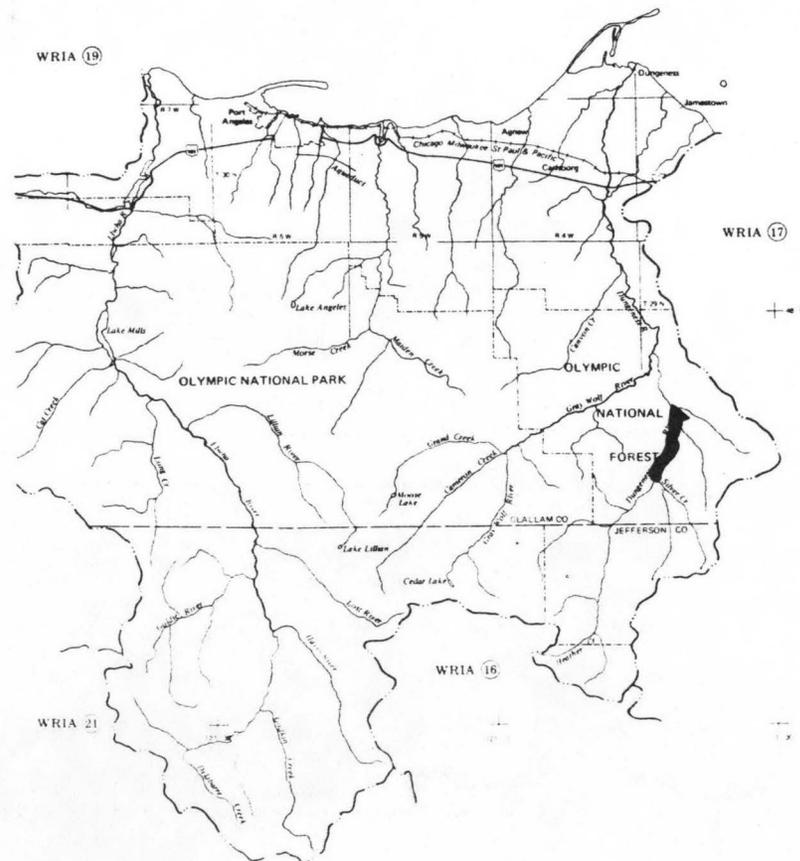
IV. TYPICAL ANNUAL HYDROGRAPH QMR = 136 cfs



W18-521



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T27N - R3W</u>
D. Latitude, Longitude	<u>47° 57' - 123° 06'</u>
E. Stream Name	<u>Dungeness River</u>
F. Major Basin Name	<u>Dungeness River</u>
G. River Mile	<u>22.8/26.1</u>

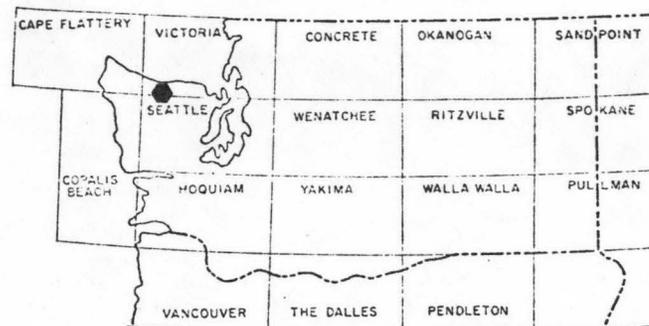
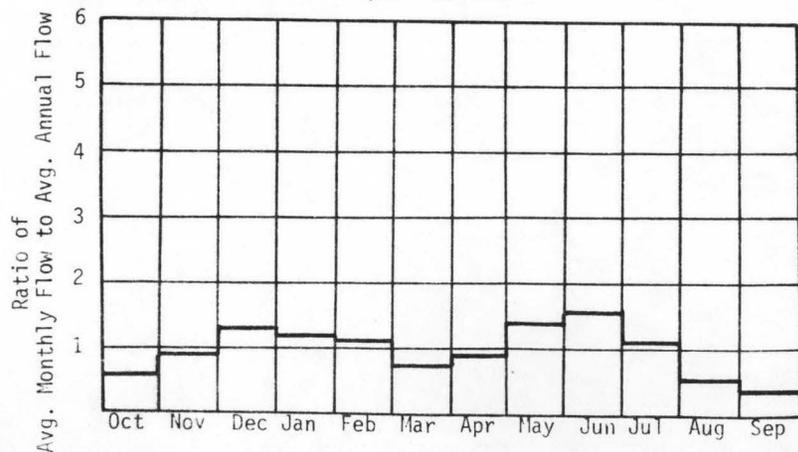
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	<u>2750</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2000</u>	Ft. MSL
C. Total Available Head in Reach	<u>750</u>	Ft.
D. Average Slope in Reach	<u>227</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

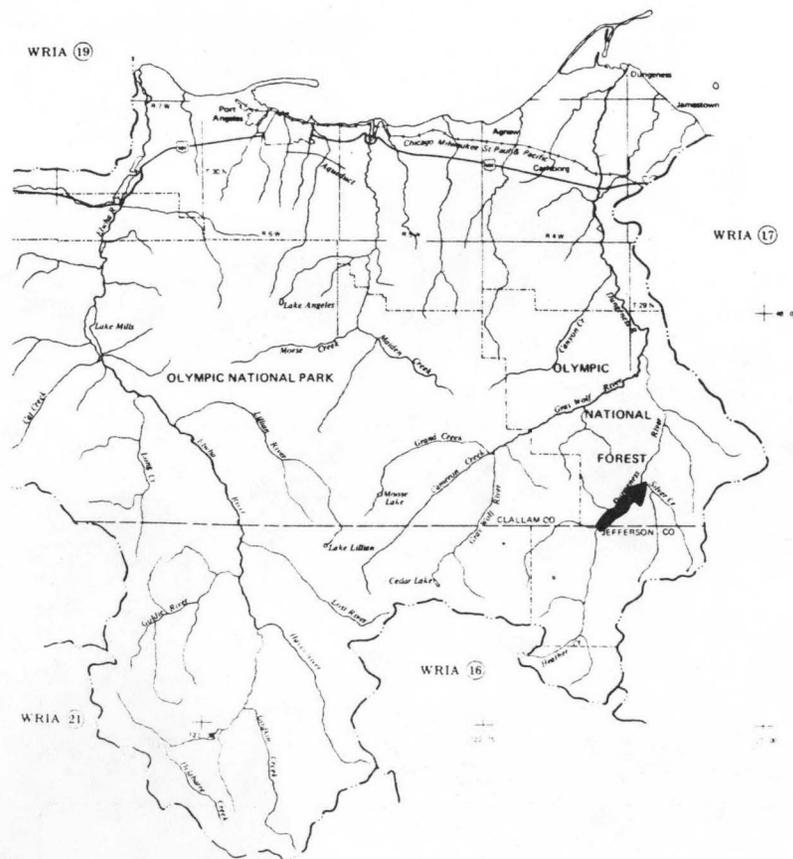
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	28.8	1.83	16.03	1.00
80	42.2	2.68	22.5	0.96
50	71.0	4.50	32.7	0.83
30	106	6.73	40.7	0.69
10	181	11.5	48.4	0.48

IV. TYPICAL ANNUAL HYDROGRAPH QMR = 96 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N - R3W</u>
D. Latitude, Longitude	<u>47° 50' - 123° 5'</u>
E. Stream Name	<u>Dungeness River</u>
F. Major Basin Name	<u>Dungeness River</u>
G. River Mile	<u>26.1/28.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

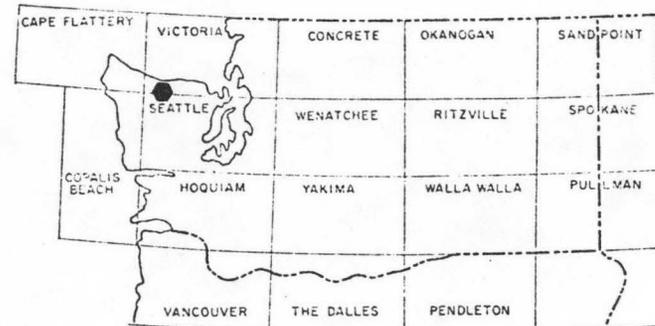
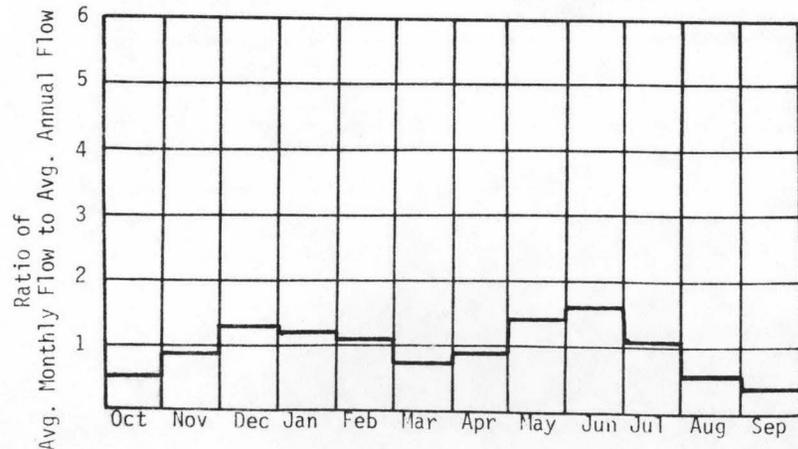
A. Upstream Elevation of Reach	<u>3000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2750</u>	Ft. MSL
C. Total Available Head in Reach	<u>250</u>	Ft.
D. Average Slope in Reach	<u>132</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>32.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

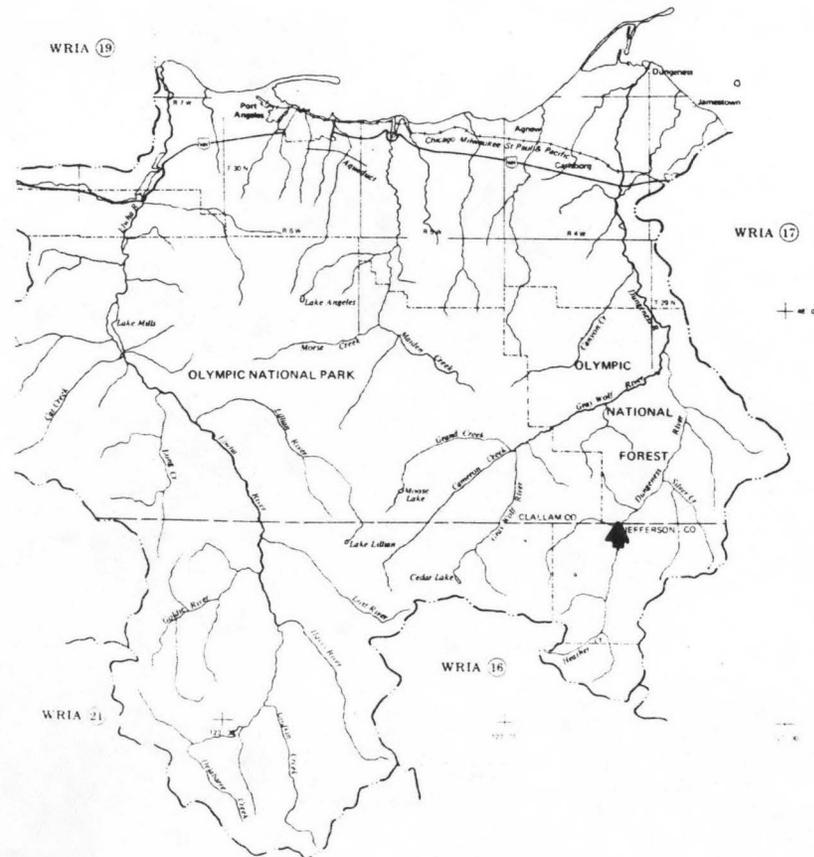
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.3	.45	3.94	1.00
80	31.2	.66	5.55	0.96
50	52.5	1.11	8.07	0.83
30	78.1	1.65	9.97	0.69
10	133	2.81	11.8	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 56 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T27N - R4W</u>
D. Latitude, Longitude	<u>47° 57' - 123° 9'</u>
E. Stream Name	<u>Gray Wolf River</u>
F. Major Basin Name	<u>Dungeness River</u>
G. River Mile	<u>0/9.9</u>

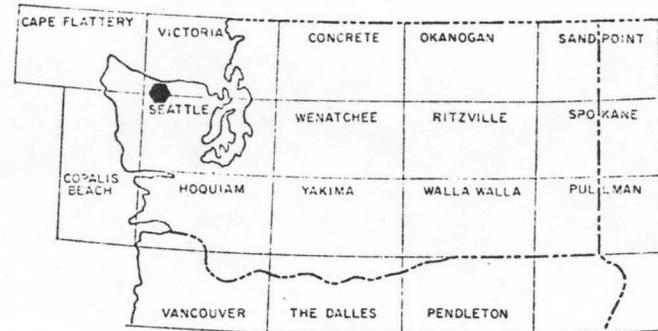
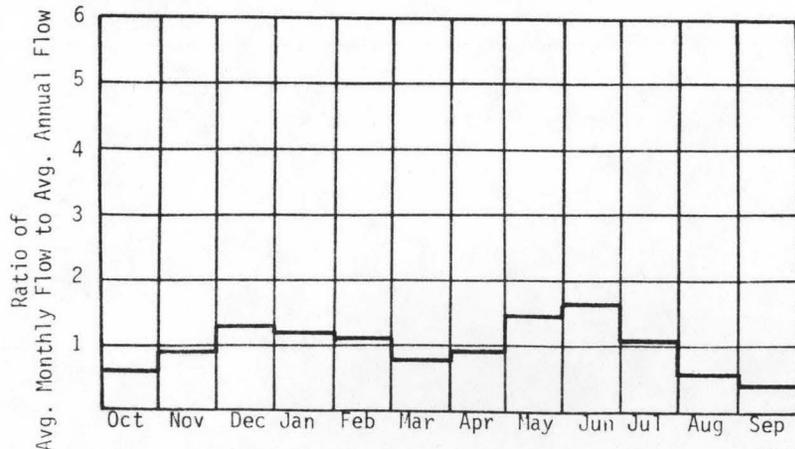
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	<u>2050</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>800</u>	Ft. MSL
C. Total Available Head in Reach	<u>1250</u>	Ft.
D. Average Slope in Reach	<u>126</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>75.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

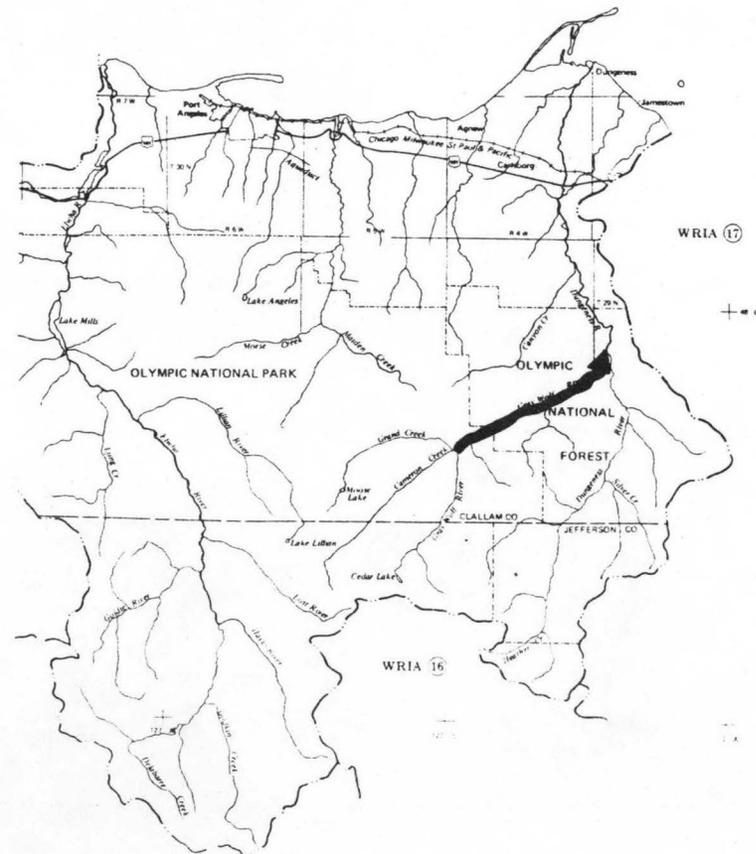
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	53.4	5.65	49.5	1.00
80	78.3	8.28	69.6	0.96
50	132	14.0	102	0.83
30	196	20.7	125	0.69
10	335	35.4	149	0.48

IV. TYPICAL ANNUAL HYDROGRAPH QMR = 178 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T27N - R4W</u>
D. Latitude, Longitude	<u>47° 55' - 123° 12'</u>
E. Stream Name	<u>Gray Wolf River</u>
F. Major Basin Name	<u>Dungeness River</u>
G. River Mile	<u>9.9/12.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

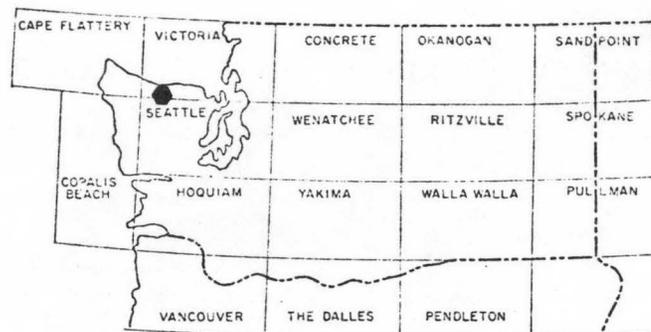
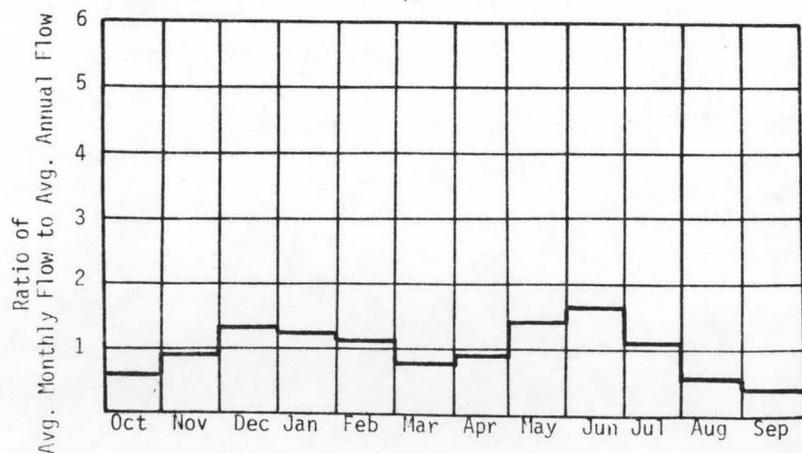
A. Upstream Elevation of Reach	<u>2750</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2050</u>	Ft. MSL
C. Total Available Head in Reach	<u>700 + 66 = 766</u>	Ft.
D. Average Slope in Reach	<u>333</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>18.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

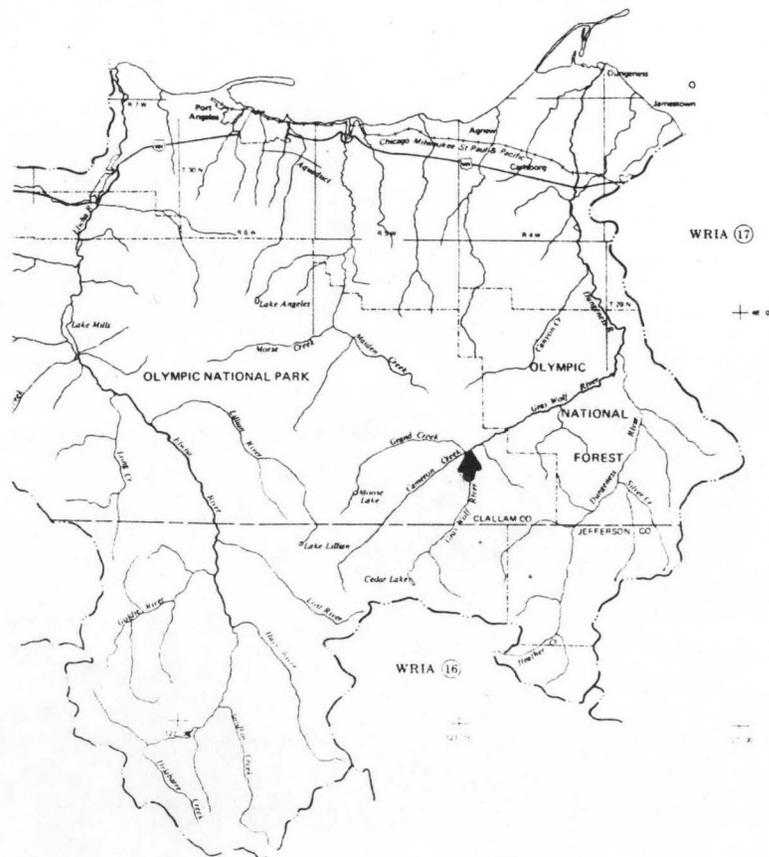
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.8	0.89	7.83	1.00
80	20.2	1.31	11.0	0.96
50	34.0	2.21	16.0	0.83
30	50.6	3.28	19.8	0.69
10	86.5	5.60	23.6	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 46 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-004-000-000-000-R0008

I. LOCATION

A. State	Washington
B. County	Clallam
C. Township, Range	T27N - R4W
D. Latitude, Longitude	47° 57' - 123° 15'
E. Stream Name	Cameron Creek
F. Major Basin Name	Dungeness River
G. River Mile	0/1.8

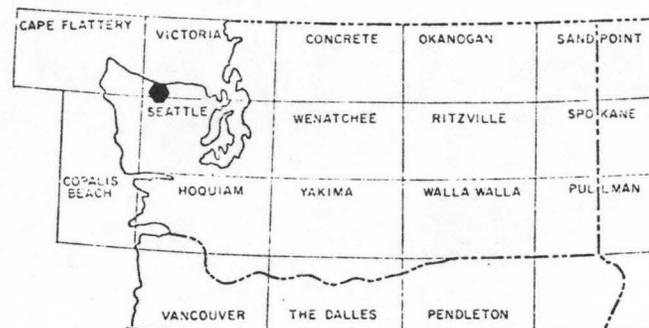
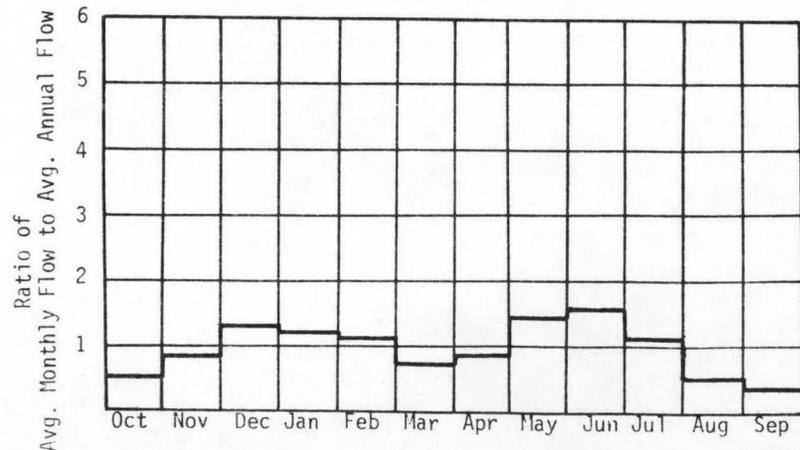
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	2750	Ft. MSL
B. Downstream Elevation of Reach	2050	Ft. MSL
C. Total Available Head in Reach	700 + 66 = 766	Ft.
D. Average Slope in Reach	389	Ft./Mi.
E. Drainage Area above Reach Mouth	18.1	Sq. Mi.
F. Inflow Classification	Natural	

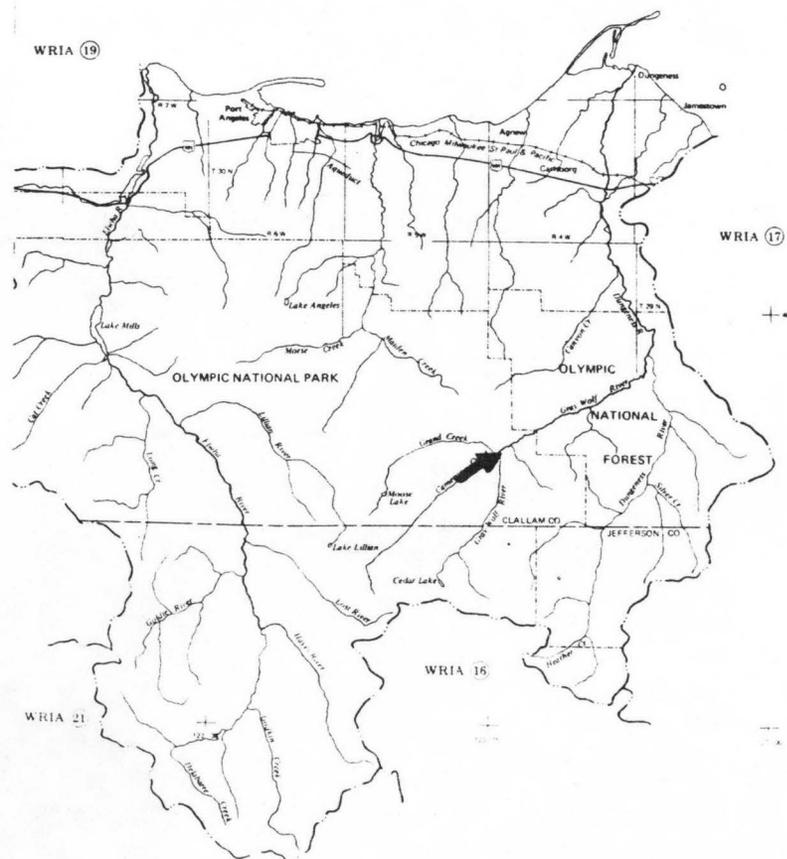
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	15.9	1.03	9.03	1.00
80	23.3	1.51	12.7	0.96
50	39.2	2.54	18.5	0.83
30	58.3	3.78	22.8	0.69
10	99.6	6.46	27.2	0.48

IV. TYPICAL ANNUAL HYDROGRAPH QMR = 53 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-002-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R5W</u>
D. Latitude, Longitude	<u>48°05' 123°22'</u>
E. Stream Name	<u>Morse Creek</u>
F. Major Basin Name	<u>Morse Creek</u>
G. River Mile	<u>0/6.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

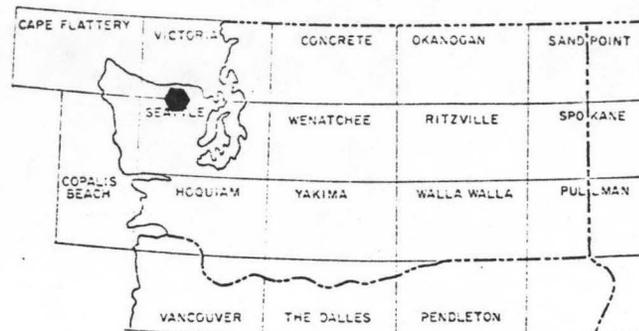
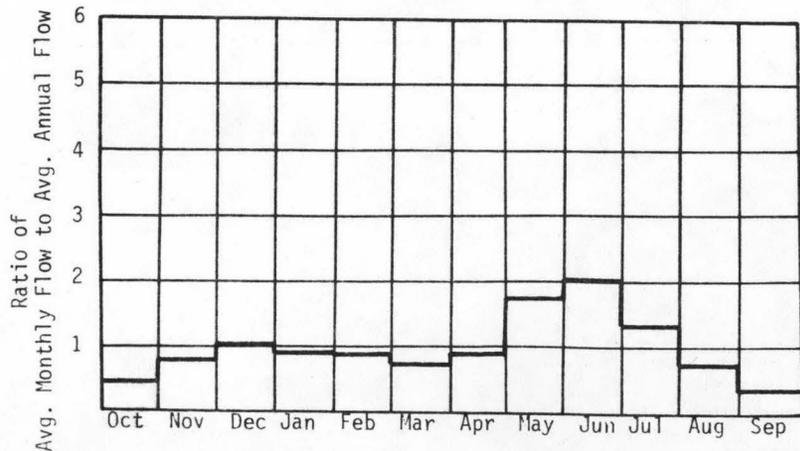
A. Upstream Elevation of Reach	<u>650</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>650</u>	Ft.
D. Average Slope in Reach	<u>94</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>56.8</u>	Sq.Mi.
F. Inflow Classification	<u>Regulation & Diversion</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

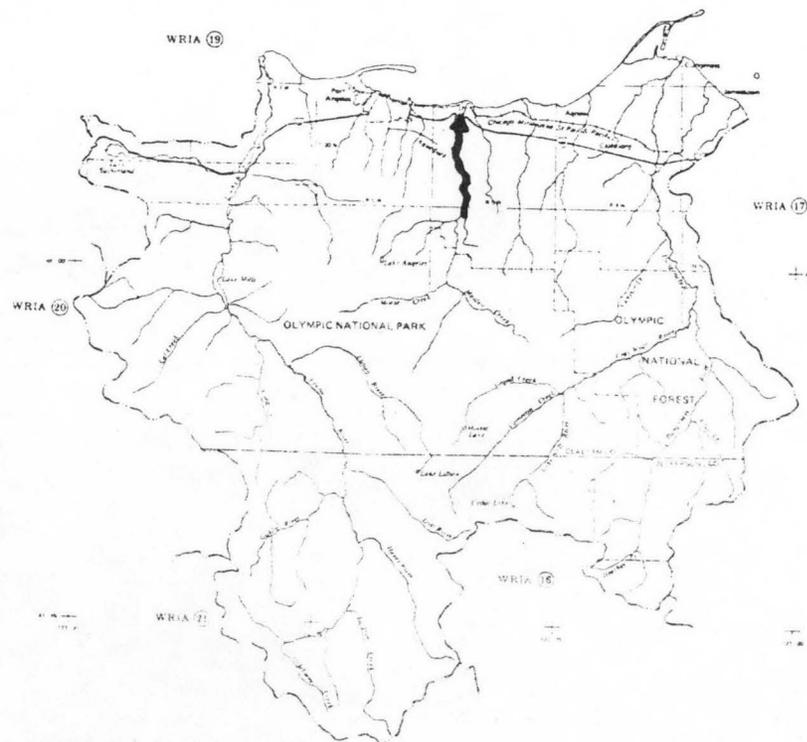
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.2	1.22	10.7	1.00
80	39.8	2.19	18.0	0.94
50	84.2	4.63	32.0	0.79
30	123	6.76	39.7	0.67
10	219	12.0	48.4	0.46

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 117 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-002-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R5W</u>
D. Latitude, Longitude	<u>48°00' 123°22'</u>
E. Stream Name	<u>Morse Creek</u>
F. Major Basin Name	<u>Morse Creek</u>
G. River Mile	<u>7.2/12.11</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

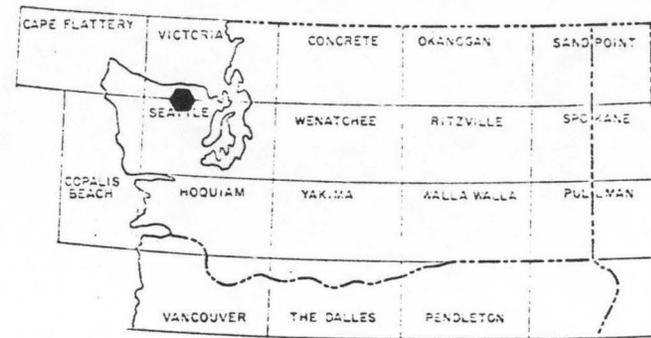
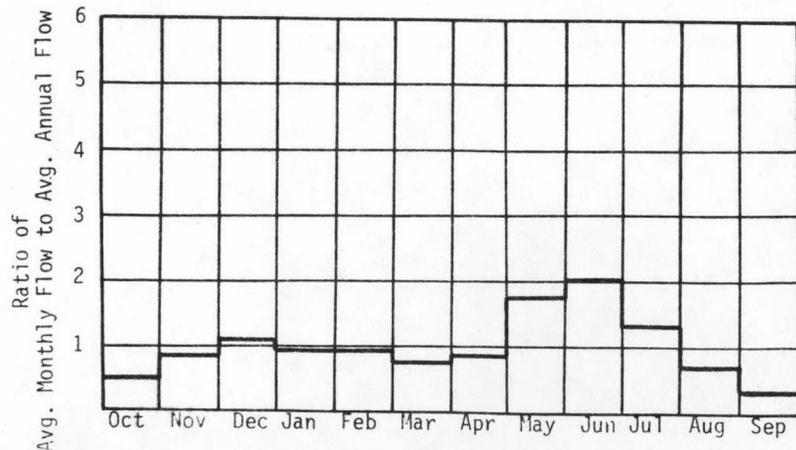
A. Upstream Elevation of Reach	<u>1550</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>700</u>	Ft. MSL
C. Total Available Head in Reach	<u>850 + 66 = 916</u>	Ft.
D. Average Slope in Reach	<u>173</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

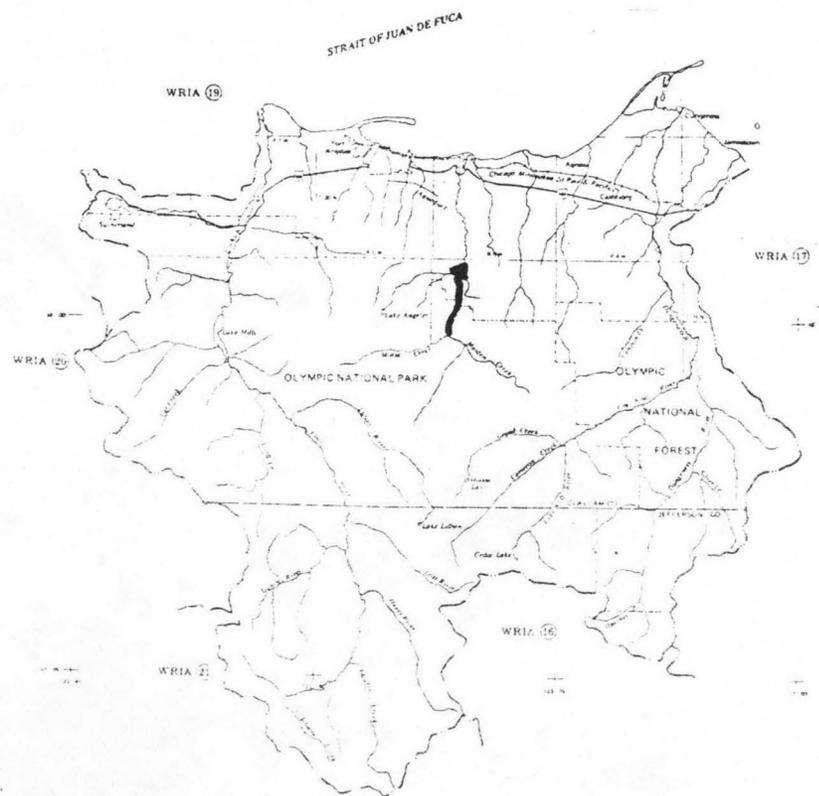
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.1	1.33	11.6	1.00
80	30.6	2.37	19.5	0.94
50	64.8	5.02	34.8	0.79
30	94.5	7.33	43.0	0.67
10	168	13.1	52.6	0.46

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 90 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R7W</u>
D. Latitude, Longitude	<u>47°07' 123°35'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>0/4.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

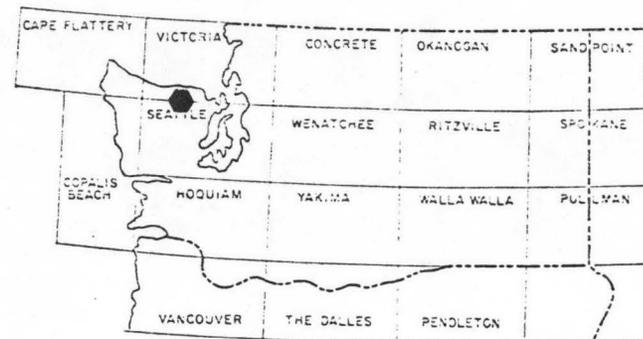
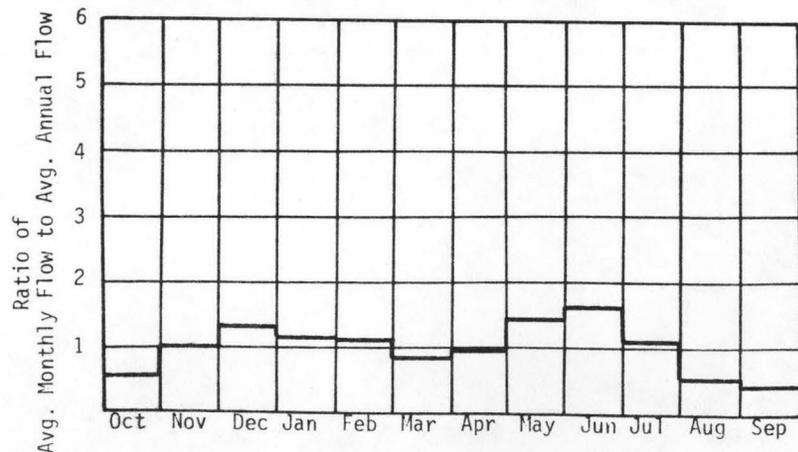
A. Upstream Elevation of Reach	<u>75</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>75</u>	Ft.
D. Average Slope in Reach	<u>27</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>319</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

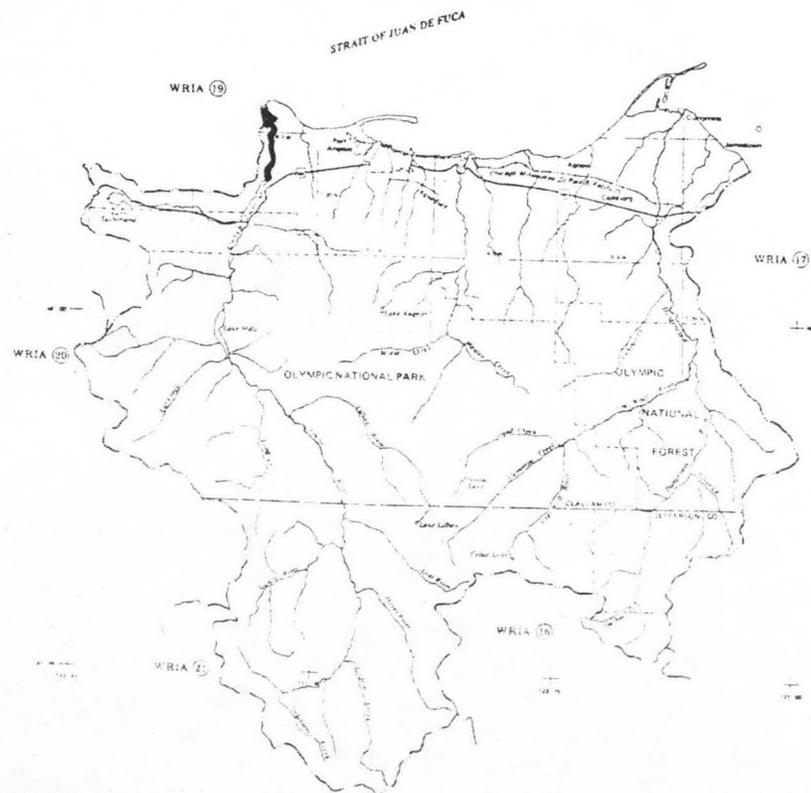
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	430	2.73	23.9	1.00
80	706	4.48	37.3	0.95
50	1210	7.69	55.3	0.82
30	1730	11.0	67.5	0.70
10	2820	17.9	78.5	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1534 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R7W</u>
D. Latitude, Longitude	<u>48°00' 123°34'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>7.4/16.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

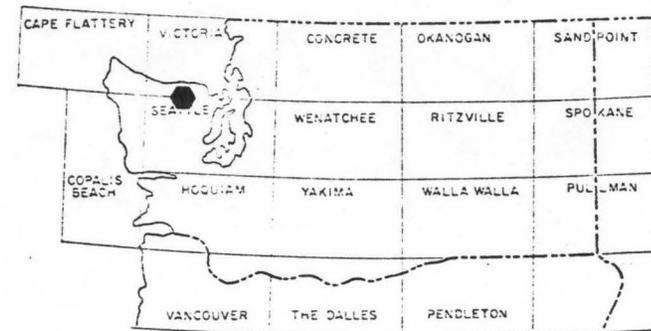
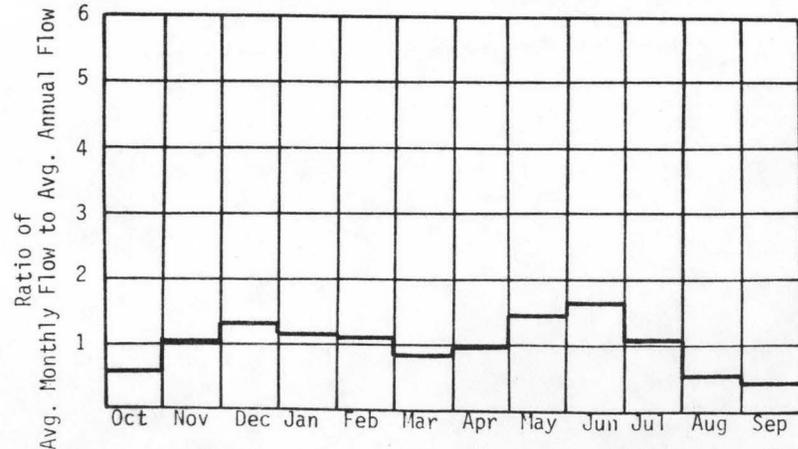
A. Upstream Elevation of Reach	<u>410</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>200</u>	Ft. MSL
C. Total Available Head in Reach	<u>210</u>	Ft.
D. Average Slope in Reach	<u>43</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1534</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

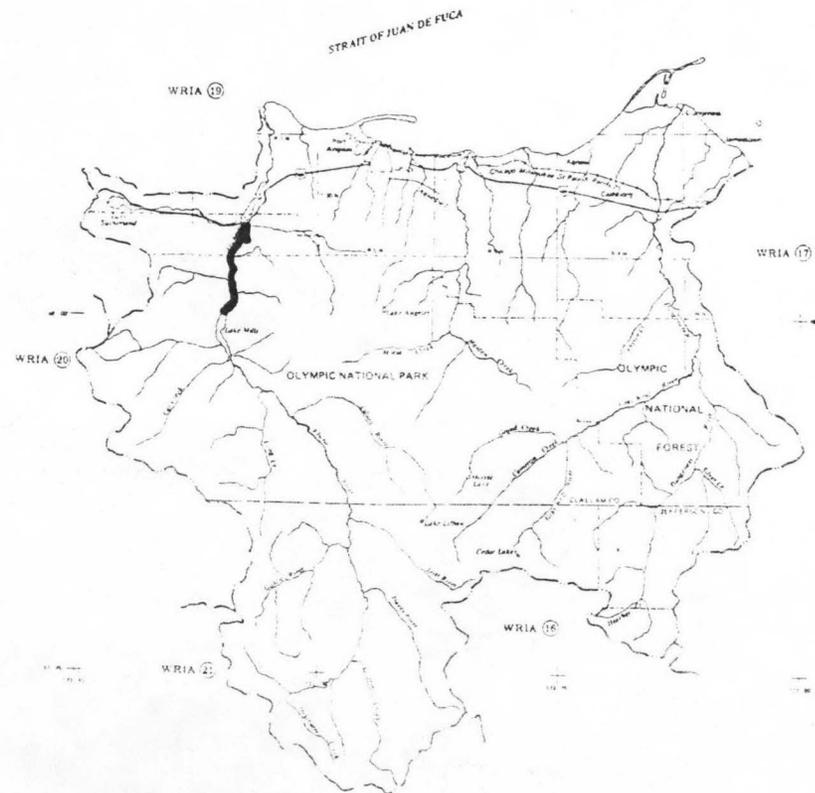
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	404	7.18	62.9	1.00
80	664	11.8	98.2	0.95
50	1140	20.3	146	0.82
30	1630	29.0	178	0.70
10	2660	47.2	207	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1443 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R7W</u>
D. Latitude, Longitude	<u>47°55' 123°37'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>18.9/21.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

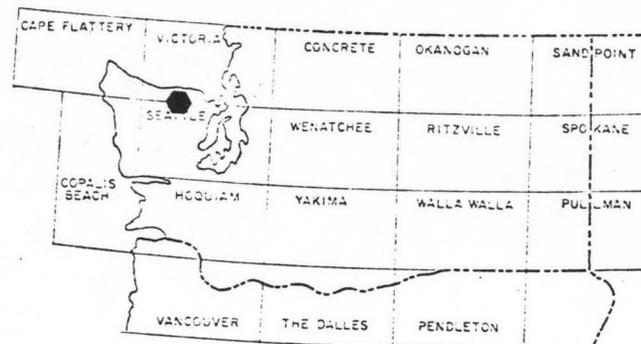
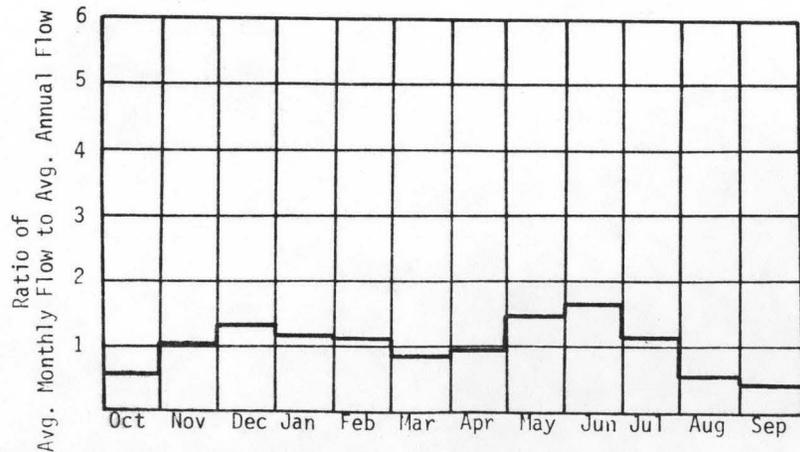
A. Upstream Elevation of Reach	<u>740</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>600</u>	Ft. MSL
C. Total Available Head in Reach	<u>140</u>	Ft.
D. Average Slope in Reach	<u>54</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>216</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

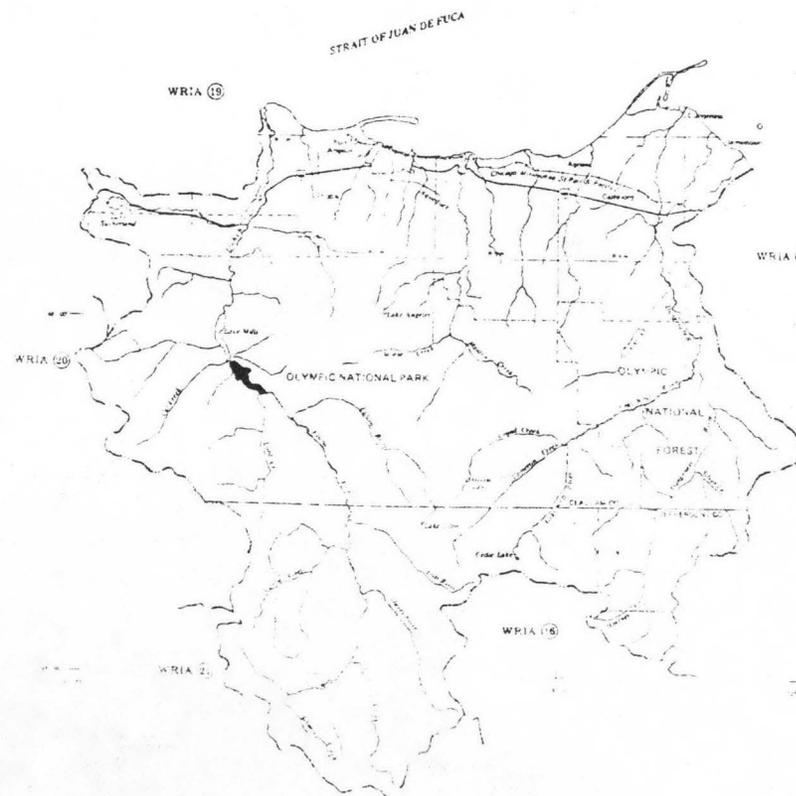
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	326	3.86	33.8	1.00
80	535	6.34	52.7	0.95
50	919	10.9	78.2	0.82
30	1310	15.6	95.5	0.70
10	2140	25.4	111.0	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1163 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R7W</u>
D. Latitude, Longitude	<u>47°50' 123°33'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>21.5/24.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

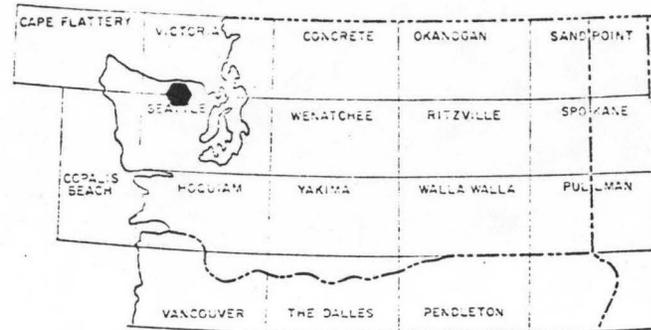
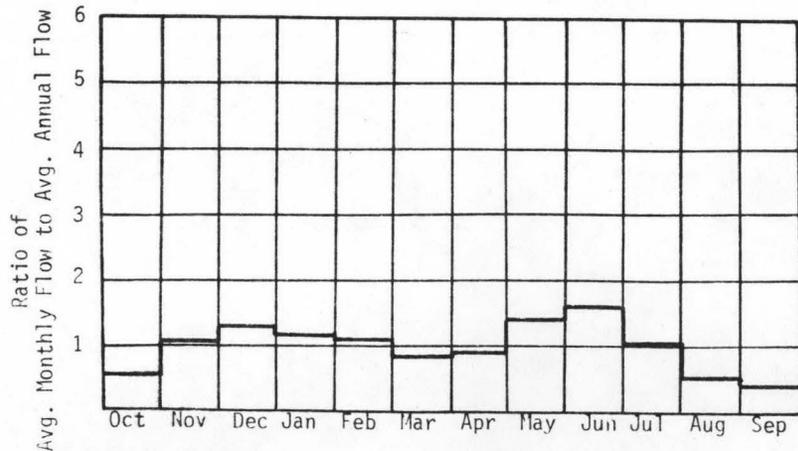
A. Upstream Elevation of Reach	<u>1000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>740</u>	Ft. MSL
C. Total Available Head in Reach	<u>260</u>	Ft.
D. Average Slope in Reach	<u>104</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>166</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

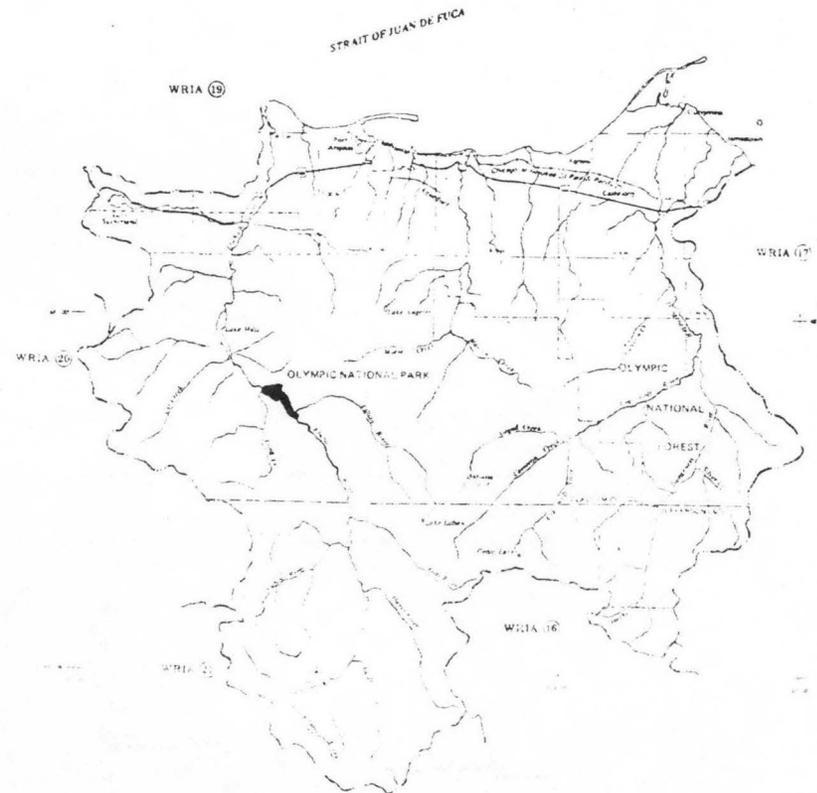
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	279	6.14	53.8	1.00
80	459	10.1	84.0	0.95
50	788	17.3	124.0	0.82
30	1130	24.8	152.0	0.70
10	1830	40.4	177.0	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 997 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R7W</u>
D. Latitude, Longitude	<u>47°50' 123°20'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>24.0/30.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

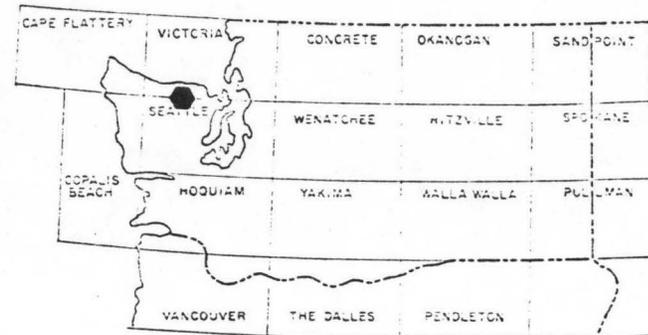
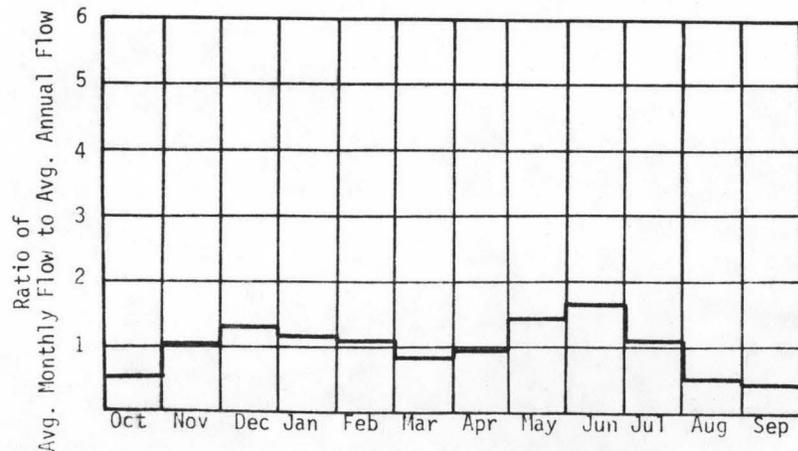
A. Upstream Elevation of Reach	<u>1410</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1000</u>	Ft. MSL
C. Total Available Head in Reach	<u>410</u>	Ft.
D. Average Slope in Reach	<u>60</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>136.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

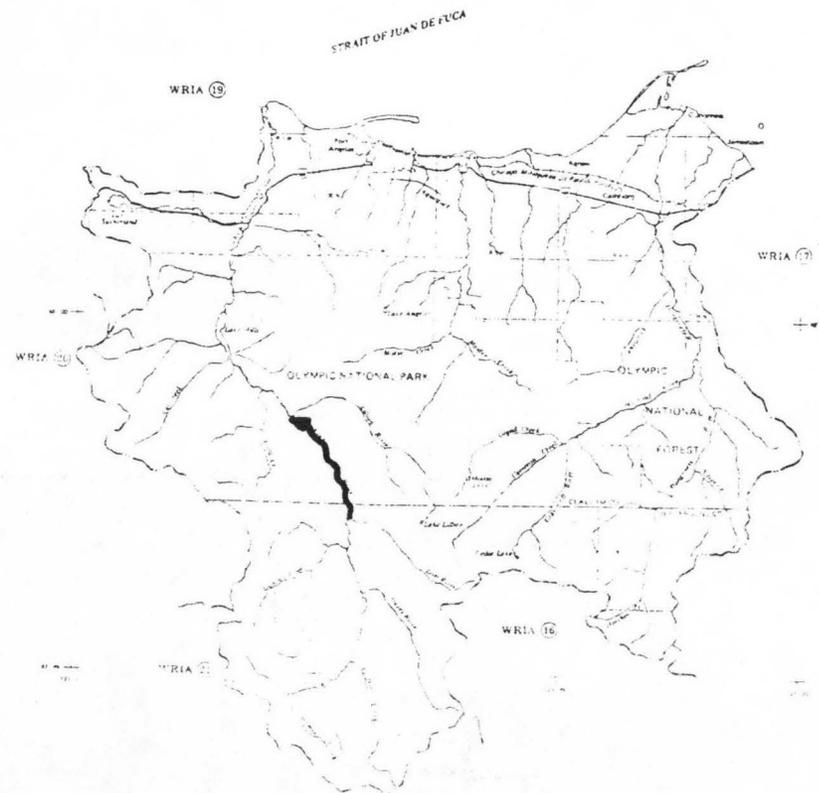
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	240	8.32	72.9	1.00
80	395	13.7	114	0.95
50	678	23.5	169	0.82
30	970	33.7	206	0.70
10	1580	54.8	240	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 858 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0006

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T27N R7W
D. Latitude, Longitude	47°50' 123°30'
E. Stream Name	Elwha River
F. Major Basin Name	Elwha River
G. River Mile	30.8/33.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

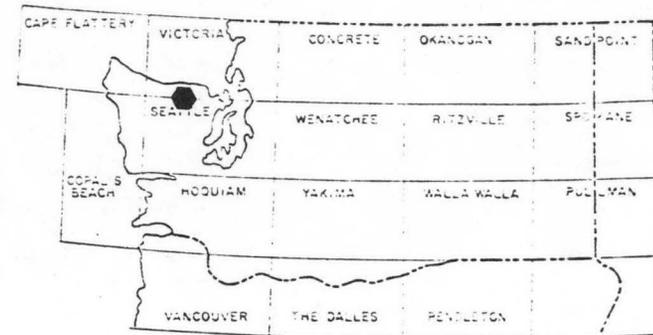
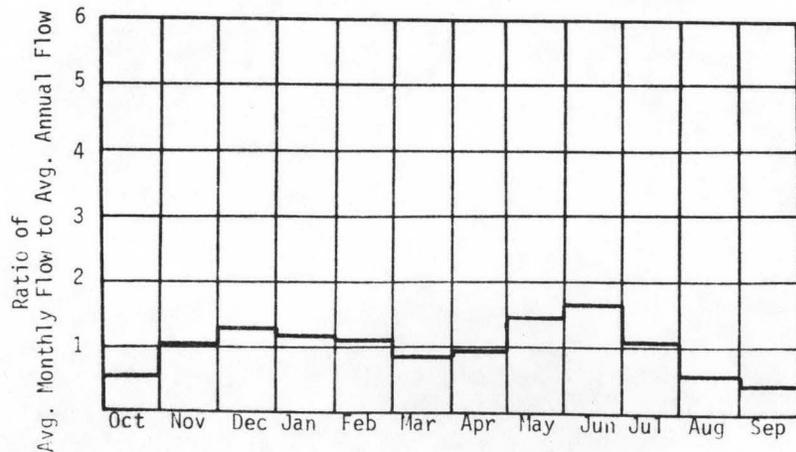
A. Upstream Elevation of Reach	1500	Ft. MSL
B. Downstream Elevation of Reach	1410	Ft. MSL
C. Total Available Head in Reach	90	Ft.
D. Average Slope in Reach	36	Ft./Mi.
E. Drainage Area above Reach Mouth	108.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

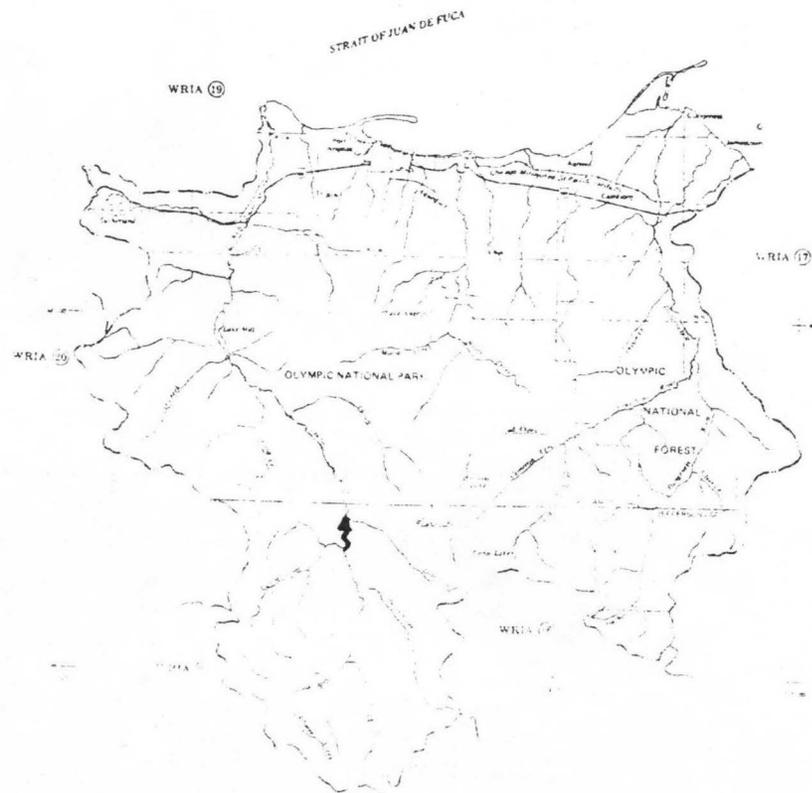
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	213	1.62	14.2	1.00
80	349	2.66	22.1	0.95
50	600	4.57	32.8	0.82
30	858	6.53	40.1	0.70
10	1400	10.7	46.7	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 759 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T28N R7W</u>
D. Latitude, Longitude	<u>47°50' 123°29'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>33.3/36.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

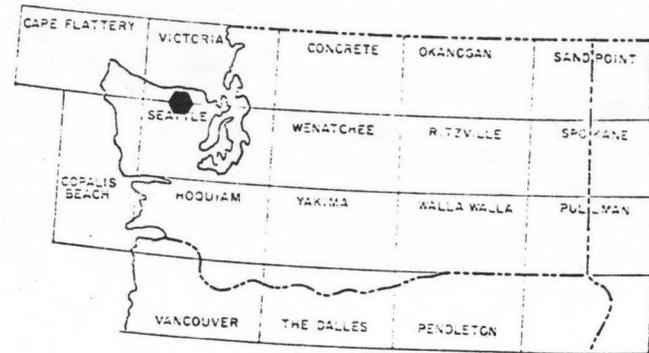
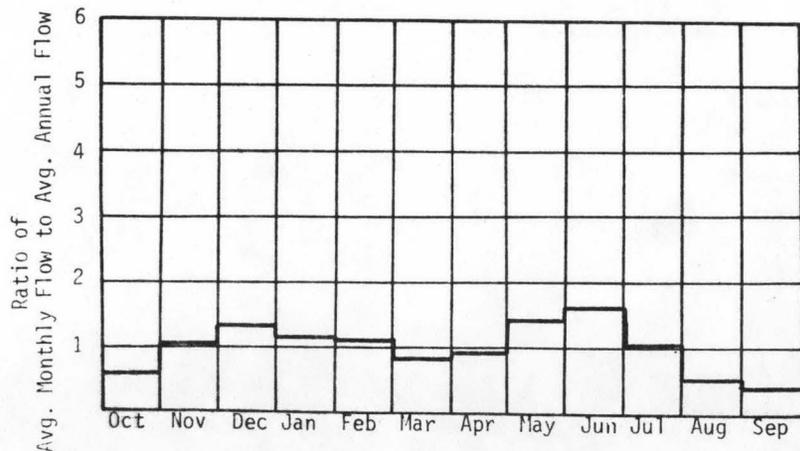
A. Upstream Elevation of Reach	<u>1640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1500</u>	Ft. MSL
C. Total Available Head in Reach	<u>140</u>	Ft.
D. Average Slope in Reach	<u>40</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>77.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	149	1.76	15.5	1.00
80	244	2.89	24.1	0.95
50	419	4.96	35.7	0.82
30	600	7.11	43.6	0.70
10	977	11.6	50.7	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 531 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-R0008

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R6W
 D. Latitude, Longitude 47°46' 123°33'
 E. Stream Name Elwha River
 F. Major Basin Name Elwha River
 G. River Mile 36.8/42.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

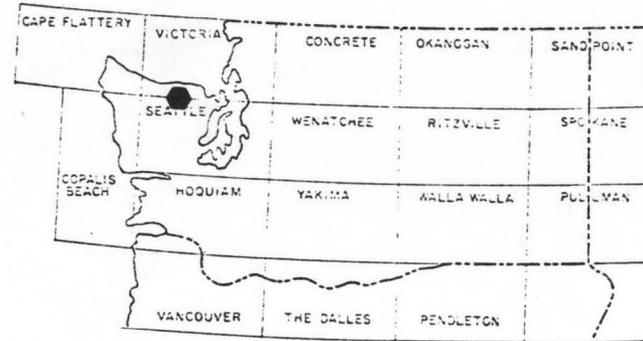
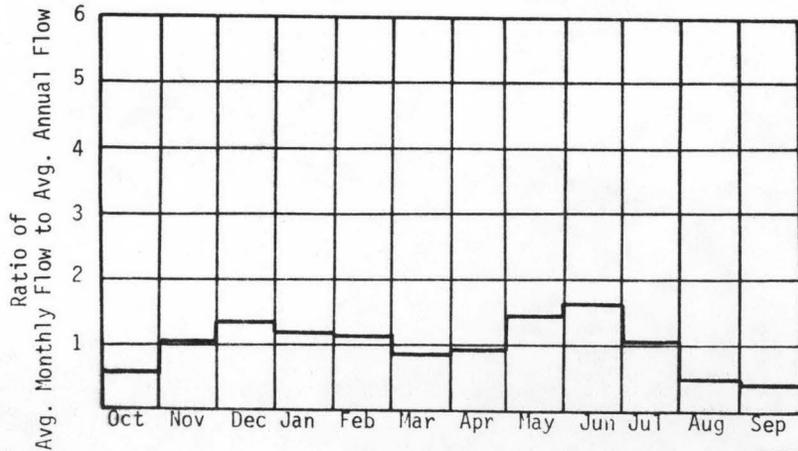
A. Upstream Elevation of Reach 1925 Ft. MSL
 B. Downstream Elevation of Reach 1640 Ft. MSL
 C. Total Available Head in Reach 285 Ft.
 D. Average Slope in Reach 48 Ft./Mi.
 E. Drainage Area above Reach Mouth 52.5 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	109	2.63	23.0	1.00
80	179	4.32	35.9	0.95
50	308	2.43	53.4	0.82
30	441	10.6	65.2	0.70
10	718	17.3	75.8	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 390 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R7W</u>
D. Latitude, Longitude	<u>47°45' 123°30'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>42.7/48.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

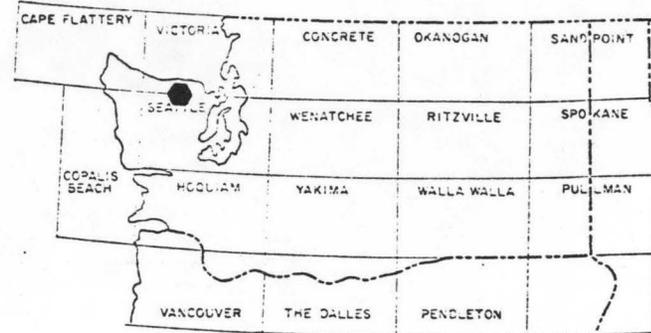
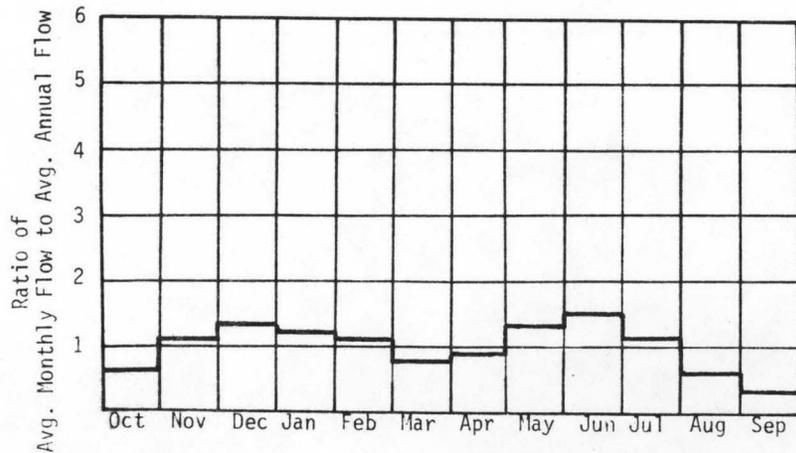
A. Upstream Elevation of Reach	<u>2150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1925</u>	Ft. MSL
C. Total Available Head in Reach	<u>225</u>	Ft.
D. Average Slope in Reach	<u>40</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>260</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

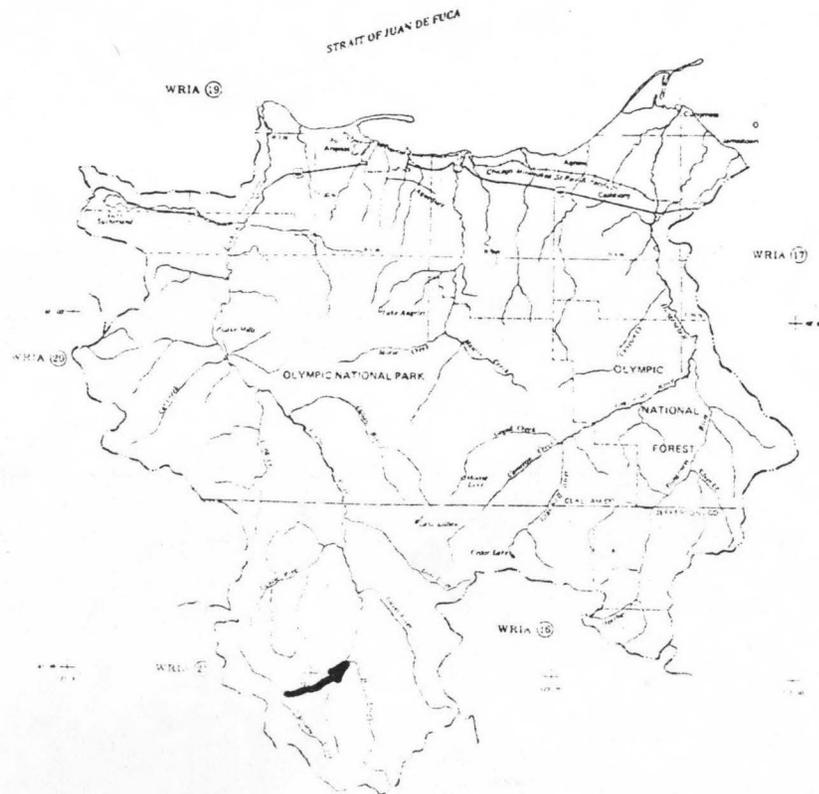
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	51.8	0.99	8.64	1.00
80	85.1	1.62	13.5	0.95
50	146	2.78	20.0	0.82
30	209	3.98	24.4	0.70
10	340	6.48	28.4	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 185 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R7W</u>
D. Latitude, Longitude	<u>47°44' 123°33'</u>
E. Stream Name	<u>Elwha River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>48.3/52.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

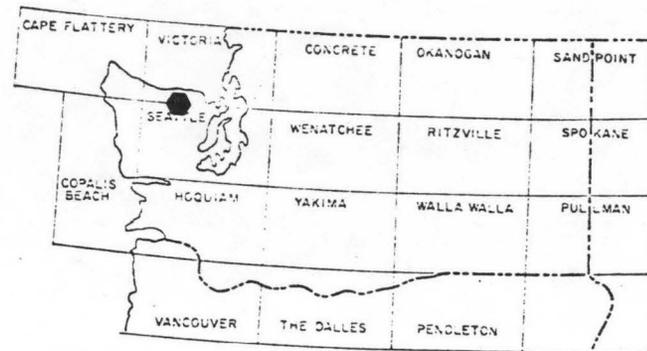
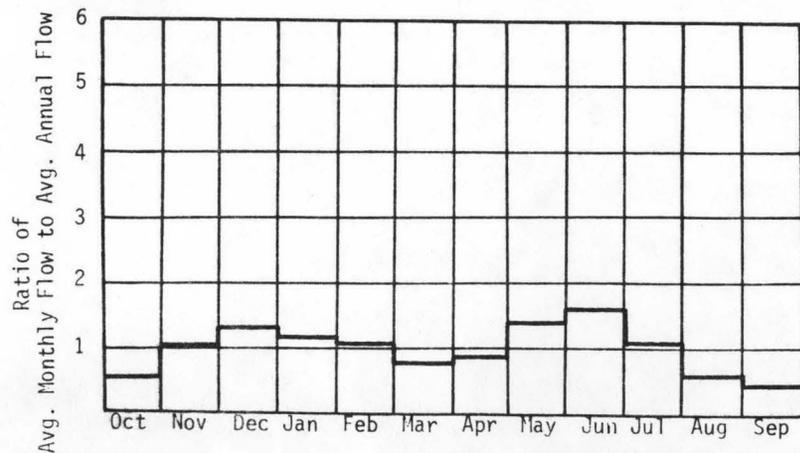
A. Upstream Elevation of Reach	<u>2600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2150</u>	Ft. MSL
C. Total Available Head in Reach	<u>450 + 66 = 516</u>	Ft.
D. Average Slope in Reach	<u>136</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

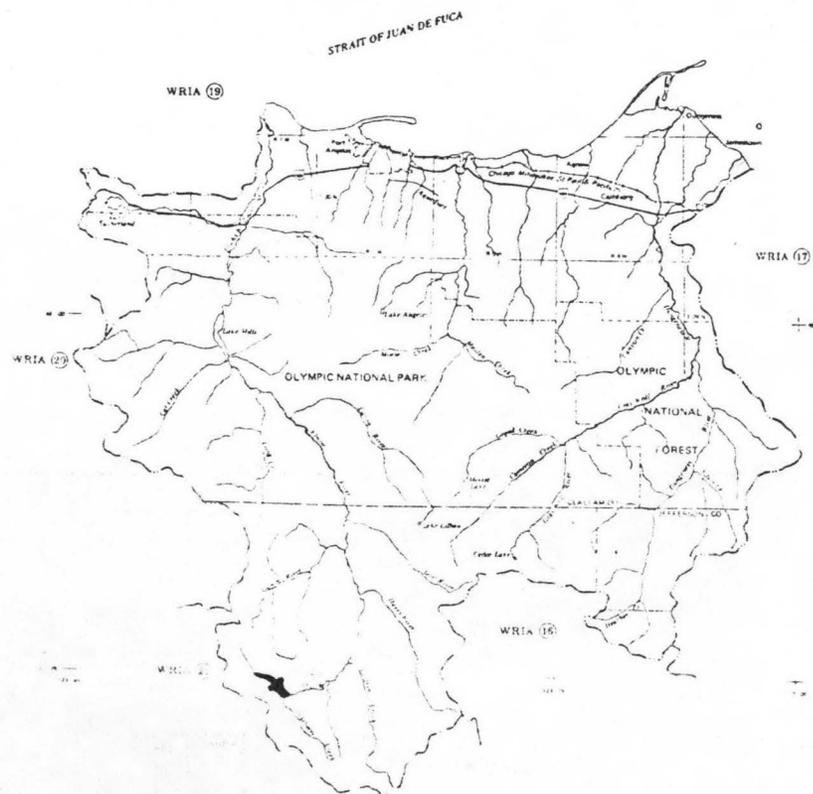
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.4	0.76	6.64	1.00
80	28.5	1.25	10.4	0.95
50	48.9	2.14	15.4	0.82
30	70.1	3.06	18.8	0.70
10	114.1	4.98	21.8	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 62 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0011

I. LOCATION

A. State Washington
 B. County Callam
 C. Township, Range T28N R7W
 D. Latitude, Longitude 47°55' 123°36'
 E. Stream Name Boulder Creek
 F. Major Basin Name Elwha River
 G. River Mile 0/2.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

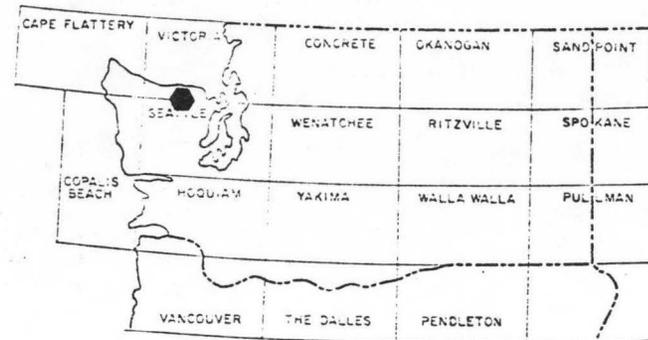
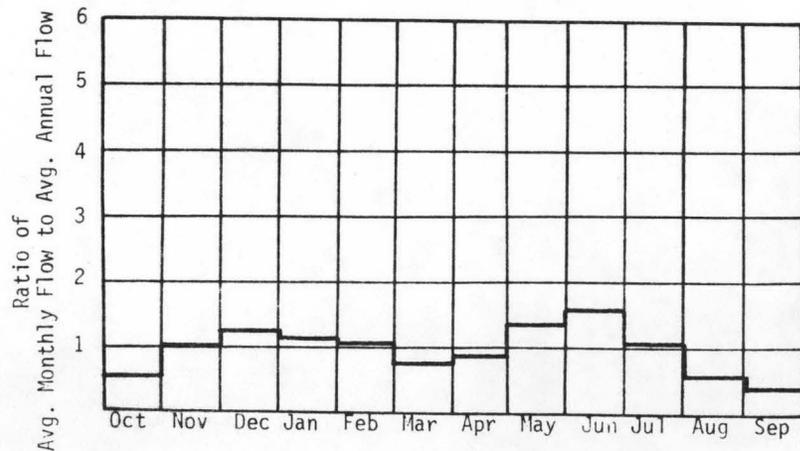
A. Upstream Elevation of Reach 1300 Ft. MSL
 B. Downstream Elevation of Reach 600 Ft. MSL
 C. Total Available Head in Reach 700 + 66 = 766 Ft.
 D. Average Slope in Reach 304 Ft./Mi.
 E. Drainage Area above Reach Mouth 20.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

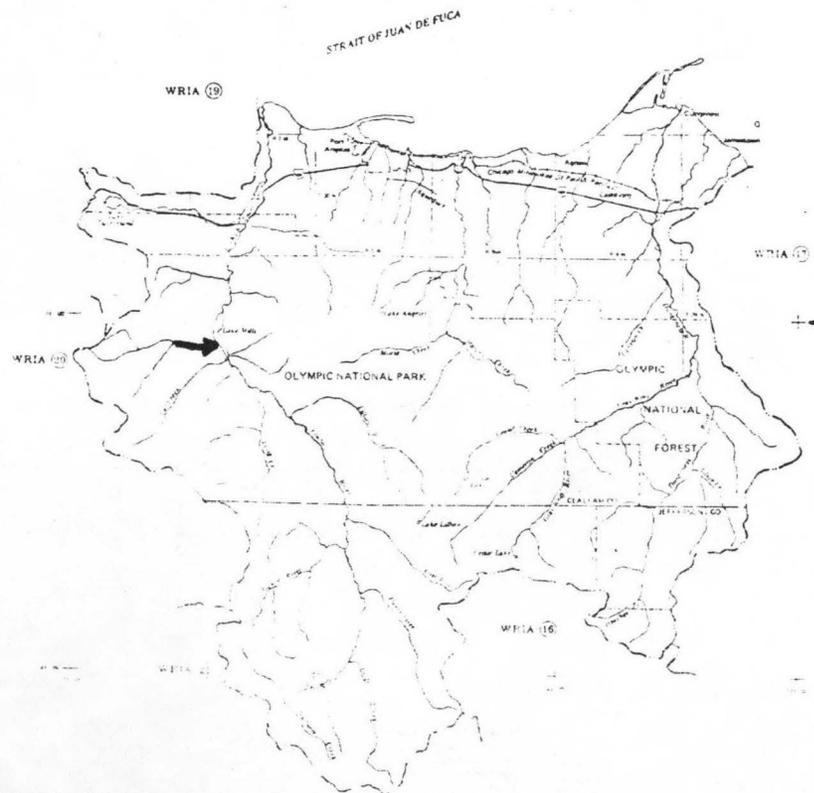
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.1	1.31	11.4	1.00
80	33.1	2.15	17.9	0.95
50	56.8	3.69	26.5	0.82
30	81.4	5.27	32.3	0.70
10	132.0	8.59	37.6	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 72 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T27N R7W</u>
D. Latitude, Longitude	<u>47°58' 123°40'</u>
E. Stream Name	<u>Cat Creek</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>0/6.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

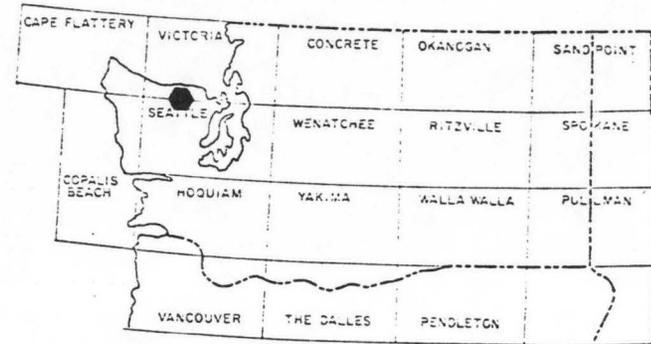
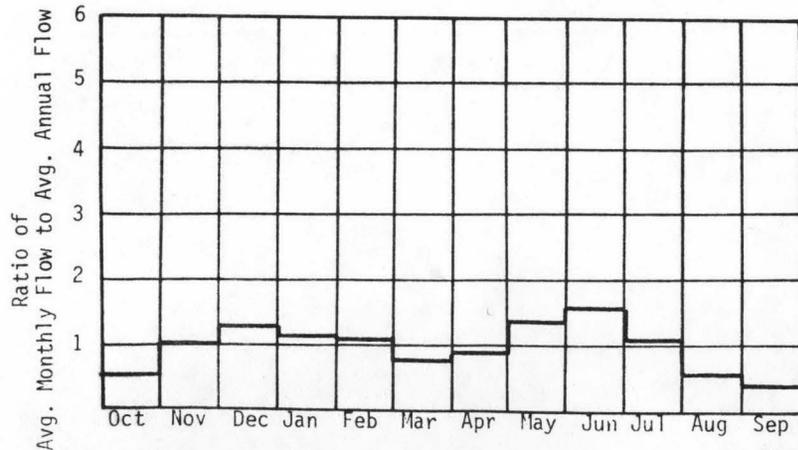
A. Upstream Elevation of Reach	<u>2540</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>600</u>	Ft. MSL
C. Total Available Head in Reach	<u>1940</u>	Ft.
D. Average Slope in Reach	<u>303</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

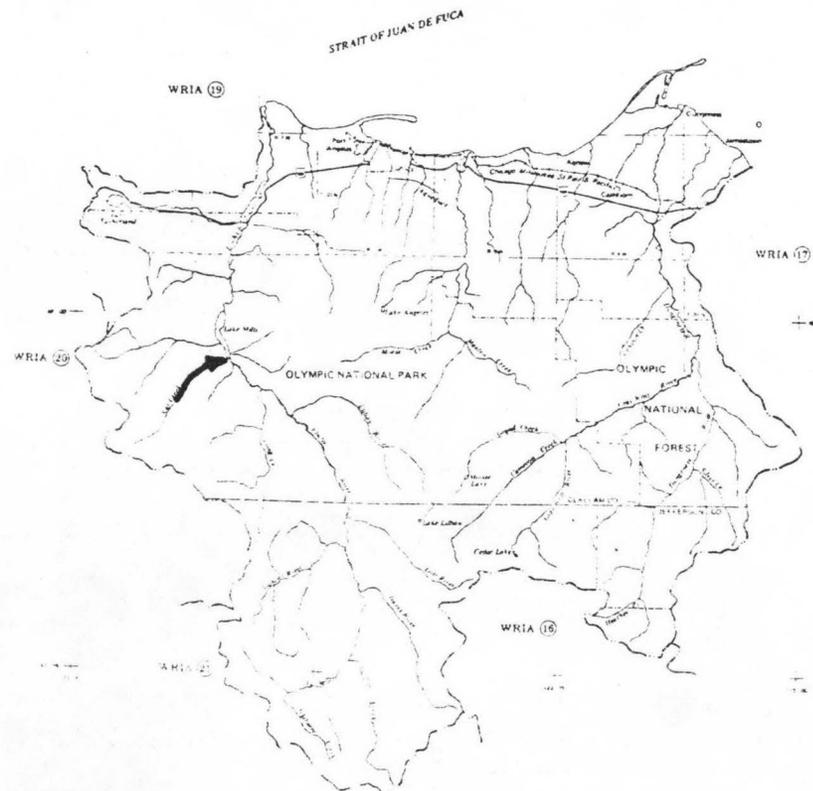
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.8	2.94	25.7	1.00
80	27.6	4.83	40.2	0.95
50	47.4	8.29	59.5	0.82
30	67.8	11.9	72.7	0.70
10	110.0	19.3	84.6	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 60 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R7W</u>
D. Latitude, Longitude	<u>47°54' 123°32'</u>
E. Stream Name	<u>Long Creek</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>0/5.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

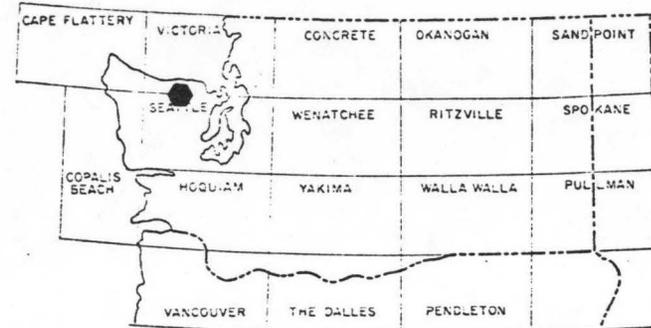
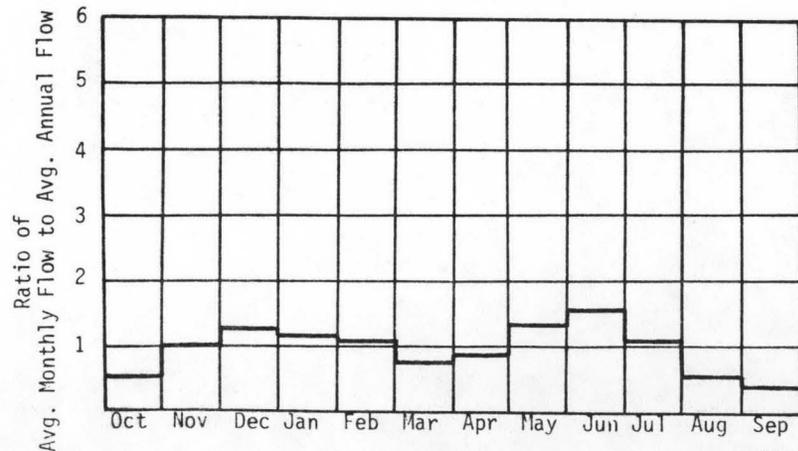
A. Upstream Elevation of Reach	<u>2090</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>700</u>	Ft. MSL
C. Total Available Head in Reach	<u>1380</u>	Ft.
D. Average Slope in Reach	<u>269</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

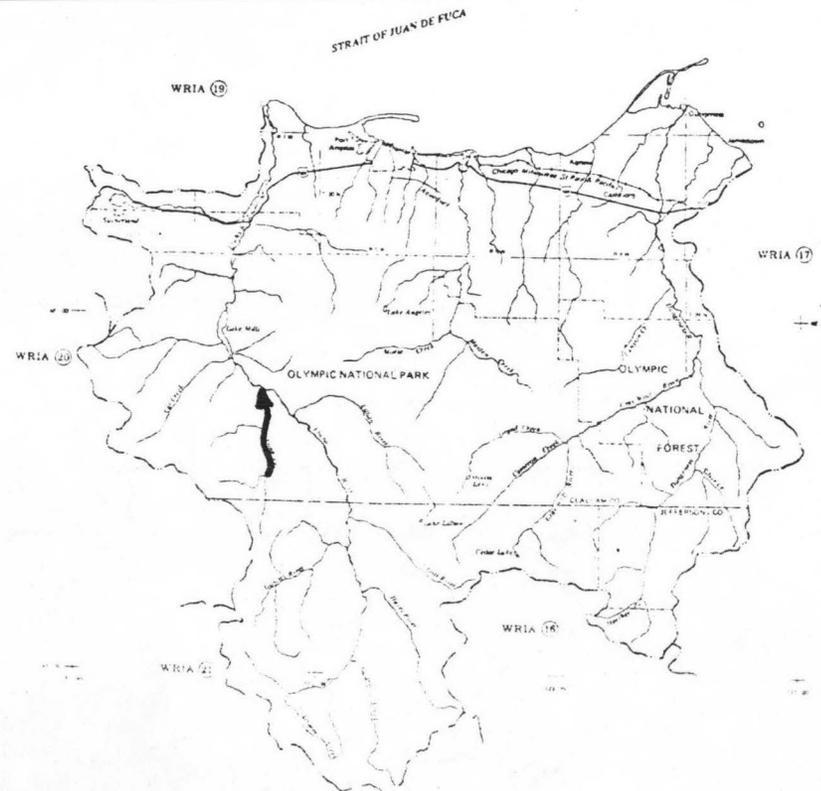
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.2	3.04	26.6	1.00
80	41.4	5.00	41.6	0.95
50	71.1	8.58	61.6	0.82
30	102	12.3	75.3	0.70
10	166	20.0	87.5	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 90 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0014

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T28N R6W
 D. Latitude, Longitude 47°56' 123°29'
 E. Stream Name Lillian River
 F. Major Basin Name Elwha River
 G. River Mile 0/6.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

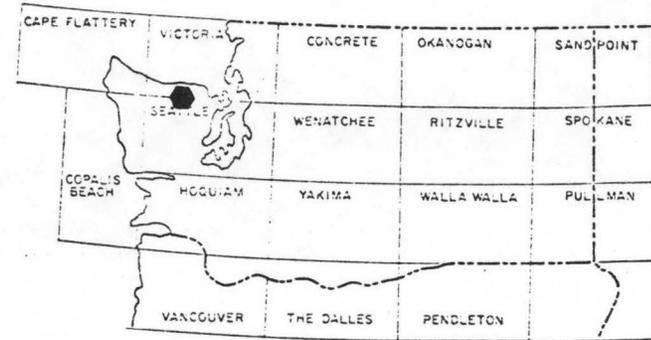
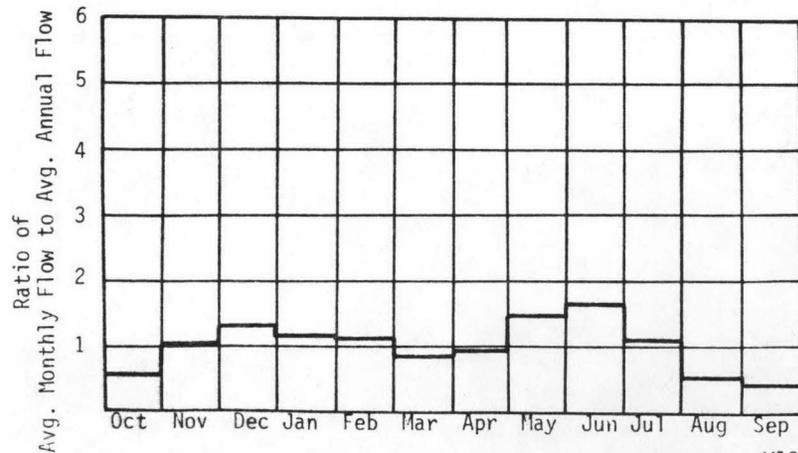
A. Upstream Elevation of Reach 2850 Ft. MSL
 B. Downstream Elevation of Reach 1000 Ft. MSL
 C. Total Available Head in Reach 1850 + 66 = 1916 Ft.
 D. Average Slope in Reach 272 Ft./Mi.
 E. Drainage Area above Reach Mouth 24.0 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

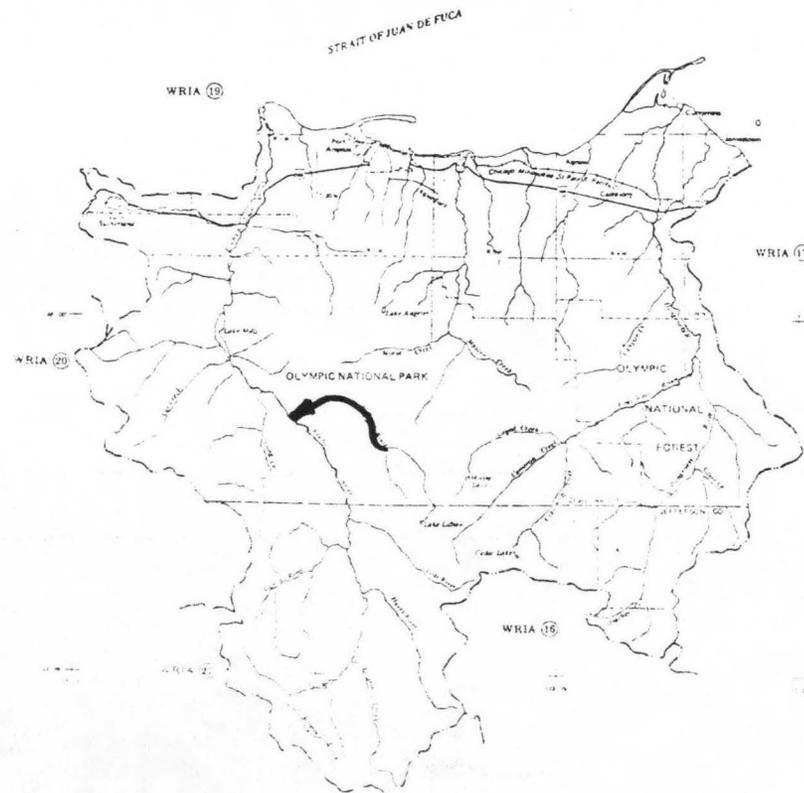
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.2	3.27	28.6	1.00
80	33.1	5.37	44.7	0.95
50	56.9	9.33	66.3	0.82
30	81.4	13.2	80.9	0.70
10	132.0	26.5	94.1	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 72 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-R0015

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T27N R6W
 D. Latitude, Longitude 47°52' 123°25'
 E. Stream Name Lost River
 F. Major Basin Name Elwha River
 G. River Mile 0/2.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

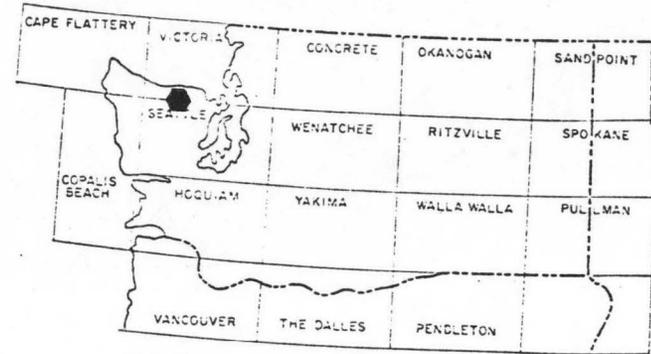
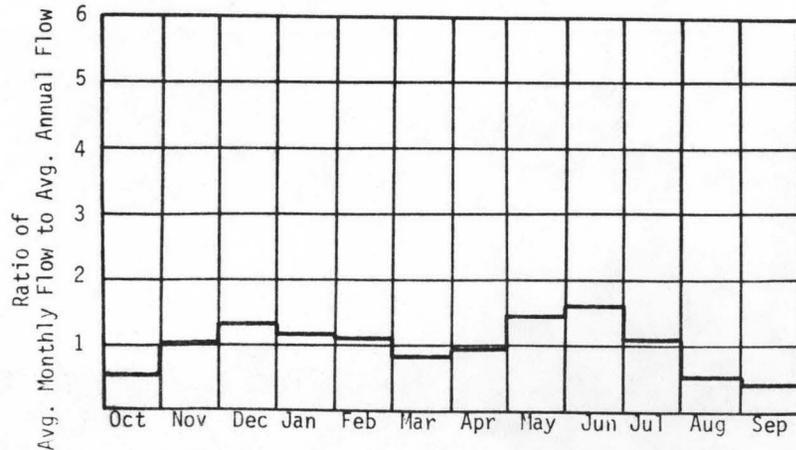
A. Upstream Elevation of Reach 2350 Ft. MSL
 B. Downstream Elevation of Reach 1410 Ft. MSL
 C. Total Available Head in Reach 940 + 66 = 2006 Ft.
 D. Average Slope in Reach 448 Ft./Mi.
 E. Drainage Area above Reach Mouth 12.1 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

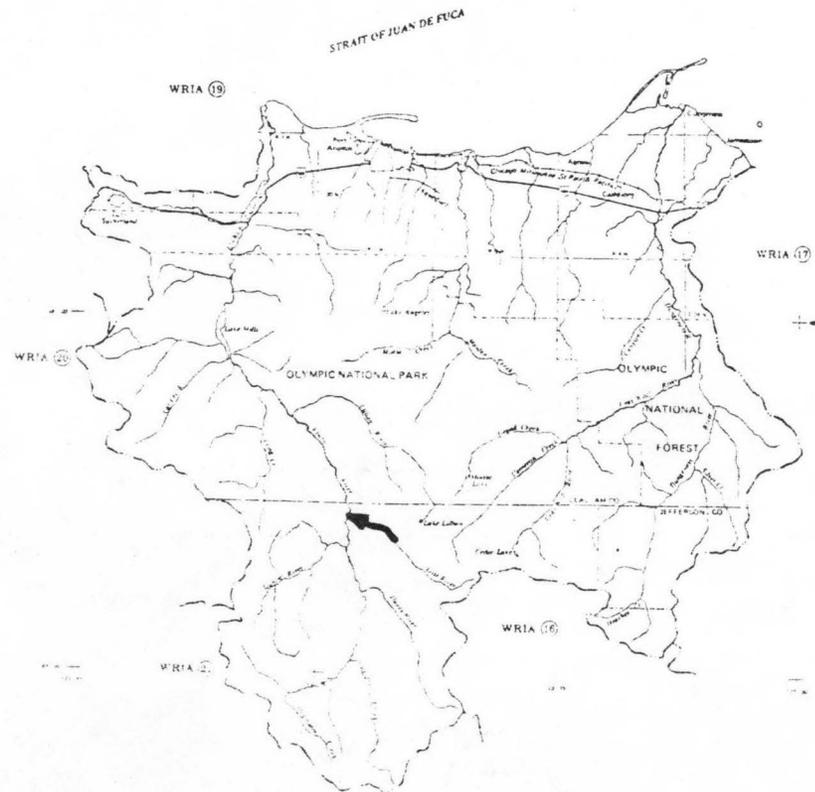
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.0	2.38	20.8	1.00
80	23.0	3.91	32.5	0.95
50	39.5	6.71	48.2	0.82
30	56.5	9.59	58.2	0.70
10	92.0	15.6	68.4	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 50 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R6W</u>
D. Latitude, Longitude	<u>47°50' 123°30'</u>
E. Stream Name	<u>Goldie River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>0/4.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

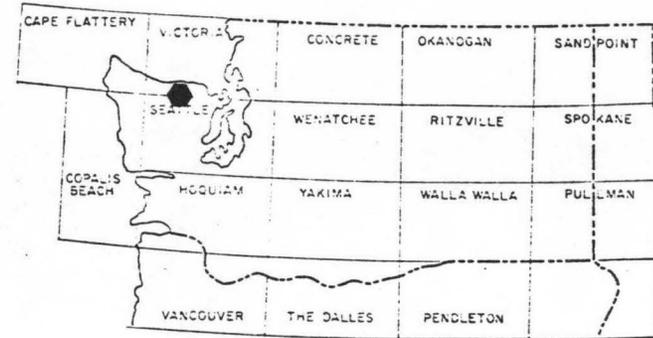
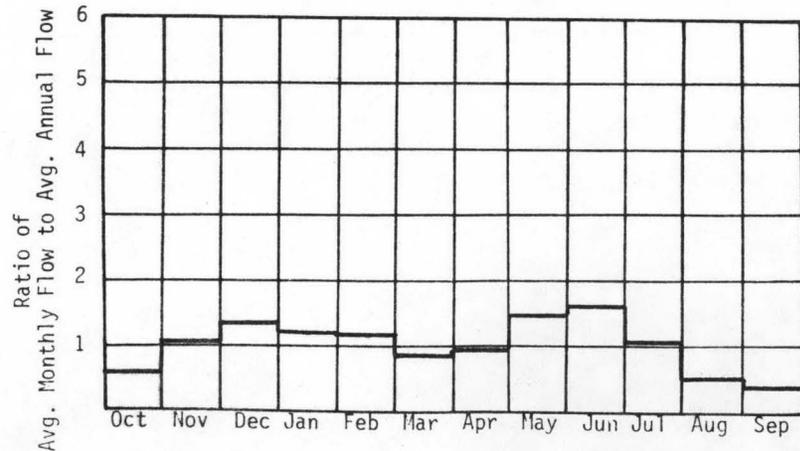
A. Upstream Elevation of Reach	<u>2400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1500</u>	Ft. MSL
C. Total Available Head in Reach	<u>900 + 66 = 966</u>	Ft.
D. Average Slope in Reach	<u>191</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>28.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

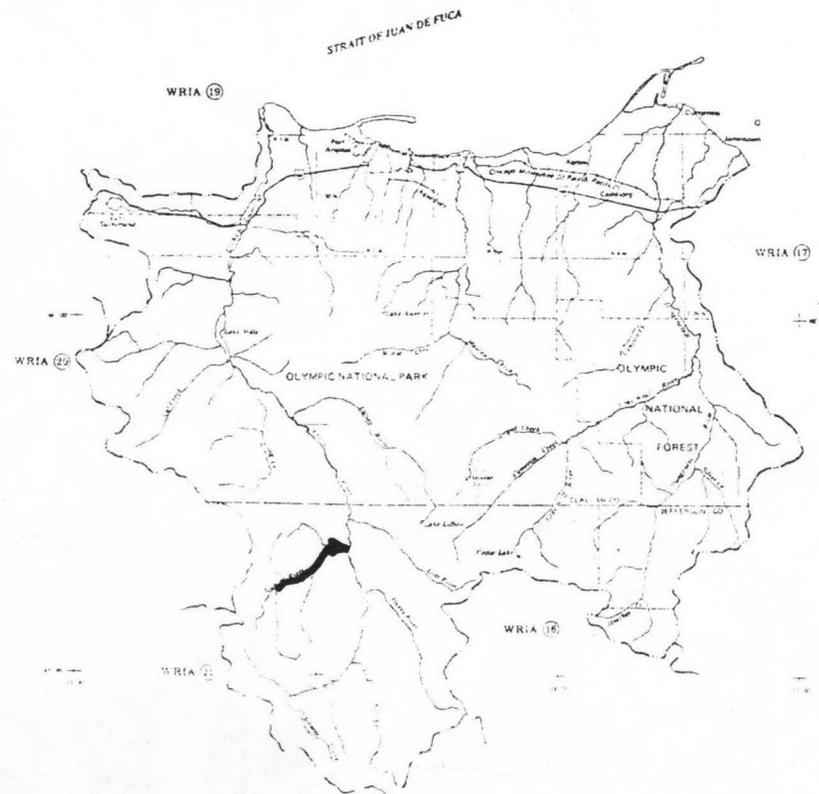
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	38.2	3.18	27.9	1.00
80	63.9	5.23	43.5	0.95
50	110	8.98	64.5	0.82
30	157	12.8	78.8	0.70
10	256	20.0	91.6	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 139 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R6W</u>
D. Latitude, Longitude	<u>47°48' 123°20'</u>
E. Stream Name	<u>Hayes River</u>
F. Major Basin Name	<u>Elwha River</u>
G. River Mile	<u>0/6.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

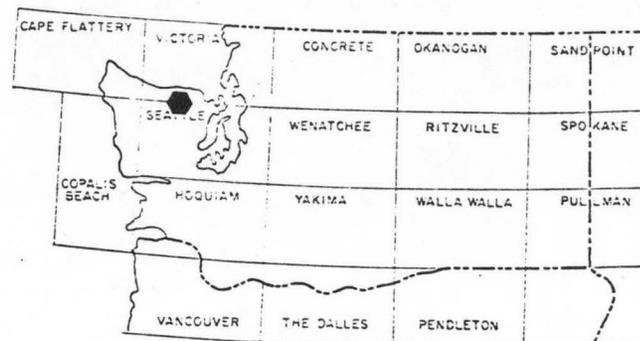
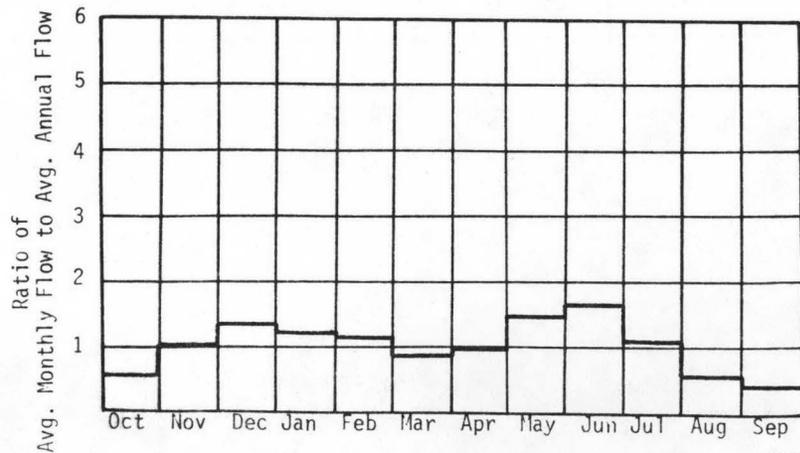
A. Upstream Elevation of Reach	<u>3275</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1600</u>	Ft. MSL
C. Total Available Head in Reach	<u>1675 + 66 = 1741</u>	Ft.
D. Average Slope in Reach	<u>275</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>18.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.9	2.93	25.7	1.00
80	32.7	4.81	40.1	0.95
50	56.1	8.27	59.4	0.82
30	80.2	11.8	72.5	0.70
10	131.0	19.3	84.3	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 71 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0018

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T86N R7W
 D. Latitude, Longitude 47°44' 123°26'
 E. Stream Name Godkin Creek
 F. Major Basin Name Elwha River
 G. River Mile 0/5.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

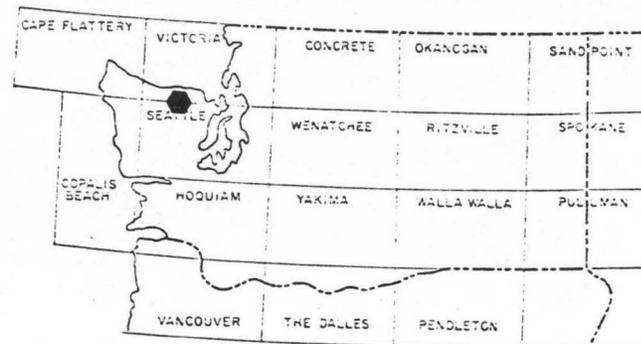
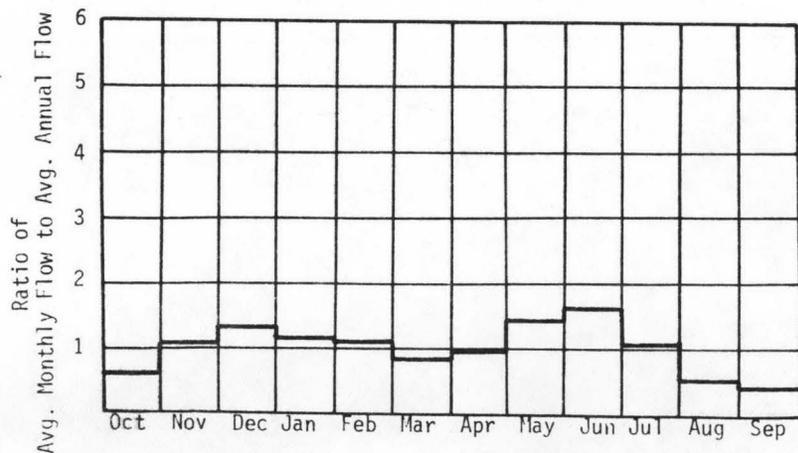
A. Upstream Elevation of Reach 2940 Ft. MSL
 B. Downstream Elevation of Reach 1925 Ft. MSL
 C. Total Available Head in Reach 1015 + 66 = 1081 Ft.
 D. Average Slope in Reach 172 Ft./Mi.
 E. Drainage Area above Reach Mouth 44.0 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

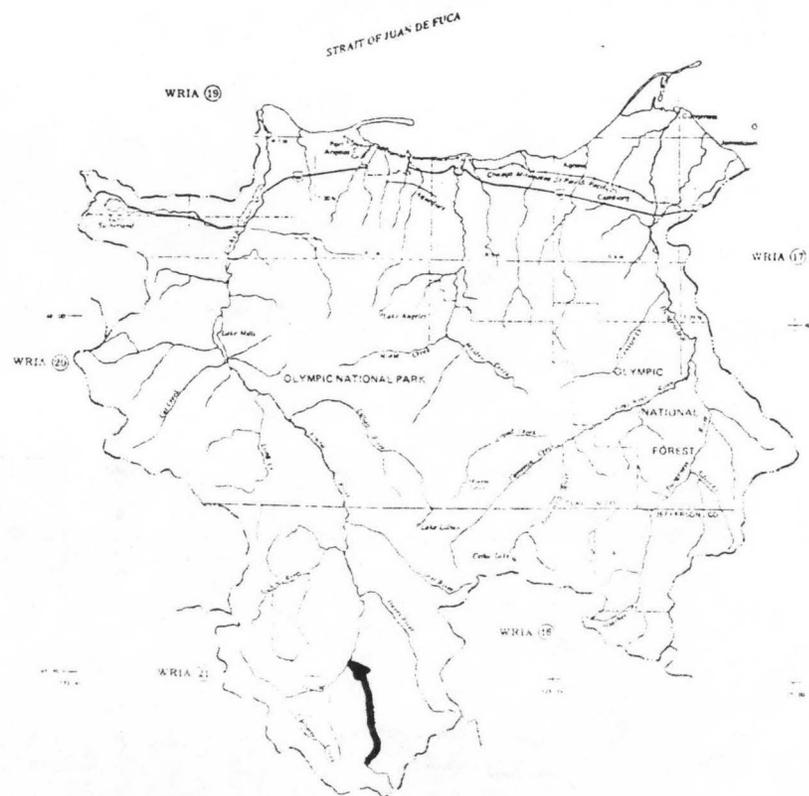
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.2	2.31	20.2	1.00
80	41.4	3.79	31.5	0.95
50	71.1	6.51	46.7	0.82
30	102	9.31	57.1	0.70
10	166	15.2	66.4	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 90 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-003-000-000-000-R0019

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R7W
 D. Latitude, Longitude 47°40' 123°30'
 E. Stream Name Delabarre Creek
 F. Major Basin Name Elwha River
 G. River Mile 0/0.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

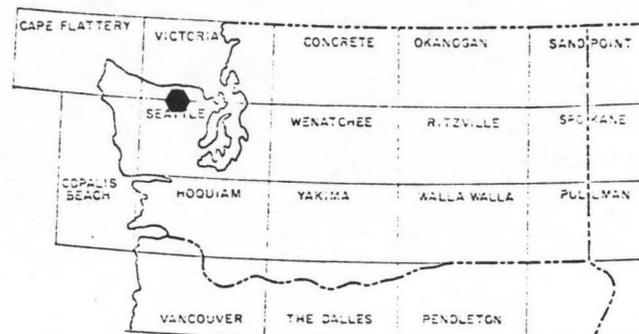
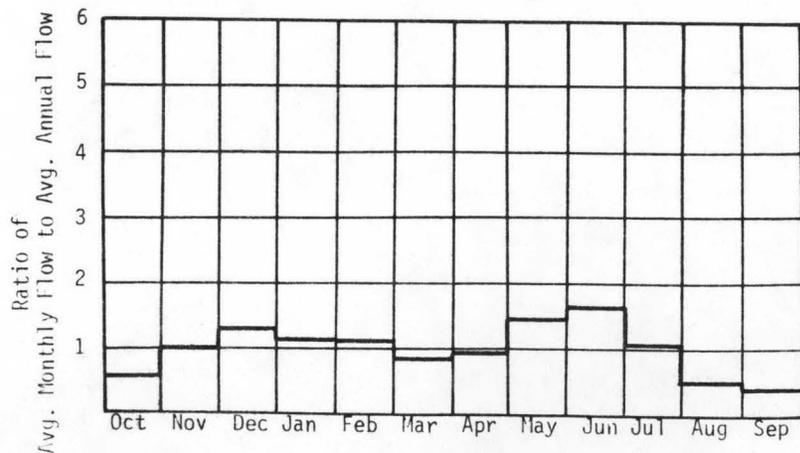
A. Upstream Elevation of Reach 2200 Ft. MSL
 B. Downstream Elevation of Reach 2150 Ft. MSL
 C. Total Available Head in Reach 50 + 66 = 116 Ft.
 D. Average Slope in Reach 125 Ft./Mi.
 E. Drainage Area above Reach Mouth 6.6 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

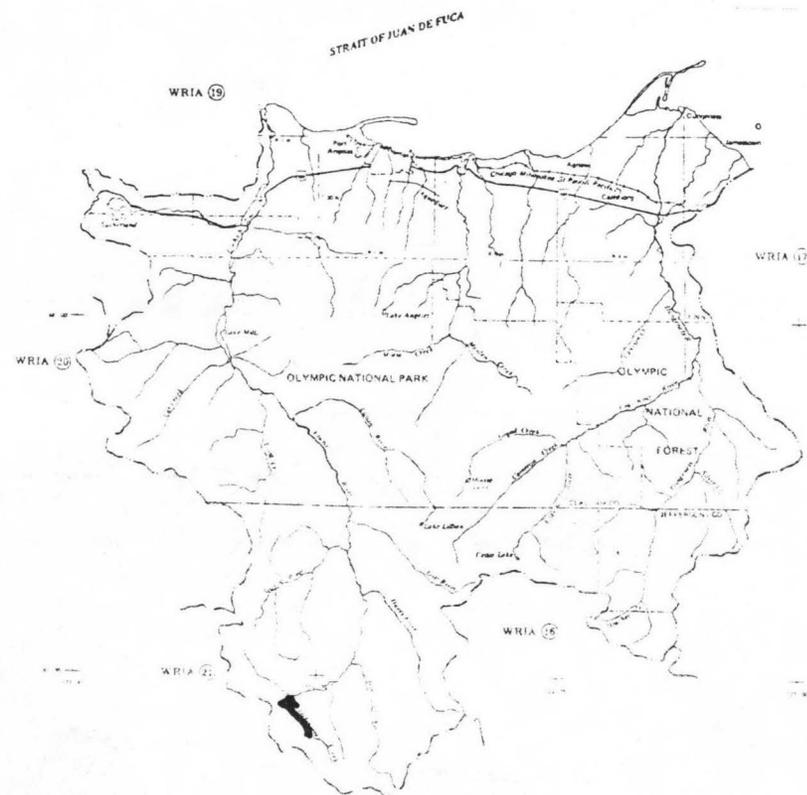
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.1	0.17	1.47	1.00
80	28.1	0.28	2.41	0.95
50	48.2	0.47	4.14	0.82
30	68.9	0.68	5.93	0.70
10	112.0	1.10	9.65	0.50

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 61 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-008-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T32N, R14W
 D. Latitude, Longitude 48°25' 124°25'
 E. Stream Name Sekiu River
 F. Major Basin Name Sekiu River
 G. River Mile 0/1.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

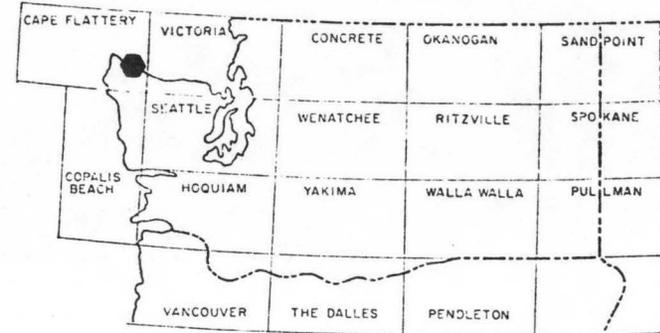
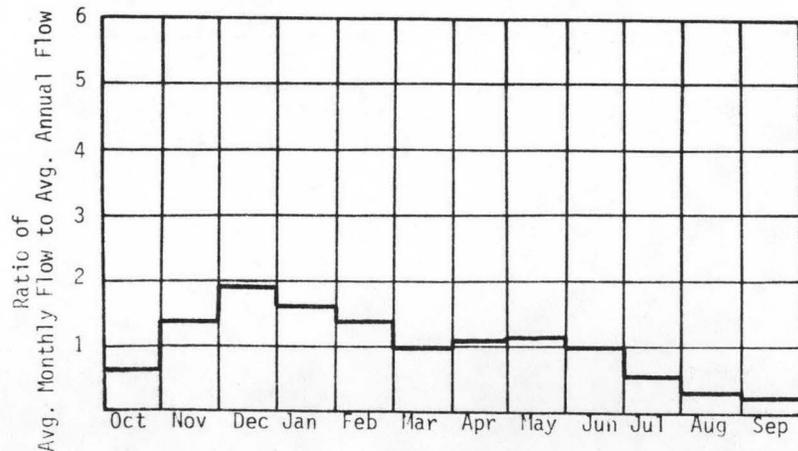
A. Upstream Elevation of Reach 40 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 40 Ft.
 D. Average Slope in Reach 31 Ft./Mi.
 E. Drainage Area above Reach Mouth 32.5 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

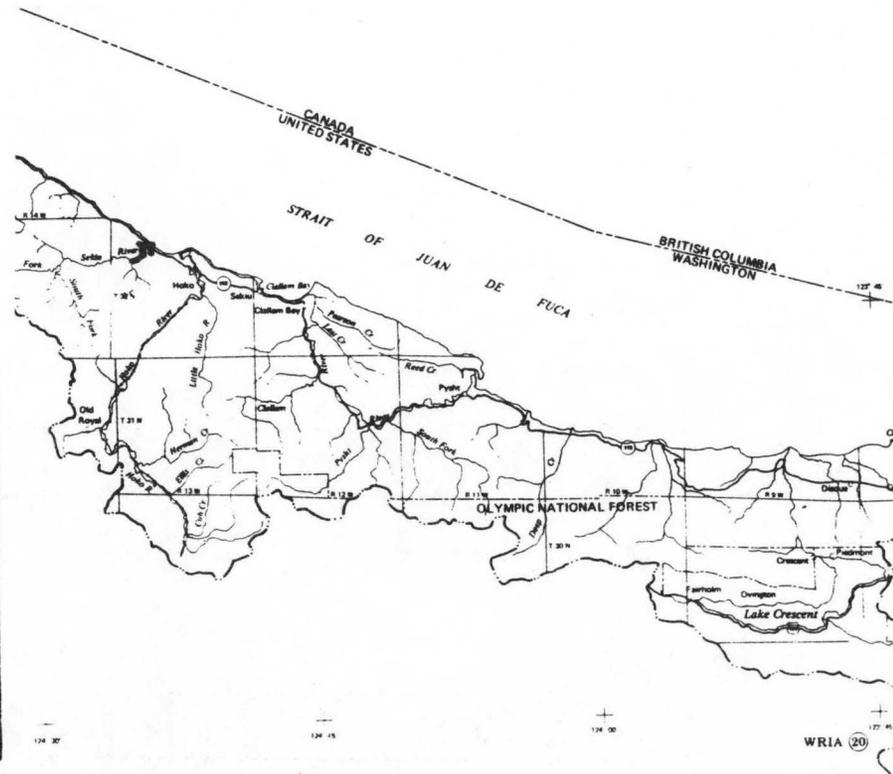
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.6	0.04	0.34	1.00
80	23.2	0.08	0.64	0.93
50	94.6	0.32	1.99	0.71
30	205	0.69	3.28	0.54
10	473	1.60	4.77	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 193 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-008-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T32N, R14W</u>
D. Latitude, Longitude	<u>48°25' 124°25'</u>
E. Stream Name	<u>Sekiu River</u>
F. Major Basin Name	<u>Sekiu River</u>
G. River Mile	<u>1.3/5.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

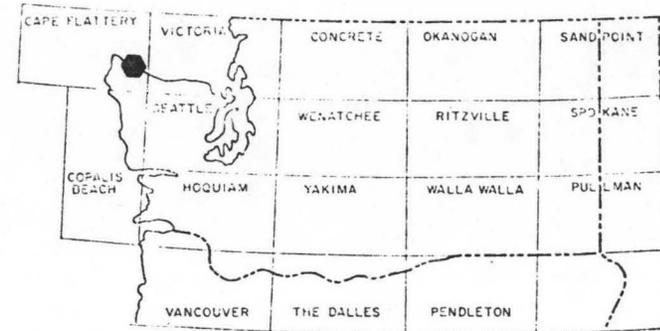
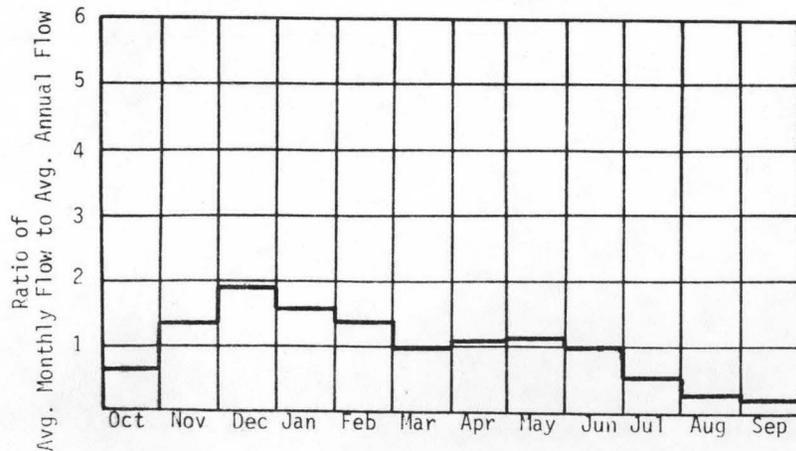
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>30 + 66 = 96</u>	Ft.
D. Average Slope in Reach	<u>15</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>27.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

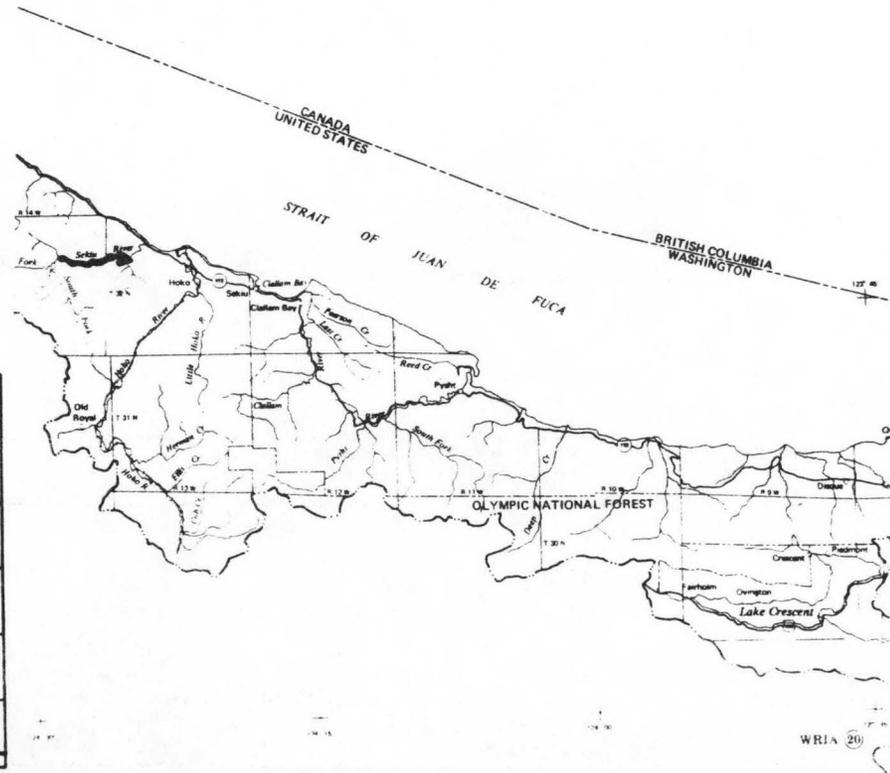
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.82	0.07	0.63	1.00
80	17.6	0.14	1.17	0.93
50	72.0	0.59	3.64	0.71
30	156	1.27	5.99	0.54
10	360	2.93	8.72	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 147 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-009-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N, R13W</u>
D. Latitude, Longitude	<u>48°25' 124°21'</u>
E. Stream Name	<u>Hoko River</u>
F. Major Basin Name	<u>Hoko River</u>
G. River Mile	<u>0/3.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

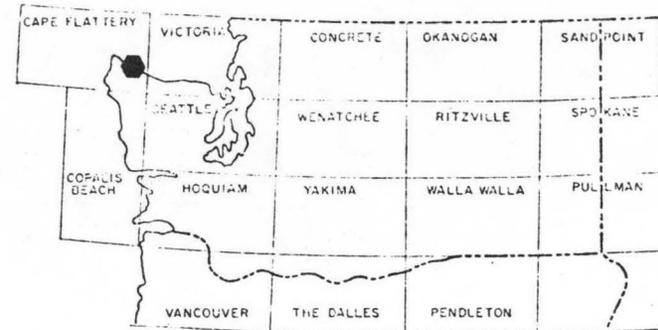
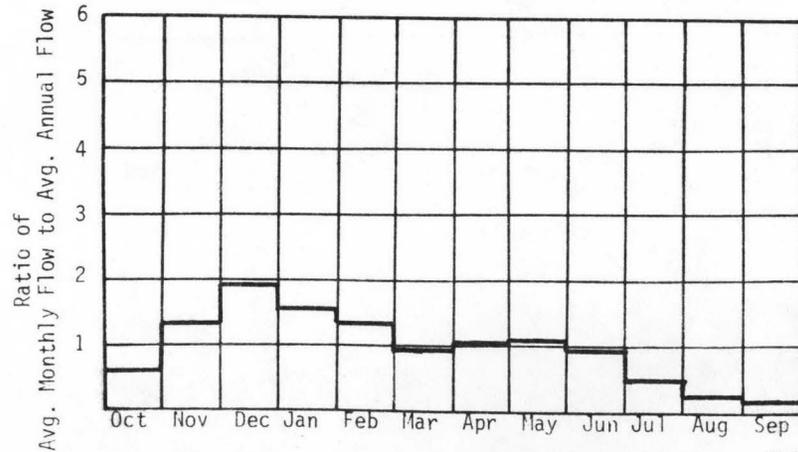
A. Upstream Elevation of Reach	<u>50</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>17</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>69.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

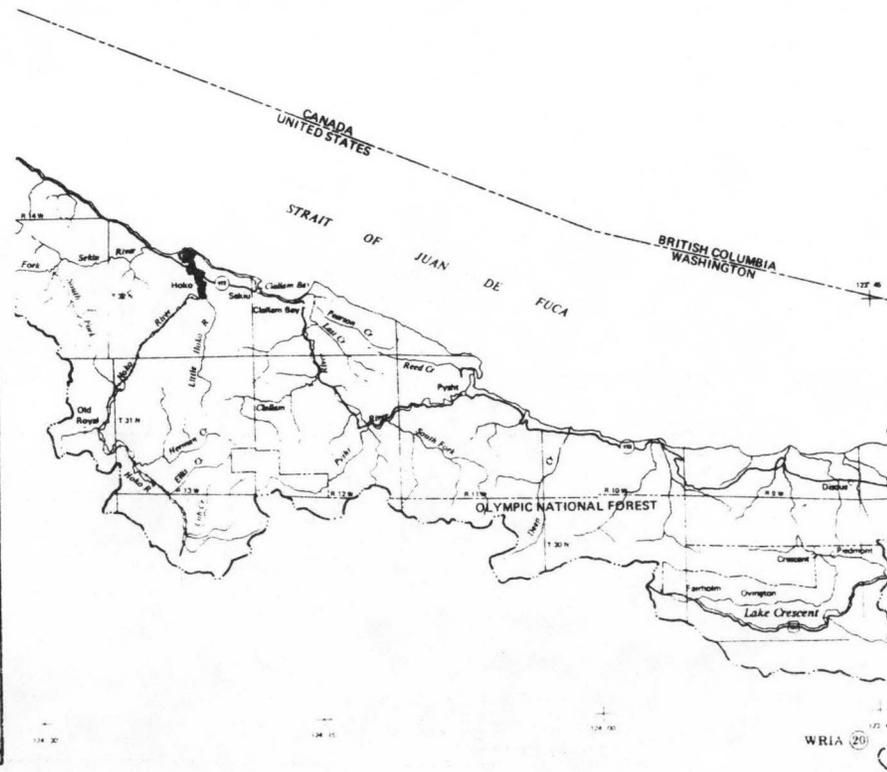
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	28.0	0.12	1.04	1.00
80	55.9	0.24	1.93	0.93
50	228	0.97	6.01	0.71
30	494	2.09	9.89	0.54
10	1140	4.83	14.4	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 466 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-009-000-000-000-R0002

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T32N R13W
 D. Latitude, Longitude 48°25' 124°21'
 E. Stream Name Hoko River
 F. Major Basin Name Hoko River
 G. River Mile 3.01/15.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

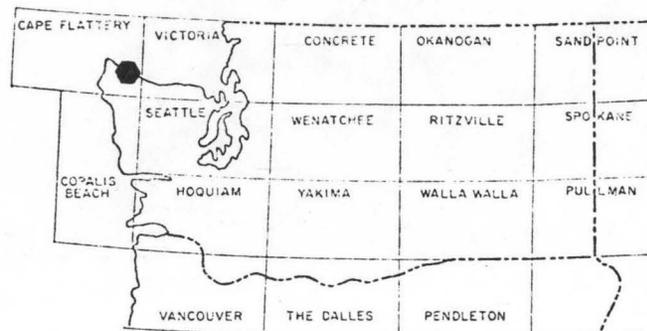
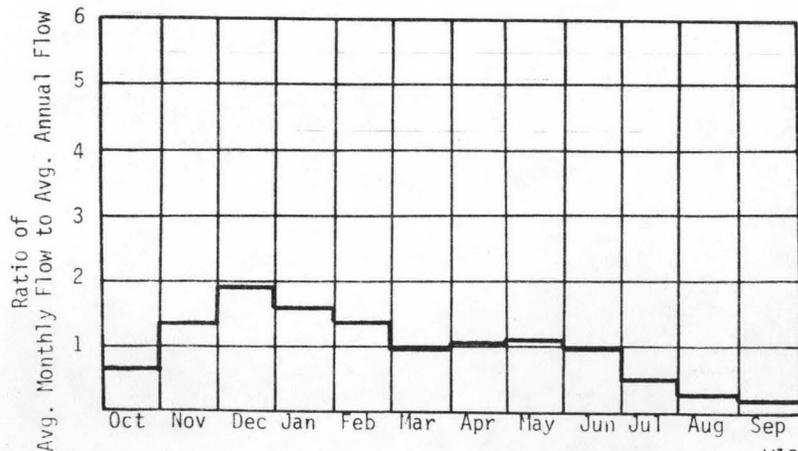
A. Upstream Elevation of Reach 220 Ft. MSL
 B. Downstream Elevation of Reach 50 Ft. MSL
 C. Total Available Head in Reach 170 Ft.
 D. Average Slope in Reach 14 Ft./Mi.
 E. Drainage Area above Reach Mouth 54.4 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

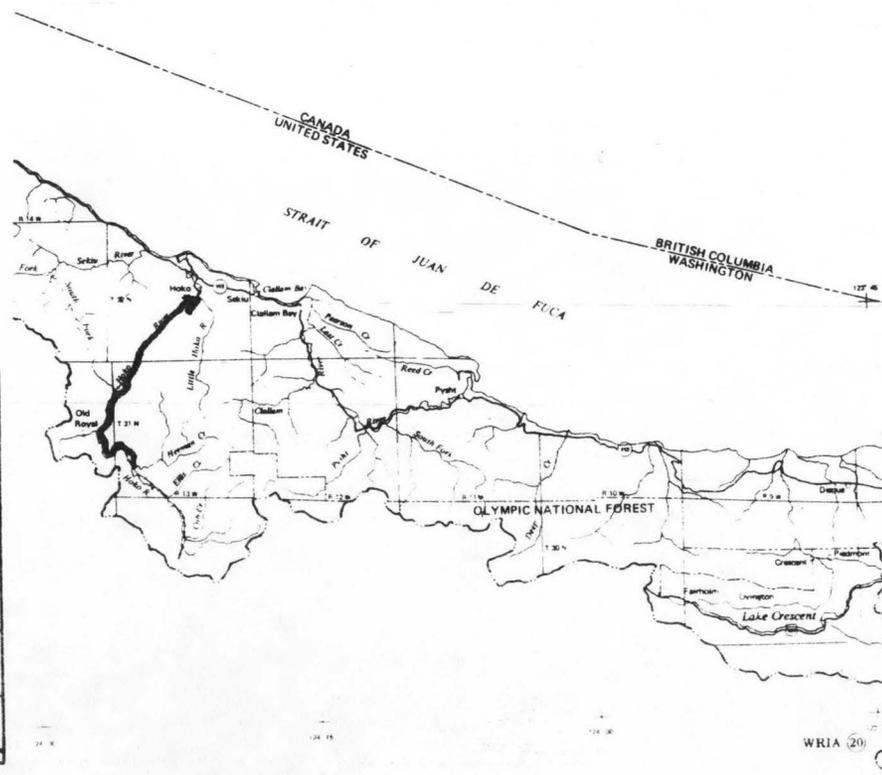
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	18.6	0.27	2.34	1.00
80	37.2	0.54	4.36	0.96
50	152	2.12	13.6	0.71
30	329	4.73	22.4	0.54
10	760	10.9	32.6	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 310 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-009-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T31N R13W</u>
D. Latitude, Longitude	<u>48°25' 124°21'</u>
E. Stream Name	<u>Hoko River</u>
F. Major Basin Name	<u>Hoko River</u>
G. River Mile	<u>15.2/20.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

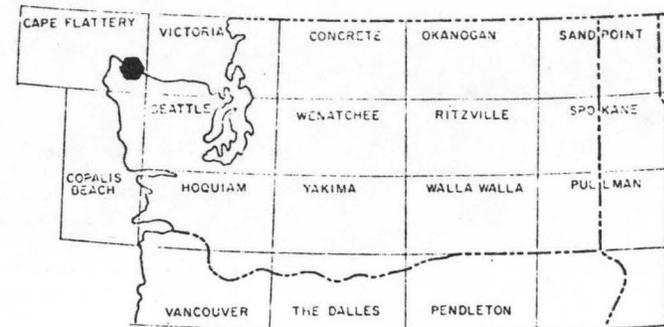
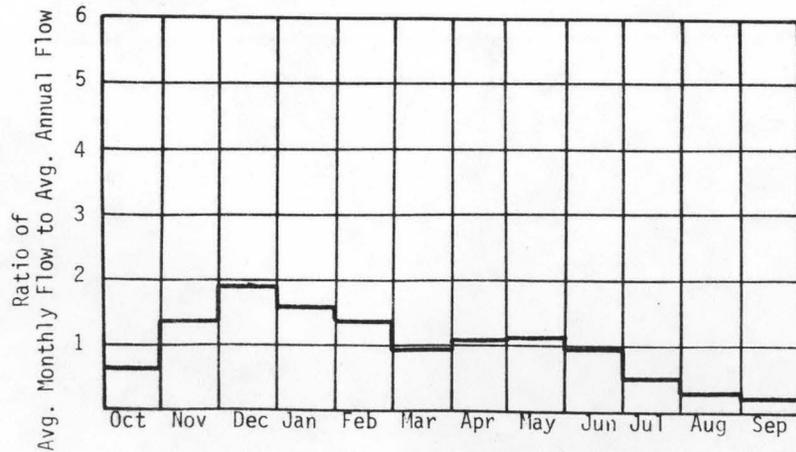
A. Upstream Elevation of Reach	<u>310</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>220</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>18</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

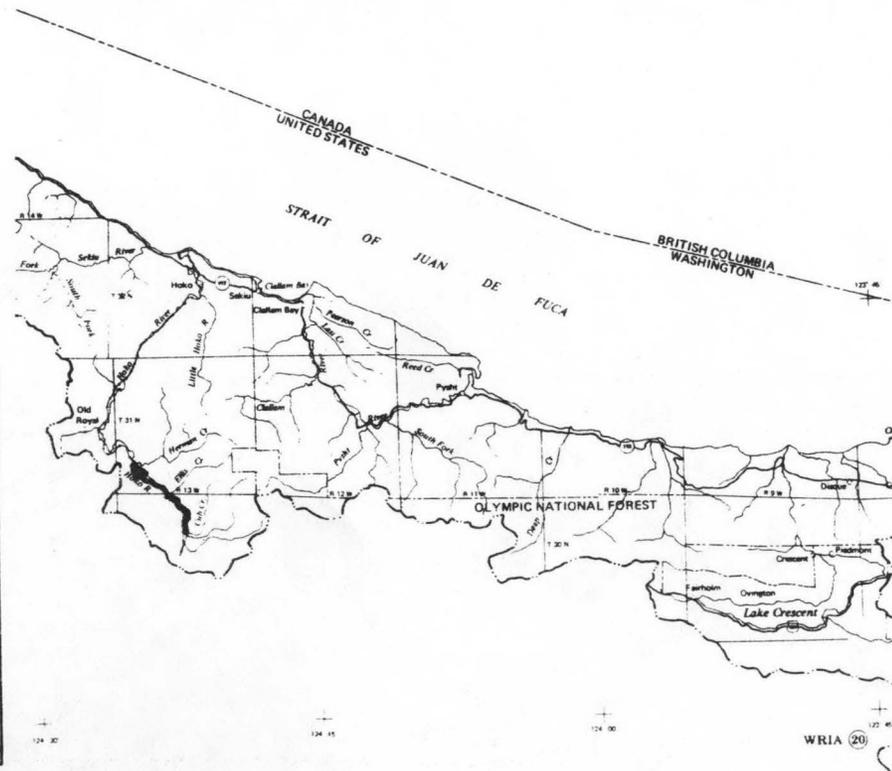
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.20	0.05	0.48	1.00
80	14.4	0.11	0.89	0.93
50	58.8	0.45	2.79	0.71
30	127	0.97	4.58	0.54
10	294	2.24	6.67	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 120 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-009-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T32N R13W</u>
D. Latitude, Longitude	<u>48°25' 124°21'</u>
E. Stream Name	<u>Little Hoko River</u>
F. Major Basin Name	<u>Hoko River</u>
G. River Mile	<u>0/1.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

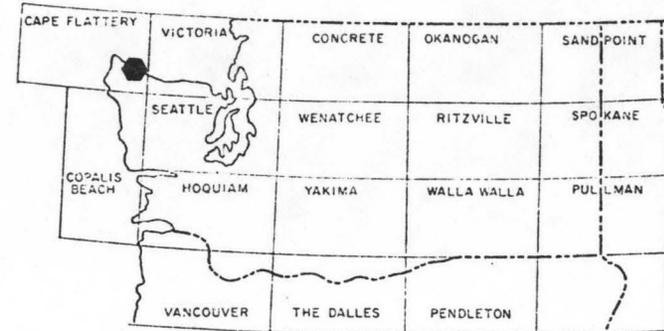
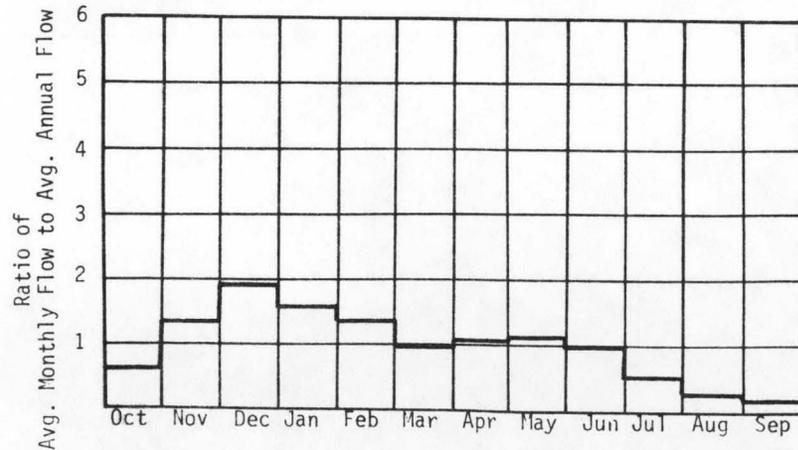
A. Upstream Elevation of Reach	<u>60</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>10 + 66 = 76</u>	Ft.
D. Average Slope in Reach	<u>7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

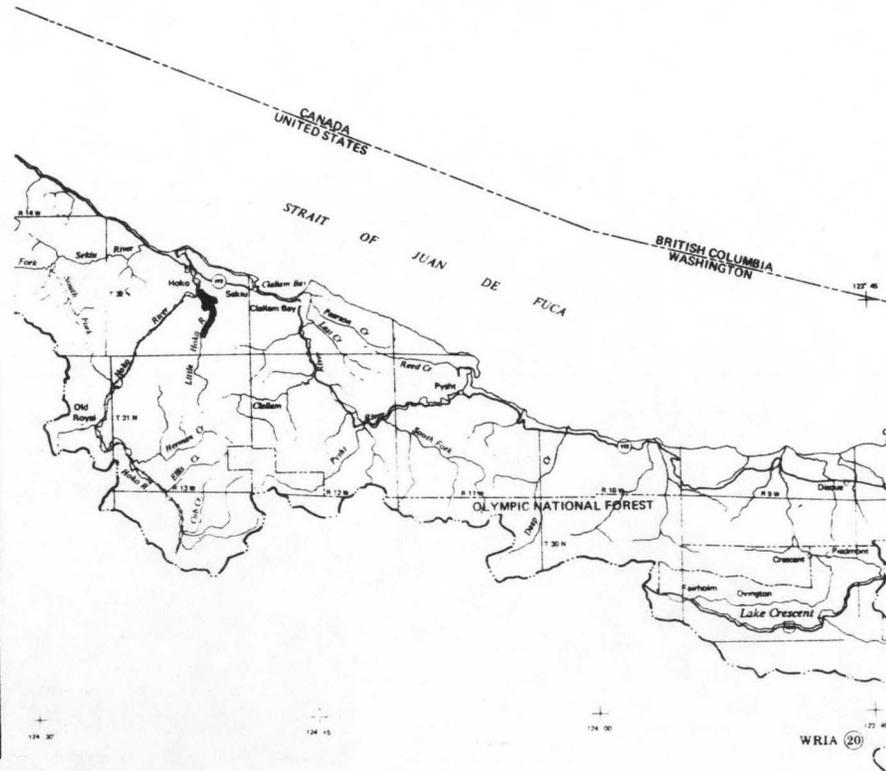
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.60	0.02	0.20	1.00
80	7.20	0.05	0.38	0.93
50	29.4	0.19	1.18	0.71
30	63.6	0.41	1.94	0.54
10	147	0.95	2.82	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 60 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-009-000-000-000-R0005

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T31N R13W
 D. Latitude, Longitude 48°13' 128°21'
 E. Stream Name Herman Creek
 F. Major Basin Name Hoko River
 G. River Mile 0/1.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

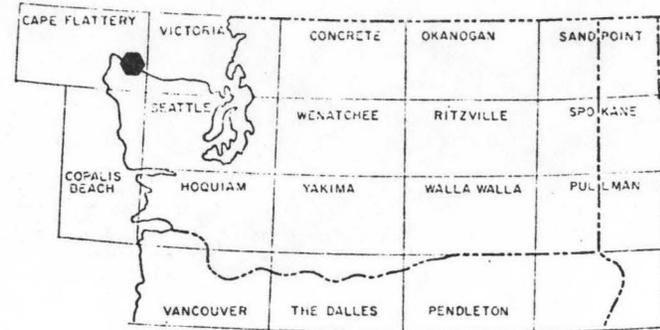
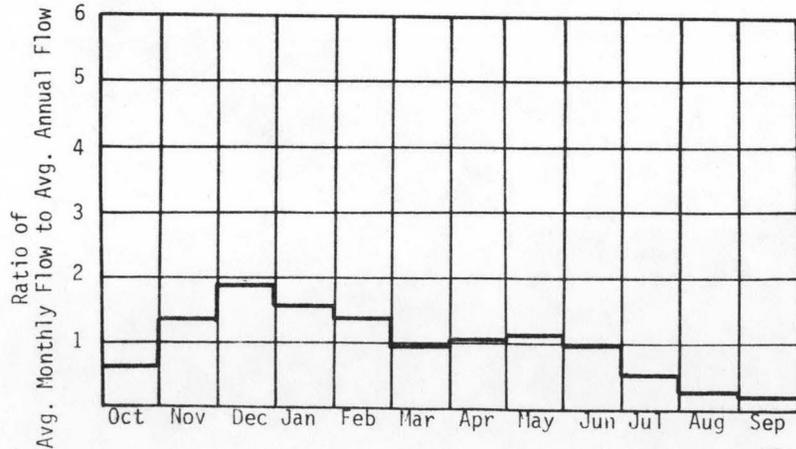
A. Upstream Elevation of Reach 310 Ft. MSL
 B. Downstream Elevation of Reach 220 Ft. MSL
 C. Total Available Head in Reach 90 + 66 = 156 Ft.
 D. Average Slope in Reach 50 Ft./Mi.
 E. Drainage Area above Reach Mouth 8.3 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

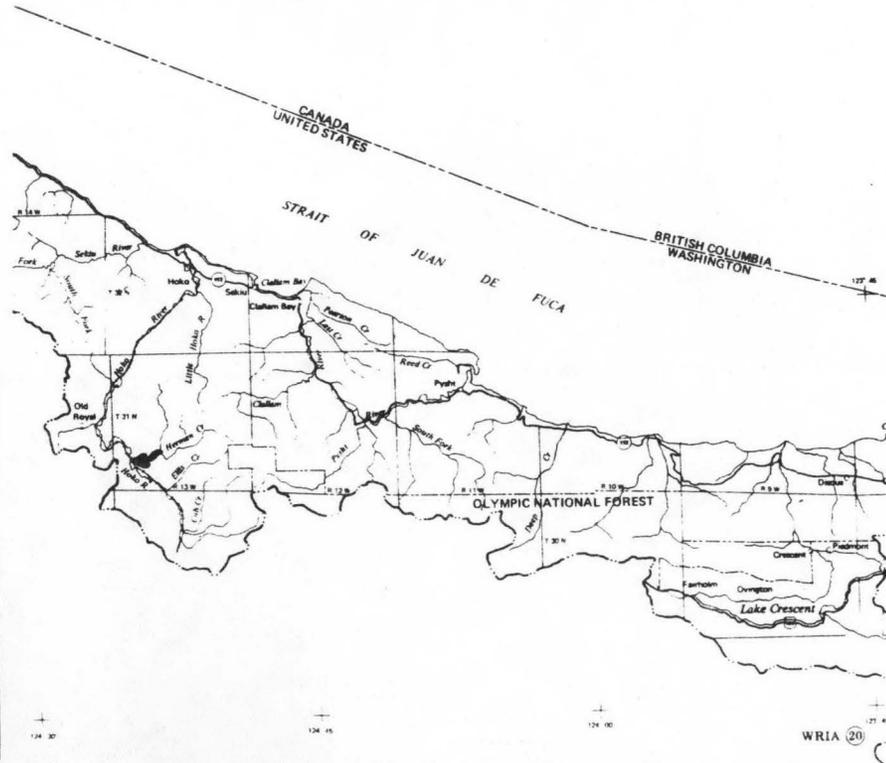
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.60	0.05	0.42	1.00
80	7.20	0.10	0.77	0.93
50	29.4	0.39	2.41	0.71
30	63.6	0.84	3.97	0.54
10	147	1.94	5.78	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 60 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-010-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T32N R12W</u>
D. Latitude, Longitude	<u>48°25' 124°51'</u>
E. Stream Name	<u>Clallam River</u>
F. Major Basin Name	<u>Clallam River</u>
G. River Mile	<u>0/3.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

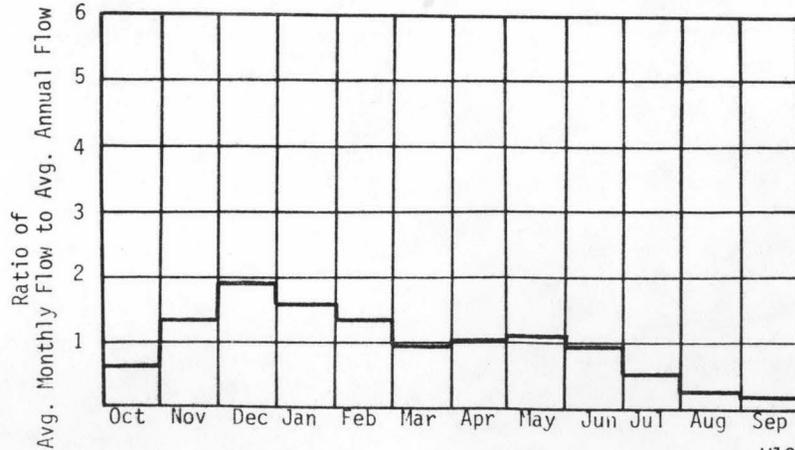
A. Upstream Elevation of Reach	<u>20</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>31.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

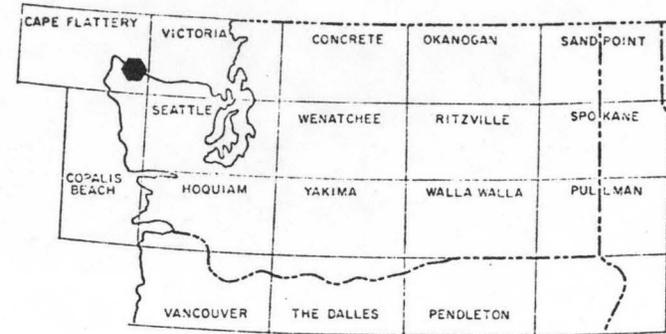
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.98	0.01	0.12	1.00
80	16.0	0.03	0.22	0.93
50	65.2	0.11	0.69	0.71
30	141	0.24	1.13	0.54
10	326	0.55	1.64	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

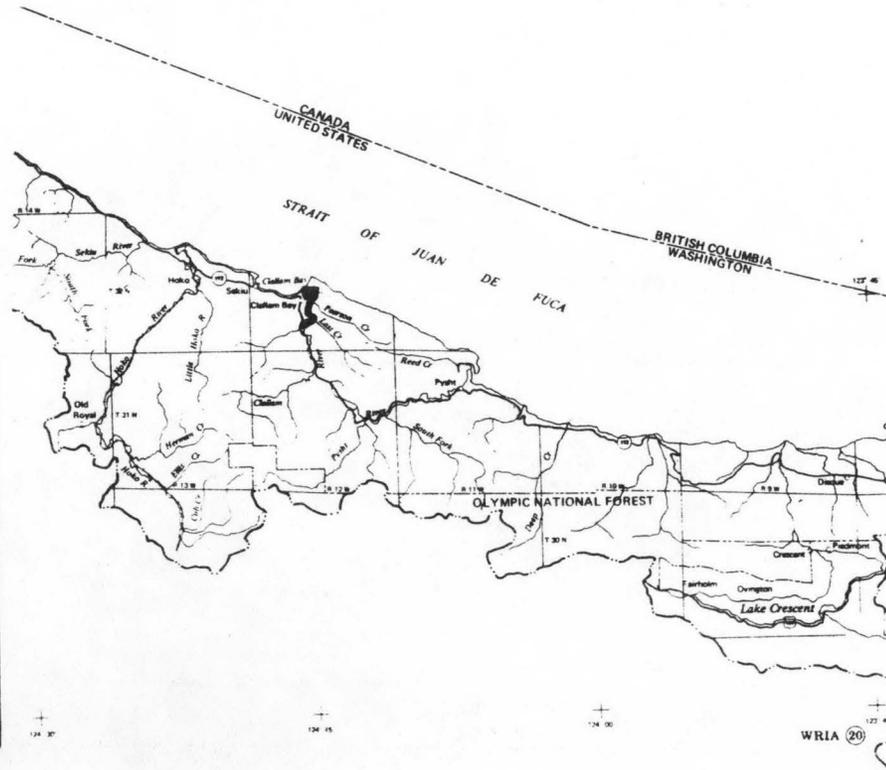
QMR = 133 cfs



W19-555



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-010-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T31N R12W</u>
D. Latitude, Longitude	<u>48°25' 124°51'</u>
E. Stream Name	<u>Clallam River</u>
F. Major Basin Name	<u>Clallam River</u>
G. River Mile	<u>3.1/6.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

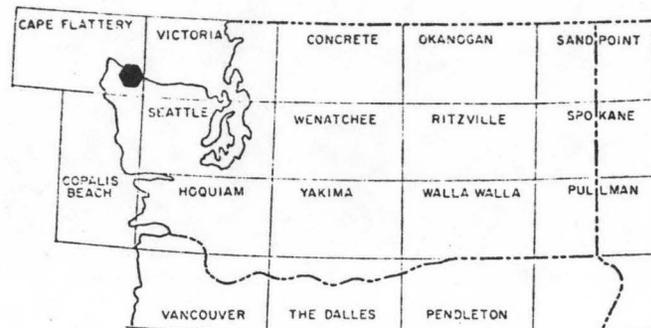
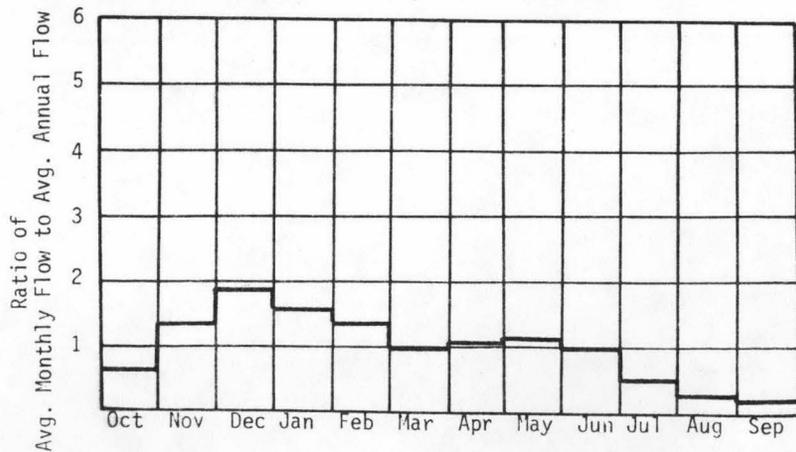
A. Upstream Elevation of Reach	<u>125</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>105 + 66 = 171</u>	Ft.
D. Average Slope in Reach	<u>30</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>19.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

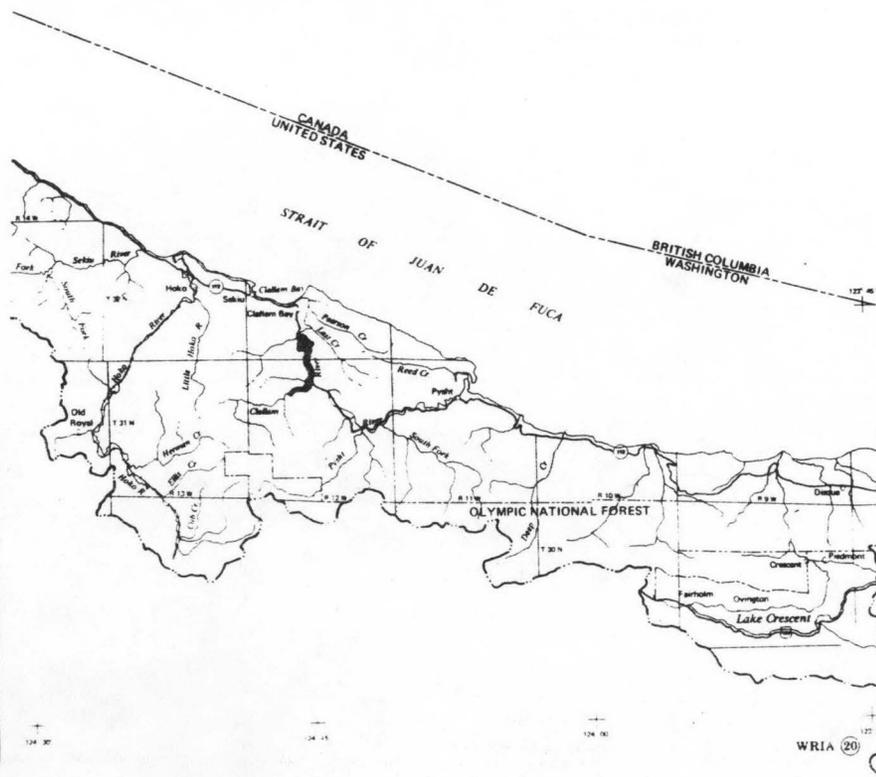
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.26	0.06	0.54	1.00
80	8.52	0.12	1.00	0.93
50	34.8	0.50	3.13	0.71
30	75.3	1.09	5.15	0.54
10	174	2.52	7.50	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 71 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-011-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>R31N R11W</u>
D. Latitude, Longitude	<u>48°25' 124°09W</u>
E. Stream Name	<u>Pysht River</u>
F. Major Basin Name	<u>Pysht River</u>
G. River Mile	<u>0/7.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

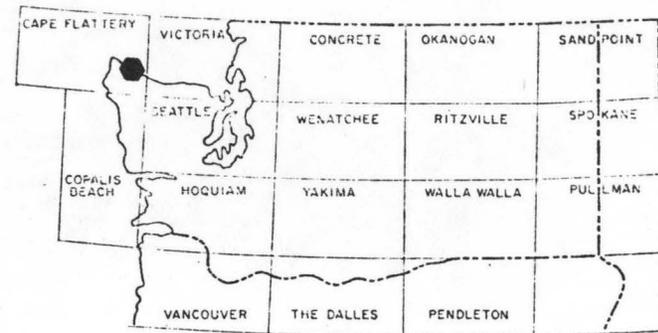
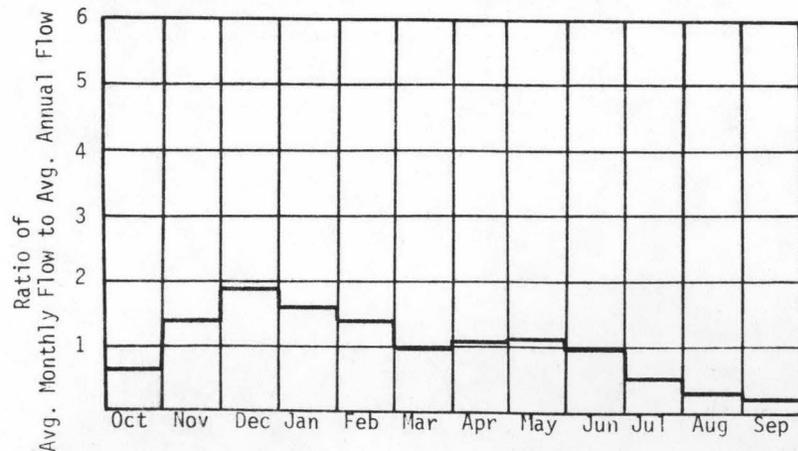
A. Upstream Elevation of Reach	<u>50</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>6.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>44.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

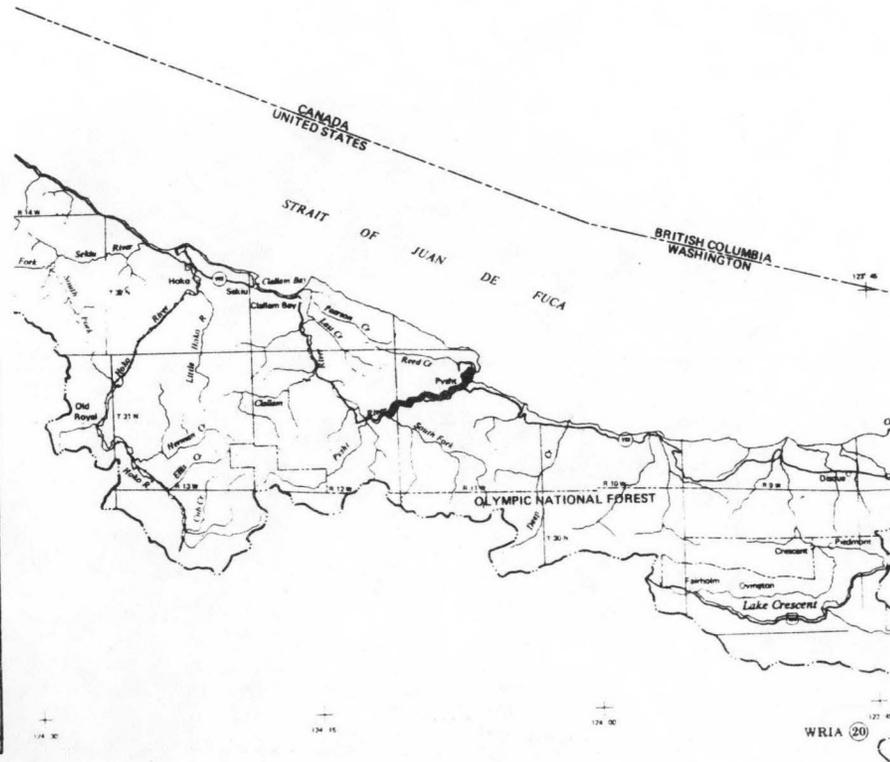
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.2	0.05	0.45	1.00
80	24.4	0.10	0.84	0.93
50	99.5	0.42	2.62	0.71
30	215	0.91	4.30	0.54
10	497	2.10	6.27	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 203 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-011-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T31N R12W</u>
D. Latitude, Longitude	<u>48°25' 124°12'</u>
E. Stream Name	<u>Pysht River</u>
F. Major Basin Name	<u>Pysht River</u>
G. River Mile	<u>7.7/9.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

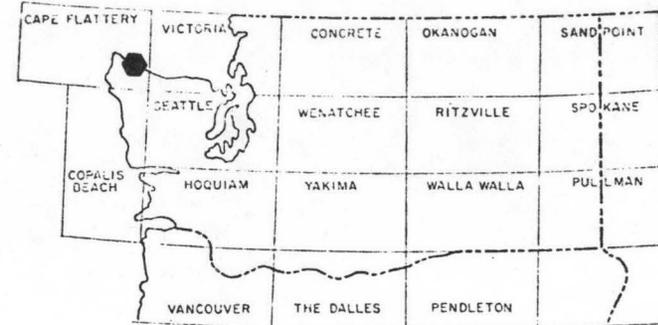
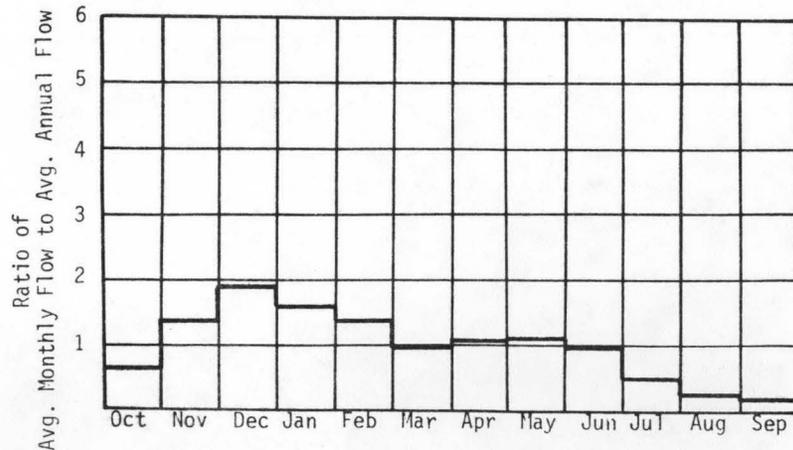
A. Upstream Elevation of Reach	<u>75</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>25 + 66 = 91</u>	Ft.
D. Average Slope in Reach	<u>19</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>19.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

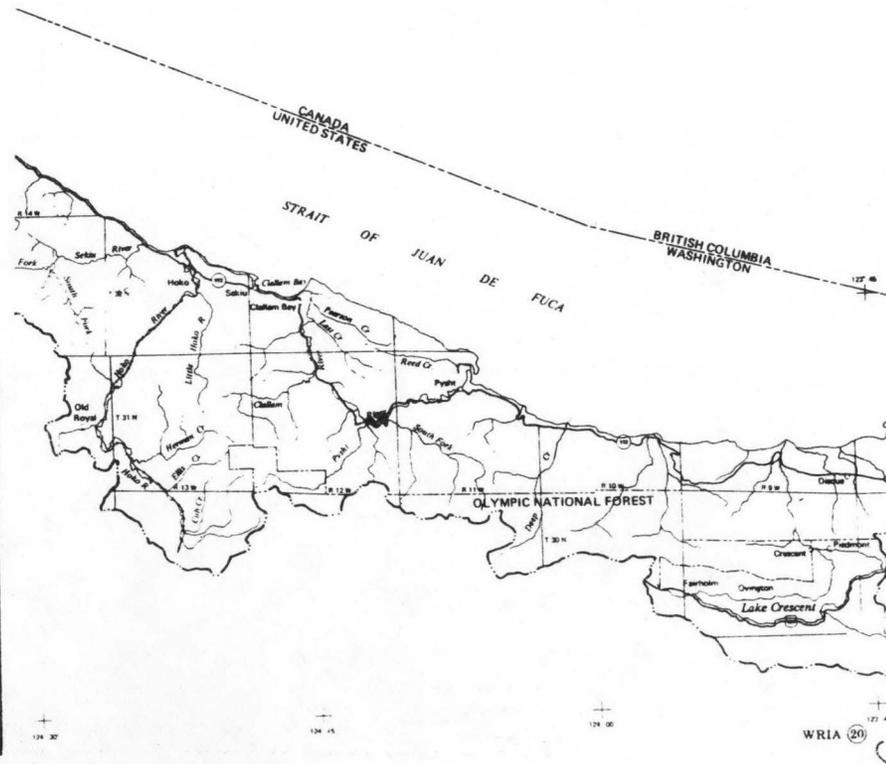
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.12	0.05	0.41	1.00
80	12.2	0.09	0.77	0.93
50	50.0	0.38	2.39	0.71
30	108	0.83	3.94	0.54
10	250	1.92	5.73	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 202 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-011-000-000-R0003

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T31N R11W
 D. Latitude, Longitude 48°25' 124°10'
 E. Stream Name South Fork Pysht
 F. Major Basin Name Pysht River
 G. River Mile 0/1.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

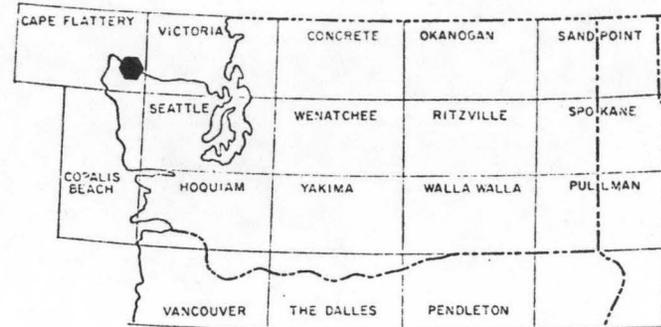
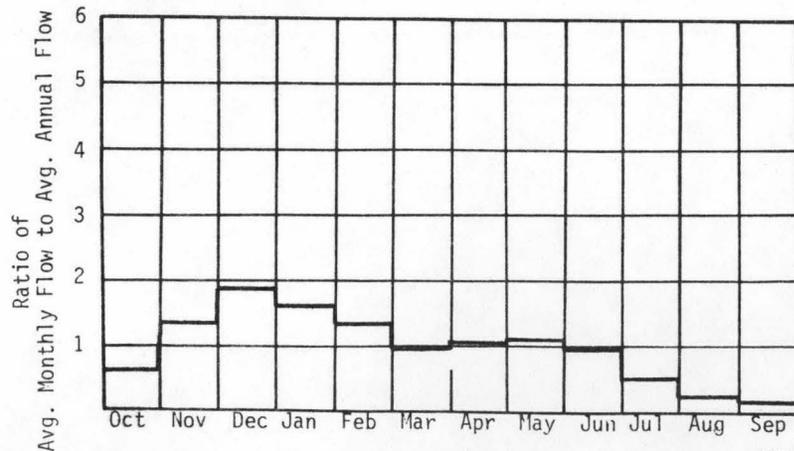
A. Upstream Elevation of Reach 140 Ft. MSL
 B. Downstream Elevation of Reach 50 Ft. MSL
 C. Total Available Head in Reach 90 + 66 = 156 Ft.
 D. Average Slope in Reach 69 Ft./Mi.
 E. Drainage Area above Reach Mouth 15.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

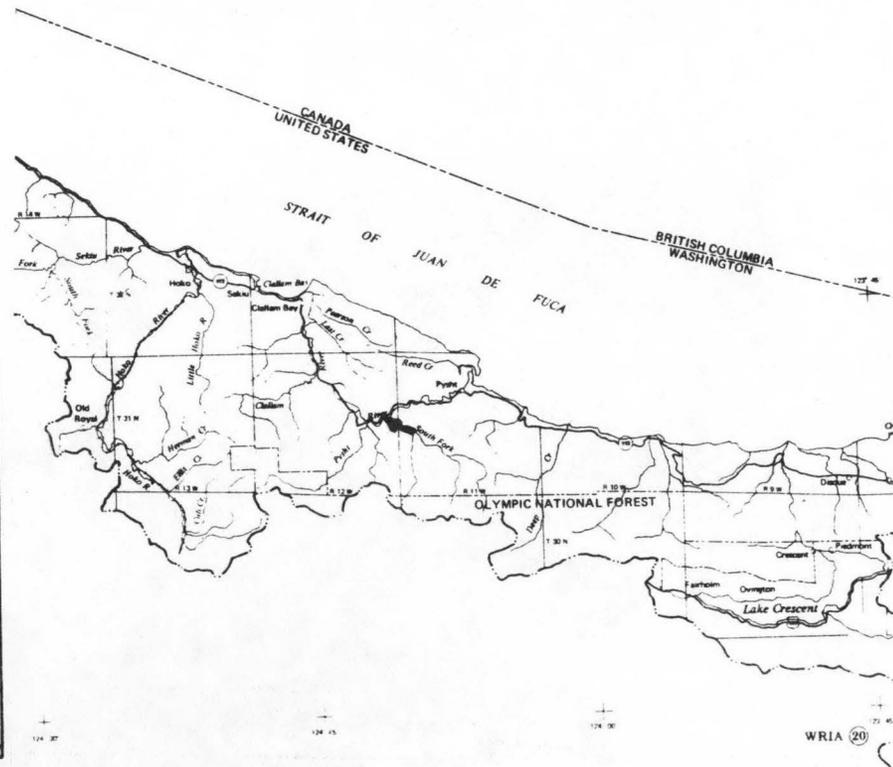
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.62	0.06	0.53	1.00
80	9.24	0.12	0.99	0.93
50	37.7	0.50	3.10	0.71
30	81.6	1.08	5.10	0.54
10	189	2.49	7.42	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 77 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-012-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T21N R10W
 D. Latitude, Longitude 48°25'
 E. Stream Name Deep Creek
 F. Major Basin Name Deep Creek
 G. River Mile 0/2.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

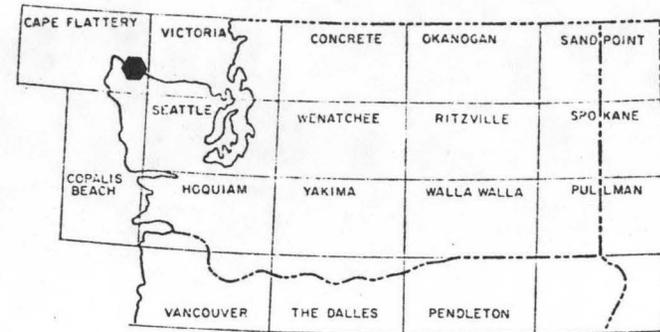
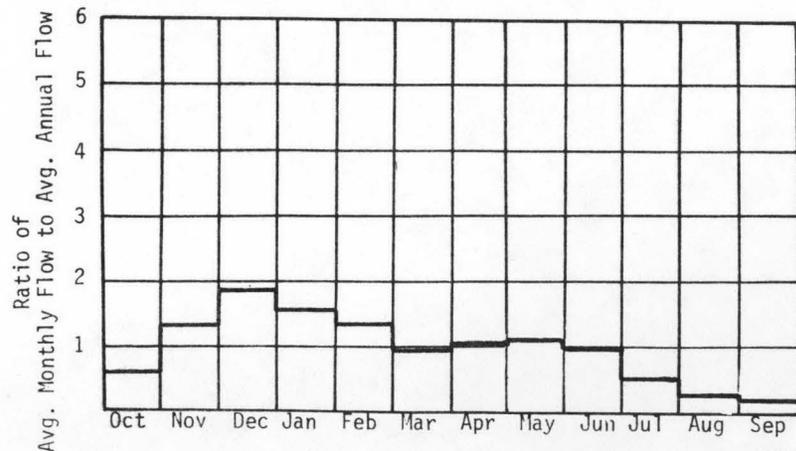
A. Upstream Elevation of Reach 100 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 100 + 66 = 166 Ft.
 D. Average Slope in Reach 48 Ft./Mi.
 E. Drainage Area above Reach Mouth 17.0 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

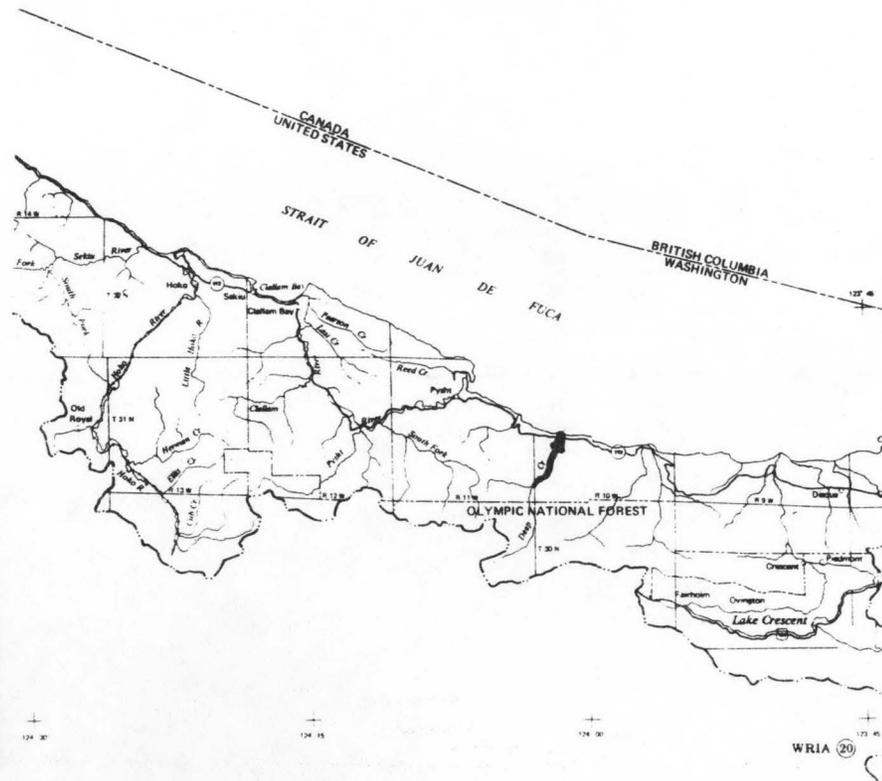
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.02	0.06	0.49	1.00
80	7.37	0.10	0.85	0.94
50	37.5	0.53	3.18	0.69
30	69.7	0.98	4.71	0.55
10	165	2.32	6.92	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 67 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-013-000-000-R0001

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T30N R9W
 D. Latitude, Longitude 48°25' 123°50'
 E. Stream Name Lyre River
 F. Major Basin Name Lyre River
 G. River Mile 0/5.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

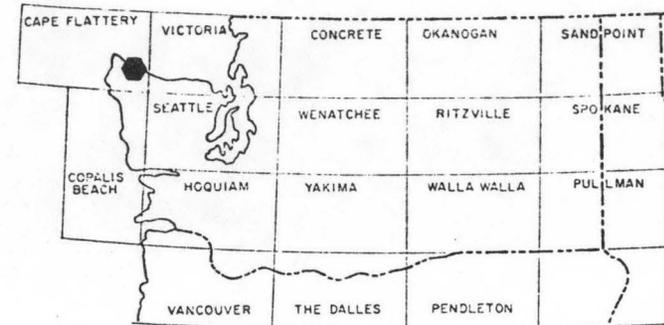
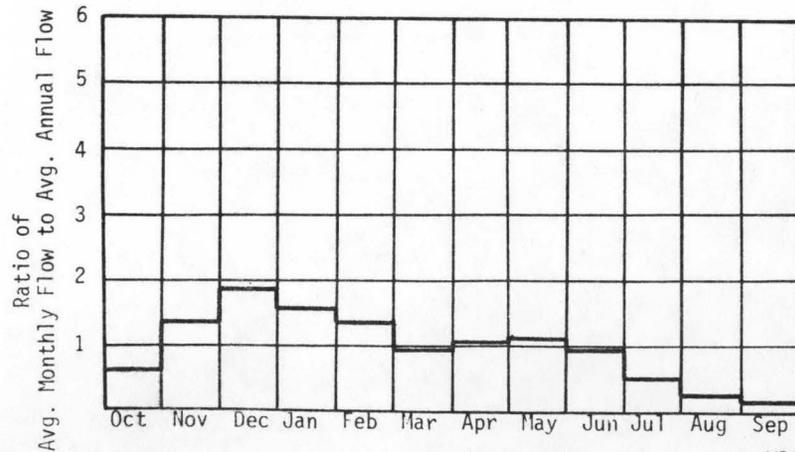
A. Upstream Elevation of Reach 580 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 580 Ft.
 D. Average Slope in Reach 104 Ft./Mi.
 E. Drainage Area above Reach Mouth 65.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

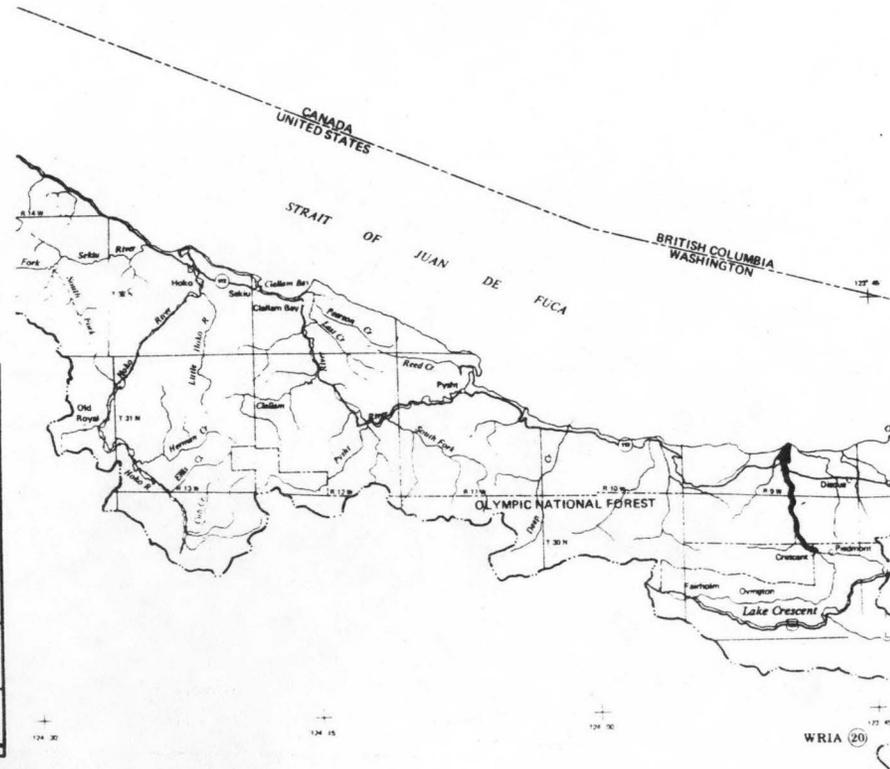
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	41.0	2.01	17.6	1.00
80	77.1	3.78	31.2	0.94
50	210.0	10.3	68.5	0.76
30	296	14.6	82.8	0.65
10	487	23.9	98.4	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 241 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-013-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R9W</u>
D. Latitude, Longitude	<u>48°20' 123°45'</u>
E. Stream Name	<u>Barnes Creek</u>
F. Major Basin Name	<u>Lyre River</u>
G. River Mile	<u>9.7/11.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

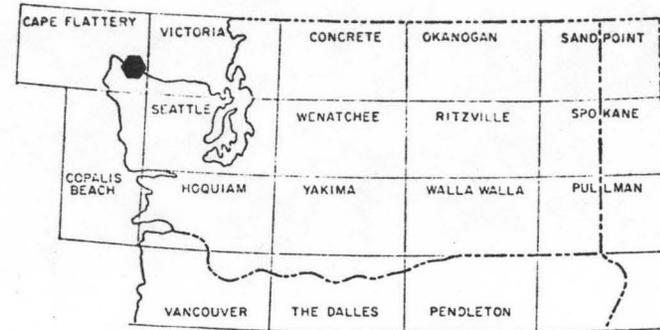
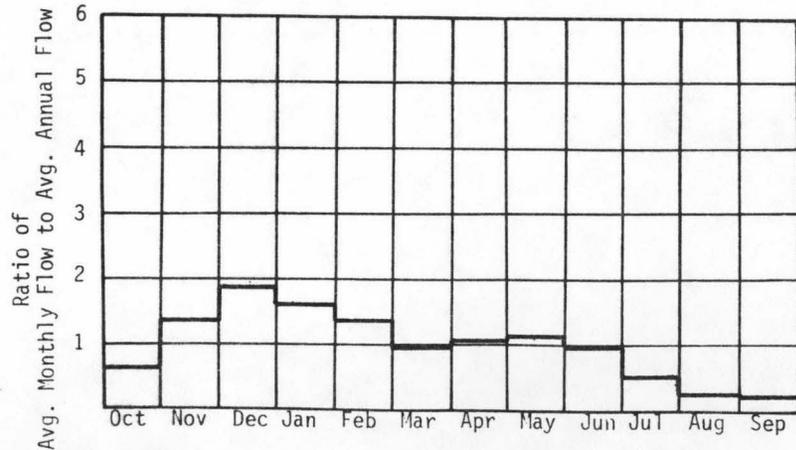
A. Upstream Elevation of Reach	<u>945</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>581</u>	Ft. MSL
C. Total Available Head in Reach	<u>365 + 66 = 421</u>	Ft.
D. Average Slope in Reach	<u>174</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

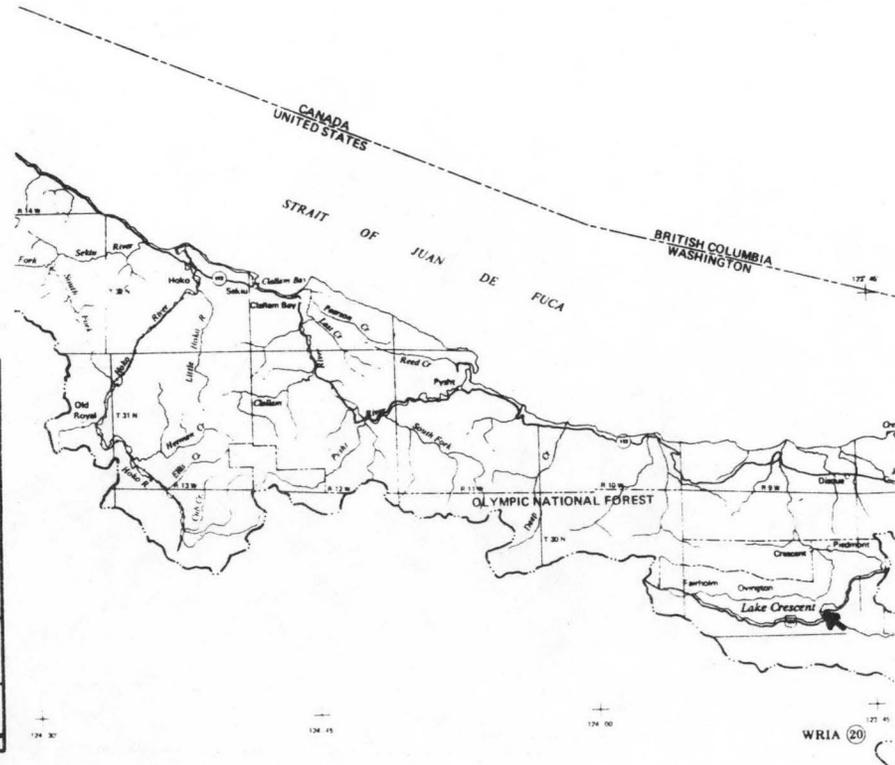
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.52	0.34	2.97	1.00
80	17.9	0.64	5.26	0.94
50	48.7	1.74	11.6	0.76
30	68.9	2.45	14.0	0.65
10	113	4.03	16.6	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 56 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-036-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T31N R16W</u>
D. Latitude, Longitude	<u>48°10' 123°43'</u>
E. Stream Name	<u>Ozette River</u>
F. Major Basin Name	<u>Ozette</u>
G. River Mile	<u>0/4.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

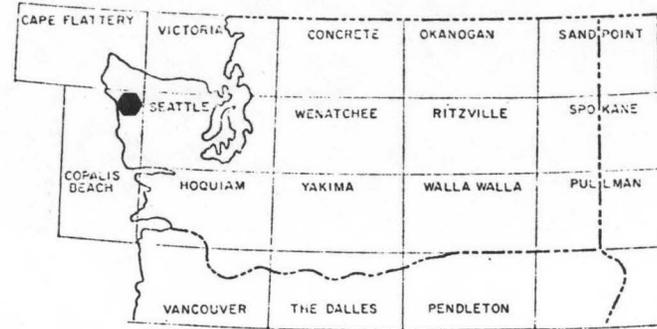
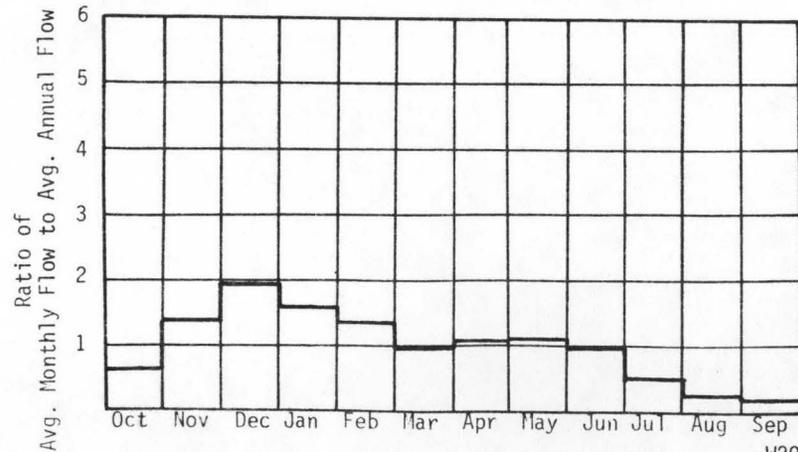
A. Upstream Elevation of Reach	<u>29</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>29</u>	Ft.
D. Average Slope in Reach	<u>6.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>89.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.7	0.05	0.47	1.00
80	47.7	0.12	0.94	0.92
50	200	0.49	3.00	0.80
30	438	1.08	5.09	0.54
10	1128	2.77	7.76	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 434 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-035-000-000-000-R0002

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T32N R15W
 D. Latitude, Longitude 48°15' 124°35'
 E. Stream Name Sooes River
 F. Major Basin Name Sooes
 G. River Mile 7.5/13.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

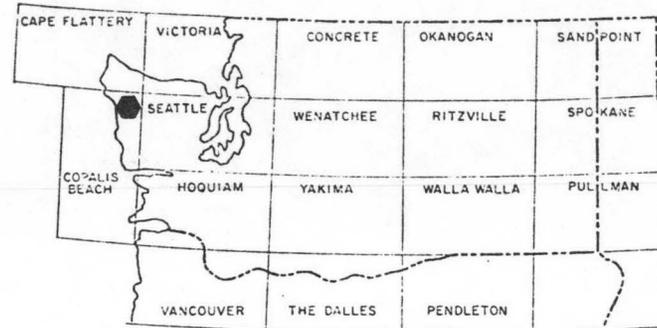
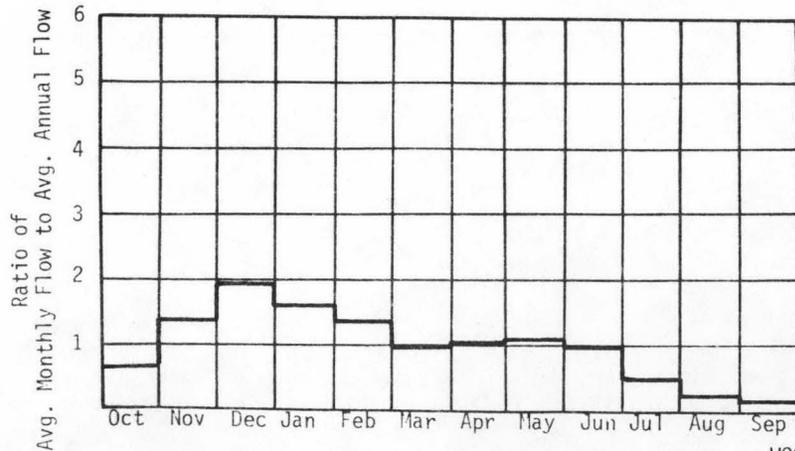
A. Upstream Elevation of Reach 220 Ft. MSL
 B. Downstream Elevation of Reach 60 Ft. MSL
 C. Total Available Head in Reach 160 + 66 = 226 Ft.
 D. Average Slope in Reach 28.6 Ft./Mi.
 E. Drainage Area above Reach Mouth 20.7 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

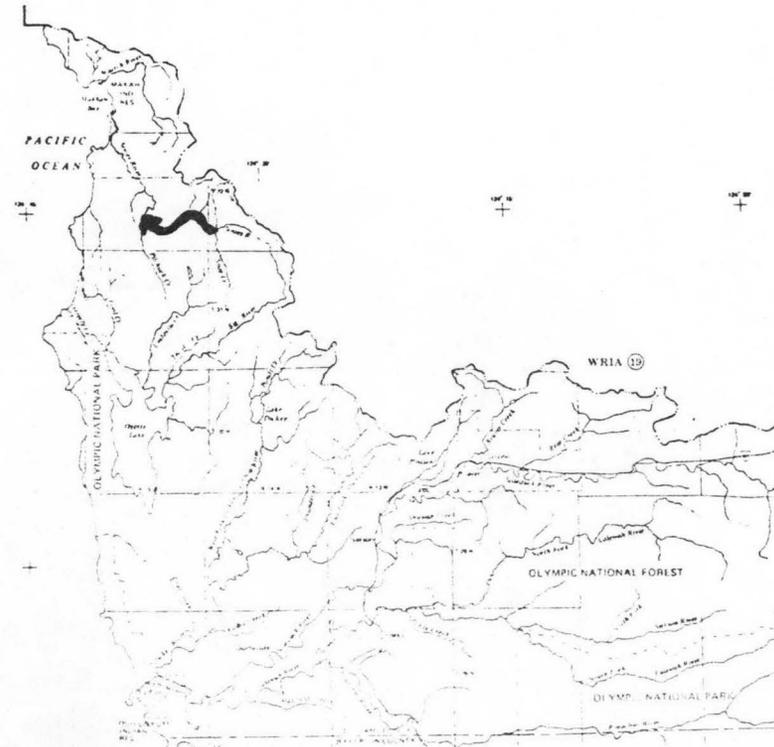
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.75	0.09	0.80	1.00
80	10.5	0.20	1.61	0.92
50	43.7	0.84	5.12	0.70
30	96.0	1.83	8.68	0.54
10	247	4.72	13.2	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 95 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-035-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T32N R15W</u>
D. Latitude, Longitude	<u>48°17' 124°37'</u>
E. Stream Name	<u>Sooes River</u>
F. Major Basin Name	<u>Sooes</u>
G. River Mile	<u>0/7.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

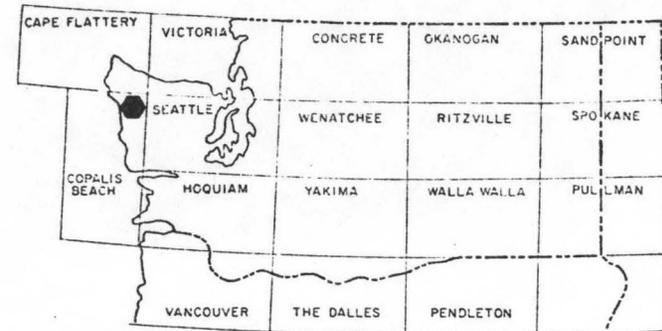
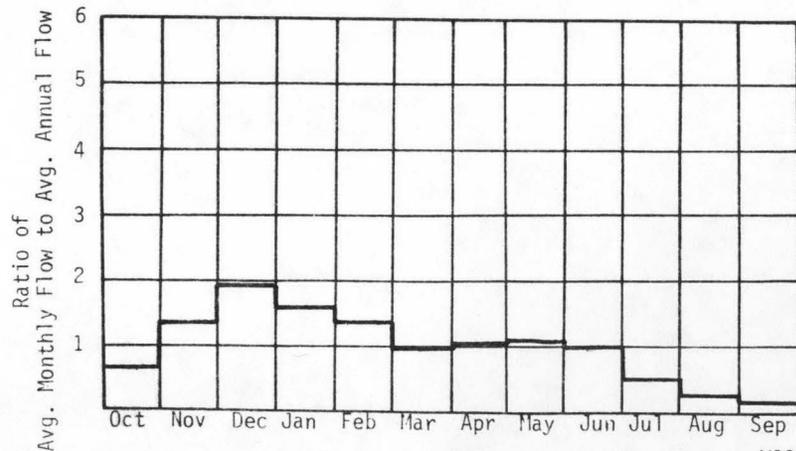
A. Upstream Elevation of Reach	<u>60</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>60</u>	Ft.
D. Average Slope in Reach	<u>8.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>41.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

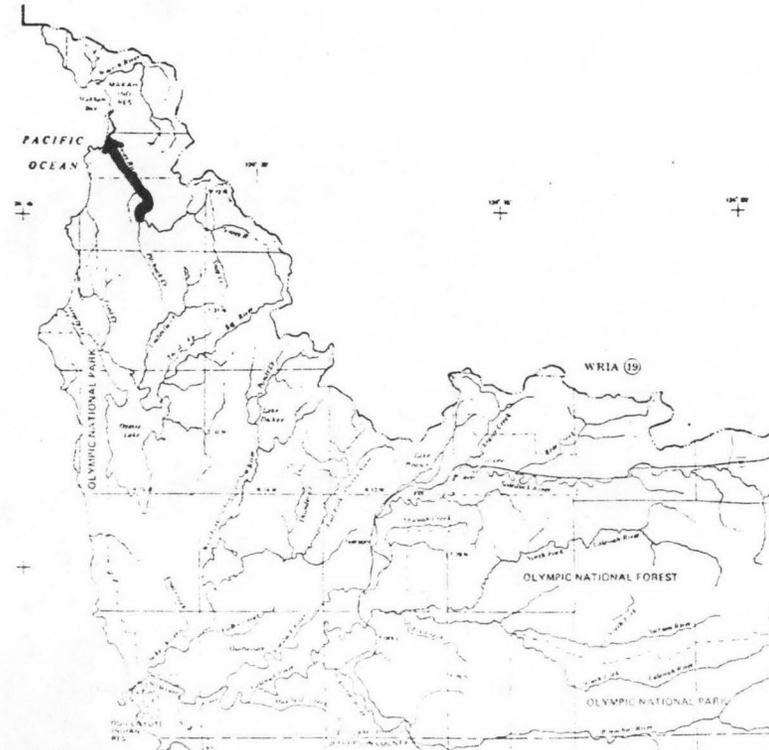
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.90	0.05	0.44	1.00
80	21.8	0.11	0.89	0.92
50	91.1	0.46	2.83	0.70
30	200	1.02	4.80	0.54
10	515	2.61	7.33	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 198 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-036-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R15W</u>
D. Latitude, Longitude	<u>48°08' 124°36'</u>
E. Stream Name	<u>Ozette River</u>
F. Major Basin Name	<u>Ozette</u>
G. River Mile	<u>10.5/12.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

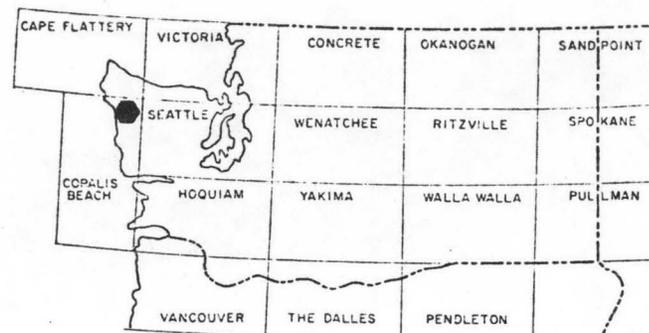
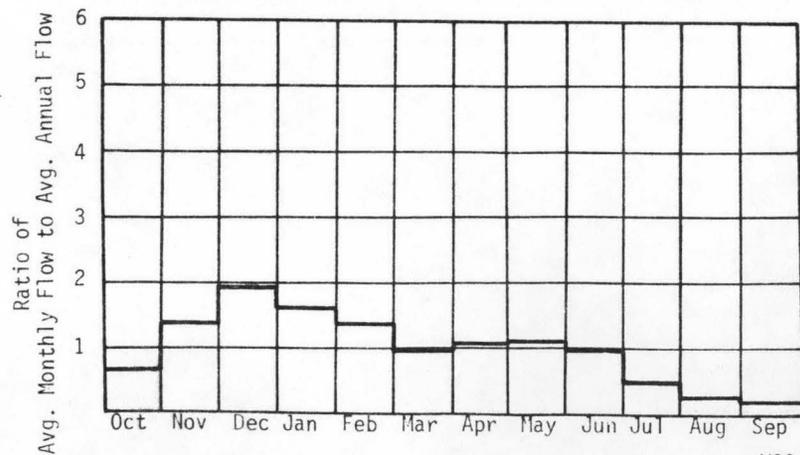
A. Upstream Elevation of Reach	<u>40</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>29</u>	Ft. MSL
C. Total Available Head in Reach	<u>11 + 66 = 77</u>	Ft.
D. Average Slope in Reach	<u>6.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

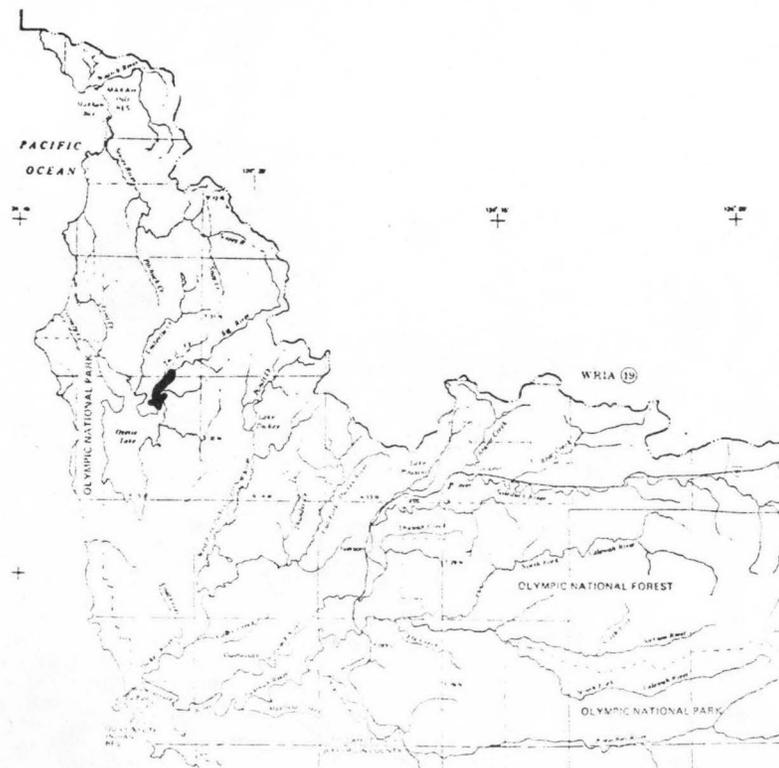
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.25	0.04	0.36	1.00
80	13.8	0.09	0.72	0.92
50	57.5	0.37	2.30	0.70
30	126	0.82	3.89	0.54
10	325	2.12	5.93	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 125 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-R0001

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T28N R15W
 D. Latitude, Longitude 48°55' 124°36'
 E. Stream Name Dickey River
 F. Major Basin Name Dickey
 G. River Mile 0/3.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

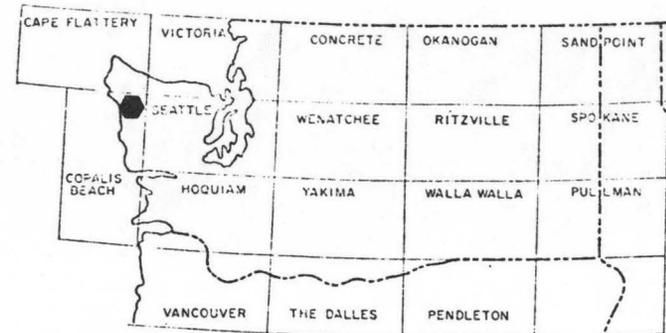
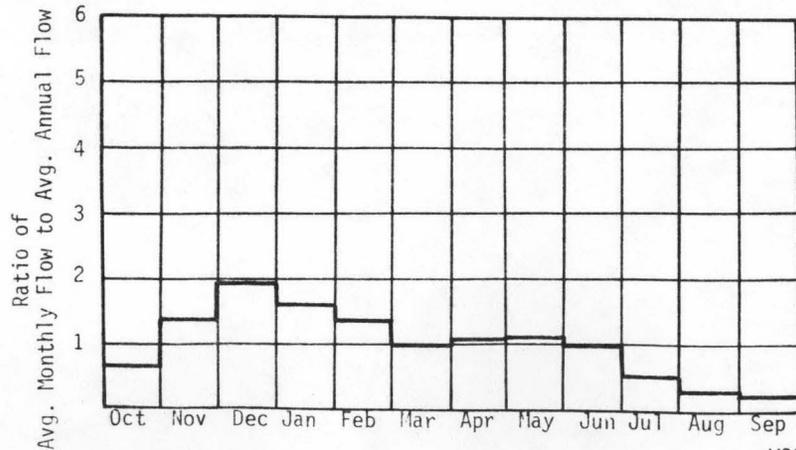
A. Upstream Elevation of Reach 30 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 30 Ft.
 D. Average Slope in Reach 7.7 Ft./Mi.
 E. Drainage Area above Reach Mouth 107 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

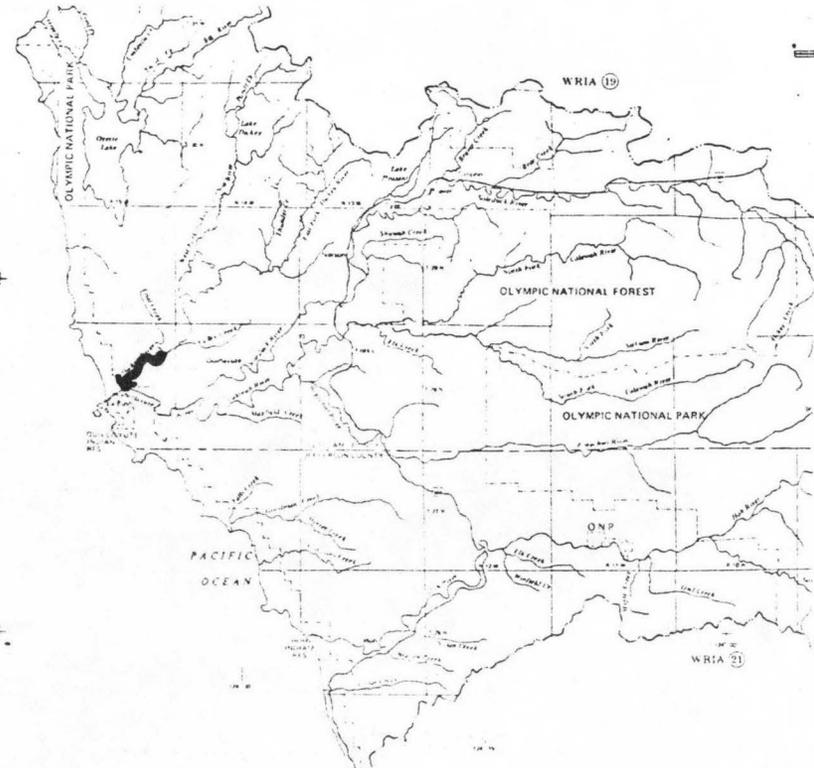
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.7	0.06	0.51	1.00
80	56.8	0.14	1.16	0.92
50	273	0.69	4.18	0.69
30	602	1.53	7.09	0.53
10	1510	3.82	11.0	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 568 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-000-R0002

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T29N R15W
 D. Latitude, Longitude 47°57' 124°35'
 E. Stream Name Dickey River
 F. Major Basin Name Dickey
 G. River Mile 3.9/5.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

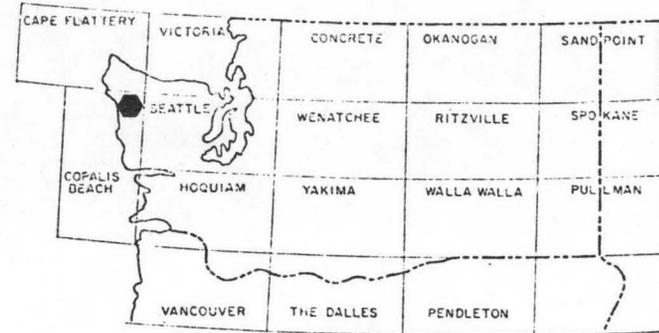
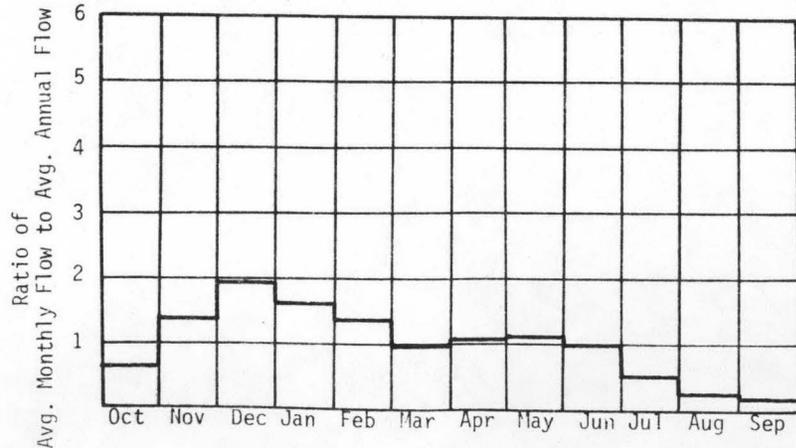
A. Upstream Elevation of Reach 40 Ft. MSL
 B. Downstream Elevation of Reach 30 Ft. MSL
 C. Total Available Head in Reach 10 Ft.
 D. Average Slope in Reach 9.1 Ft./Mi.
 E. Drainage Area above Reach Mouth 95 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.8	0.02	0.15	1.00
80	51.9	0.04	0.35	0.92
50	249	0.21	1.27	0.69
30	550	0.47	2.16	0.53
10	1380	1.16	3.36	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 519 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R14W</u>
D. Latitude, Longitude	<u>48°58' 124°33'</u>
E. Stream Name	<u>Dickey River</u>
F. Major Basin Name	<u>Dickey</u>
G. River Mile	<u>5.0/8.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

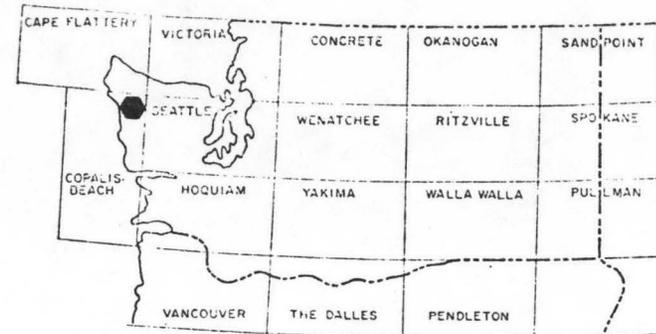
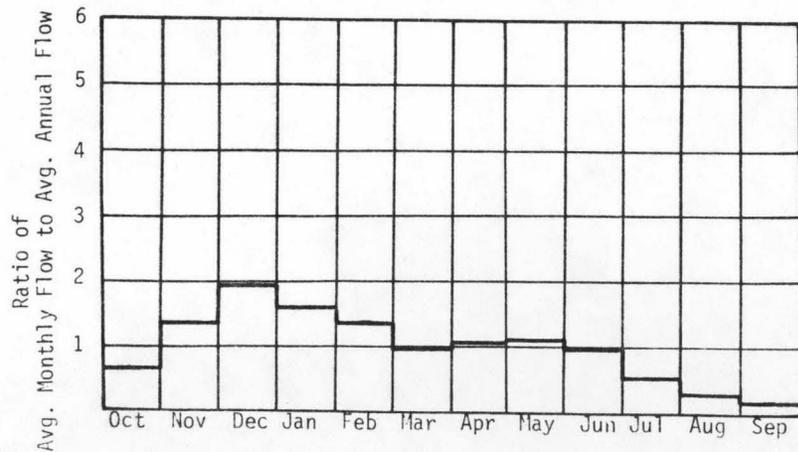
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>9.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>94</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	24.6	0.06	0.55	1.00
80	54.0	0.14	1.10	0.92
50	226	0.47	3.52	0.70
30	496	1.26	5.95	0.54
10	1276	3.24	9.08	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 491 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R14W</u>
D. Latitude, Longitude	<u>48°01' 124°31'</u>
E. Stream Name	<u>E.F. Dickey River</u>
F. Major Basin Name	<u>Dickey</u>
G. River Mile	<u>8.1/14.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

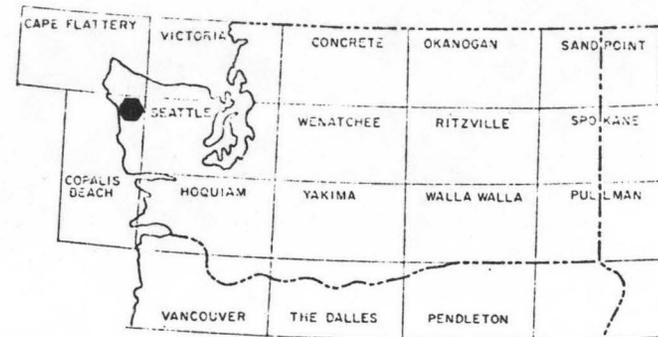
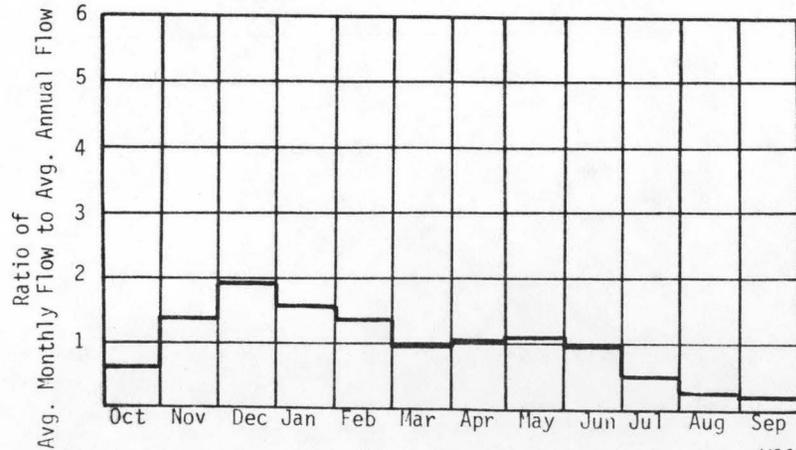
A. Upstream Elevation of Reach	<u>155</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>65 + 66 = 131</u>	Ft.
D. Average Slope in Reach	<u>10.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>40.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.7	0.12	1.03	1.00
80	23.4	0.26	2.09	0.92
50	98.0	1.19	6.66	0.70
30	215	2.38	11.3	0.54
10	554	6.14	17.2	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 213 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R14W</u>
D. Latitude, Longitude	<u>48°05' 124°32'</u>
E. Stream Name	<u>W.F. Dickey River</u>
F. Major Basin Name	<u>Dickey</u>
G. River Mile	<u>0/11.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

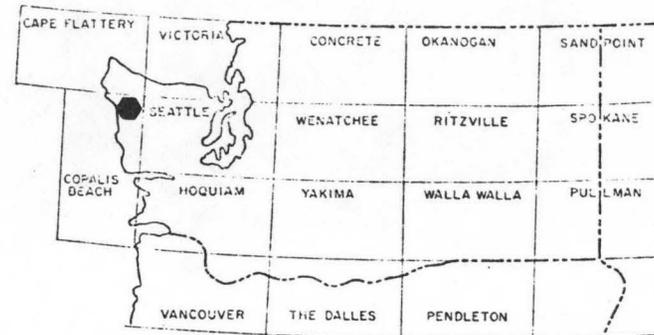
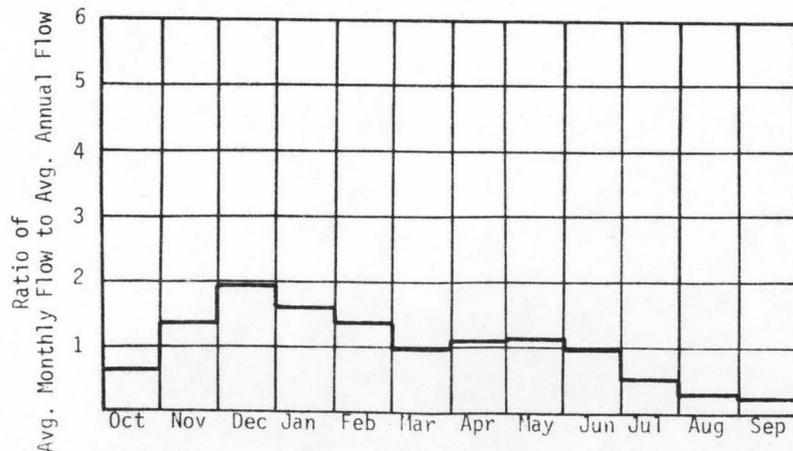
A. Upstream Elevation of Reach	<u>170</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>100</u>	Ft.
D. Average Slope in Reach	<u>8.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>43.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.00	0.08	0.67	1.00
80	19.8	0.17	1.35	0.92
50	82.8	0.70	4.30	0.70
30	182	1.54	7.28	0.54
10	468	3.96	11.1	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 180 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-038-000-000-000-R0006

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T30N R14W
 D. Latitude, Longitude 48°06' 124°31'
 E. Stream Name W.F. Dickey River
 F. Major Basin Name Dickey
 G. River Mile 11.8/13.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

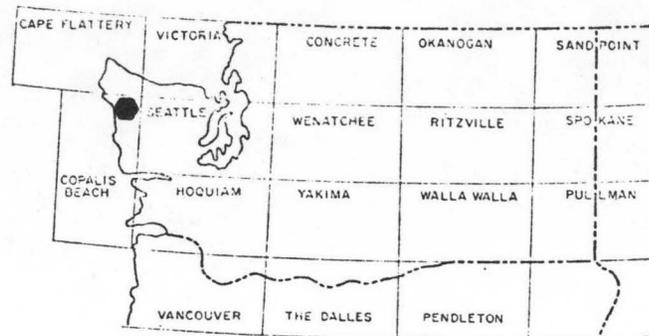
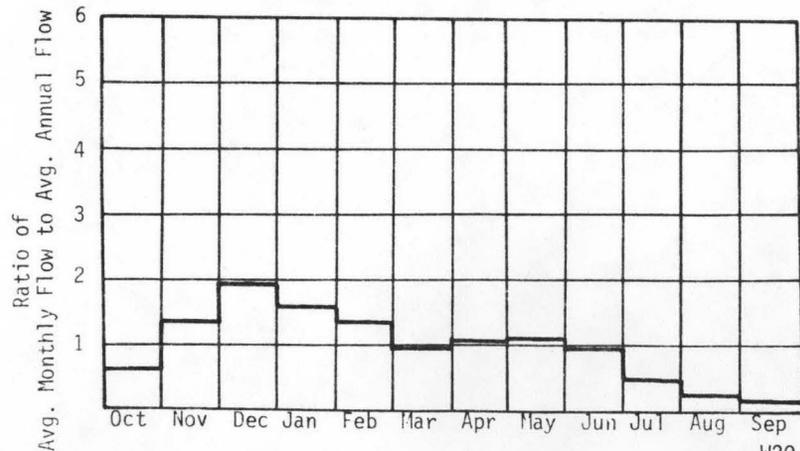
A. Upstream Elevation of Reach 193 Ft. MSL
 B. Downstream Elevation of Reach 170 Ft. MSL
 C. Total Available Head in Reach 23 + 66 = 89 Ft.
 D. Average Slope in Reach 17.7 Ft./Mi.
 E. Drainage Area above Reach Mouth 15.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.30	0.03	0.28	1.00
80	9.46	0.07	0.57	0.92
50	39.6	0.30	1.83	0.70
30	86.9	0.65	3.09	0.54
10	224	1.68	4.72	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 86 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R15W</u>
D. Latitude, Longitude	<u>47°55' 124°35'</u>
E. Stream Name	<u>Quillayute River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/5.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

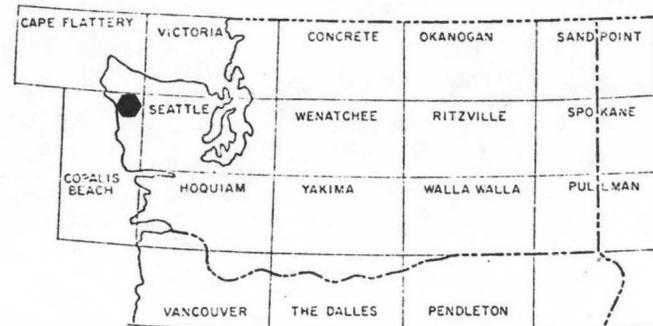
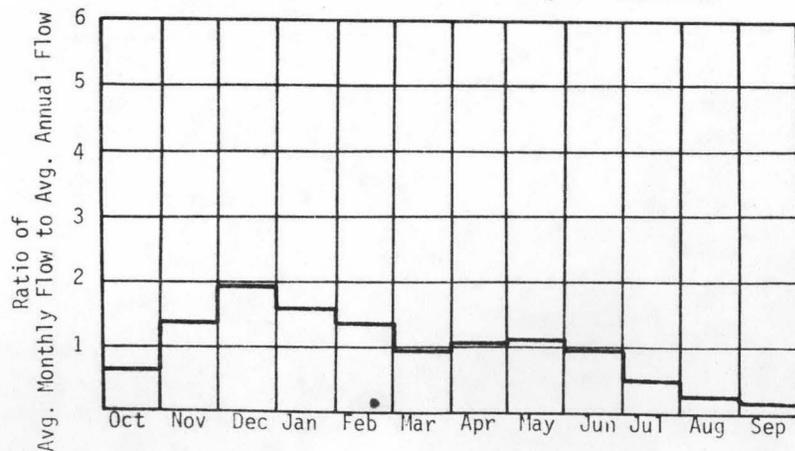
A. Upstream Elevation of Reach	<u>25</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>25</u>	Ft.
D. Average Slope in Reach	<u>4.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>520</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

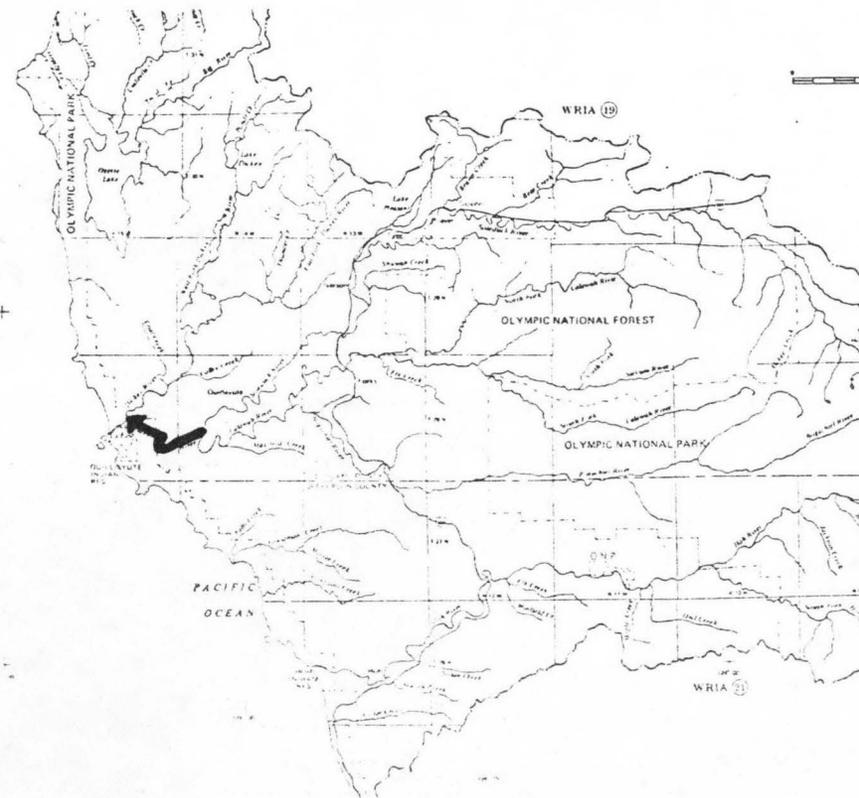
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	190	0.40	3.51	1.00
80	442	0.94	7.62	0.93
50	1860	3.94	24.9	0.72
30	3030	6.42	33.7	0.60
10	8150	17.2	51.4	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3160 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R14W</u>
D. Latitude, Longitude	<u>47°56' 124°30'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/7.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

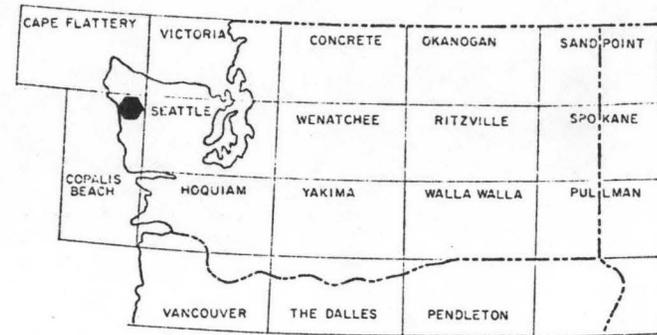
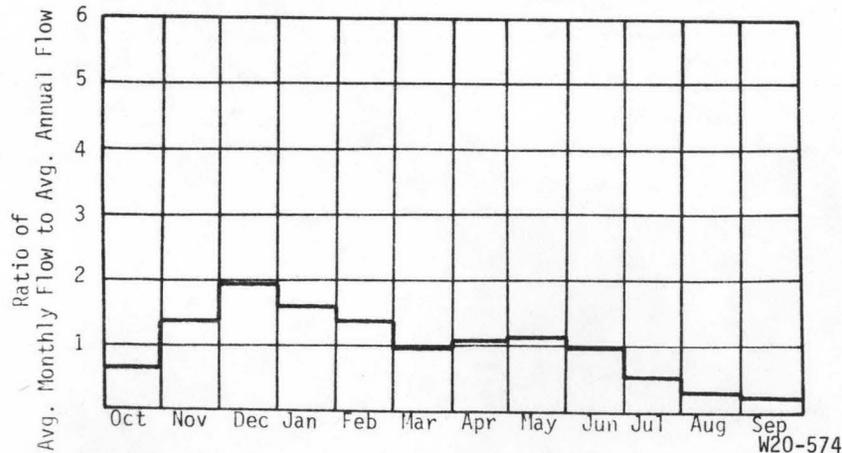
A. Upstream Elevation of Reach	<u>153</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>25</u>	Ft. MSL
C. Total Available Head in Reach	<u>128</u>	Ft.
D. Average Slope in Reach	<u>17.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>221</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

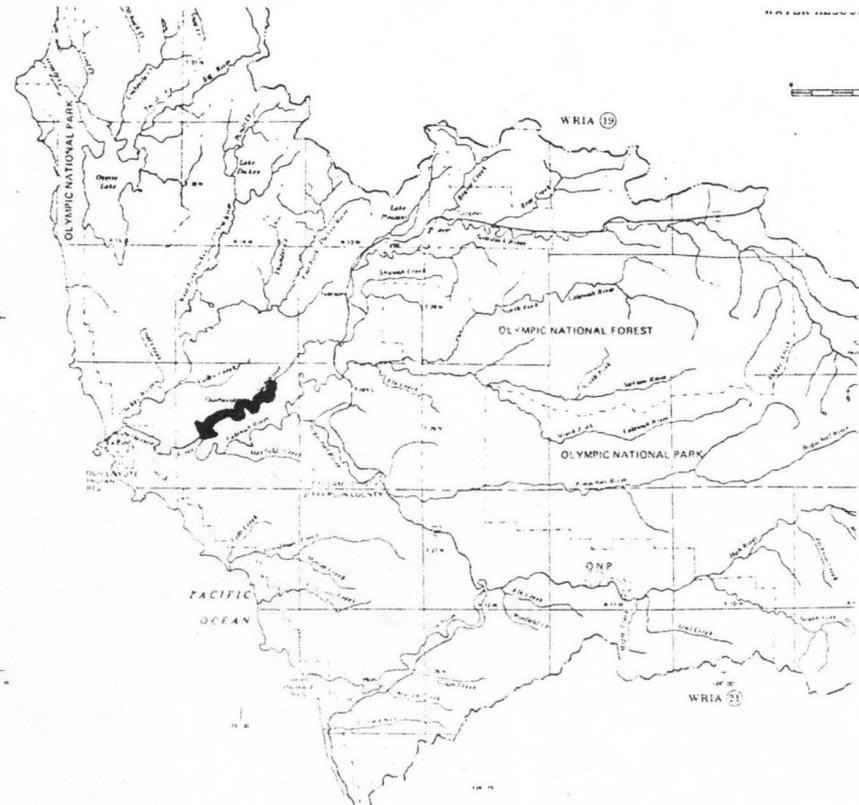
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	106	1.15	10.1	1.00
80	279	3.02	24.4	0.92
50	811	8.79	57.0	0.74
30	1360	14.7	78.5	0.61
10	2780	30.1	103	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1300 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R13W</u>
D. Latitude, Longitude	<u>48°58' 124°26'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>7.3/12.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

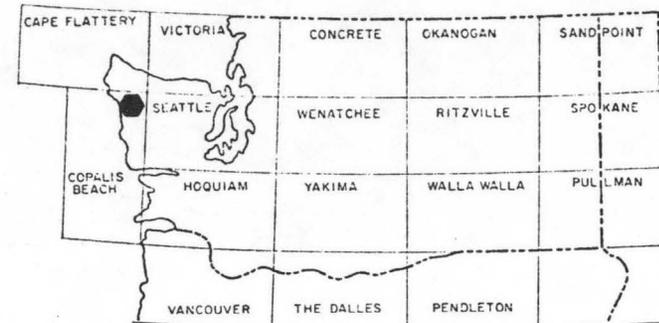
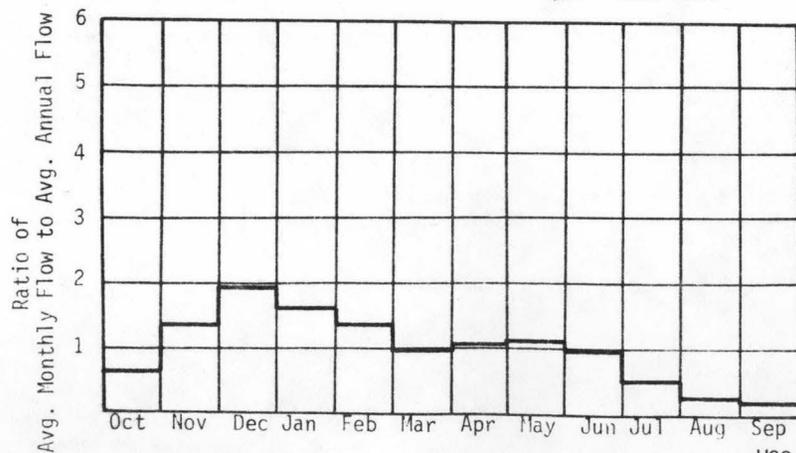
A. Upstream Elevation of Reach	<u>205</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>153</u>	Ft. MSL
C. Total Available Head in Reach	<u>52</u>	Ft.
D. Average Slope in Reach	<u>9.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>214</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

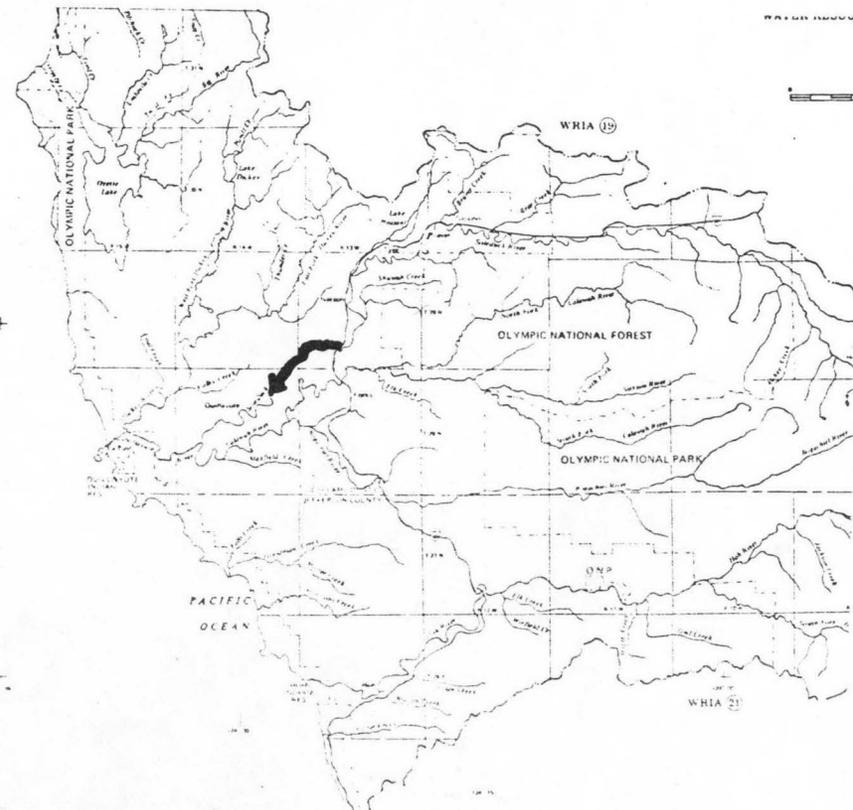
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	103	0.45	3.97	1.00
80	270	1.19	9.58	0.92
50	785	3.45	22.4	0.74
30	1310	5.78	30.9	0.61
10	2690	11.8	40.4	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1287 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R13W</u>
D. Latitude, Longitude	<u>47°59' 124°23'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>12.7/15.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

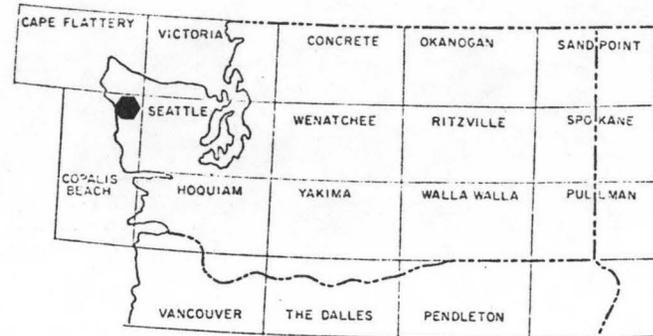
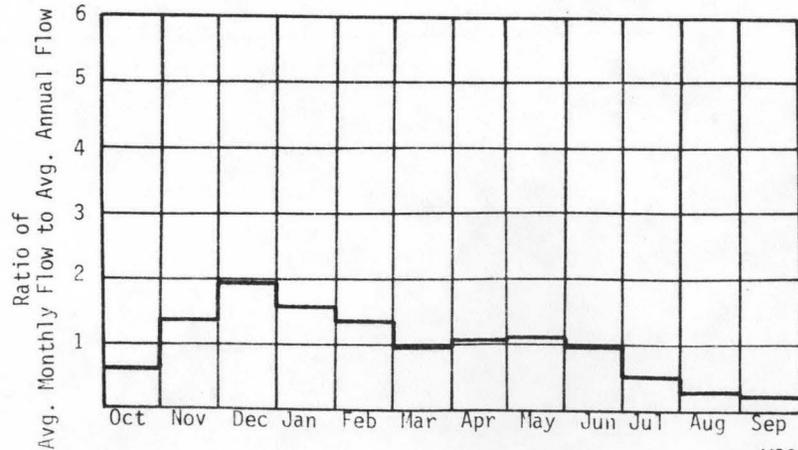
A. Upstream Elevation of Reach	<u>230</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>205</u>	Ft. MSL
C. Total Available Head in Reach	<u>25</u>	Ft.
D. Average Slope in Reach	<u>10.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>204</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

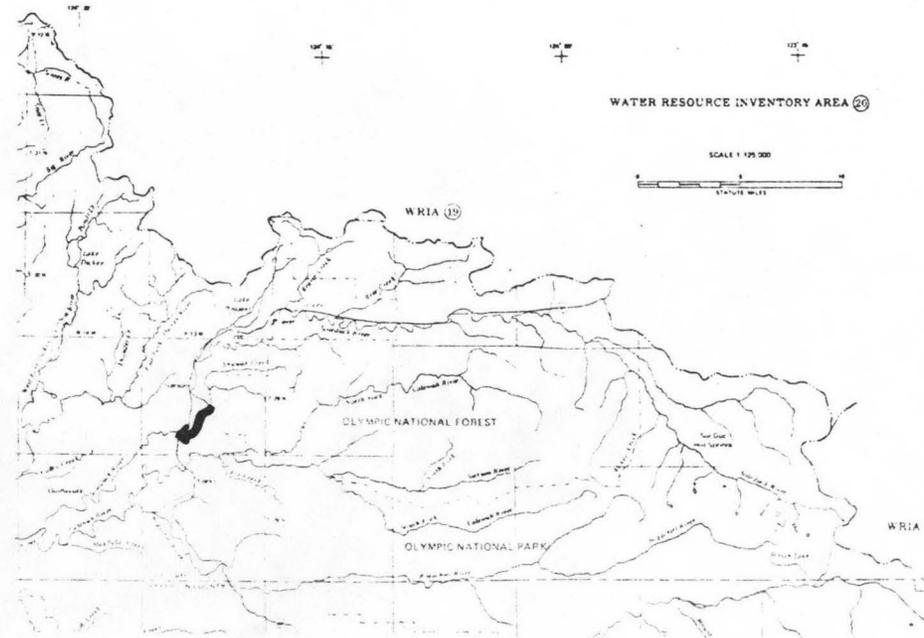
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	99.3	0.21	1.84	1.00
80	261	0.55	4.44	0.92
50	757	1.60	10.4	0.74
30	1270	2.68	14.3	0.61
10	2590	5.49	18.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1241 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R13W</u>
D. Latitude, Longitude	<u>48°02' 124°23'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>15.2/18.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

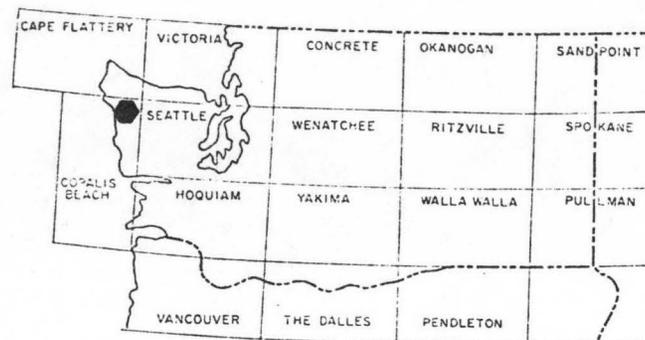
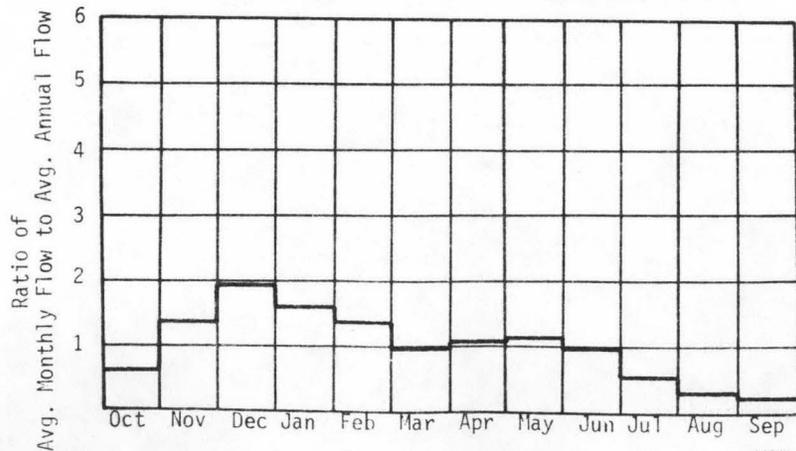
A. Upstream Elevation of Reach	<u>265</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>230</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>12.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>190</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

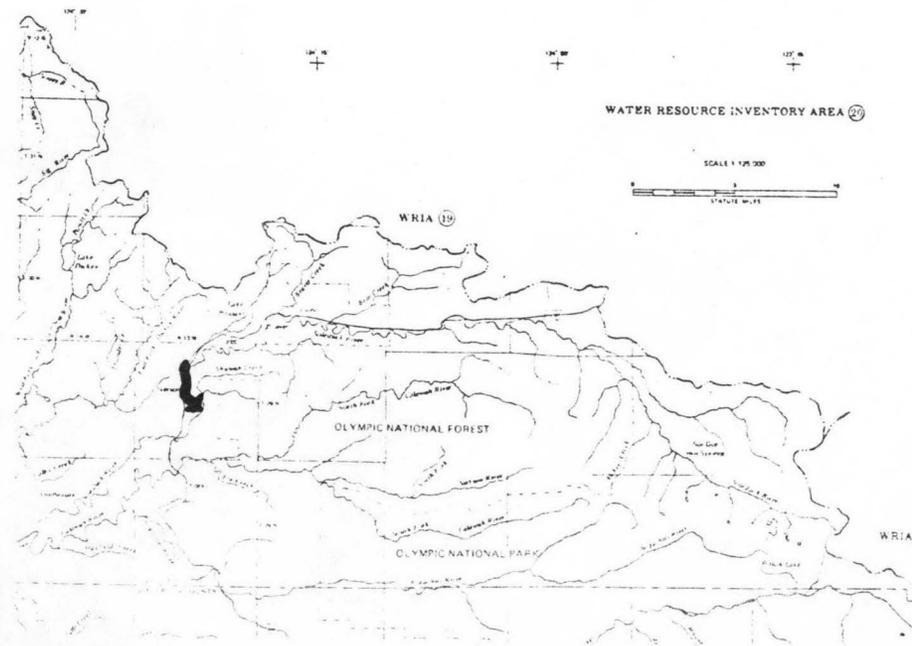
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	92.9	0.28	2.41	1.00
80	244	0.72	5.82	0.92
50	708	2.10	13.6	0.74
30	1180	3.51	18.7	0.61
10	2430	7.18	24.6	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1161 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0006

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T29N R13W
 D. Latitude, Longitude 48°03' 124°21'
 E. Stream Name Soleduck River
 F. Major Basin Name Ouillayute
 G. River Mile 18.1/22.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

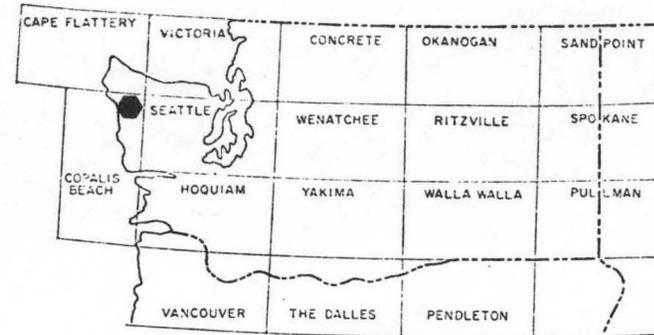
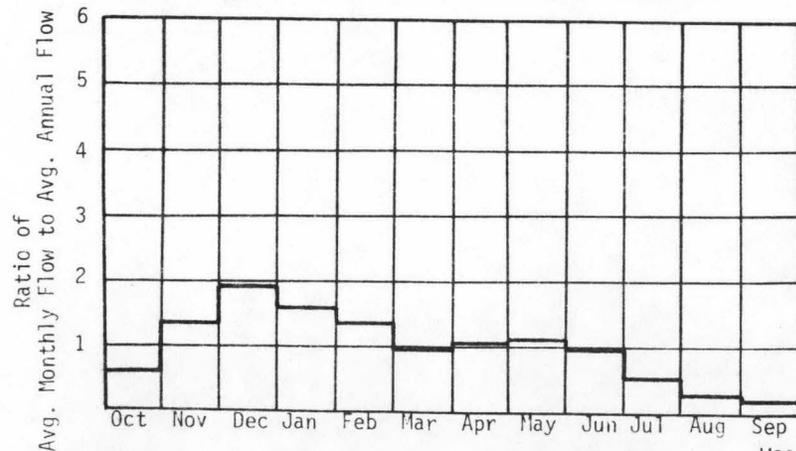
A. Upstream Elevation of Reach 315 Ft. MSL
 B. Downstream Elevation of Reach 265 Ft. MSL
 C. Total Available Head in Reach 50 Ft.
 D. Average Slope in Reach 10.4 Ft./Mi.
 E. Drainage Area above Reach Mouth 176 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

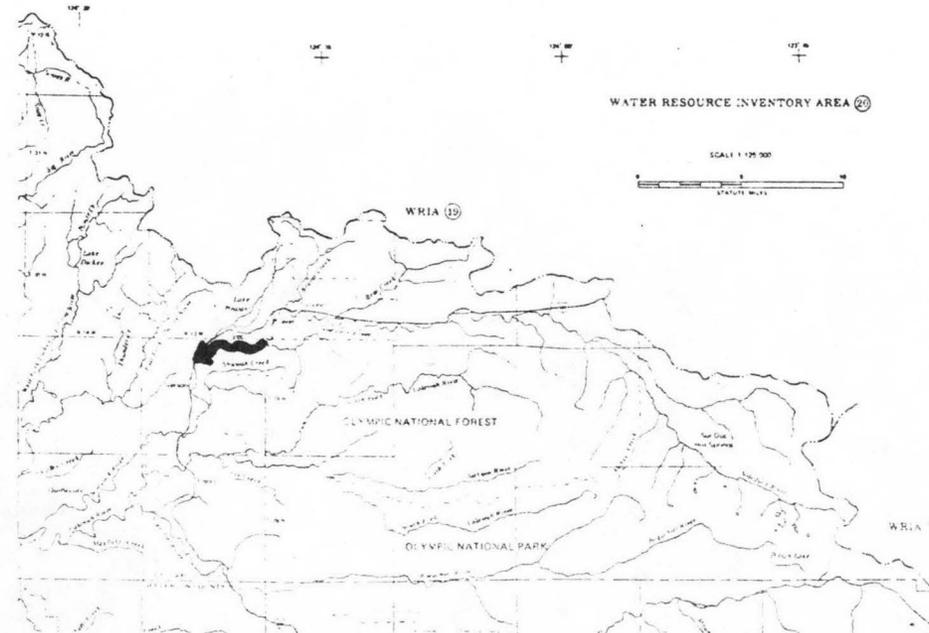
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	85.7	0.36	3.17	1.00
80	225	0.95	7.67	0.92
50	653	2.76	17.9	0.74
30	1090	4.62	24.7	0.61
10	2240	9.47	32.4	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1071 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R12W</u>
D. Latitude, Longitude	<u>48°04' 124°18'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Ouillayute</u>
G. River Mile	<u>22.9/25.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

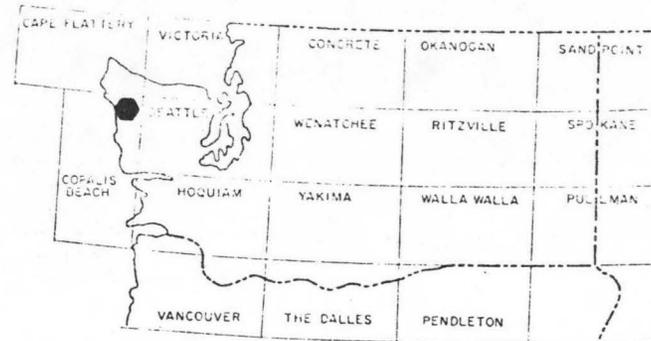
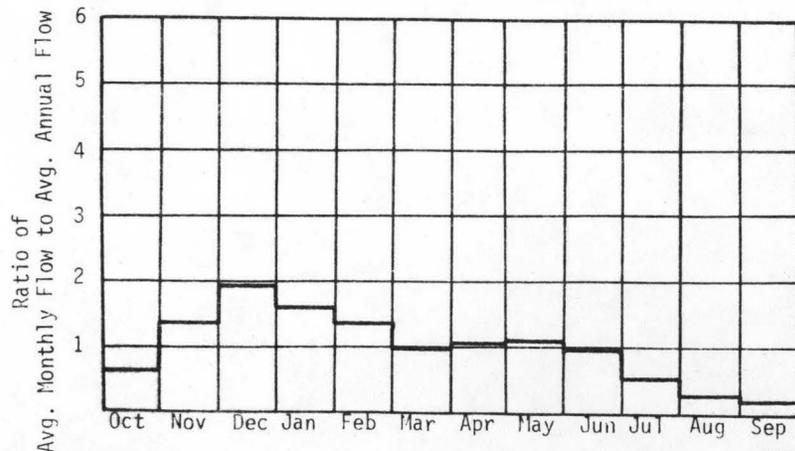
A. Upstream Elevation of Reach	<u>400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>315</u>	Ft. MSL
C. Total Available Head in Reach	<u>85</u>	Ft.
D. Average Slope in Reach	<u>31.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>165</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

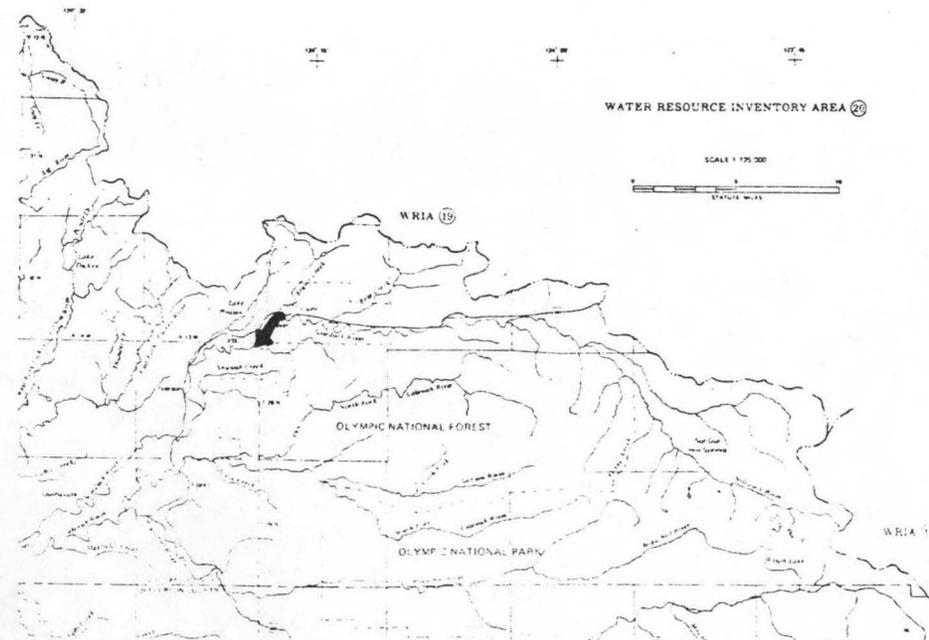
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	80.5	0.48	5.07	1.00
80	211	1.52	12.2	0.92
50	614	4.41	28.6	0.74
30	1030	7.38	39.4	0.61
10	2100	15.1	51.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1006 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R12W</u>
D. Latitude, Longitude	<u>48°05' 124°15'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>25.6/29.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

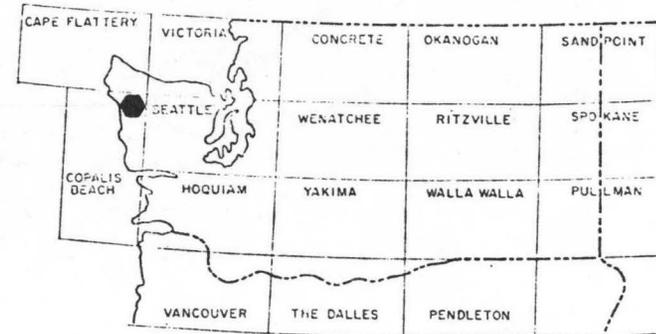
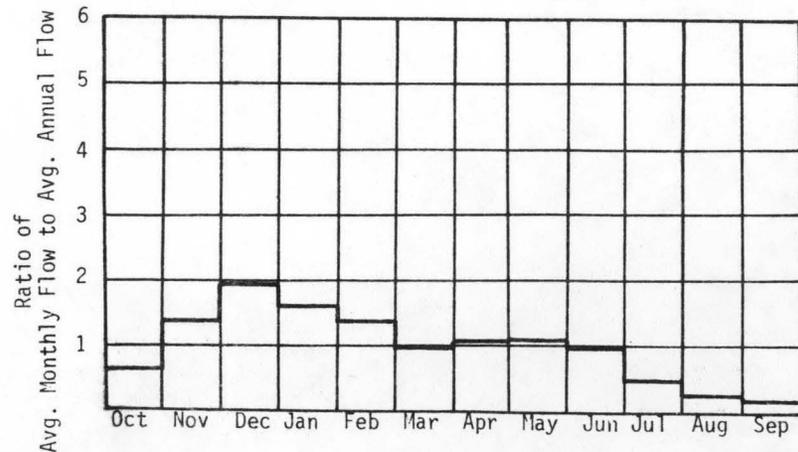
A. Upstream Elevation of Reach	<u>520</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>20</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>151</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

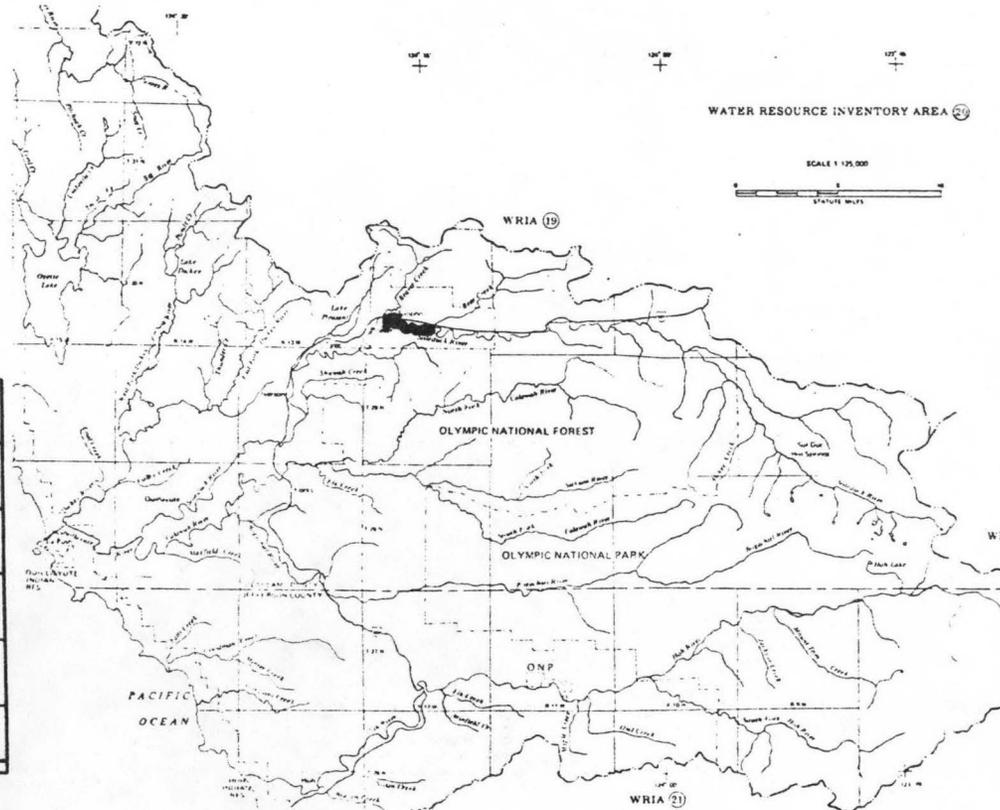
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	73.8	0.50	4.37	1.00
80	194	1.31	10.6	0.92
50	562	3.81	24.7	0.74
30	940	6.36	34.0	0.61
10	1930	13.0	44.6	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 922 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R11W</u>
D. Latitude, Longitude	<u>48°04' 124°02'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillavute</u>
G. River Mile	<u>29.6/42.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

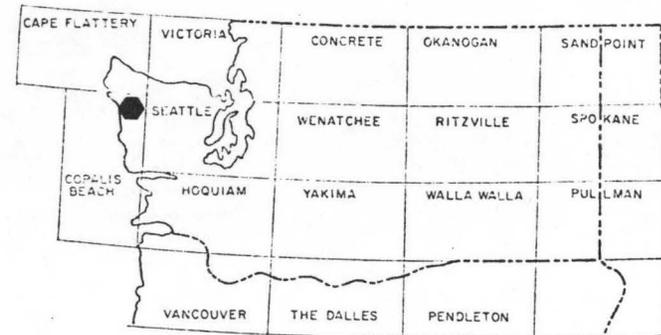
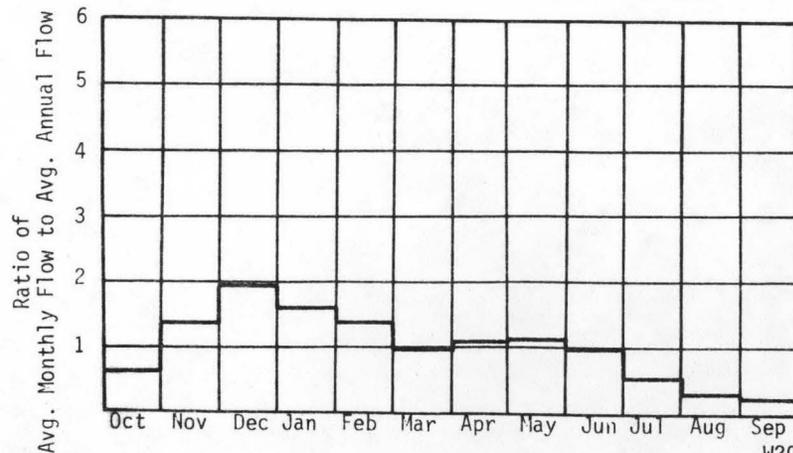
A. Upstream Elevation of Reach	<u>855</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>520</u>	Ft. MSL
C. Total Available Head in Reach	<u>335</u>	Ft.
D. Average Slope in Reach	<u>26.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>129</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

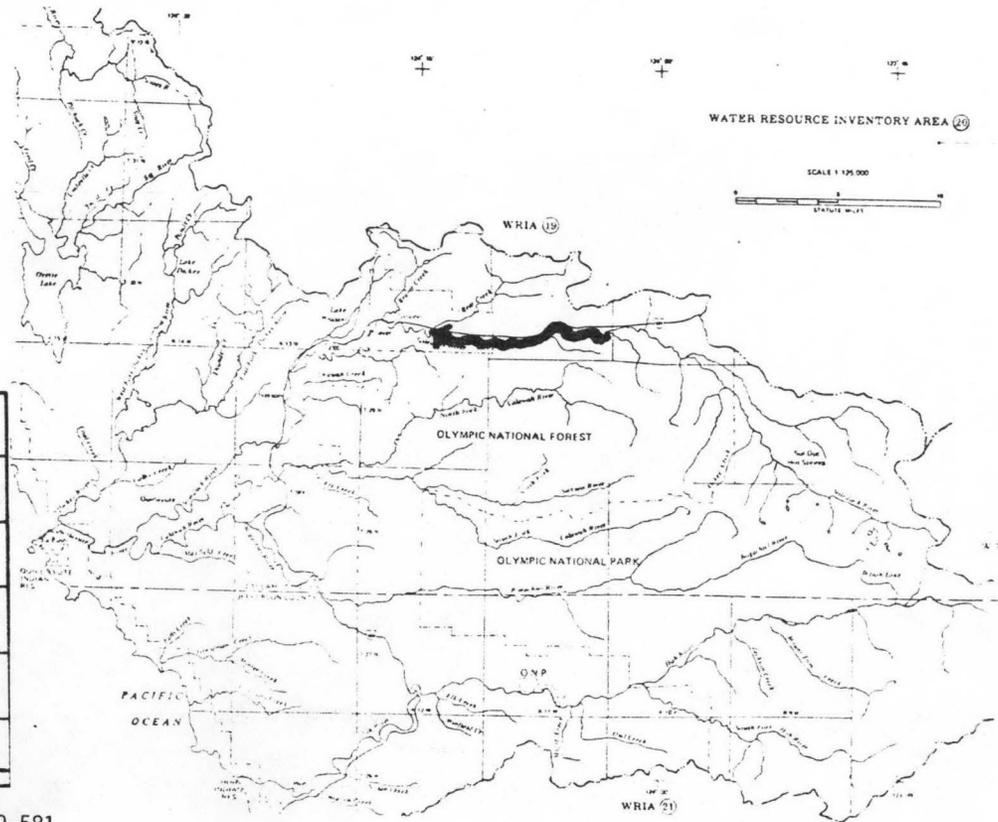
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	60.7	1.72	15.1	1.00
80	159	4.52	36.4	0.92
50	463	13.1	85.1	0.74
30	774	21.9	117	0.61
10	1590	45.0	154	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 759 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R10W</u>
D. Latitude, Longitude	<u>48°04' 124°03'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>42.3/47.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

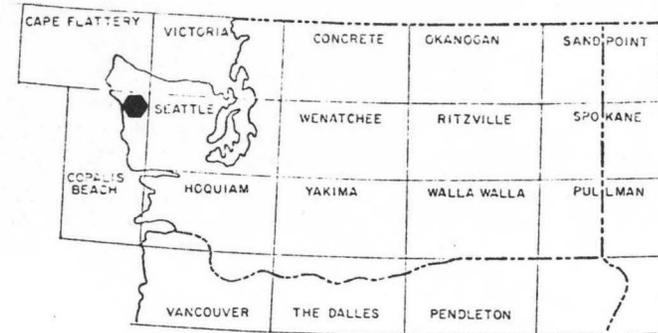
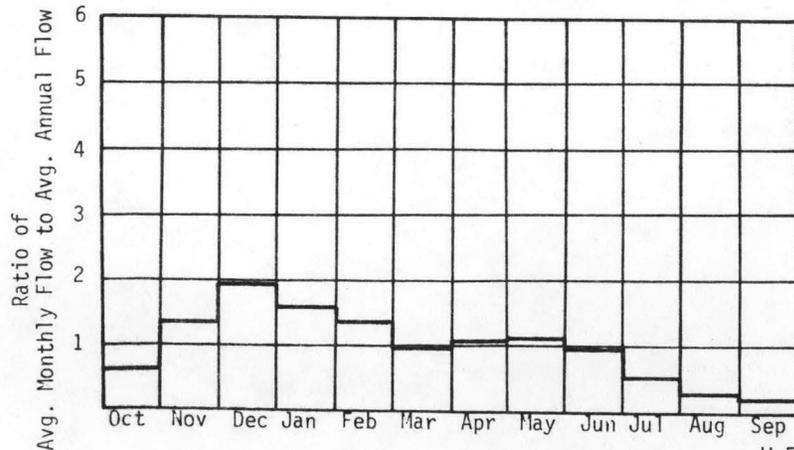
A. Upstream Elevation of Reach	<u>1005</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>855</u>	Ft. MSL
C. Total Available Head in Reach	<u>150</u>	Ft.
D. Average Slope in Reach	<u>30.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>104</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

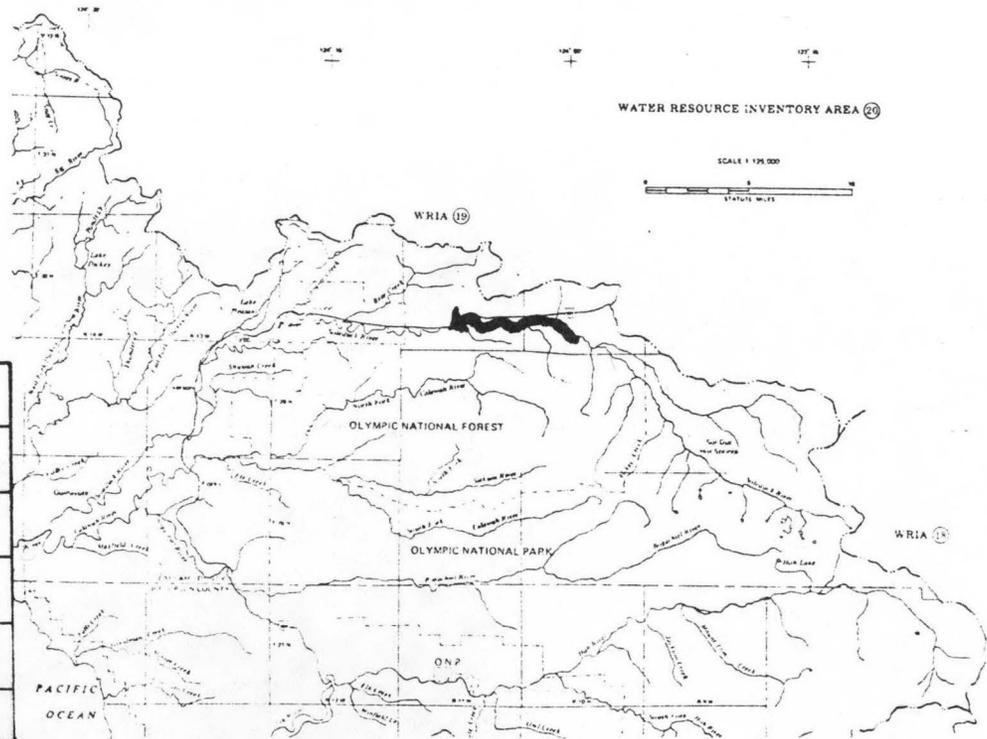
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	93.1	1.18	10.4	1.00
80	206	2.62	21.3	0.93
50	472	5.99	40.4	0.77
30	705	8.95	50.9	0.65
10	1260	16.0	63.2	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 665 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R10W</u>
D. Latitude, Longitude	<u>48°03' 123°58'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>47.2/48.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

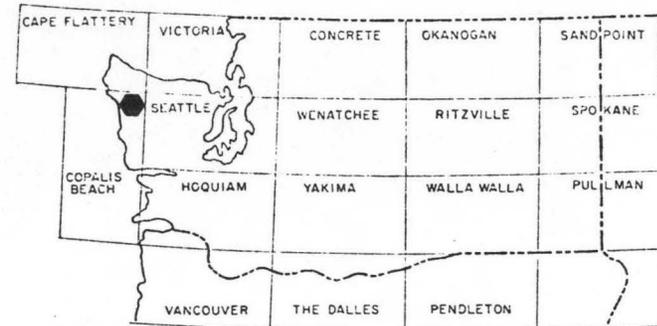
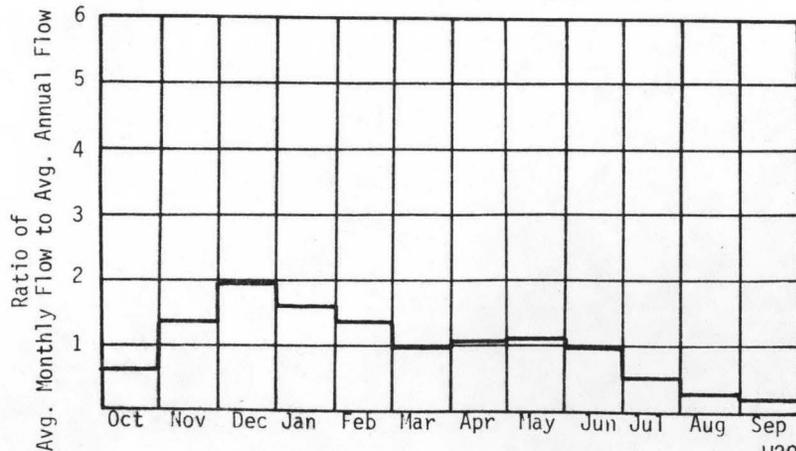
A. Upstream Elevation of Reach	<u>1045</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1005</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>33.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>86.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

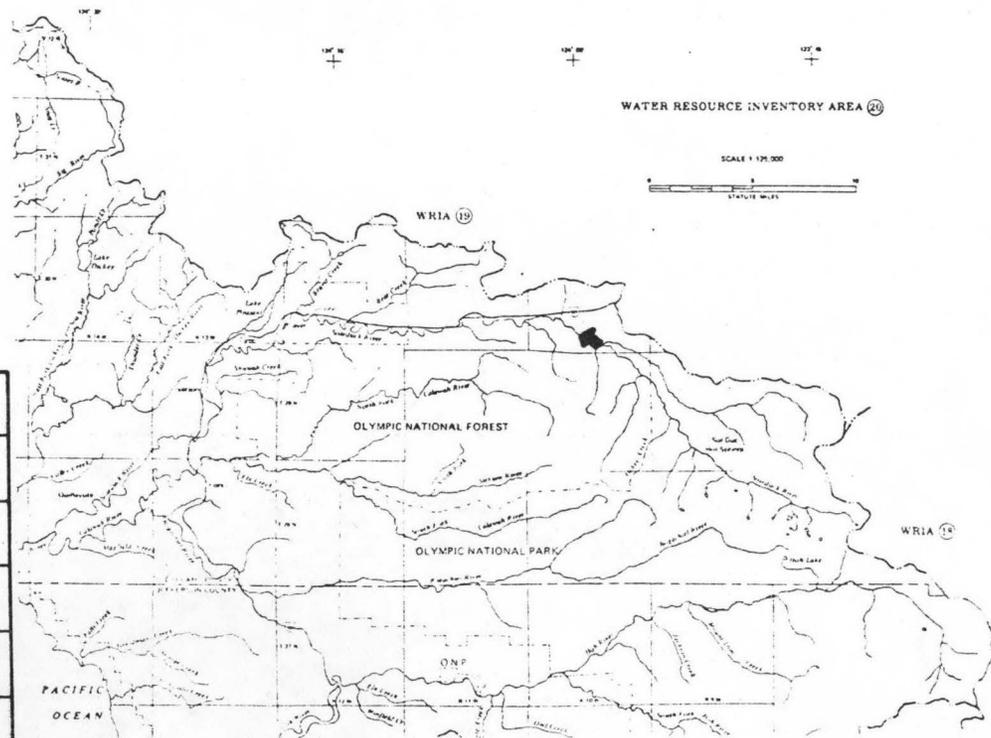
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	83.4	0.28	2.47	1.00
80	185	0.63	5.09	0.93
50	423	1.43	9.66	0.77
30	632	2.14	12.2	0.65
10	1130	3.83	15.1	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 596 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0012

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T29N R10W
 D. Latitude, Longitude 48°02' 123°57'
 E. Stream Name Soleduck River
 F. Major Basin Name Ouillayute
 G. River Mile 48.4/49.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

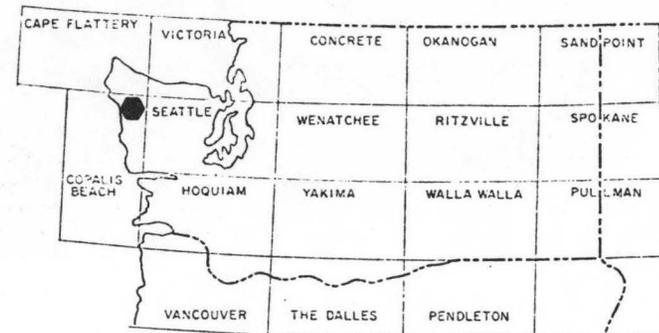
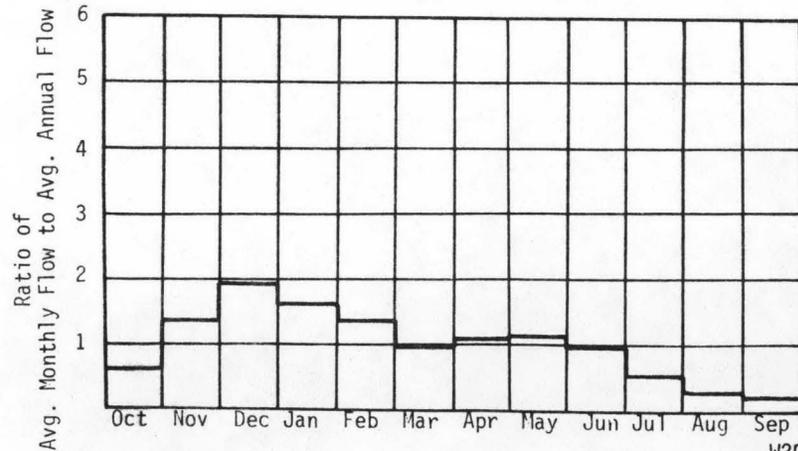
A. Upstream Elevation of Reach 1090 Ft. MSL
 B. Downstream Elevation of Reach 1050 Ft. MSL
 C. Total Available Head in Reach 40 Ft.
 D. Average Slope in Reach 66.7 Ft./Mi.
 E. Drainage Area above Reach Mouth 85.2 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

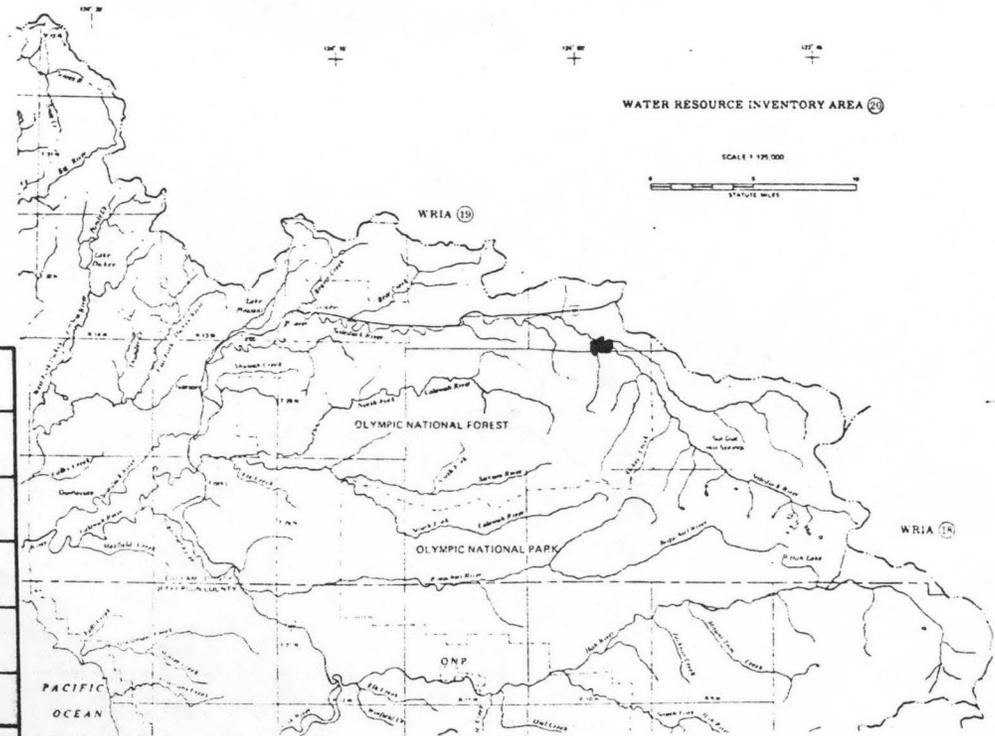
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	69.6	0.24	2.06	1.00
80	154	0.52	4.25	0.93
50	353	1.19	8.05	0.77
30	527	1.78	10.2	0.64
10	944	3.20	12.6	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 497 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>48°09' 123°58'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>49.0/53.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

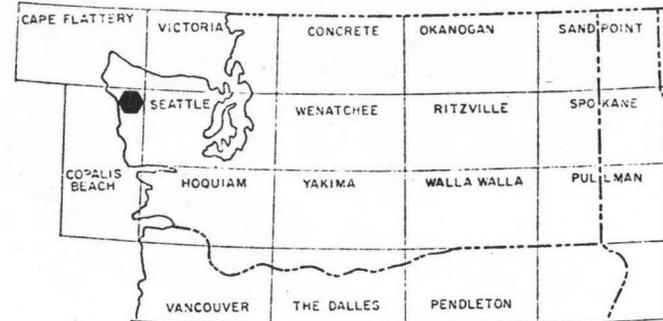
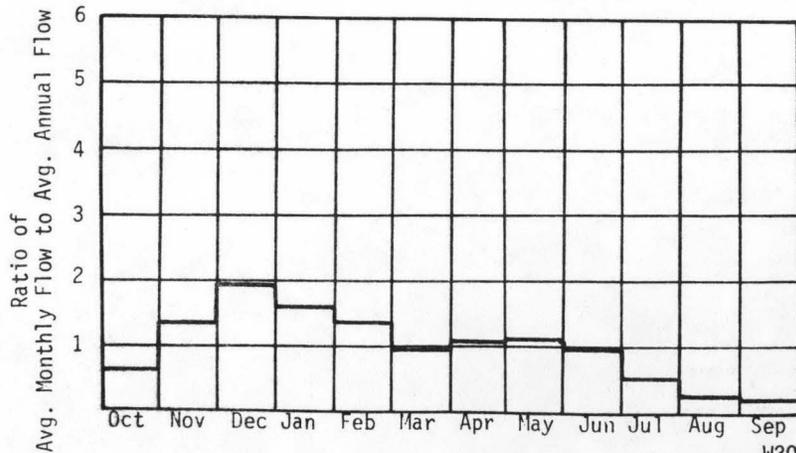
A. Upstream Elevation of Reach	<u>1445</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1090</u>	Ft. MSL
C. Total Available Head in Reach	<u>335</u>	Ft.
D. Average Slope in Reach	<u>80.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>40.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

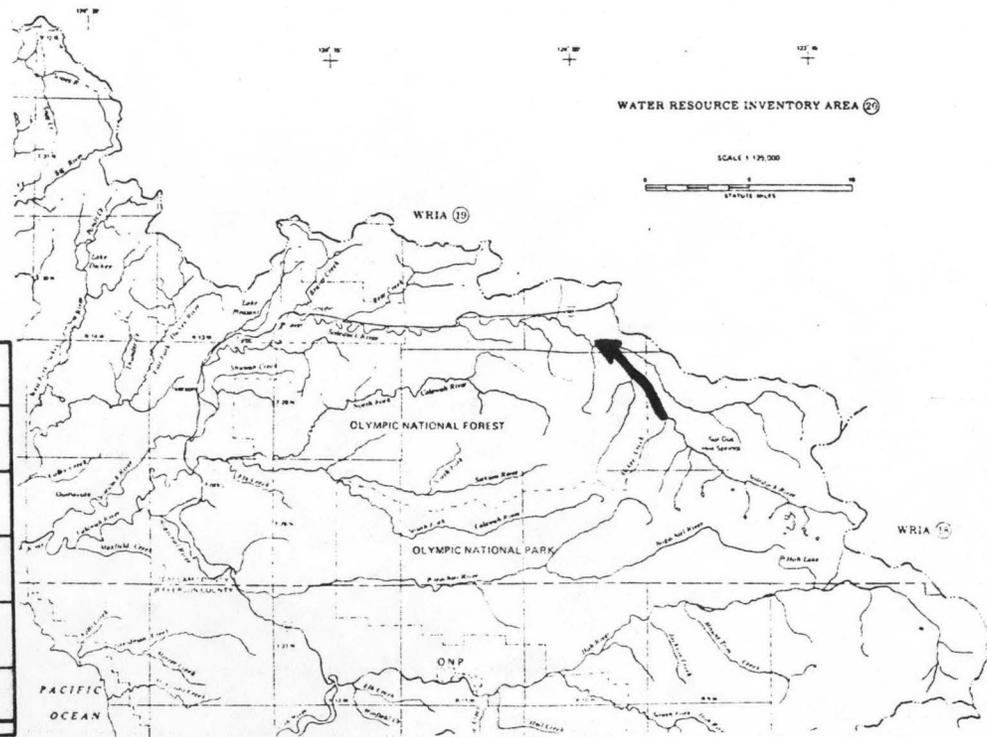
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	39.8	1.13	9.87	1.00
80	88.0	2.50	20.3	0.93
50	202	5.71	38.6	0.77
30	301	8.53	48.6	0.65
10	540	15.3	60.3	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 284 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R9W</u>
D. Latitude, Longitude	<u>47°58' 123°52'</u>
E. Stream Name	<u>Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>53.4/61.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

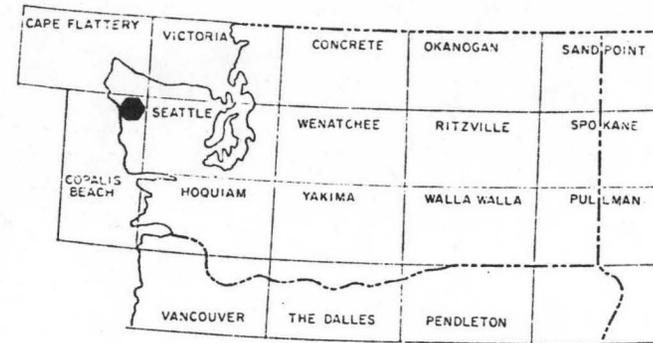
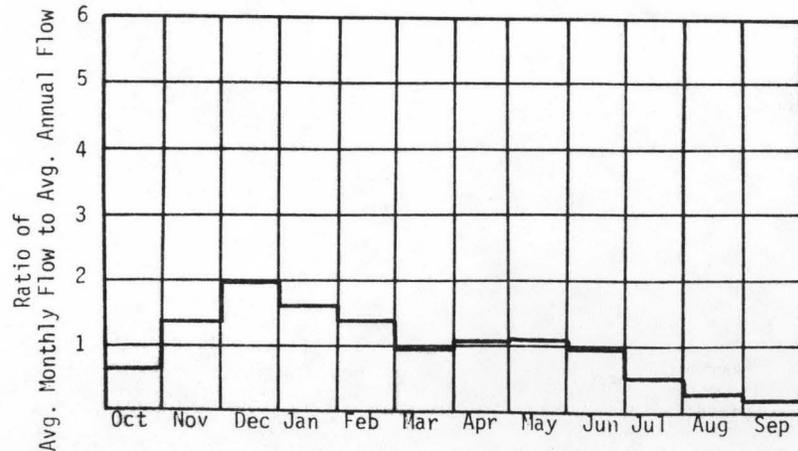
A. Upstream Elevation of Reach	<u>2225</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1445</u>	Ft. MSL
C. Total Available Head in Reach	<u>780 + 66 = 846</u>	Ft.
D. Average Slope in Reach	<u>93</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>37.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

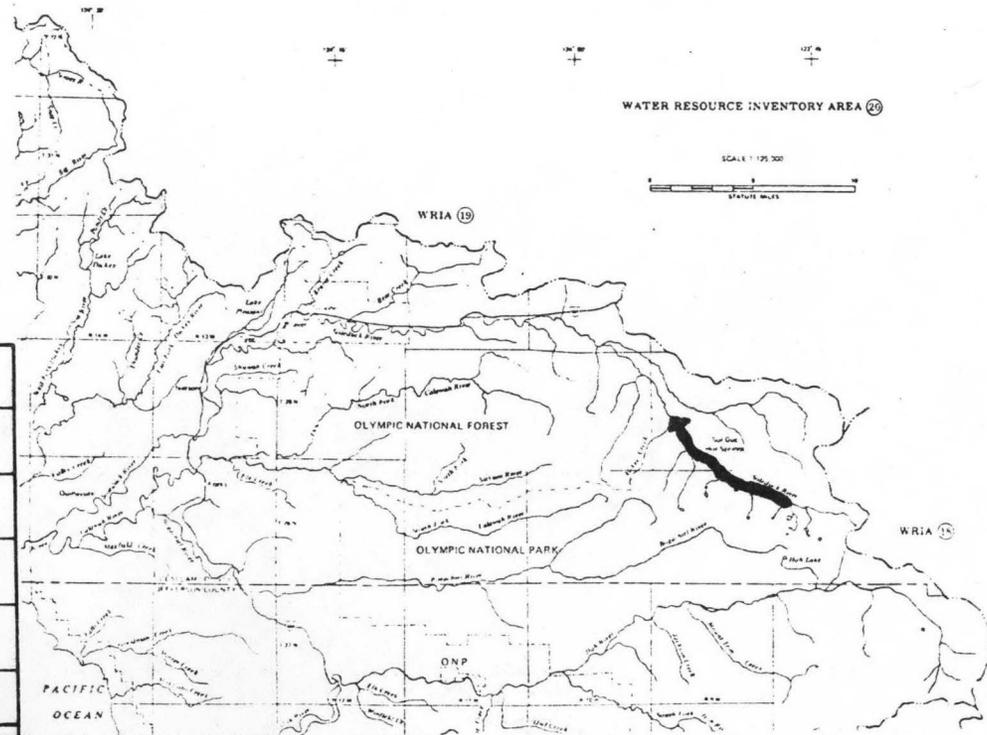
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.1	0.94	8.23	1.00
80	34.4	2.46	19.9	0.92
50	100	7.16	46.4	0.74
30	167	12.0	64.0	0.61
10	343	24.5	83.8	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 164 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R13W</u>
D. Latitude, Longitude	<u>48°03' 124°23'</u>
E. Stream Name	<u>Lake Creek</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

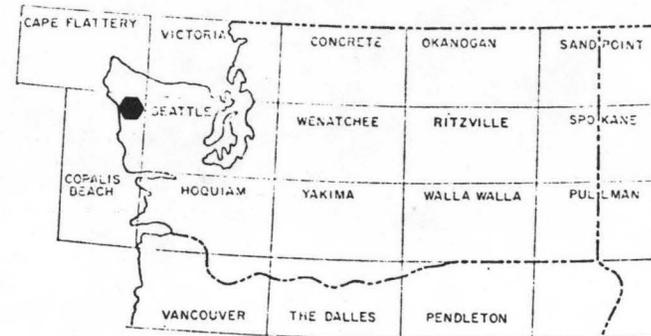
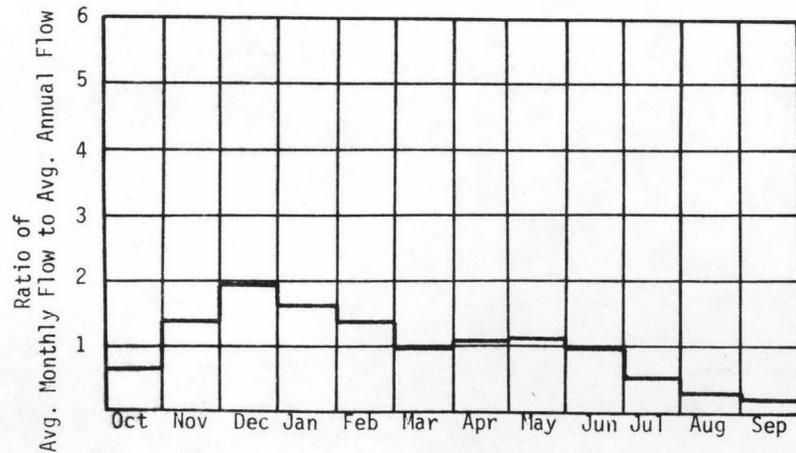
A. Upstream Elevation of Reach	<u>380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>265</u>	Ft. MSL
C. Total Available Head in Reach	<u>115 + 66 = 181</u>	Ft.
D. Average Slope in Reach	<u>41.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

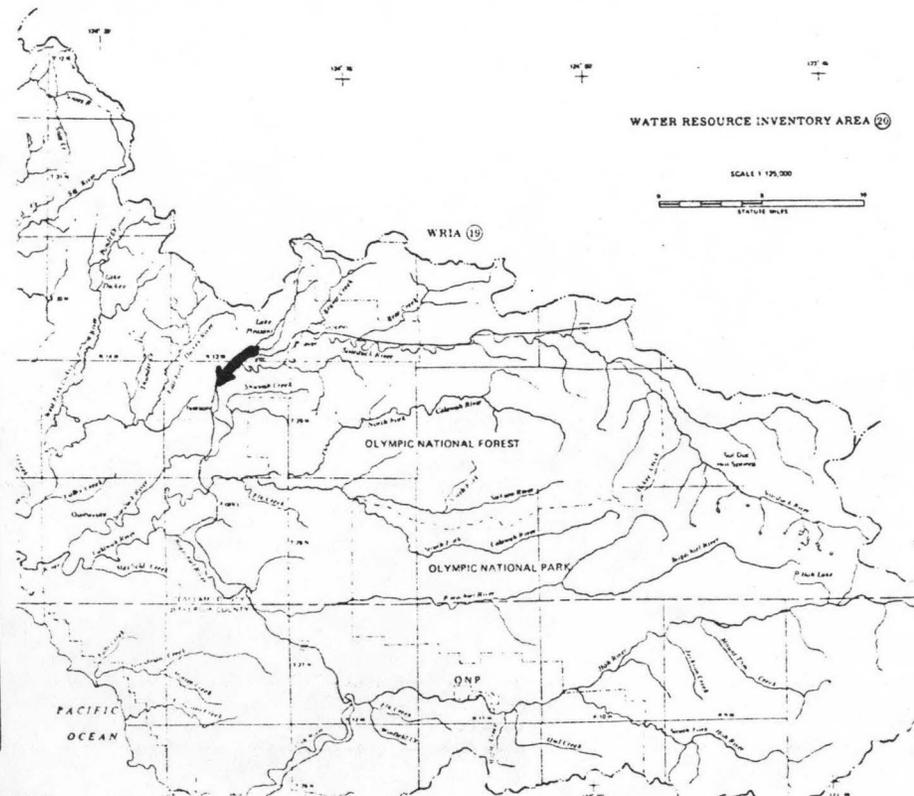
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.12	0.08	0.69	1.00
80	13.4	0.21	1.66	0.92
50	39.0	0.60	3.88	0.74
30	65.3	1.00	5.34	0.61
10	134	2.05	7.00	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 64 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T20N R12W</u>
D. Latitude, Longitude	<u>48°05' 124°16'</u>
E. Stream Name	<u>Beaver Creek</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/1.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

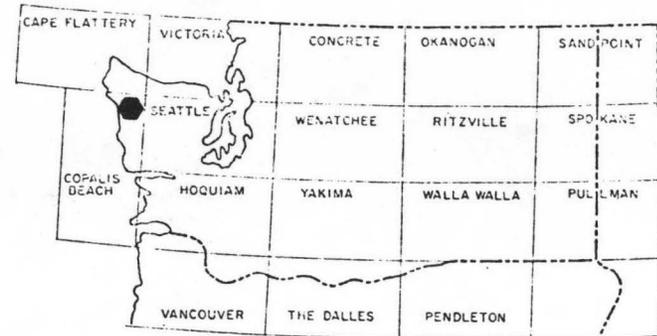
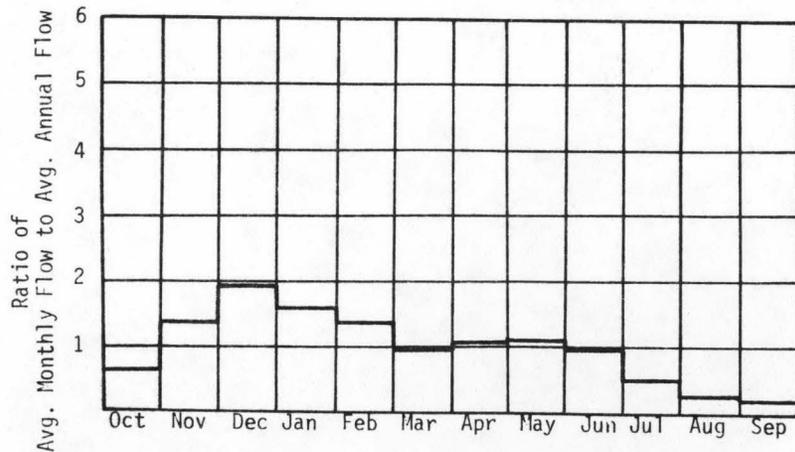
A. Upstream Elevation of Reach	<u>420</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>20 + 66 = 86</u>	Ft.
D. Average Slope in Reach	<u>11.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

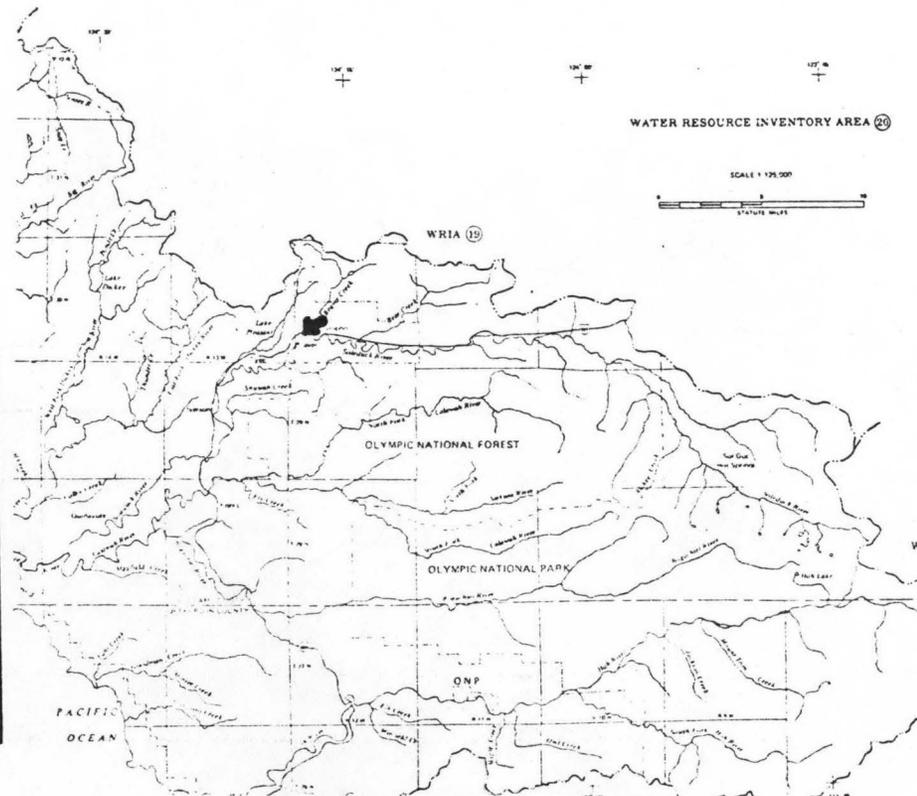
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.04	0.04	0.32	1.00
80	13.2	0.10	0.78	0.92
50	38.4	0.28	1.81	0.74
30	64.3	0.47	2.50	0.61
10	132	0.96	3.27	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 63 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T30N R12W</u>
D. Latitude, Longitude	<u>48°05' 124°12'</u>
E. Stream Name	<u>Bear Creek</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/4.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

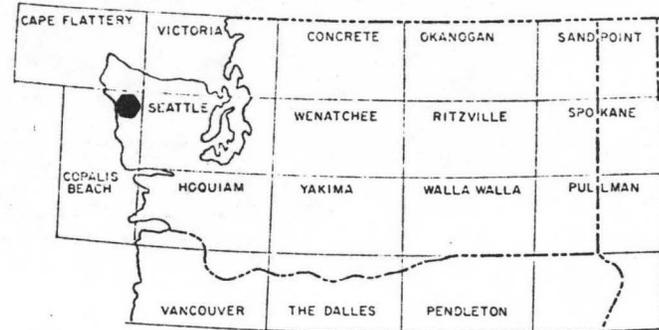
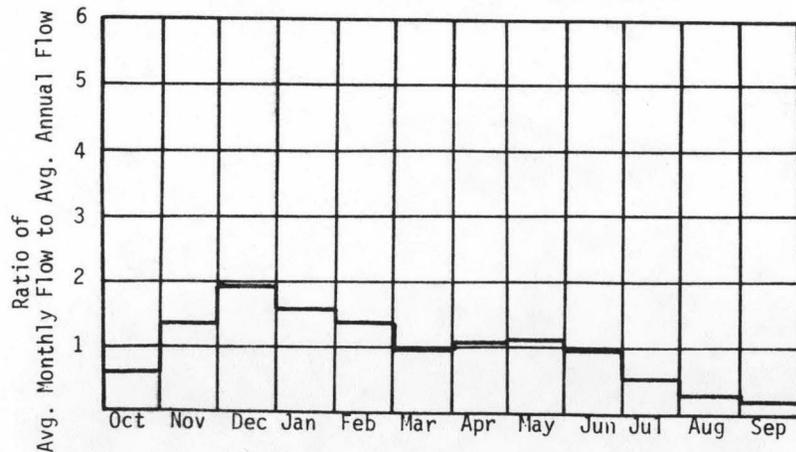
A. Upstream Elevation of Reach	<u>710</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>520</u>	Ft. MSL
C. Total Available Head in Reach	<u>190 + 66 = 256</u>	Ft.
D. Average Slope in Reach	<u>42.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

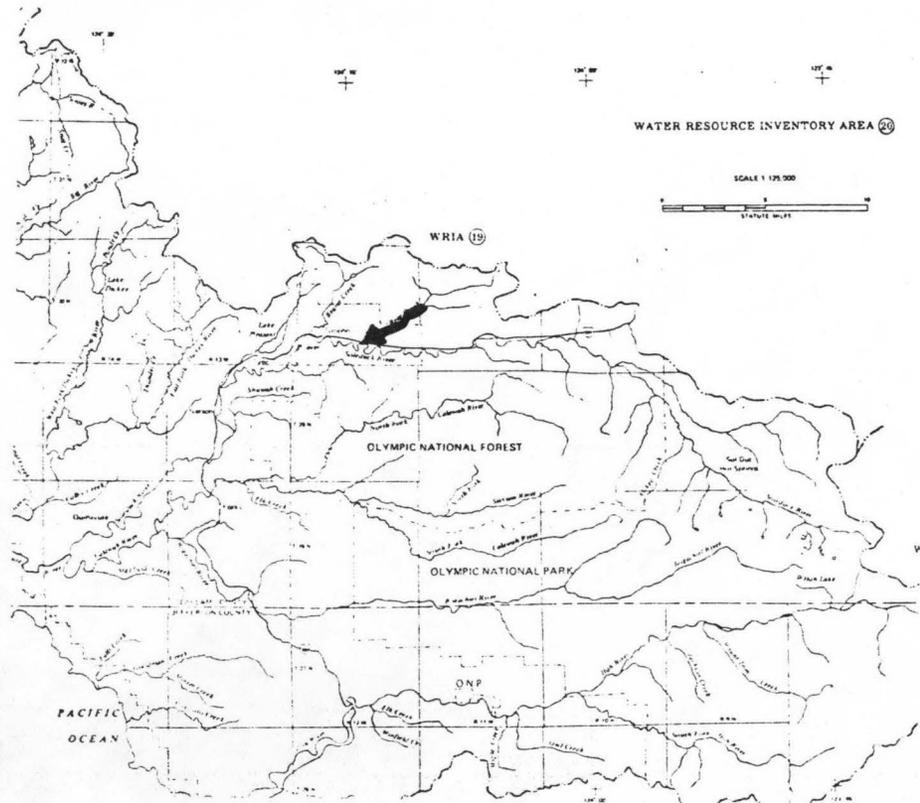
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.76	0.12	1.09	1.00
80	15.1	0.33	2.64	0.92
50	43.9	0.95	6.17	0.74
30	73.4	1.59	8.50	0.61
10	150	3.26	11.1	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 72 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0018

I. LOCATION

A. State	Washington
B. County	Clallam
C. Township, Range	T29N R10W
D. Latitude, Longitude	48°02' 123°57'
E. Stream Name	S.F. Soleduck River
F. Major Basin Name	Quillayute
G. River Mile	0/0.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

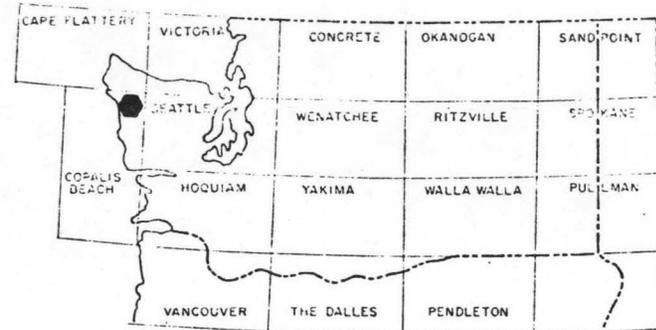
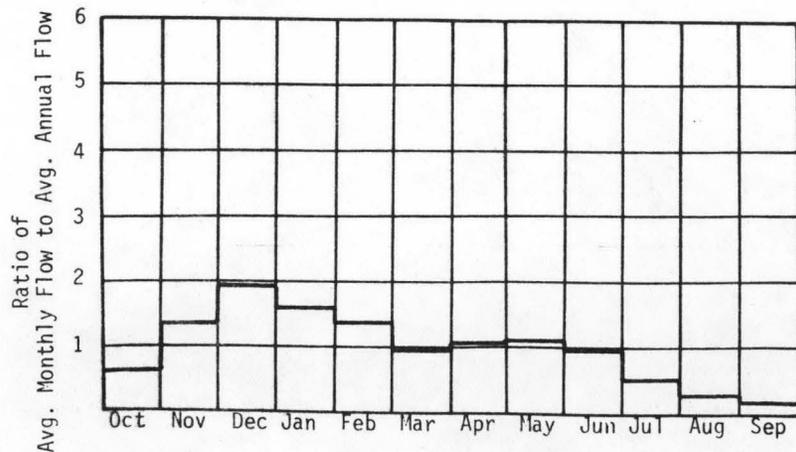
A. Upstream Elevation of Reach	1160	Ft.	MSL
B. Downstream Elevation of Reach	1045	Ft.	MSL
C. Total Available Head in Reach	115 + 66 = 181	Ft.	
D. Average Slope in Reach	144	Ft./Mi.	
E. Drainage Area above Reach Mouth	12.3	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

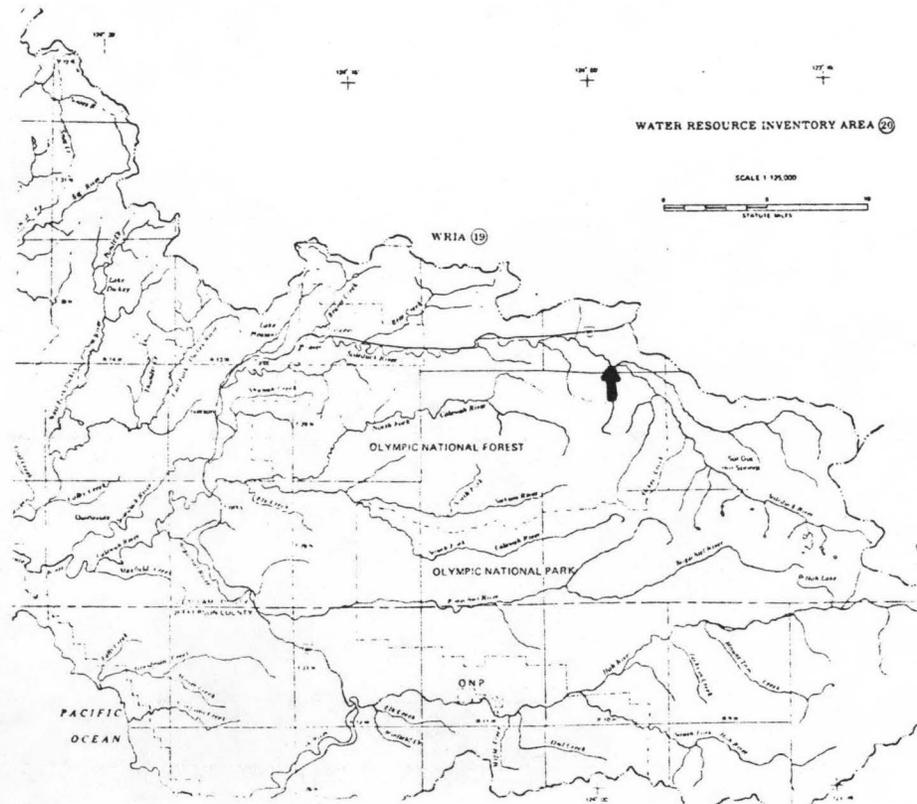
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.04	0.11	0.94	1.00
80	18.5	0.28	2.28	0.92
50	53.7	0.82	5.33	0.74
30	89.8	1.37	7.34	0.61
10	184	2.82	9.62	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 88 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R9W</u>
D. Latitude, Longitude	<u>48°01' 123°53'</u>
E. Stream Name	<u>N.F. Soleduck River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/8.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

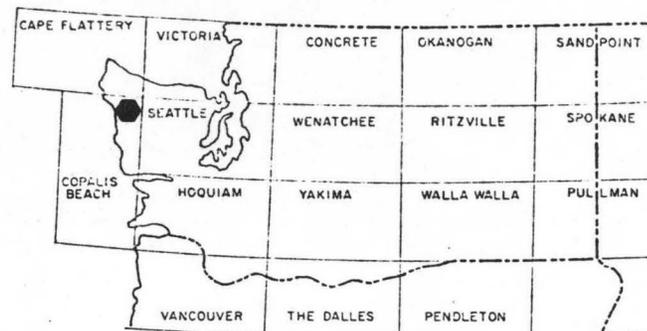
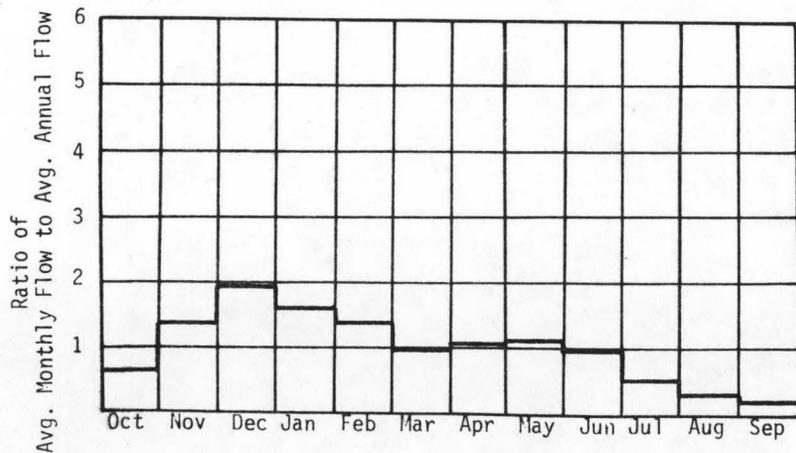
A. Upstream Elevation of Reach	<u>2070</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1090</u>	Ft. MSL
C. Total Available Head in Reach	<u>980 + 66 = 1046</u>	Ft.
D. Average Slope in Reach	<u>118</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>30.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

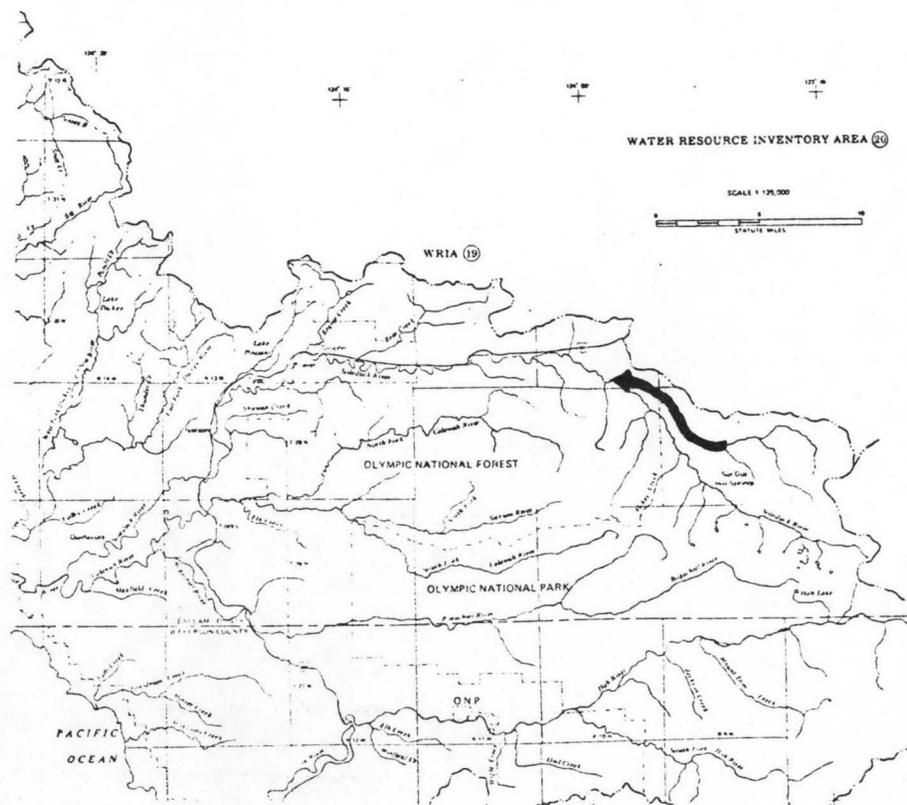
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.8	1.57	13.8	1.00
80	39.4	3.48	28.4	0.93
50	90.2	7.98	53.8	0.77
30	135	11.9	67.8	0.65
10	241	21.4	84.2	0.45

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 127 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0020

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R14W</u>
D. Latitude, Longitude	<u>47°54' 124°32'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>5.3/6.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

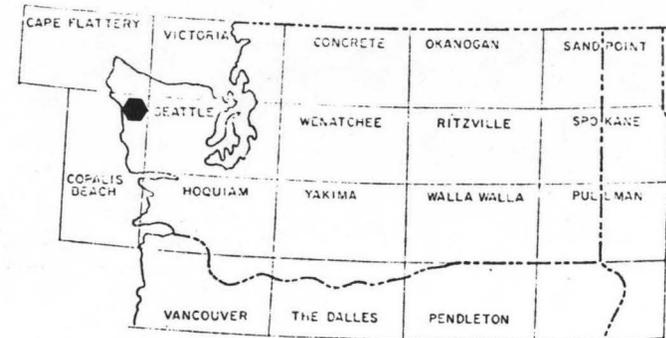
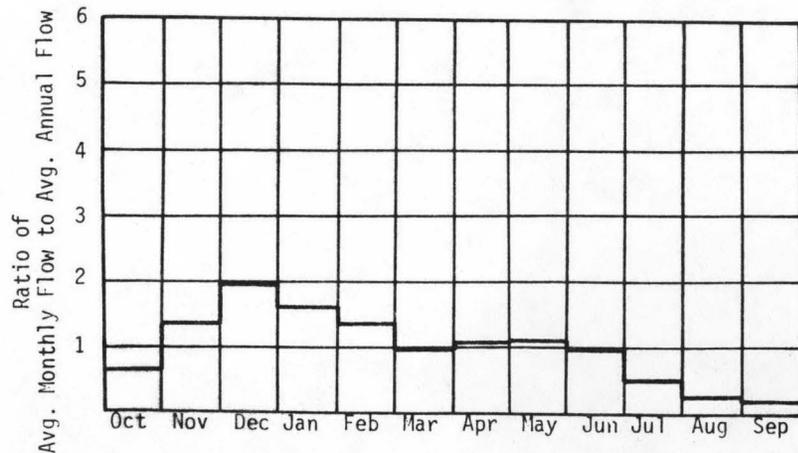
A. Upstream Elevation of Reach	<u>30</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>25</u>	Ft. MSL
C. Total Available Head in Reach	<u>5</u>	Ft.
D. Average Slope in Reach	<u>3.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>291</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

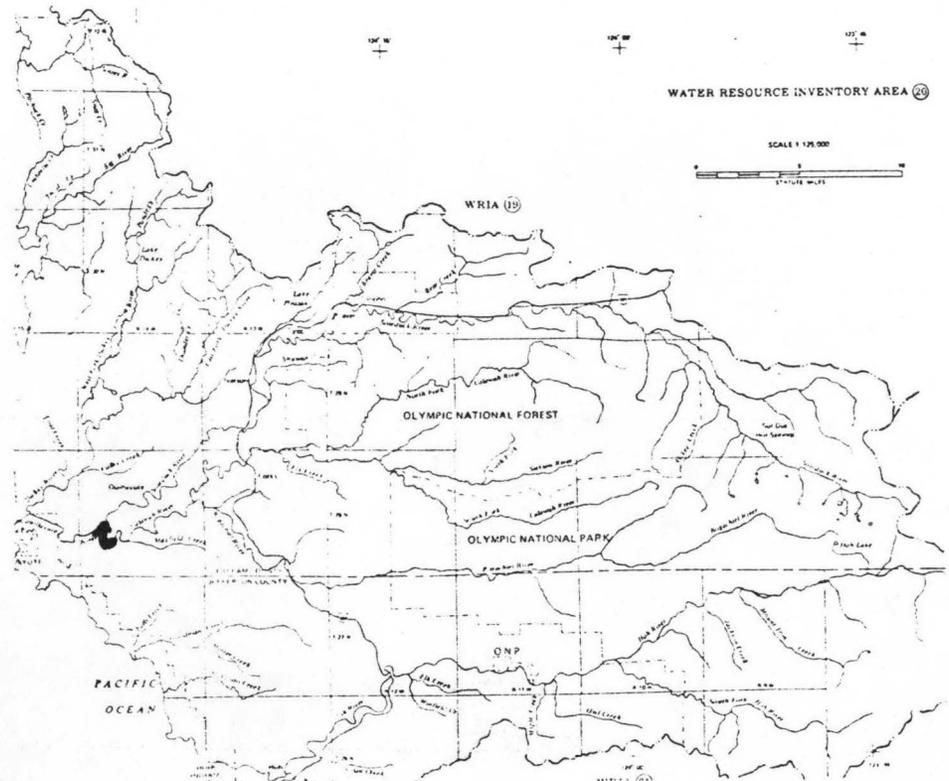
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	143	0.06	0.53	1.00
80	376	0.16	1.28	0.92
50	1090	0.46	2.99	0.74
30	1820	0.77	4.12	0.61
10	3740	1.58	5.40	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1789 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0021

I. LOCATION

A. State Washington
 B. County Clallam
 C. Township, Range T28N R14W
 D. Latitude, Longitude 47°54' 124°31'
 E. Stream Name Bogachiel River
 F. Major Basin Name Quillayute
 G. River Mile 6.6/8.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

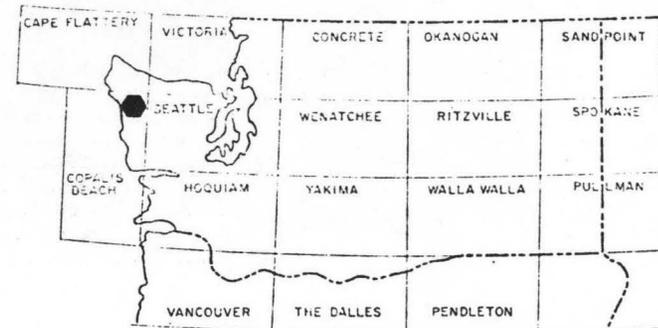
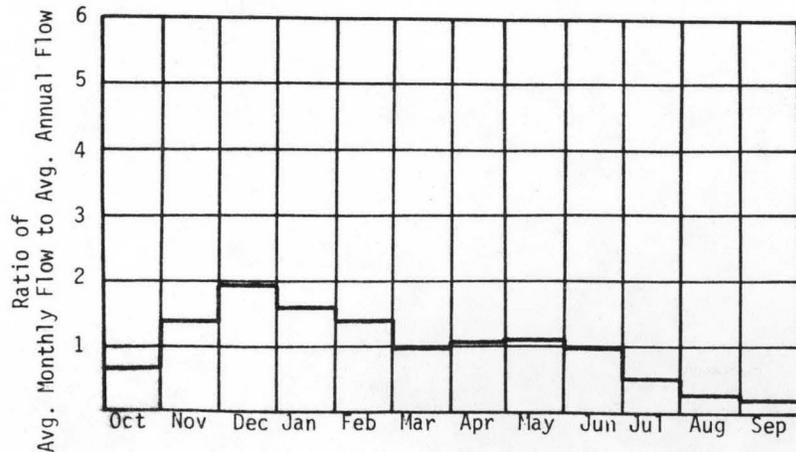
A. Upstream Elevation of Reach 35 Ft. MSL
 B. Downstream Elevation of Reach 30 Ft. MSL
 C. Total Available Head in Reach 5 Ft.
 D. Average Slope in Reach 3.1 Ft./Mi.
 E. Drainage Area above Reach Mouth 281 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

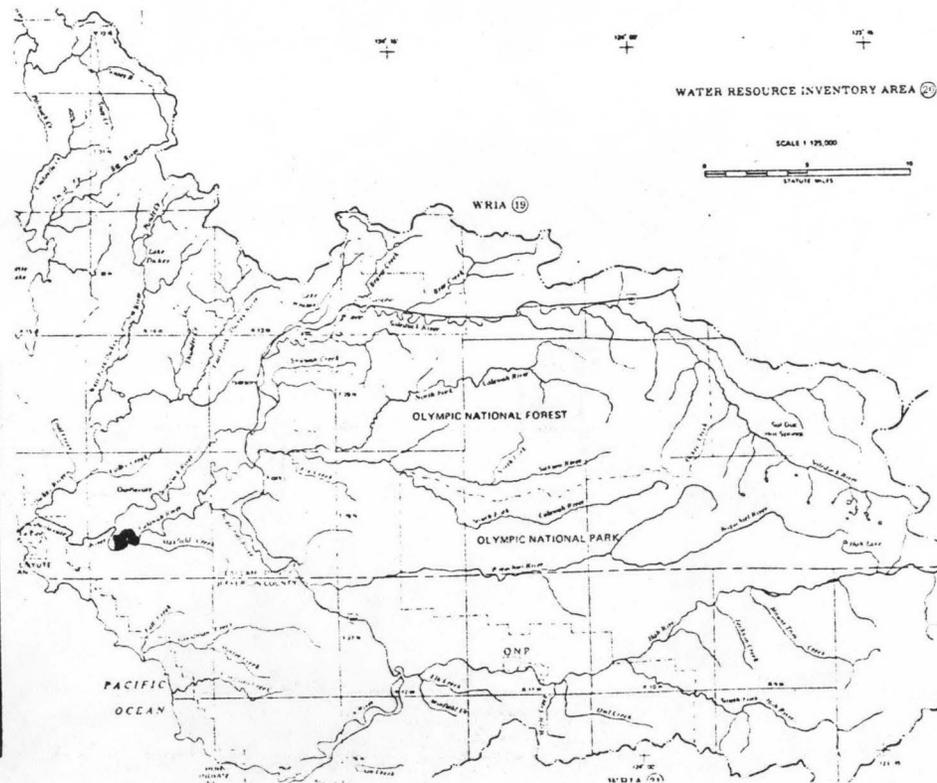
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	104	0.04	0.38	1.00
80	242	0.10	0.84	0.93
50	1020	0.43	2.72	0.72
30	1660	0.70	3.69	0.60
10	4470	1.89	5.63	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1731 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0022

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R14W</u>
D. Latitude, Longitude	<u>47°55' 124°29'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>8.2/13.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

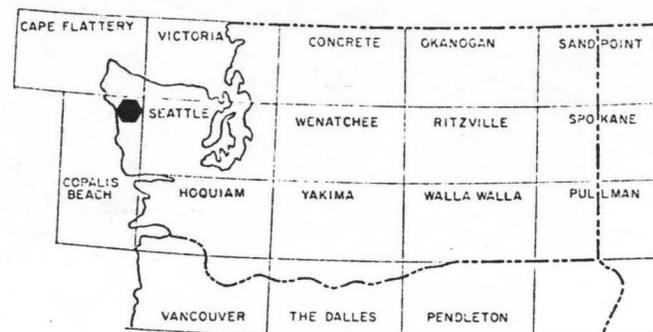
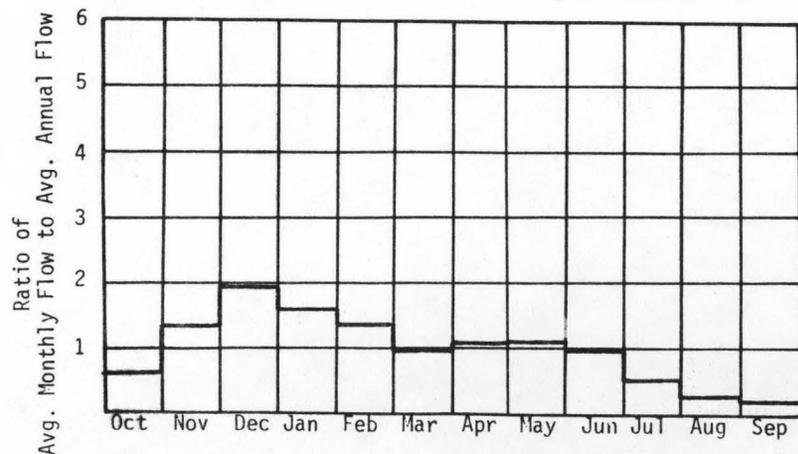
A. Upstream Elevation of Reach	<u>80</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>35</u>	Ft. MSL
C. Total Available Head in Reach	<u>45</u>	Ft.
D. Average Slope in Reach	<u>7.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>271.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

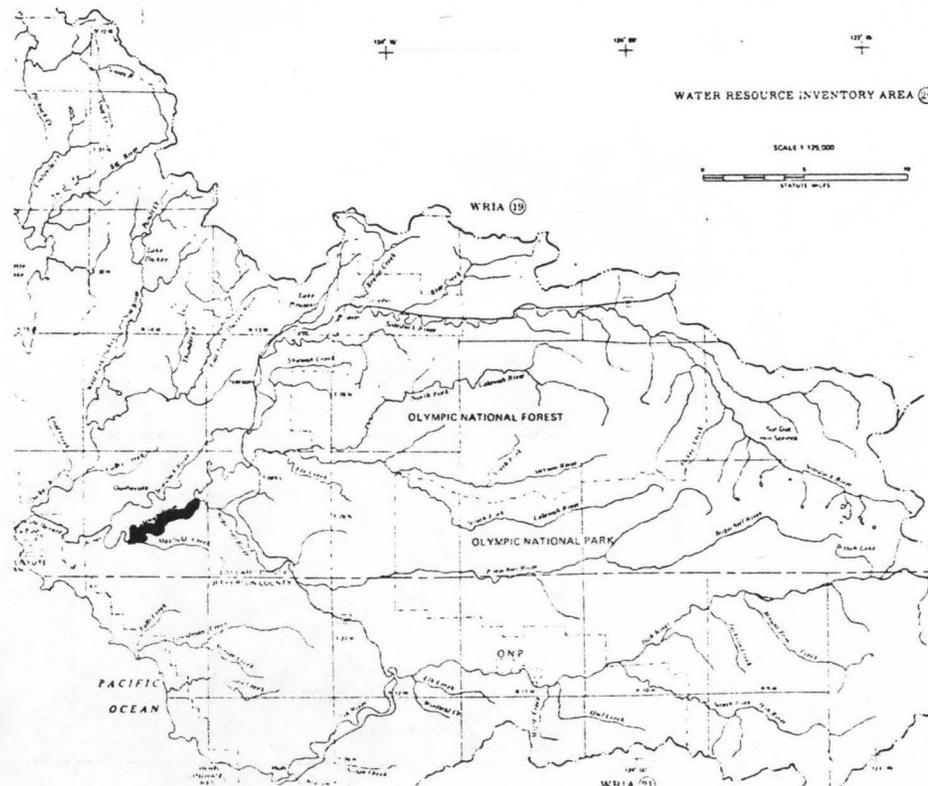
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	101	0.38	3.36	1.00
80	235	0.89	7.29	0.93
50	991	3.77	23.8	0.72
30	1610	6.14	32.3	0.60
10	4330	16.5	49.1	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1679 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0023

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R13W</u>
D. Latitude, Longitude	<u>47°54' 124°23'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>13.9/21.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

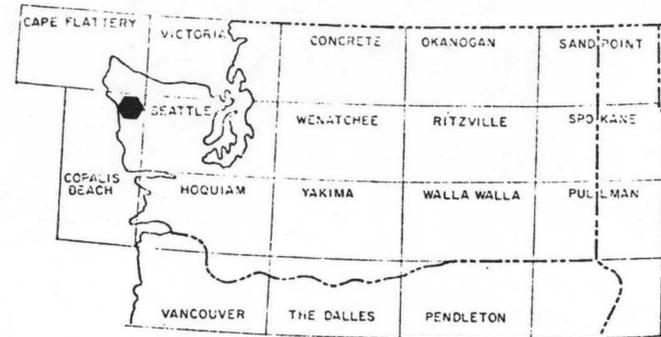
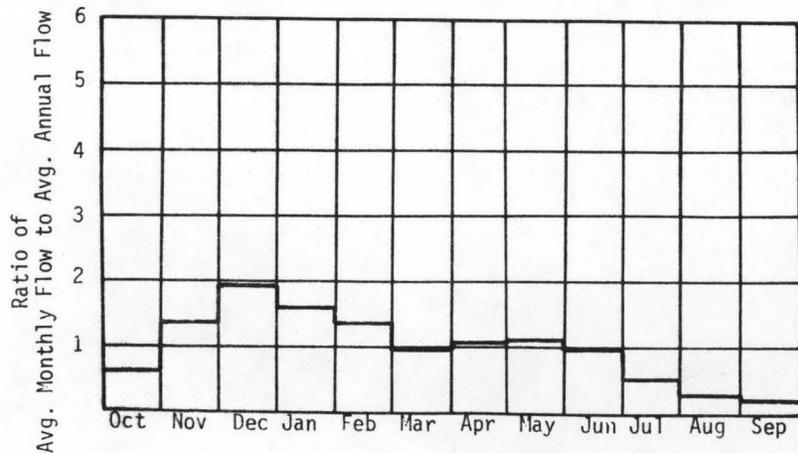
A. Upstream Elevation of Reach	<u>190</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>110</u>	Ft.
D. Average Slope in Reach	<u>14.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>127</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

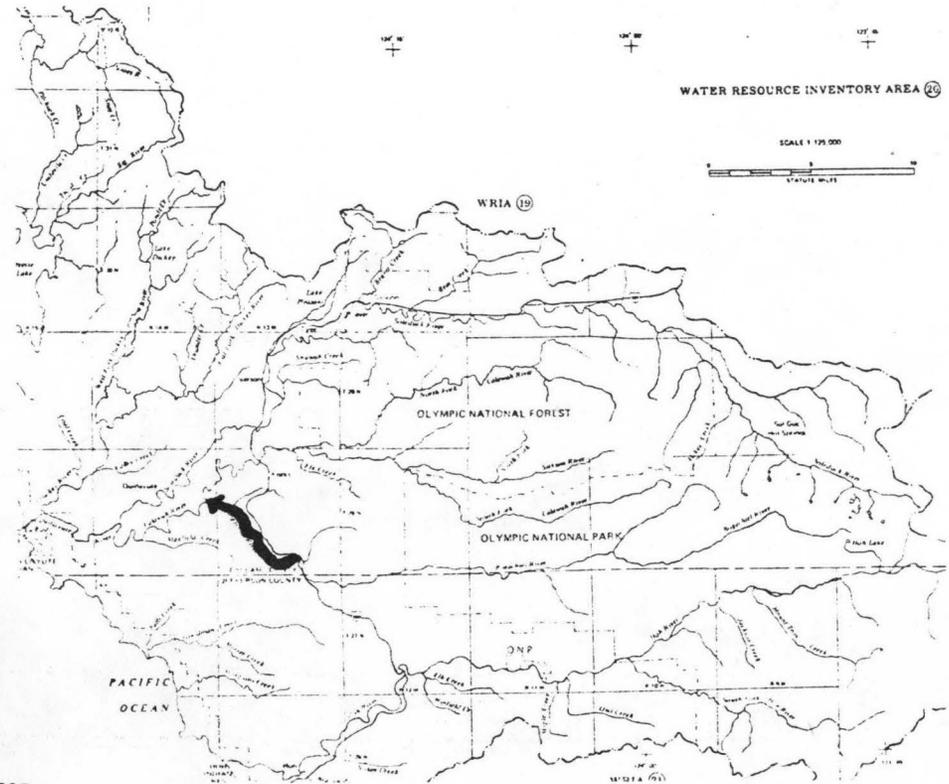
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	47.6	0.44	3.88	1.00
80	111	1.03	8.43	0.93
50	468	4.36	27.5	0.72
30	762	7.09	37.3	0.60
10	2050	19.1	56.8	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 794 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0024

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T27N R12W</u>
D. Latitude, Longitude	<u>47°52' 124°17'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>21.7/29.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

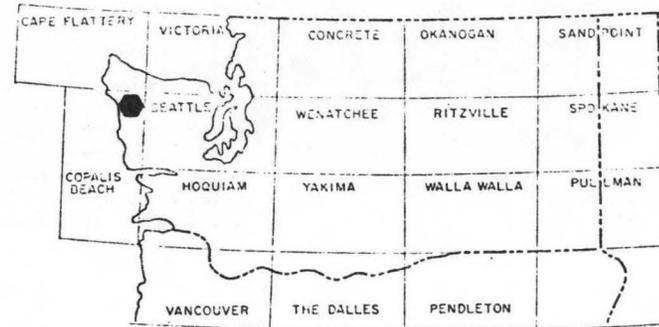
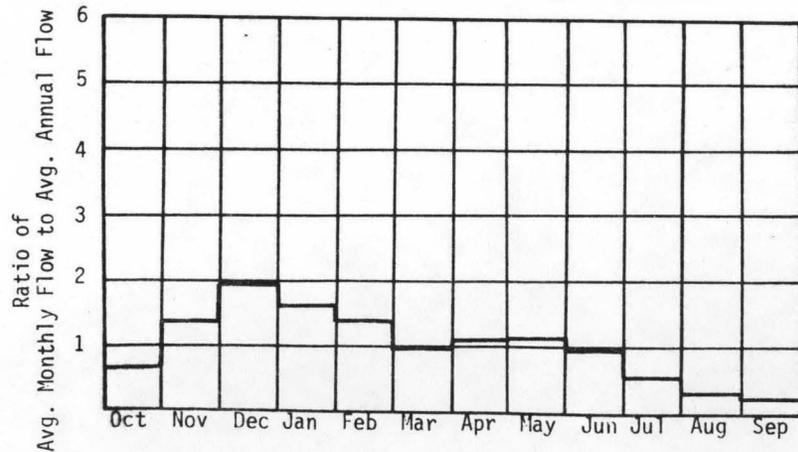
A. Upstream Elevation of Reach	<u>390</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>190</u>	Ft. MSL
C. Total Available Head in Reach	<u>200</u>	Ft.
D. Average Slope in Reach	<u>26.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>97.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

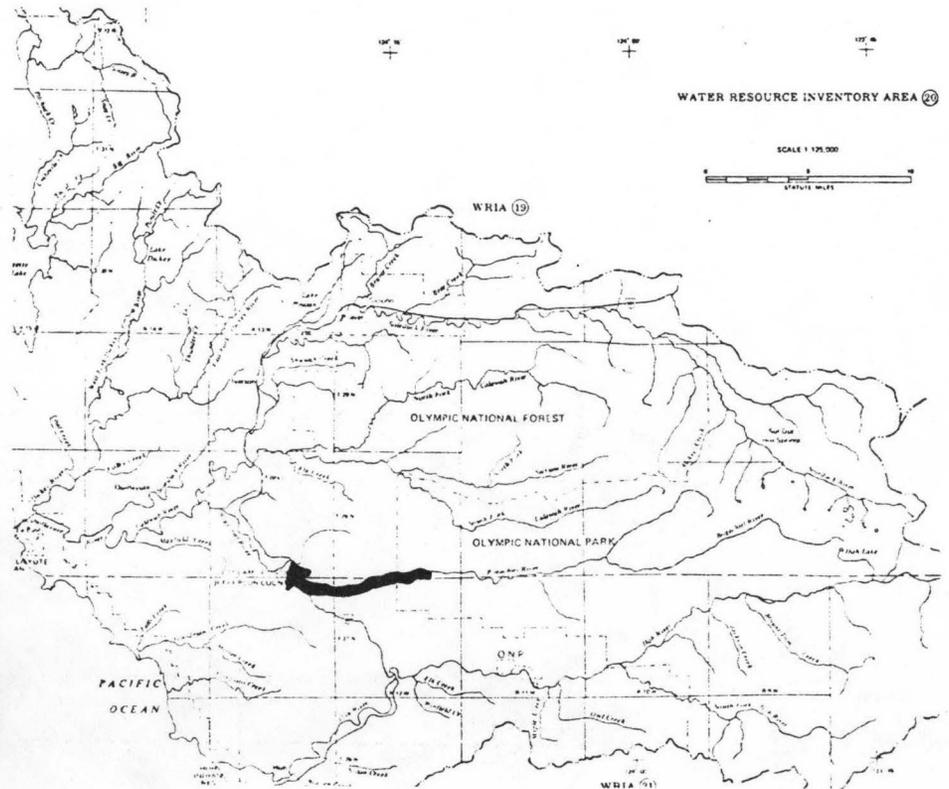
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	36.2	0.61	5.37	1.00
80	84.6	1.43	11.7	0.93
50	356	6.03	38.0	0.72
30	580	9.81	51.6	0.60
10	1560	26.4	78.5	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 604 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0025

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R12W</u>
D. Latitude, Longitude	<u>47°53' 124°12'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Ouillayute</u>
G. River Mile	<u>29.3/32.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

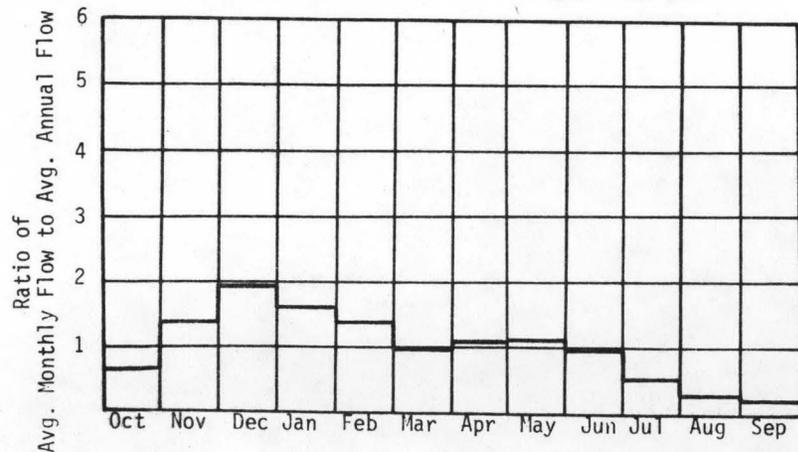
A. Upstream Elevation of Reach	<u>465</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>390</u>	Ft. MSL
C. Total Available Head in Reach	<u>75</u>	Ft.
D. Average Slope in Reach	<u>23.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>77.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

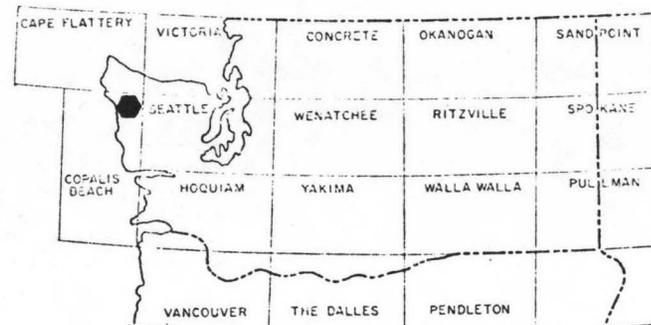
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	29.8	0.19	1.66	1.00
80	69.6	0.44	3.60	0.93
50	293	1.86	11.7	0.72
30	477	3.03	15.9	0.60
10	1280	8.14	24.2	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

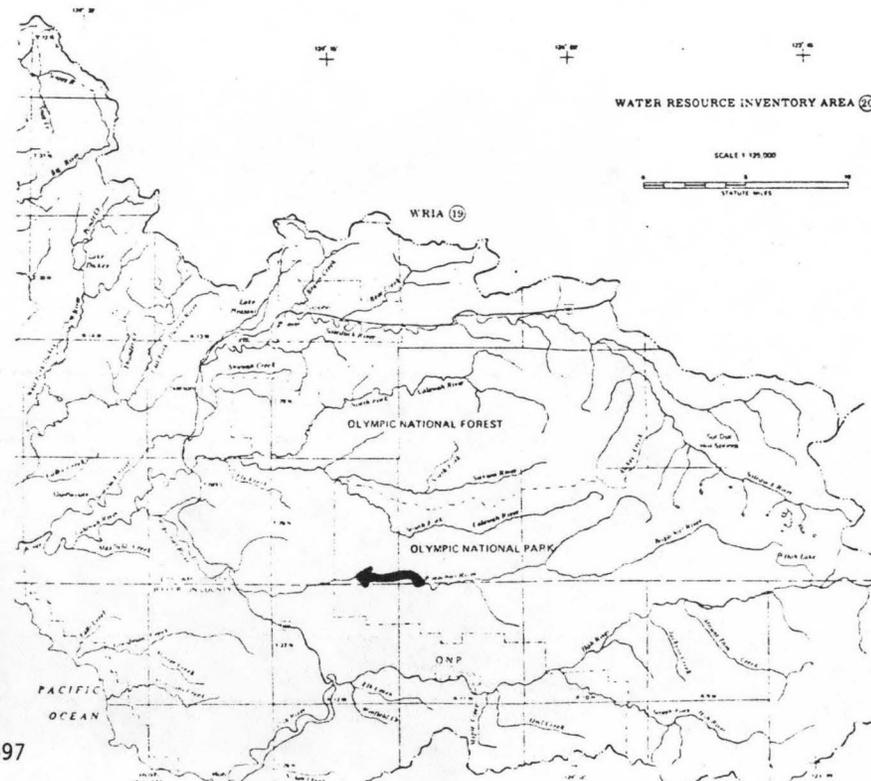
QMR = 497 cfs



W20-597



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0026

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R11W</u>
D. Latitude, Longitude	<u>47°53' 124°06'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>32.5/35.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

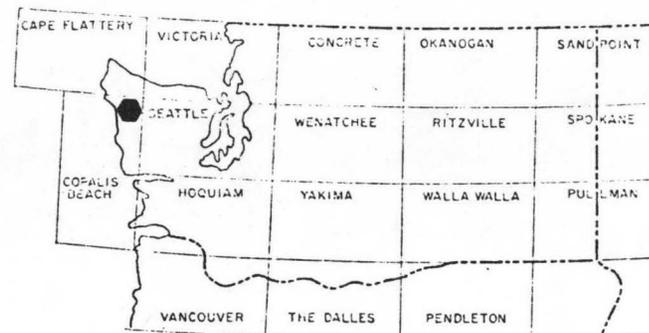
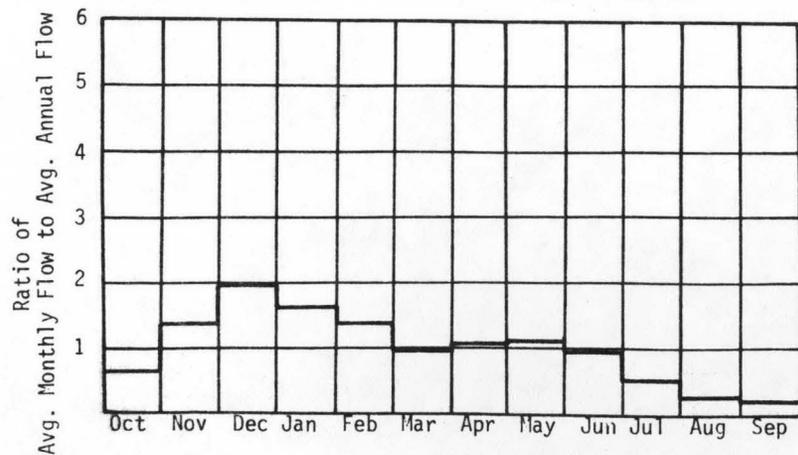
A. Upstream Elevation of Reach	<u>540</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>465</u>	Ft. MSL
C. Total Available Head in Reach	<u>75</u>	Ft.
D. Average Slope in Reach	<u>24.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>65</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

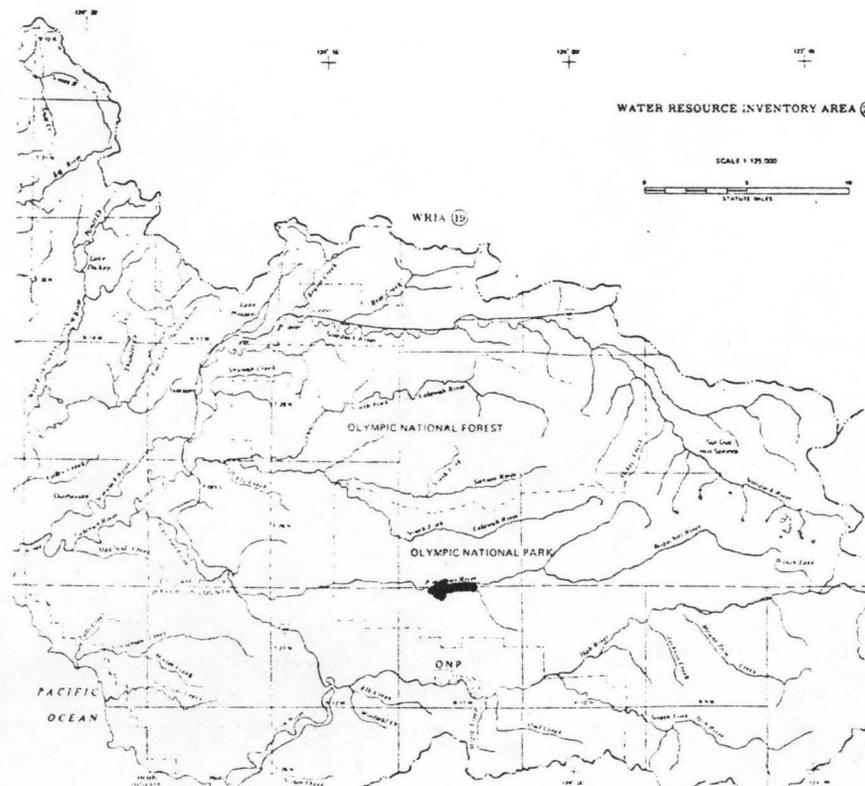
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.6	0.16	1.43	1.00
80	59.6	0.38	3.08	0.93
50	251	1.59	10.1	0.72
30	409	2.59	13.6	0.60
10	1100	6.97	20.8	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 426 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0027

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R11W</u>
D. Latitude, Longitude	<u>47°53' 124°05'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>35.6/39.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

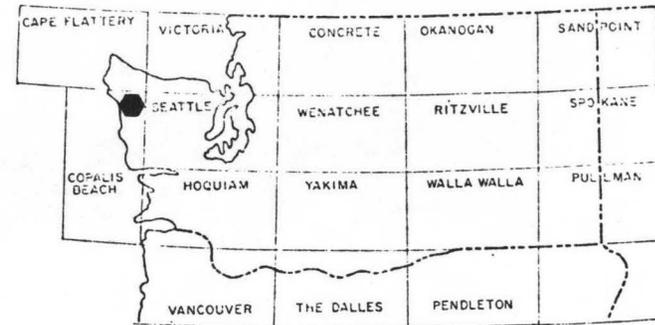
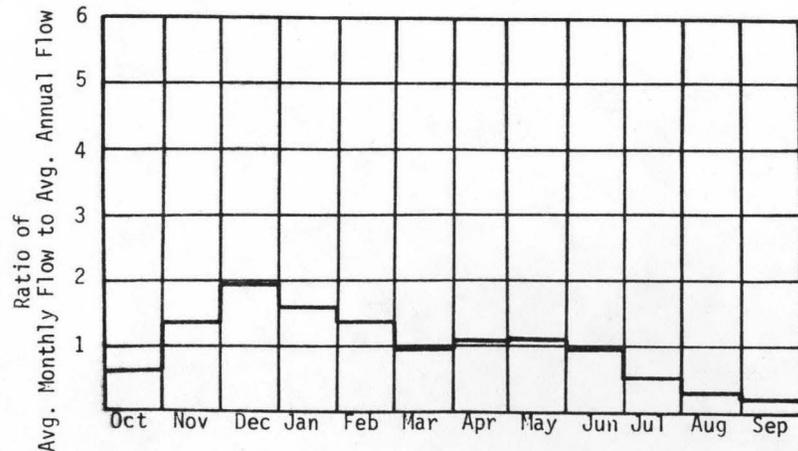
A. Upstream Elevation of Reach	<u>770</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>540</u>	Ft. MSL
C. Total Available Head in Reach	<u>230</u>	Ft.
D. Average Slope in Reach	<u>59.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>50.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

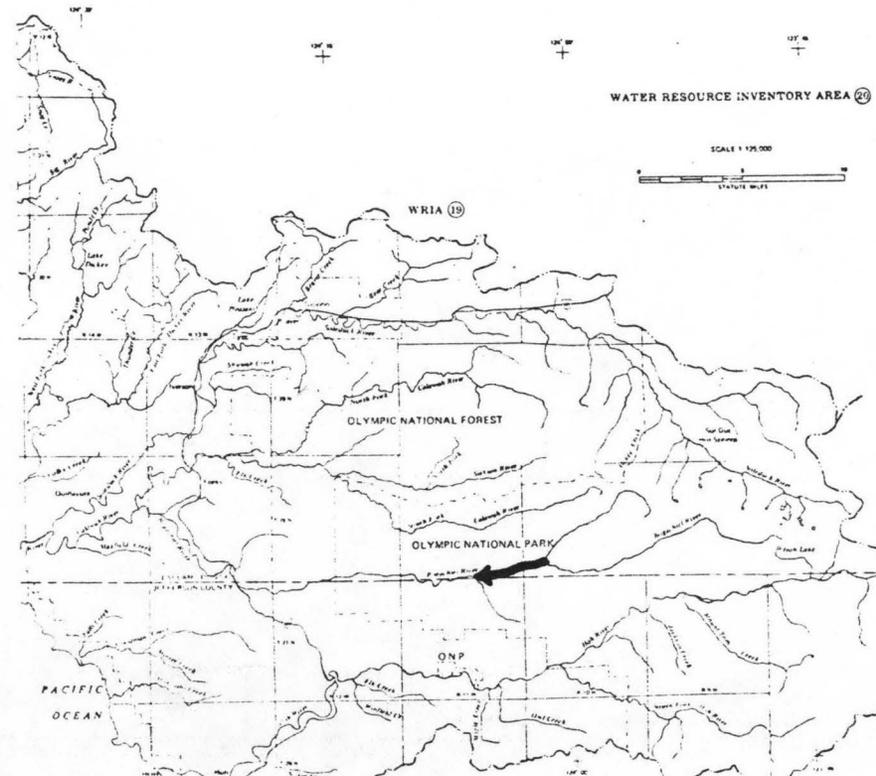
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.7	0.38	3.35	1.00
80	45.9	0.89	7.28	0.93
50	194	3.77	23.8	0.72
30	315	6.13	32.2	0.60
10	846	16.5	49.0	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 328 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0028

I. LOCATION

A. State	Washington
B. County	Clallam
C. Township, Range	T28N R10W
D. Latitude, Longitude	47°53' 124°02'
E. Stream Name	Bogachiel River
F. Major Basin Name	Quillayute
G. River Mile	39.5/39.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

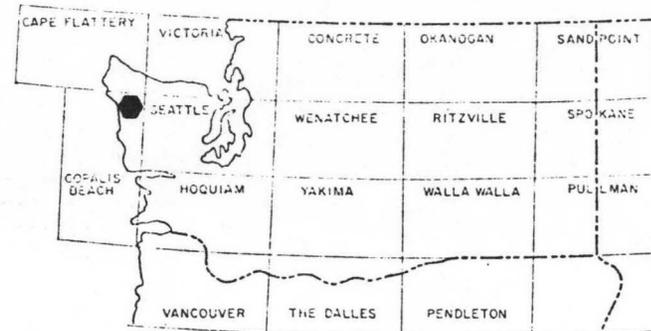
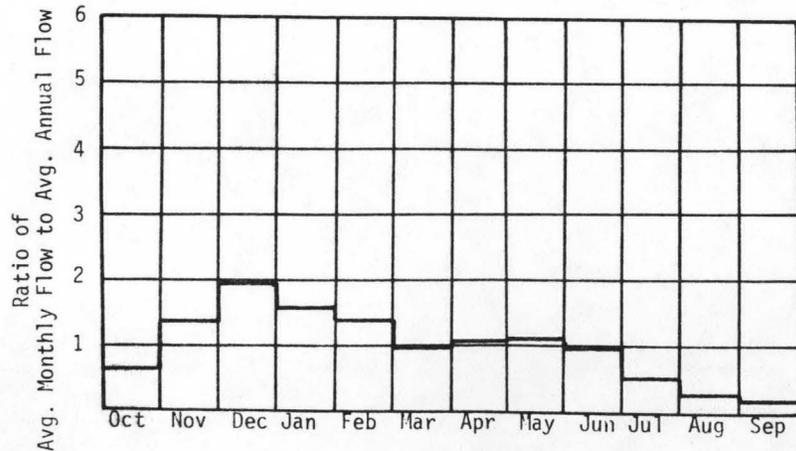
A. Upstream Elevation of Reach	820	Ft.	MSL
B. Downstream Elevation of Reach	770	Ft.	MSL
C. Total Available Head in Reach	50	Ft.	
D. Average Slope in Reach	125	Ft./Mi.	
E. Drainage Area above Reach Mouth	27.7	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

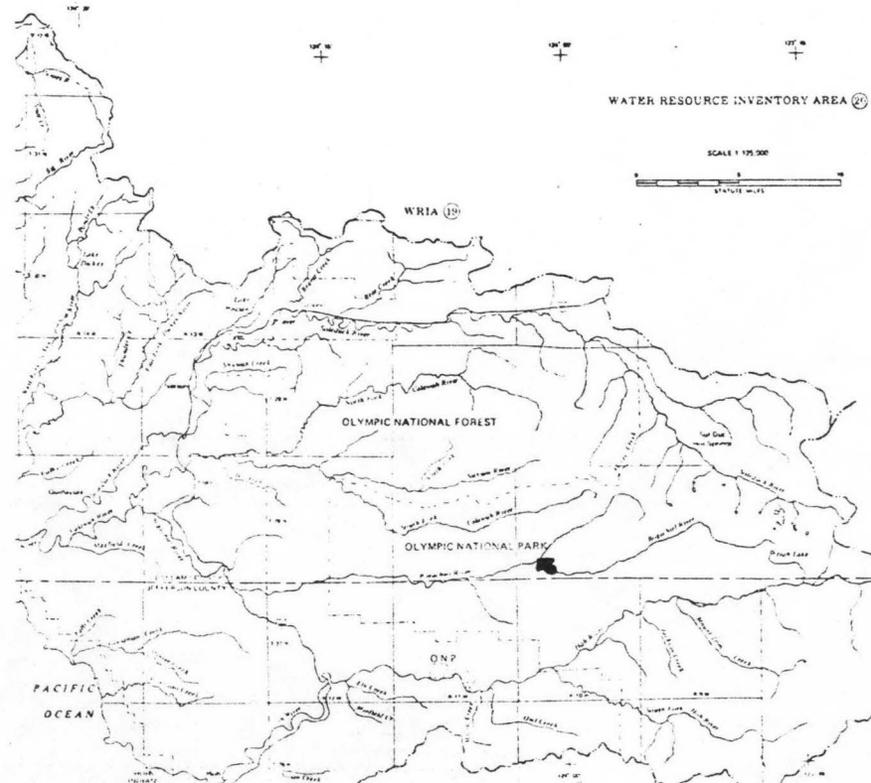
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.2	0.05	0.45	1.00
80	28.6	0.12	0.98	0.93
50	120	0.51	3.21	0.72
30	196	0.83	4.35	0.60
10	526	2.23	6.63	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 204 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0029

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R10W</u>
D. Latitude, Longitude	<u>47°53' 123°56'</u>
E. Stream Name	<u>Bogachiel River</u>
F. Major Basin Name	<u>Ouillayute</u>
G. River Mile	<u>39.9/49.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

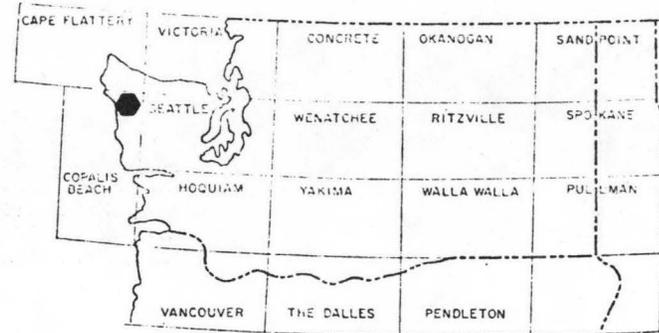
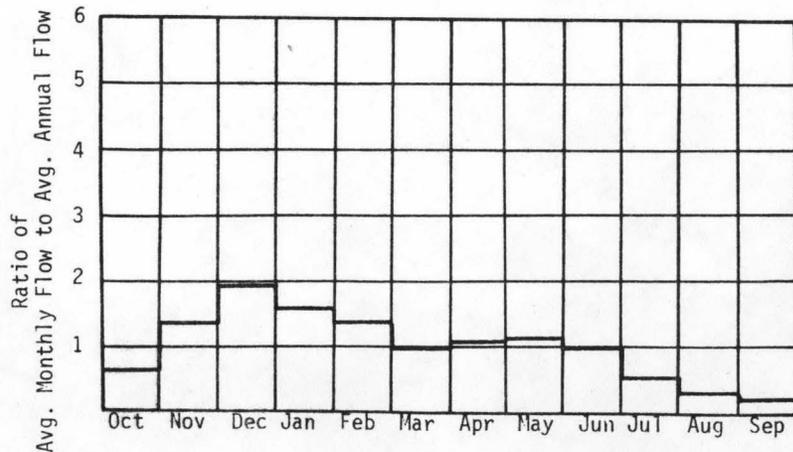
A. Upstream Elevation of Reach	<u>1815</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>820</u>	Ft. MSL
C. Total Available Head in Reach	<u>995 + 66 = 1061</u>	Ft.
D. Average Slope in Reach	<u>104</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

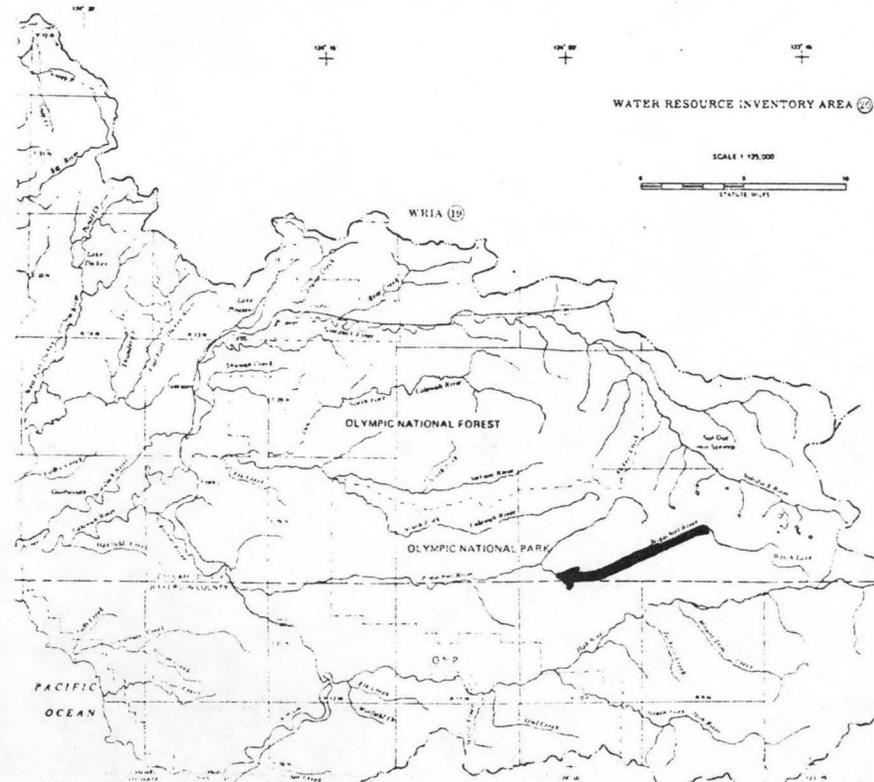
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.72	0.60	5.28	1.00
80	15.7	1.41	11.5	0.93
50	66.1	5.93	37.4	0.72
30	108	9.65	50.7	0.60
10	289	25.9	77.3	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 112 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0030

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R13W</u>
D. Latitude, Longitude	<u>47°53' 124°17'</u>
E. Stream Name	<u>Bear Creek</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/0.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

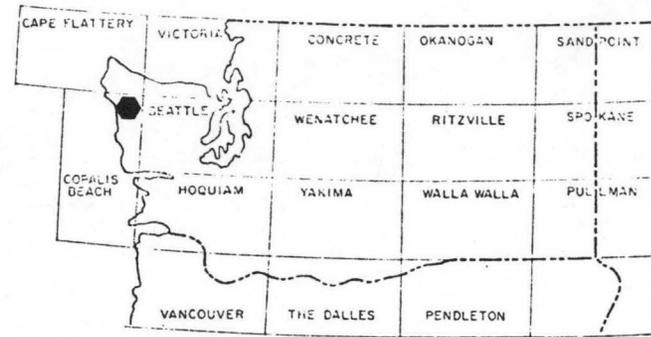
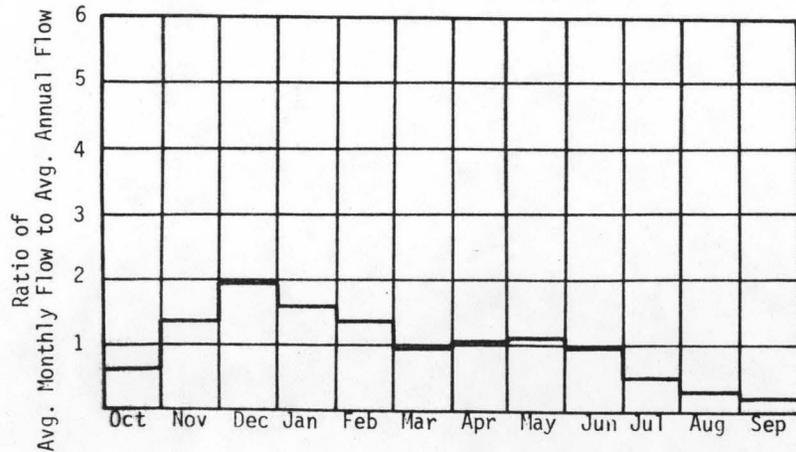
A. Upstream Elevation of Reach	<u>300</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>190</u>	Ft. MSL
C. Total Available Head in Reach	<u>110 + 66 = 176</u>	Ft.
D. Average Slope in Reach	<u>183</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

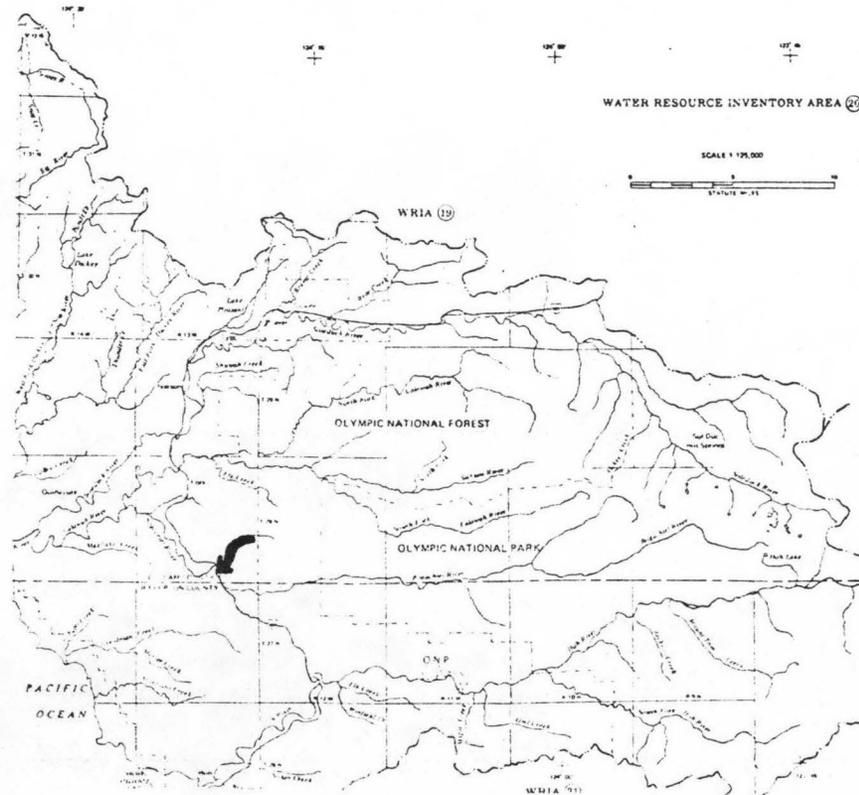
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.48	0.05	0.45	1.00
80	8.12	0.12	0.98	0.93
50	34.2	0.51	3.21	0.72
30	55.7	0.83	4.36	0.60
10	150	2.23	6.64	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 58 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0031

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R10W</u>
D. Latitude, Longitude	<u>47°55' 124°01'</u>
E. Stream Name	<u>N.F. Bogachiel River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

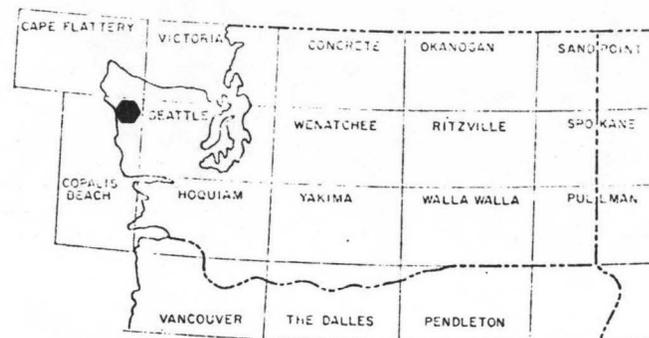
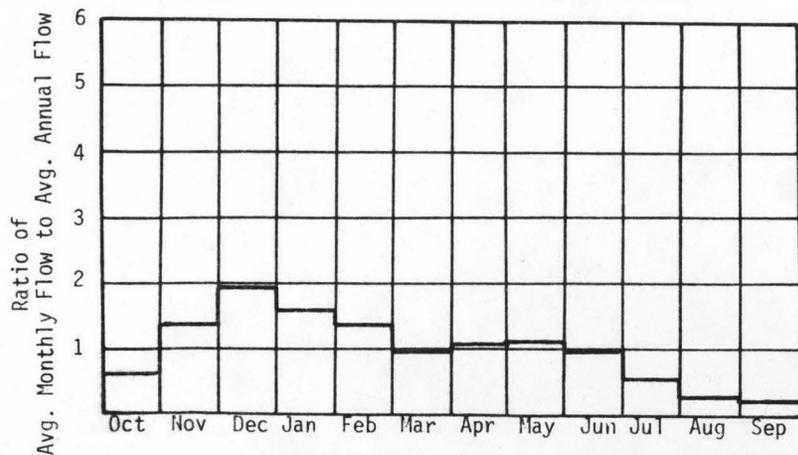
A. Upstream Elevation of Reach	<u>1390</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>770</u>	Ft. MSL
C. Total Available Head in Reach	<u>620 + 66 = 686</u>	Ft.
D. Average Slope in Reach	<u>221</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>14.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

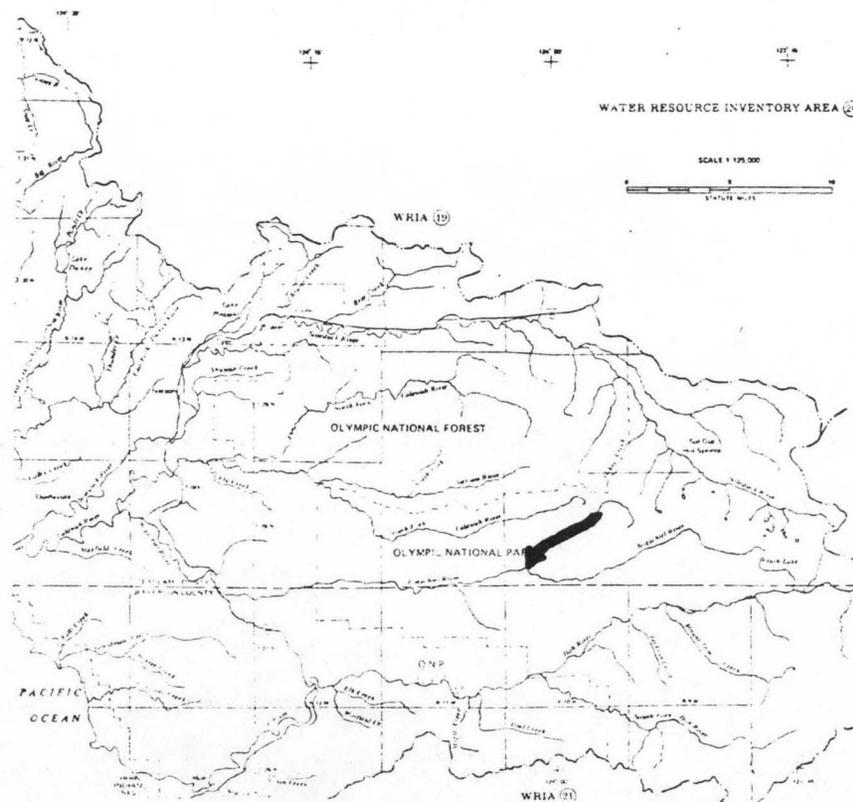
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.32	0.25	2.20	1.00
80	10.1	0.58	4.77	0.93
50	42.5	2.47	15.6	0.72
30	69.1	4.01	21.1	0.60
10	186	10.8	32.1	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 72 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0032

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R13W</u>
D. Latitude, Longitude	<u>47°57' 124°25'</u>
E. Stream Name	<u>Calawah River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/4.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

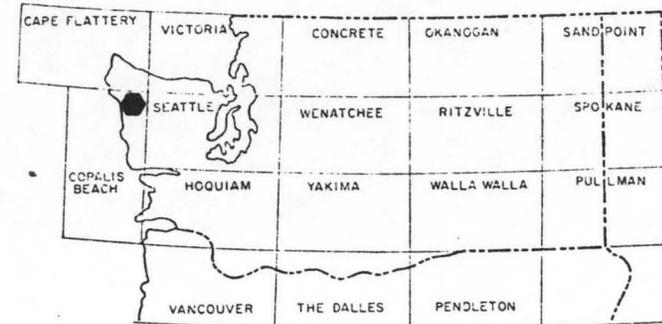
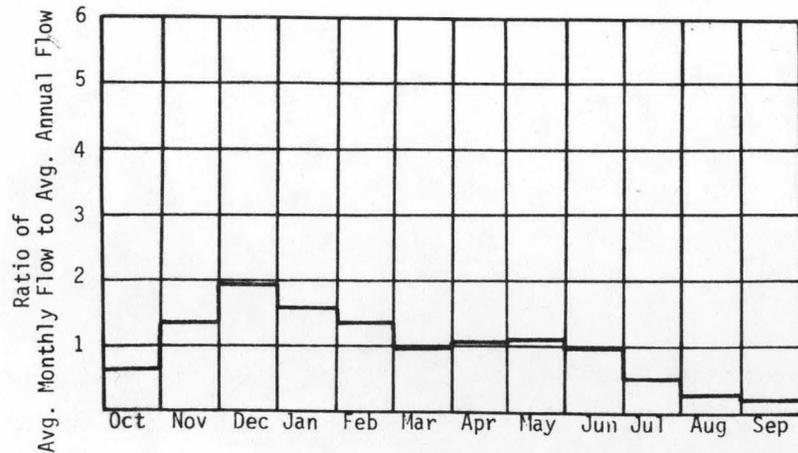
A. Upstream Elevation of Reach	<u>280</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>200</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>138</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

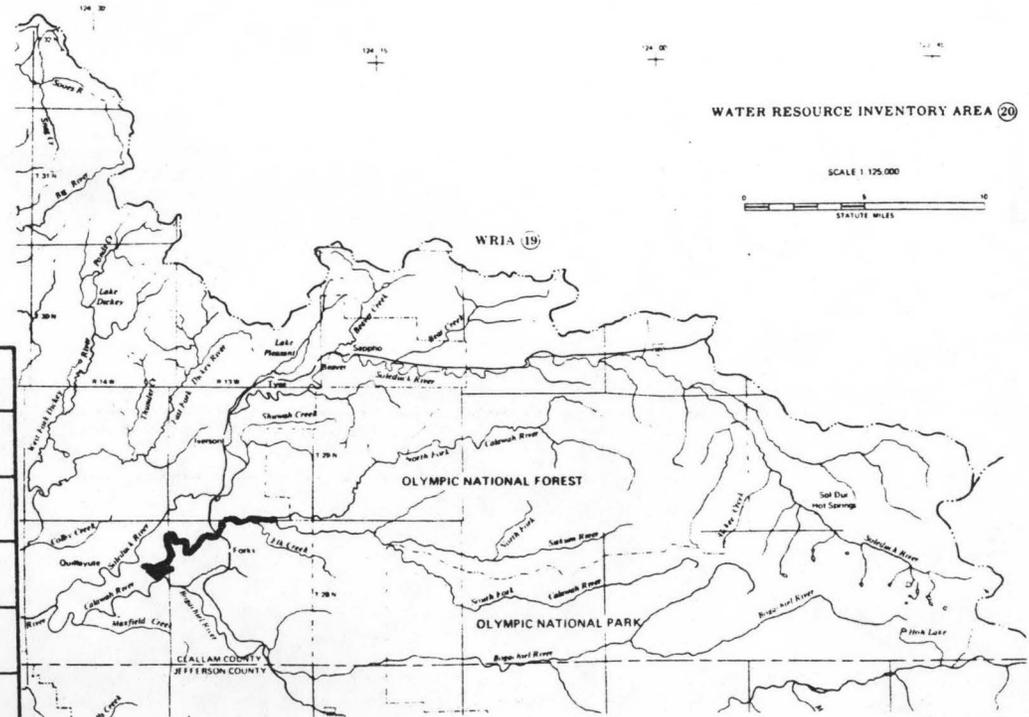
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	46.7	0.79	6.93	1.00
80	109	1.85	15.0	0.93
50	460	7.78	49.1	0.72
30	748	12.7	66.5	0.60
10	2010	34.0	101	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 779 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0034

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R12W</u>
D. Latitude, Longitude	<u>48°02' 124°13'</u>
E. Stream Name	<u>N.F. Calawah River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>1.9/5.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

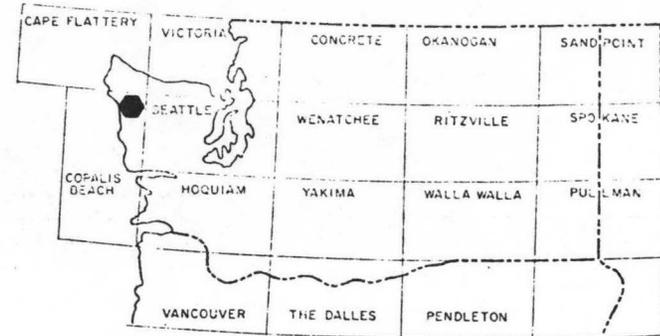
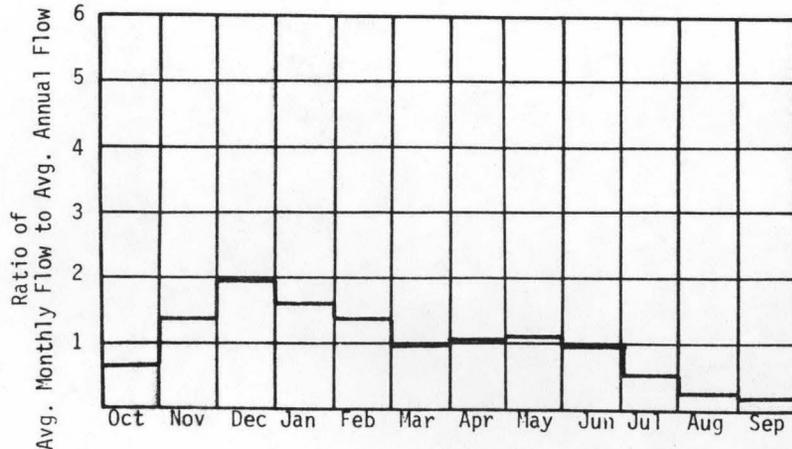
A. Upstream Elevation of Reach	<u>710</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>430</u>	Ft. MSL
C. Total Available Head in Reach	<u>280</u>	Ft.
D. Average Slope in Reach	<u>84.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

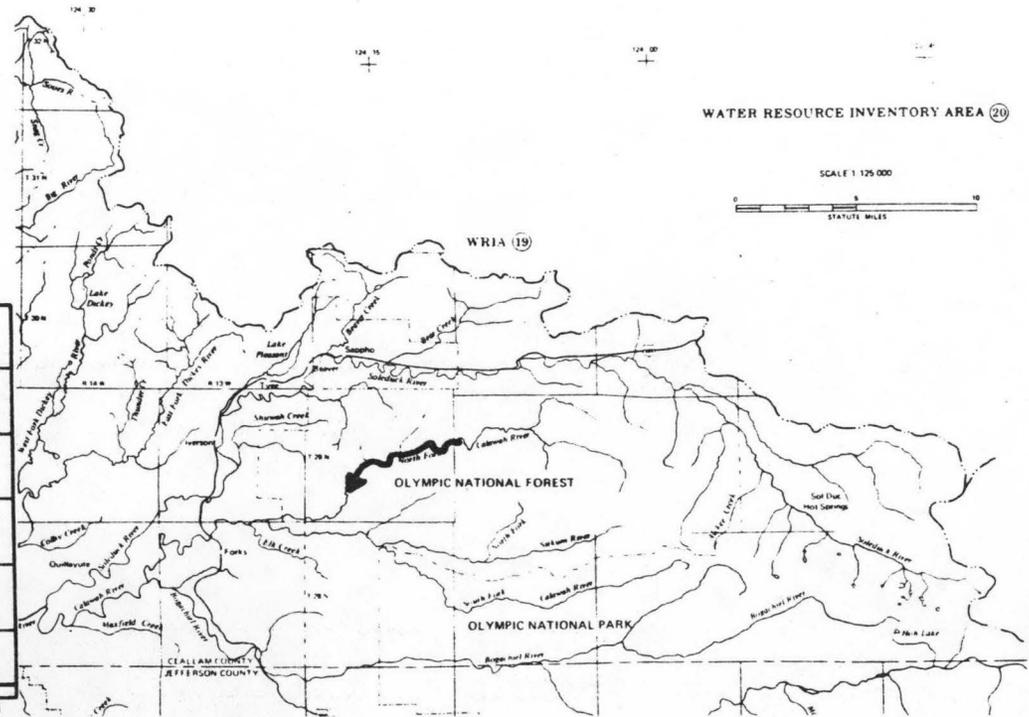
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.6	0.25	2.20	1.00
80	24.8	0.59	4.78	0.93
50	104	2.47	15.6	0.72
30	170	4.03	21.2	0.60
10	457	10.8	32.2	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 177 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0035

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T29N R11W</u>
D. Latitude, Longitude	<u>48°02' 124°06'</u>
E. Stream Name	<u>N.F. Calawah</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>5.2/6.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

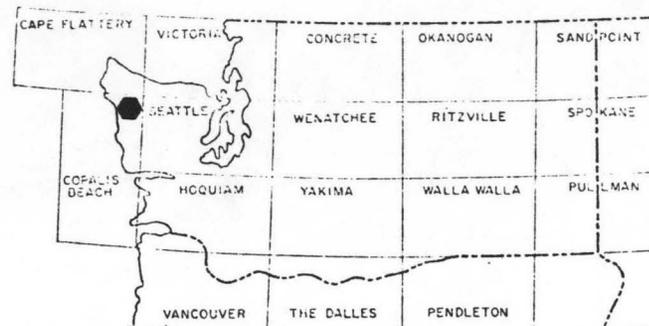
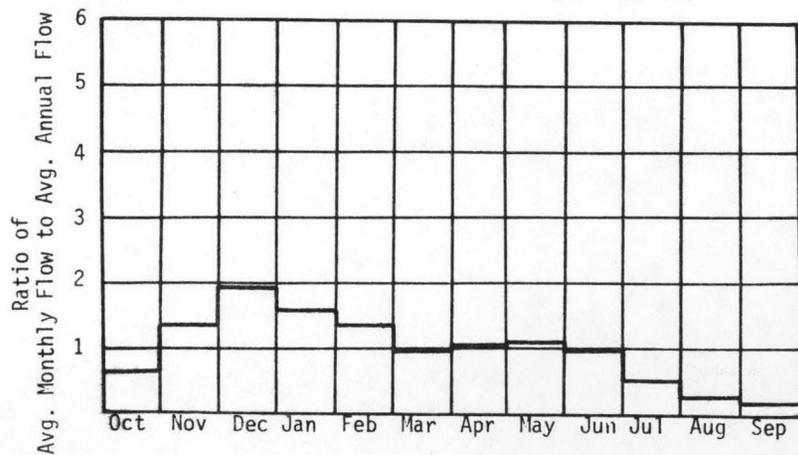
A. Upstream Elevation of Reach	<u>955</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>710</u>	Ft. MSL
C. Total Available Head in Reach	<u>245 + 66 = 311</u>	Ft.
D. Average Slope in Reach	<u>144</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

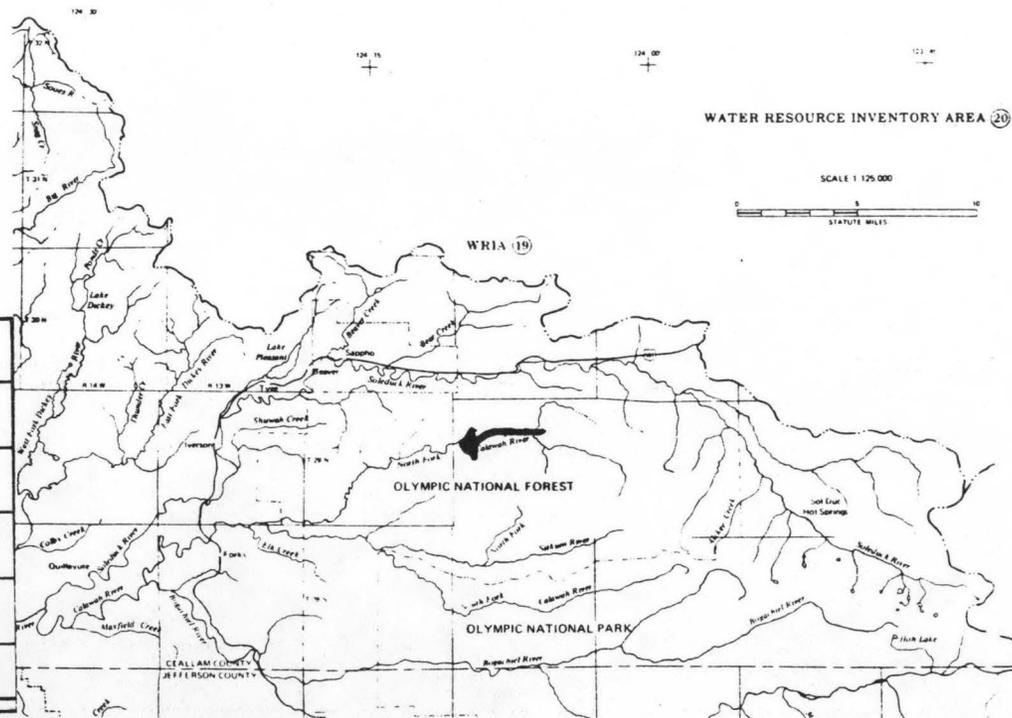
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.56	0.12	1.05	1.00
80	10.6	0.28	2.28	0.93
50	44.8	1.18	7.44	0.72
30	73.0	1.92	10.1	0.60
10	196	5.16	15.4	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 76 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0037

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R12W</u>
D. Latitude, Longitude	<u>47°58' 124°15'</u>
E. Stream Name	<u>S.F. Calawah River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>5.8/6.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

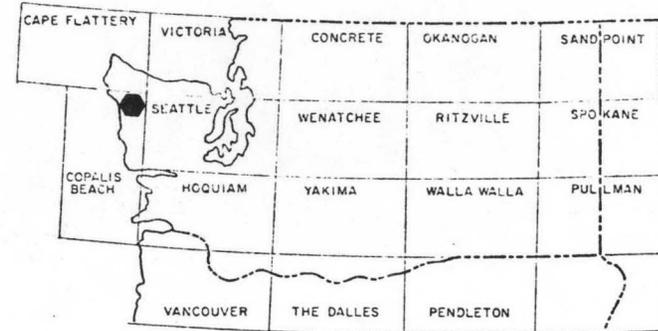
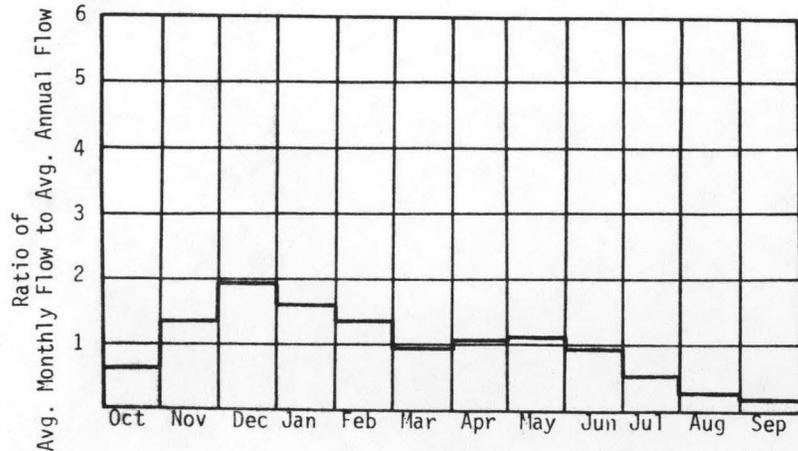
A. Upstream Elevation of Reach	<u>405</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>390</u>	Ft. MSL
C. Total Available Head in Reach	<u>15</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>59.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

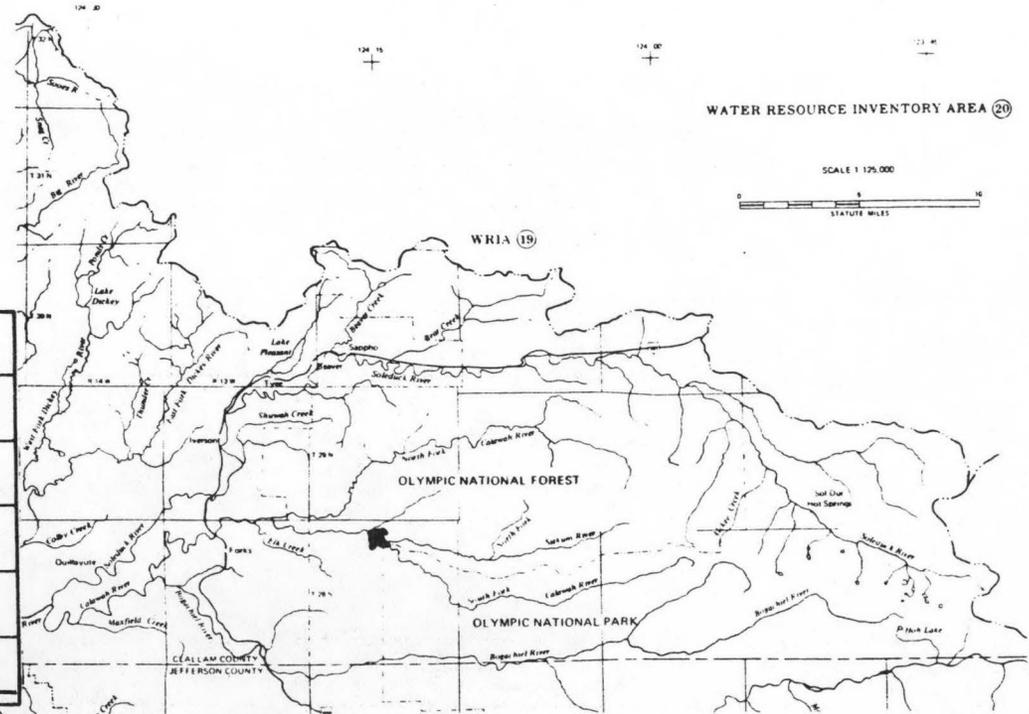
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.6	0.03	0.24	1.00
80	50.4	0.05	0.52	0.93
50	212	0.27	1.70	0.72
30	346	0.44	2.31	0.64
10	929	1.18	3.51	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 360 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0038

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R11W</u>
D. Latitude, Longitude	<u>47°55' 124°10'</u>
E. Stream Name	<u>S.F. Calawah River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>6.1/10.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

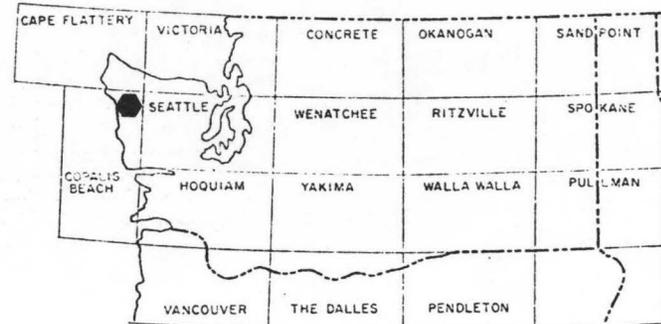
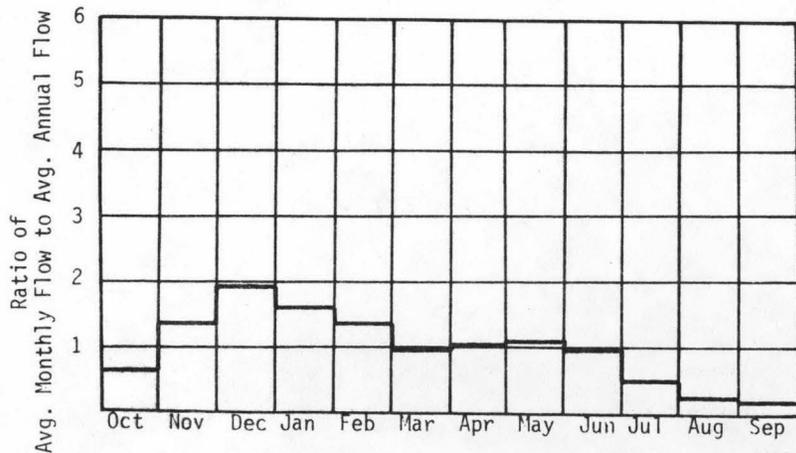
A. Upstream Elevation of Reach	<u>1000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>405</u>	Ft. MSL
C. Total Available Head in Reach	<u>595 + 66 = 661</u>	Ft.
D. Average Slope in Reach	<u>153</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

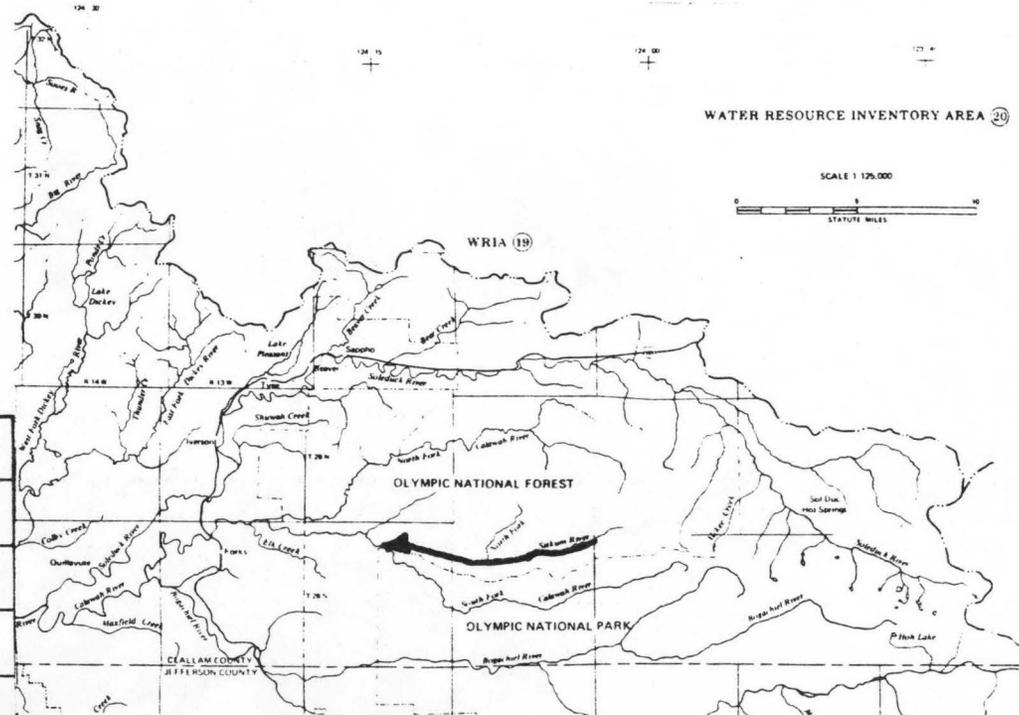
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.00	0.34	2.94	1.00
80	14.0	0.78	6.38	0.93
50	59.0	3.30	20.8	0.72
30	96.0	5.37	28.2	0.64
10	258	14.4	43.0	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 100 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-037-000-000-000-R0039

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Clallam</u>
C. Township, Range	<u>T28N R11W</u>
D. Latitude, Longitude	<u>47°57' 124°12'</u>
E. Stream Name	<u>Sitkum River</u>
F. Major Basin Name	<u>Quillayute</u>
G. River Mile	<u>0/4.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

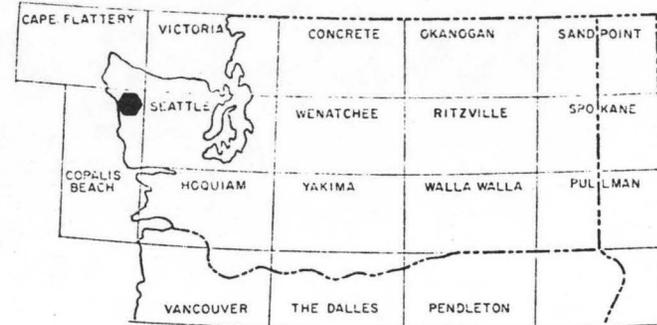
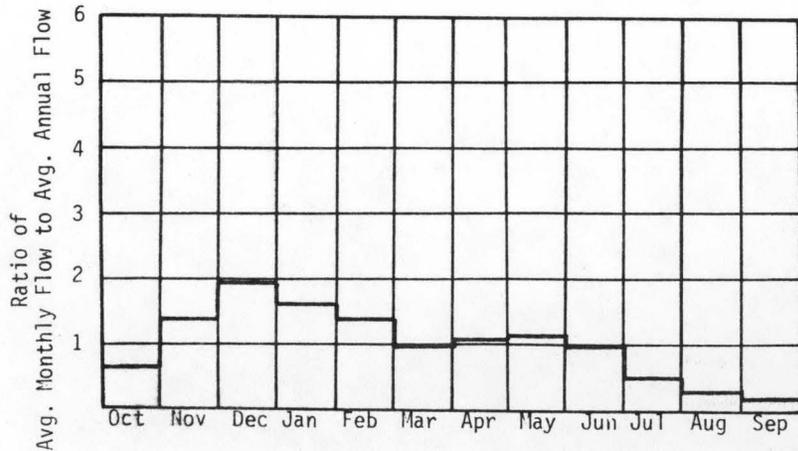
A. Upstream Elevation of Reach	<u>1160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>405</u>	Ft. MSL
C. Total Available Head in Reach	<u>755 + 66 = 821</u>	Ft.
D. Average Slope in Reach	<u>157</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>31.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

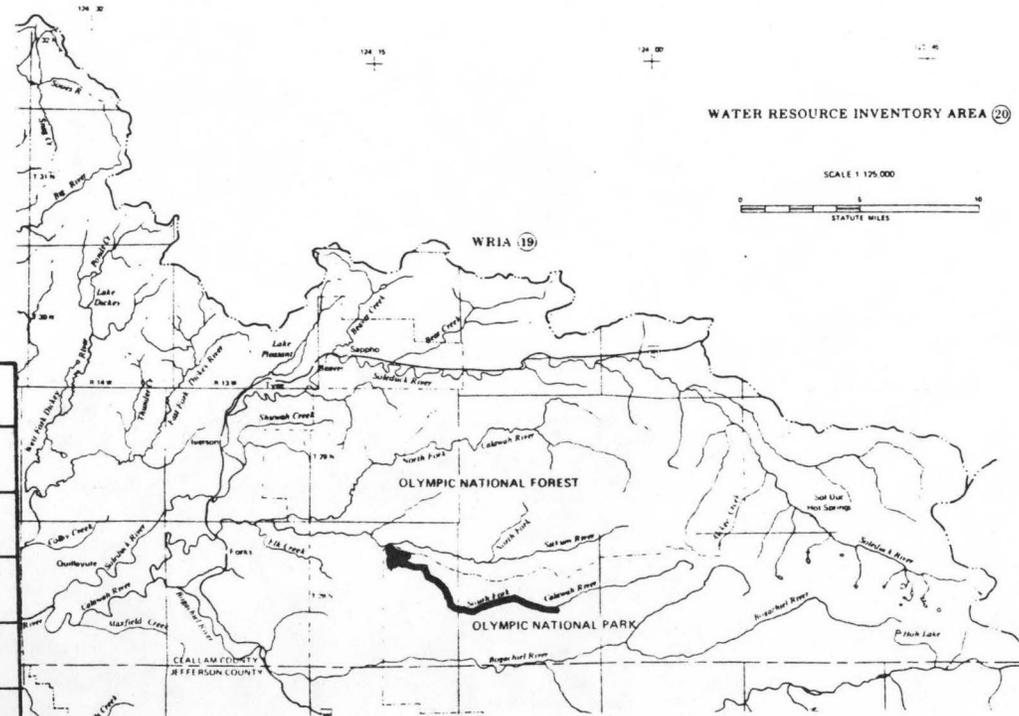
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.20	0.50	4.38	1.00
80	16.8	1.17	9.51	0.93
50	70.8	4.92	31.0	0.72
30	115	8.00	42.1	0.64
10	310	21.5	64.1	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 120 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-039-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R14W</u>
D. Latitude, Longitude	<u>47°50' 124°30'</u>
E. Stream Name	<u>Goodman Creek</u>
F. Major Basin Name	<u>Goodman Creek</u>
G. River Mile	<u>0/0.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

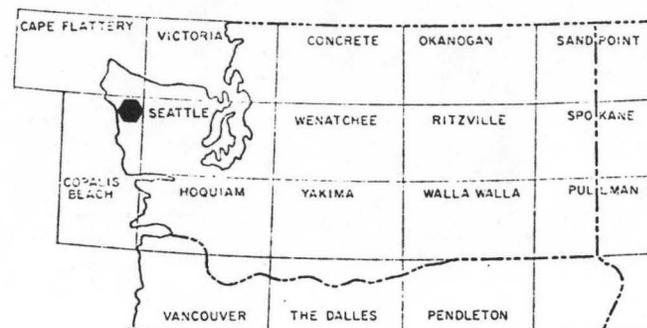
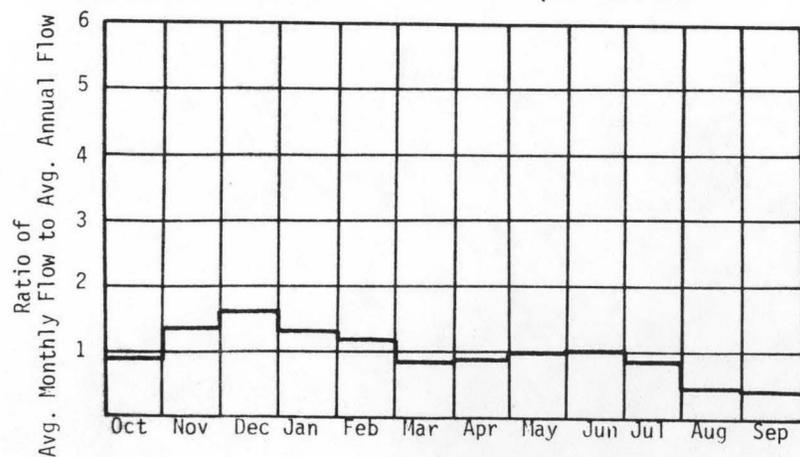
A. Upstream Elevation of Reach	<u>10</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>3.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>31.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.4	0.01	0.13	1.00
80	34.7	0.03	0.24	0.93
50	104	0.09	0.57	0.74
30	201	0.17	0.85	0.57
10	459	0.39	1.23	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 193 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-039-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R14W</u>
D. Latitude, Longitude	<u>47°50' 124°29'</u>
E. Stream Name	<u>Goodman Creek</u>
F. Major Basin Name	<u>Goodman Creek</u>
G. River Mile	<u>0.3/4.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

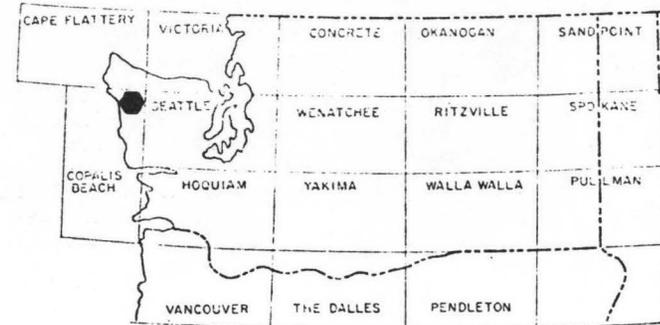
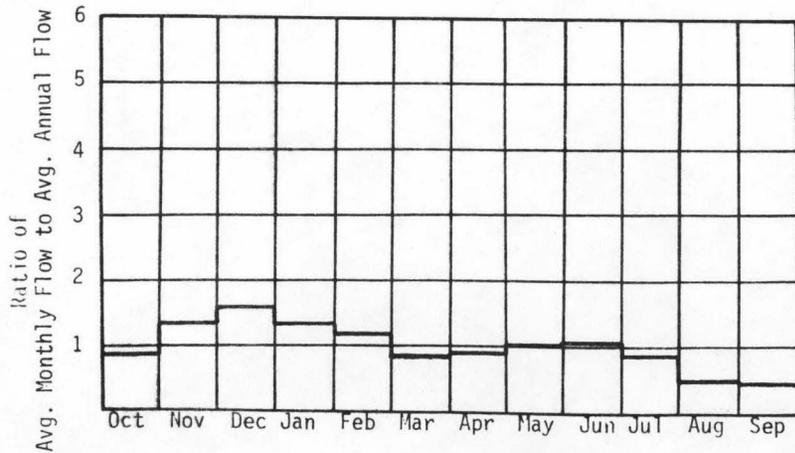
A. Upstream Elevation of Reach	<u>90</u>	Ft.	MSL
B. Downstream Elevation of Reach	<u>10</u>	Ft.	MSL
C. Total Available Head in Reach	<u>80</u>	Ft.	
D. Average Slope in Reach	<u>18.2</u>	Ft./Mi.	
E. Drainage Area above Reach Mouth	<u>28.6</u>	Sq.Mi.	
F. Inflow Classification	<u>Natural</u>		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

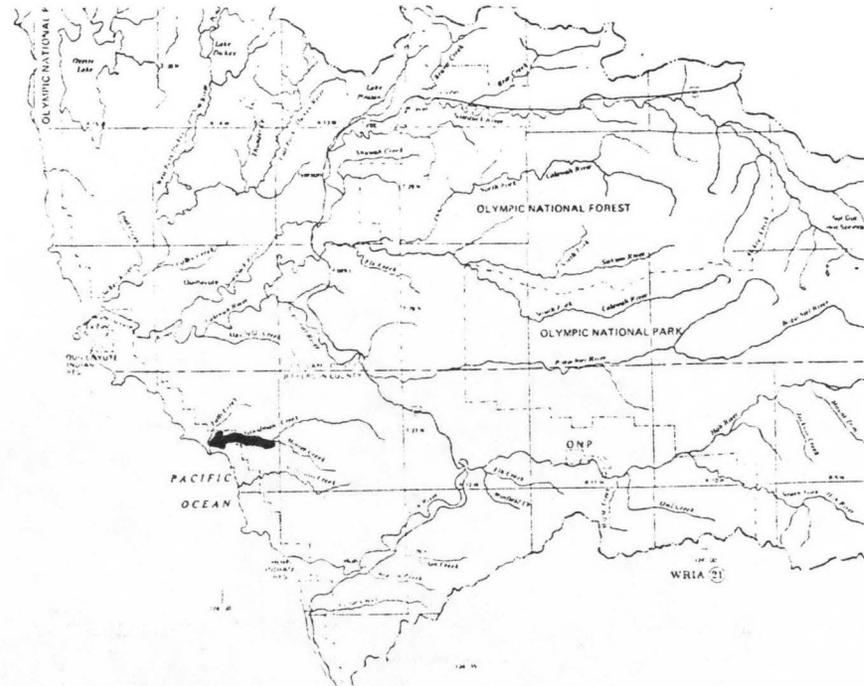
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.5	0.10	0.86	1.00
80	29.0	0.30	1.60	0.93
50	86.9	0.59	3.81	0.74
30	167	1.13	5.66	0.57
10	383	2.59	8.18	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 161 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-039-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R13W</u>
D. Latitude, Longitude	<u>47°51' 124°26'</u>
E. Stream Name	<u>Goodman Creek</u>
F. Major Basin Name	<u>Goodman Creek</u>
G. River Mile	<u>4.7/5.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

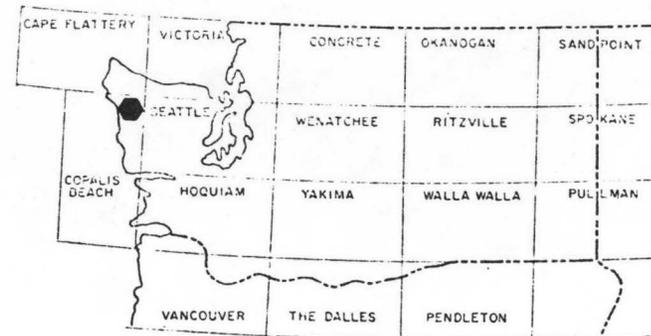
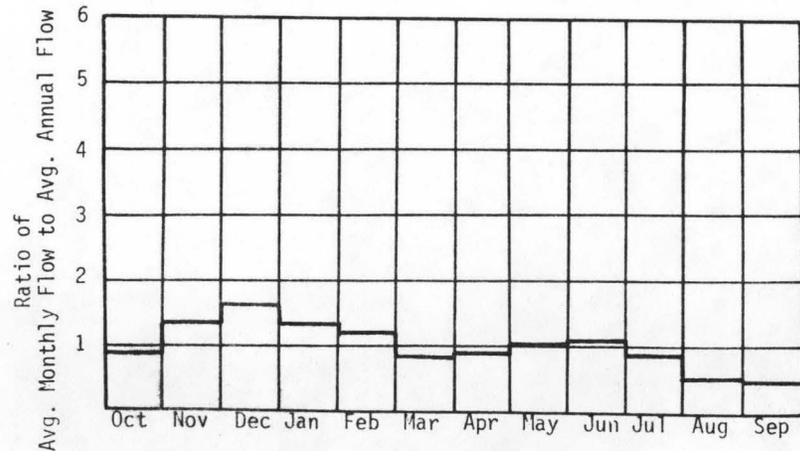
A. Upstream Elevation of Reach	<u>130</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>90</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>36.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.63	0.03	0.29	1.00
80	19.3	0.07	0.53	0.93
50	57.8	0.20	1.27	0.74
30	111	0.38	1.88	0.57
10	255	0.86	2.72	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 107 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-039-000-000-000-R0004

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T27N R13W
D. Latitude, Longitude	47°50' 124°20'
E. Stream Name	Goodman Creek
F. Major Basin Name	Goodman Creek
G. River Mile	5.8/11.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

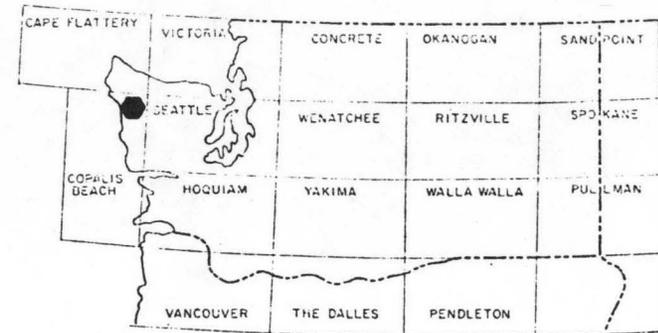
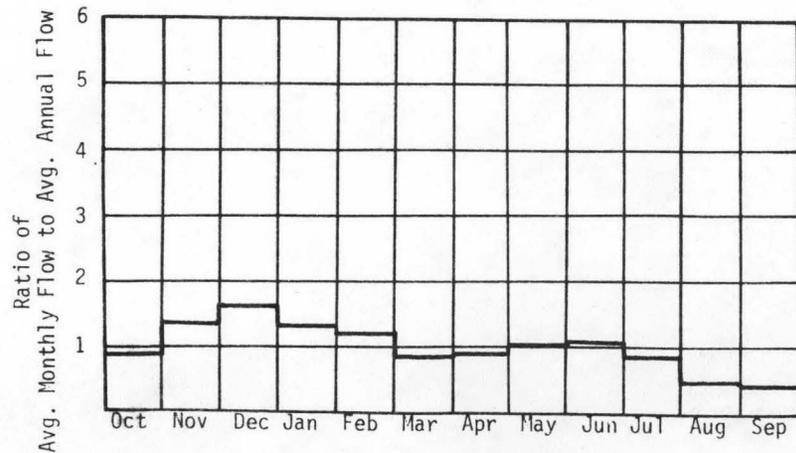
A. Upstream Elevation of Reach	440		Ft. MSL
B. Downstream Elevation of Reach	130		Ft. MSL
C. Total Available Head in Reach	310 + 66 = 376		Ft.
D. Average Slope in Reach	58.5		Ft./Mi.
E. Drainage Area above Reach Mouth	14.3		Sq.Mi.
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.21	0.20	1.73	1.00
80	12.4	0.40	3.22	0.93
50	37.3	1.19	7.68	0.74
30	71.8	2.28	11.4	0.57
10	164	5.22	16.5	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-040-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R14W</u>
D. Latitude, Longitude	<u>47°48' 124°28'</u>
E. Stream Name	<u>Mosquito Creek</u>
F. Major Basin Name	<u>Mosquito Creek</u>
G. River Mile	<u>0/0.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

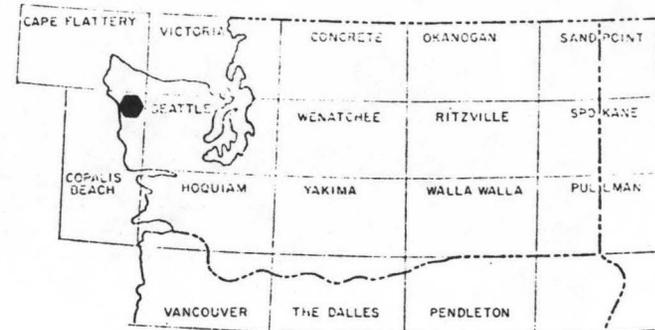
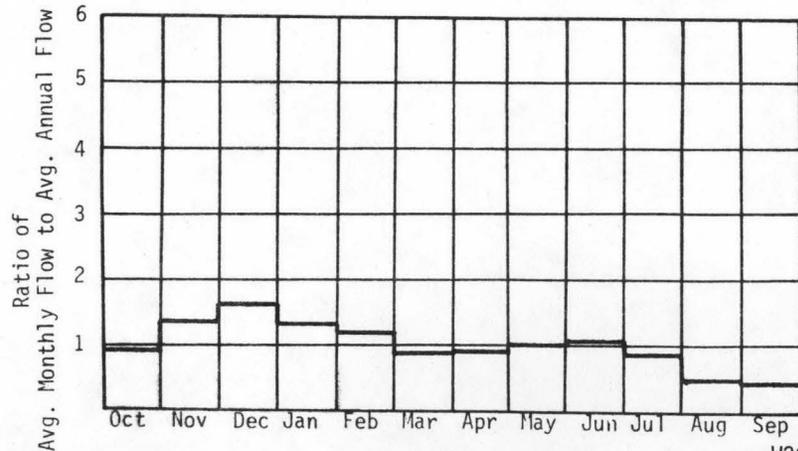
A. Upstream Elevation of Reach	<u>30</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>33.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

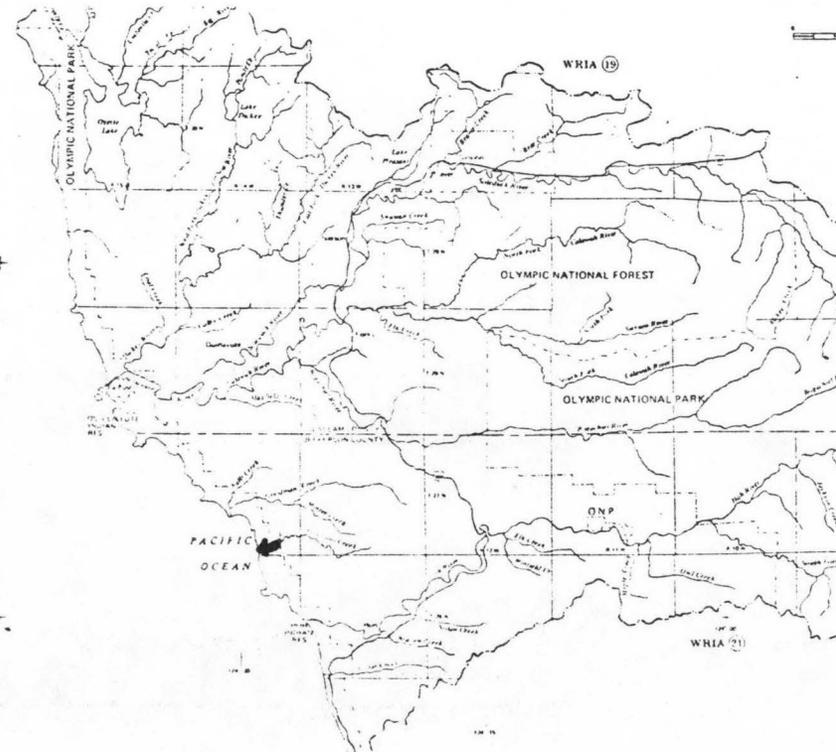
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.00	0.02	0.20	1.00
80	18.0	0.05	0.37	0.93
50	54.0	0.14	0.89	0.74
30	104	0.26	1.32	0.57
10	238	0.60	1.90	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 100 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-040-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R14W</u>
D. Latitude, Longitude	<u>47°48' 124°27'</u>
E. Stream Name	<u>Mosquito Creek</u>
F. Major Basin Name	<u>Mosquito Creek</u>
G. River Mile	<u>0.9/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

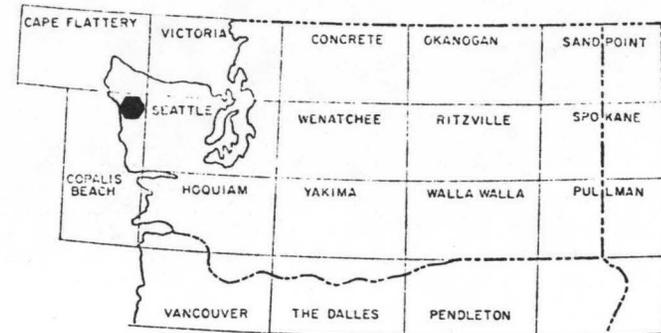
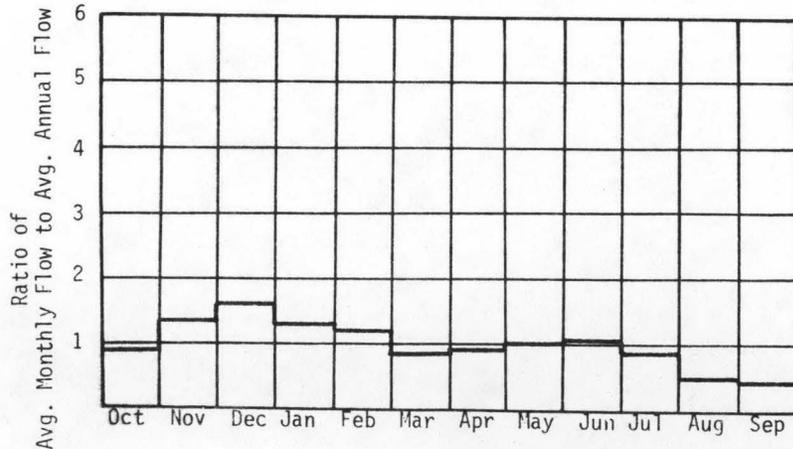
A. Upstream Elevation of Reach	<u>150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>120 + 66 = 186</u>	Ft.
D. Average Slope in Reach	<u>63.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>13.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

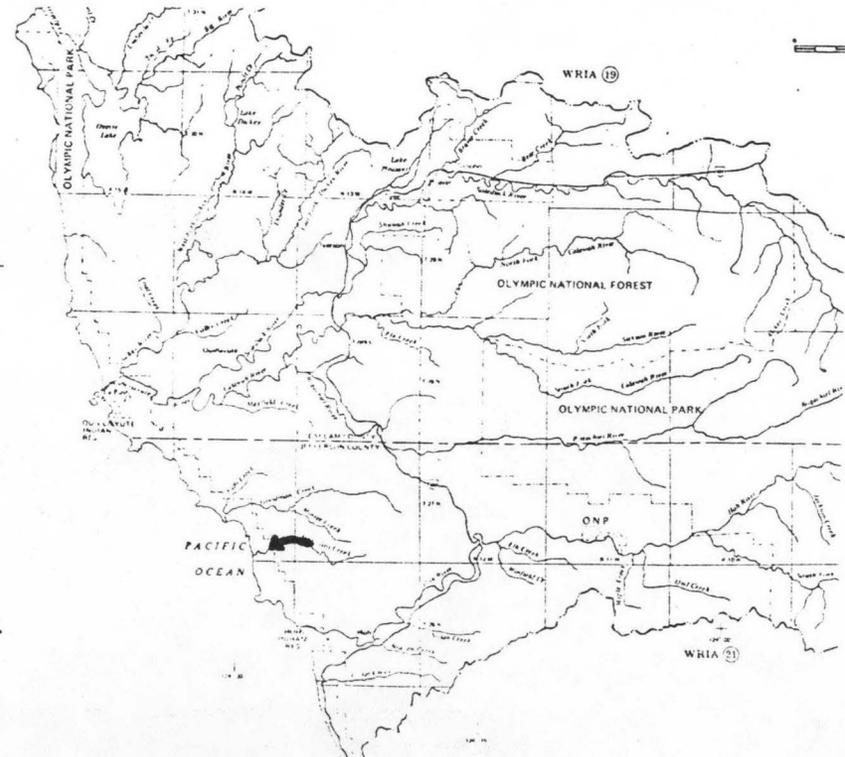
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.39	0.10	0.88	1.00
80	12.8	0.20	1.64	0.93
50	38.3	0.60	3.91	0.74
30	73.8	1.16	5.80	0.57
10	169	2.66	8.39	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 71 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R13W</u>
D. Latitude, Longitude	<u>47°45' 124°23'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/6.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

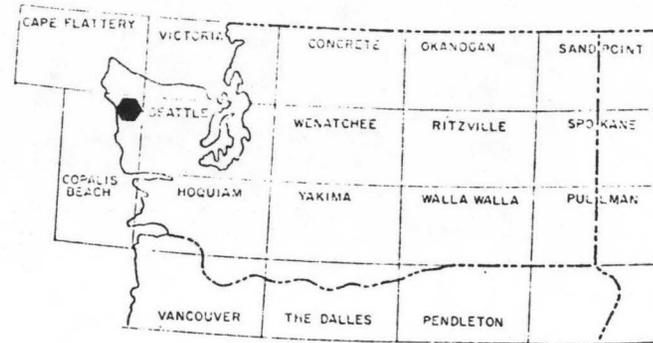
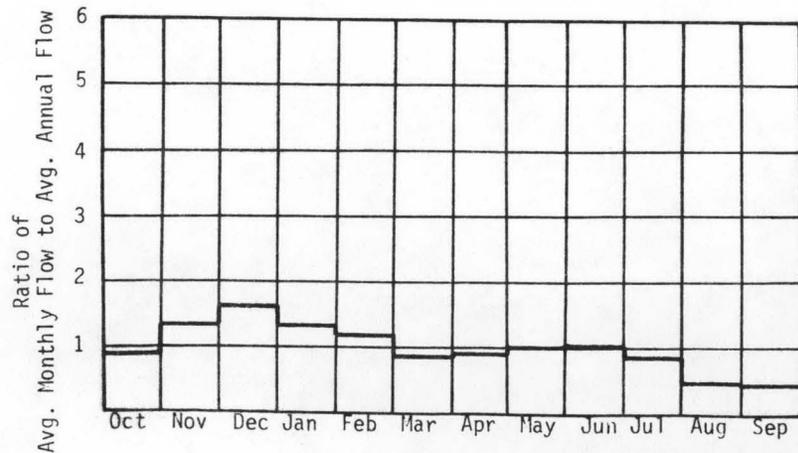
A. Upstream Elevation of Reach	<u>60</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>60</u>	Ft.
D. Average Slope in Reach	<u>9.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>304</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

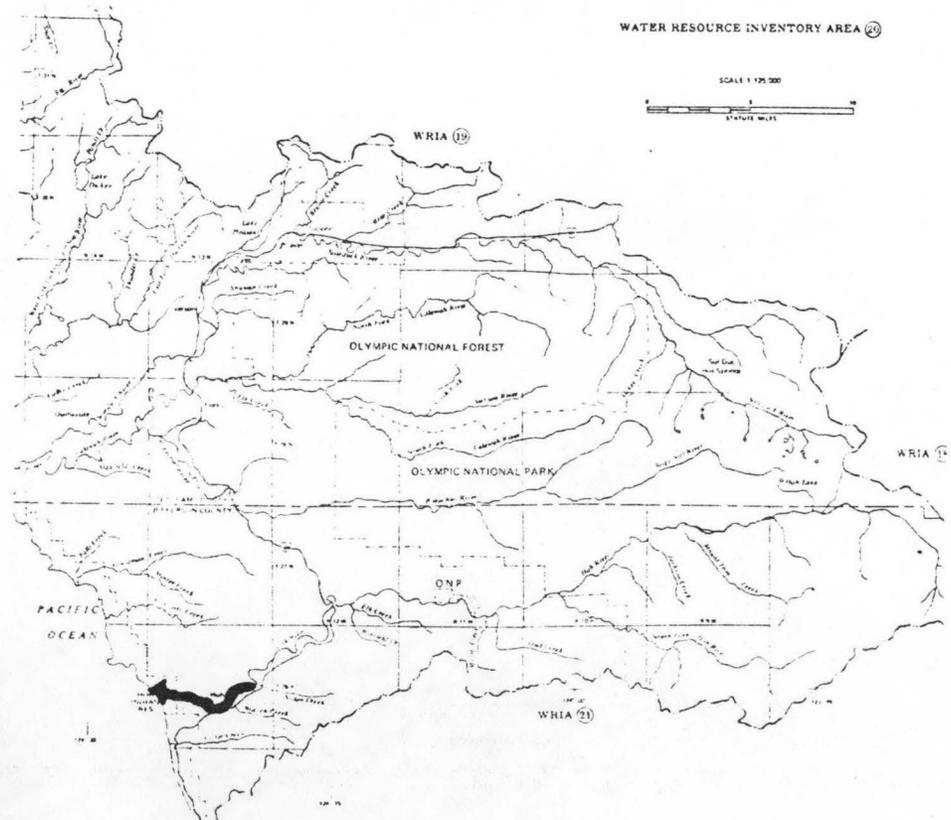
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	786	3.99	34.9	1.00
80	1220	6.18	51.9	0.96
50	1830	9.26	69.8	0.86
30	2540	12.9	82.3	0.73
10	4640	23.6	99.0	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2535 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R12W</u>
D. Latitude, Longitude	<u>47°47' 124°17'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>6.4/18.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

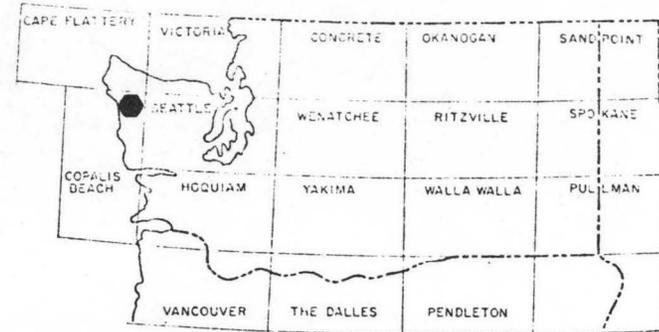
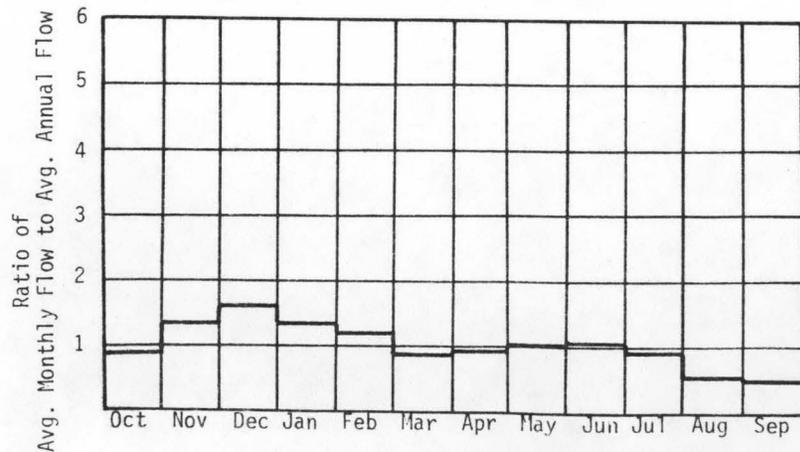
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>60</u>	Ft. MSL
C. Total Available Head in Reach	<u>140</u>	Ft.
D. Average Slope in Reach	<u>12.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>277</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

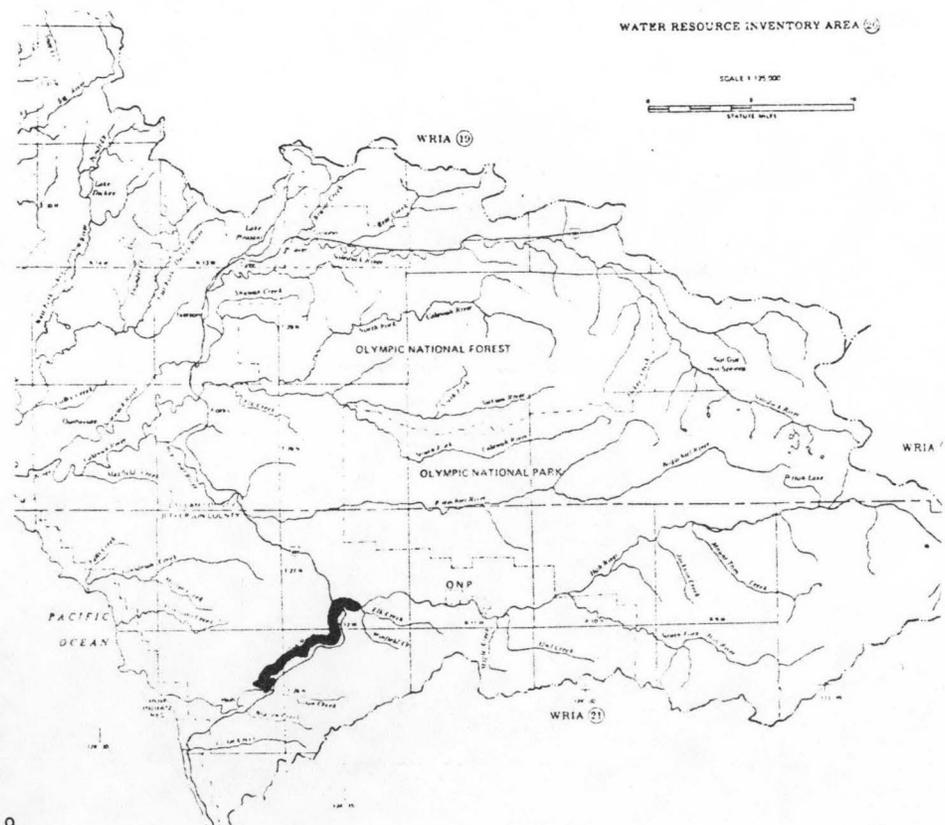
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	726	8.60	75.4	1.00
80	1120	13.3	112	0.96
50	1690	20.0	151	0.86
30	2340	27.8	177	0.73
10	4290	50.8	214	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2343 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0003

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T27N R11W
D. Latitude, Longitude	47°48' 124°10'
E. Stream Name	Hoh River
F. Major Basin Name	Hoh
G. River Mile	18.0/27.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

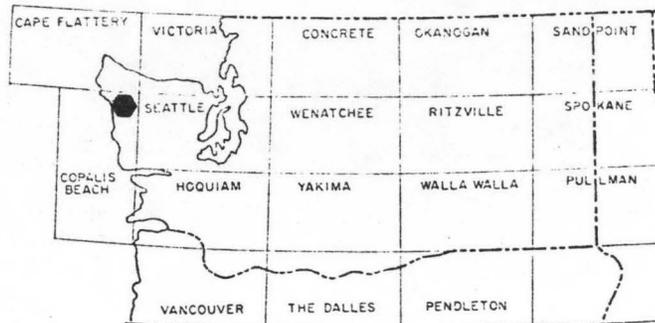
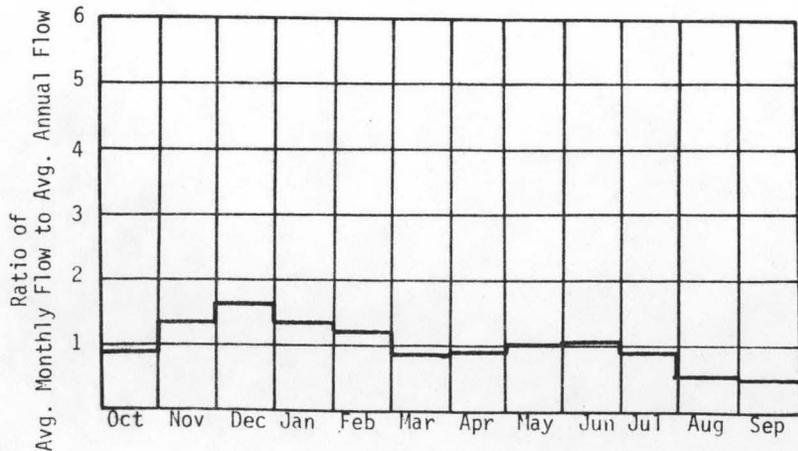
A. Upstream Elevation of Reach	340	Ft.	MSL
B. Downstream Elevation of Reach	200	Ft.	MSL
C. Total Available Head in Reach	140	Ft.	
D. Average Slope in Reach	15.1	Ft./Mi.	
E. Drainage Area above Reach Mouth	234	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

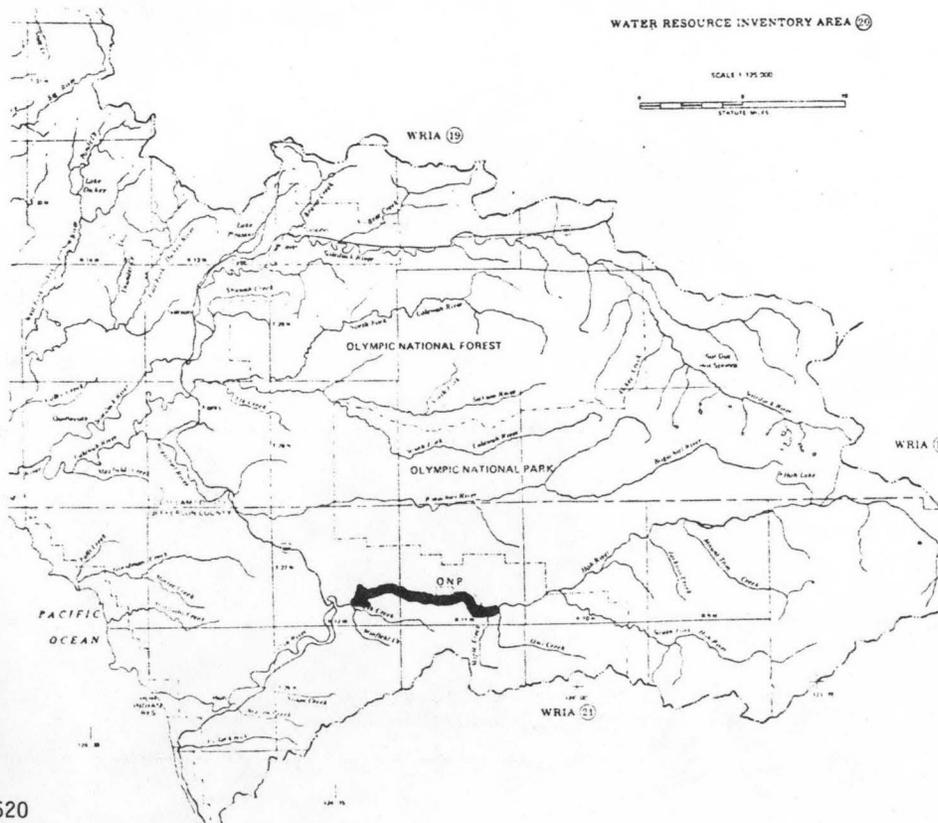
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	685	8.11	71.1	1.00
80	1010	11.9	100	0.96
50	1590	18.8	140	0.85
30	2110	25.1	162	0.74
10	3580	42.5	190	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2014 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R10W</u>
D. Latitude, Longitude	<u>47°48' 124°03'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>27.3/30.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

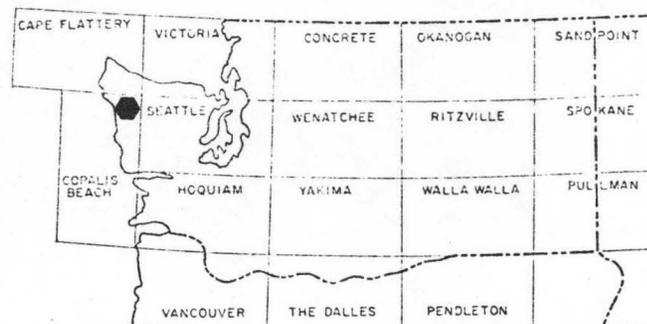
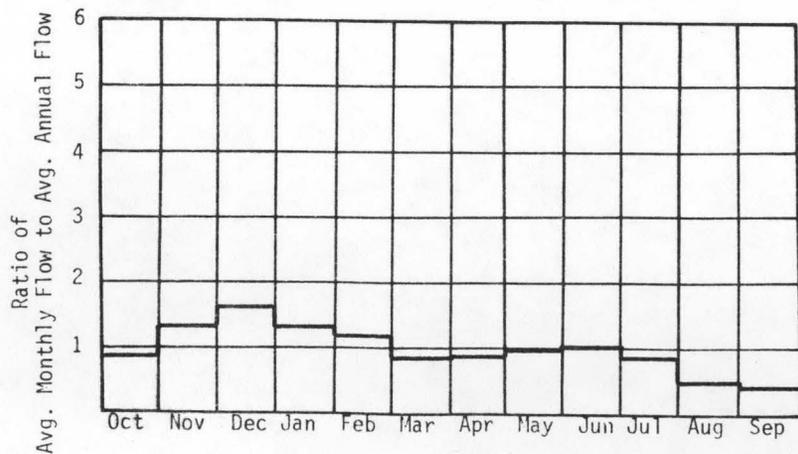
A. Upstream Elevation of Reach	<u>410</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>340</u>	Ft. MSL
C. Total Available Head in Reach	<u>78</u>	Ft.
D. Average Slope in Reach	<u>20</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>192</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

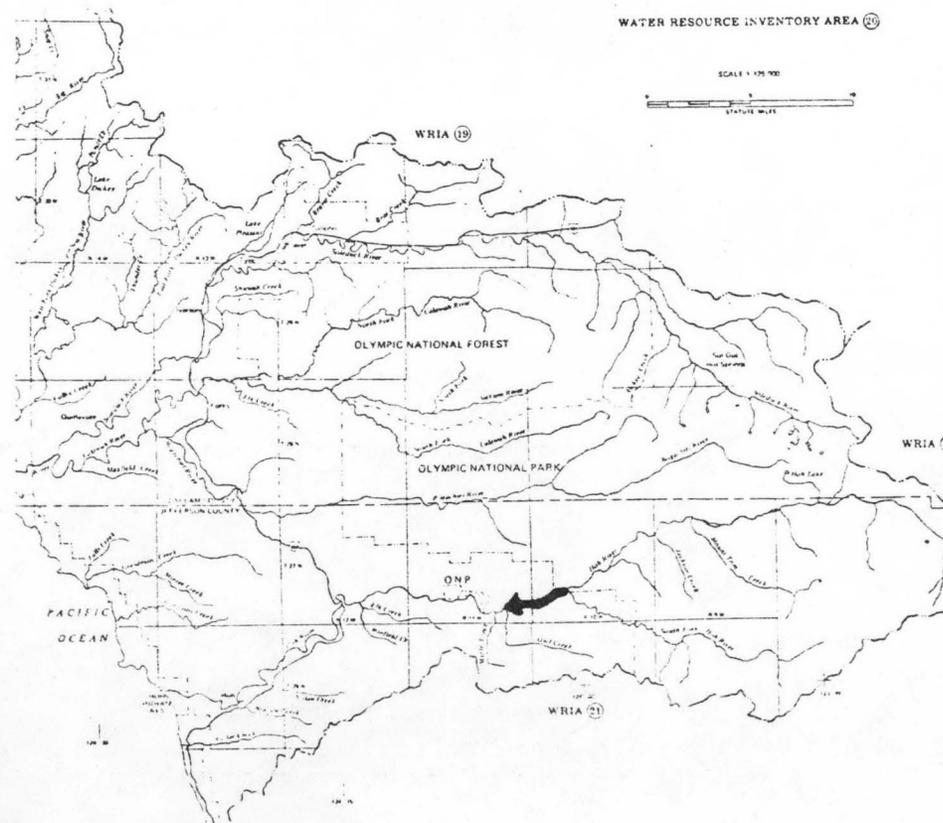
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	607	4.00	35.1	1.00
80	893	5.89	49.5	0.96
50	1410	9.31	69.3	0.85
30	1870	12.4	80.2	0.74
10	3180	21.0	93.7	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1785 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0005

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T26N R10W
D. Latitude, Longitude	47°50' 124°00'
E. Stream Name	Hoh River
F. Major Basin Name	Hoh
G. River Mile	30.8/32.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

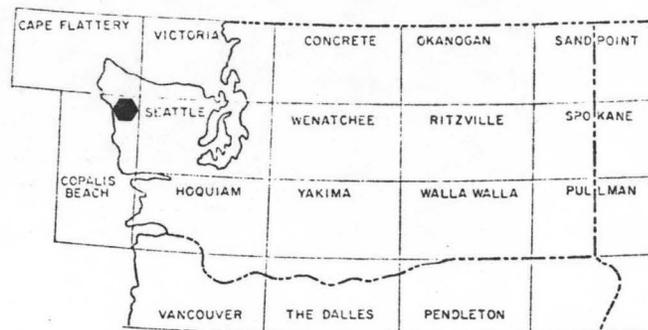
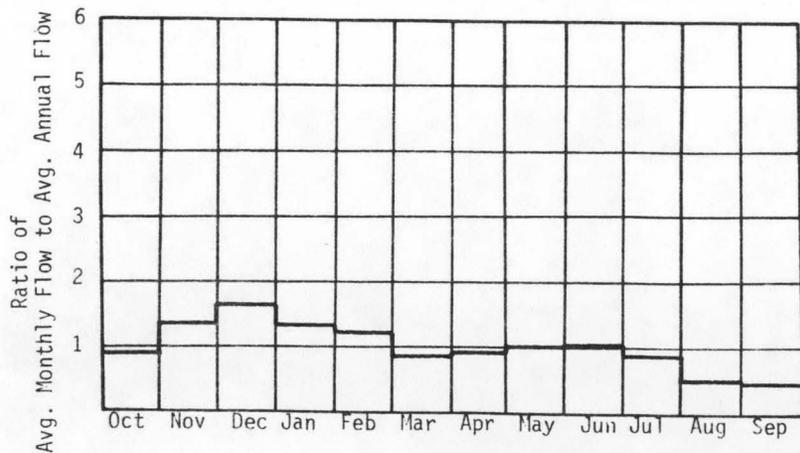
A. Upstream Elevation of Reach	480	Ft. MSL
B. Downstream Elevation of Reach	410	Ft. MSL
C. Total Available Head in Reach	70	Ft.
D. Average Slope in Reach	35	Ft./Mi.
E. Drainage Area above Reach Mouth	128	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

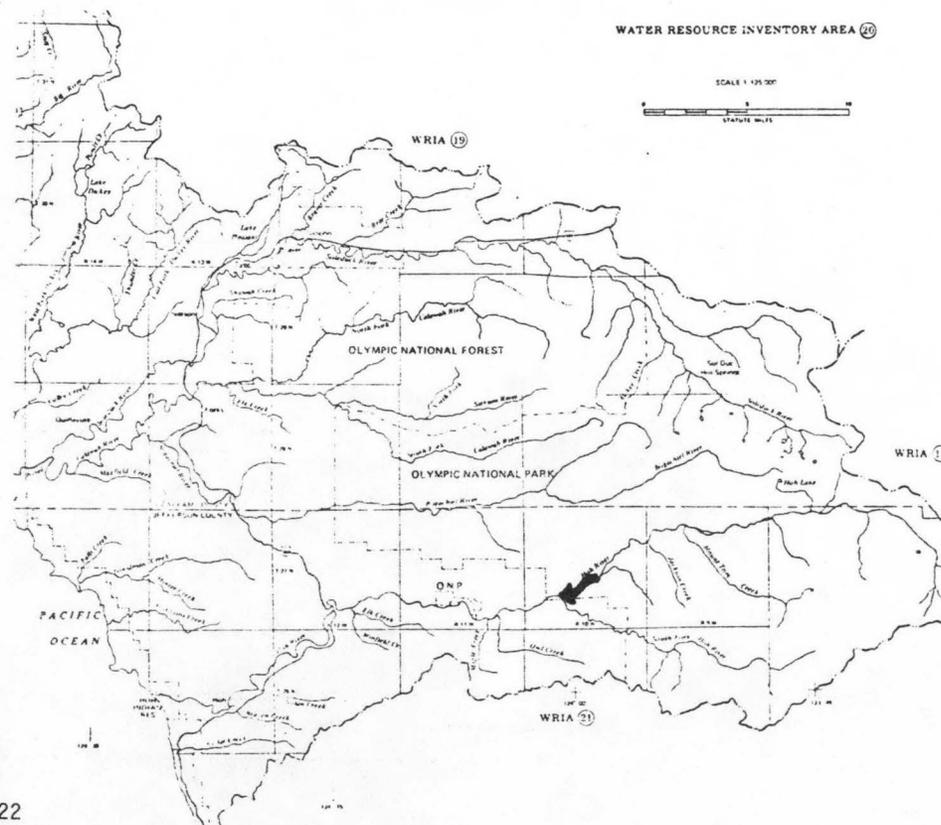
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	405	2.40	21.0	1.00
80	596	3.53	30.0	0.96
50	942	5.58	41.5	0.85
30	1250	7.41	48.1	0.74
10	2120	12.6	56.1	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1192 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R10W</u>
D. Latitude, Longitude	<u>47°51' 123°58'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>32.8/36.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

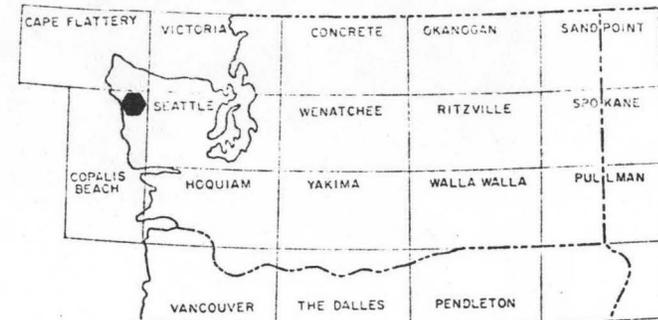
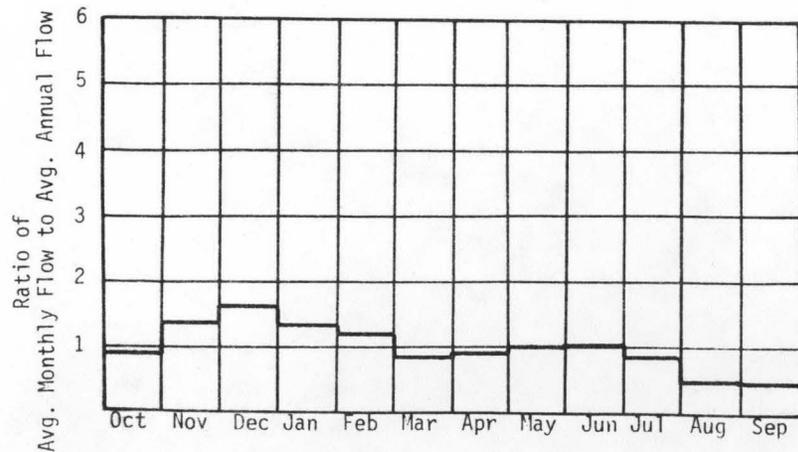
A. Upstream Elevation of Reach	<u>590</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>480</u>	Ft. MSL
C. Total Available Head in Reach	<u>110</u>	Ft.
D. Average Slope in Reach	<u>27.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>122</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

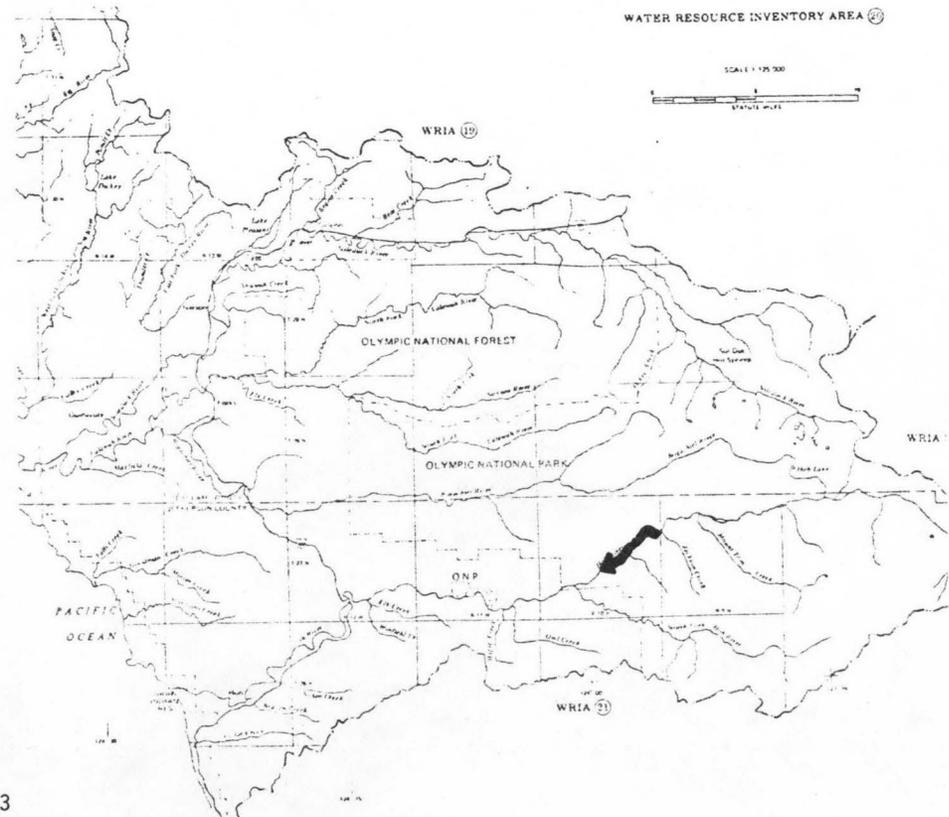
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	374	3.48	30.5	1.00
80	550	5.12	43.0	0.96
50	869	8.09	60.2	0.85
30	1160	10.8	69.7	0.74
10	1960	18.2	81.4	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1100 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R9W</u>
D. Latitude, Longitude	<u>47°52' 123°54'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>36.8/39.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

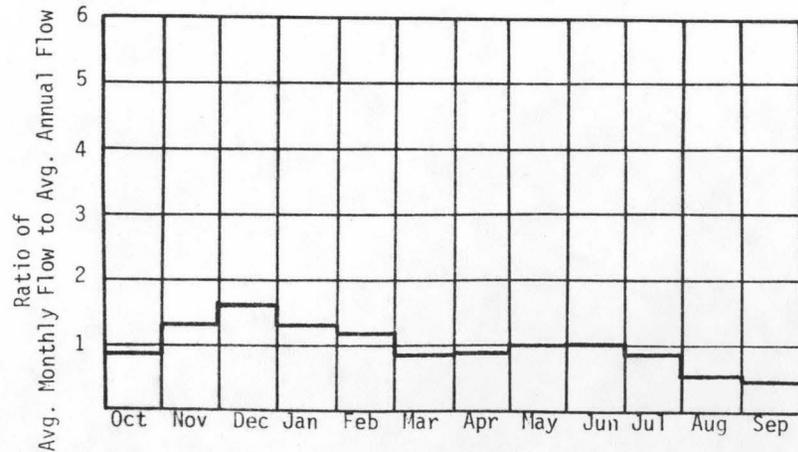
A. Upstream Elevation of Reach	<u>660</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>590</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>29.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>103</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

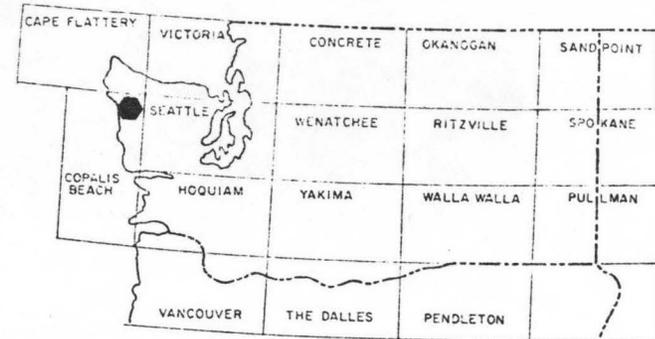
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	332	1.97	17.2	1.00
80	489	2.89	24.3	0.96
50	772	4.57	34.0	0.85
30	1030	6.08	39.4	0.74
10	1740	10.3	46.0	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 977 cfs

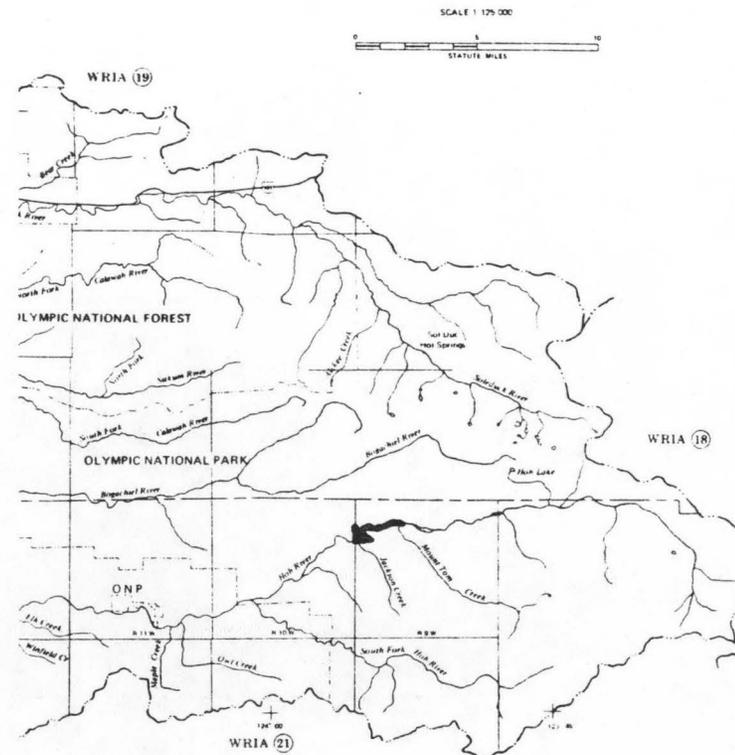


W20-624



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R8W</u>
D. Latitude, Longitude	<u>47°52' 123°46'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>44.4/46.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

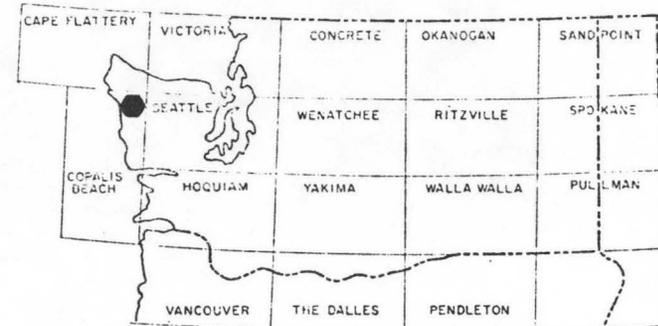
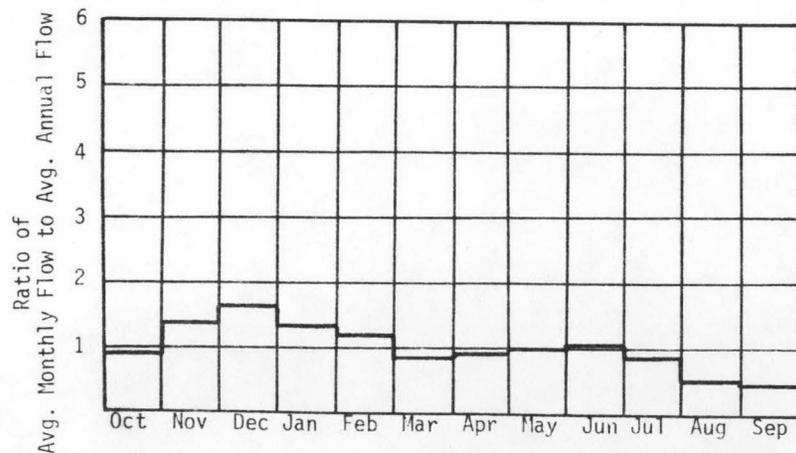
A. Upstream Elevation of Reach	<u>950</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>870</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>34.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>61.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	197	1.33	11.7	1.00
80	289	1.96	16.5	0.96
50	457	3.09	23.0	0.85
30	607	4.11	26.6	0.74
10	1030	6.96	31.1	0.51

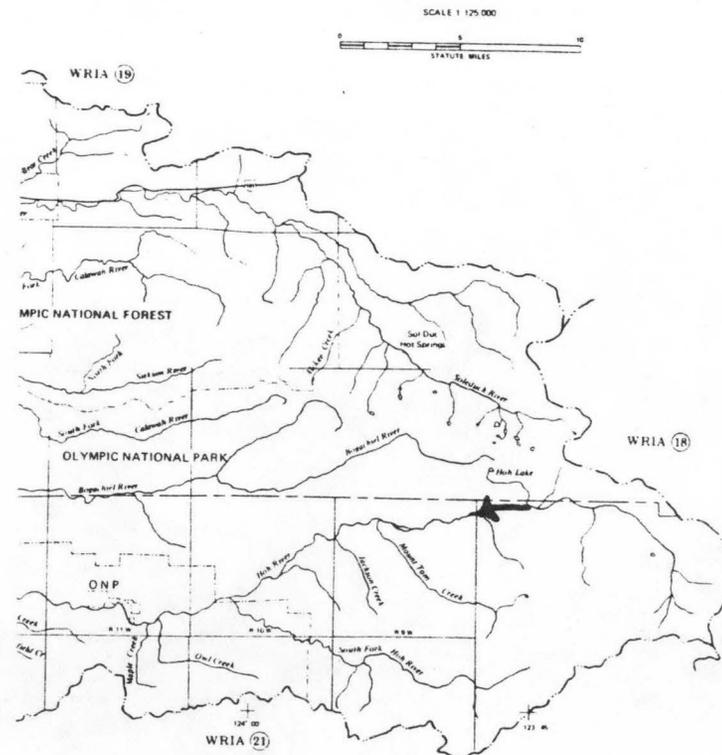
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 578 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R8W</u>
D. Latitude, Longitude	<u>47°58' 123°45'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>46.7/48.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

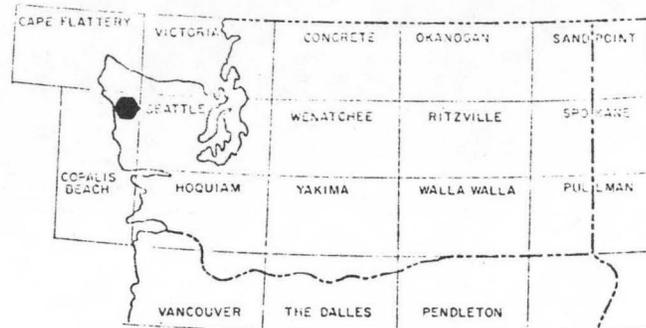
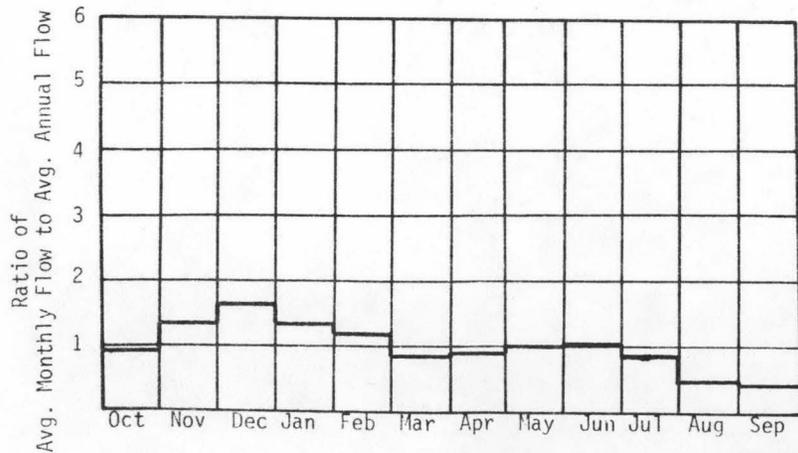
A. Upstream Elevation of Reach	<u>990</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>950</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>30.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>54.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	181	0.61	5.36	1.00
80	266	0.90	7.57	0.96
50	420	1.42	10.6	0.85
30	559	1.89	12.3	0.74
10	947	3.20	14.3	0.51

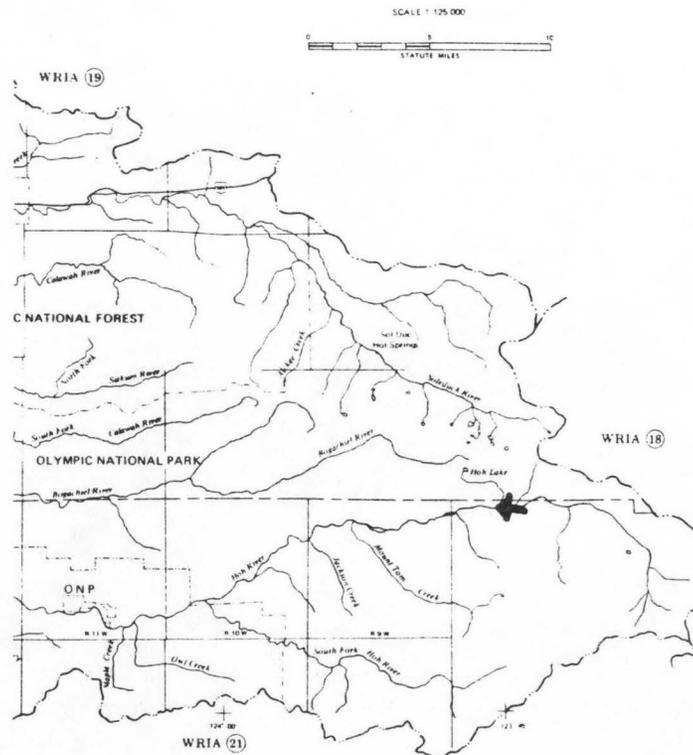
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 532 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0011

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T27N R8W
D. Latitude, Longitude	47°58' 123°42'
E. Stream Name	Hoh River
F. Major Basin Name	Hoh
G. River Mile	48.0/49.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

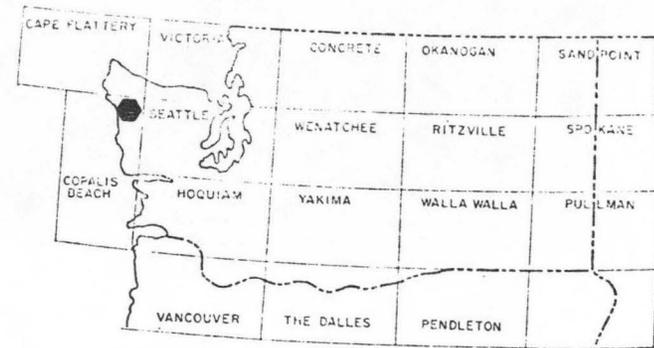
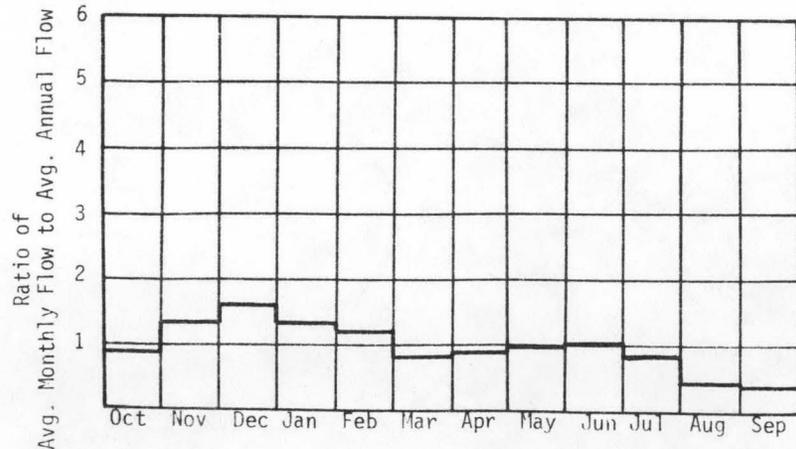
A. Upstream Elevation of Reach	1350	Ft. MSL
B. Downstream Elevation of Reach	990	Ft. MSL
C. Total Available Head in Reach	360	Ft.
D. Average Slope in Reach	189	Ft./Mi.
E. Drainage Area above Reach Mouth	47.6	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	163	4.95	43.4	1.00
80	239	7.28	61.2	0.96
50	378	11.5	85.6	0.85
30	502	15.3	99.1	0.74
10	851	25.9	116	0.51

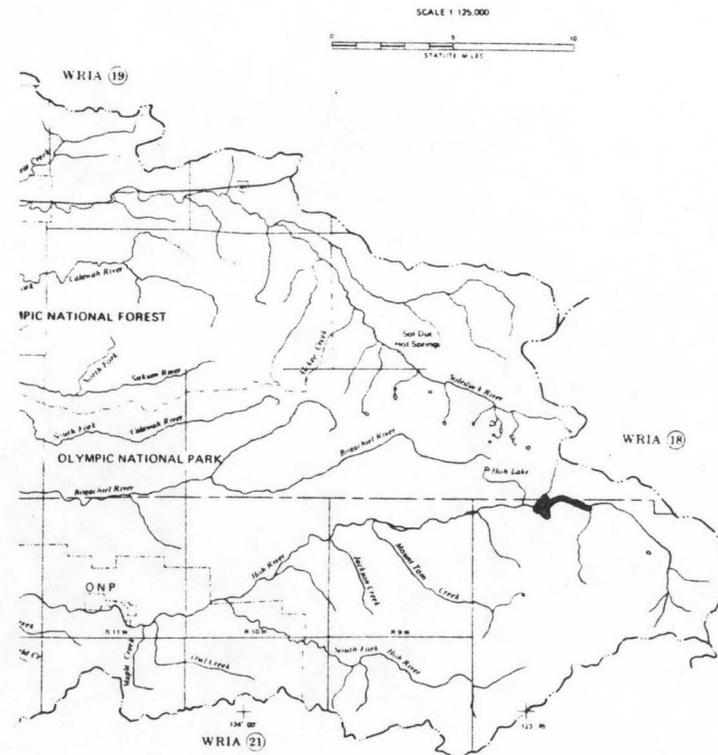
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 478 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (21)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R8W</u>
D. Latitude, Longitude	<u>47°57' 123°38'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>49.9/54.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

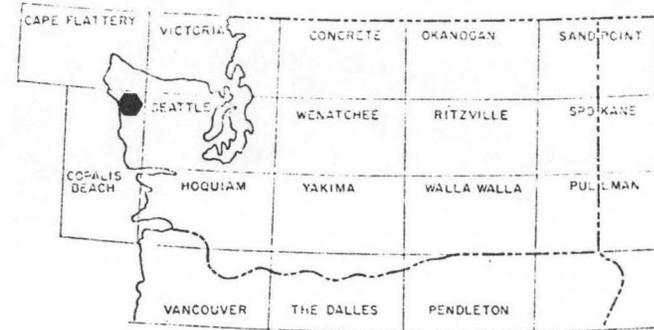
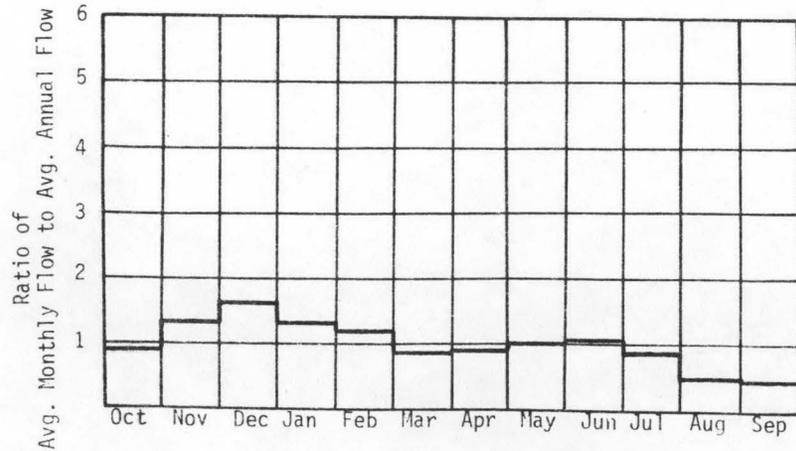
A. Upstream Elevation of Reach	<u>2500</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1350</u>	Ft. MSL
C. Total Available Head in Reach	<u>1150</u>	Ft.
D. Average Slope in Reach	<u>240</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>29.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	80.9	7.87	69.0	1.00
80	119	11.6	97.4	0.96
50	188	18.3	136	0.85
30	250	24.3	158	0.74
10	424	41.2	184	0.51

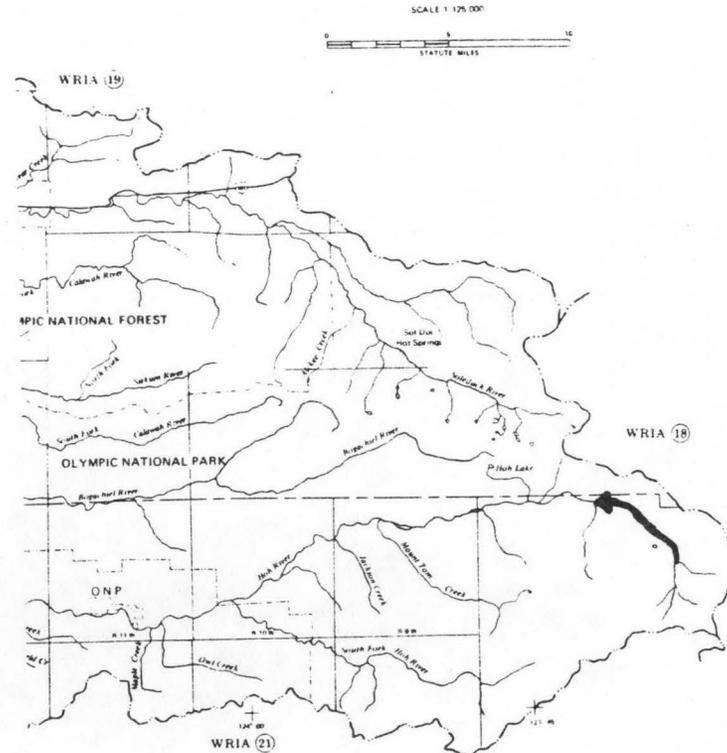
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 238 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R8W</u>
D. Latitude, Longitude	<u>47°49' 123°37'</u>
E. Stream Name	<u>Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>54.7/56.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

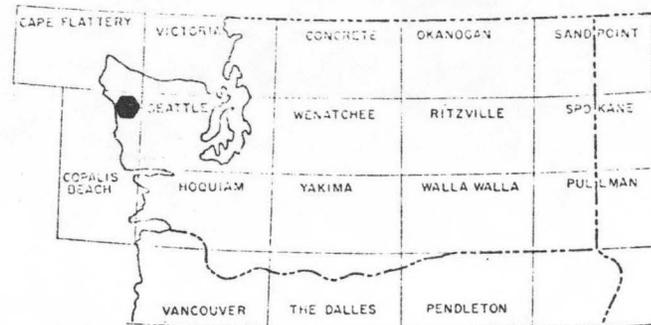
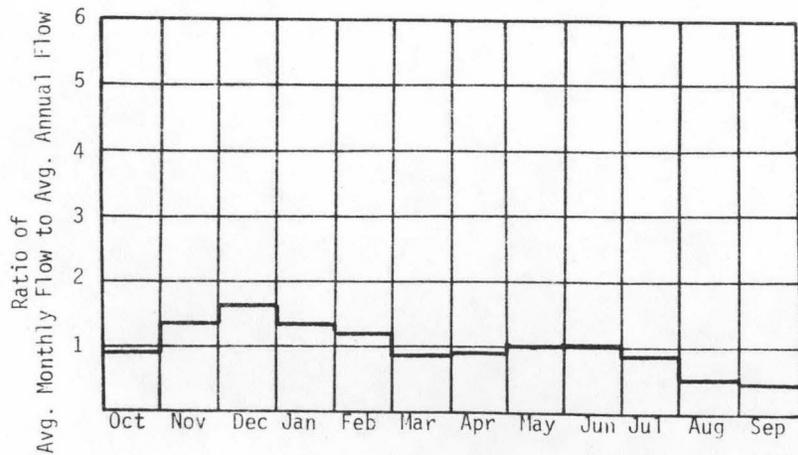
A. Upstream Elevation of Reach	<u>2800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2500</u>	Ft. MSL
C. Total Available Head in Reach	<u>306 + 66 = 366</u>	Ft.
D. Average Slope in Reach	<u>200</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	39.4	1.22	10.7	1.00
80	58.0	1.80	15.1	0.96
50	91.6	2.84	21.1	0.85
30	122	3.77	24.5	0.74
10	206	6.39	28.6	0.51

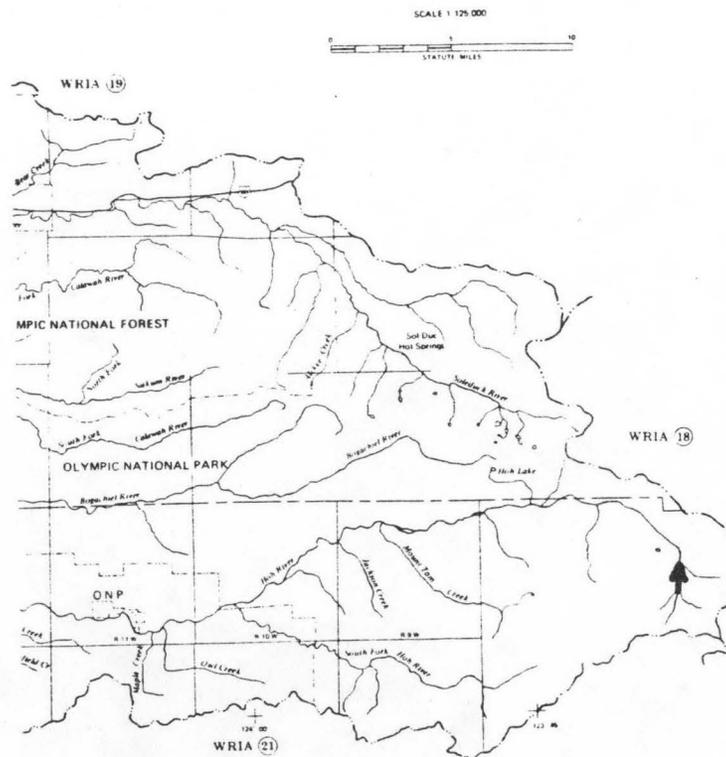
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 116 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R12W</u>
D. Latitude, Longitude	<u>47°47' 124°14'</u>
E. Stream Name	<u>Winfield Creek</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/2.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

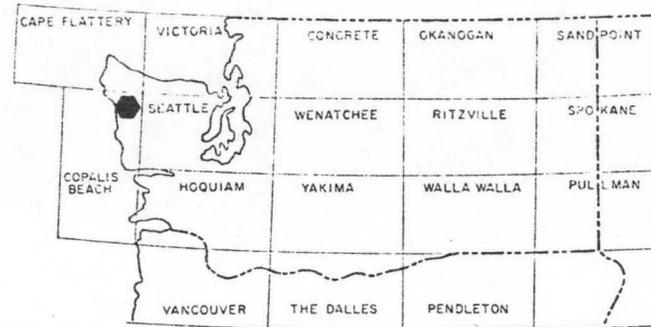
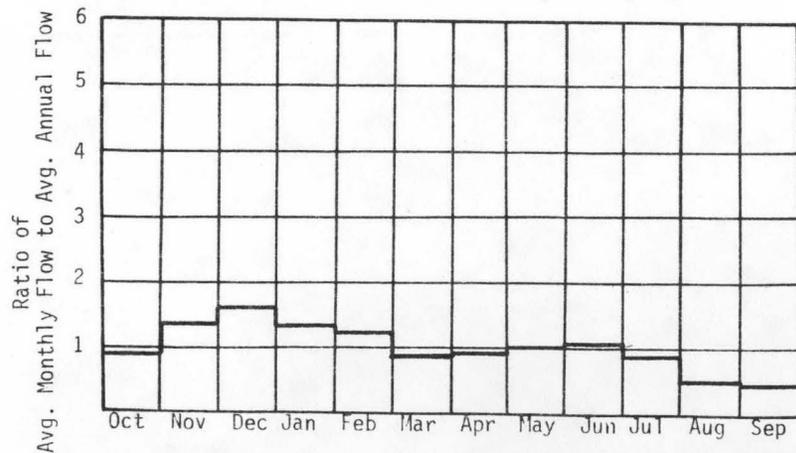
A. Upstream Elevation of Reach	<u>390</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>200</u>	Ft. MSL
C. Total Available Head in Reach	<u>190 + 66 = 256</u>	Ft.
D. Average Slope in Reach	<u>67.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

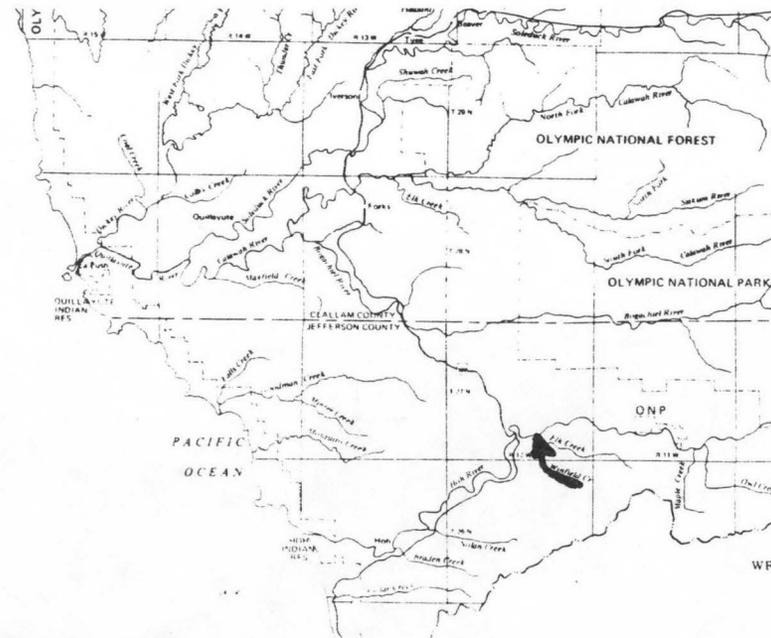
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.7	0.47	4.12	1.00
80	33.6	0.73	6.12	0.96
50	50.4	1.09	8.22	0.86
30	70.0	1.52	9.69	0.73
10	128	2.77	11.7	0.48

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 70 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R11W</u>
D. Latitude, Longitude	<u>47°47' 124°05'</u>
E. Stream Name	<u>Owl Creek</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/3.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

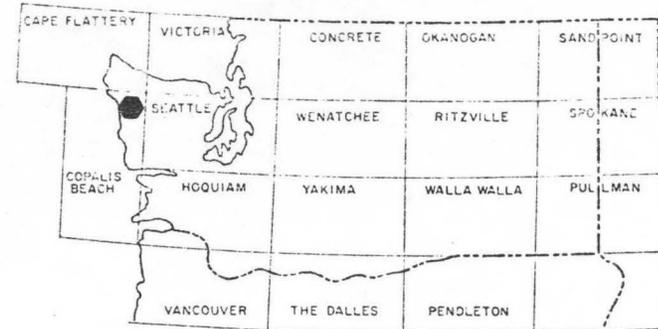
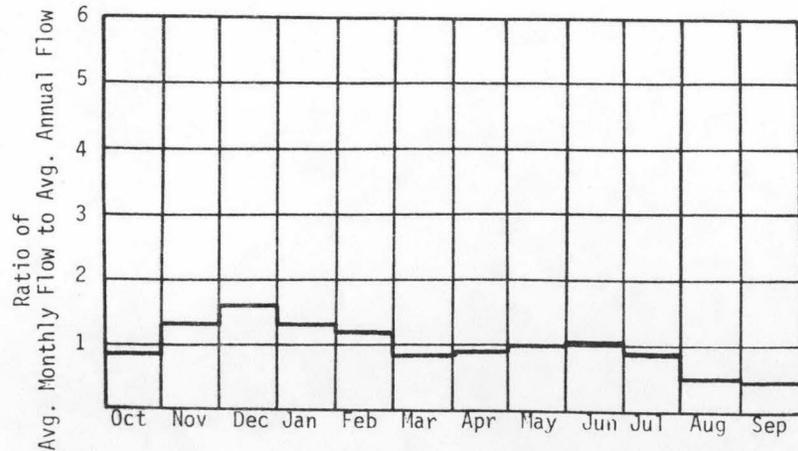
A. Upstream Elevation of Reach	<u>920</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>340</u>	Ft. MSL
C. Total Available Head in Reach	<u>580 + 66 = 646</u>	Ft.
D. Average Slope in Reach	<u>149</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.82</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	18.6	1.02	8.90	1.00
80	28.8	1.57	13.2	0.96
50	43.2	2.36	17.8	0.86
30	60.0	3.28	21.0	0.73
10	110	6.00	25.2	0.48

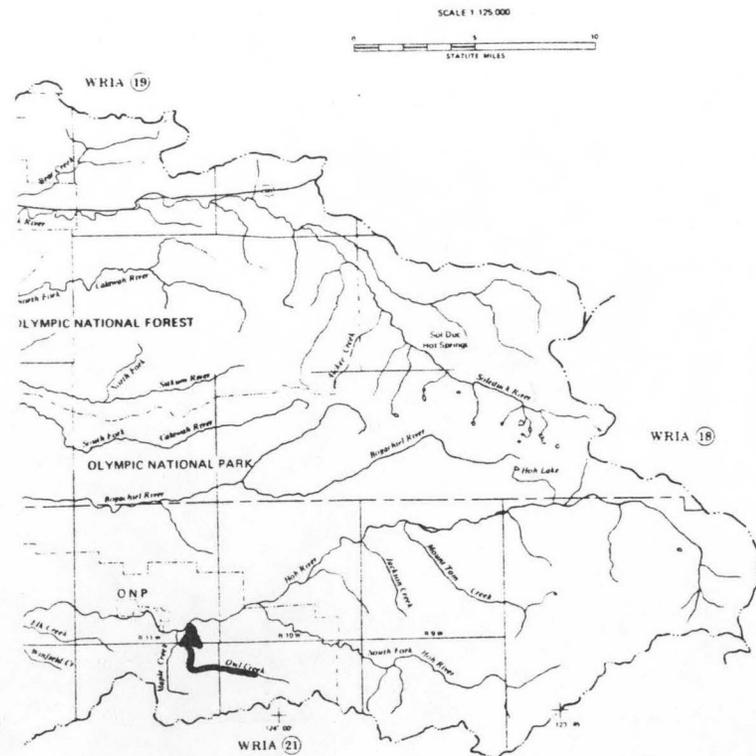
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 60 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R9W</u>
D. Latitude, Longitude	<u>47°47' 123°55'</u>
E. Stream Name	<u>S.F. Hoh River</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/15.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

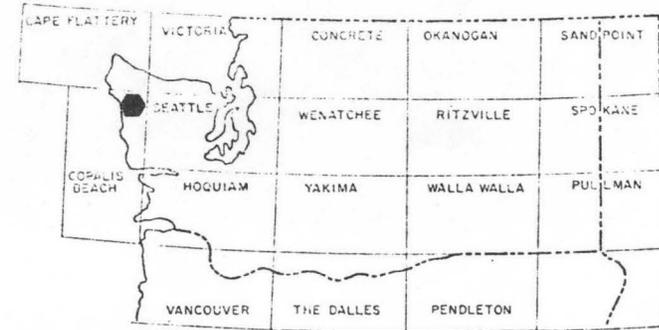
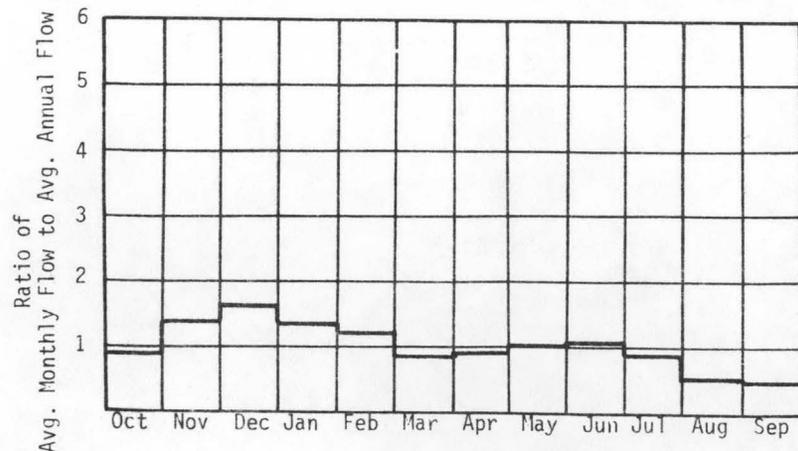
A. Upstream Elevation of Reach	<u>1430</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>410</u>	Ft. MSL
C. Total Available Head in Reach	<u>1020</u>	Ft.
D. Average Slope in Reach	<u>67.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>54.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	112	9.68	84.8	1.00
80	165	14.2	120	0.96
50	261	22.5	168	0.85
30	347	29.9	194	0.74
10	587	50.7	226	0.51

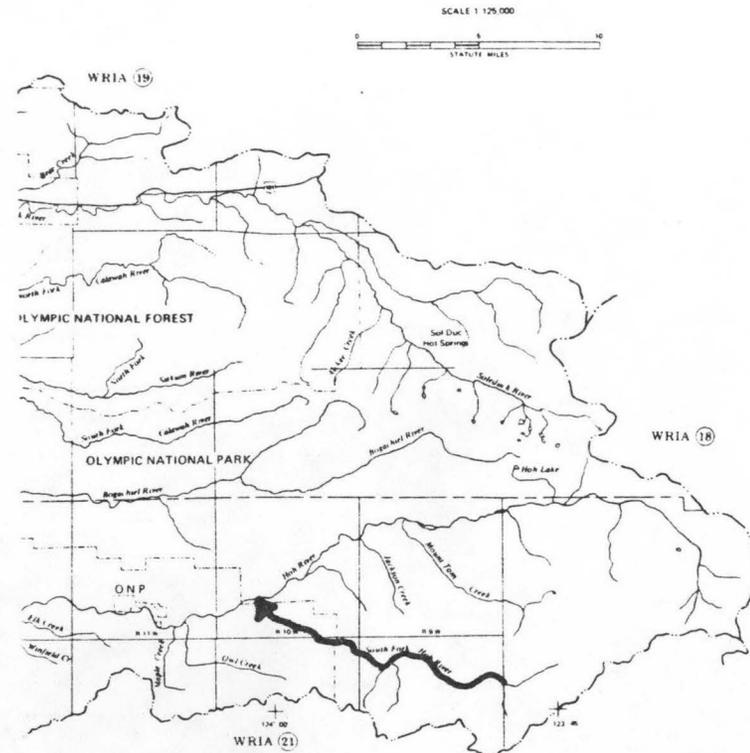
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 330 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA 20



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0017

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T26N R8W
D. Latitude, Longitude	47°46' 123°46'
E. Stream Name	S.F. Hoh River
F. Major Basin Name	Hoh
G. River Mile	15.2/17.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

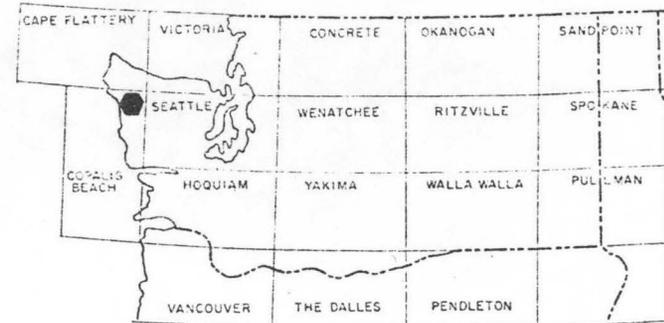
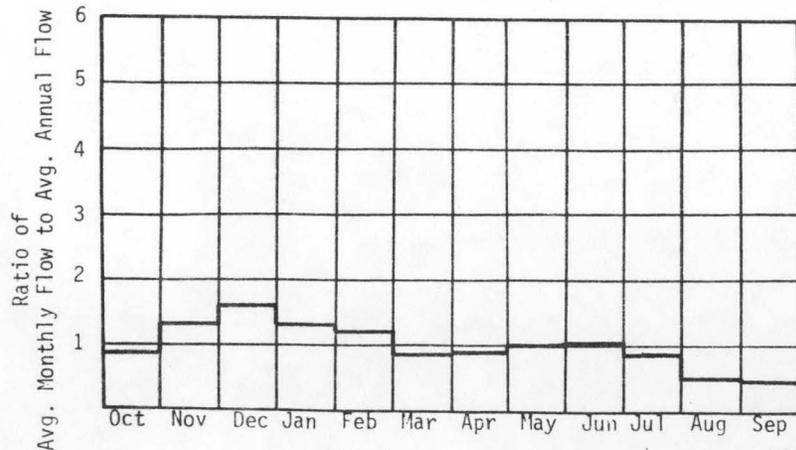
A. Upstream Elevation of Reach	2650	Ft.	MSL
B. Downstream Elevation of Reach	1430	Ft.	MSL
C. Total Available Head in Reach	1220 + 66 = 1286	Ft.	
D. Average Slope in Reach	581	Ft./Mi.	
E. Drainage Area above Reach Mouth	9.5	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.3	3.29	28.8	1.00
80	44.5	4.84	40.7	0.96
50	70.3	7.65	57.0	0.85
30	93.5	10.2	65.9	0.74
10	158	17.2	77.0	0.51

IV. TYPICAL ANNUAL HYDROGRAPH

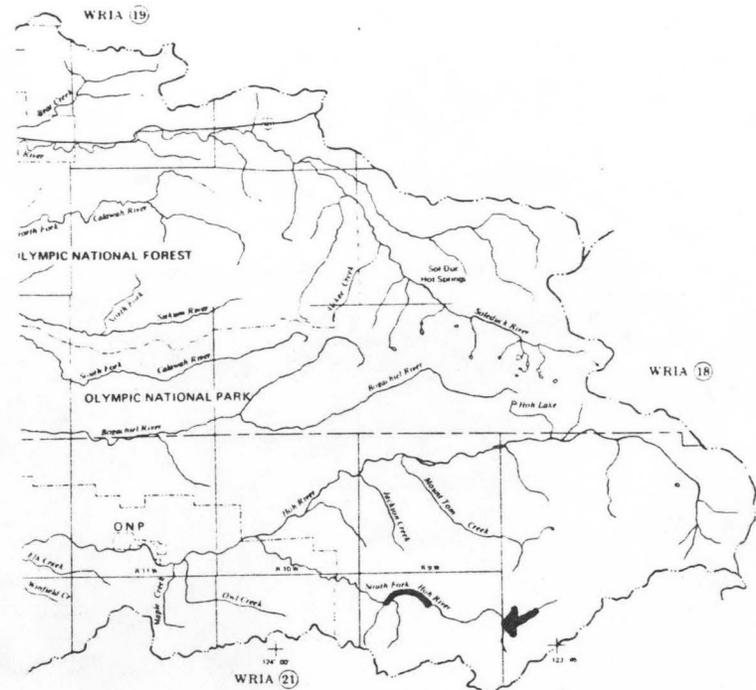
QMR = 89 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA 20

SCALE 1:125,000



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0018

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R10W</u>
D. Latitude, Longitude	<u>47°52' 123°55'</u>
E. Stream Name	<u>Jackson Creek</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/1.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

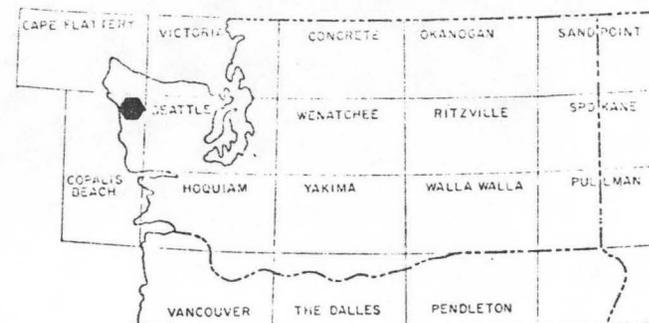
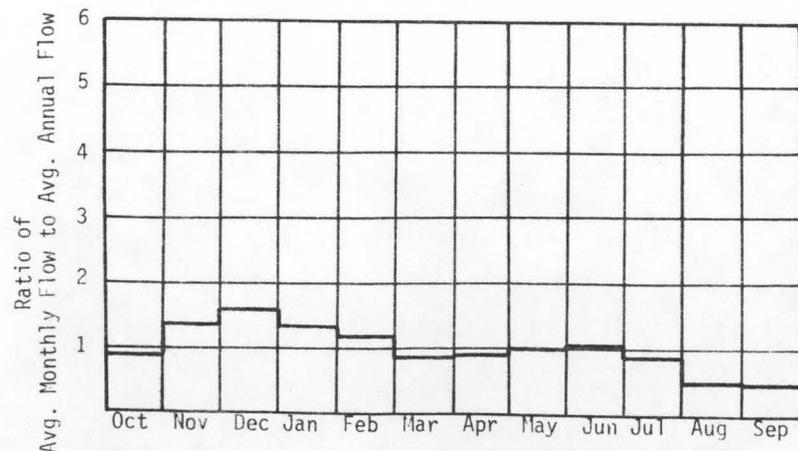
A. Upstream Elevation of Reach	<u>1000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>590</u>	Ft. MSL
C. Total Available Head in Reach	<u>410 + 66 = 476</u>	Ft.
D. Average Slope in Reach	<u>373</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>5.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.3	0.66	5.76	1.00
80	24.0	0.97	8.13	0.96
50	37.9	1.53	11.4	0.85
30	50.4	2.03	13.2	0.74
10	85.4	3.44	15.4	0.51

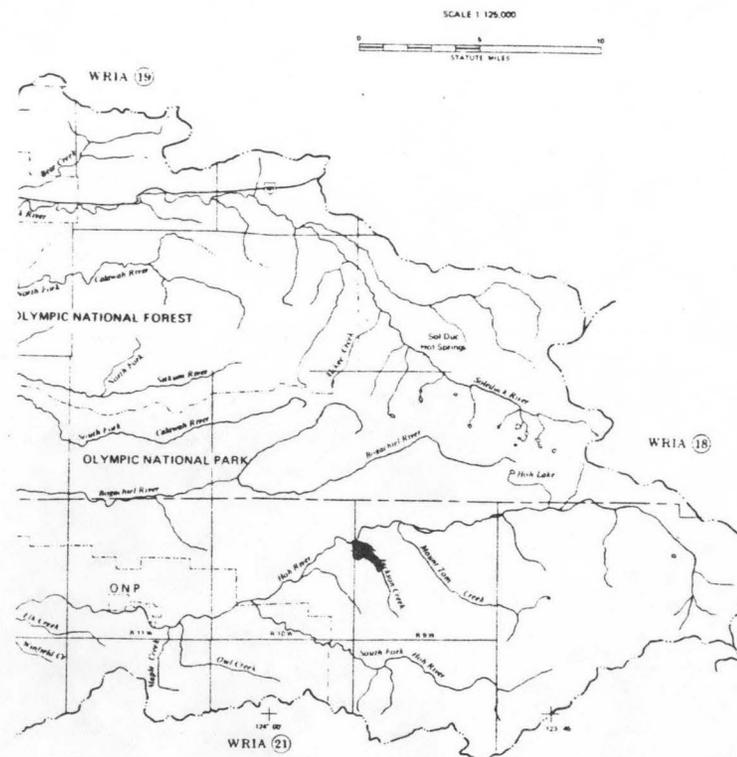
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 48 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T27N R9W</u>
D. Latitude, Longitude	<u>47°50' 123°51'</u>
E. Stream Name	<u>Mount Tom Creek</u>
F. Major Basin Name	<u>Hoh</u>
G. River Mile	<u>0/7.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

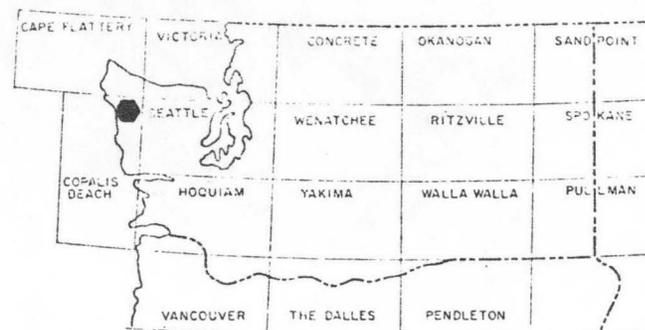
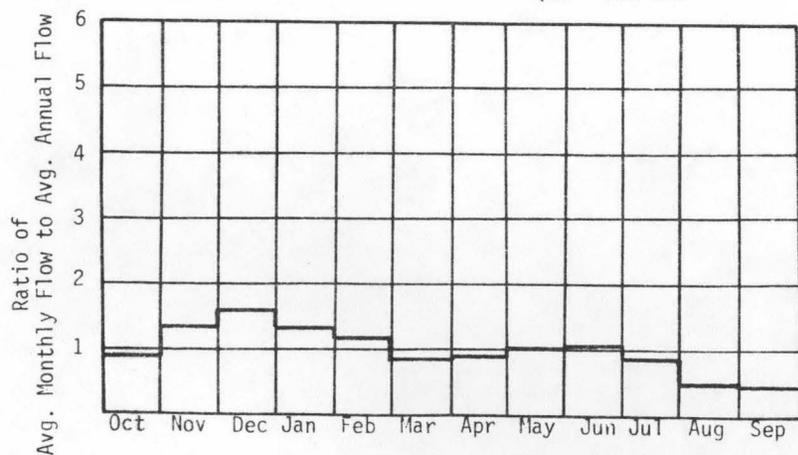
A. Upstream Elevation of Reach	<u>1900</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>600</u>	Ft. MSL
C. Total Available Head in Reach	<u>1240 + 66 = 1306</u>	Ft.
D. Average Slope in Reach	<u>175</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>19.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	45.2	5.00	43.8	1.00
80	66.5	7.35	61.8	0.96
50	105	11.6	86.4	0.85
30	140	15.4	100	0.74
10	237	26.2	117	0.51

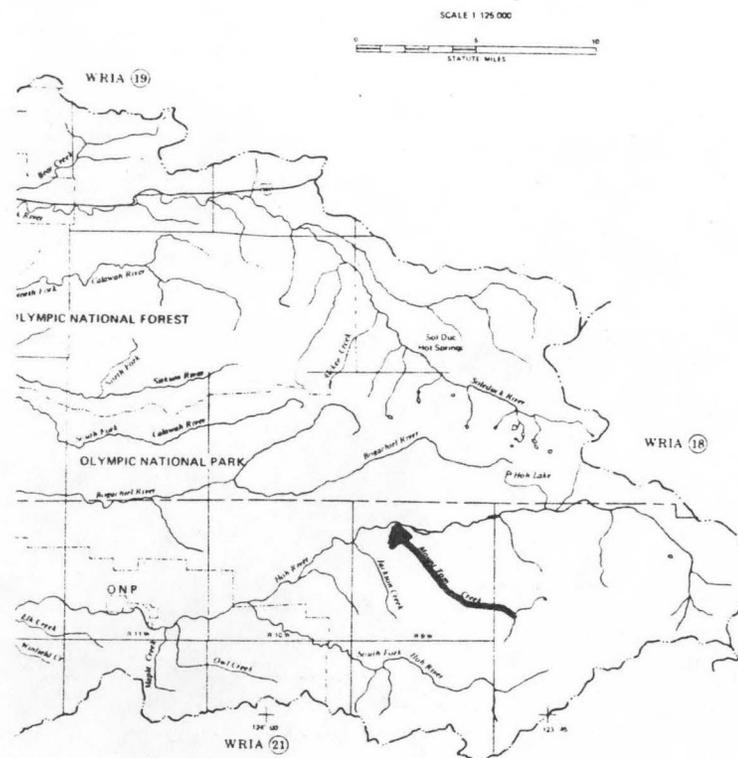
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 133 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA 20



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-041-000-000-000-R0020

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T27N R8W
D. Latitude, Longitude	47°52' 123°43'
E. Stream Name	Glacier Creek
F. Major Basin Name	Hoh
G. River Mile	0/3.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

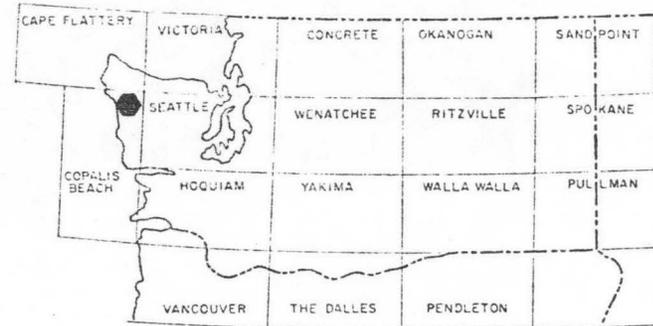
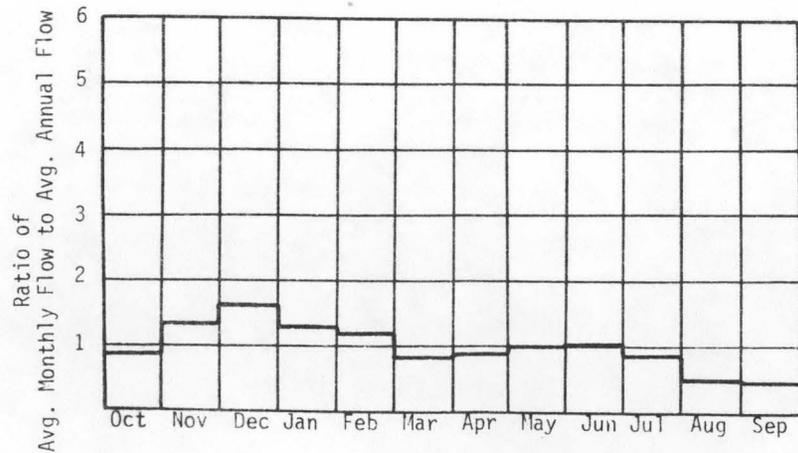
A. Upstream Elevation of Reach	2900	Ft.	MSL
B. Downstream Elevation of Reach	1350	Ft.	MSL
C. Total Available Head in Reach	1550 + 66 = 1616	Ft.	
D. Average Slope in Reach	423	Ft./Mi.	
E. Drainage Area above Reach Mouth	14.1	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	37.1	5.07	44.4	1.00
80	54.5	7.45	62.7	0.96
50	86.1	11.8	87.7	0.85
30	114	15.7	101	0.74
10	194	26.5	119	0.51

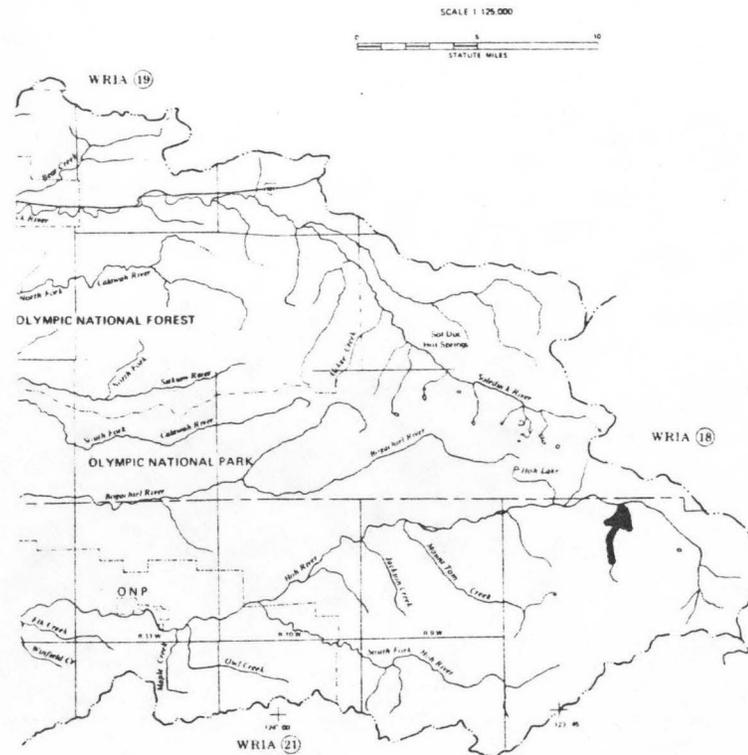
IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 109 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

WATER RESOURCE INVENTORY AREA (20)



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-042-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R13W</u>
D. Latitude, Longitude	<u>47°43' 122°24'</u>
E. Stream Name	<u>Cedar Creek</u>
F. Major Basin Name	<u>Cedar Creek</u>
G. River Mile	<u>0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

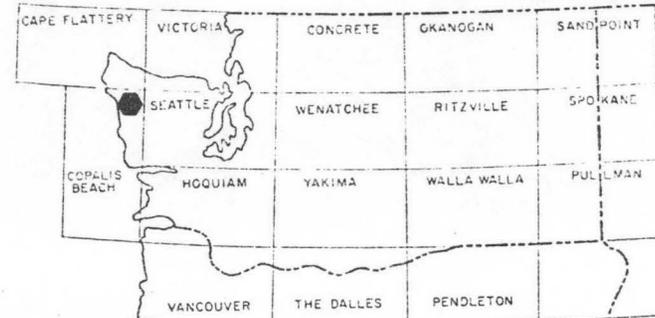
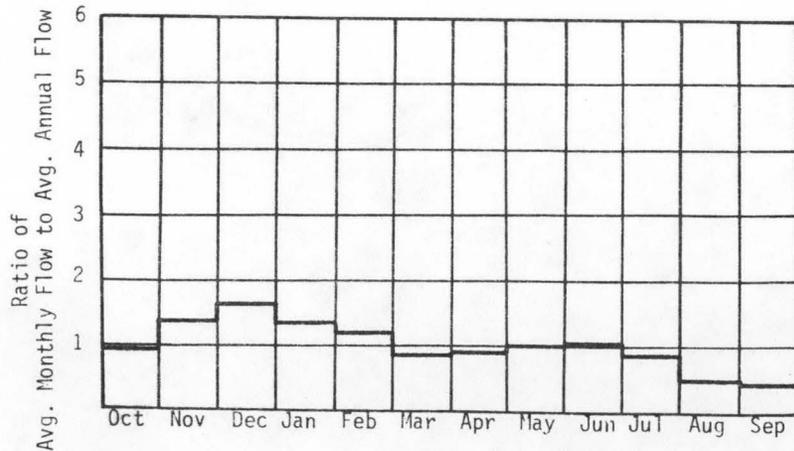
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>120 + 66 = 186</u>	Ft.
D. Average Slope in Reach	<u>75</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.22	0.08	0.72	1.00
80	10.4	0.16	1.34	0.93
50	31.3	0.49	3.19	0.74
30	60.3	0.95	4.74	0.57
10	138	2.17	6.85	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 58 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R13W</u>
D. Latitude, Longitude	<u>47°33' 124°19'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/5.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

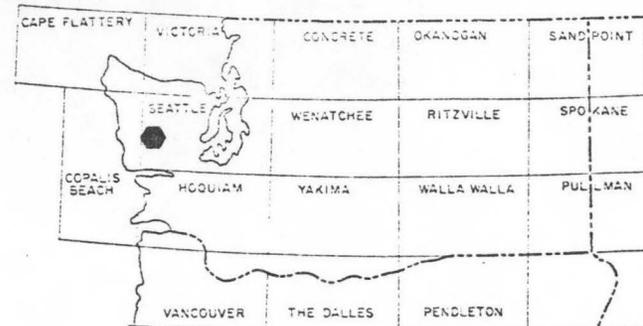
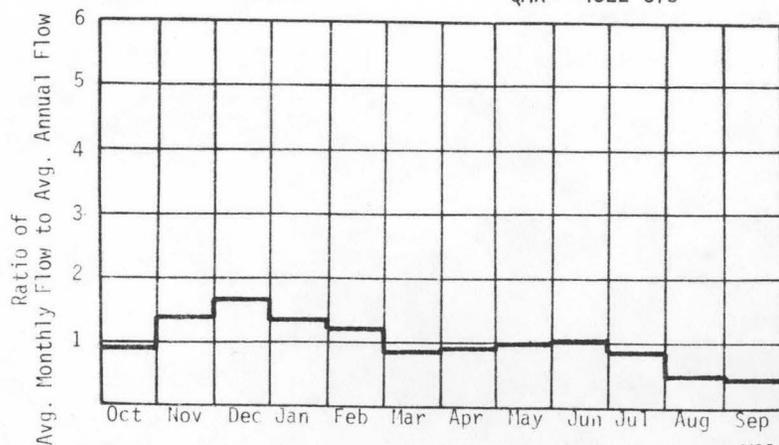
A. Upstream Elevation of Reach	<u>30</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>5.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>453.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

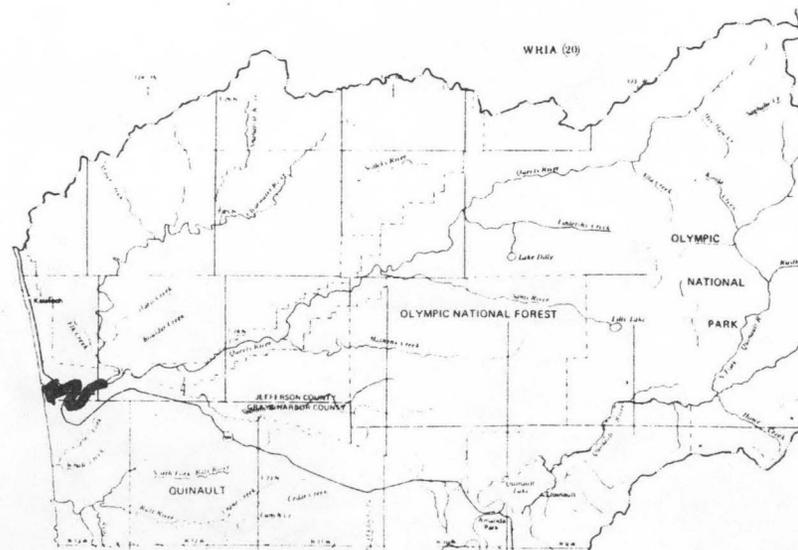
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	605	1.54	13.5	1.00
80	1210	3.07	25.0	0.93
50	2680	6.80	45.9	0.77
30	4320	11.0	60.6	0.63
10	9470	24.0	82.1	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 4322 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R12W</u>
D. Latitude, Longitude	<u>47°33' 124°15'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>5.8/10.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

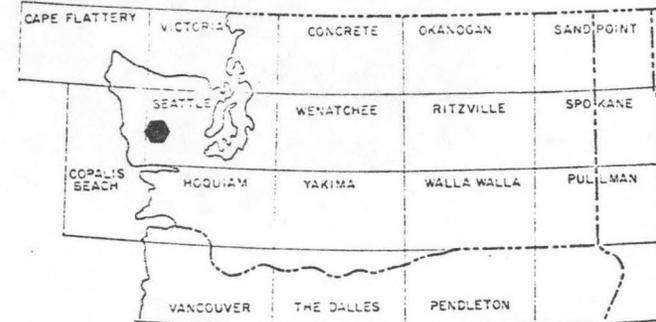
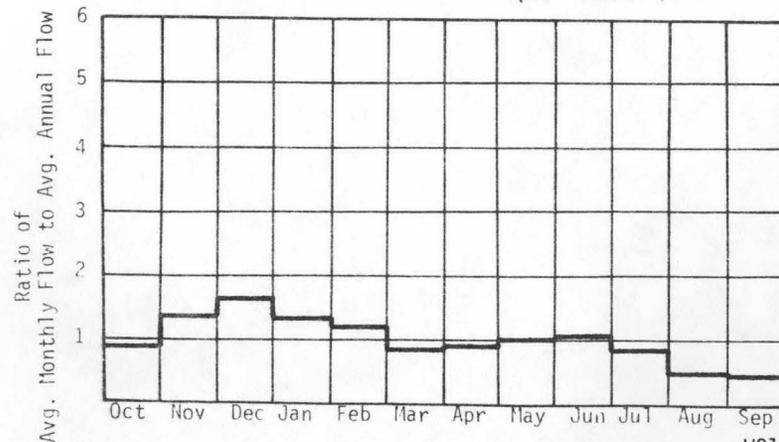
A. Upstream Elevation of Reach	<u>75</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>45</u>	Ft.
D. Average Slope in Reach	<u>10</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>288</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

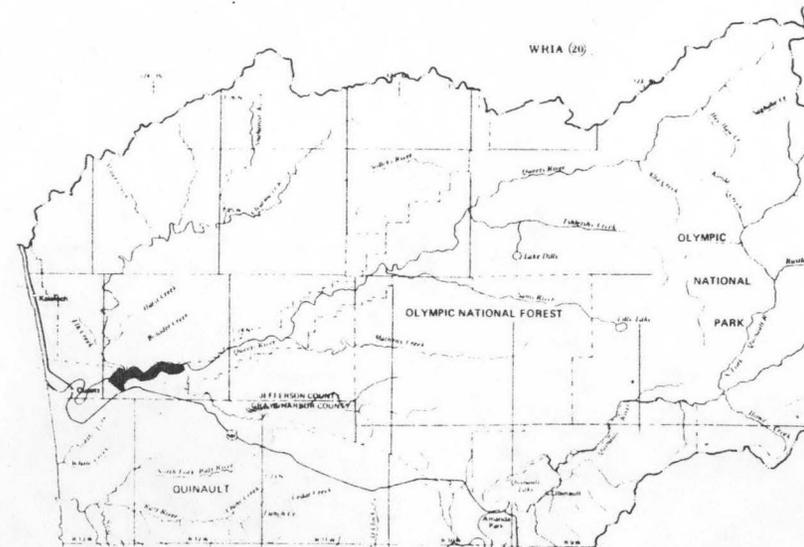
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	403	1.54	13.5	1.00
80	806	3.07	25.0	0.93
50	1790	6.80	45.9	0.77
30	2880	11.0	60.5	0.63
10	6307	24.0	82.1	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2880 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R11W</u>
D. Latitude, Longitude	<u>47°34' 123°10'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>10.3/16.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

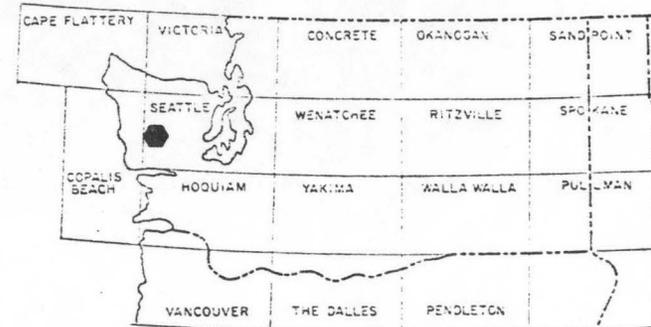
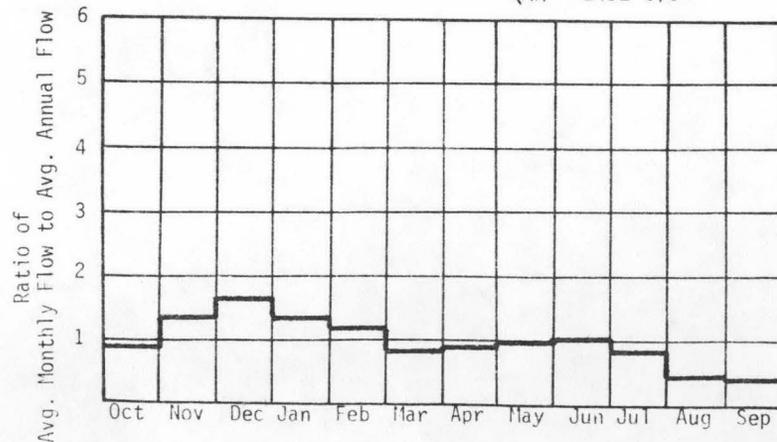
A. Upstream Elevation of Reach	<u>150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>75</u>	Ft. MSL
C. Total Available Head in Reach	<u>75</u>	Ft.
D. Average Slope in Reach	<u>12.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>244</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

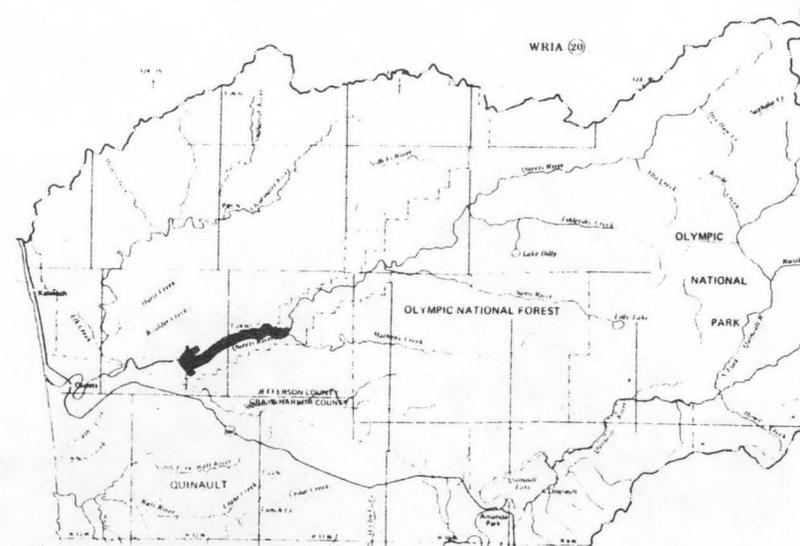
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	349	2.21	19.4	1.00
80	698	4.43	36.1	0.93
50	1550	9.81	66.2	0.77
30	2500	15.8	87.3	0.63
10	5460	34.6	118	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2492 cfs



LOCAT.GNS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R11W</u>
D. Latitude, Longitude	<u>47°37' 124°04'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>16.5/24.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

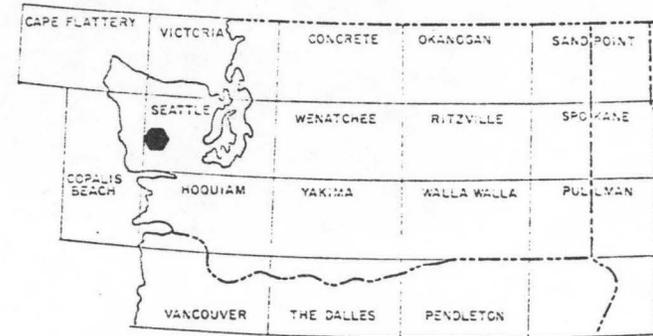
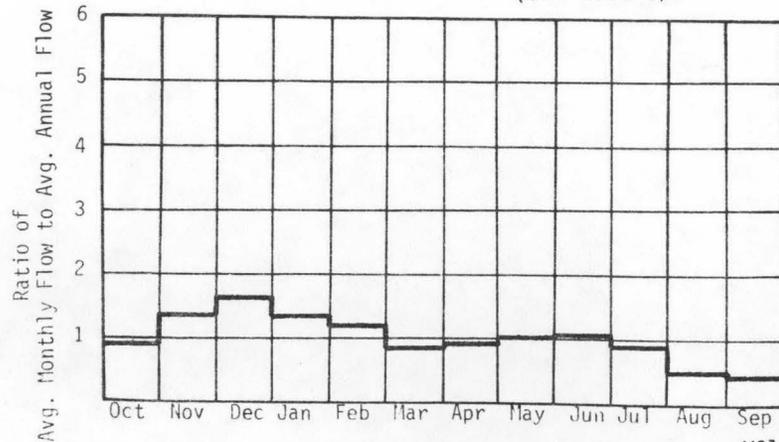
A. Upstream Elevation of Reach	<u>280</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>130</u>	Ft.
D. Average Slope in Reach	<u>16.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>184</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

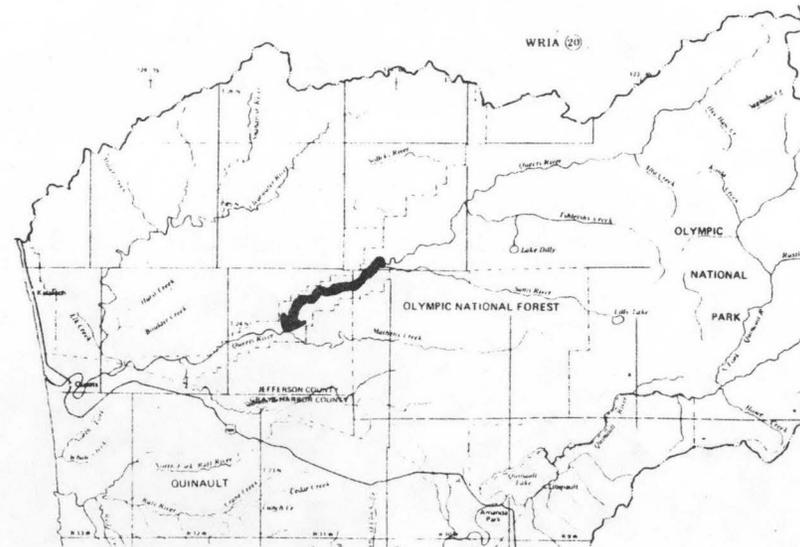
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	279	3.07	26.9	1.00
80	557	6.13	50.0	0.93
50	1230	13.6	91.6	0.77
30	1990	21.9	121	0.63
10	4360	48.0	164	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1990 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R10W</u>
D. Latitude, Longitude	<u>47°38' 123°57'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>24.4/31.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

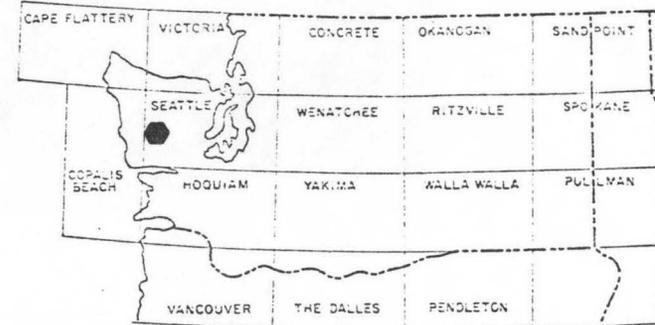
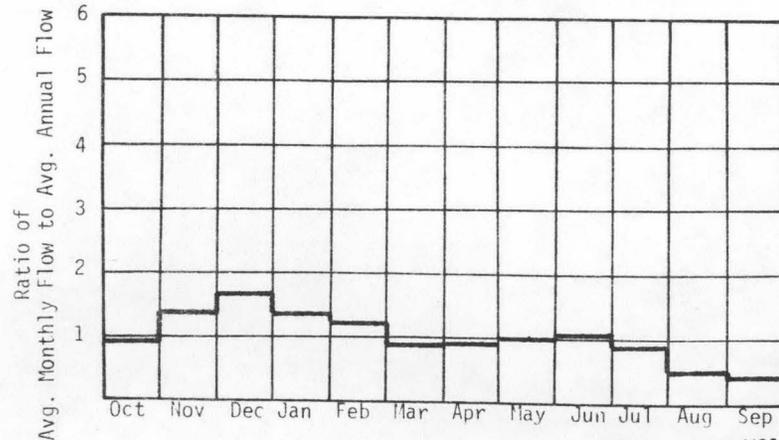
A. Upstream Elevation of Reach	<u>440</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>280</u>	Ft. MSL
C. Total Available Head in Reach	<u>160</u>	Ft.
D. Average Slope in Reach	<u>22.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>135</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

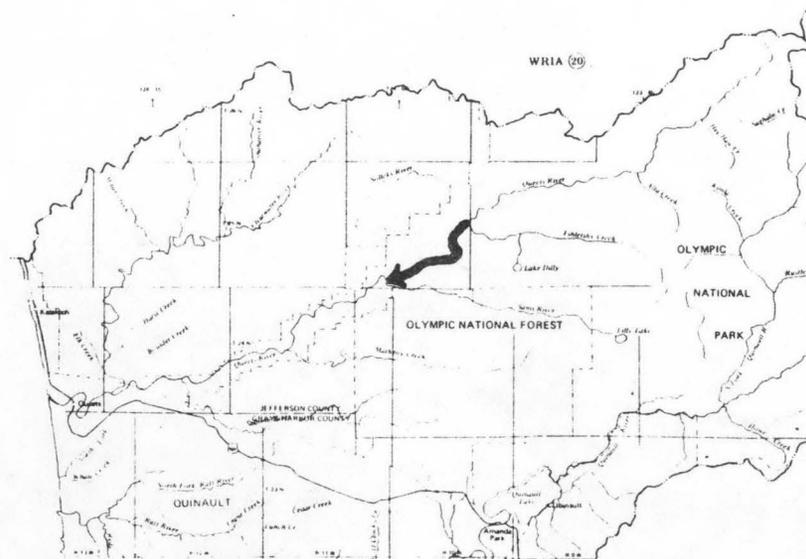
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	214	2.90	25.4	1.00
80	429	5.81	47.3	0.93
50	949	12.9	86.7	0.77
30	1530	20.7	114	0.63
10	3350	45.4	155	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1531 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # Q1-043-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R9W</u>
D. Latitude, Longitude	<u>47°40' 123°54'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>31.4/34.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

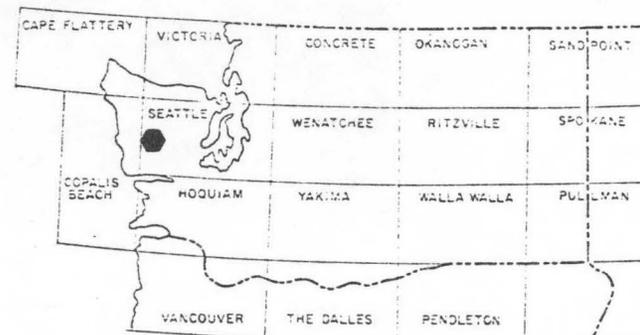
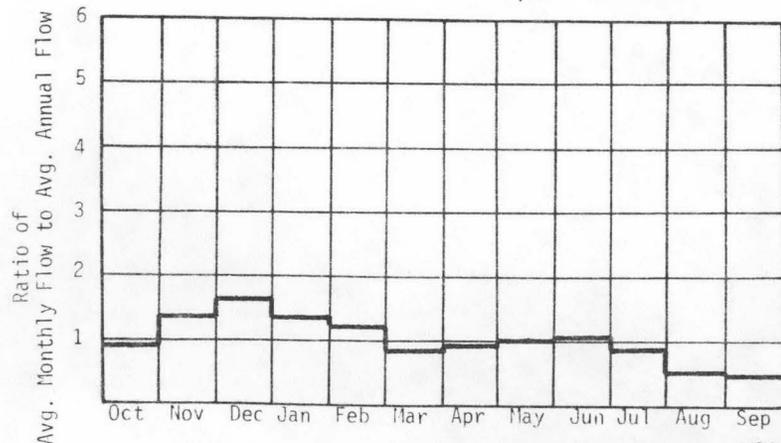
A. Upstream Elevation of Reach	<u>500</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>440</u>	Ft. MSL
C. Total Available Head in Reach	<u>60</u>	Ft.
D. Average Slope in Reach	<u>23.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>91.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

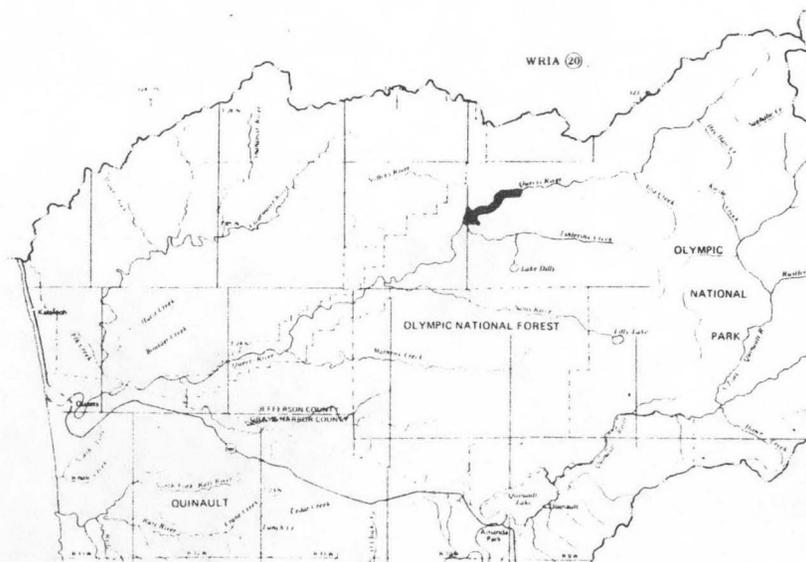
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	152	0.77	6.74	1.00
80	303	1.54	12.0	0.93
50	671	3.41	23.0	0.77
30	1080	5.49	30.3	0.63
10	2370	12.0	41.1	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1082 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-090-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R8W</u>
D. Latitude, Longitude	<u>47°43' 123°49'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>34.0/40.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

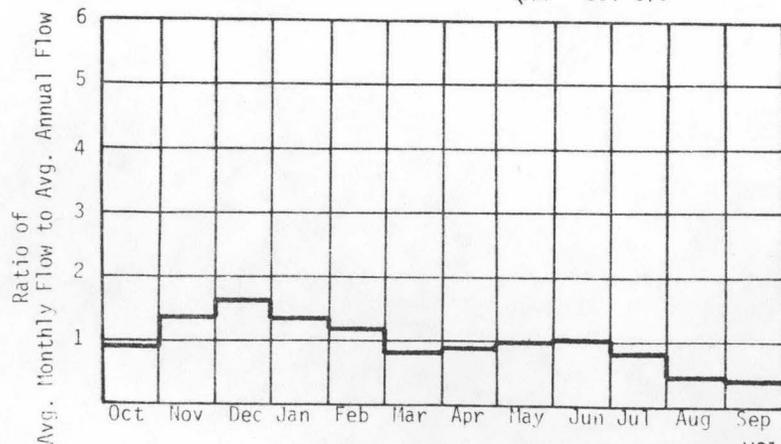
A. Upstream Elevation of Reach	<u>800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>500</u>	Ft. MSL
C. Total Available Head in Reach	<u>300</u>	Ft.
D. Average Slope in Reach	<u>45.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>77.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

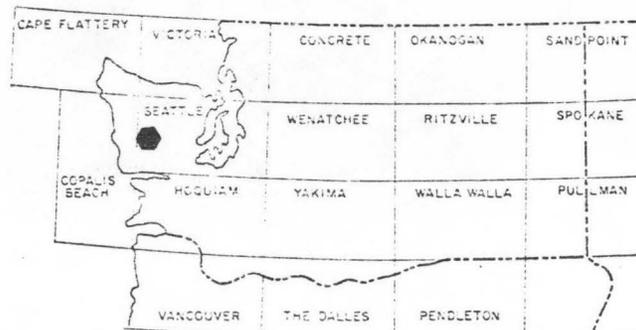
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	121	3.06	26.8	1.00
80	241	6.12	50.0	0.93
50	534	13.6	91.4	0.77
30	861	21.9	121	0.63
10	1890	47.9	164	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

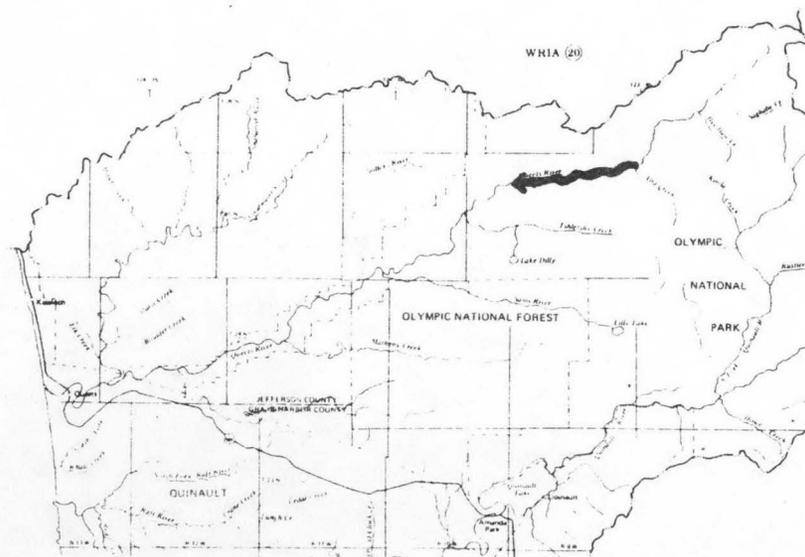
QMR = 861 cfs



W21-645



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R8W</u>
D. Latitude, Longitude	<u>47°44' 123°44'</u>
E. Stream Name	<u>Queets River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>40.9/45.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

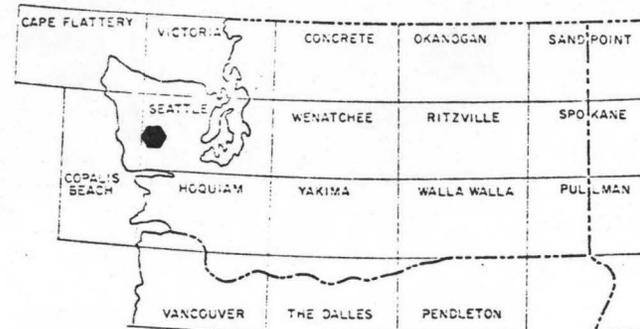
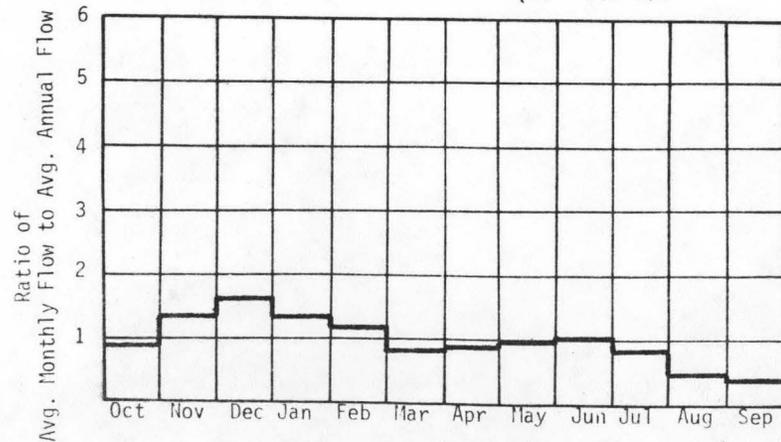
A. Upstream Elevation of Reach	<u>1200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>800</u>	Ft. MSL
C. Total Available Head in Reach	<u>400</u>	Ft.
D. Average Slope in Reach	<u>80</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.2</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

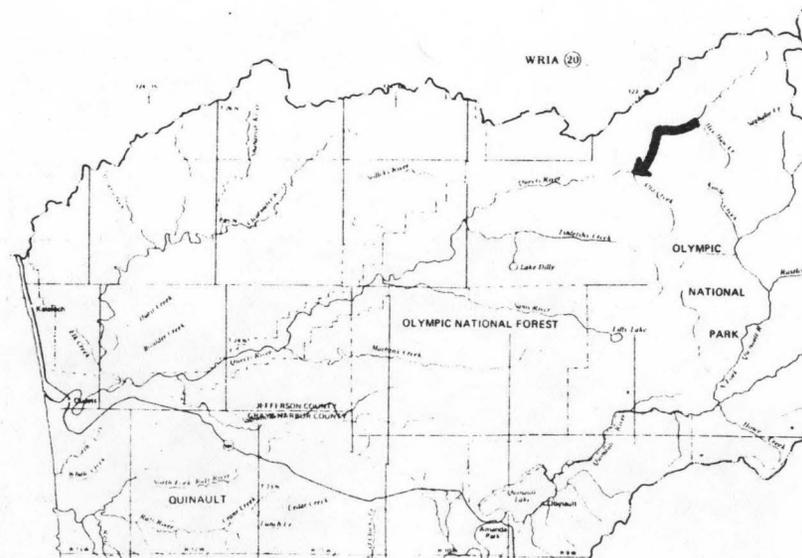
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	71.7	2.43	21.3	1.00
80	143	4.85	39.5	0.92
50	317	10.0	72.5	0.77
30	512	17.3	95.7	0.63
10	1120	38.0	130	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 512 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0009

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R8W
 D. Latitude, Longitude 47°46' 123°34'
 E. Stream Name Queets River
 F. Major Basin Name Queets
 G. River Mile 45.9/51.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

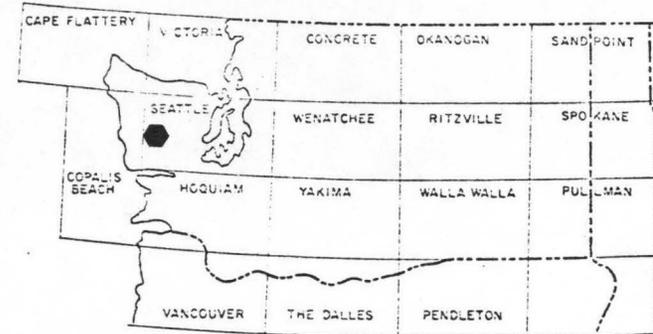
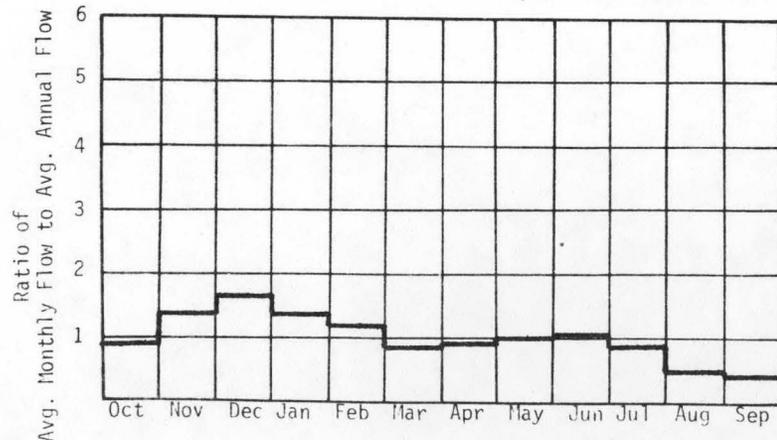
A. Upstream Elevation of Reach 3250 Ft. MSL
 B. Downstream Elevation of Reach 1200 Ft. MSL
 C. Total Available Head in Reach 2050 + 66 = 2116 Ft.
 D. Average Slope in Reach 394 Ft./Mi.
 E. Drainage Area above Reach Mouth 23.6 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

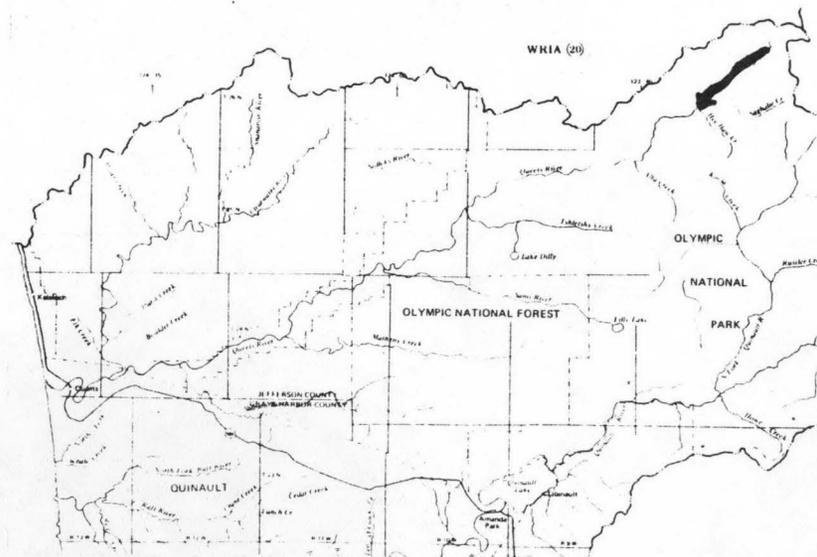
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	26.0	4.66	40.9	1.00
80	52.1	9.33	76.0	0.95
50	115	20.7	139	0.77
30	186	33.3	183.8	0.63
10	407	73.0	249	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 186 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R12W</u>
D. Latitude, Longitude	<u>47°34' 124°17'</u>
E. Stream Name	<u>Clearwater River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/2.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

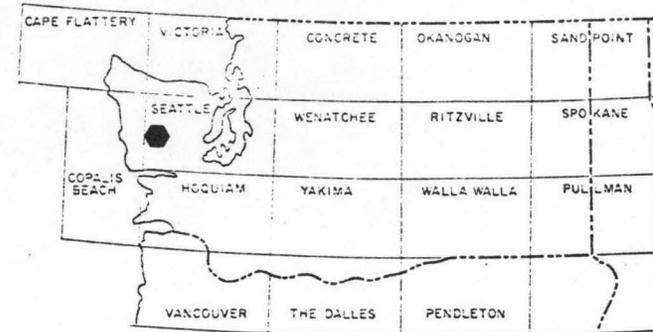
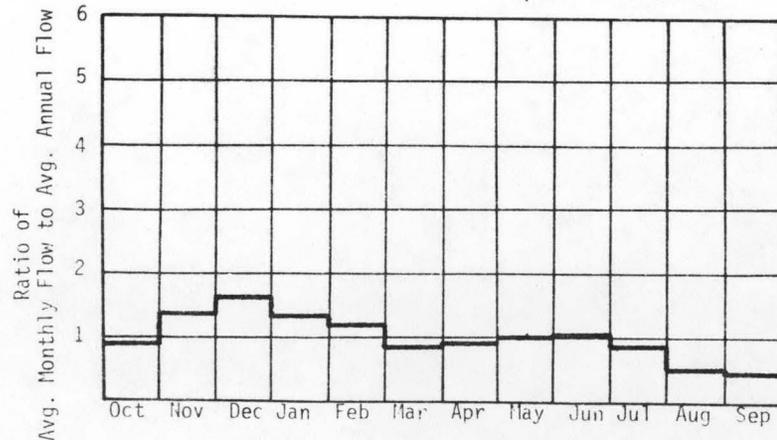
A. Upstream Elevation of Reach	<u>60</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>10</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>153</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

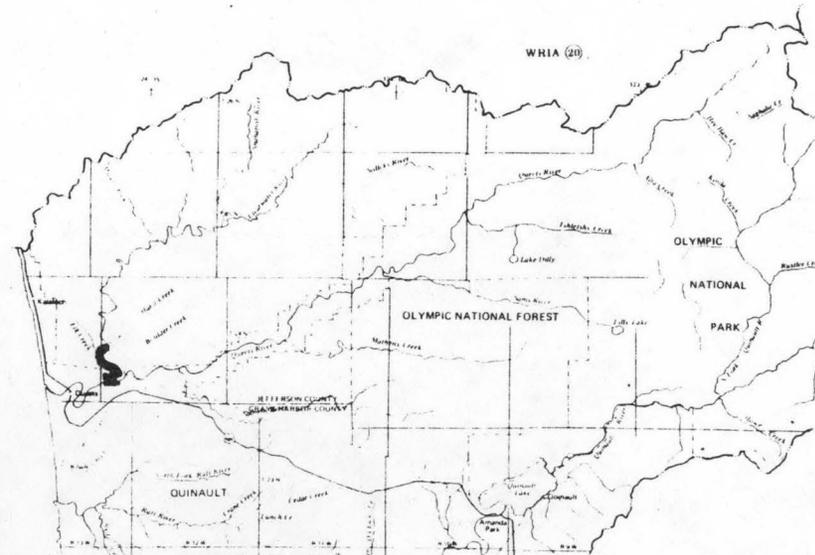
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	120	0.30	2.67	1.00
80	240	0.61	4.97	0.93
50	720	1.83	11.9	0.74
30	1390	3.52	17.6	0.57
10	3180	8.06	25.4	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1334 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0011

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T25N R12W
D. Latitude, Longitude	47°34' 124°16'
E. Stream Name	Clearwater River
F. Major Basin Name	Queets
G. River Mile	2.9/12.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

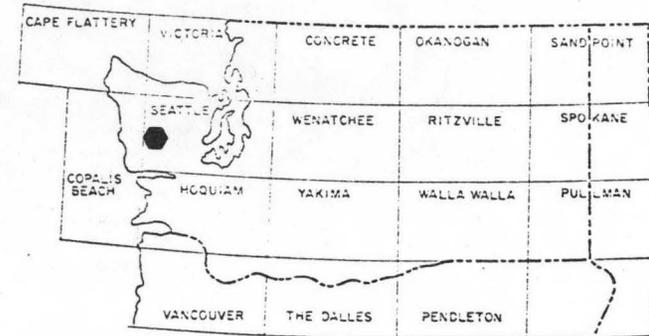
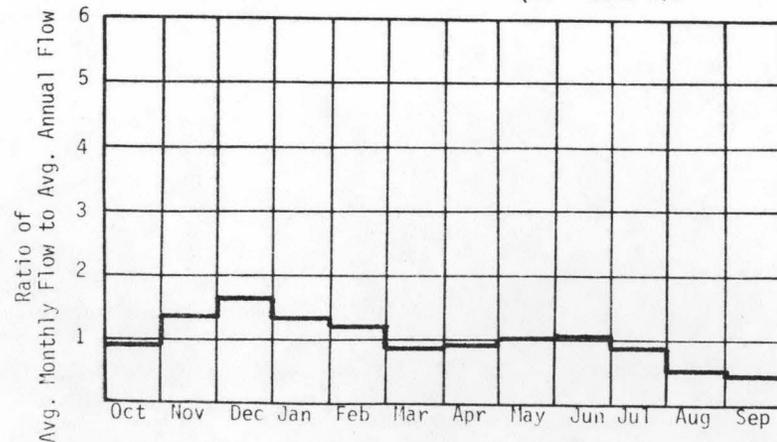
A. Upstream Elevation of Reach	150	Ft. MSL
B. Downstream Elevation of Reach	60	Ft. MSL
C. Total Available Head in Reach	90	Ft.
D. Average Slope in Reach	9	Ft./Mi.
E. Drainage Area above Reach Mouth	141	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

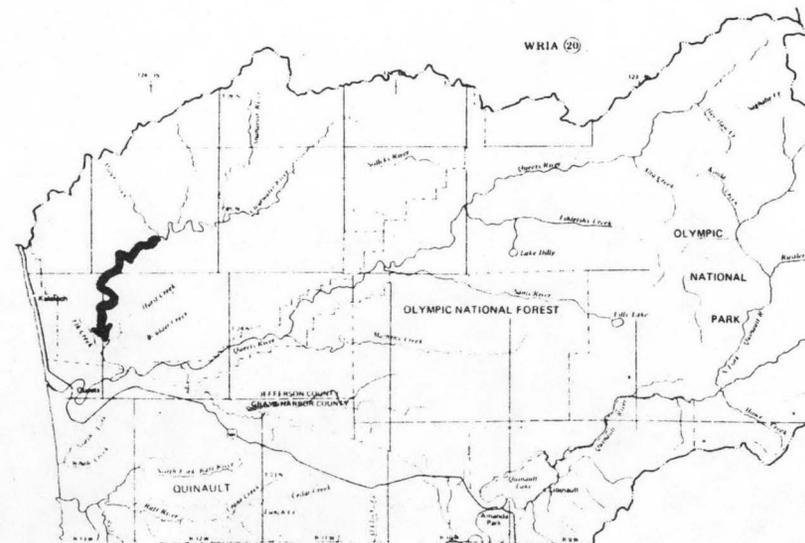
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	196	0.81	7.1	1.00
80	213	1.62	13.2	0.93
50	638	4.86	31.5	0.74
30	1230	9.36	46.7	0.57
10	2810	21.4	67.6	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1182 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R12W</u>
D. Latitude, Longitude	<u>47°39' 124°14'</u>
E. Stream Name	<u>Clearwater River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>12.8/14.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

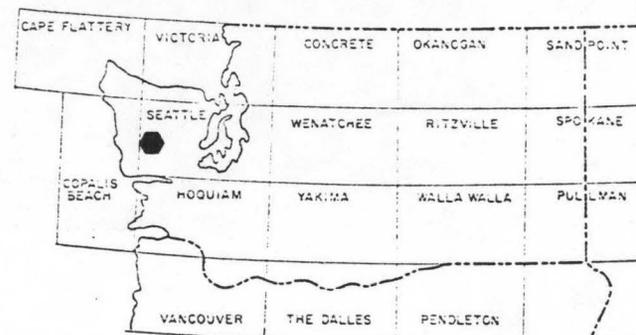
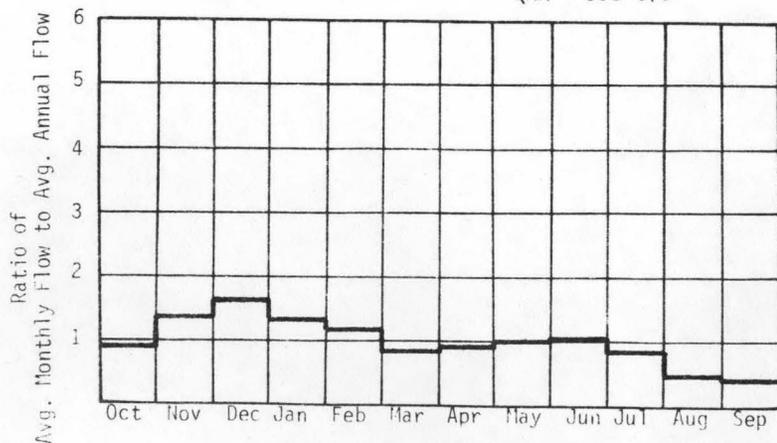
A. Upstream Elevation of Reach	<u>180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>17.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>109.5</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

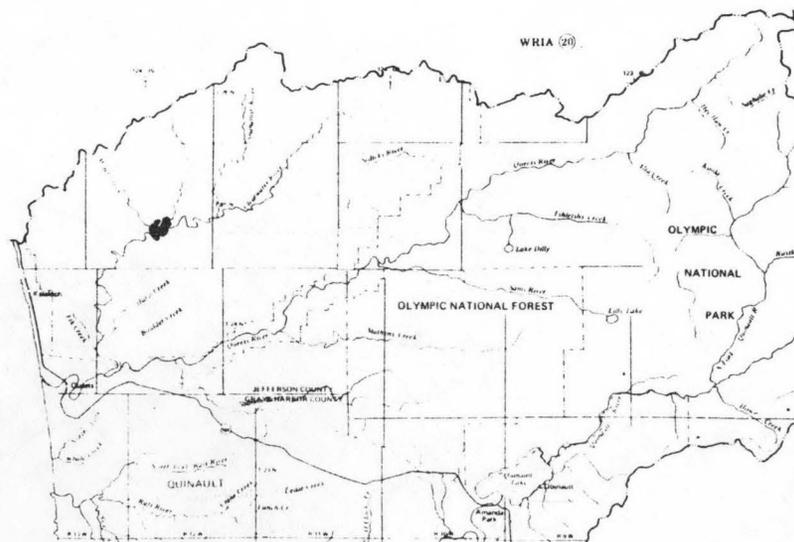
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	89.7	0.23	2.00	1.00
80	180	0.46	3.71	0.93
50	539	1.37	8.86	0.74
30	1040	2.63	13.2	0.57
10	2374	6.03	19.0	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 998 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R12W</u>
D. Latitude, Longitude	<u>47°38' 124°12'</u>
E. Stream Name	<u>Clearwater River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>14.5/19.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

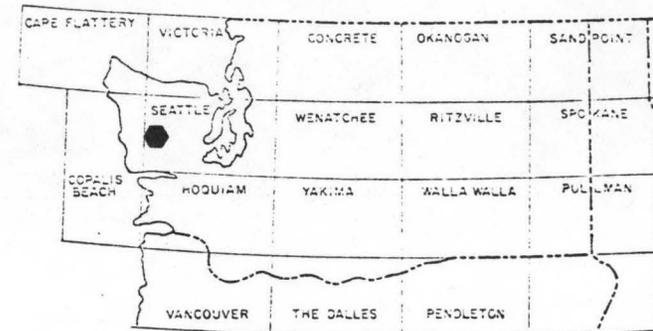
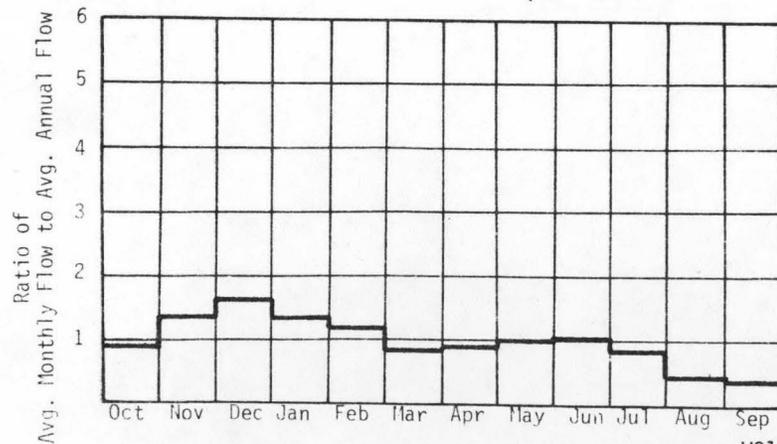
A. Upstream Elevation of Reach	<u>250</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>180</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>13.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>98.7</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

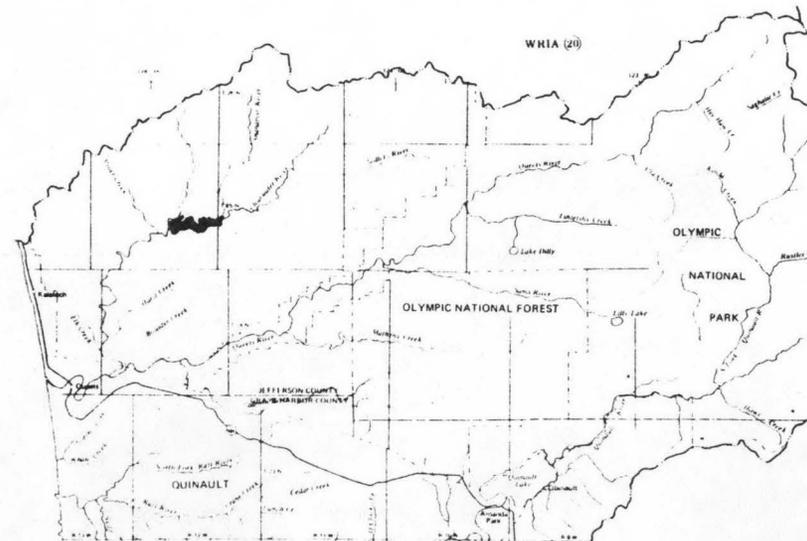
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	79.3	0.47	4.11	1.00
80	159	0.94	7.65	0.93
50	476	2.82	18.3	0.74
30	916	5.43	27.1	0.57
10	2100	12.4	39.2	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 881 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0014

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T25N R11W
 D. Latitude, Longitude 47°40' 124°09'
 E. Stream Name Clearwater River
 F. Major Basin Name Queets
 G. River Mile 19.6/24.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

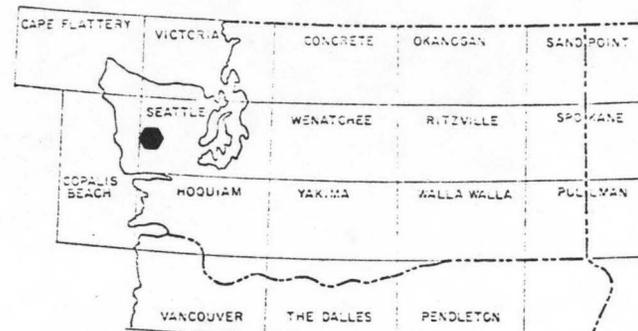
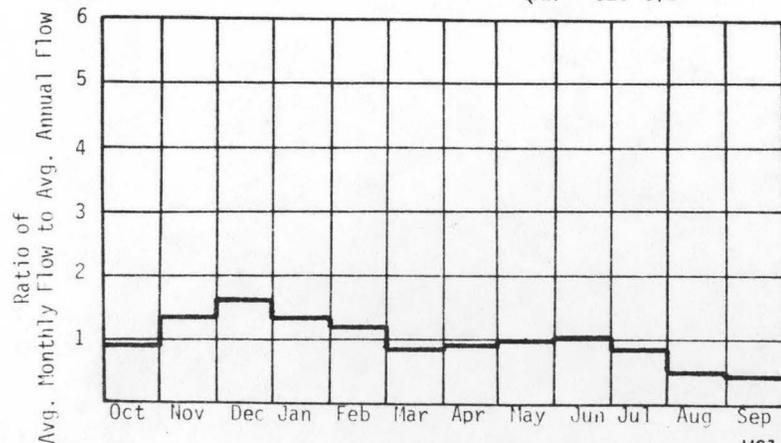
A. Upstream Elevation of Reach 340 Ft. MSL
 B. Downstream Elevation of Reach 250 Ft. MSL
 C. Total Available Head in Reach 90 Ft.
 D. Average Slope in Reach 19.2 Ft./Mi.
 E. Drainage Area above Reach Mouth 70.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

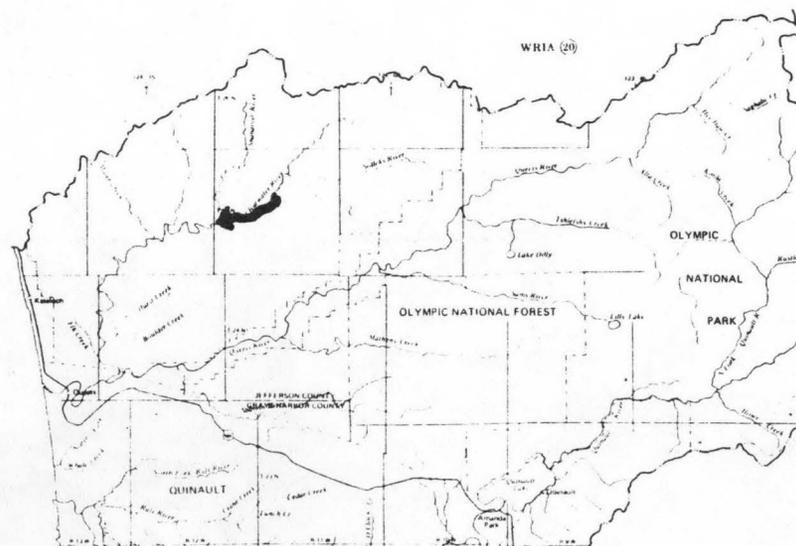
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	56.1	0.43	3.74	1.00
80	112	0.84	6.96	0.93
50	336	2.56	16.6	0.74
30	648	4.93	24.6	0.57
10	1480	11.3	35.6	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 623 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R11W</u>
D. Latitude, Longitude	<u>47°42' 124°07'</u>
E. Stream Name	<u>Clearwater River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>24.3/25.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

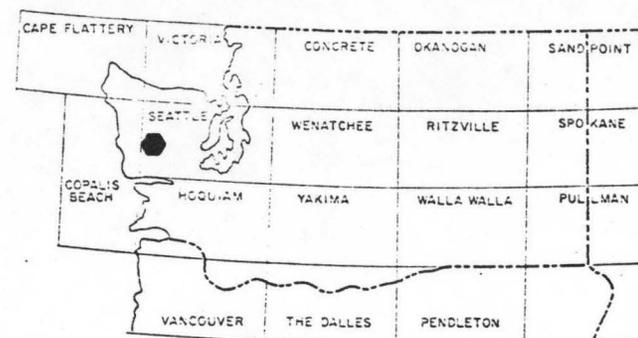
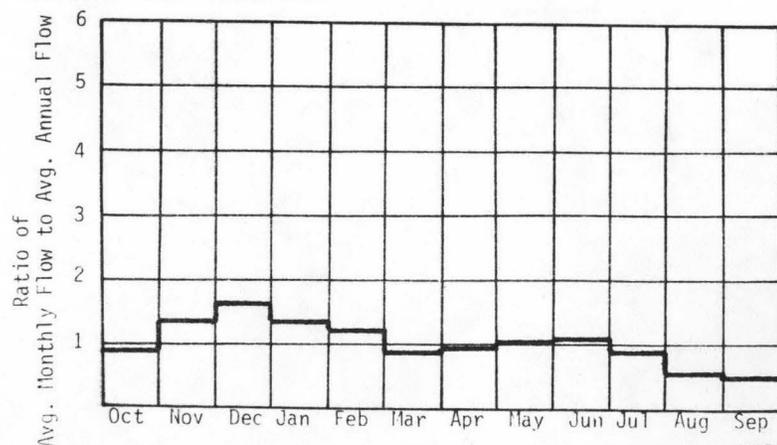
A. Upstream Elevation of Reach	<u>380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>340</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>28.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

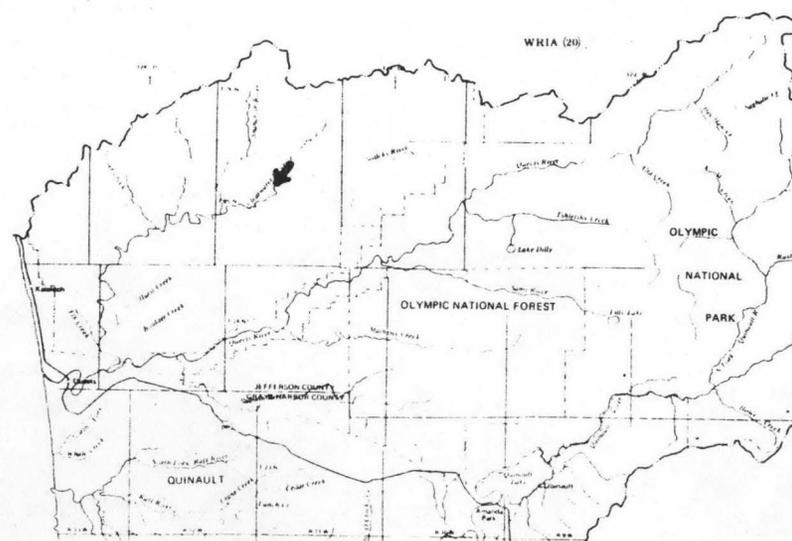
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	42.4	0.14	1.26	1.00
80	84.8	0.29	2.34	0.93
50	254	0.86	5.58	0.74
30	490	1.66	8.28	0.57
10	1120	3.79	12.0	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 471 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0016

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T26N R10W
 D. Latitude, Longitude 47°44' 124°03'
 E. Stream Name Clearwater River
 F. Major Basin Name Queets
 G. River Mile 25.7/36.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

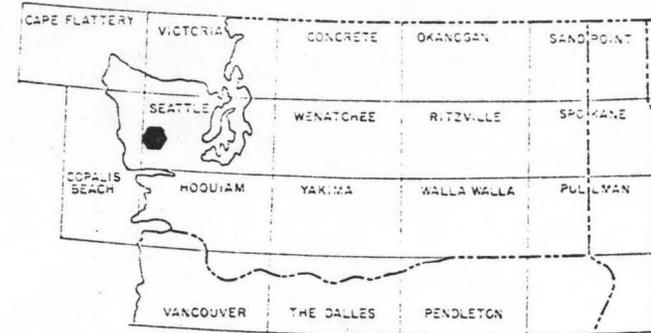
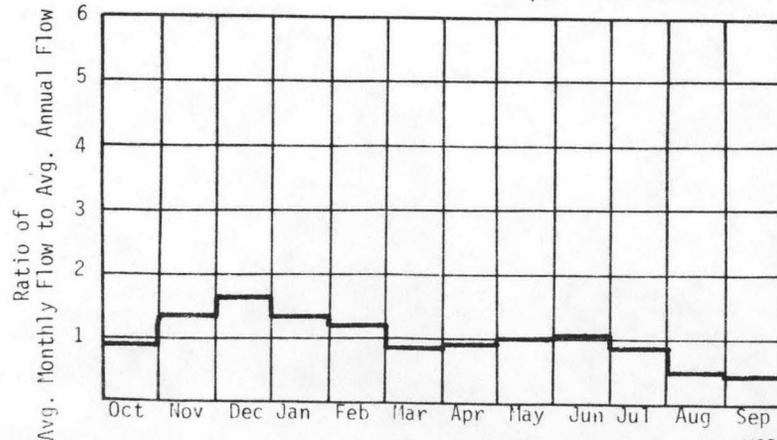
A. Upstream Elevation of Reach 1160 Ft. MSL
 B. Downstream Elevation of Reach 380 Ft. MSL
 C. Total Available Head in Reach 780 + 66 = 846 Ft.
 D. Average Slope in Reach 74.3 Ft./Mi.
 E. Drainage Area above Reach Mouth 32.7 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

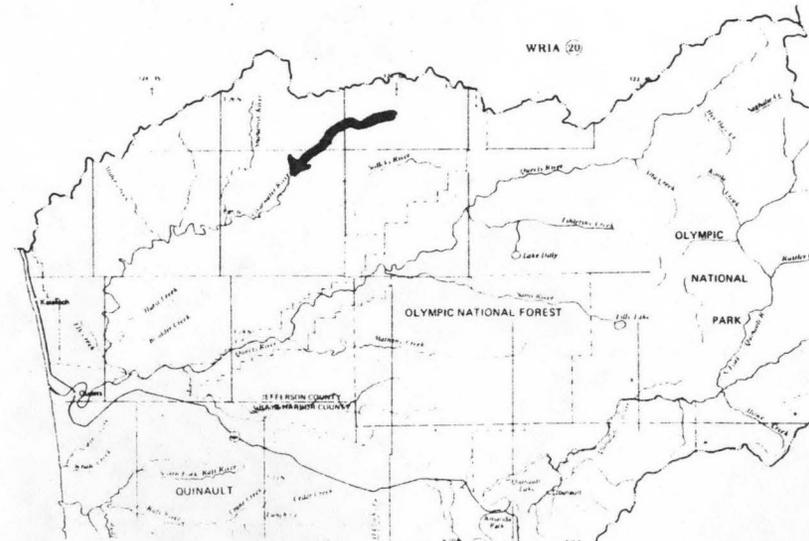
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	18.1	1.29	11.3	1.00
80	36.2	2.59	21.1	0.93
50	109	7.77	50.4	0.74
30	209	15.0	74.7	0.57
10	478	34.2	108	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 201 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0017

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T24N R12W
 D. Latitude, Longitude 47°35' 124°23'
 E. Stream Name Hurst Creek
 F. Major Basin Name Queets
 G. River Mile 0.0/0.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

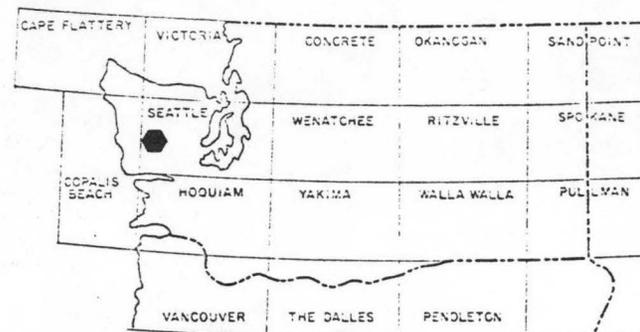
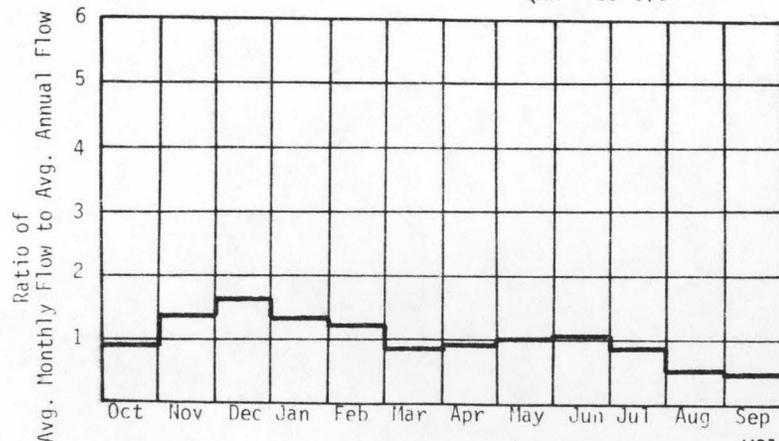
A. Upstream Elevation of Reach 80 Ft. MSL
 B. Downstream Elevation of Reach 60 Ft. MSL
 C. Total Available Head in Reach 20 + 66 = 86 Ft.
 D. Average Slope in Reach 25 Ft./Mi.
 E. Drainage Area above Reach Mouth 8.3 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

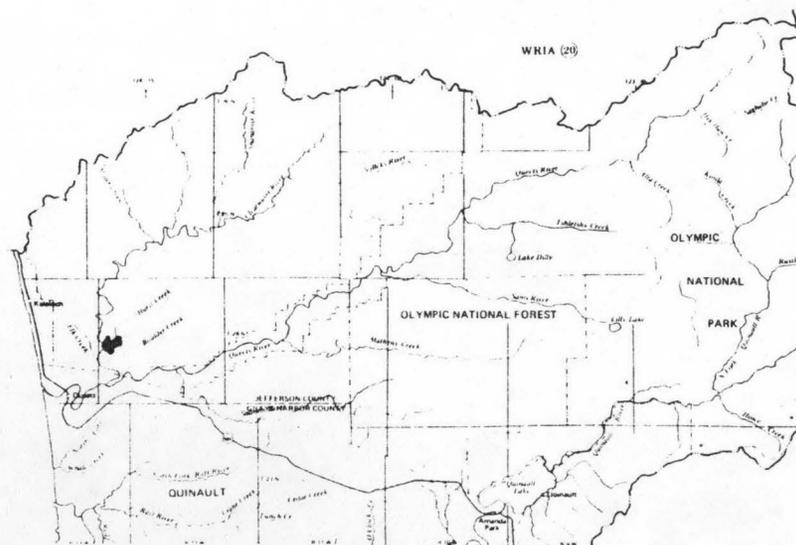
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.31	0.04	0.34	1.00
80	10.6	0.08	0.63	0.93
50	31.9	0.23	1.50	0.74
30	61.4	0.45	2.23	0.57
10	140	1.02	3.22	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 59 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0018

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R12W</u>
D. Latitude, Longitude	<u>47°38' 124°15'</u>
E. Stream Name	<u>Miller Creek</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/0.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

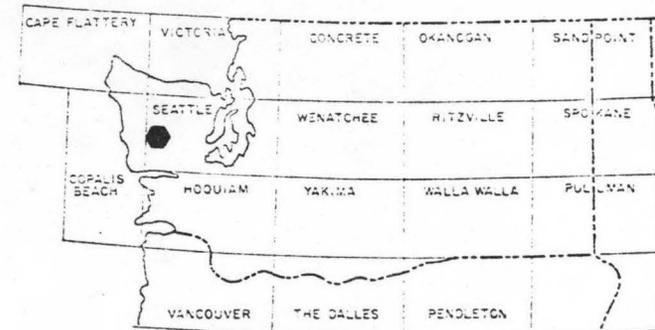
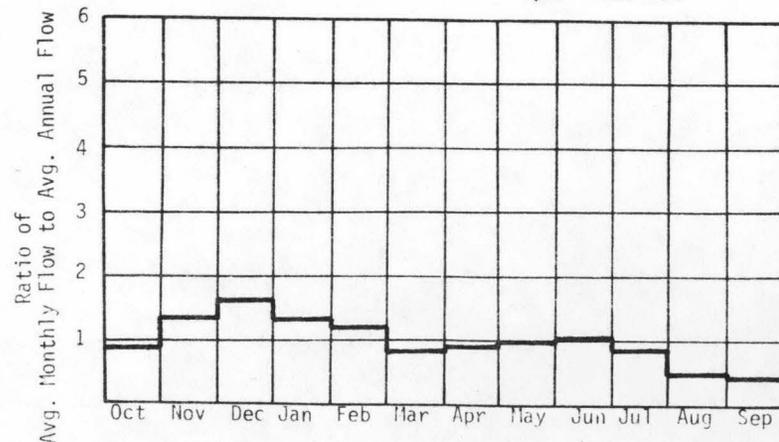
A. Upstream Elevation of Reach	<u>185</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>35 + 66 = 101</u>	Ft.
D. Average Slope in Reach	<u>117</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

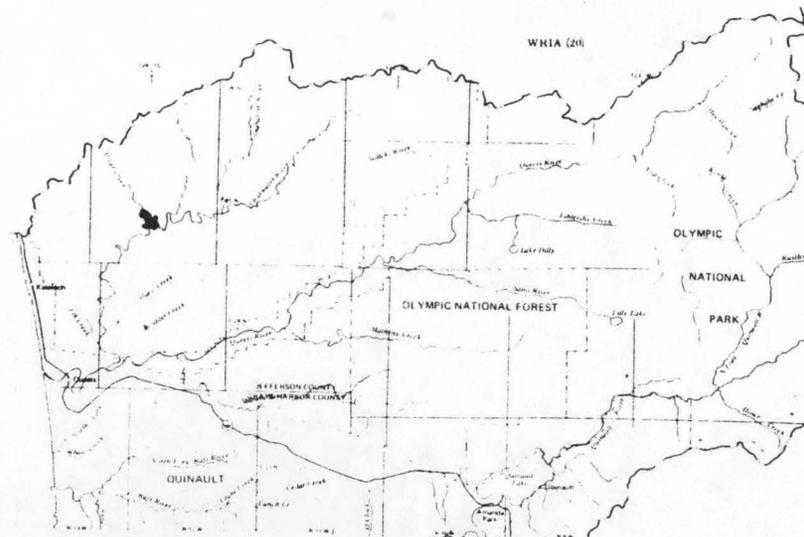
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.45	0.08	0.71	1.00
80	18.9	0.16	1.32	0.93
50	56.7	0.48	3.14	0.74
30	109	0.93	4.66	0.57
10	250	2.14	6.73	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 105 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R12W</u>
D. Latitude, Longitude	<u>47°41' 124°13'</u>
E. Stream Name	<u>Christmas Creek</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/4.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

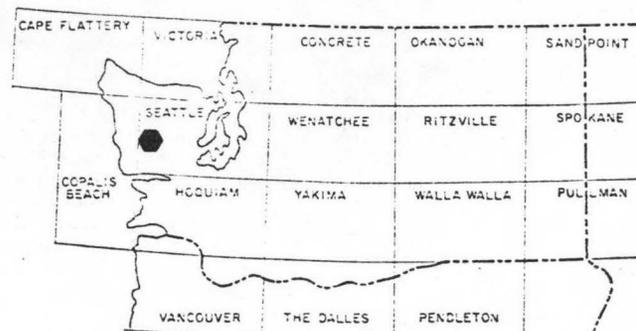
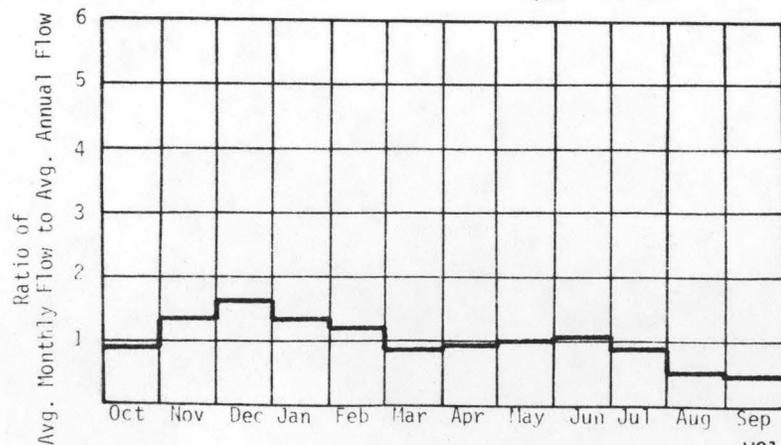
A. Upstream Elevation of Reach	<u>480</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>180</u>	Ft. MSL
C. Total Available Head in Reach	<u>300 + 66 = 366</u>	Ft.
D. Average Slope in Reach	<u>70</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

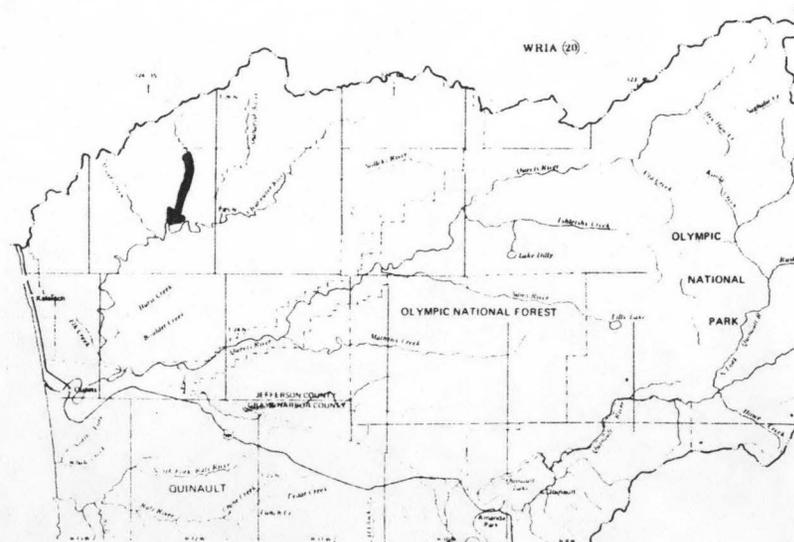
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.49	0.17	1.49	1.00
80	11.0	0.34	2.77	0.93
50	32.9	1.02	6.61	0.74
30	63.4	1.96	9.81	0.57
10	145	4.50	14.2	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 61 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0020

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T25N R11W
D. Latitude, Longitude	47°41' 124°10'
E. Stream Name	Snahapish River
F. Major Basin Name	Queets
G. River Mile	0.0/8.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

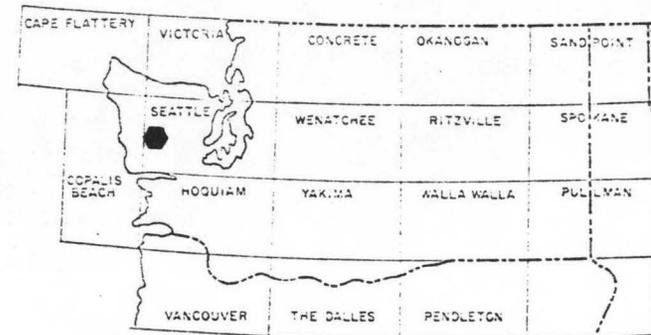
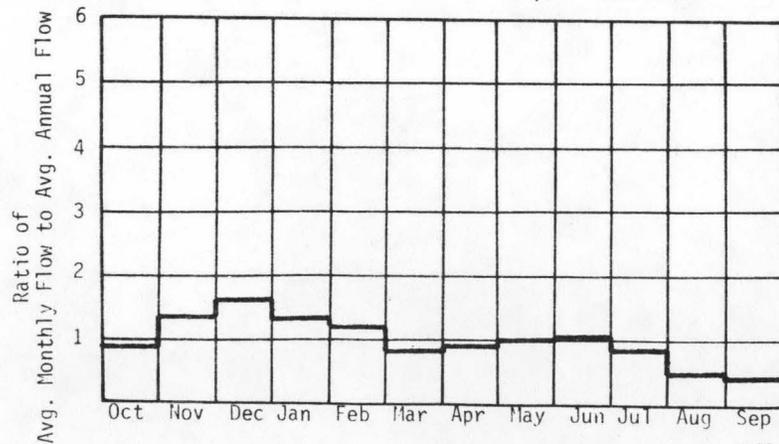
A. Upstream Elevation of Reach	640	Ft. MSL
B. Downstream Elevation of Reach	250	Ft. MSL
C. Total Available Head in Reach	390 + 66 = 456	Ft.
D. Average Slope in Reach	45.9	Ft./Mi.
E. Drainage Area above Reach Mouth	19.8	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

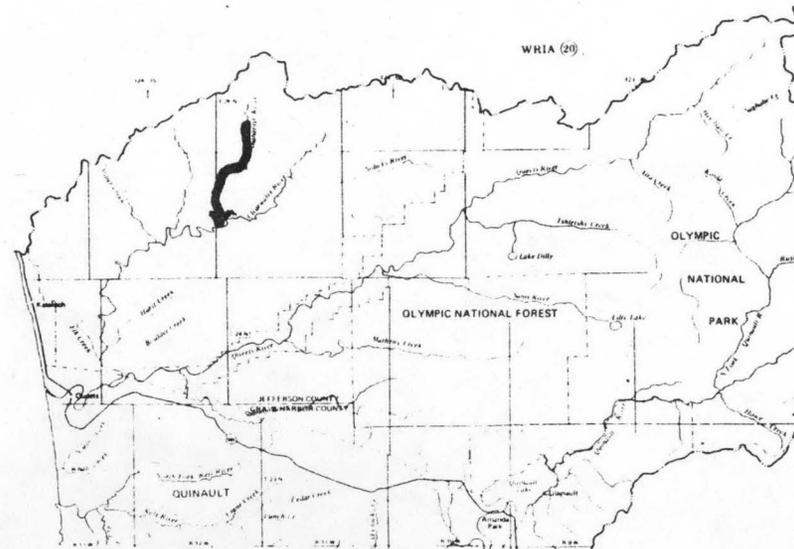
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.1	0.43	3.74	1.00
80	22.1	0.85	6.96	0.93
50	66.4	2.56	16.6	0.74
30	128	4.93	24.6	0.57
10	292	11.3	35.6	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 123 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0021

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T25N R11W
 D. Latitude, Longitude 47°41' 124°06'
 E. Stream Name Stegualeha Creek
 F. Major Basin Name Queets
 G. River Mile 0.0/4.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

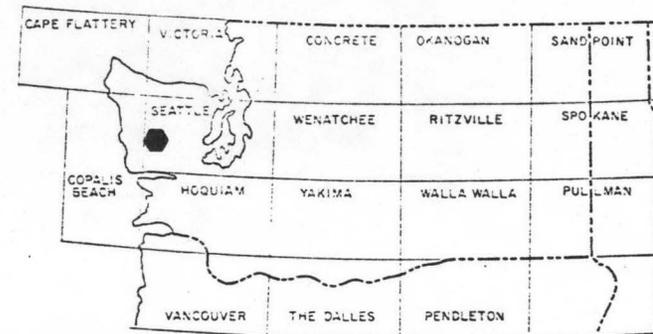
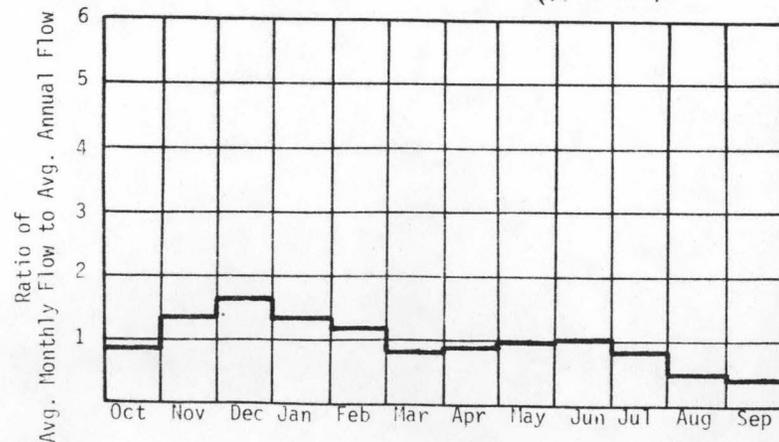
A. Upstream Elevation of Reach 830 Ft. MSL
 B. Downstream Elevation of Reach 340 Ft. MSL
 C. Total Available Head in Reach 490 + 66 = 556 Ft.
 D. Average Slope in Reach 117 Ft./Mi.
 E. Drainage Area above Reach Mouth 9.8 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

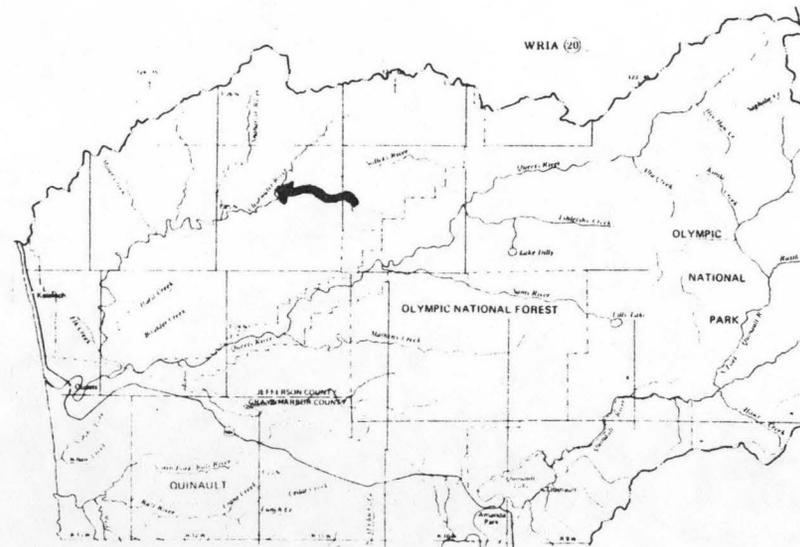
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.02	0.33	2.89	1.00
80	14.0	0.66	5.38	0.93
50	42.1	1.98	12.8	0.74
30	81.1	3.82	19.1	0.57
10	186	8.73	27.5	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 78 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0022

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T25N R10W
 D. Latitude, Longitude 47°42' 124°03'
 E. Stream Name Solleks River
 F. Major Basin Name Queets
 G. River Mile 0.0/7.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

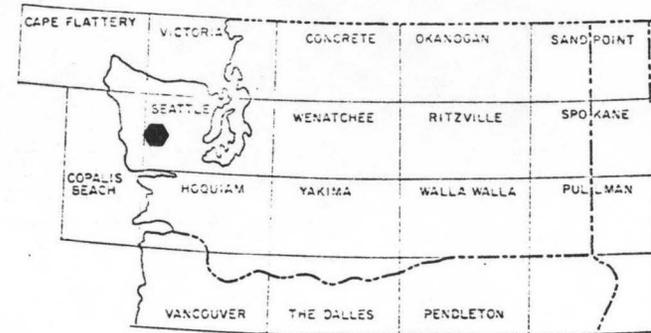
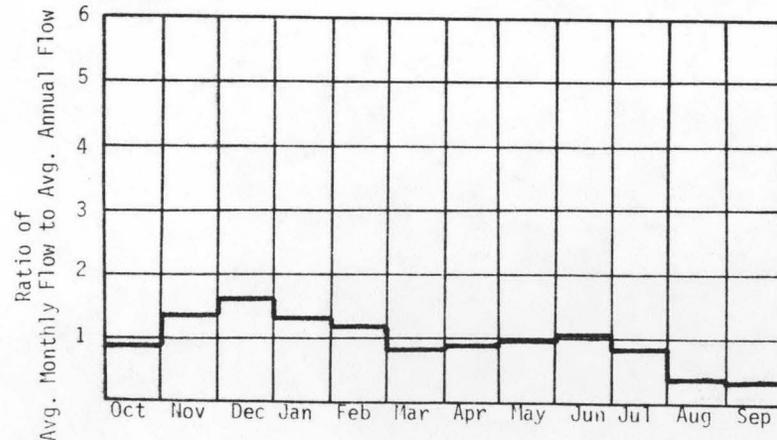
A. Upstream Elevation of Reach 1200 Ft. MSL
 B. Downstream Elevation of Reach 380 Ft. MSL
 C. Total Available Head in Reach 820 + 66 = 886 Ft.
 D. Average Slope in Reach 109 Ft./Mi.
 E. Drainage Area above Reach Mouth 15.8 Sq. Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

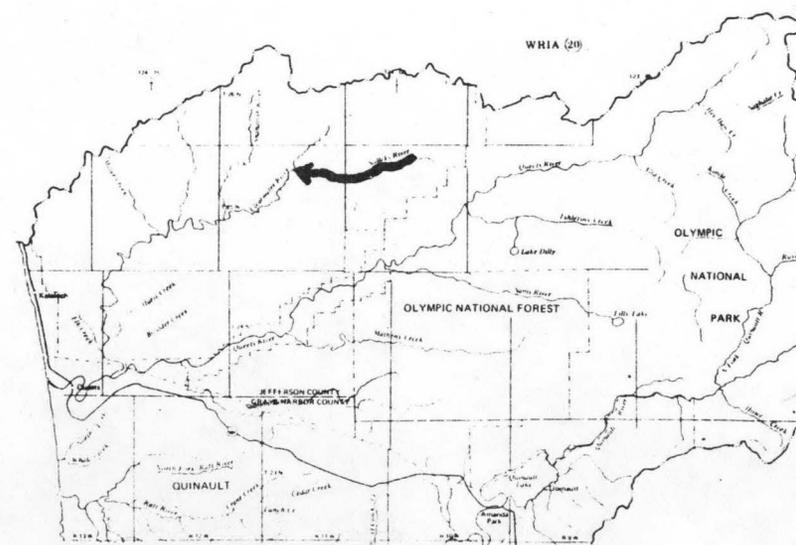
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.55	0.64	5.61	1.00
80	17.1	1.28	10.4	0.93
50	51.3	3.85	24.9	0.74
30	98.8	7.41	37.0	0.57
10	226	17.0	53.5	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 95 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0023

I. LOCATION

A. State	Washington
B. County	Jefferson
C. Township, Range	T23N R12W
D. Latitude, Longitude	47°32' 124°09'
E. Stream Name	Salmon River
F. Major Basin Name	Queets
G. River Mile	0.0/13.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

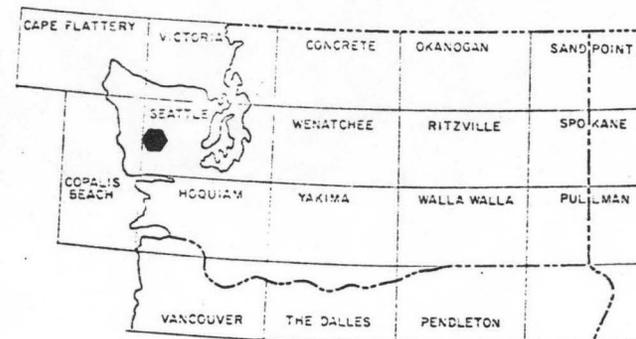
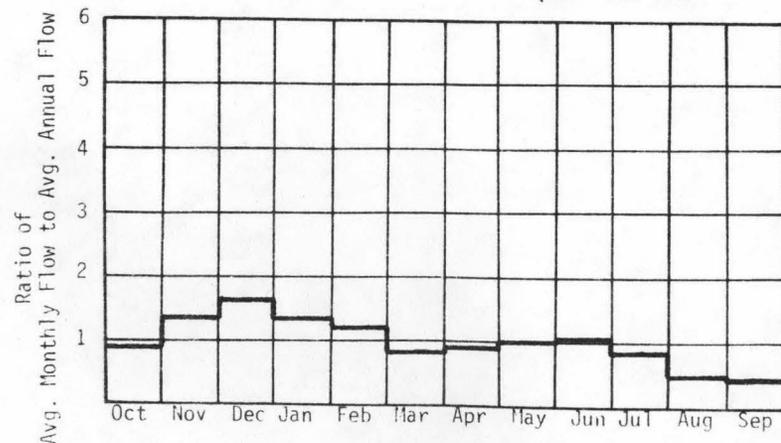
A. Upstream Elevation of Reach	540		Ft. MSL
B. Downstream Elevation of Reach	75		Ft. MSL
C. Total Available Head in Reach	465		Ft.
D. Average Slope in Reach	35.8		Ft./Mi.
E. Drainage Area above Reach Mouth	31.5		Sq.Mi.
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

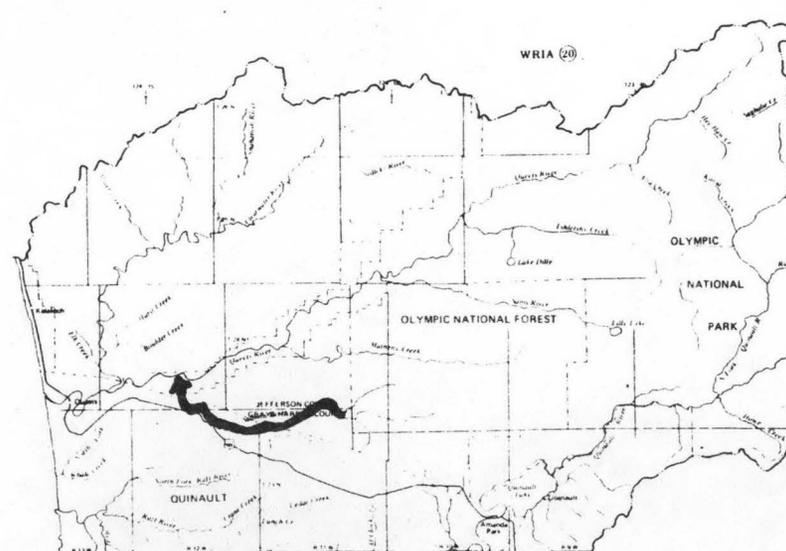
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.7	0.93	8.15	1.00
80	47.3	1.86	15.2	0.93
50	105	4.12	27.8	0.77
30	169	6.65	36.7	0.63
10	370	14.6	49.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 169 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0024

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T23N R11W
 D. Latitude, Longitude 47°32' 124°03'
 E. Stream Name M.F. Salmon River
 F. Major Basin Name Queets
 G. River Mile 12.1/13.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

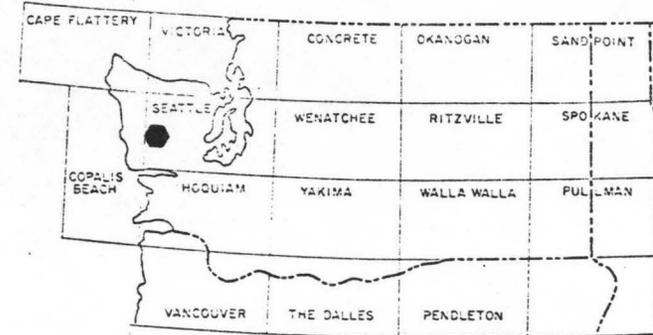
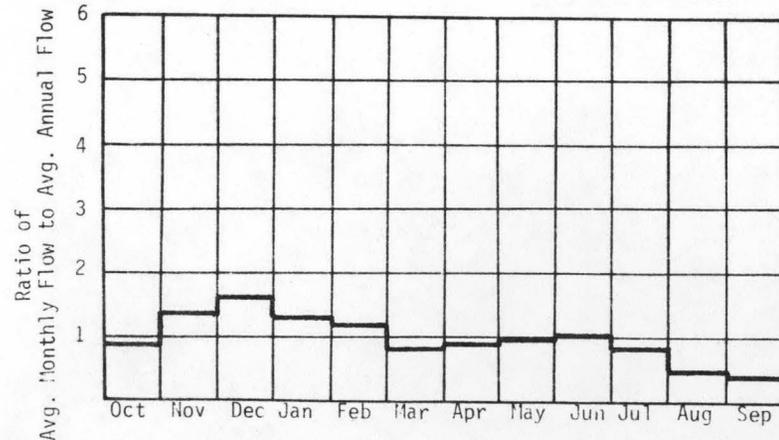
A. Upstream Elevation of Reach 540 Ft. MSL
 B. Downstream Elevation of Reach 520 Ft. MSL
 C. Total Available Head in Reach 20 + 66 = 86 Ft.
 D. Average Slope in Reach 25 Ft./Mi.
 E. Drainage Area above Reach Mouth 17.0 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

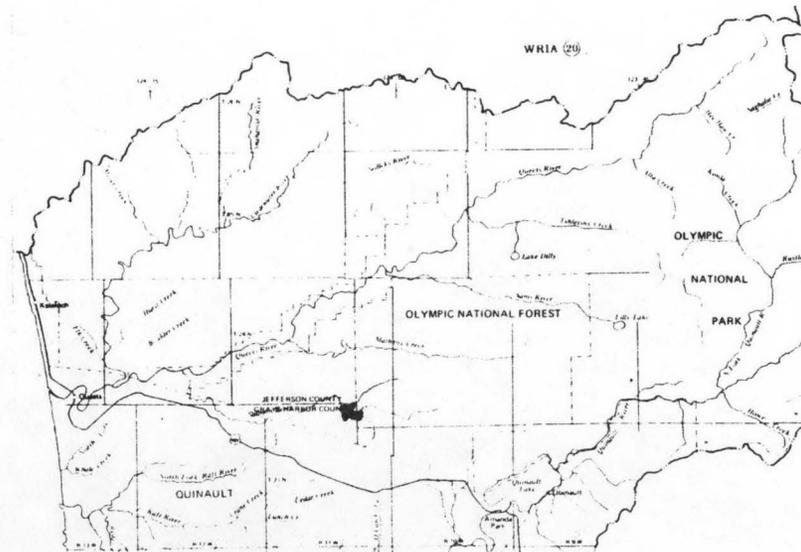
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.1	0.08	0.70	1.00
80	22.1	0.16	1.31	0.93
50	49.0	0.36	2.40	0.77
30	79.0	0.57	3.17	0.63
10	173	1.26	4.30	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 79 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0025

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R10W</u>
D. Latitude, Longitude	<u>47°34' 124°00'</u>
E. Stream Name	<u>Matheny Creek</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/13.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

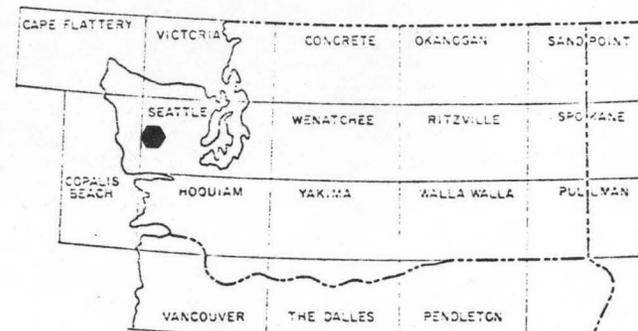
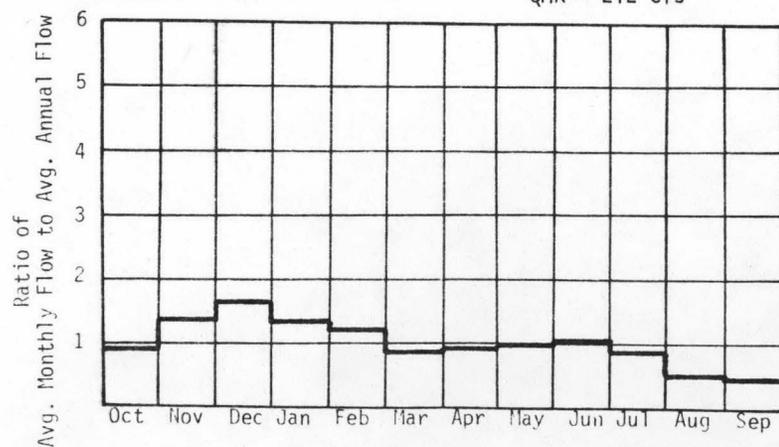
A. Upstream Elevation of Reach	<u>1100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>950 + 66 = 1016</u>	Ft.
D. Average Slope in Reach	<u>68.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>37.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

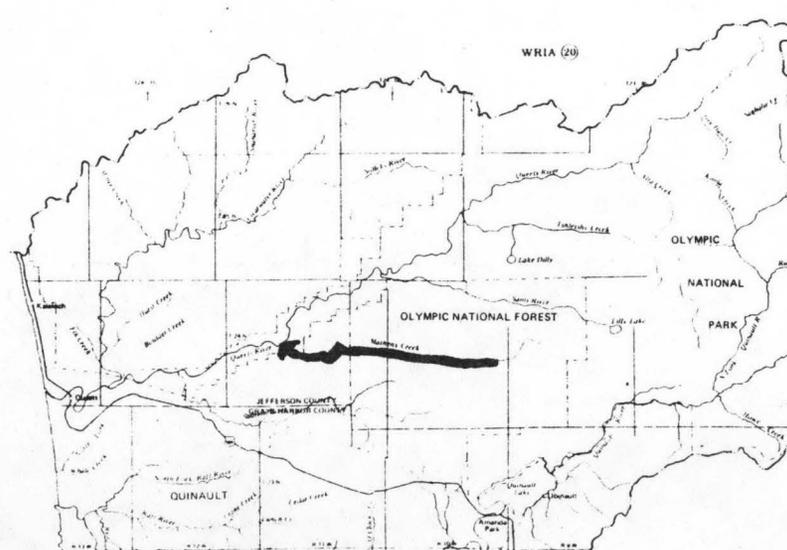
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	29.7	2.55	22.4	1.00
80	59.4	5.10	41.6	0.93
50	131	11.3	76.2	0.77
30	212	18.2	101	0.63
10	464	40.0	136	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 212 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-R0026

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R10W</u>
D. Latitude, Longitude	<u>47°36' 123°54'</u>
E. Stream Name	<u>Sams River</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/11.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

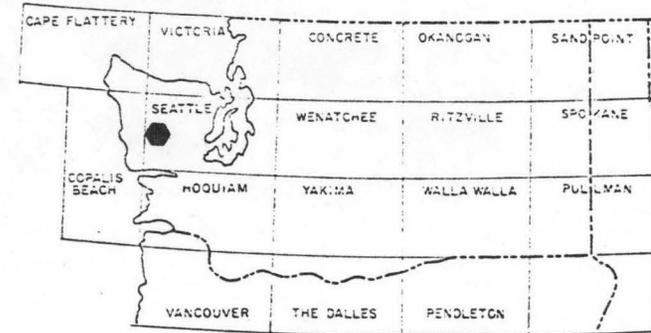
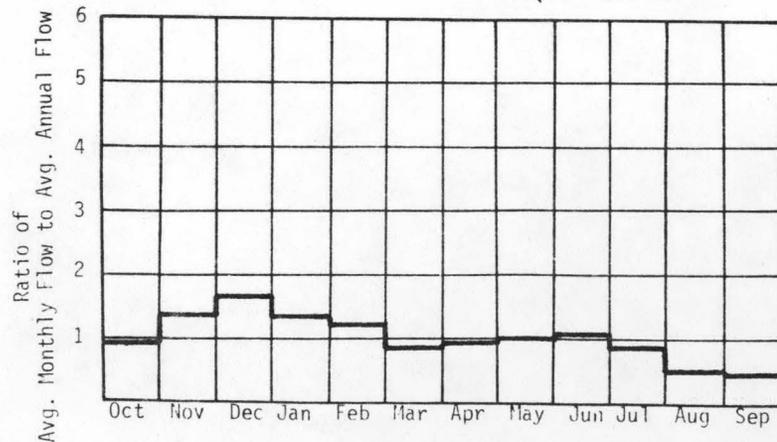
A. Upstream Elevation of Reach	<u>1420</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>280</u>	Ft. MSL
C. Total Available Head in Reach	<u>1140 + 66 = 1206</u>	Ft.
D. Average Slope in Reach	<u>101</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>30.4</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

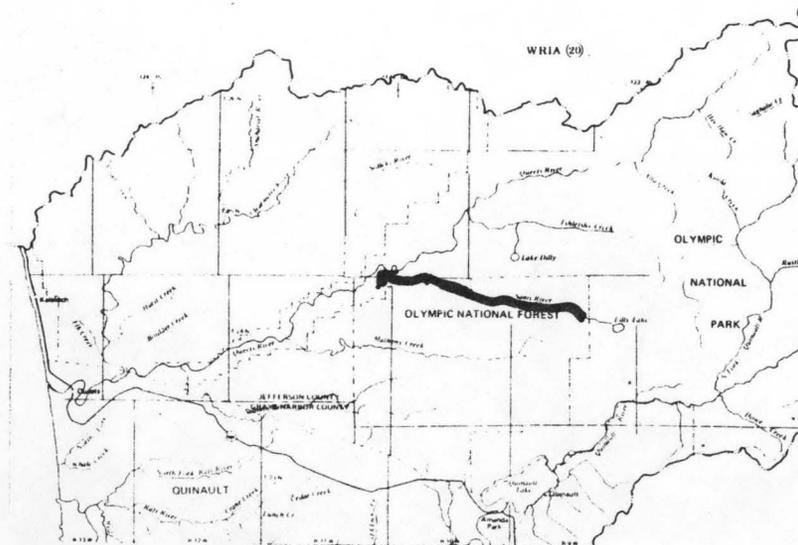
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.2	3.09	27.0	1.00
80	60.5	6.17	50.3	0.93
50	134	13.7	92.2	0.77
30	216	22.0	122	0.63
10	474	48.3	165	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 193 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0027

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R9W</u>
D. Latitude, Longitude	<u>47°39' 123°50'</u>
E. Stream Name	<u>Ishletshy Creek</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/9.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

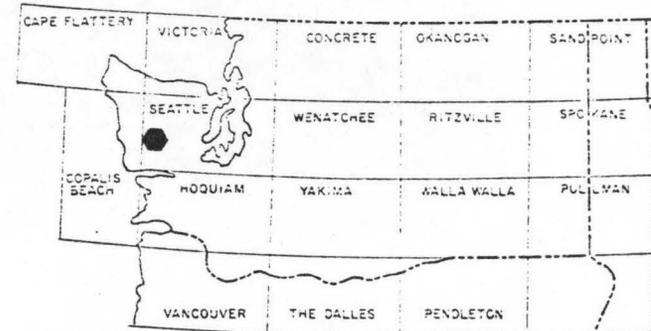
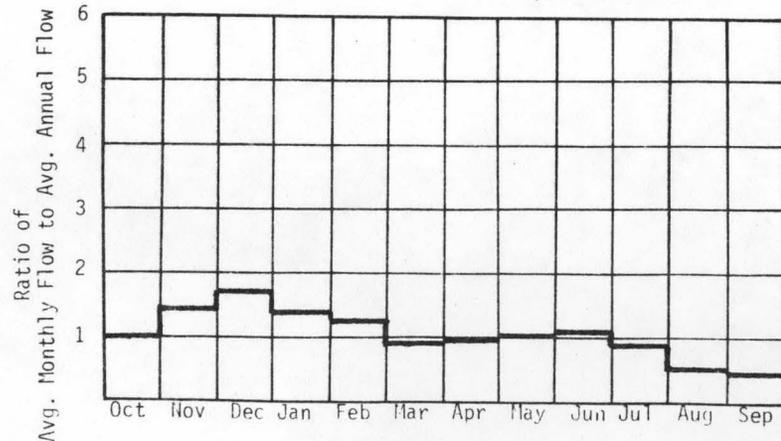
A. Upstream Elevation of Reach	<u>1650</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>1230 + 66 = 1296</u>	Ft.
D. Average Slope in Reach	<u>127</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>29.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

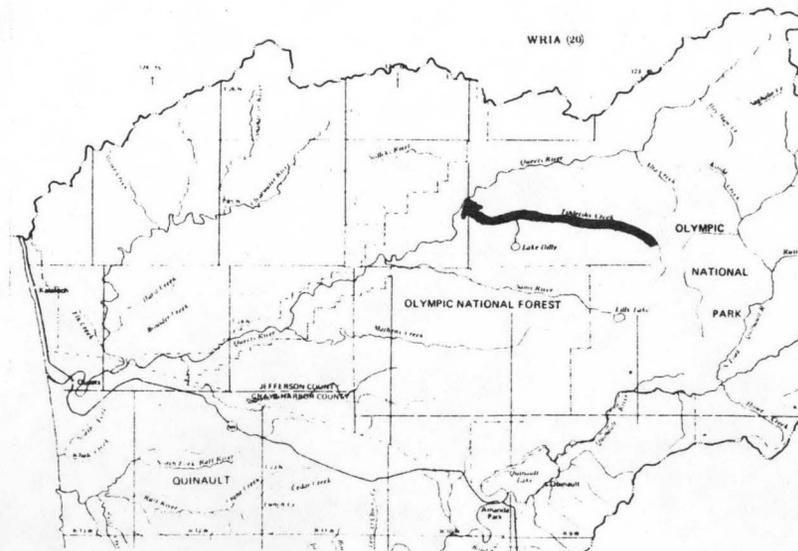
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.2	3.32	29.0	1.00
80	60.5	6.63	54.0	0.93
50	134	14.7	99.0	0.77
30	216	23.7	131	0.63
10	473	51.9	177	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 216 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-043-000-000-000-R0028

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R8W</u>
D. Latitude, Longitude	<u>48°42' 123°45'</u>
E. Stream Name	<u>Pelton Creek</u>
F. Major Basin Name	<u>Queets</u>
G. River Mile	<u>0.0/1.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

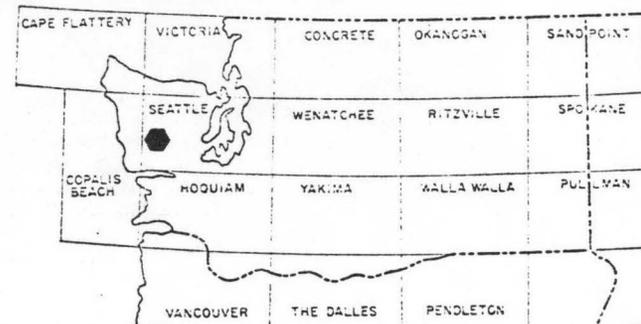
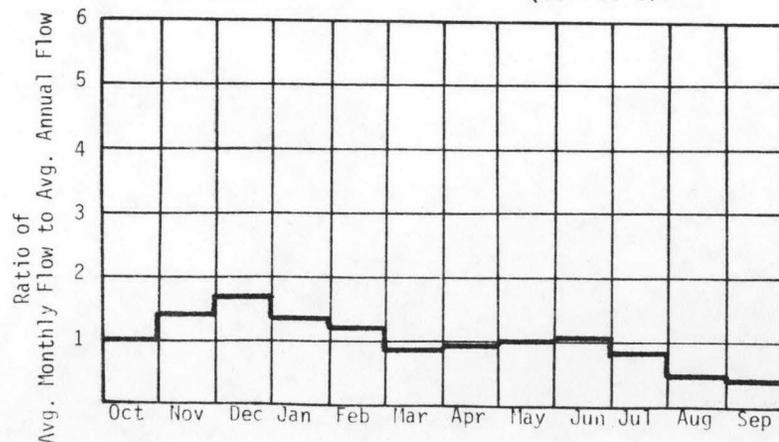
A. Upstream Elevation of Reach	<u>1180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>800</u>	Ft. MSL
C. Total Available Head in Reach	<u>380 + 66 = 446</u>	Ft.
D. Average Slope in Reach	<u>380</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.4</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

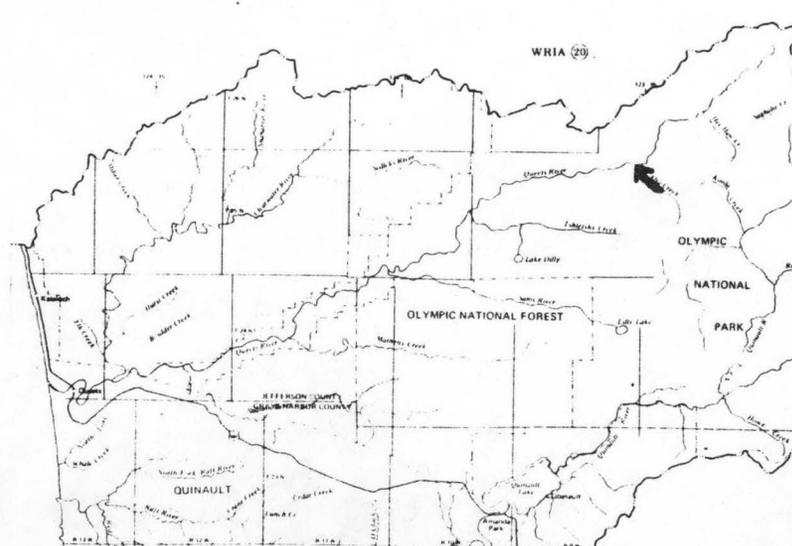
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.8	0.41	3.56	1.00
80	21.6	0.81	6.63	0.93
50	47.7	1.80	12.2	0.77
30	77.0	2.91	16.0	0.63
10	169	6.36	21.7	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 77 cfs



LOCATIONS FOR USGS 250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Grays Harbor
 C. Township, Range T23N R13W
 D. Latitude, Longitude 47°27' 123°19'
 E. Stream Name Raft River
 F. Major Basin Name Raft River
 G. River Mile 0.0/1.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

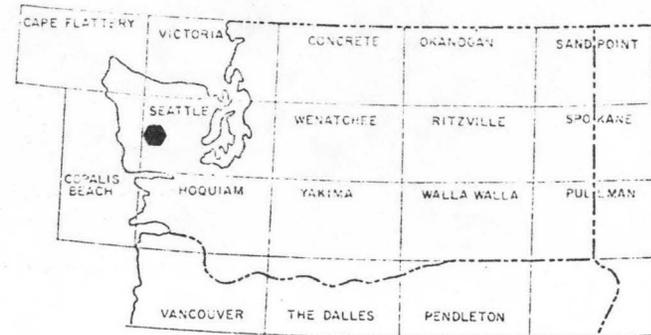
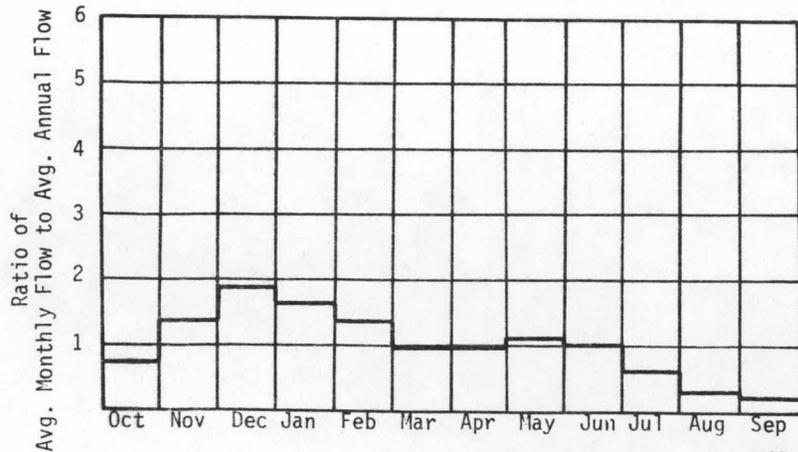
A. Upstream Elevation of Reach 20 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 20 Ft.
 D. Average Slope in Reach 11.1 Ft./Mi.
 E. Drainage Area above Reach Mouth 80.3 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

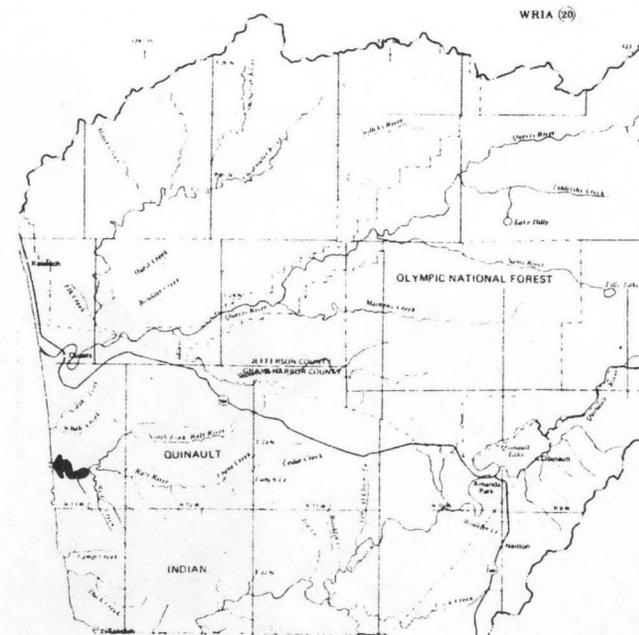
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	41.1	0.07	0.61	1.00
80	82.3	0.14	1.13	0.93
50	247	0.42	2.71	0.74
30	475	0.80	4.02	0.57
10	1090	1.84	5.80	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 456 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R13W</u>
D. Latitude, Longitude	<u>47°28' 123°17'</u>
E. Stream Name	<u>Raft River</u>
F. Major Basin Name	<u>Raft River</u>
G. River Mile	<u>1.8/2.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

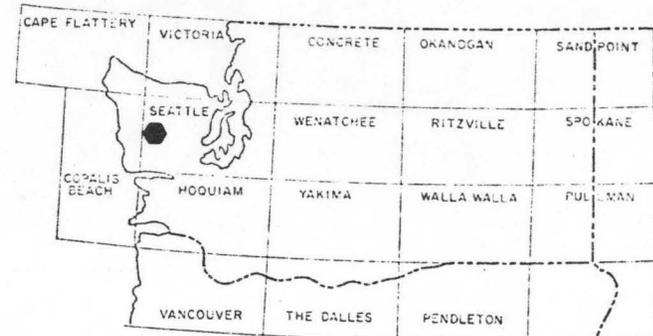
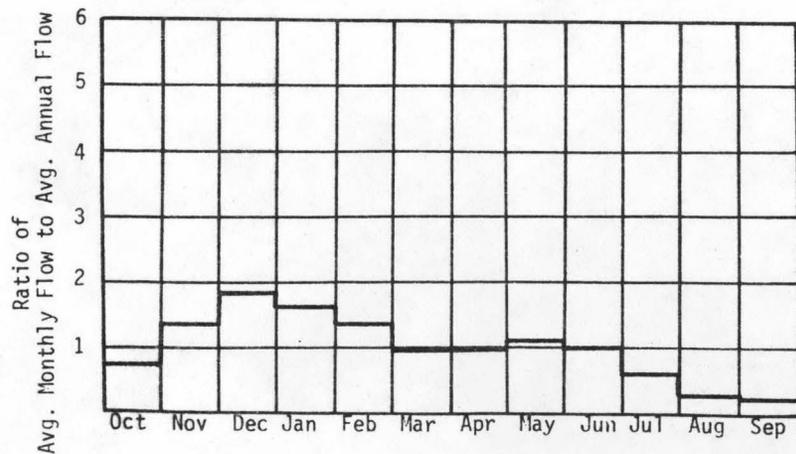
A. Upstream Elevation of Reach	<u>25</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>5</u>	Ft.
D. Average Slope in Reach	<u>8.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>69.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

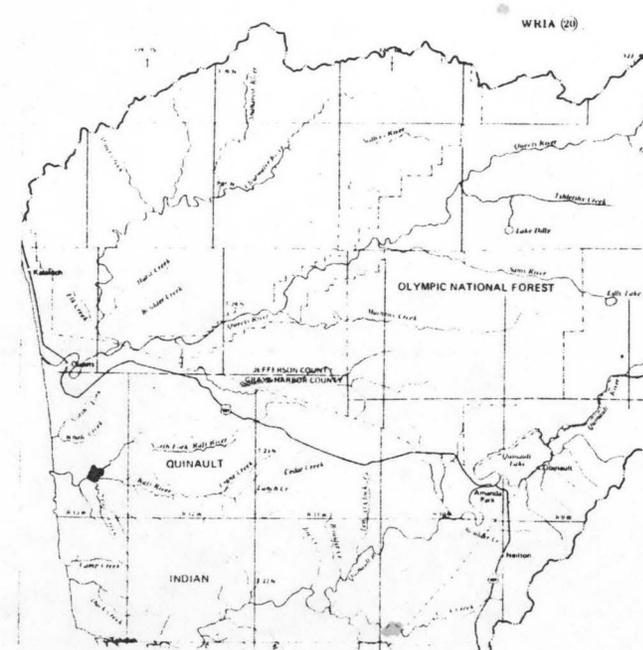
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	36.2	0.02	0.13	1.00
80	72.4	0.03	0.25	0.93
50	217	0.09	0.60	0.74
30	418	0.18	0.88	0.57
10	957	0.40	1.28	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 402 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R12W</u>
D. Latitude, Longitude	<u>47°26' 124°14'</u>
E. Stream Name	<u>Raft River</u>
F. Major Basin Name	<u>Raft River</u>
G. River Mile	<u>2.4/10.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

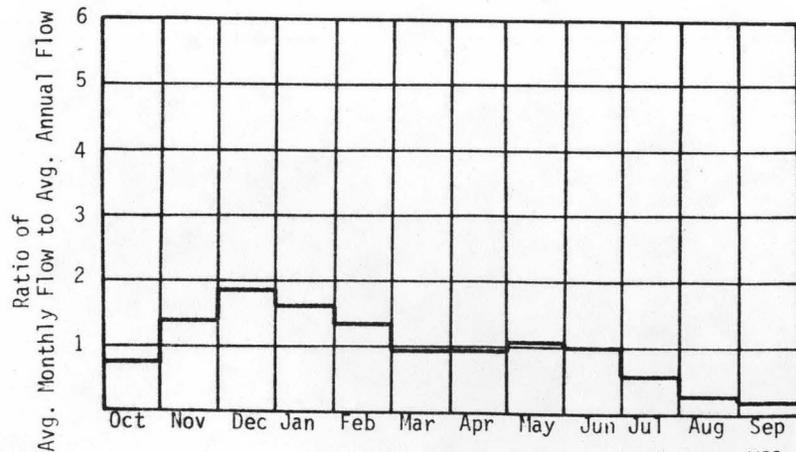
A. Upstream Elevation of Reach	<u>165</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>25</u>	Ft. MSL
C. Total Available Head in Reach	<u>140</u>	Ft.
D. Average Slope in Reach	<u>18.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>44.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

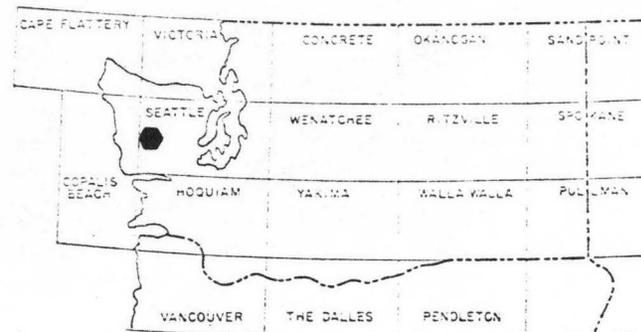
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.6	0.23	2.03	1.00
80	39.2	0.46	3.78	0.93
50	118	1.39	9.02	0.74
30	226	2.68	13.4	0.57
10	518	6.13	19.3	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

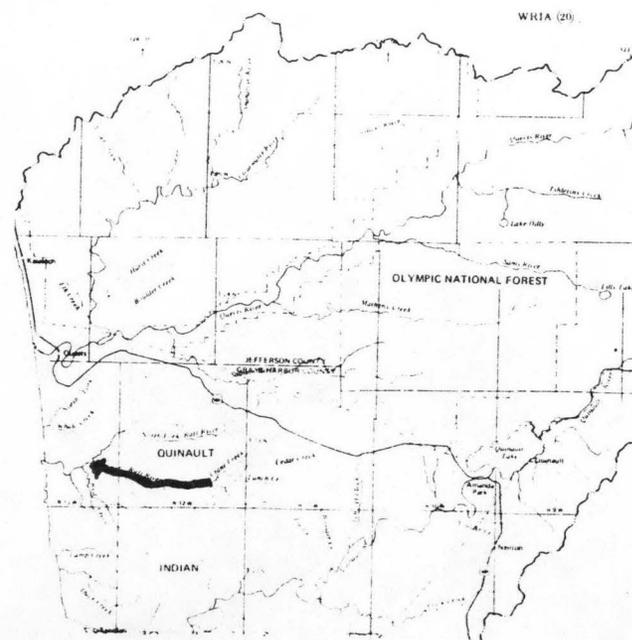
QMR = 218 cfs



W21-668



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0004

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T23N R13W
D. Latitude, Longitude	47°28' 124°17'
E. Stream Name	N.E. Raft River
F. Major Basin Name	Raft River
G. River Mile	0.0/2.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

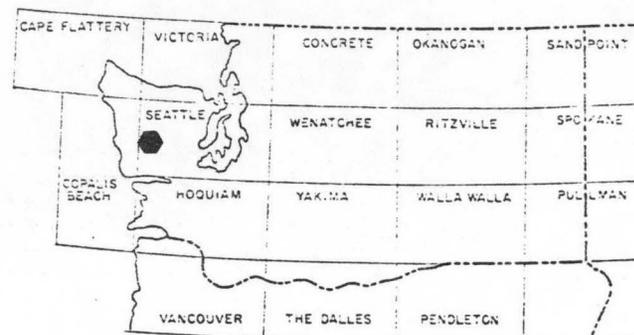
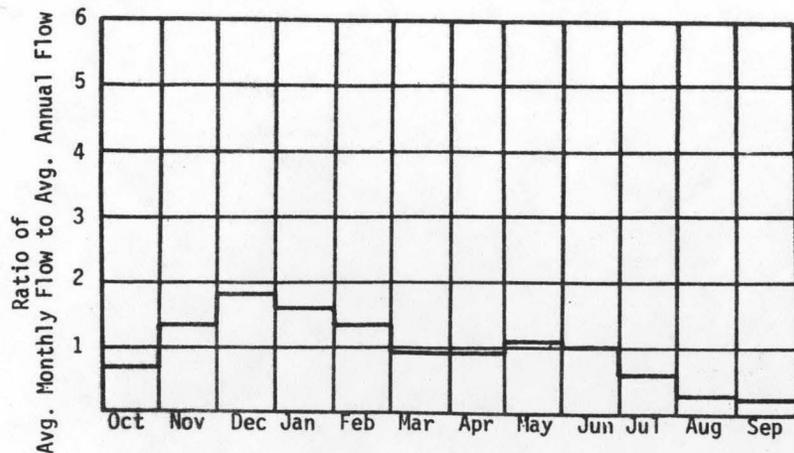
A. Upstream Elevation of Reach	95	Ft. MSL
B. Downstream Elevation of Reach	25	Ft. MSL
C. Total Available Head in Reach	70	Ft.
D. Average Slope in Reach	28	Ft./Mi.
E. Drainage Area above Reach Mouth	24.2	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

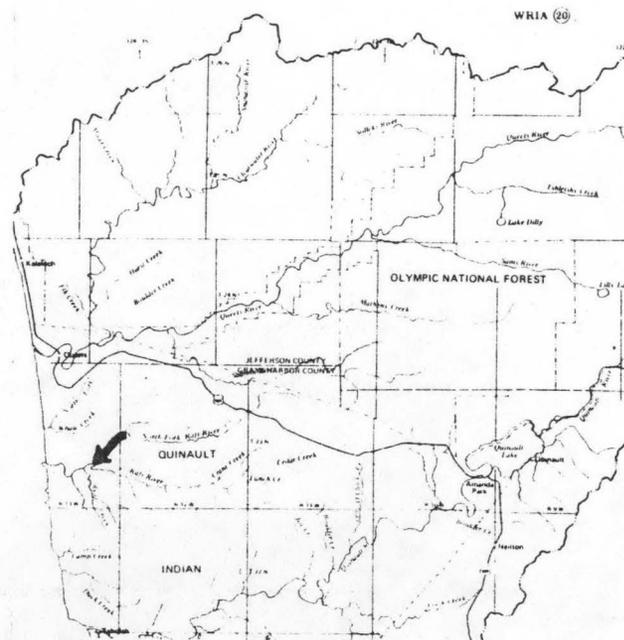
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.52	0.04	0.39	1.00
80	15.0	0.09	0.73	0.93
50	45.1	0.27	1.73	0.74
30	86.8	0.51	2.57	0.57
10	199	1.18	3.71	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 84 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R12W</u>
D. Latitude, Longitude	<u>47°28' 124°13'</u>
E. Stream Name	<u>N.F. Raft River</u>
F. Major Basin Name	<u>Raft River</u>
G. River Mile	<u>2.5/10.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

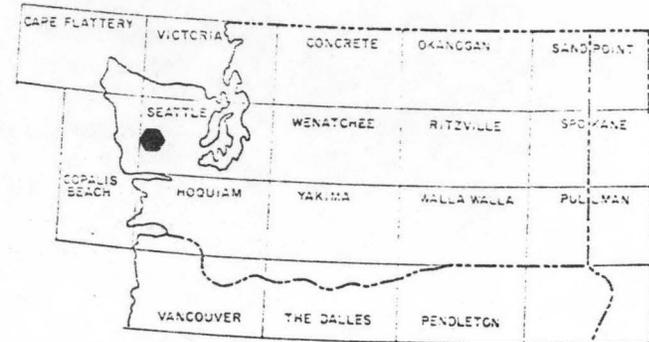
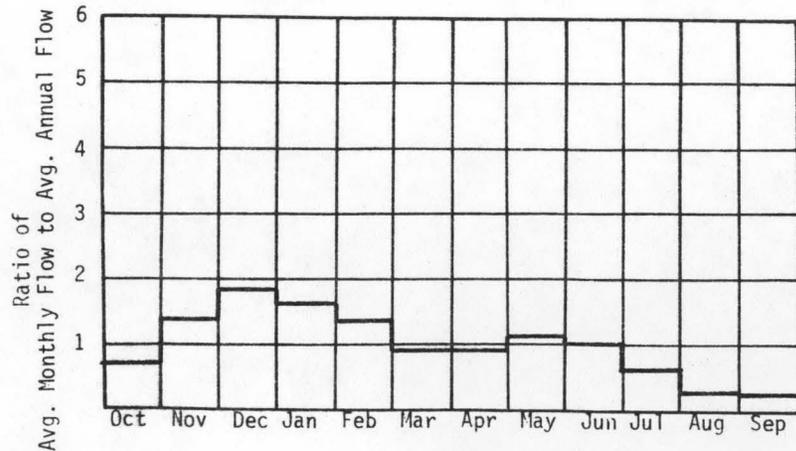
A. Upstream Elevation of Reach	<u>405</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>95</u>	Ft. MSL
C. Total Available Head in Reach	<u>310 + 66 = 376</u>	Ft.
D. Average Slope in Reach	<u>40.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

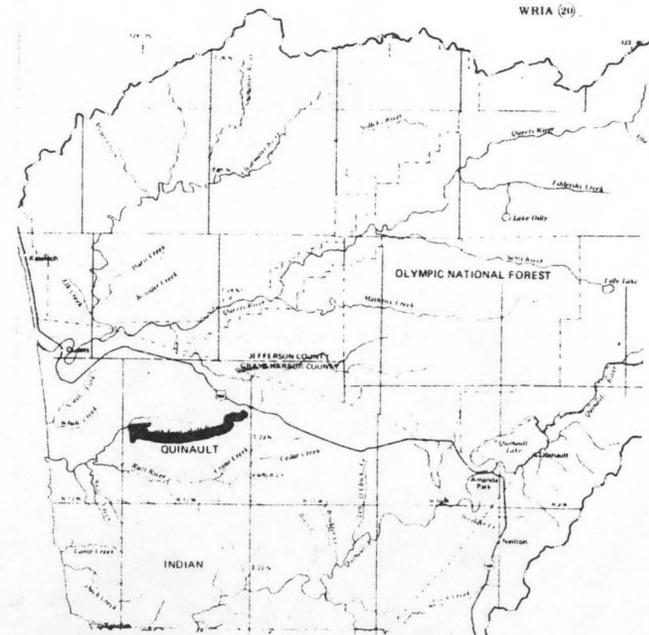
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.84	0.22	1.91	1.00
80	13.7	0.44	3.55	0.93
50	41.0	1.31	8.46	0.74
30	79.0	2.51	12.6	0.57
10	181	5.75	18.1	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 76 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-044-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R12W</u>
D. Latitude, Longitude	<u>47°27' 124°10'</u>
E. Stream Name	<u>Crane Creek</u>
F. Major Basin Name	<u>Raft River</u>
G. River Mile	<u>0.0/0.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

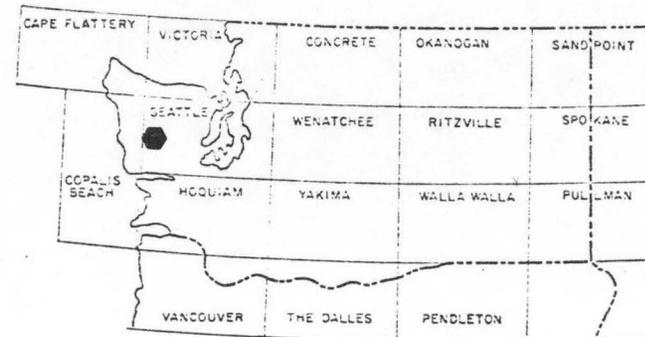
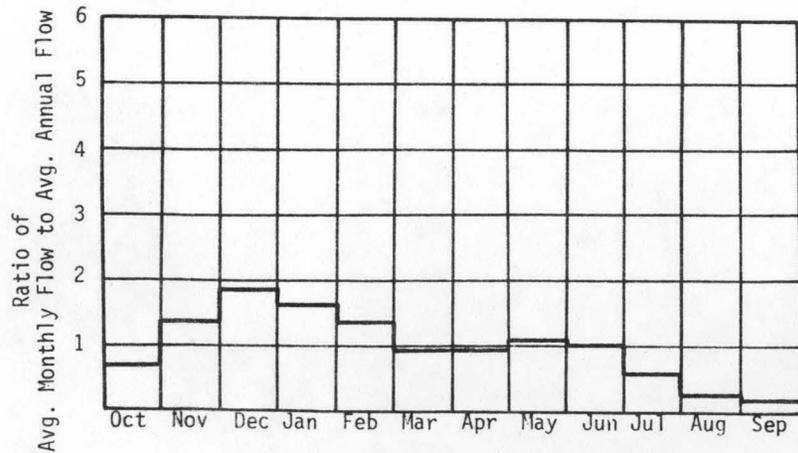
A. Upstream Elevation of Reach	<u>180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>165</u>	Ft. MSL
C. Total Available Head in Reach	<u>15 + 66 = 81</u>	Ft.
D. Average Slope in Reach	<u>162</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

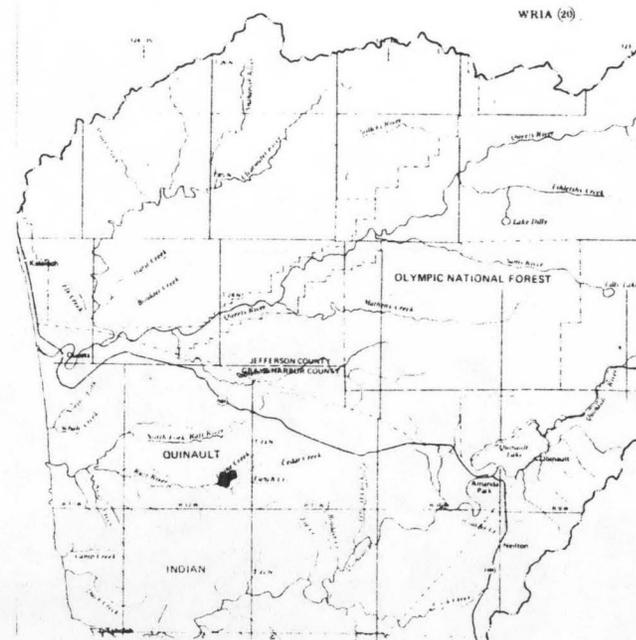
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.21	0.04	0.37	1.00
80	12.4	0.09	0.69	0.93
50	37.3	0.26	1.66	0.74
30	71.8	0.49	2.46	0.57
10	164	1.13	3.55	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R12W</u>
D. Latitude, Longitude	<u>47°20' 124°13'</u>
E. Stream Name	<u>Quinault River</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/9.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

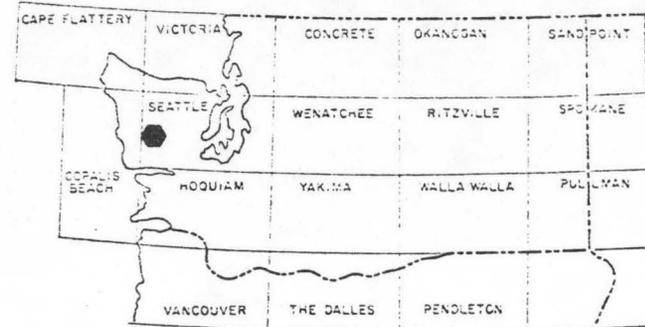
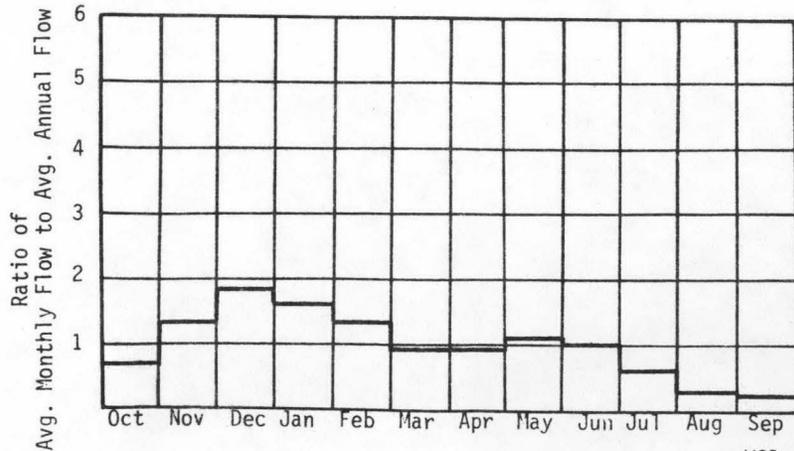
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>402</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

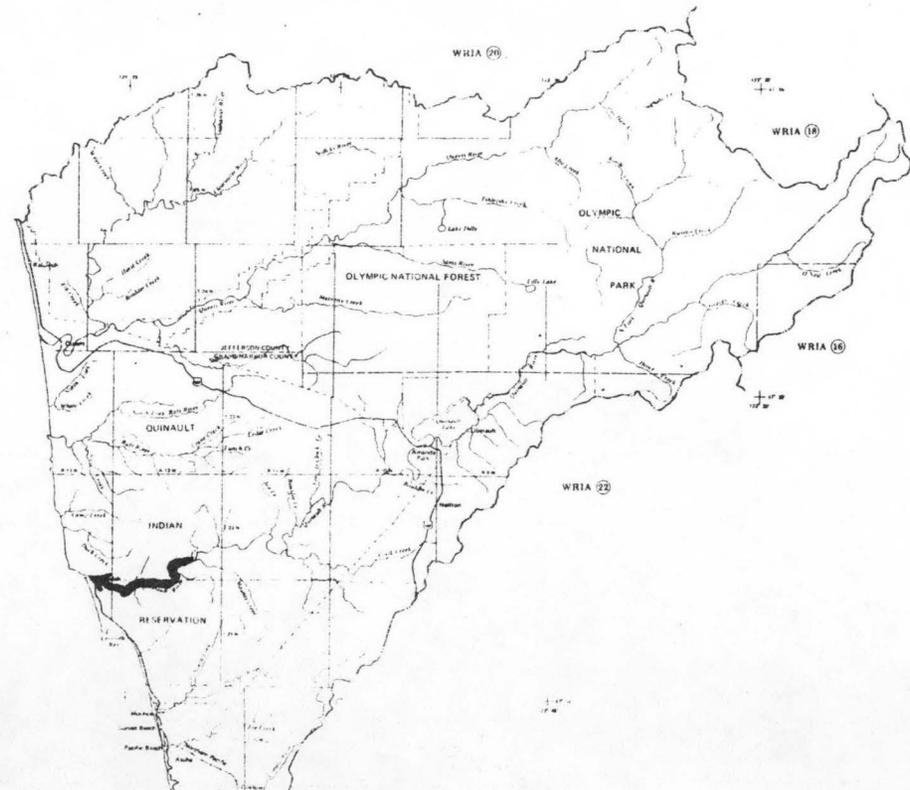
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	734	0.00	0.00	1.00
80	1510	0.00	0.00	0.93
50	2980	0.00	0.00	0.80
30	4250	0.00	0.00	0.68
10	7460	0.00	0.00	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3863 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T27N R11W</u>
D. Latitude, Longitude	<u>47°23' 124°07'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>9.4/17.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

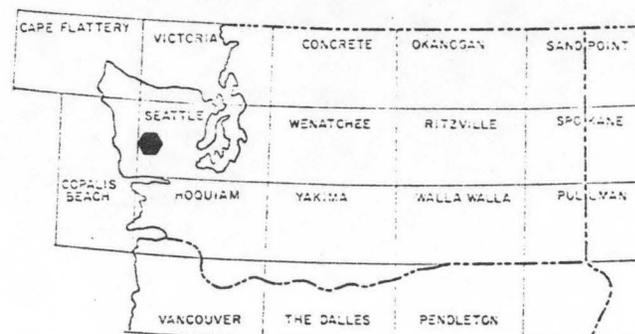
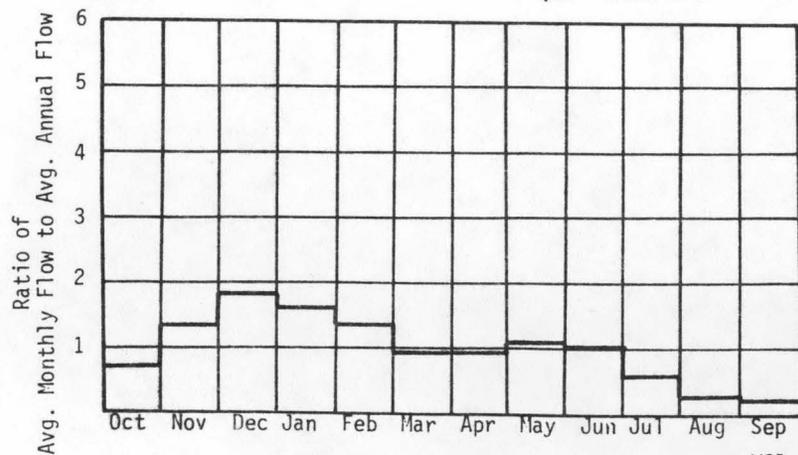
A. Upstream Elevation of Reach	<u>35</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>4.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>397</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

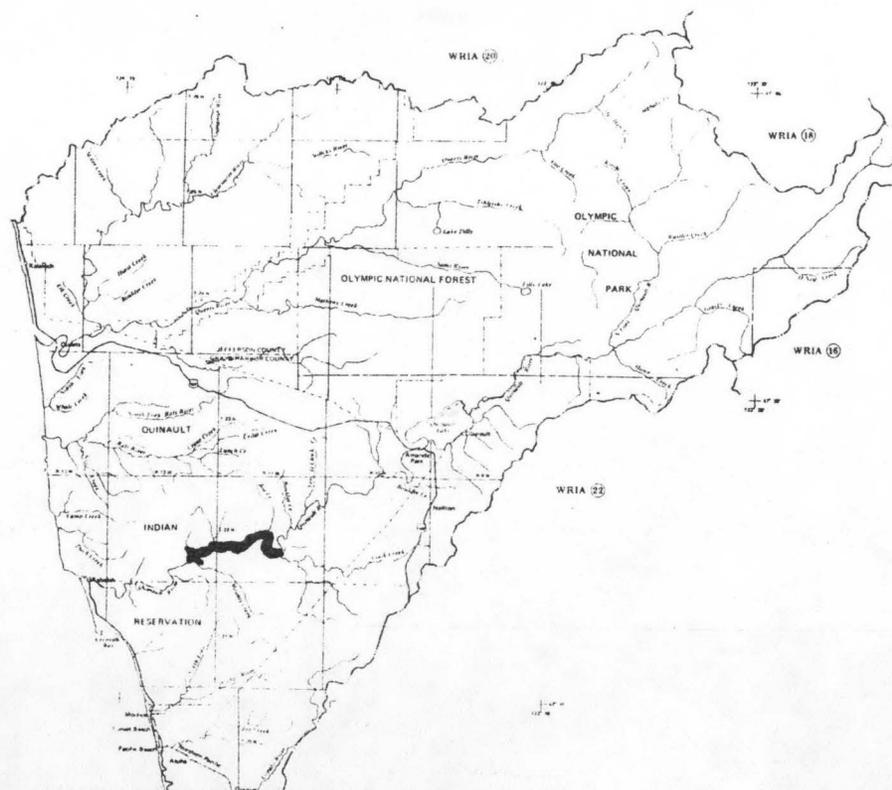
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	682	2.02	17.7	1.00
80	1400	4.15	33.8	0.93
50	2760	8.19	57.4	0.80
30	3950	11.7	67.7	0.68
10	6930	20.5	84.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3590 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0003

I. LOCATION

A. State Washington
 B. County Grays Harbor
 C. Township, Range T22N R11W
 D. Latitude, Longitude 47°23' 124°04'
 E. Stream Name Quinault
 F. Major Basin Name Quinault
 G. River Mile 17.0/19.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

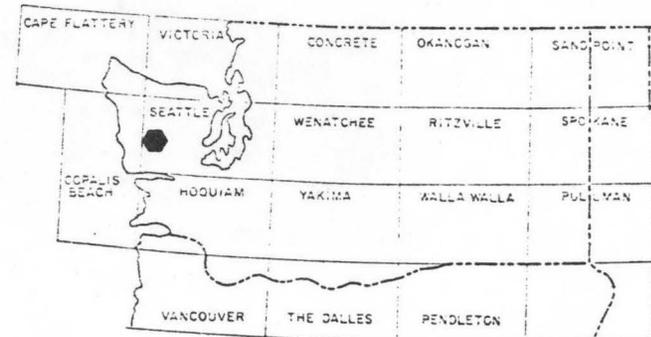
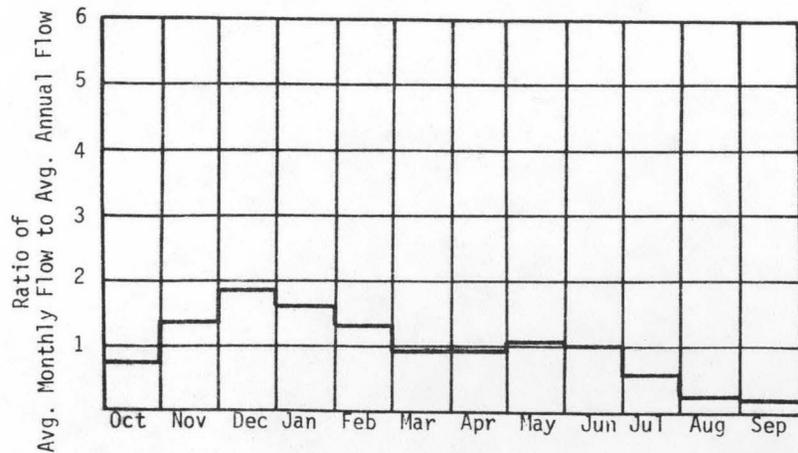
A. Upstream Elevation of Reach 85 Ft. MSL
 B. Downstream Elevation of Reach 40 Ft. MSL
 C. Total Available Head in Reach 45 Ft.
 D. Average Slope in Reach 18.8 Ft./Mi.
 E. Drainage Area above Reach Mouth 3263 Sq.Mi.
 F. Inflow Classification Regulated

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	620	2.36	20.7	1.00
80	1270	4.85	39.5	0.93
50	2510	9.57	67.1	0.80
30	3590	13.7	81.5	0.68
10	6300	24.0	99.0	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3264 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R11W</u>
D. Latitude, Longitude	<u>47°24' 124°03'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>19.4/21.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

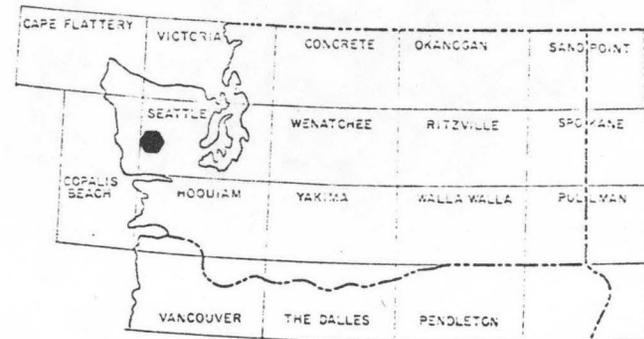
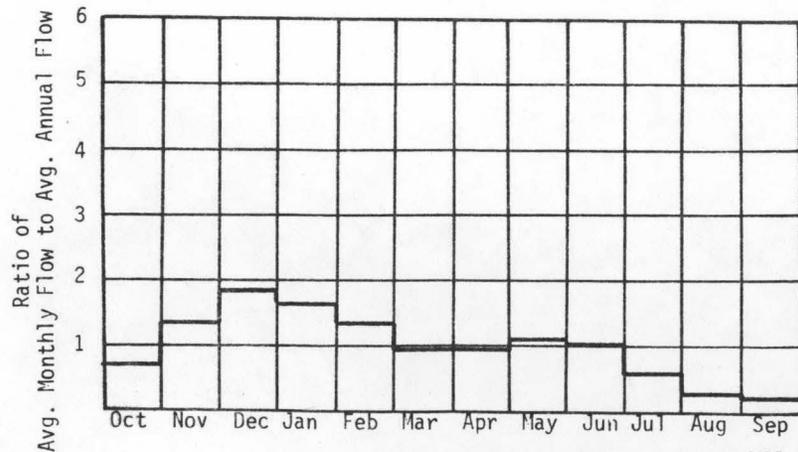
A. Upstream Elevation of Reach	<u>110</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>85</u>	Ft. MSL
C. Total Available Head in Reach	<u>25</u>	Ft.
D. Average Slope in Reach	<u>14.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>315</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	604	1.28	11.2	1.00
80	1180	2.49	20.3	0.93
50	2450	5.18	36.3	0.80
30	3500	7.39	44.1	0.68
10	6130	13.0	53.4	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3177 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R10W</u>
D. Latitude, Longitude	<u>47°26' 123°59'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>21.1/28.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

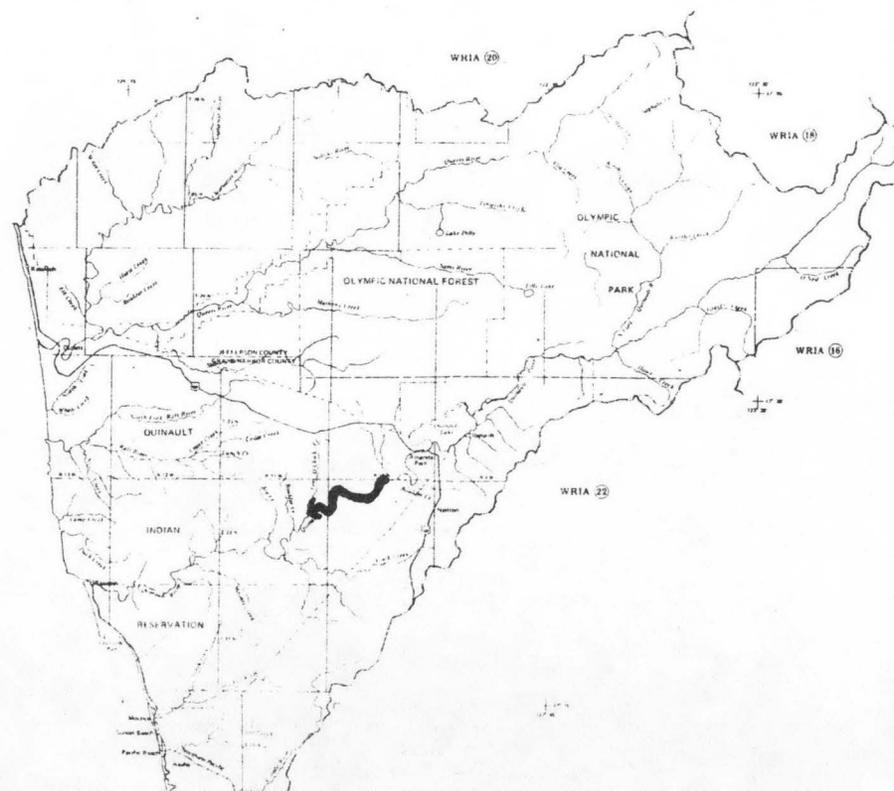
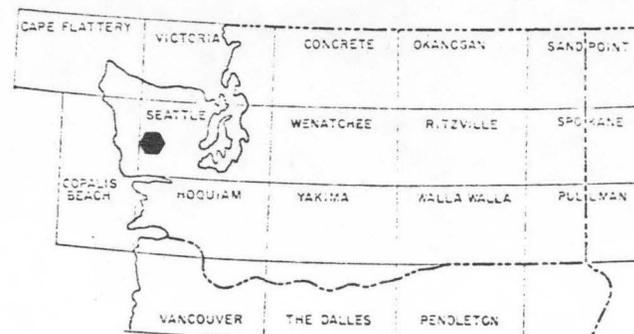
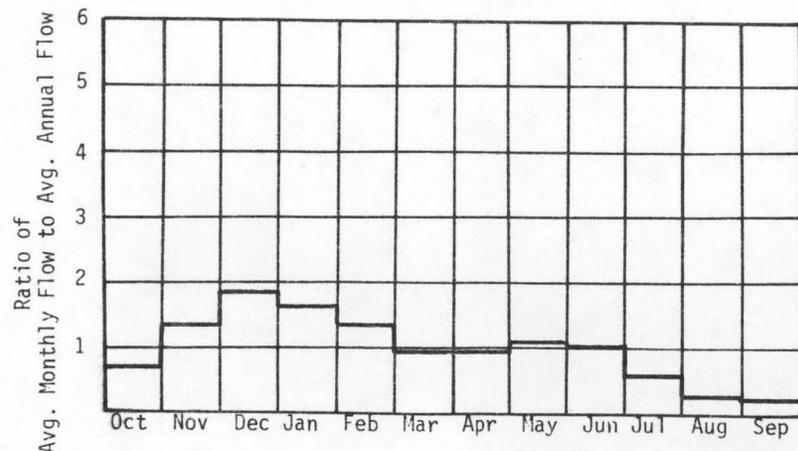
A. Upstream Elevation of Reach	<u>140</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>4.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>302</u>	Sq. Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	576	1.46	12.8	1.00
80	1180	3.00	24.4	0.93
50	2330	5.92	41.5	0.80
30	3330	8.46	50.4	0.68
10	5850	14.9	61.1	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3029 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R10W</u>
D. Latitude, Longitude	<u>47°26' 123°56'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>28.0/28.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

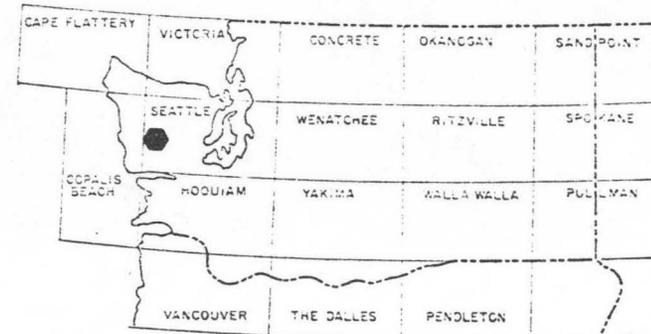
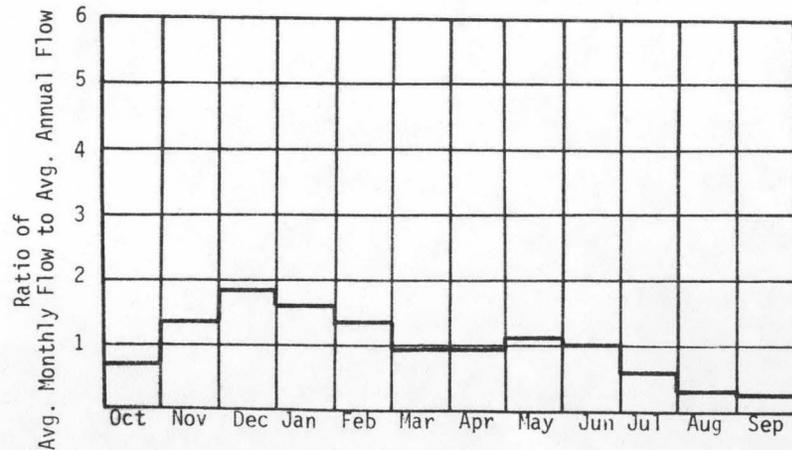
A. Upstream Elevation of Reach	<u>140</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>273</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	544	0.00	0.00	1.00
80	1120	0.00	0.00	0.93
50	2200	0.00	0.00	0.80
30	3150	0.00	0.00	0.68
10	5520	0.00	0.00	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2862 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R10W</u>
D. Latitude, Longitude	<u>47°27' 123°55'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>28.7/28.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

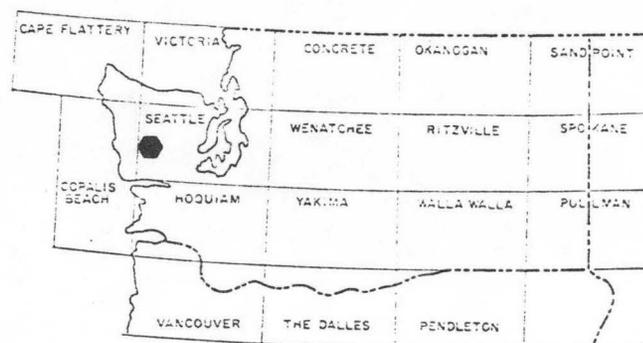
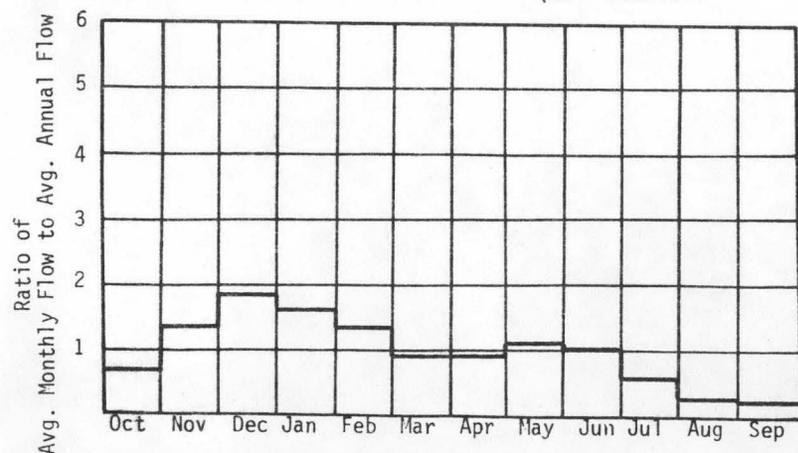
A. Upstream Elevation of Reach	<u>150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>272</u>	Sq.Mi.
F. Inflow Classification	<u>Regulated</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	538	0.00	0.00	1.00
80	1050	0.00	0.00	0.93
50	2180	0.00	0.00	0.80
30	3110	0.00	0.00	0.68
10	5460	0.00	0.00	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2830 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>47°30' 123°49'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>36.9/38.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

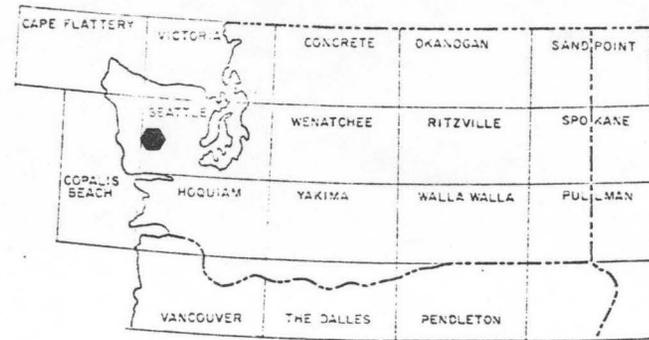
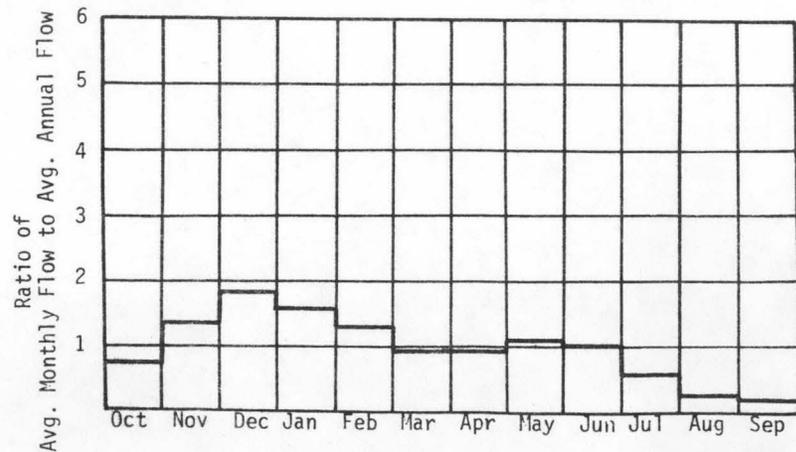
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>180</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>10</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>227</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

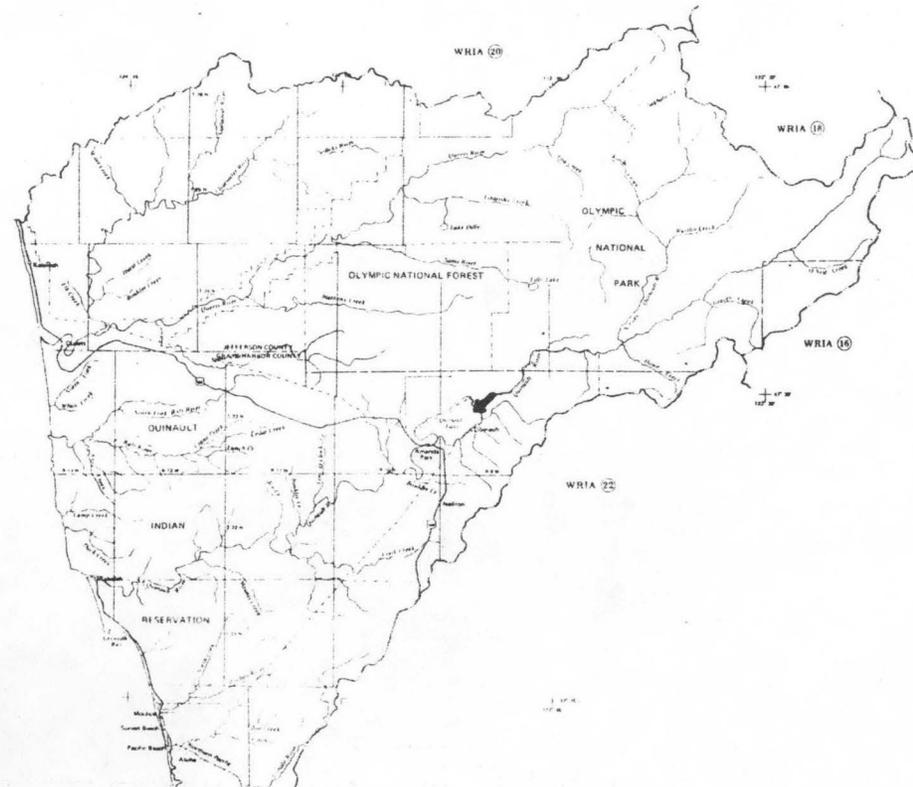
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	477	0.81	7.07	1.00
80	929	1.66	13.5	0.93
50	1930	3.27	22.9	0.80
30	2760	4.68	27.9	0.68
10	4850	8.20	33.8	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2511 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0009

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T23N R9W
D. Latitude, Longitude	47°30' 123°49'
E. Stream Name	Quinault
F. Major Basin Name	Quinault
G. River Mile	38.9/42.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

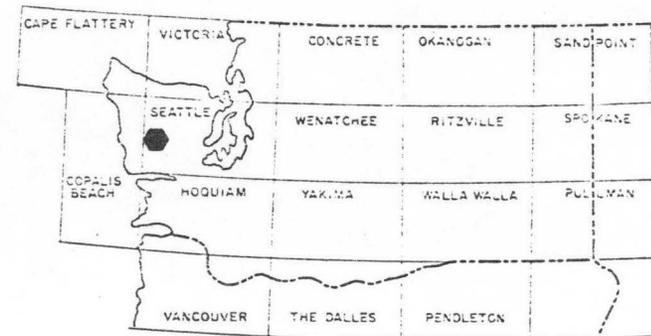
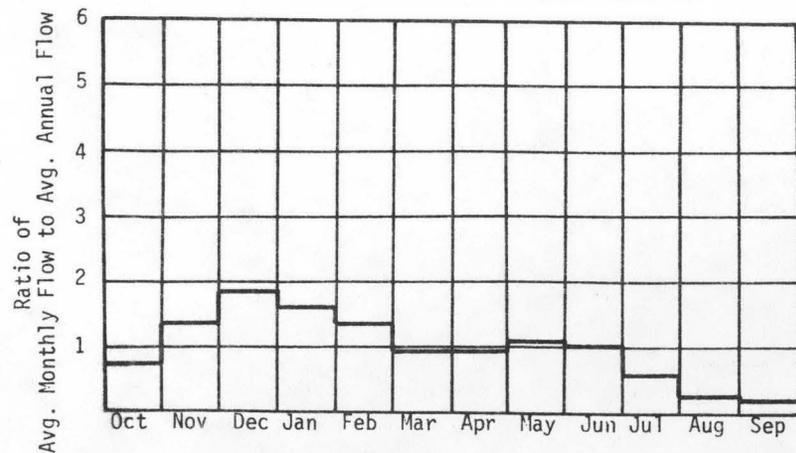
A. Upstream Elevation of Reach	250	Ft. MSL
B. Downstream Elevation of Reach	200	Ft. MSL
C. Total Available Head in Reach	50	Ft.
D. Average Slope in Reach	15.6	Ft./Mi.
E. Drainage Area above Reach Mouth	212	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

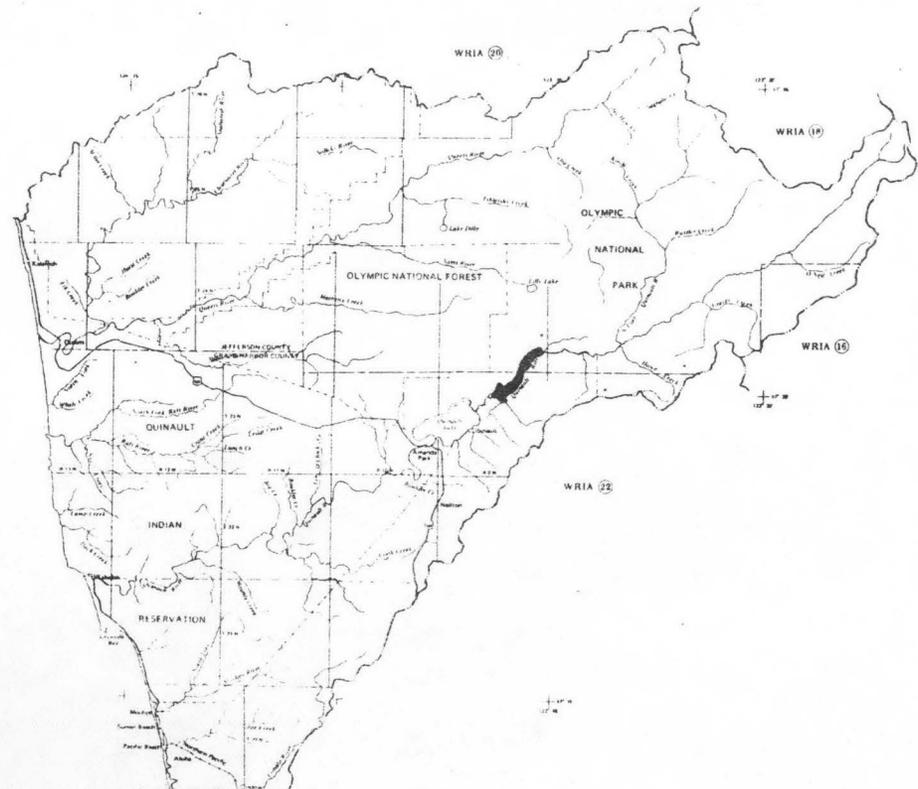
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	440	1.86	16.3	1.00
80	857	3.63	29.6	0.93
50	1780	7.55	52.9	0.80
30	2550	10.8	64.3	0.68
10	4470	18.9	77.9	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2317 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R8W</u>
D. Latitude, Longitude	<u>47°32' 123°43'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>42.1/48.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

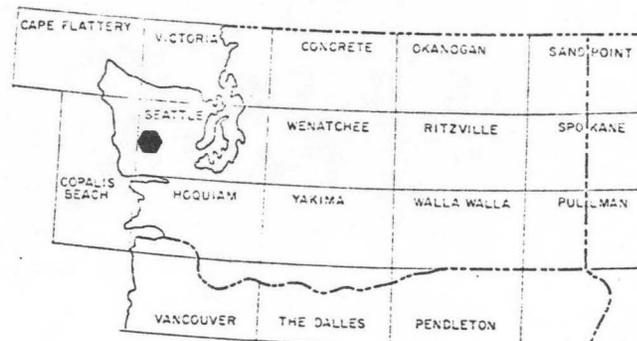
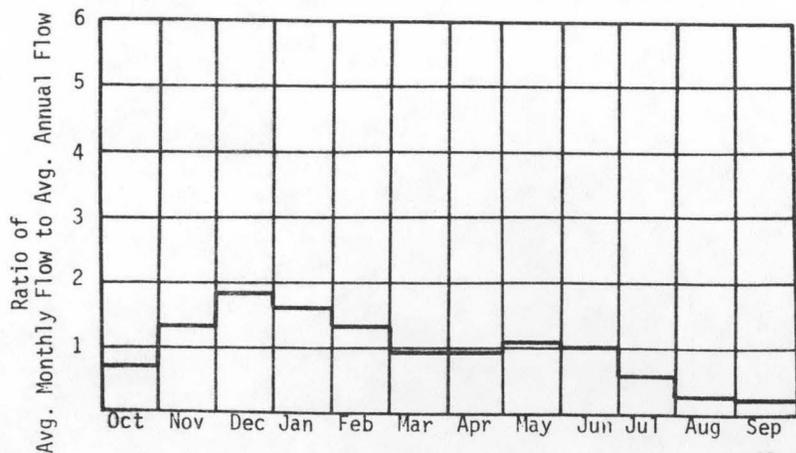
A. Upstream Elevation of Reach	<u>380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>250</u>	Ft. MSL
C. Total Available Head in Reach	<u>130</u>	Ft.
D. Average Slope in Reach	<u>21</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>187</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

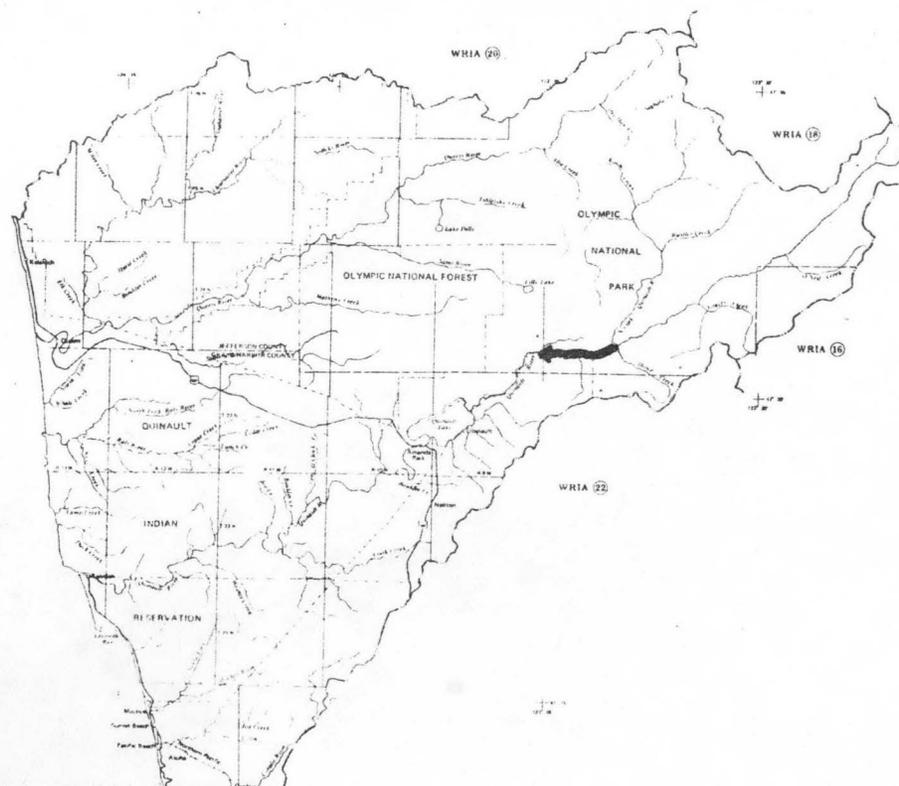
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	380	4.19	36.7	1.00
80	741	8.15	66.4	0.93
50	1540	17.0	119	0.80
30	2200	24.2	144	0.68
10	3860	42.5	175	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2002 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R7W</u>
D. Latitude, Longitude	<u>47°34' 123°36'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>48.3/54.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

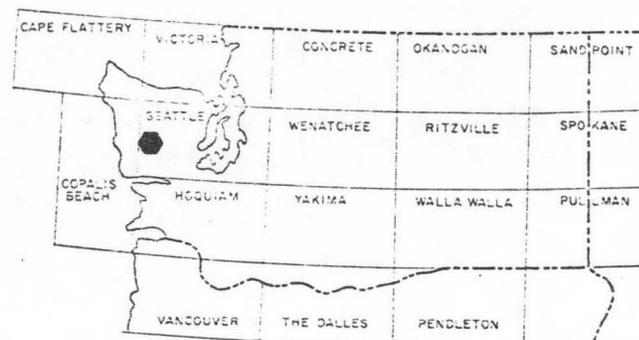
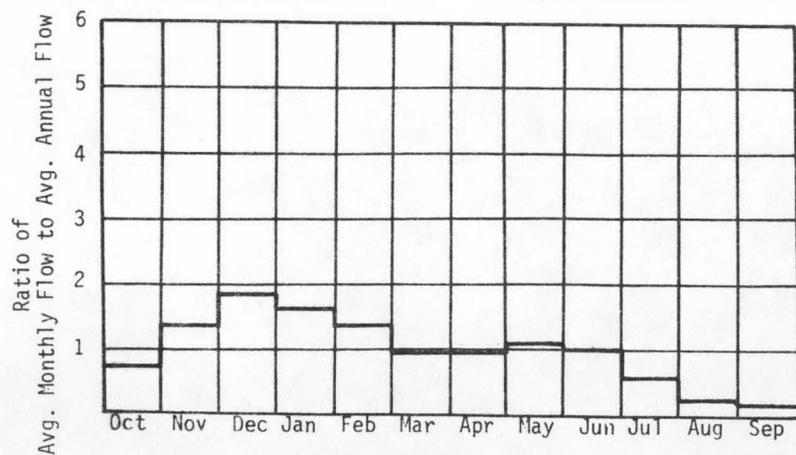
A. Upstream Elevation of Reach	<u>570</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>380</u>	Ft. MSL
C. Total Available Head in Reach	<u>190</u>	Ft.
D. Average Slope in Reach	<u>32.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>82.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	168	2.71	23.7	1.00
80	328	5.27	43.0	0.93
50	682	11.0	76.9	0.80
30	975	15.7	93.4	0.68
10	1710	27.5	113	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 886 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R7W</u>
D. Latitude, Longitude	<u>47°36' 123°31'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>54.2/60.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

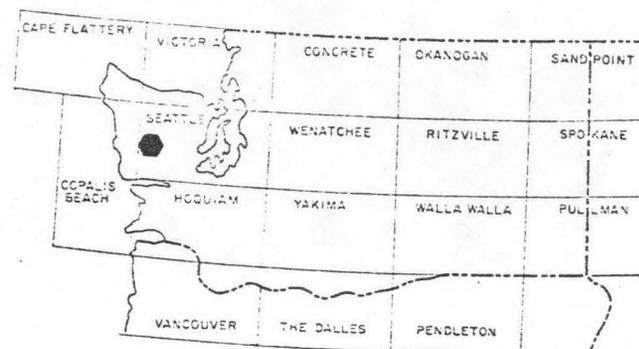
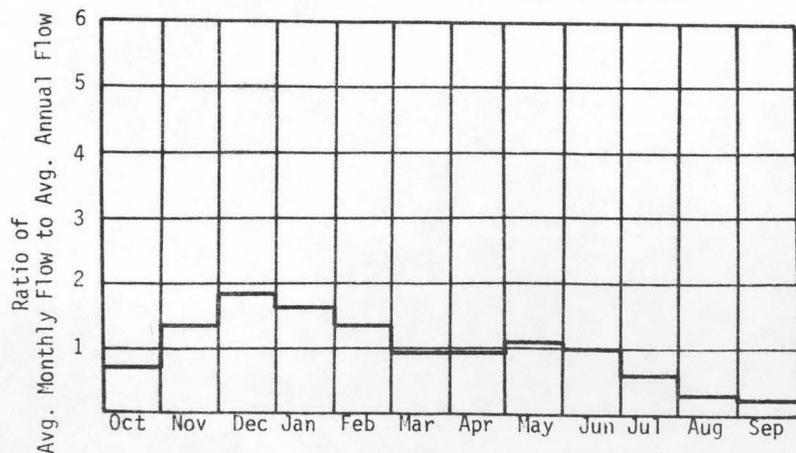
A. Upstream Elevation of Reach	<u>1150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>570</u>	Ft. MSL
C. Total Available Head in Reach	<u>580</u>	Ft.
D. Average Slope in Reach	<u>90.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>53.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

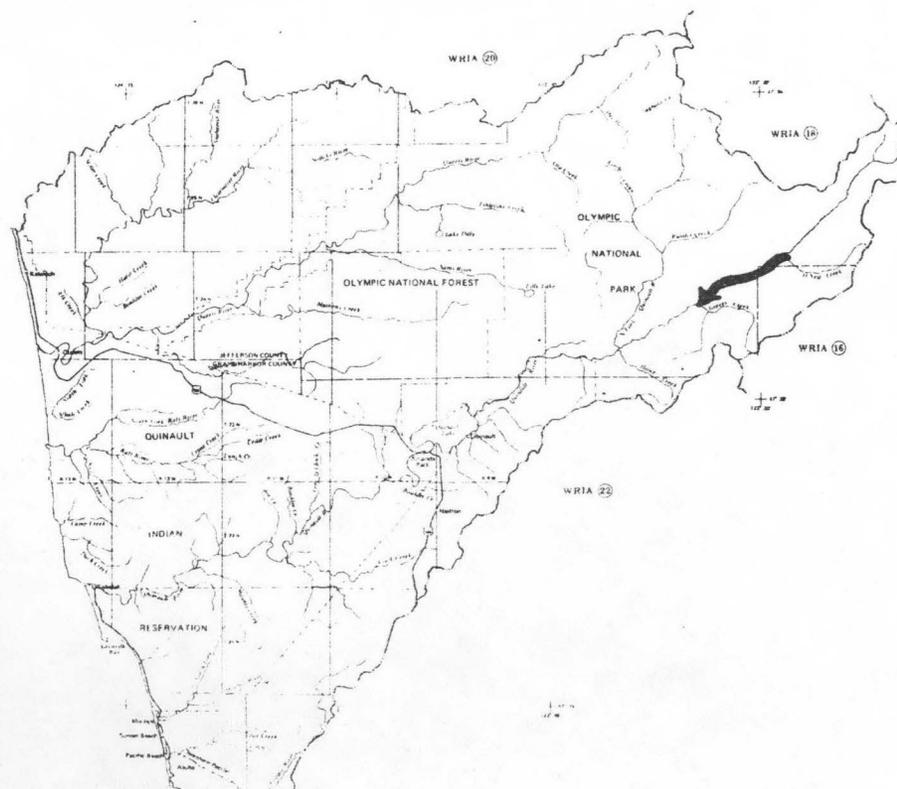
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	101	4.95	43.4	1.00
80	197	9.64	78.6	0.93
50	409	20.1	141	0.80
30	584	28.7	171	0.68
10	1020	50.3	207	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 531 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R6W</u>
D. Latitude, Longitude	<u>47°39' 123°25'</u>
E. Stream Name	<u>Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>60.6/68.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

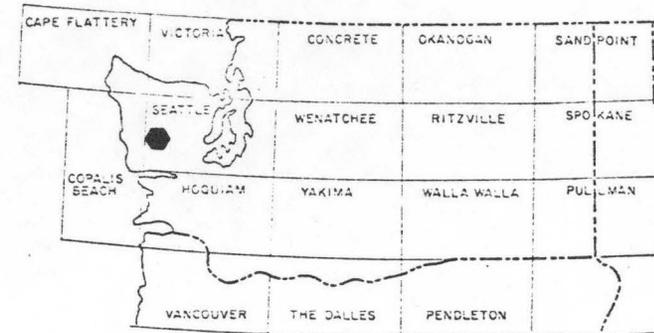
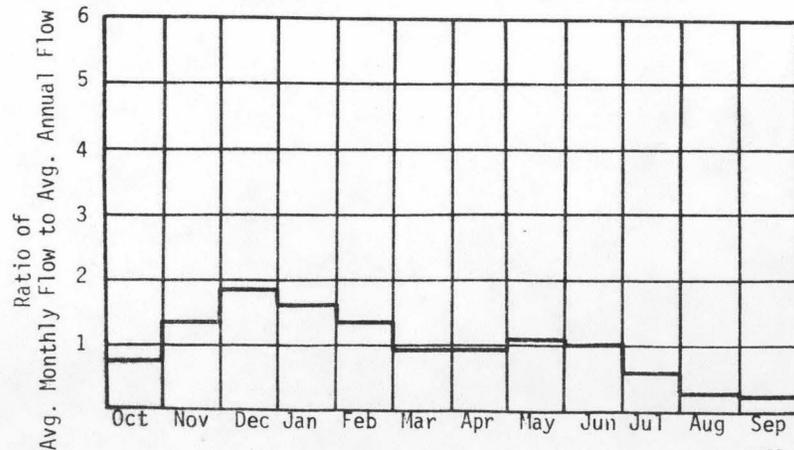
A. Upstream Elevation of Reach	<u>2400</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1150</u>	Ft. MSL
C. Total Available Head in Reach	<u>1250 + 66 = 1316</u>	Ft.
D. Average Slope in Reach	<u>159</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>27.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

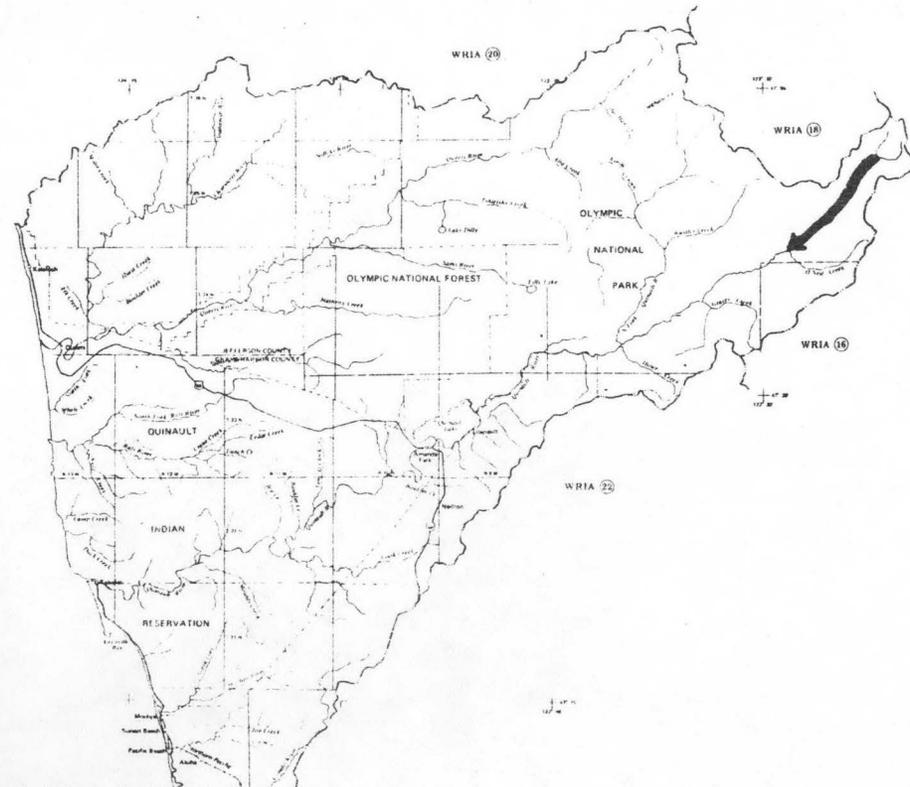
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	34.8	3.87	33.9	1.00
80	67.7	7.54	61.4	0.93
50	141	15.7	110	0.80
30	201	22.4	134	0.68
10	353	36.3	162	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 183 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R12W</u>
D. Latitude, Longitude	<u>47°22' 124°09'</u>
E. Stream Name	<u>Mounts Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

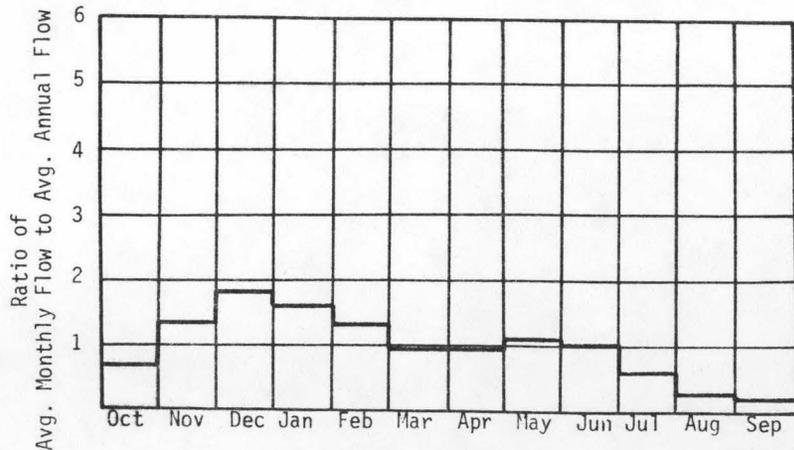
A. Upstream Elevation of Reach	<u>80</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

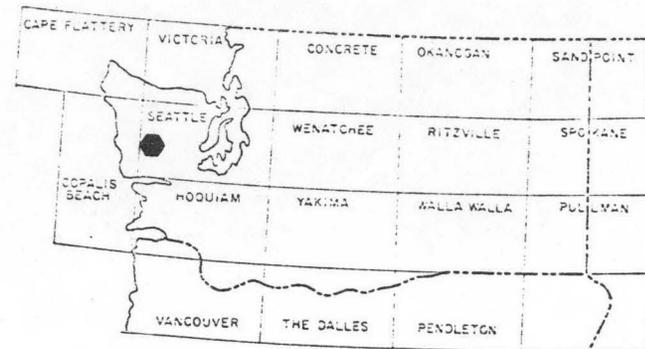
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.82	0.08	0.74	1.00
80	12.4	0.15	1.26	0.94
50	37.2	0.46	2.98	0.74
30	64.5	0.80	4.19	0.60
10	146	1.80	5.84	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

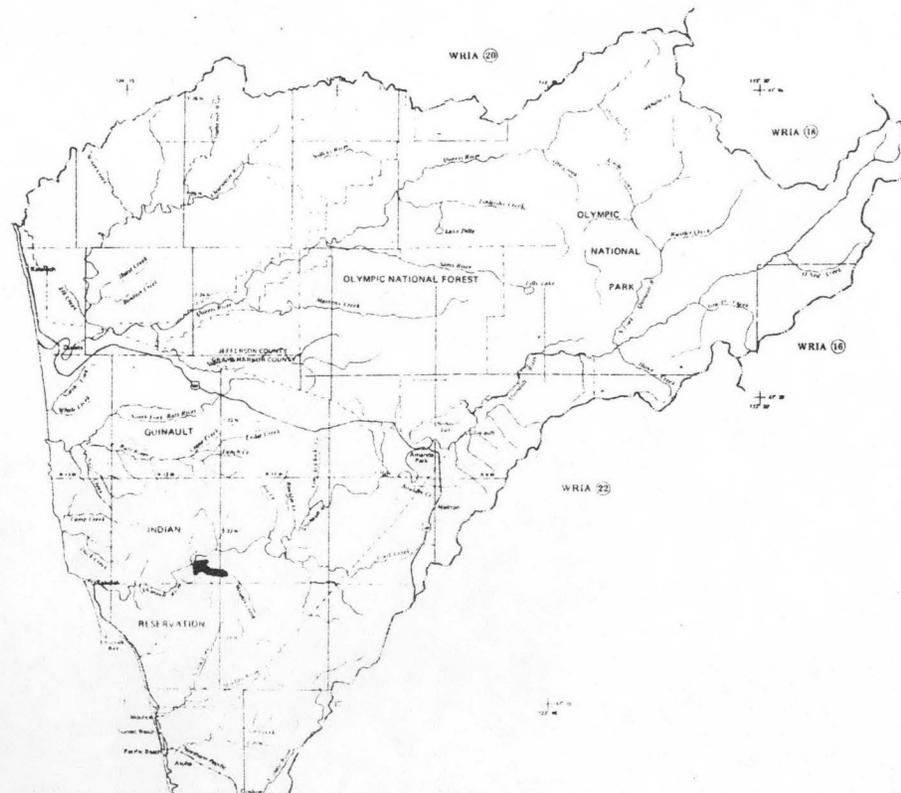
QMR = 62 cfs



W21-686



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R11W</u>
D. Latitude, Longitude	<u>47°23' 124°03'</u>
E. Stream Name	<u>Cook Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

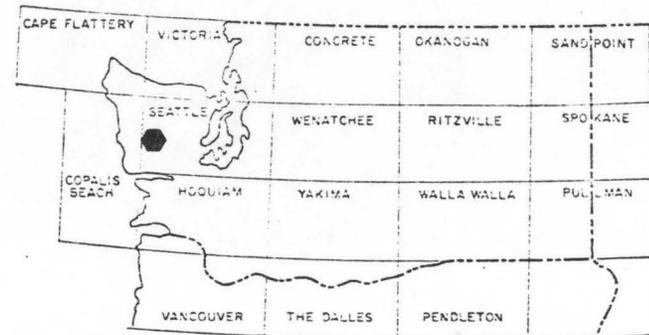
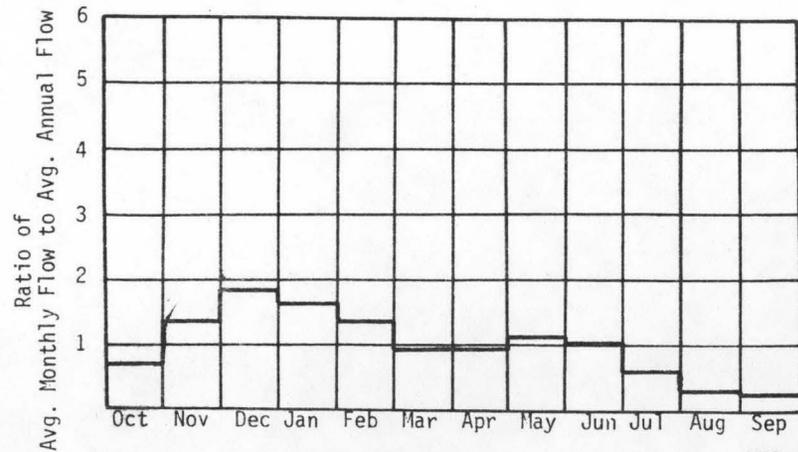
A. Upstream Elevation of Reach	<u>125</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>35</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>56.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>44</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

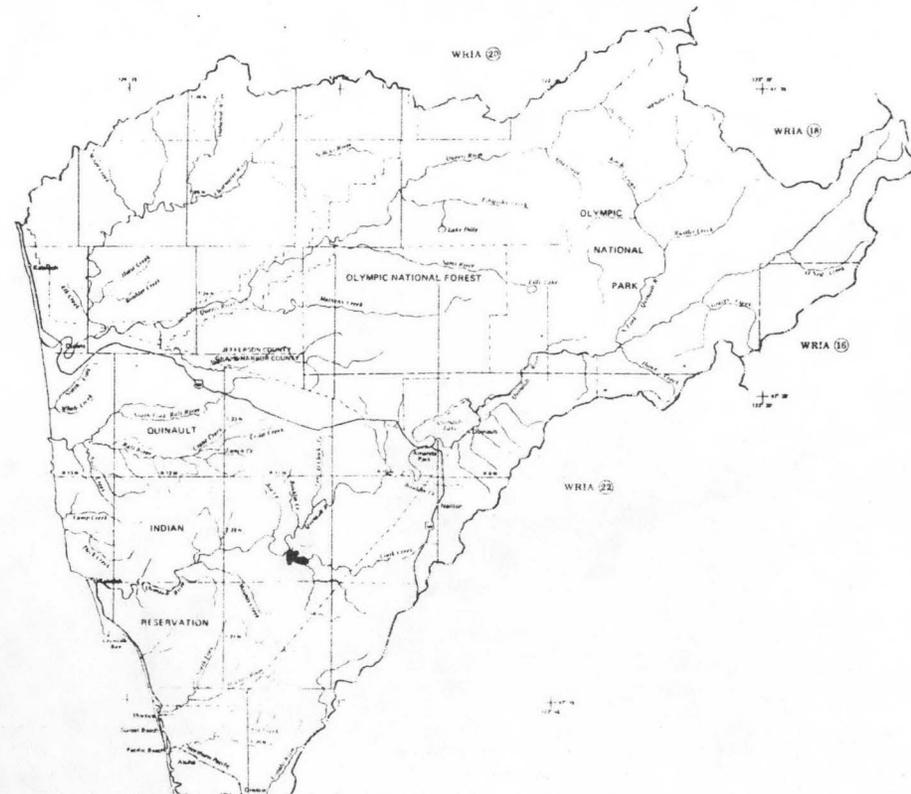
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	55.1	0.42	3.68	1.00
80	113	0.86	7.02	0.93
50	223	1.70	11.9	0.80
30	319	2.43	14.5	0.68
10	560	4.26	17.6	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 290 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R11W</u>
D. Latitude, Longitude	<u>47°22' 123°59'</u>
E. Stream Name	<u>Cook Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>1.6/11.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

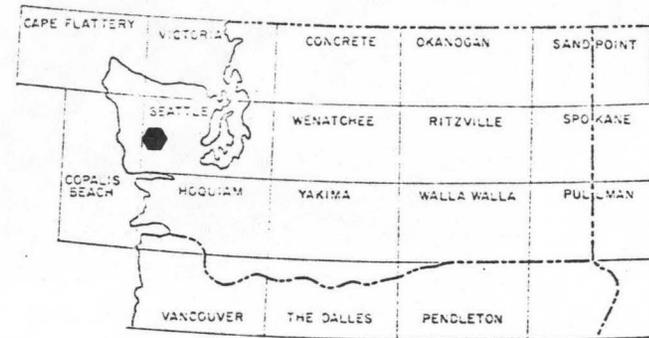
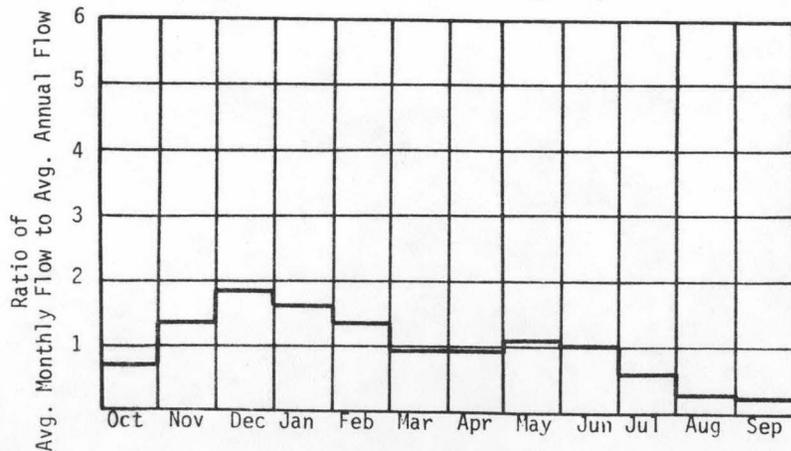
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>125</u>	Ft. MSL
C. Total Available Head in Reach	<u>235 + 66 = 301</u>	Ft.
D. Average Slope in Reach	<u>25</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>32.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

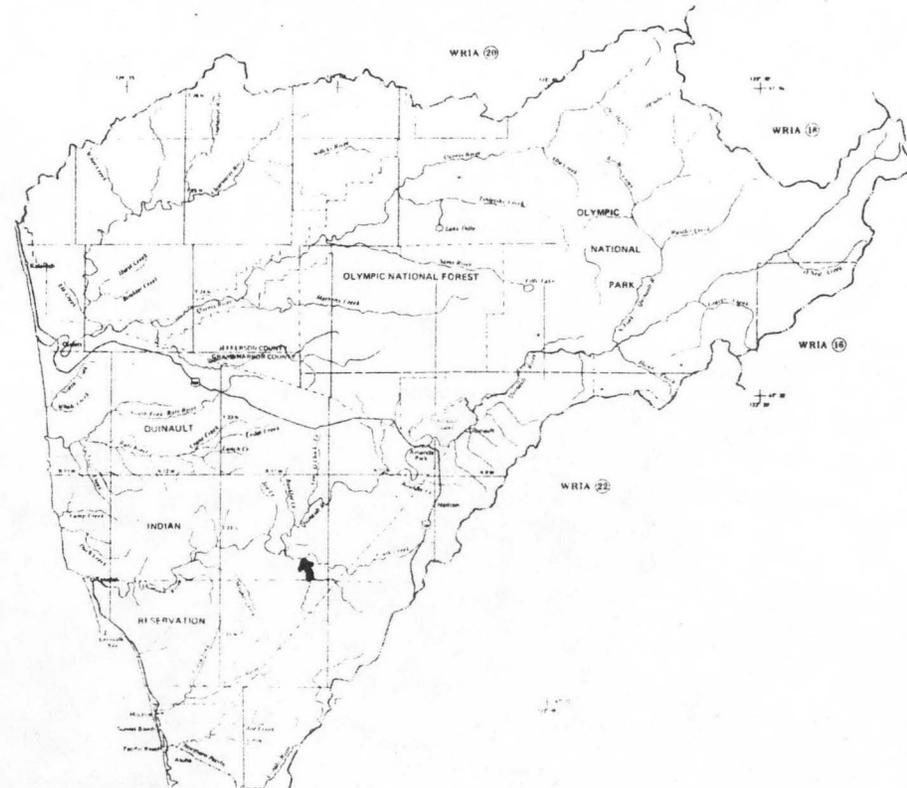
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	26.8	0.68	5.98	1.00
80	55.0	1.40	11.4	0.93
50	109	2.77	19.4	0.80
30	155	3.94	23.5	0.68
10	272	6.93	28.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 141 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R11W</u>
D. Latitude, Longitude	<u>47°24' 124°04'</u>
E. Stream Name	<u>Boulder Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/2.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

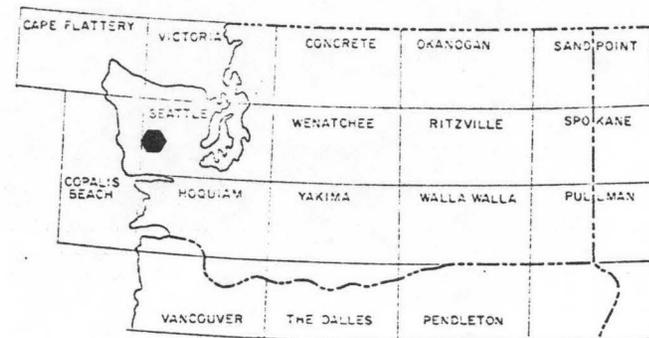
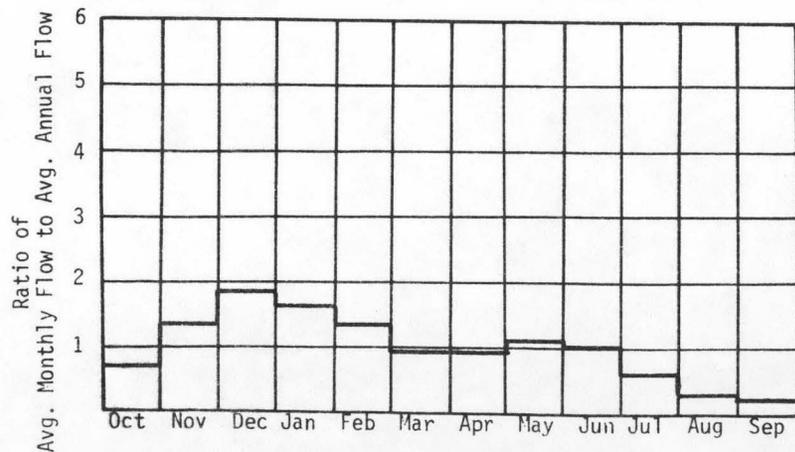
A. Upstream Elevation of Reach	<u>215</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>85</u>	Ft. MSL
C. Total Available Head in Reach	<u>130 + 66 = 196</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

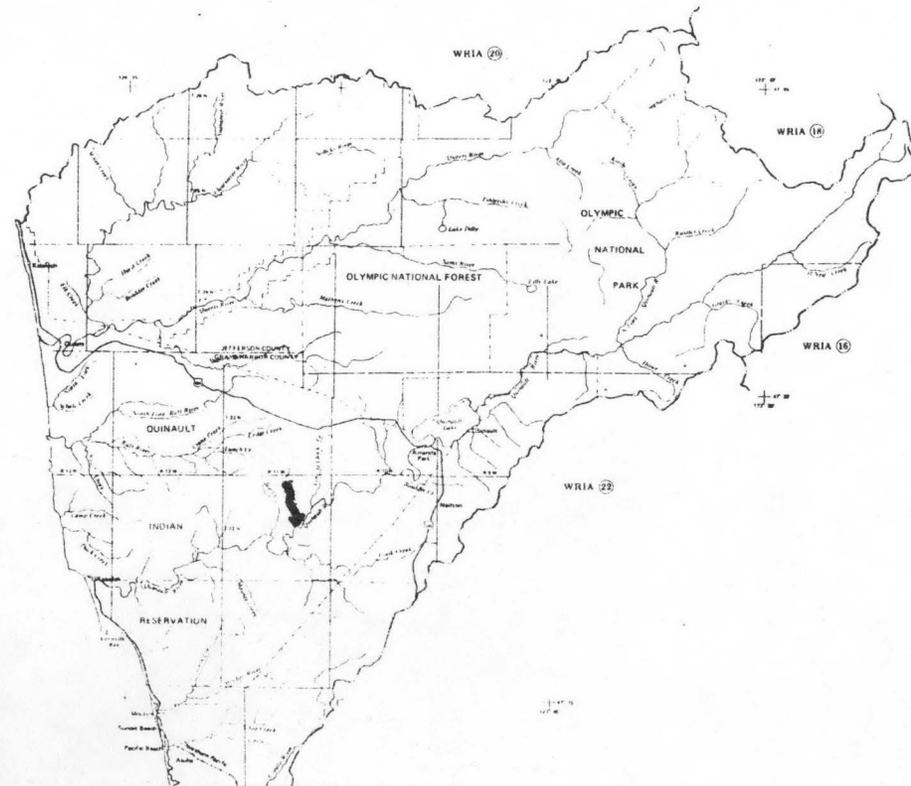
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.8	0.20	1.71	1.00
80	24.2	0.40	3.27	0.93
50	47.7	0.79	5.55	0.80
30	68.2	1.13	6.74	0.68
10	120	1.99	8.17	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 62 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0018

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R11W</u>
D. Latitude, Longitude	<u>47°26' 124°02'</u>
E. Stream Name	<u>Ten O'clock Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/3.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

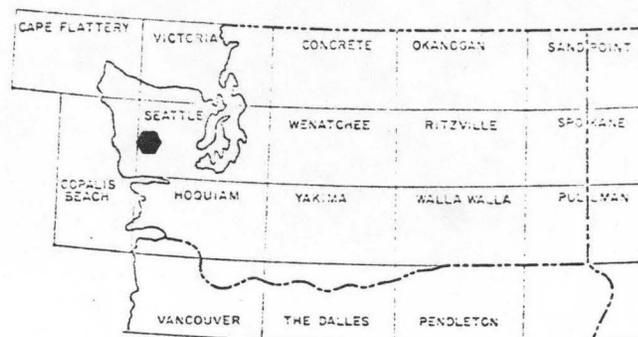
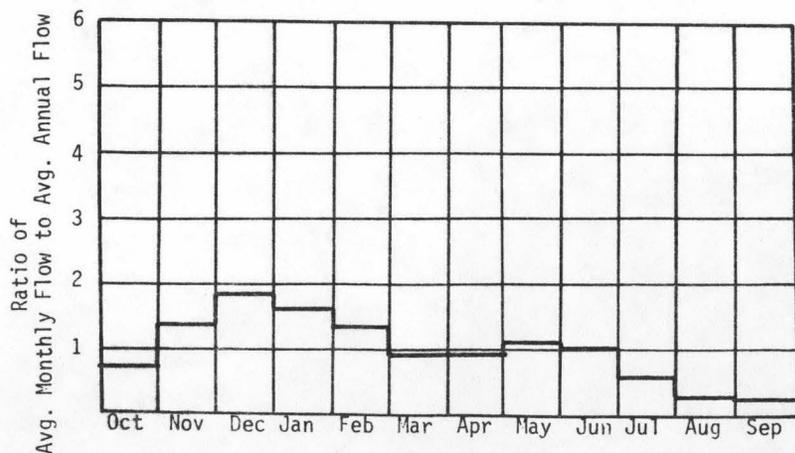
A. Upstream Elevation of Reach	<u>280</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>170 + 66 = 236</u>	Ft.
D. Average Slope in Reach	<u>51.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.22	0.24	2.13	1.00
80	25.0	0.50	4.06	0.93
50	49.0	0.98	6.90	0.80
30	70.4	1.41	8.38	0.68
10	124	2.47	10.2	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 64 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R11W</u>
D. Latitude, Longitude	<u>47°26' 123°56'</u>
E. Stream Name	<u>Prairie Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/0.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

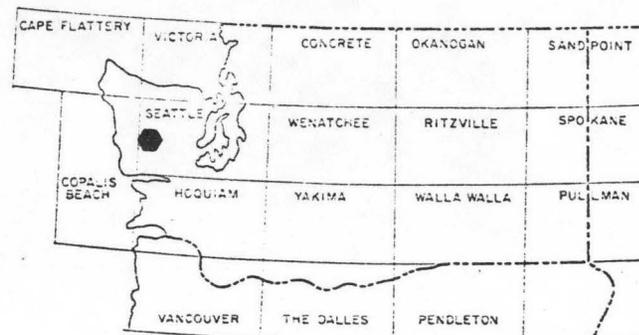
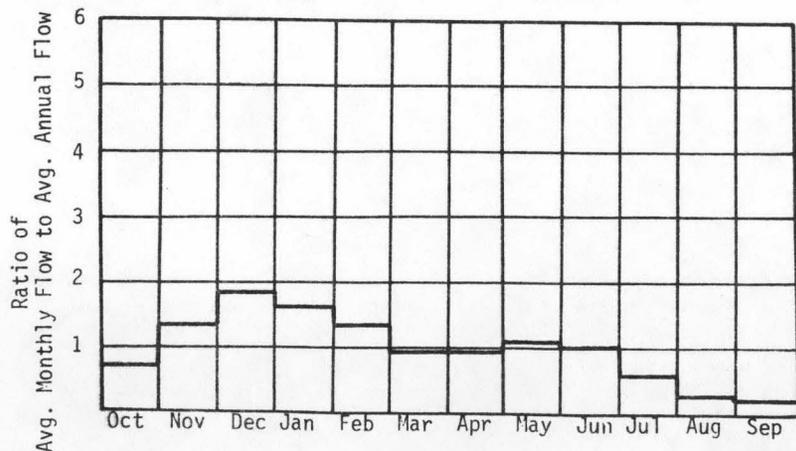
A. Upstream Elevation of Reach	<u>170</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>30 + 66 = 96</u>	Ft.
D. Average Slope in Reach	<u>33.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>13.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.8	0.16	1.41	1.00
80	40.6	0.33	2.68	0.93
50	80.1	0.65	4.56	0.80
30	114	0.93	5.54	0.68
10	200	1.63	6.71	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 104 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0020

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R10W</u>
D. Latitude, Longitude	<u>47°26' 123°55'</u>
E. Stream Name	<u>Boulder Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

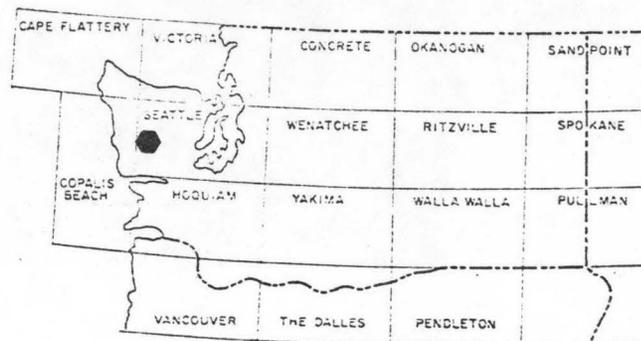
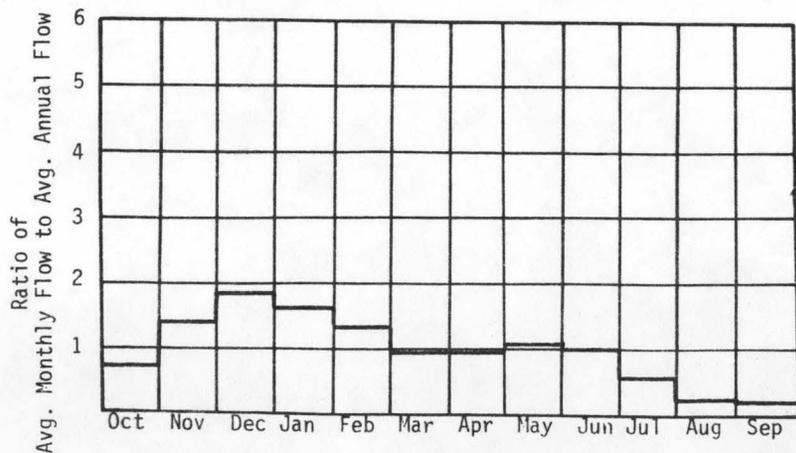
A. Upstream Elevation of Reach	<u>170</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>30 + 66 = 96</u>	Ft.
D. Average Slope in Reach	<u>25</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>7.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

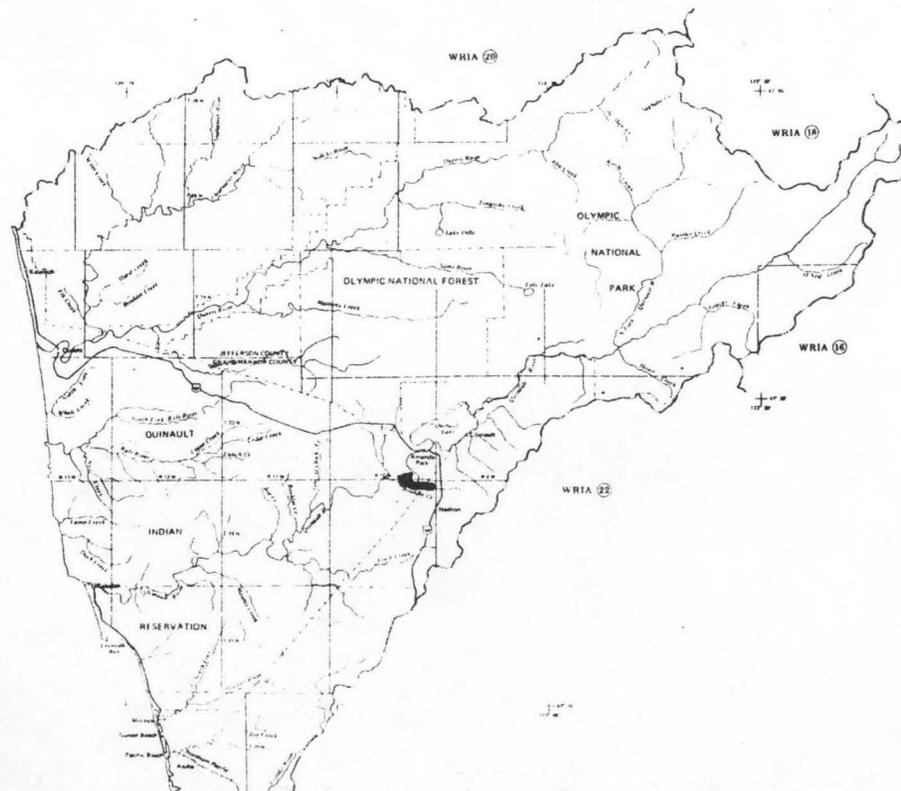
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.2	0.09	0.80	1.00
80	23.0	0.19	1.52	0.93
50	45.4	0.37	2.59	0.80
30	64.9	0.53	3.14	0.68
10	114	0.93	3.81	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 59 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0021

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>47°29' 123°49'</u>
E. Stream Name	<u>Zeigler Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/0.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

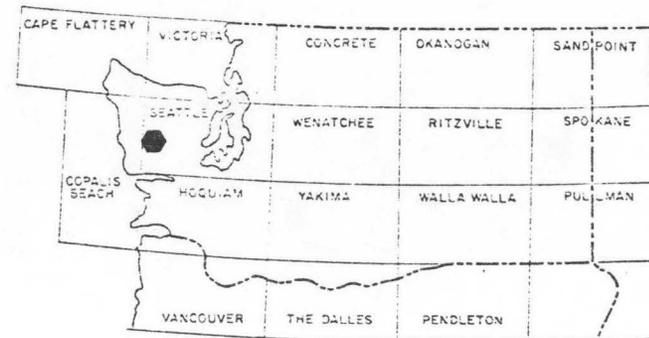
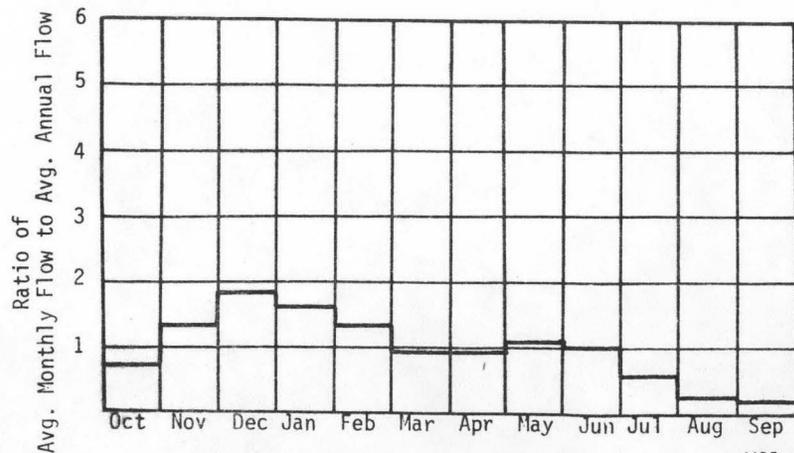
A. Upstream Elevation of Reach	<u>150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>0 + 66 = 66</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>6.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

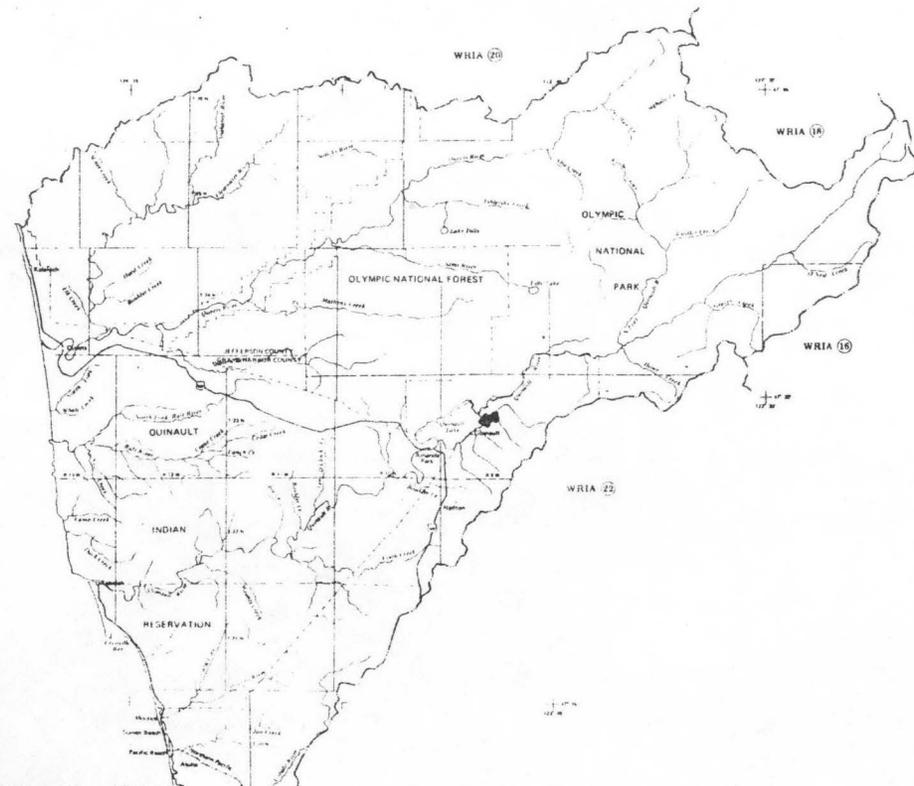
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.2	0.00	0.00	1.00
80	23.0	0.00	0.00	0.93
50	45.4	0.00	0.00	0.80
30	64.9	0.00	0.00	0.68
10	114	0.00	0.00	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 59 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0022

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>47°30' 123°50'</u>
E. Stream Name	<u>Canoe Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

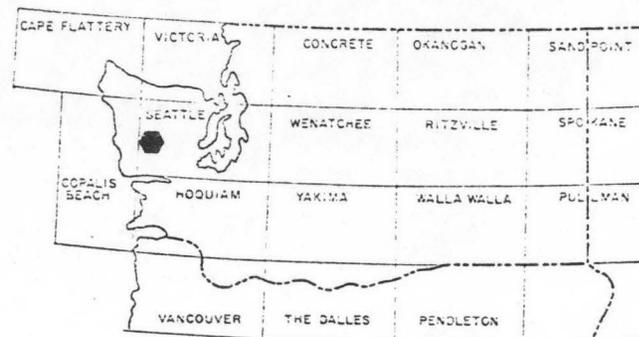
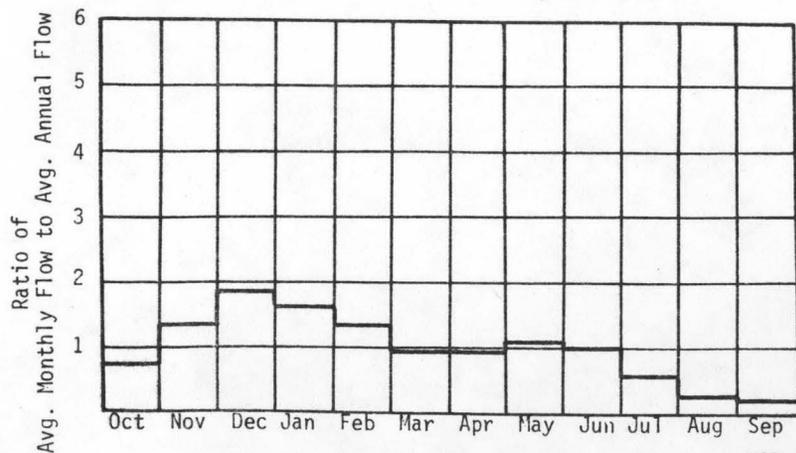
A. Upstream Elevation of Reach	<u>158</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>3 + 66 = 69</u>	Ft.
D. Average Slope in Reach	<u>2.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>8.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

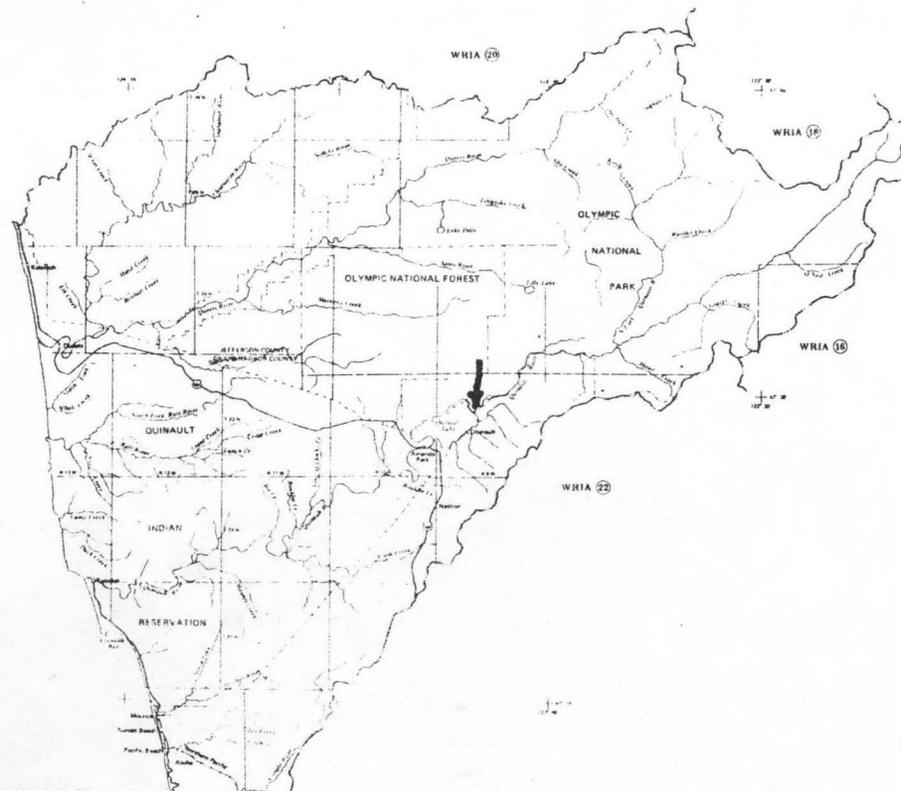
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.5	0.07	0.64	1.00
80	25.7	0.15	1.22	0.93
50	50.8	0.30	2.08	0.80
30	72.6	0.43	2.53	0.68
10	127	0.74	3.06	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 66 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0023

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>47°32' 123°48'</u>
E. Stream Name	<u>Finley Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/4.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

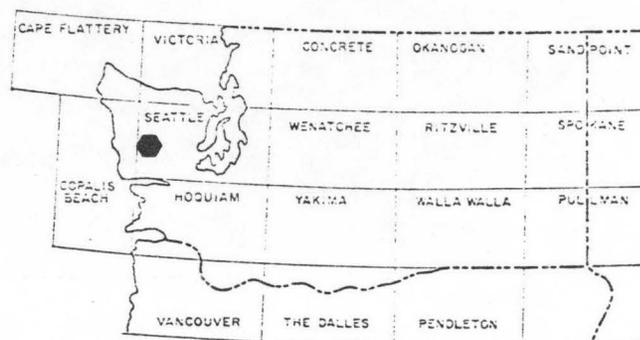
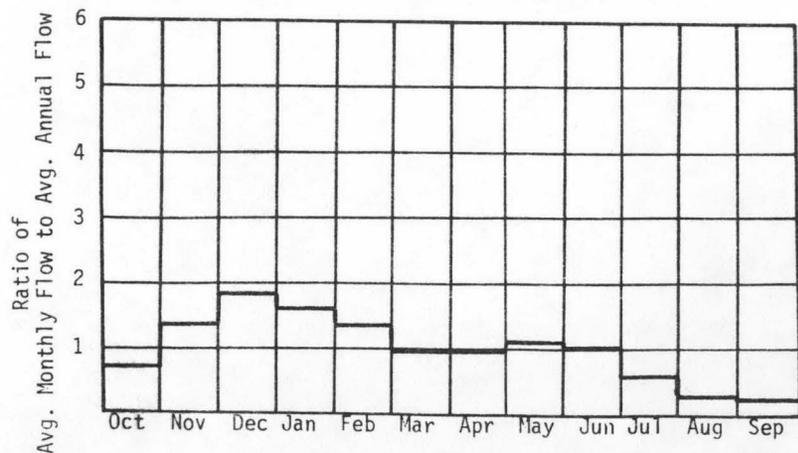
A. Upstream Elevation of Reach	<u>640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>200</u>	Ft. MSL
C. Total Available Head in Reach	<u>440</u>	Ft.
D. Average Slope in Reach	<u>106</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.5	0.76	6.69	1.00
80	42.1	1.57	12.8	0.93
50	83.2	3.10	21.7	0.80
30	119	4.42	26.4	0.68
10	208	7.76	32.0	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 108 cfs



LOCATIONS FOR USGS 250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0024

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R9W</u>
D. Latitude, Longitude	<u>47°34' 123°47'</u>
E. Stream Name	<u>Finley Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>4.1/4.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

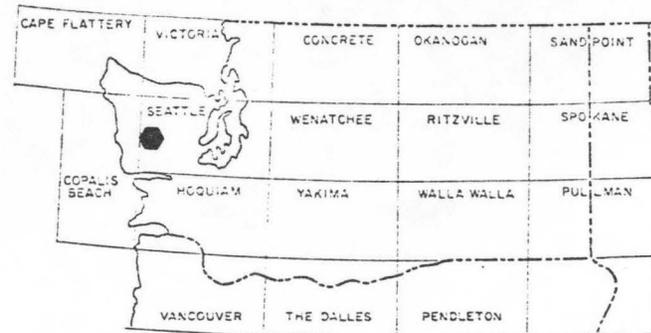
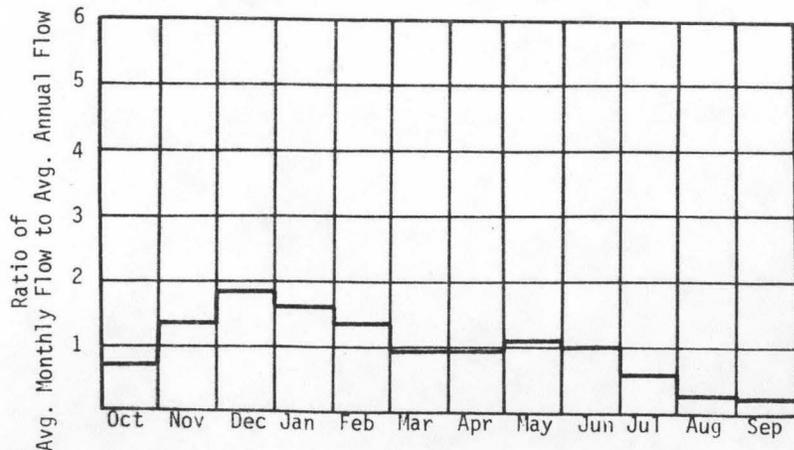
A. Upstream Elevation of Reach	<u>740</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>640</u>	Ft. MSL
C. Total Available Head in Reach	<u>100 + 66 = 166</u>	Ft.
D. Average Slope in Reach	<u>167</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>4.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

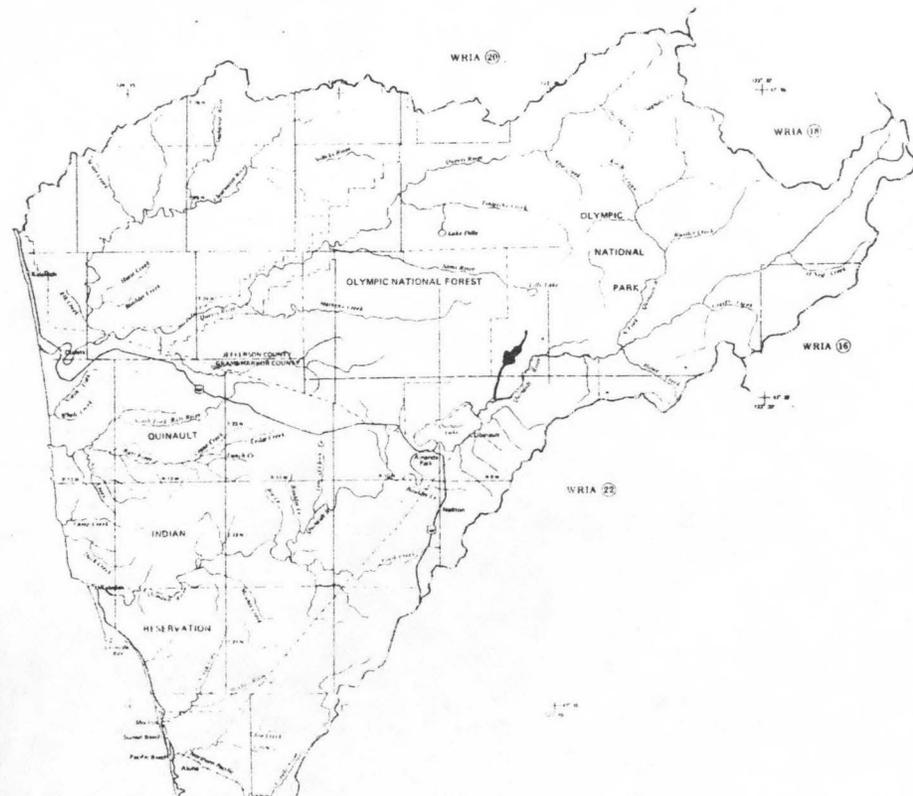
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.69	0.14	1.19	1.00
80	19.9	0.28	2.28	0.93
50	39.3	0.55	3.87	0.80
30	56.1	0.79	4.70	0.68
10	98.4	1.38	5.69	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 51 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0025

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T24N R8W
 D. Latitude, Longitude 47°31' 123°38'
 E. Stream Name Howe Creek
 F. Major Basin Name Quinault
 G. River Mile 0.0/3.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

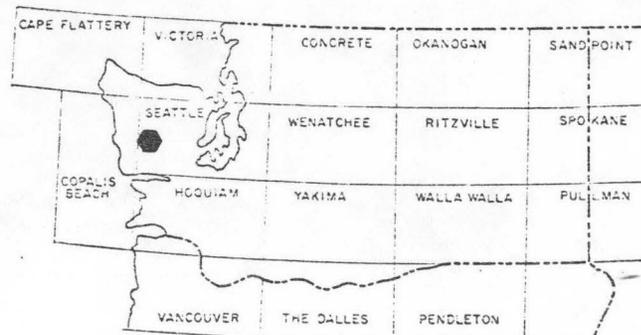
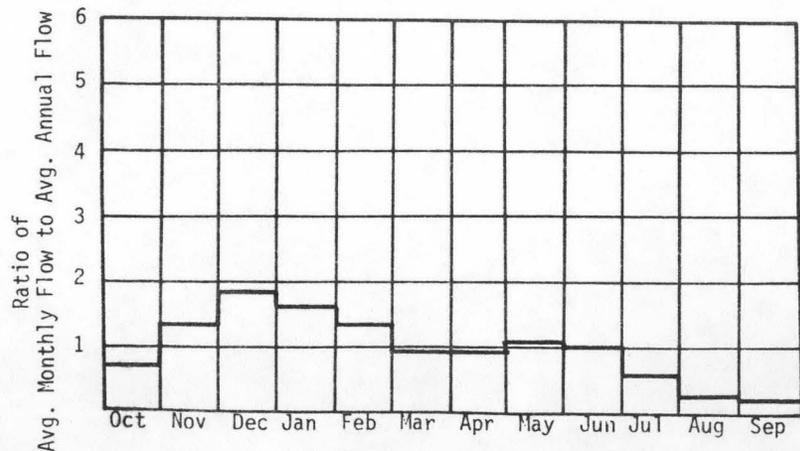
A. Upstream Elevation of Reach 1500 Ft. MSL
 B. Downstream Elevation of Reach 380 Ft. MSL
 C. Total Available Head in Reach 1120 + 66 = 1186 Ft.
 D. Average Slope in Reach 329 Ft./Mi.
 E. Drainage Area above Reach Mouth 7.6 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

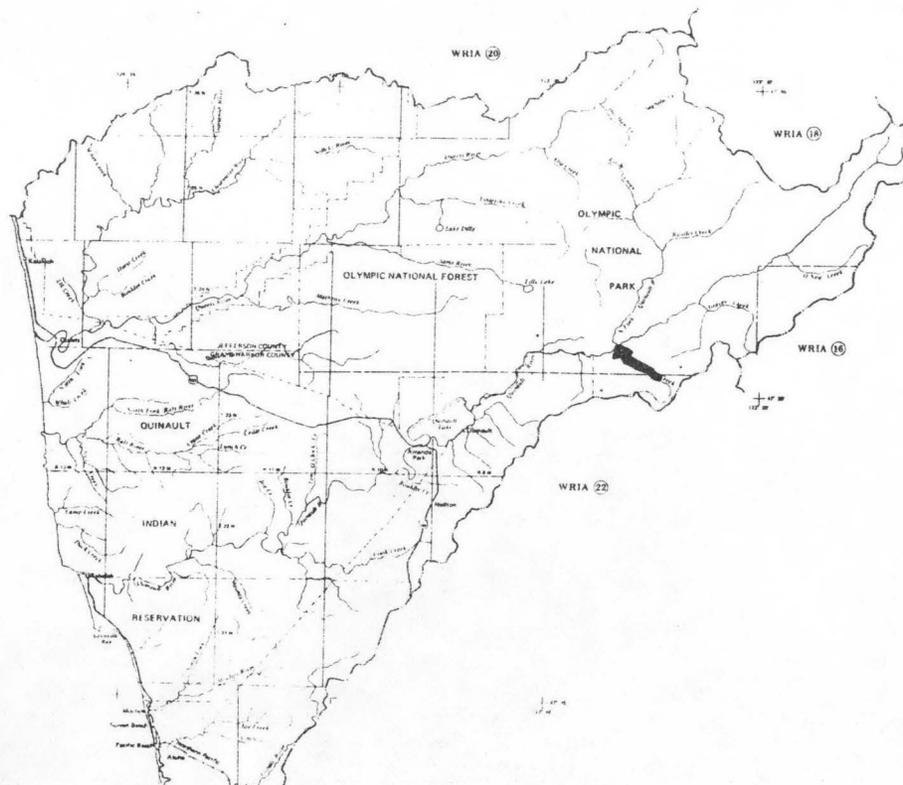
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.9	1.39	12.2	1.00
80	28.5	2.86	23.3	0.93
50	56.2	5.64	39.5	0.80
30	80.3	8.06	48.0	0.68
10	141	14.4	58.2	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 73 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0026

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R8W</u>
D. Latitude, Longitude	<u>47°35' 123°39'</u>
E. Stream Name	<u>N.F. Quinault River</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/7.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

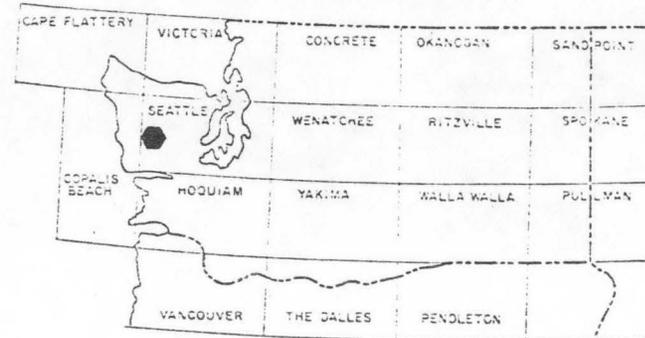
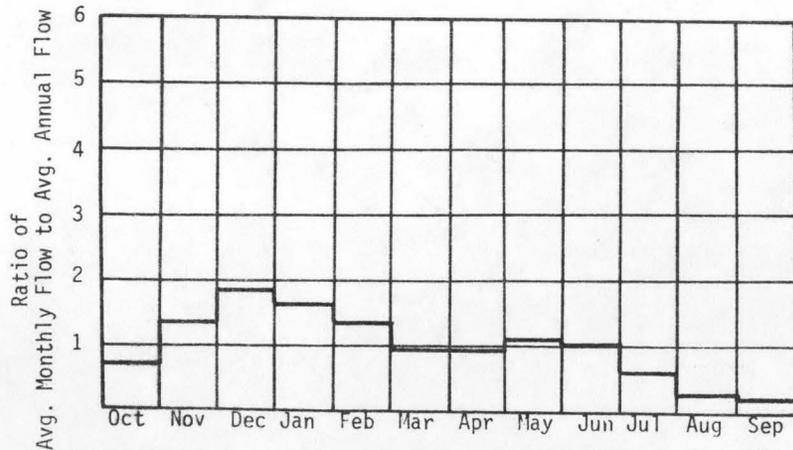
A. Upstream Elevation of Reach	<u>700</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>380</u>	Ft. MSL
C. Total Available Head in Reach	<u>320</u>	Ft.
D. Average Slope in Reach	<u>43.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>81</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

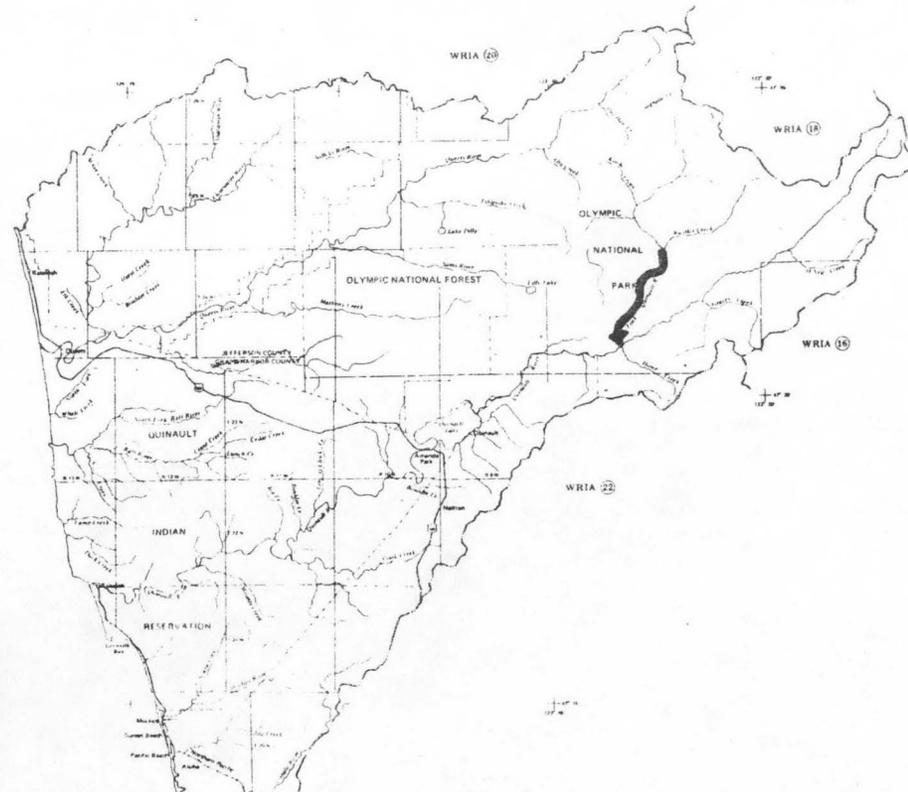
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	153	4.16	36.5	1.00
80	316	8.55	70.0	0.93
50	623	16.9	118	0.80
30	890	24.0	144	0.68
10	1560	42.3	174	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 809 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0027

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R8W</u>
D. Latitude, Longitude	<u>47°37' 123°39'</u>
E. Stream Name	<u>N.F. Quinault River</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>7.3/9.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

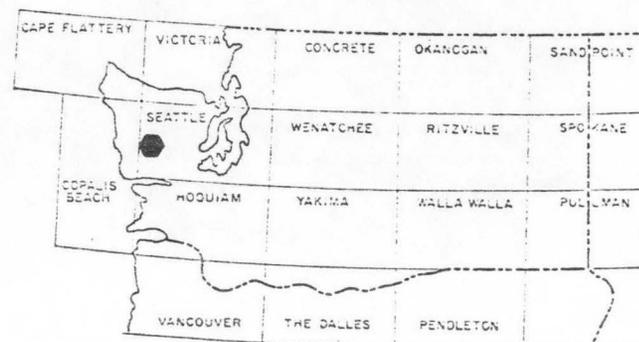
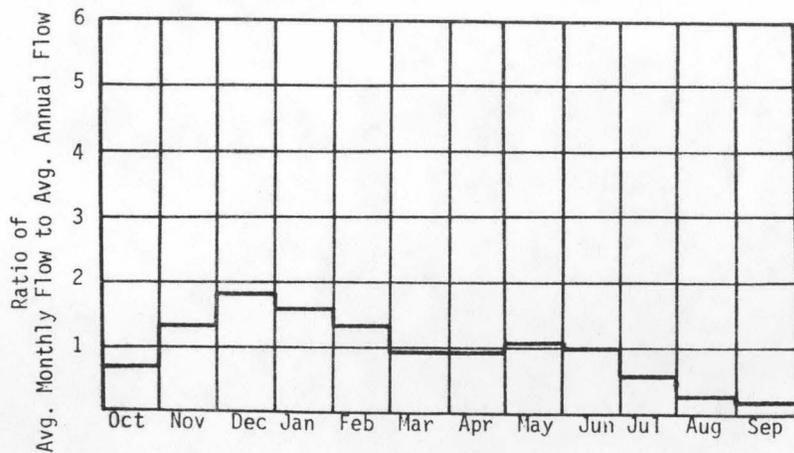
A. Upstream Elevation of Reach	<u>880</u>	<u>Ft. MSL</u>
B. Downstream Elevation of Reach	<u>700</u>	<u>Ft. MSL</u>
C. Total Available Head in Reach	<u>180</u>	<u>Ft.</u>
D. Average Slope in Reach	<u>69.2</u>	<u>Ft./Mi.</u>
E. Drainage Area above Reach Mouth	<u>48.7</u>	<u>Sq.Mi.</u>
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

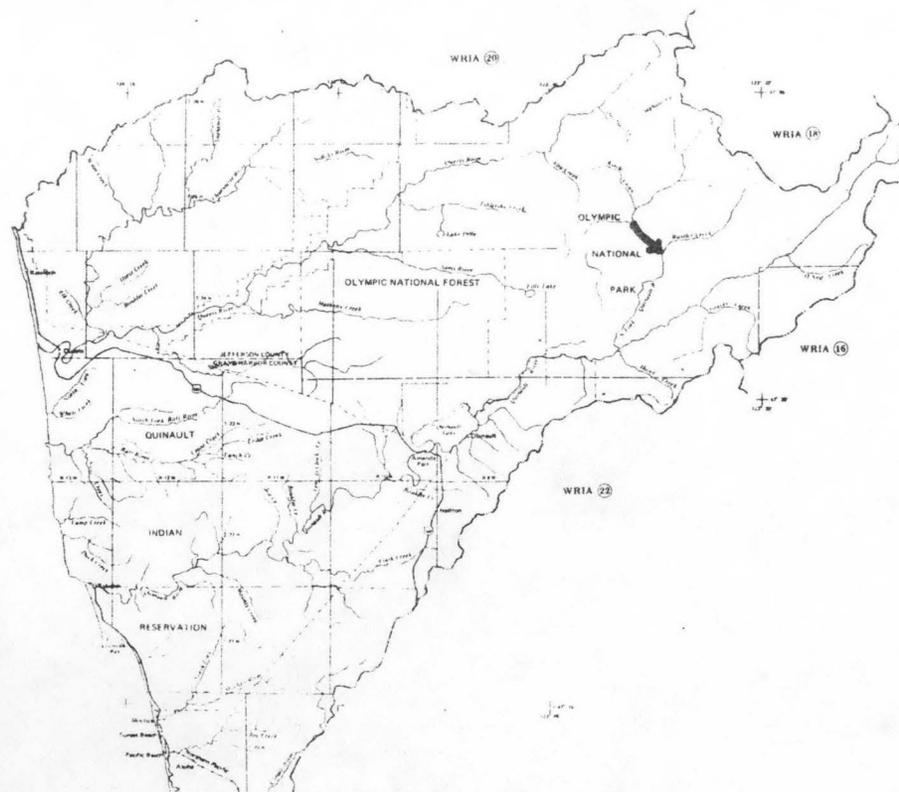
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	100	1.53	13.4	1.00
80	178	2.70	22.5	0.95
50	337	5.13	36.0	0.80
30	505	7.69	45.2	0.67
10	851	13.0	53.4	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 455 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0028

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R8W</u>
D. Latitude, Longitude	<u>47°38' 123°39'</u>
E. Stream Name	<u>N.E. Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>9.9/10.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

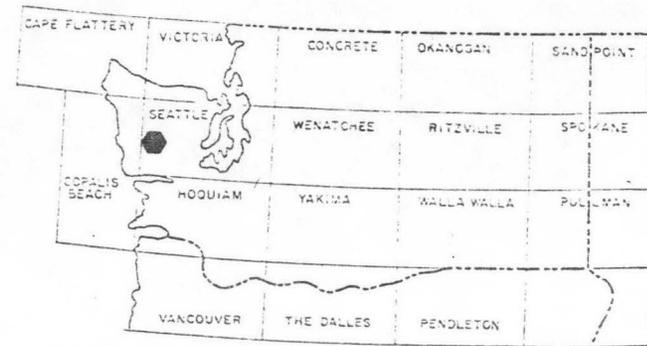
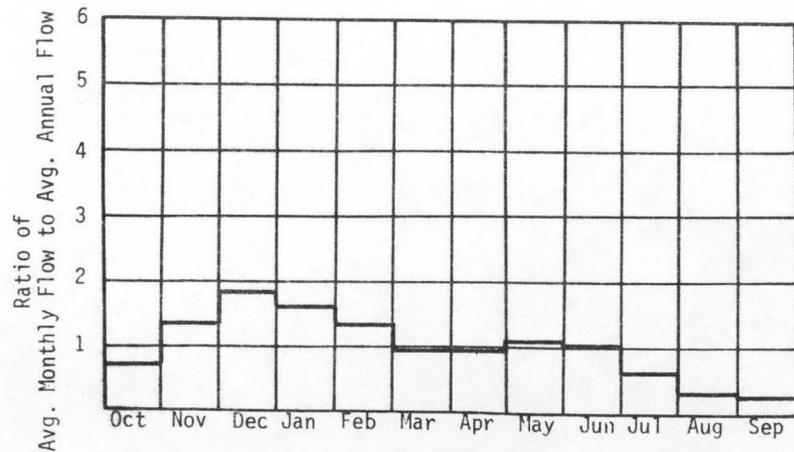
A. Upstream Elevation of Reach	<u>990</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>880</u>	Ft. MSL
C. Total Available Head in Reach	<u>110</u>	Ft.
D. Average Slope in Reach	<u>138</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

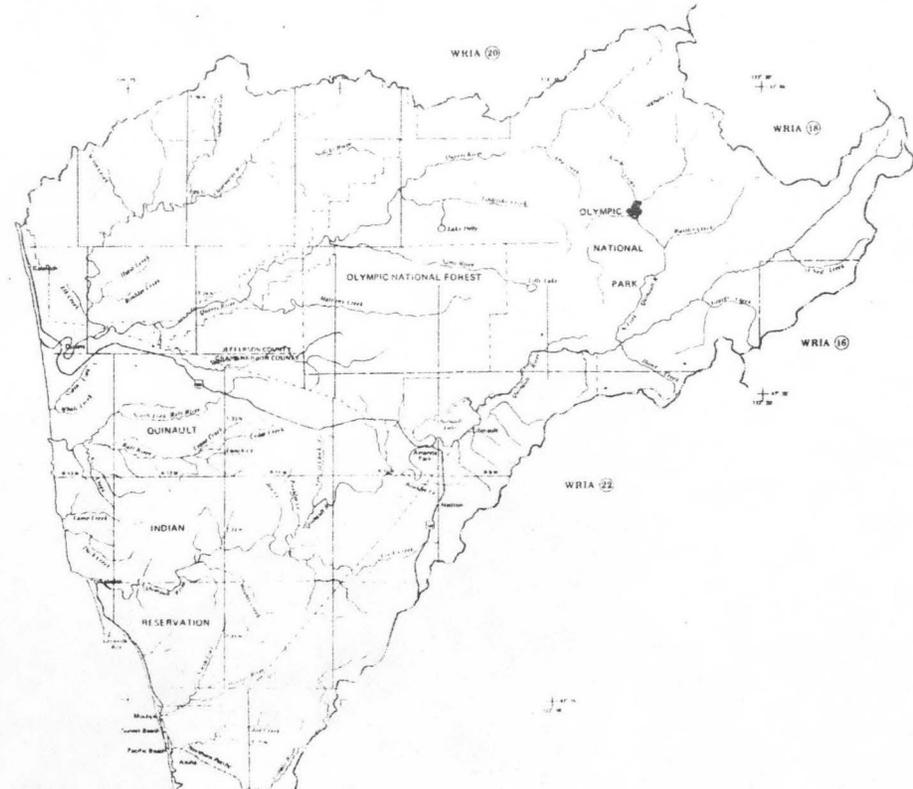
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	78.1	0.73	6.37	1.00
80	139	1.29	10.7	0.95
50	263	2.45	17.2	0.80
30	394	3.67	21.5	0.67
10	664	6.18	25.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 355 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0029

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R7W</u>
D. Latitude, Longitude	<u>47°40' 123°37'</u>
E. Stream Name	<u>N.F. Quinault River</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>10.7/13.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

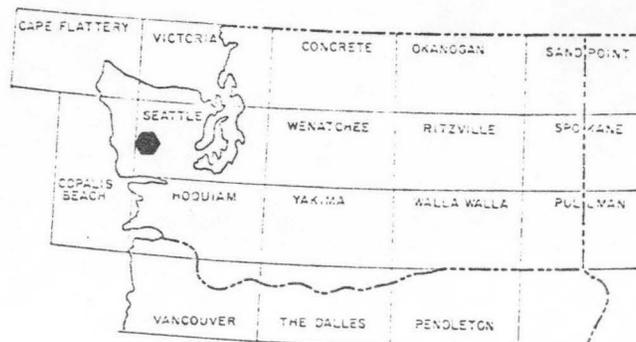
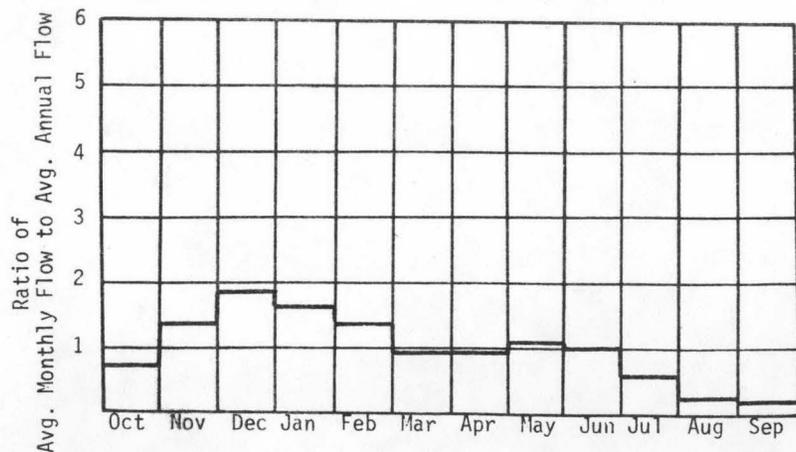
A. Upstream Elevation of Reach	<u>1710</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>990</u>	Ft. MSL
C. Total Available Head in Reach	<u>720</u>	Ft.
D. Average Slope in Reach	<u>240</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>28.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

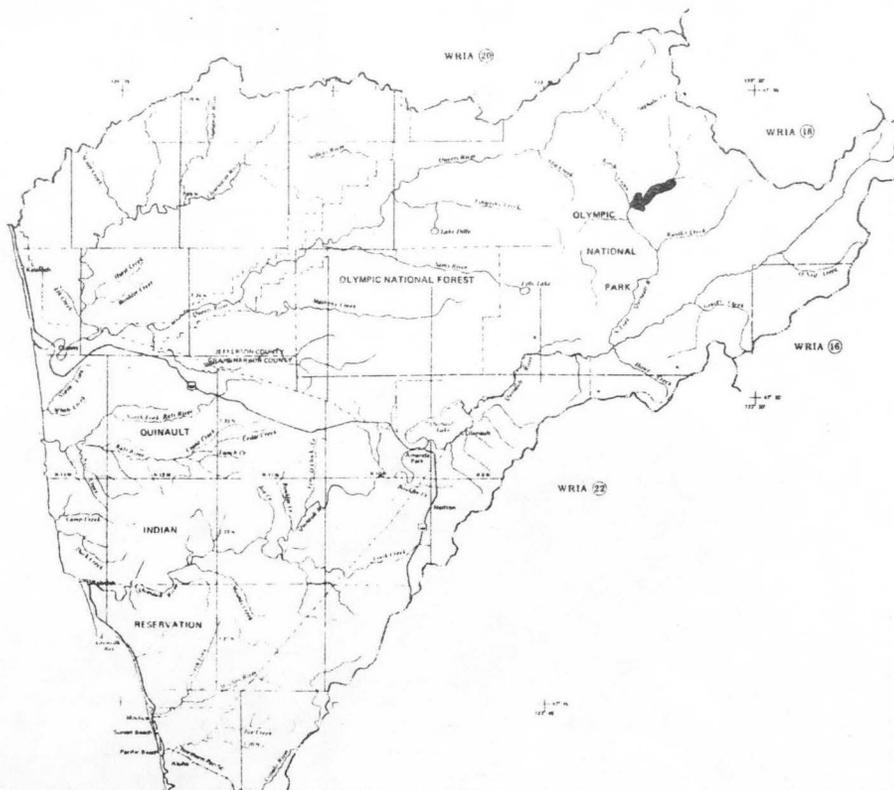
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	59.4	3.62	31.7	1.00
80	105	6.42	53.4	0.95
50	200	12.2	85.3	0.80
30	300	18.3	107	0.67
10	505	30.8	127	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 270 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0030

I. LOCATION

A. State Washington
 B. County Jefferson
 C. Township, Range T24N R7W
 D. Latitude, Longitude 47°41' 123°35'
 E. Stream Name N.E. Quinault River
 F. Major Basin Name Quinault
 G. River Mile 13.7/15.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

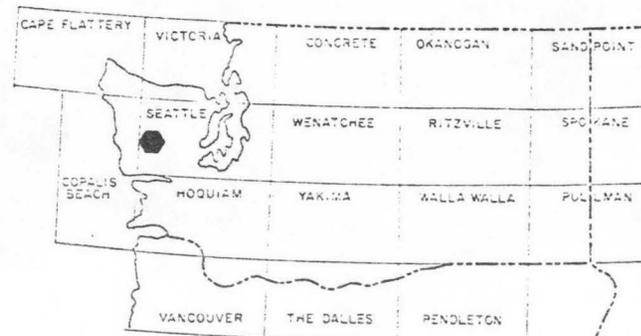
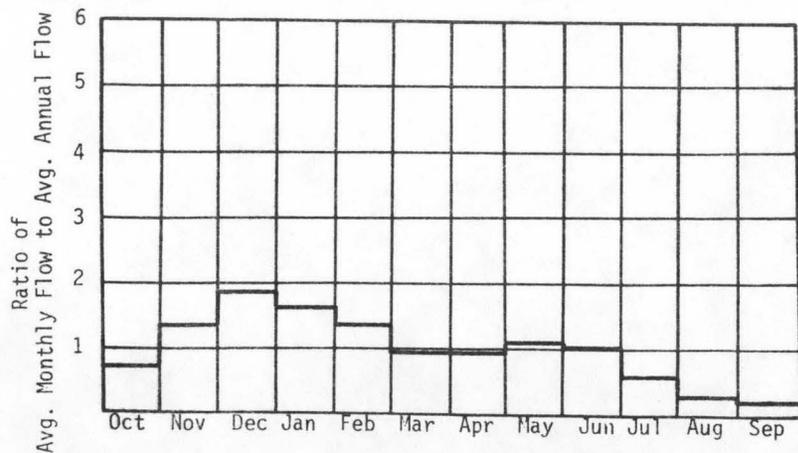
A. Upstream Elevation of Reach 2070 Ft. MSL
 B. Downstream Elevation of Reach 1710 Ft. MSL
 C. Total Available Head in Reach 360 Ft.
 D. Average Slope in Reach 225 Ft./Mi.
 E. Drainage Area above Reach Mouth 14.4 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

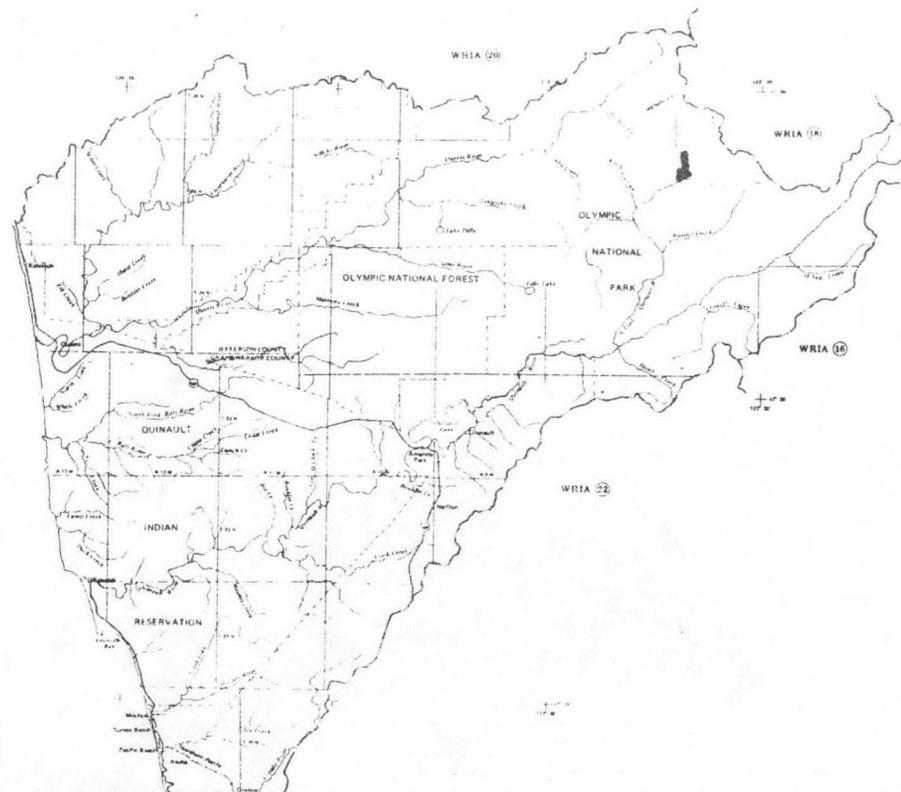
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	36.5	1.11	9.75	1.00
80	64.7	1.97	16.4	0.95
50	123	3.74	26.2	0.80
30	184	5.61	33.0	0.67
10	310	9.46	38.9	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 166 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0031

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R7W</u>
D. Latitude, Longitude	<u>47°43' 123°37'</u>
E. Stream Name	<u>Promise Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>15.3/15.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

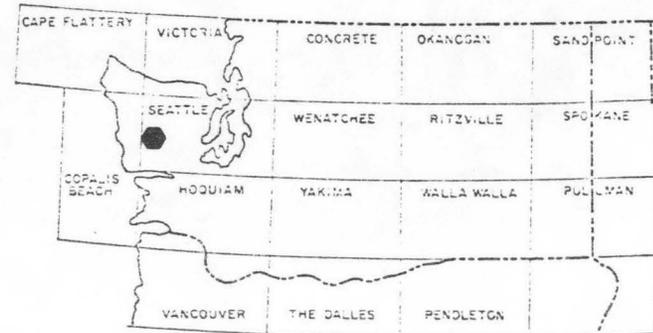
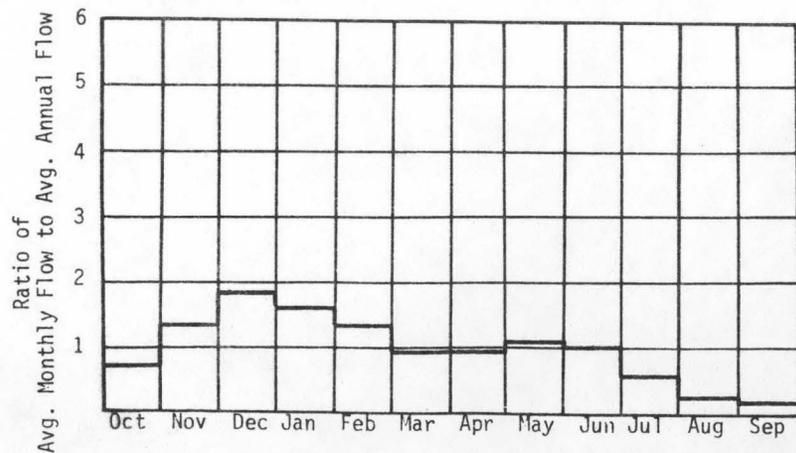
A. Upstream Elevation of Reach	<u>2200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2070</u>	Ft. MSL
C. Total Available Head in Reach	<u>130</u>	Ft.
D. Average Slope in Reach	<u>217</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>7.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

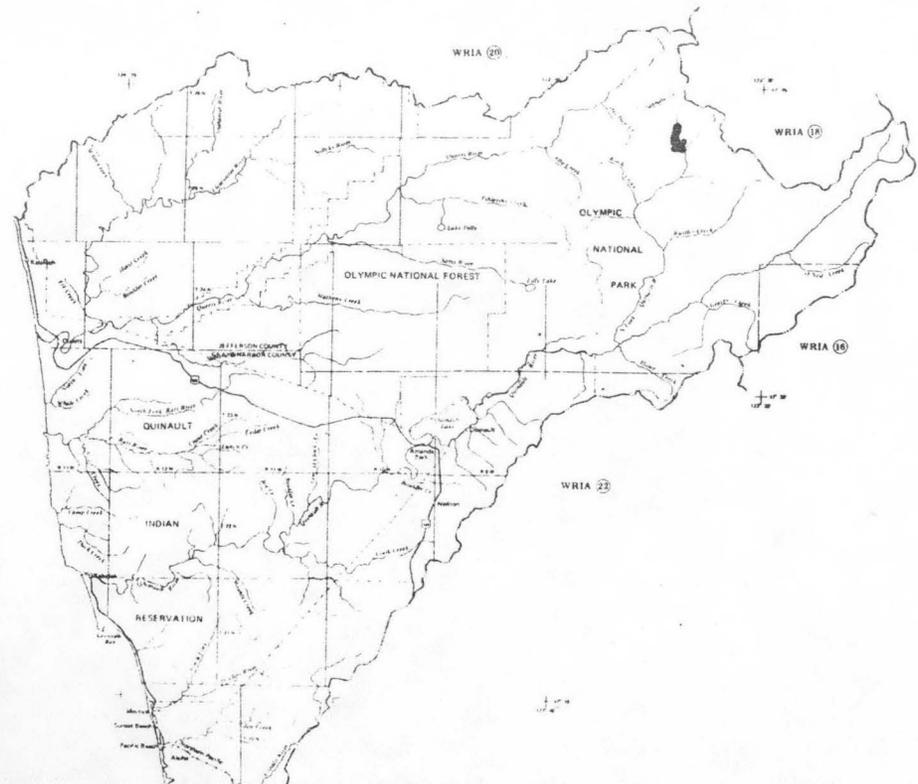
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	18.5	0.20	1.78	1.00
80	32.8	0.36	3.00	0.95
50	62.2	0.68	4.79	0.80
30	93.2	1.03	6.02	0.67
10	157	1.74	7.12	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 84 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0032

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R7W</u>
D. Latitude, Longitude	<u>47°37' 123°34'</u>
E. Stream Name	<u>Rustler Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/7.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

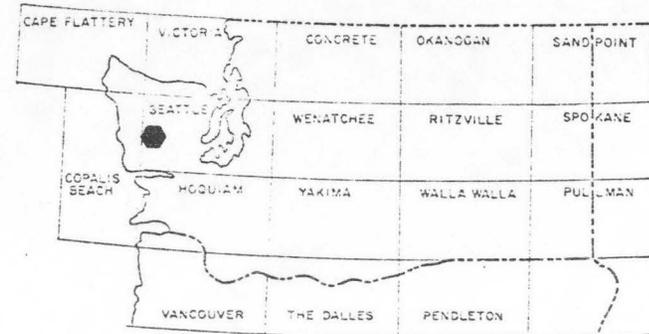
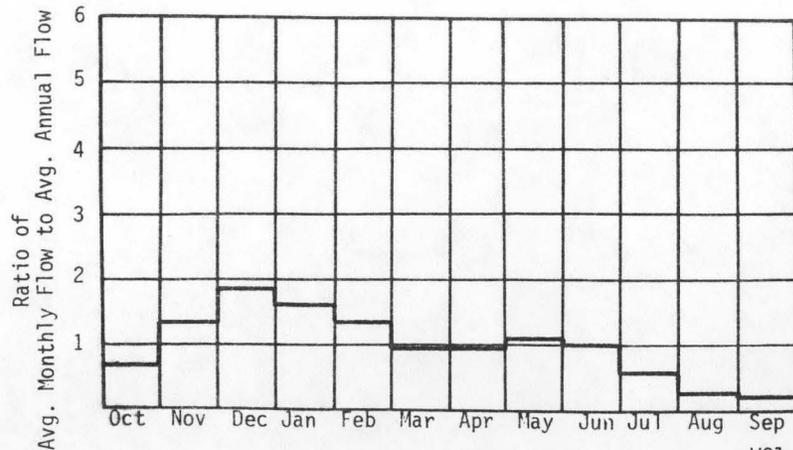
A. Upstream Elevation of Reach	<u>2350</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>700</u>	Ft. MSL
C. Total Available Head in Reach	<u>1650 + 66 = 1716</u>	Ft.
D. Average Slope in Reach	<u>229</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.9</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

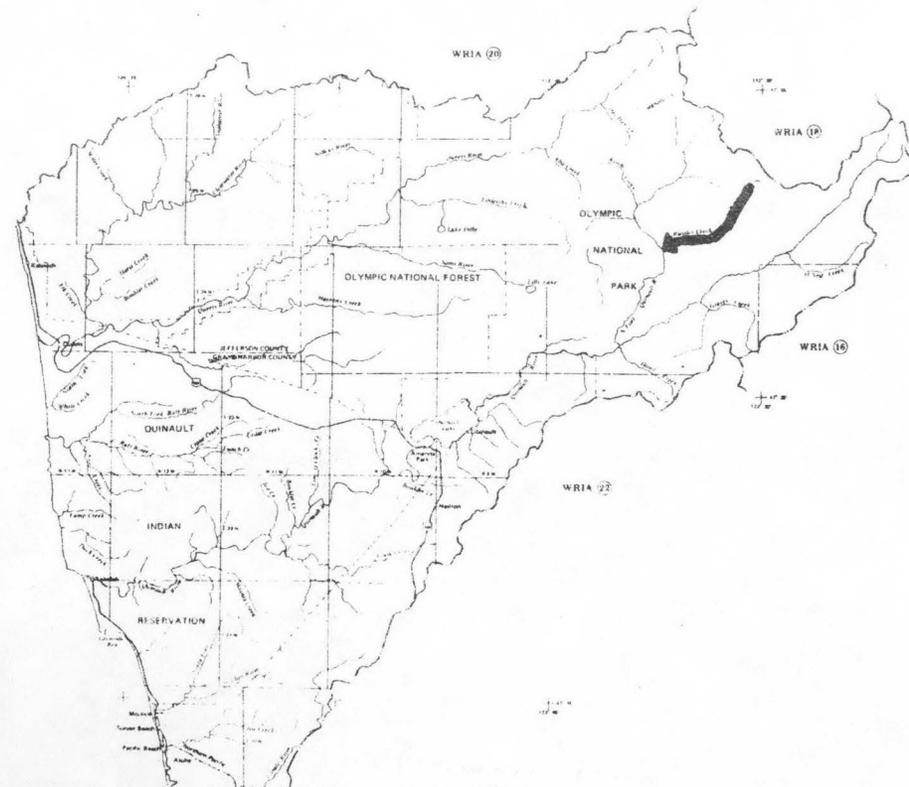
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	35.4	5.14	45.1	1.00
80	62.8	9.12	75.9	0.95
50	119	17.3	121	0.80
30	179	26.0	152	0.67
10	301	43.7	180	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 161 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0033

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R8W</u>
D. Latitude, Longitude	<u>47°40' 123°40'</u>
E. Stream Name	<u>Kinta Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

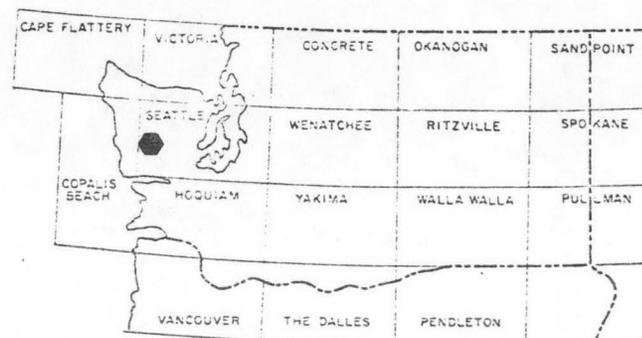
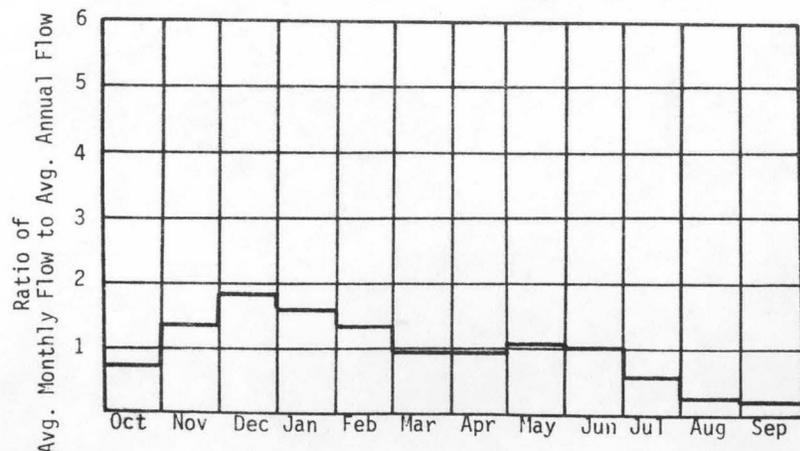
A. Upstream Elevation of Reach	<u>2060</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>990</u>	Ft. MSL
C. Total Available Head in Reach	<u>1070 + 66 = 1136</u>	Ft.
D. Average Slope in Reach	<u>563</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>5.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.3	1.18	10.4	1.00
80	21.8	2.10	17.5	0.95
50	41.4	3.98	27.9	0.80
30	62.2	5.98	35.1	0.67
10	105	10.1	41.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 56 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-R0034

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T25N R7W</u>
D. Latitude, Longitude	<u>47°40' 123°</u>
E. Stream Name	<u>Geoduck Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

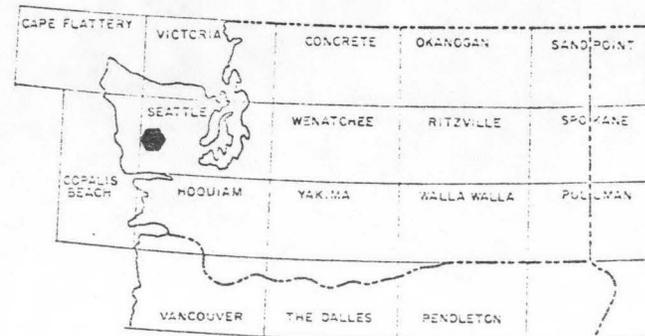
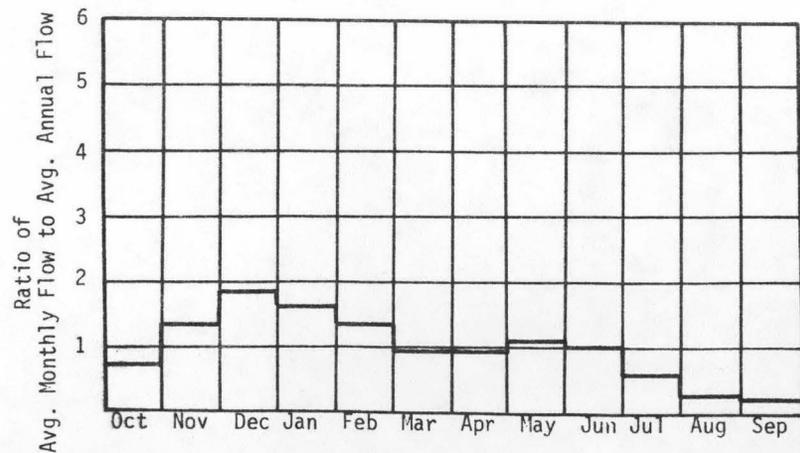
A. Upstream Elevation of Reach	<u>2275</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1710</u>	Ft. MSL
C. Total Available Head in Reach	<u>565 + 66 = 631</u>	Ft.
D. Average Slope in Reach	<u>377</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>7.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

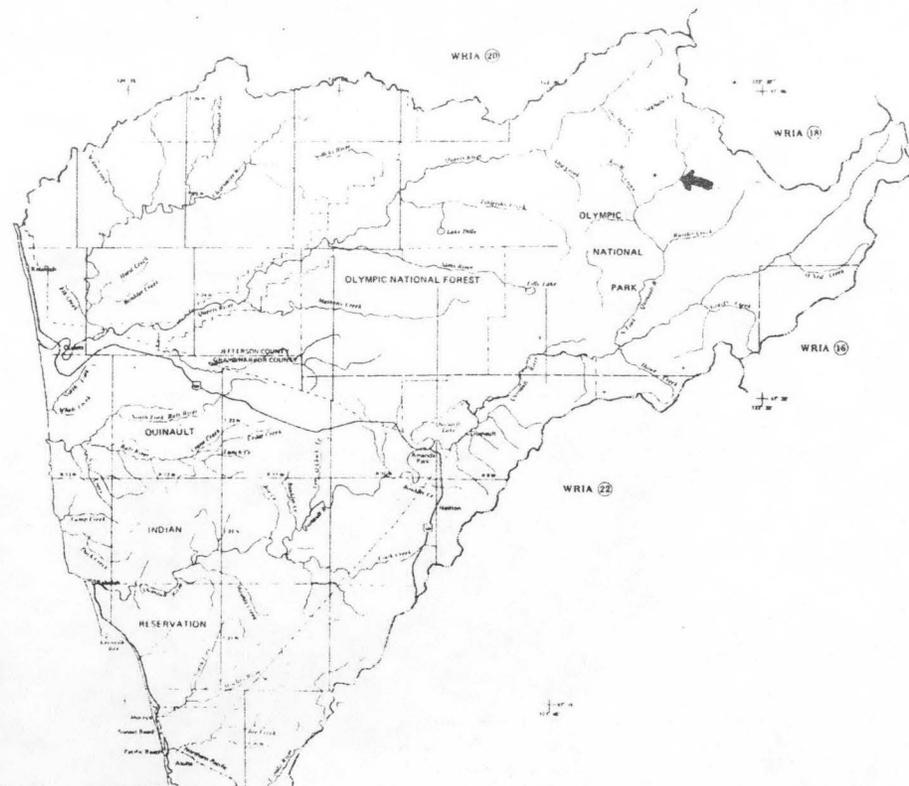
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	15.4	0.82	7.20	1.00
80	27.3	1.46	12.1	0.95
50	51.8	2.77	19.4	0.80
30	77.7	4.15	24.3	0.67
10	131	6.99	28.8	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 70 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0035

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T26N R7W</u>
D. Latitude, Longitude	<u>47°43' 123°36'</u>
E. Stream Name	<u>N.F. Quinault</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/1.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

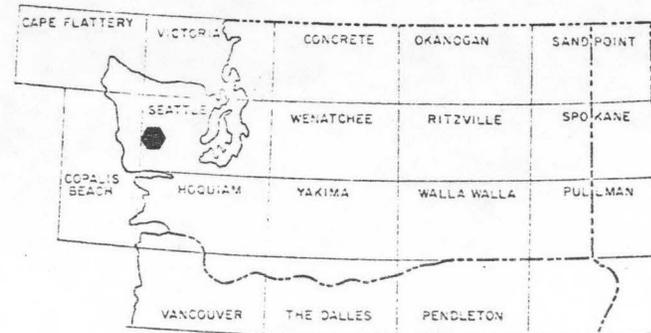
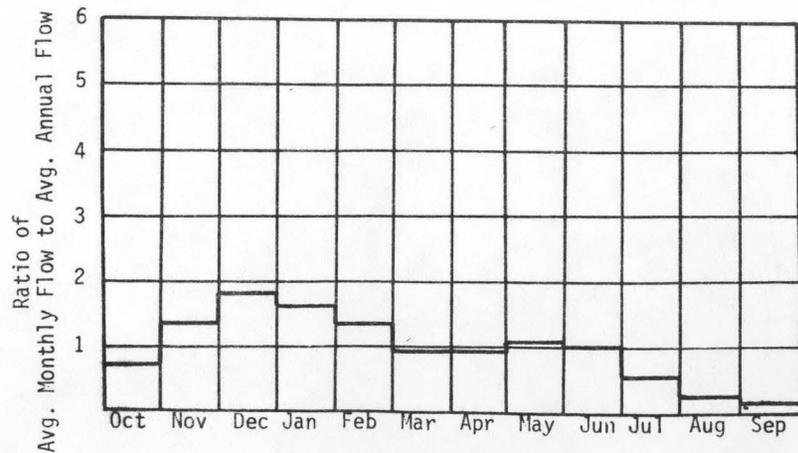
A. Upstream Elevation of Reach	<u>2800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>2070</u>	Ft. MSL
C. Total Available Head in Reach	<u>730 + 66 = 796</u>	Ft.
D. Average Slope in Reach	<u>730</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

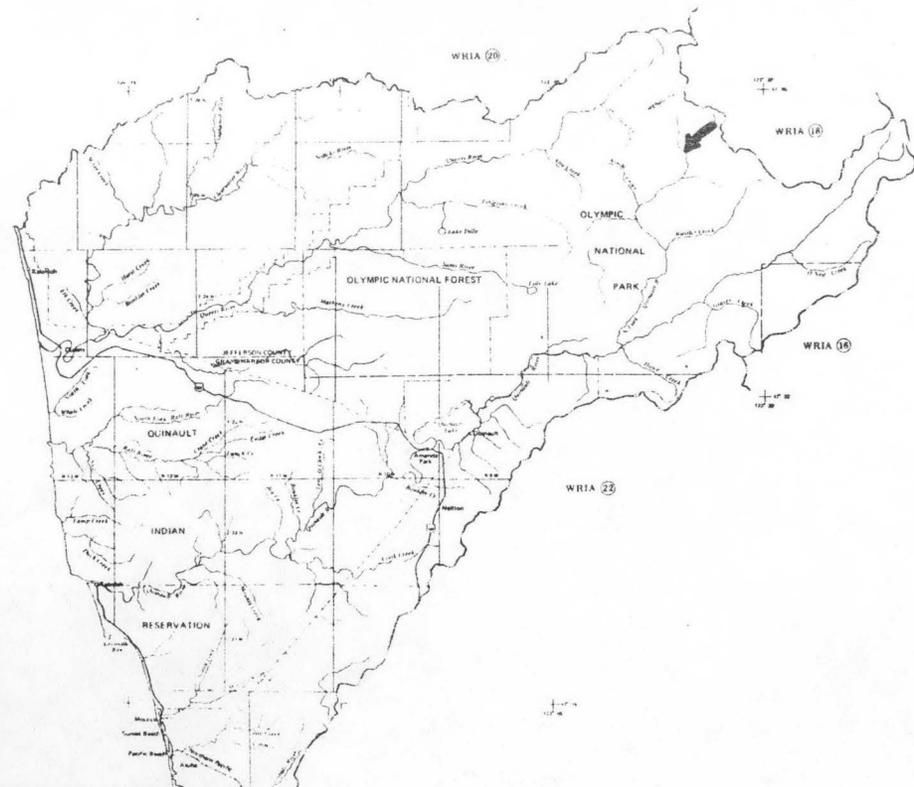
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.2	1.50	13.1	1.00
80	39.4	2.65	22.1	0.95
50	74.7	5.03	35.3	0.80
30	112	7.55	44.3	0.67
10	189	12.7	52.4	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 101 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0036

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R7W</u>
D. Latitude, Longitude	<u>47°34' 123°35'</u>
E. Stream Name	<u>Graves Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/0.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

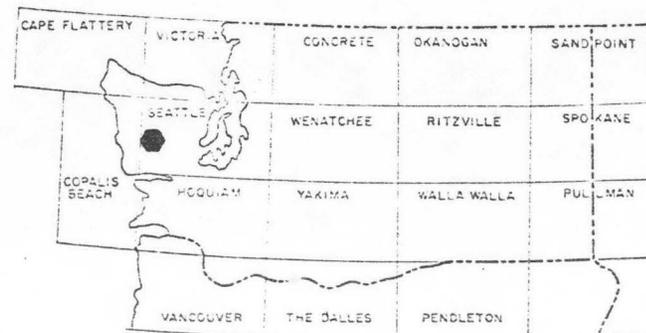
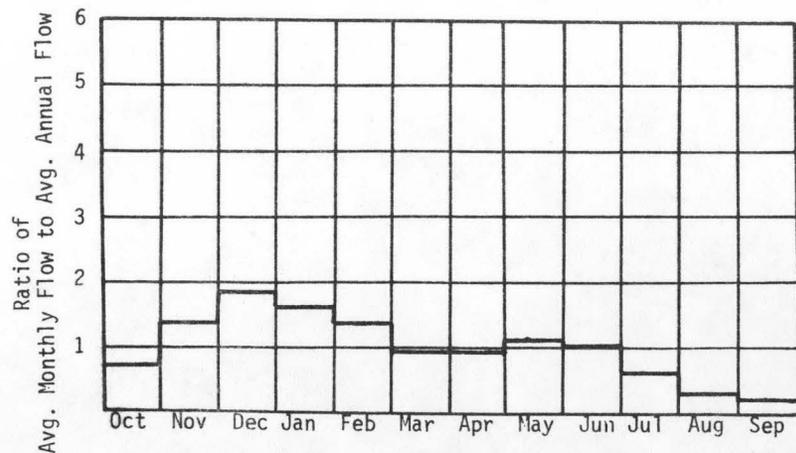
A. Upstream Elevation of Reach	<u>750</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>570</u>	Ft. MSL
C. Total Available Head in Reach	<u>180</u>	Ft.
D. Average Slope in Reach	<u>300</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>18.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

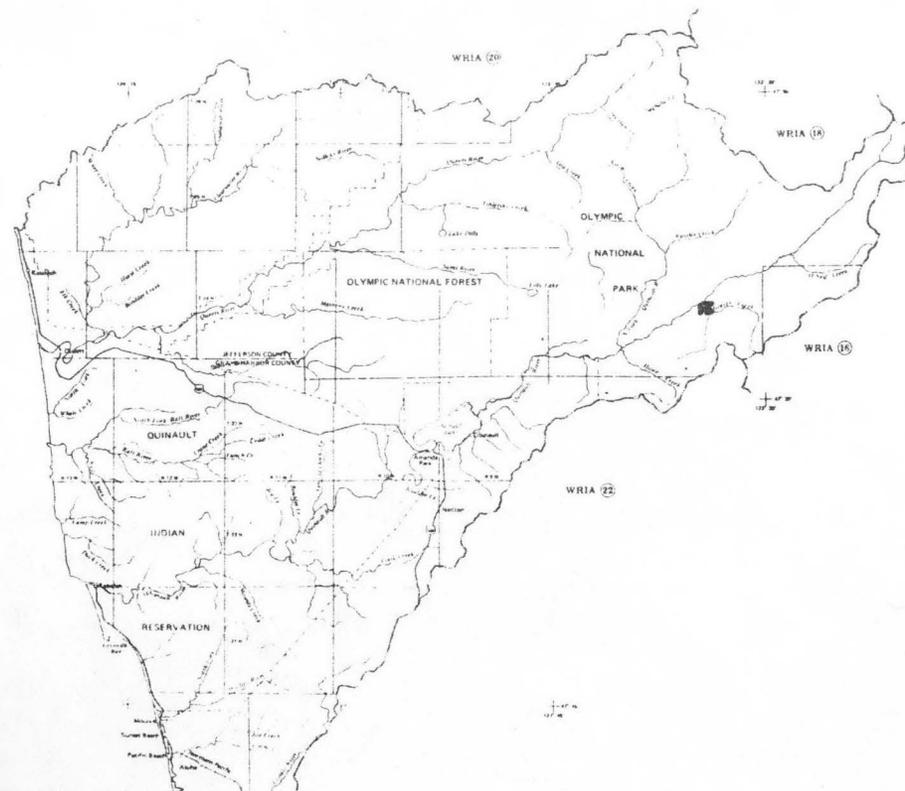
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	41.6	0.63	5.55	1.00
80	85.4	1.30	10.6	0.93
50	169	2.57	18.0	0.80
30	241	3.67	21.9	0.68
10	423	6.44	26.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 219 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0037

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R7W</u>
D. Latitude, Longitude	<u>47°34' 123°33'</u>
E. Stream Name	<u>Graves Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.6/3.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

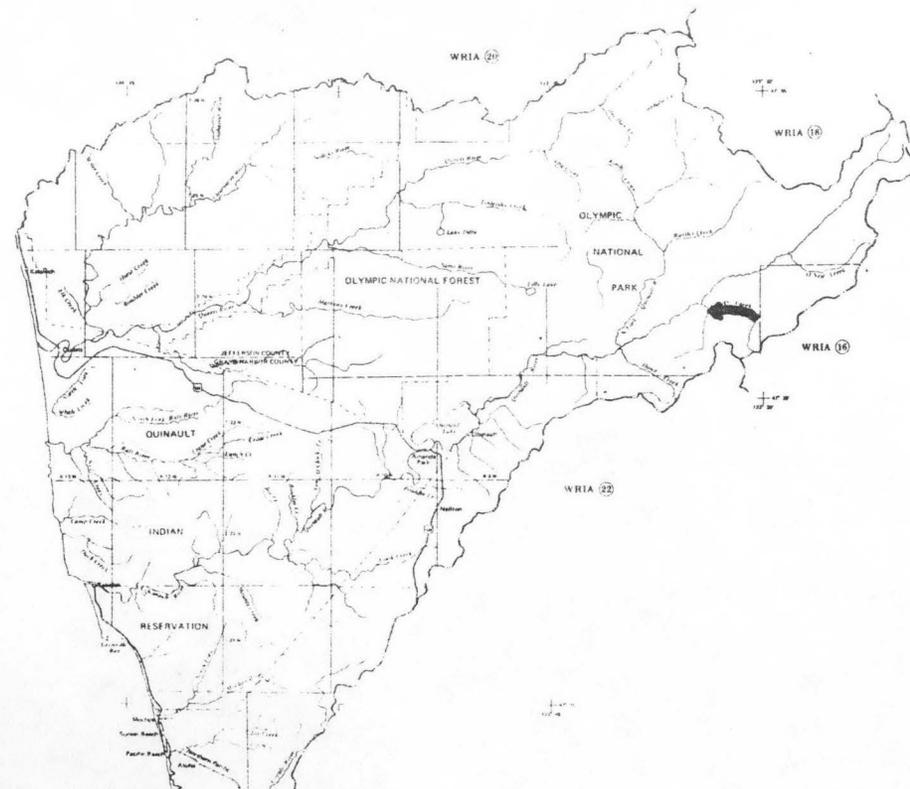
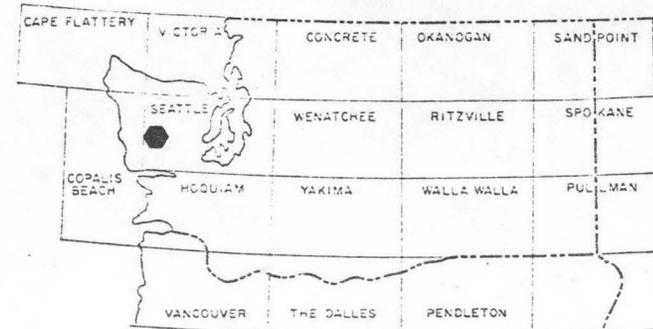
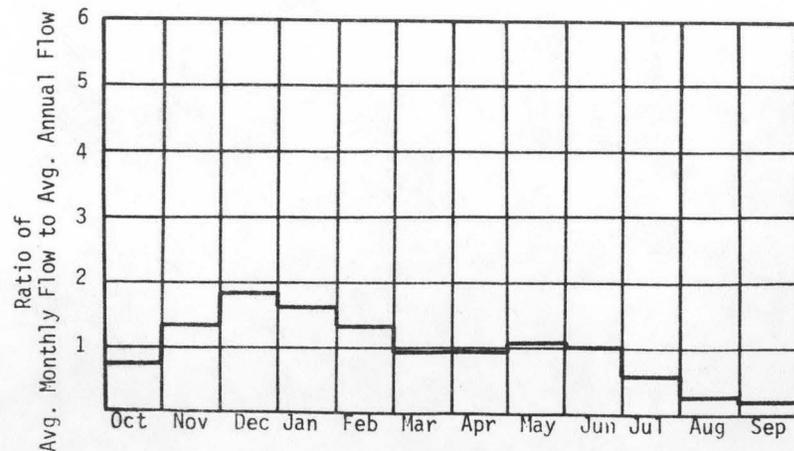
A. Upstream Elevation of Reach	<u>1890</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>750</u>	Ft. MSL
C. Total Available Head in Reach	<u>1140 + 66 = 1206</u>	Ft.
D. Average Slope in Reach	<u>380</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.1	2.15	18.9	1.00
80	43.3	4.42	36.0	0.93
50	85.5	8.72	61.1	0.80
30	122	12.5	74.2	0.68
10	214	21.9	90.0	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 111 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0038

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Jefferson</u>
C. Township, Range	<u>T24N R7W</u>
D. Latitude, Longitude	<u>47°33' 123°34'</u>
E. Stream Name	<u>Litchy Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/2.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

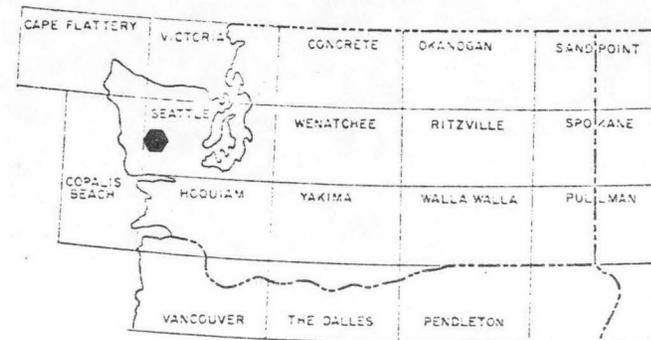
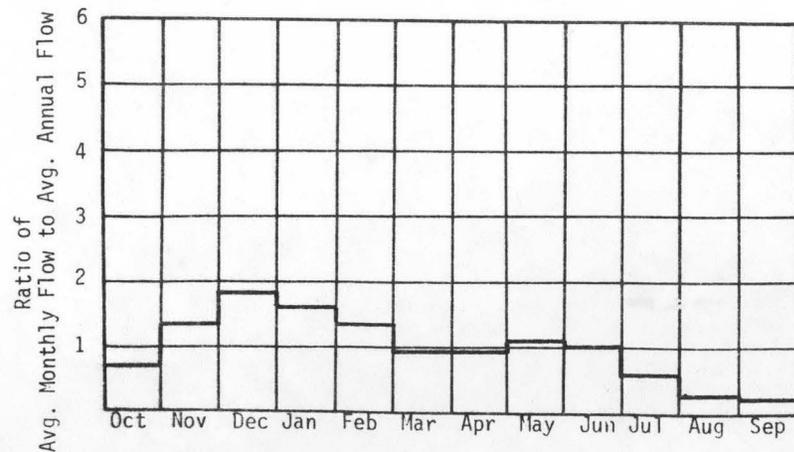
A. Upstream Elevation of Reach	<u>1600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>750</u>	Ft. MSL
C. Total Available Head in Reach	<u>850 + 66 = 916</u>	Ft.
D. Average Slope in Reach	<u>370</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>6.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.1	1.02	8.90	1.00
80	26.9	2.09	17.0	0.93
50	53.1	4.12	29.0	0.80
30	75.9	5.88	35.0	0.68
10	133	10.3	42.5	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-045-000-000-000-R0039

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T24N R6W</u>
D. Latitude, Longitude	<u>47°36' 123°27'</u>
E. Stream Name	<u>O'Neil Creek</u>
F. Major Basin Name	<u>Quinault</u>
G. River Mile	<u>0.0/2.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

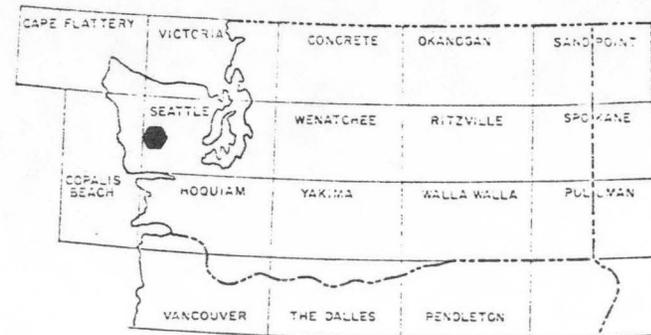
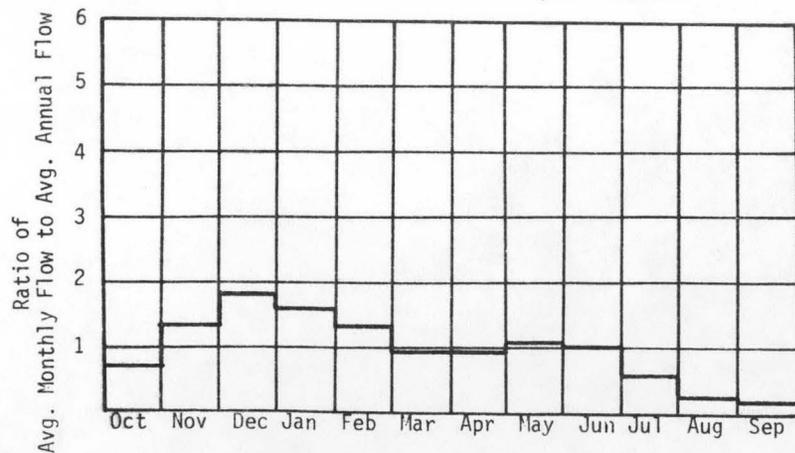
A. Upstream Elevation of Reach	<u>1890</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>1100</u>	Ft. MSL
C. Total Available Head in Reach	<u>790 + 66 = 856</u>	Ft.
D. Average Slope in Reach	<u>304</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10.8</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

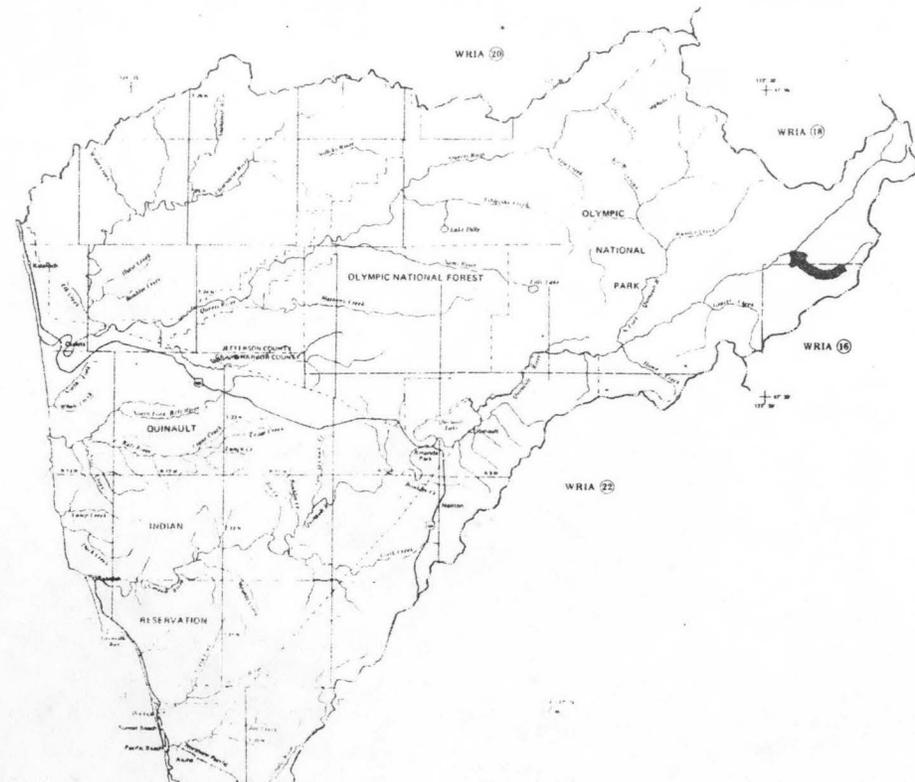
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.0	1.44	12.7	1.00
80	41.0	2.97	24.2	0.93
50	80.9	5.85	41.0	0.80
30	116	8.36	49.8	0.68
10	203	14.7	60.4	0.47

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 105 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-046-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Grays Harbor
 C. Township, Range T27N R12W
 D. Latitude, Longitude 47°15' 124°12'
 E. Stream Name Moclips
 F. Major Basin Name Moclips
 G. River Mile 0/3.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

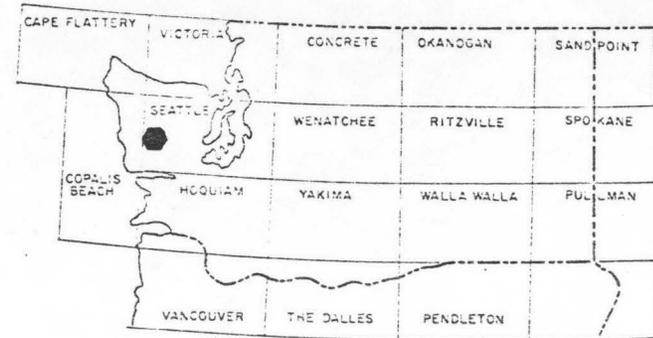
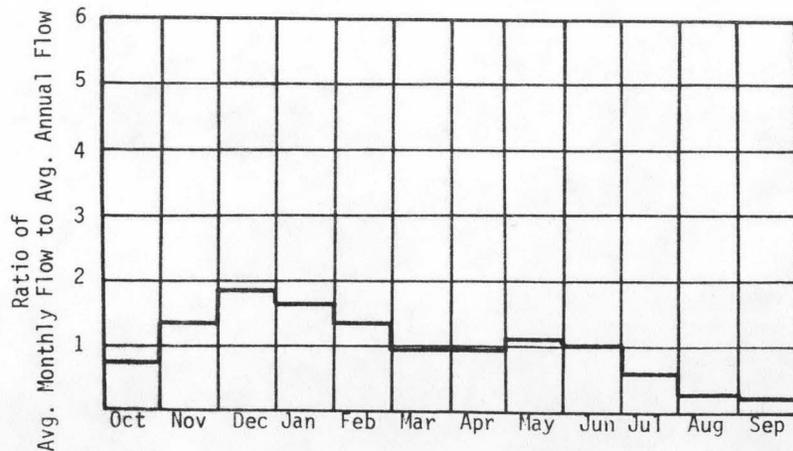
A. Upstream Elevation of Reach 45 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 45 Ft.
 D. Average Slope in Reach 14.5 Ft./Mi.
 E. Drainage Area above Reach Mouth 36.9 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.4	0.09	0.75	1.00
80	40.8	0.16	1.28	0.94
50	122	0.47	3.02	0.74
30	212	0.81	4.25	0.60
10	479	1.83	3.92	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 204 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-046-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R12W</u>
D. Latitude, Longitude	<u>47°09' 124°17'</u>
E. Stream Name	<u>Moclips</u>
F. Major Basin Name	<u>Moclips</u>
G. River Mile	<u>3.1/13.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

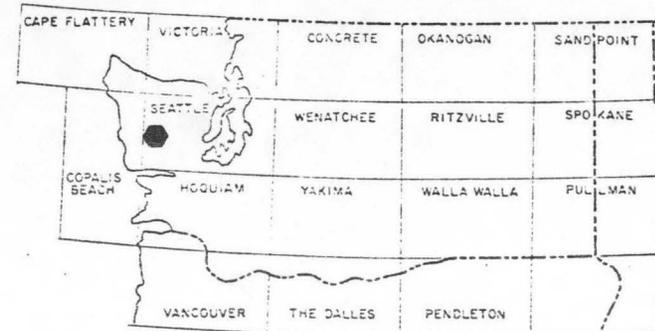
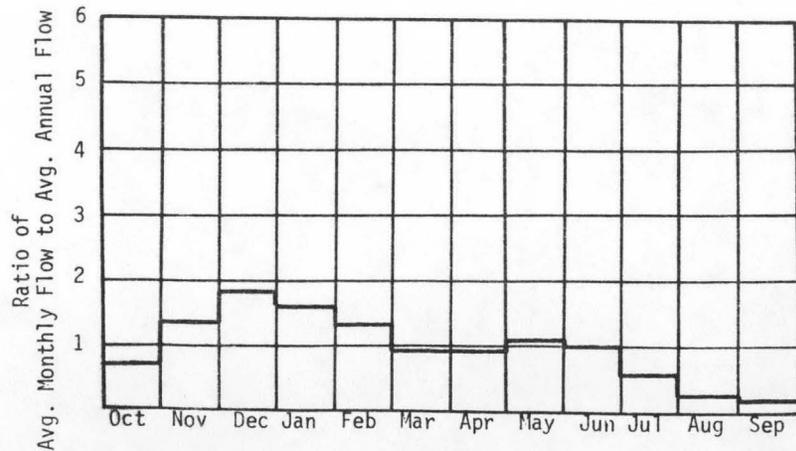
A. Upstream Elevation of Reach	<u>260</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>45</u>	Ft. MSL
C. Total Available Head in Reach	<u>215 + 66 = 281</u>	Ft.
D. Average Slope in Reach	<u>22</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>34</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

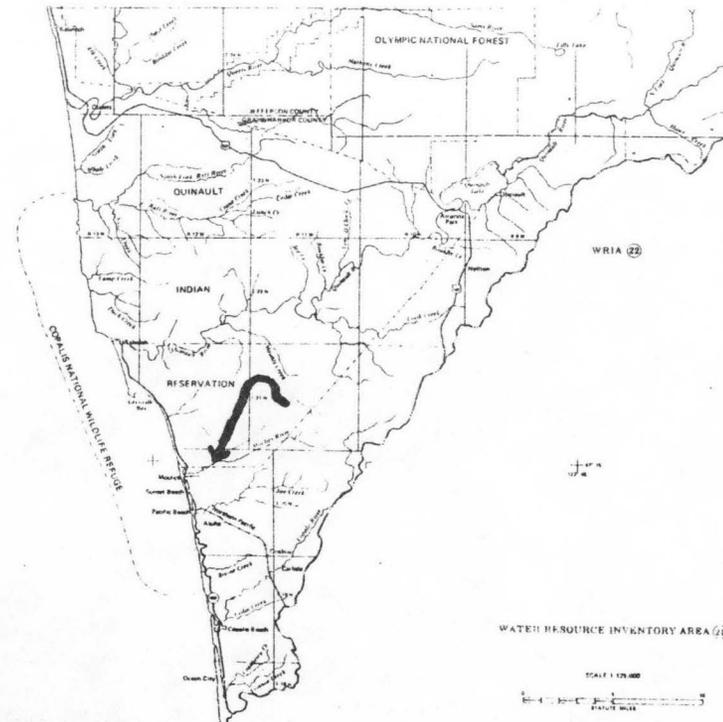
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.4	0.32	2.80	1.00
80	24.4	0.58	2.95	0.94
50	73.2	1.74	11.3	0.74
30	127	3.02	15.9	0.60
10	287	6.82	22.1	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 122 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-047-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R12W</u>
D. Latitude, Longitude	<u>47°07' 124°10'</u>
E. Stream Name	<u>Copalis River</u>
F. Major Basin Name	<u>Copalis River</u>
G. River Mile	<u>0/1.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

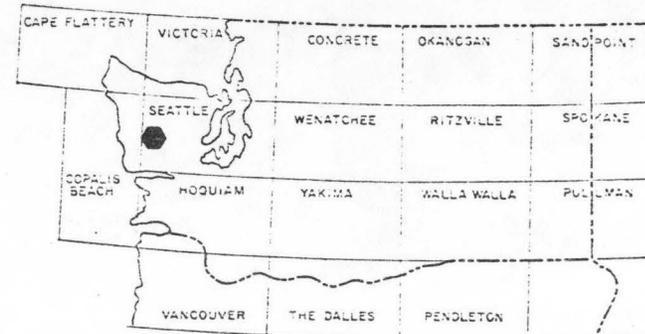
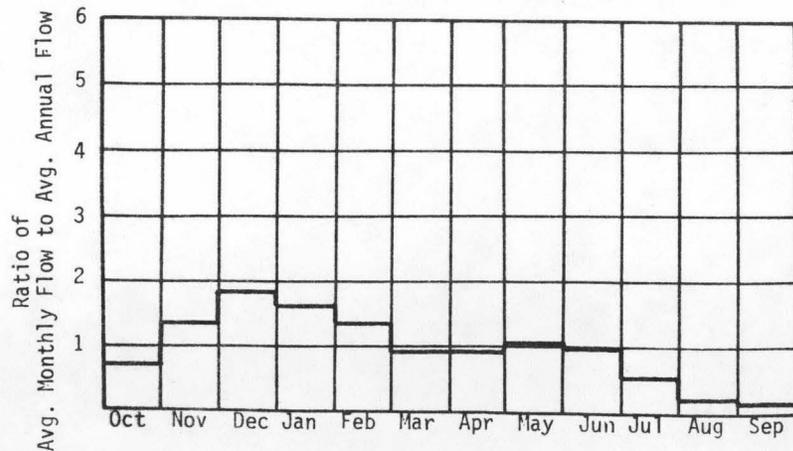
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>40.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

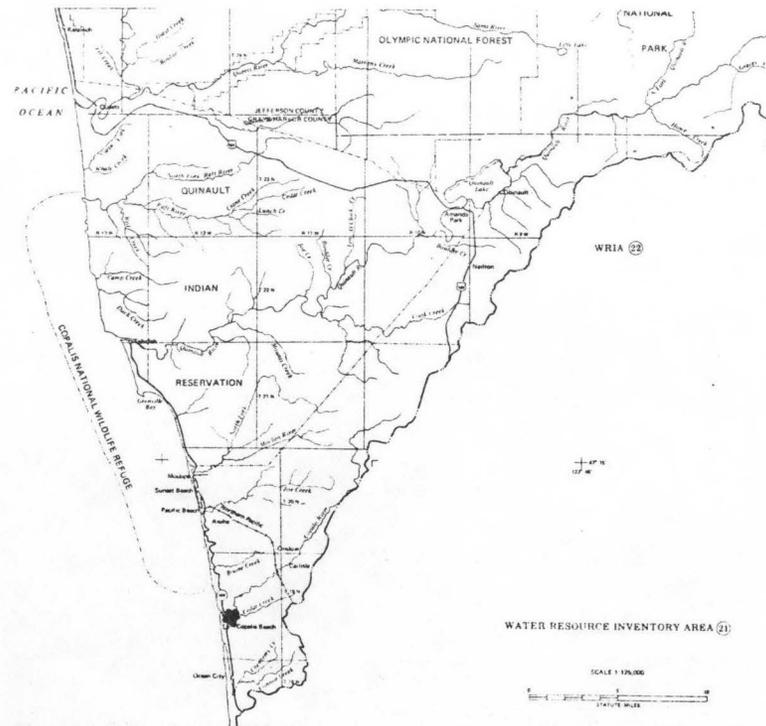
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.3	0.00	0.00	1.00
80	46.0	0.00	0.00	0.94
50	130	0.00	0.00	0.74
30	239	0.00	0.00	0.60
10	540	0.00	0.00	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 230 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-047-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R12W</u>
D. Latitude, Longitude	<u>47°08' 124°09'</u>
E. Stream Name	<u>Copalis</u>
F. Major Basin Name	<u>Copalis</u>
G. River Mile	<u>1.7/4.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

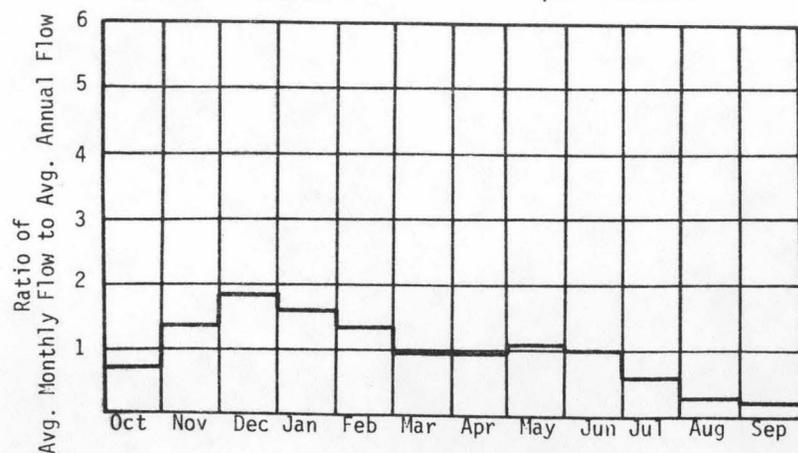
A. Upstream Elevation of Reach	<u>15</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>15</u>	Ft.
D. Average Slope in Reach	<u>6.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>32.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

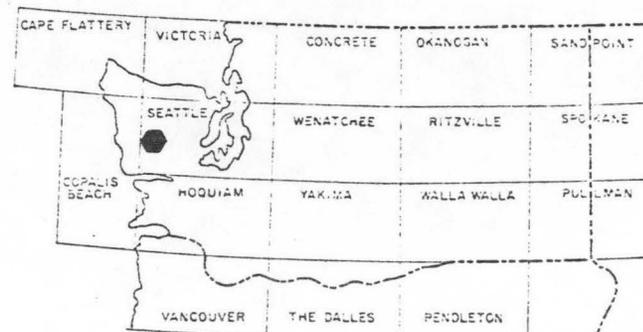
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.2	0.03	0.23	1.00
80	36.8	0.05	0.28	0.94
50	110	0.14	0.91	0.74
30	191	0.24	1.28	0.60
10	432	0.55	1.78	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

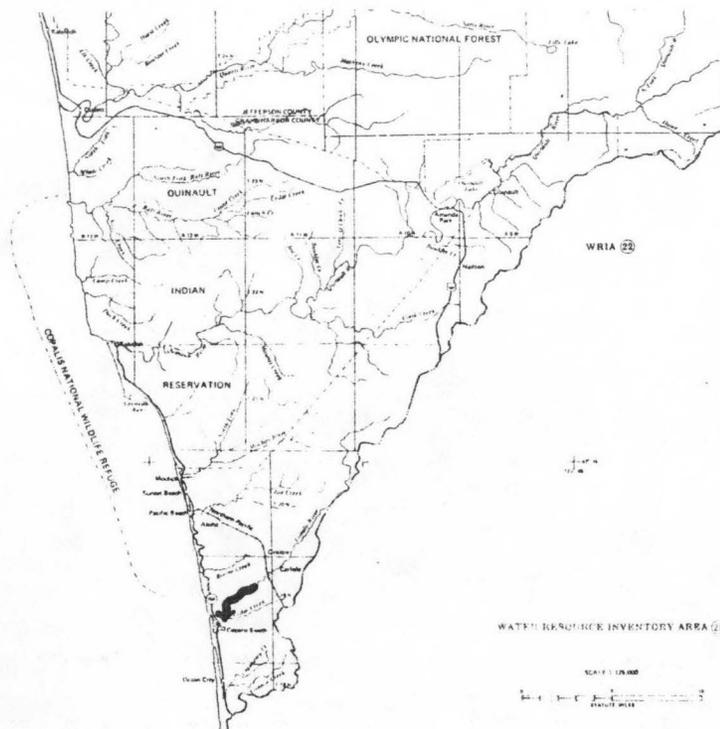
QMR = 184 cfs



W21-715



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA (2)

SCALE 1:25,000

STATUTE MILES

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-047-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R12W</u>
D. Latitude, Longitude	<u>47°09' 124°07'</u>
E. Stream Name	<u>Copalis</u>
F. Major Basin Name	<u>Copalis</u>
G. River Mile	<u>4.0/8.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

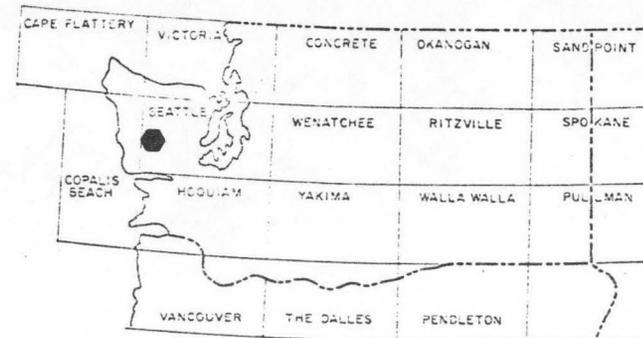
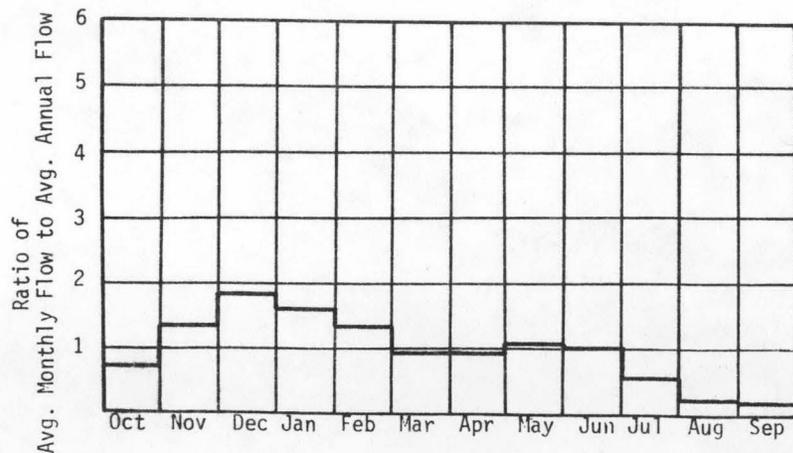
A. Upstream Elevation of Reach	<u>65</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>15</u>	Ft. MSL
C. Total Available Head in Reach	<u>50 + 66 = 116</u>	Ft.
D. Average Slope in Reach	<u>11</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>29.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.4	0.17	1.49	1.00
80	31.6	0.31	2.55	0.94
50	94.8	0.93	6.03	0.74
30	164	1.61	8.48	0.60
10	371	3.65	11.8	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 158 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R11W</u>
D. Latitude, Longitude	<u>47°05' 124°04'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>0.0/9.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

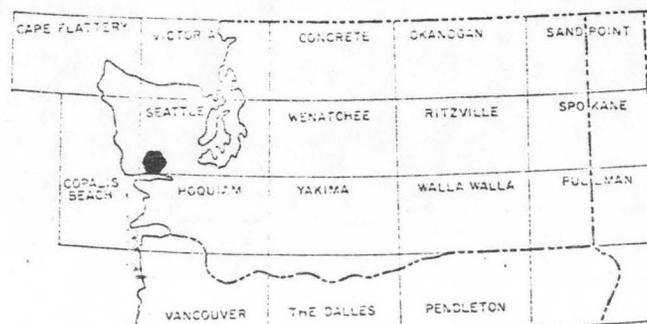
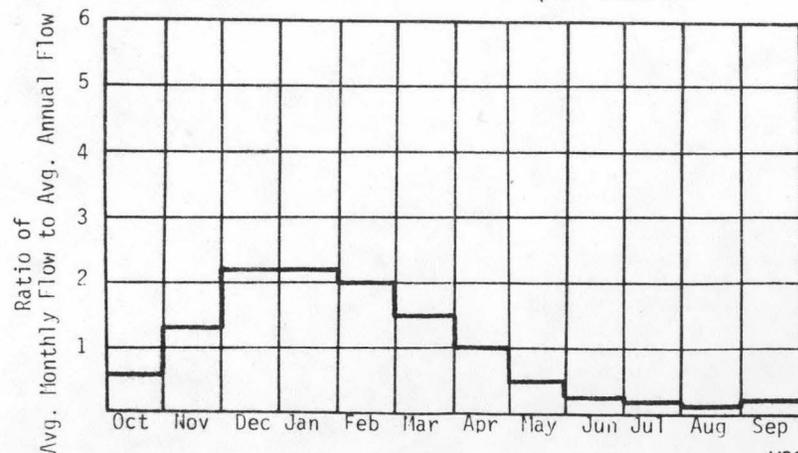
A. Upstream Elevation of Reach	<u>30</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>3.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>244</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

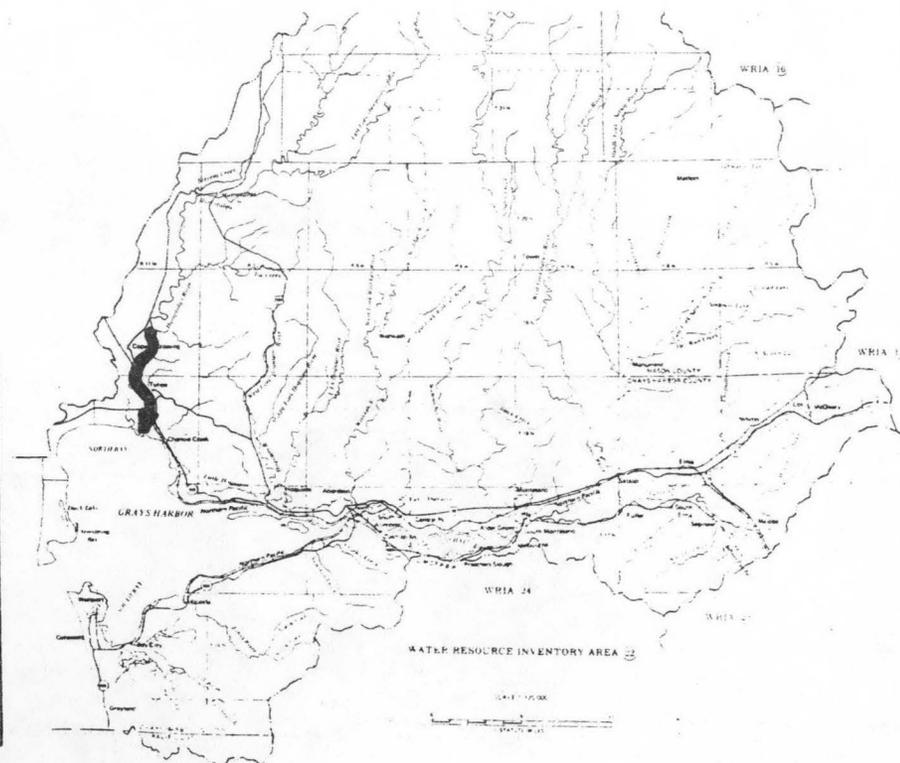
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	220	0.56	4.89	1.00
80	400	1.02	8.36	0.94
50	1200	3.05	19.7	0.74
30	2080	5.28	27.8	0.60
10	4700	11.9	38.7	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2000 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R11W</u>
D. Latitude, Longitude	<u>47°08' 124°02'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>9.6/15.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

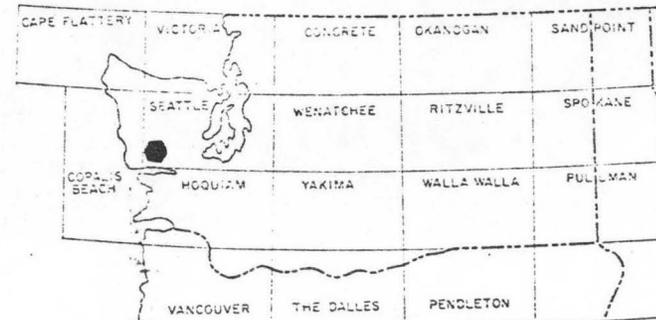
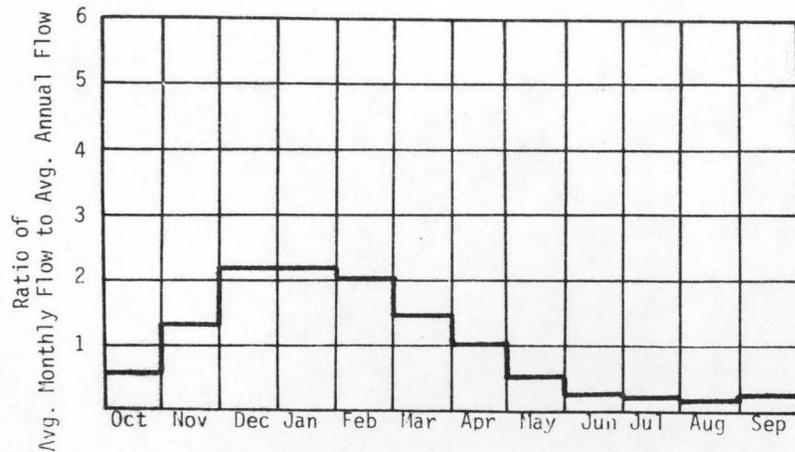
A. Upstream Elevation of Reach	<u>50</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>3.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>214</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

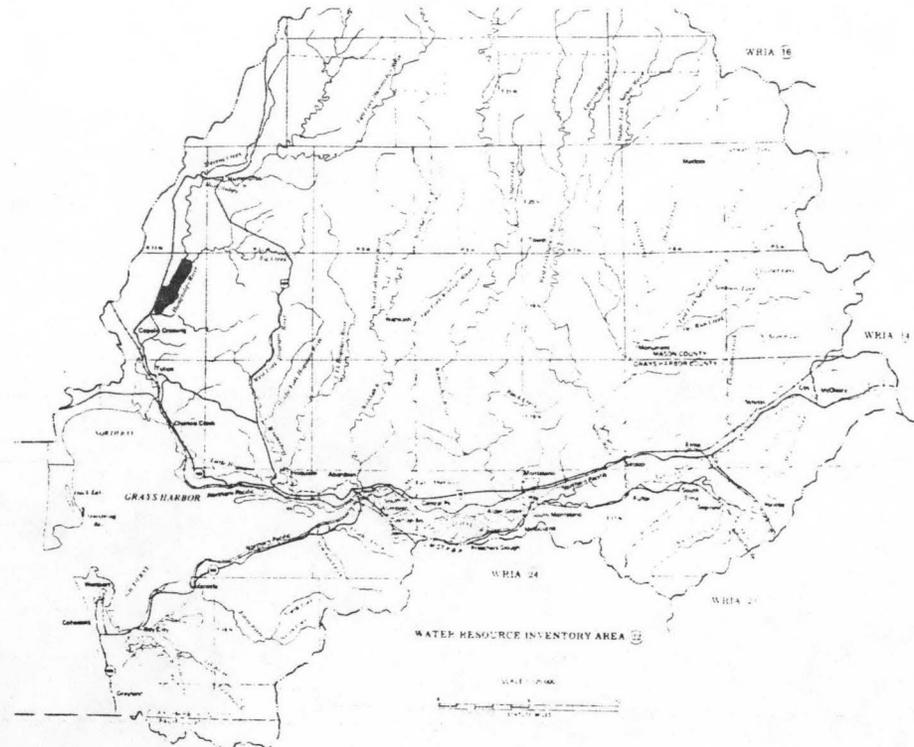
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	202	0.34	2.99	1.00
80	367	0.62	5.11	0.94
50	1100	1.86	12.1	0.74
30	1900	3.23	17.0	0.60
10	4310	7.30	23.7	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1835 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0003

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T20N R11W
D. Latitude, Longitude	47°12' 124°00'
E. Stream Name	Humptulips River
F. Major Basin Name	Humptulips
G. River Mile	15.6/23.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

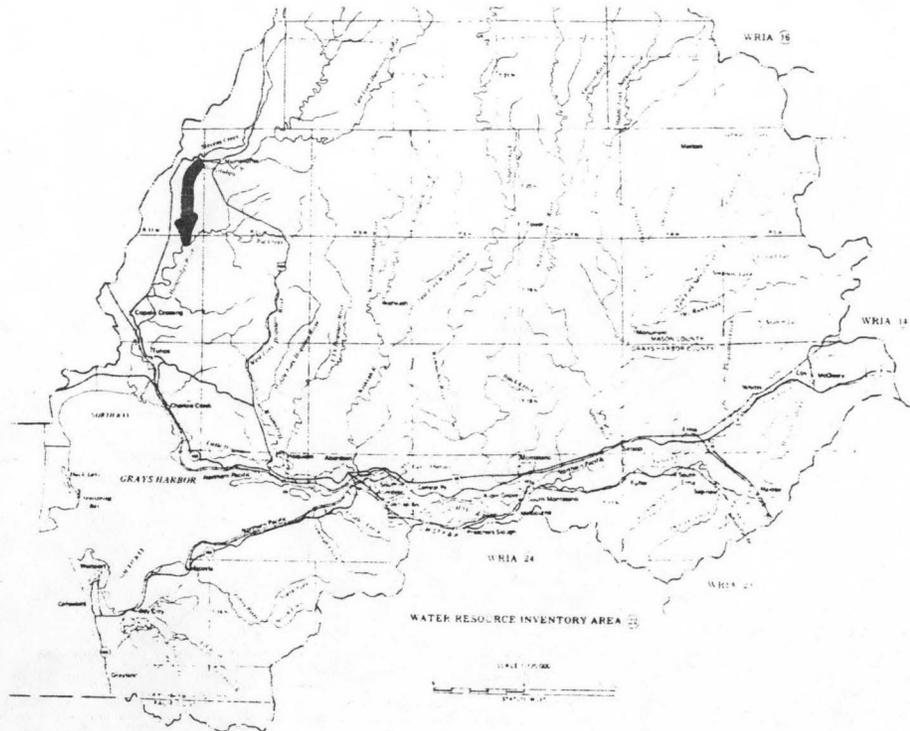
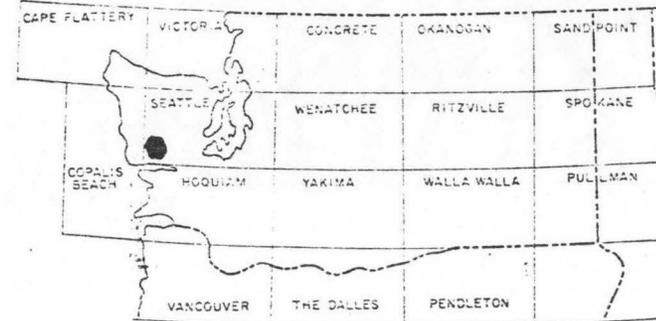
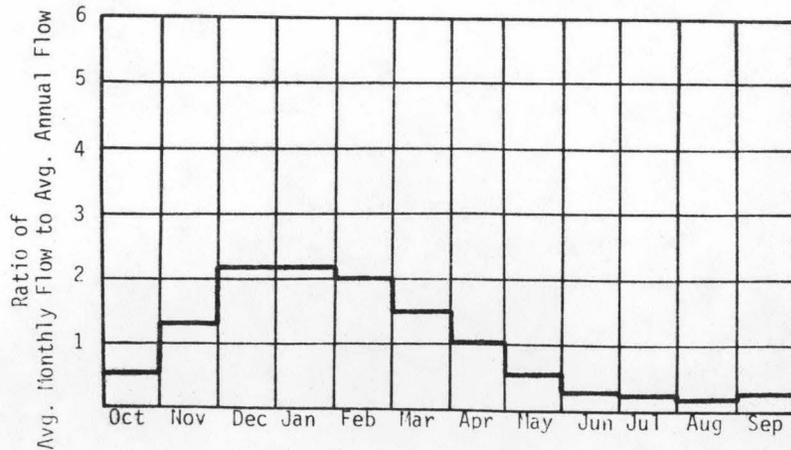
A. Upstream Elevation of Reach	90	Ft.	MSL
B. Downstream Elevation of Reach	50	Ft.	MSL
C. Total Available Head in Reach	40	Ft.	
D. Average Slope in Reach	5.3	Ft./Mi.	
E. Drainage Area above Reach Mouth	172	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	171	0.58	5.05	1.00
80	310	1.05	8.64	0.90
50	930	3.15	20.4	0.74
30	1610	5.45	28.7	0.60
10	3640	12.3	39.9	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1550 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R10W</u>
D. Latitude, Longitude	<u>46°14' 123°57'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>23.2/26.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

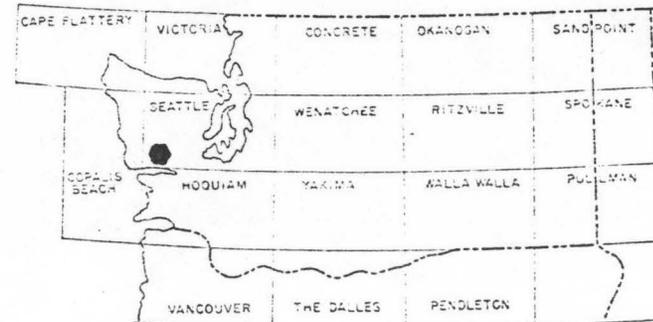
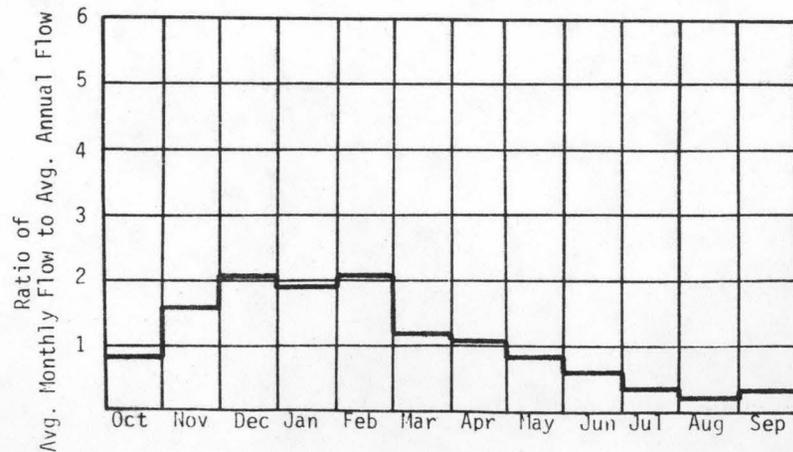
A. Upstream Elevation of Reach	<u>125</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>90</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>14</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>133</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

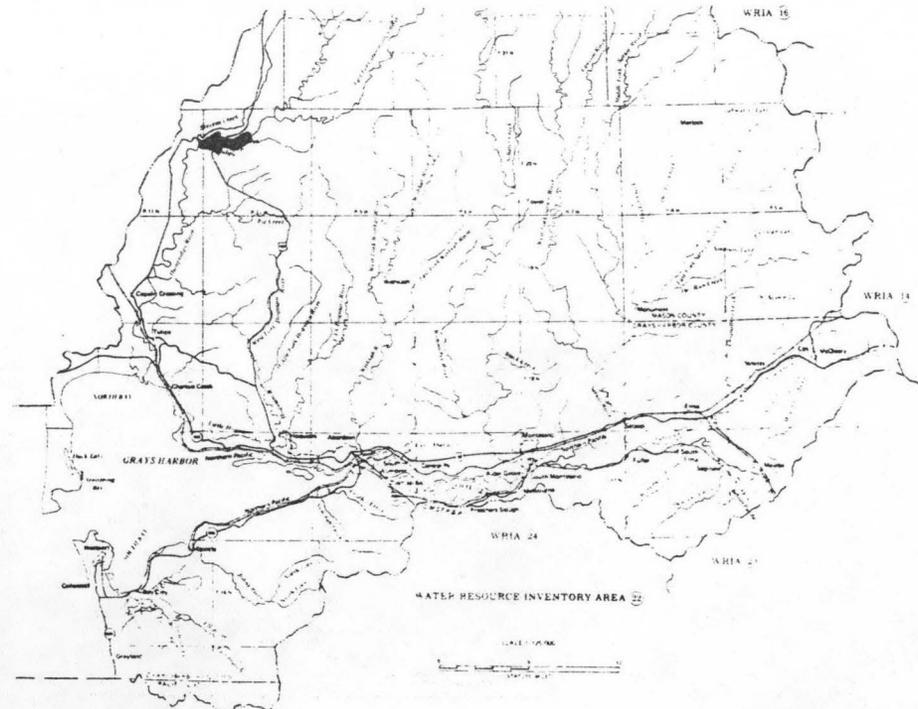
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	141	0.42	3.65	1.00
80	256	0.76	6.23	0.90
50	767	2.27	14.7	0.74
30	1330	3.94	20.7	0.60
10	3000	8.89	28.8	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1278 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R10W</u>
D. Latitude, Longitude	<u>47°15' 123°55'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>26.5/29.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

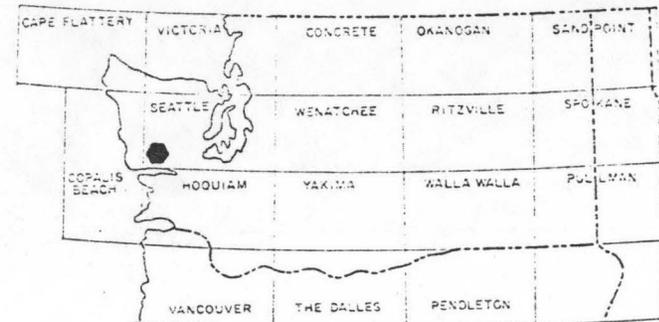
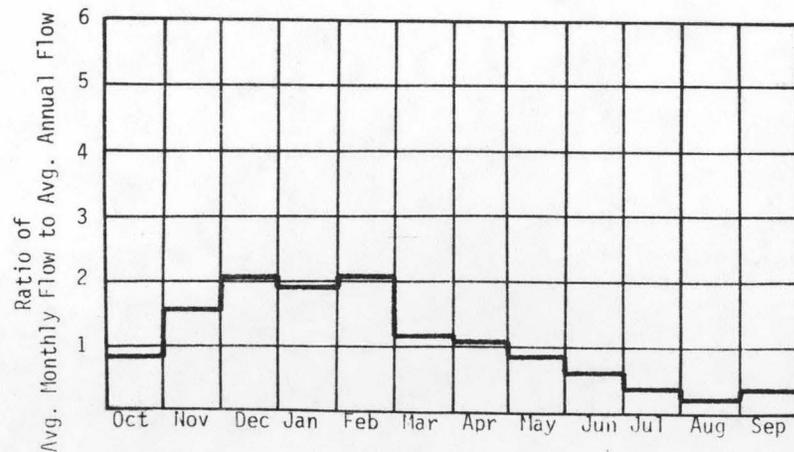
A. Upstream Elevation of Reach	<u>155</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>125</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>11.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>123</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

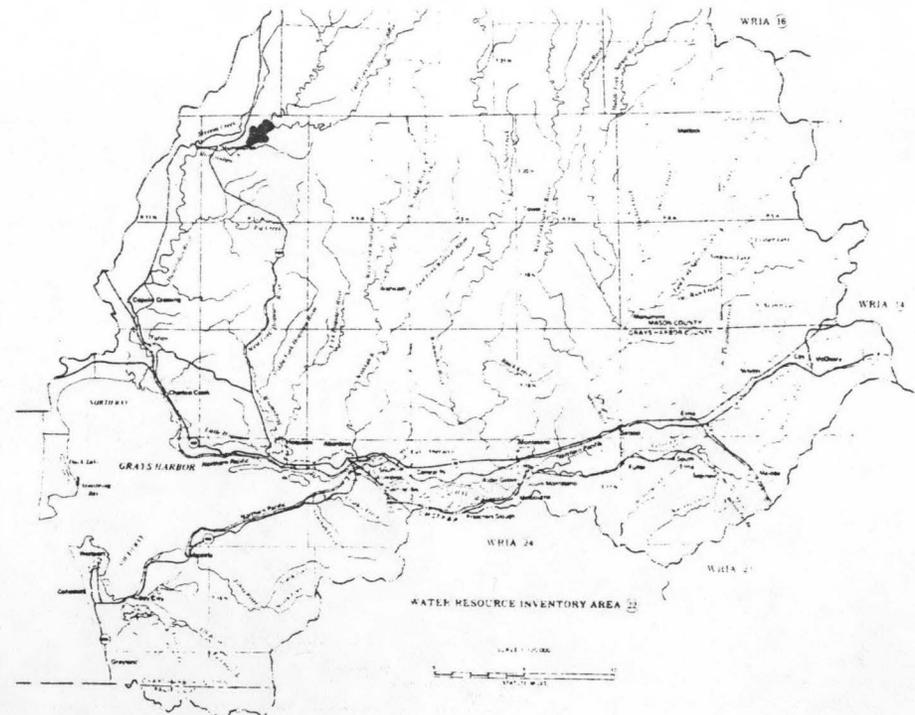
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	132	0.34	2.94	1.00
80	240	0.61	5.02	0.94
50	720	1.83	11.9	0.74
30	1250	3.17	16.7	0.60
10	2820	7.16	23.2	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1201 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R10W</u>
D. Latitude, Longitude	<u>47°17' 123°51'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>29.1/39.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

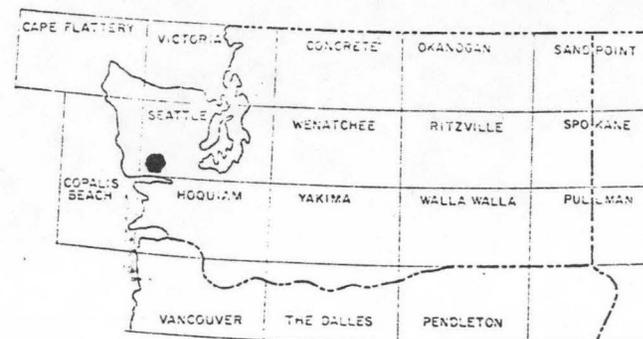
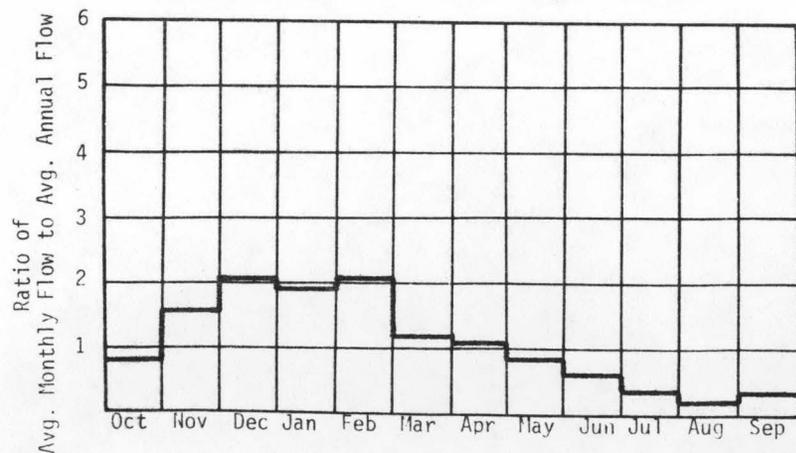
A. Upstream Elevation of Reach	<u>310</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>155</u>	Ft. MSL
C. Total Available Head in Reach	<u>155</u>	Ft.
D. Average Slope in Reach	<u>14.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>72.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

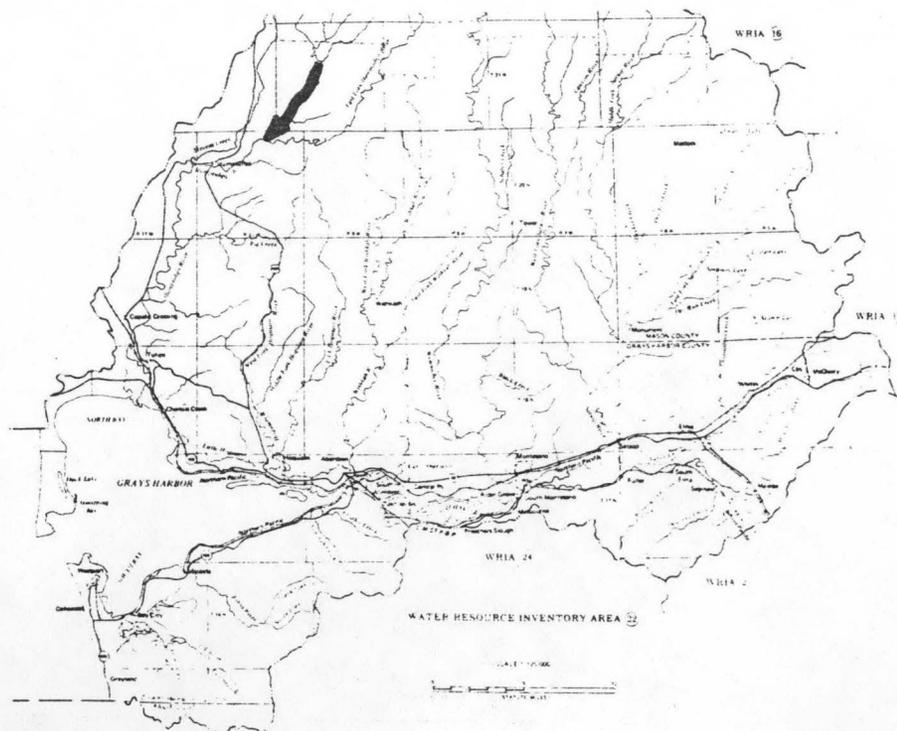
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	73.9	0.97	8.48	1.00
80	134	1.76	14.5	0.94
50	403	5.28	34.3	0.74
30	698	9.16	48.1	0.60
10	1580	20.7	67.1	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 672 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0007

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T22N R9W
D. Latitude, Longitude	47°21' 123°50'
E. Stream Name	Humptulips River
F. Major Basin Name	Humptulips
G. River Mile	39.8/47.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

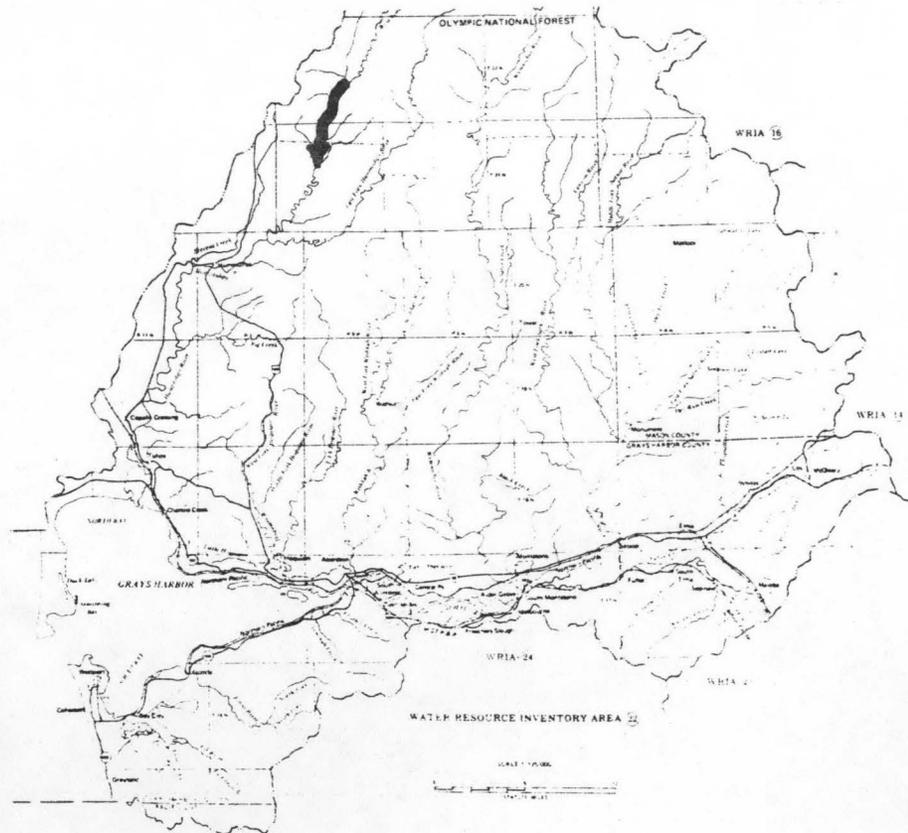
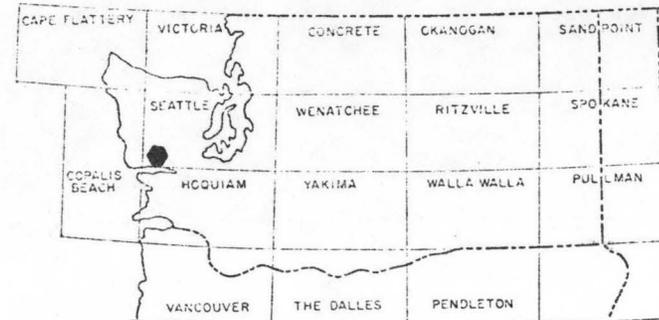
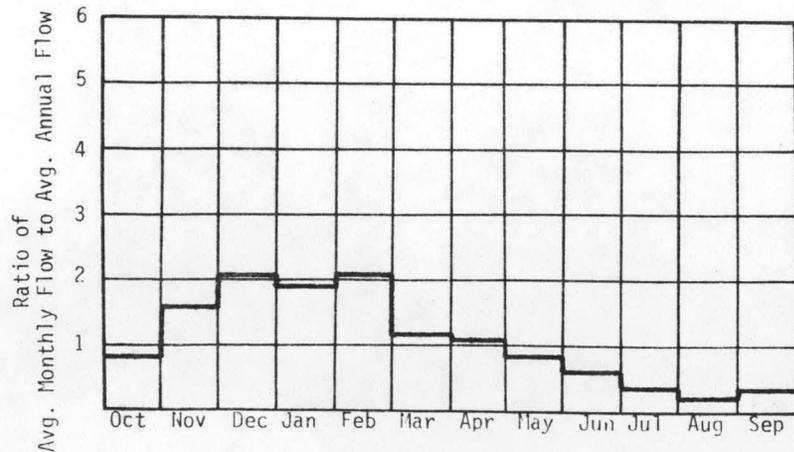
A. Upstream Elevation of Reach	410	Ft. MSL
B. Downstream Elevation of Reach	310	Ft. MSL
C. Total Available Head in Reach	100	Ft.
D. Average Slope in Reach	13.2	Ft./Mi.
E. Drainage Area above Reach Mouth	52.5	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	52.5	0.44	3.89	1.00
80	95.5	0.81	1.65	0.94
50	287	2.42	14.7	0.74
30	497	4.20	22.1	0.60
10	1120	9.47	30.8	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 478 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R9W</u>
D. Latitude, Longitude	<u>47°26' 123°45'</u>
E. Stream Name	<u>Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>47.4/60.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

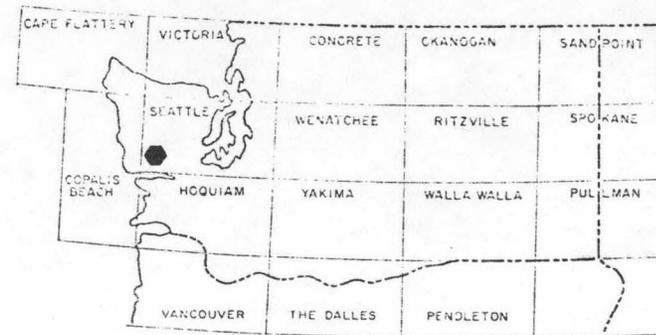
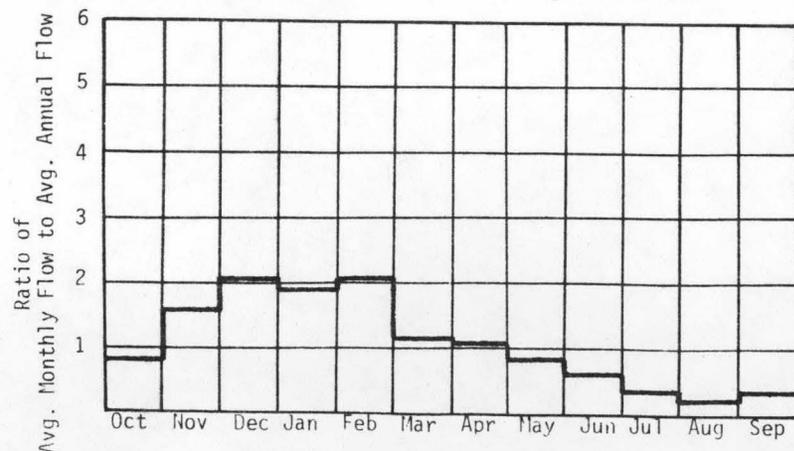
A. Upstream Elevation of Reach	<u>1120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>410</u>	Ft. MSL
C. Total Available Head in Reach	<u>710 + 66 = 776</u>	Ft.
D. Average Slope in Reach	<u>52.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>26.5</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

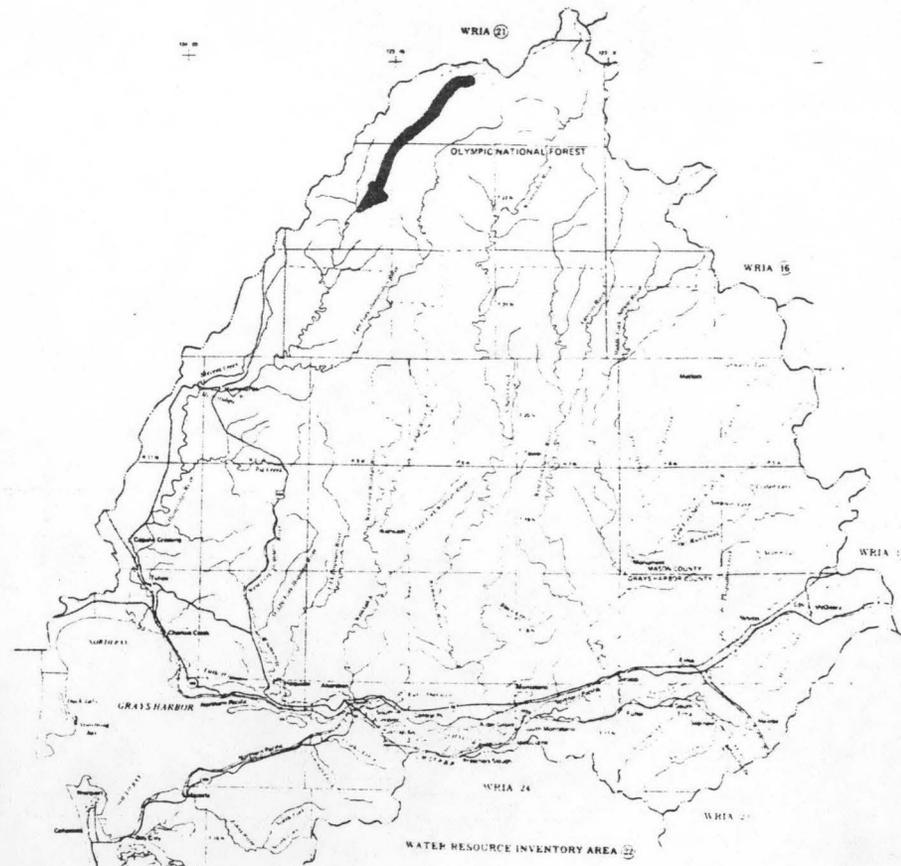
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.5	1.34	11.8	1.00
80	37.2	2.44	20.1	0.94
50	112	7.33	47.5	0.74
30	193	12.7	66.8	0.60
10	437	28.7	93.0	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 186 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0009

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T19N R11W
D. Latitude, Longitude	47°07' 124°01'
E. Stream Name	Deep Creek
F. Major Basin Name	Humptulips
G. River Mile	0.0/1.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

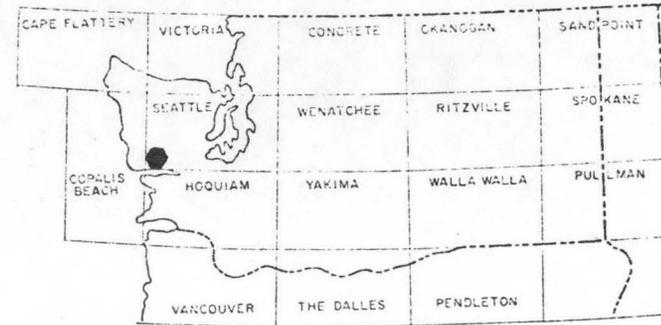
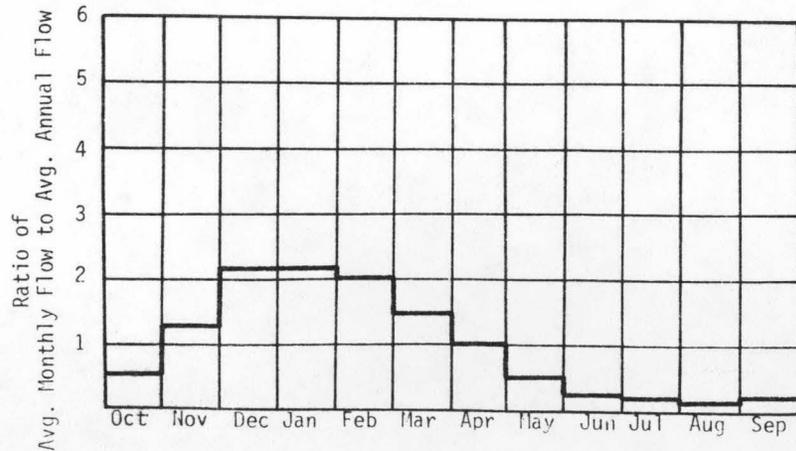
A. Upstream Elevation of Reach	40	Ft. MSL
B. Downstream Elevation of Reach	20	Ft. MSL
C. Total Available Head in Reach	20 + 66 = 86	Ft.
D. Average Slope in Reach	10.5	Ft./Mi.
E. Drainage Area above Reach Mouth	23.9	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

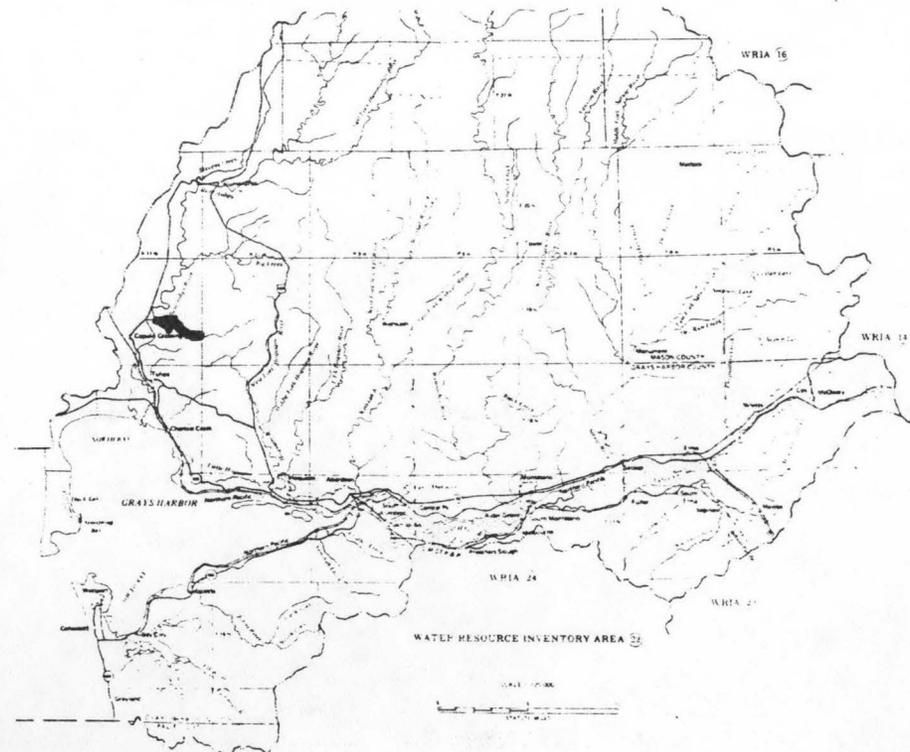
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.2	0.09	0.78	1.00
80	22.2	0.16	1.33	0.94
50	106.6	0.48	3.14	0.74
30	115	0.84	4.41	0.60
10	261	1.90	6.15	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 111 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R11W</u>
D. Latitude, Longitude	<u>47°10' 123°59'</u>
E. Stream Name	<u>Big Creek</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>0.0/7.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

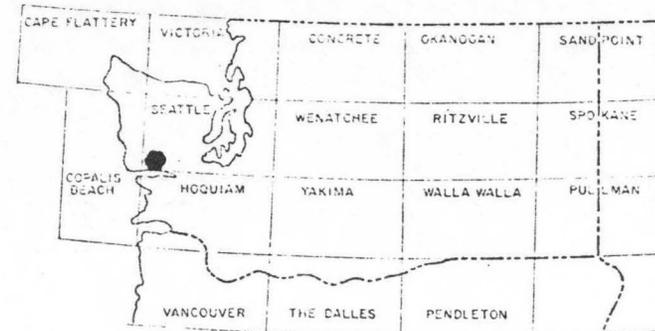
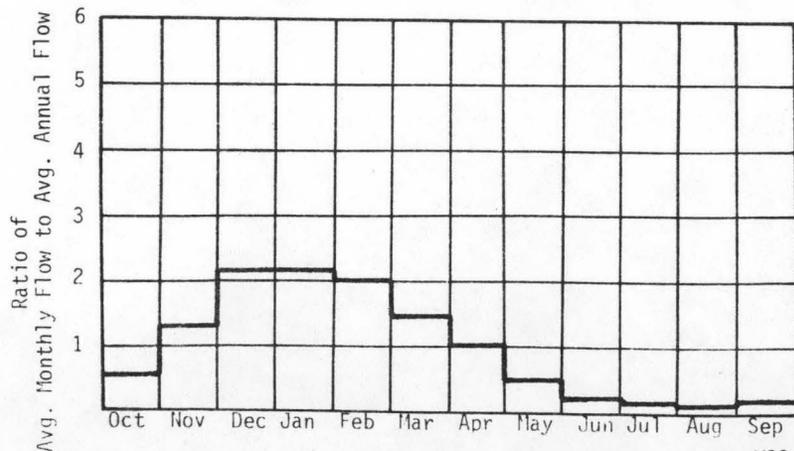
A. Upstream Elevation of Reach	<u>110</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>60 + 66 = 126</u>	Ft.
D. Average Slope in Reach	<u>8.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>30.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

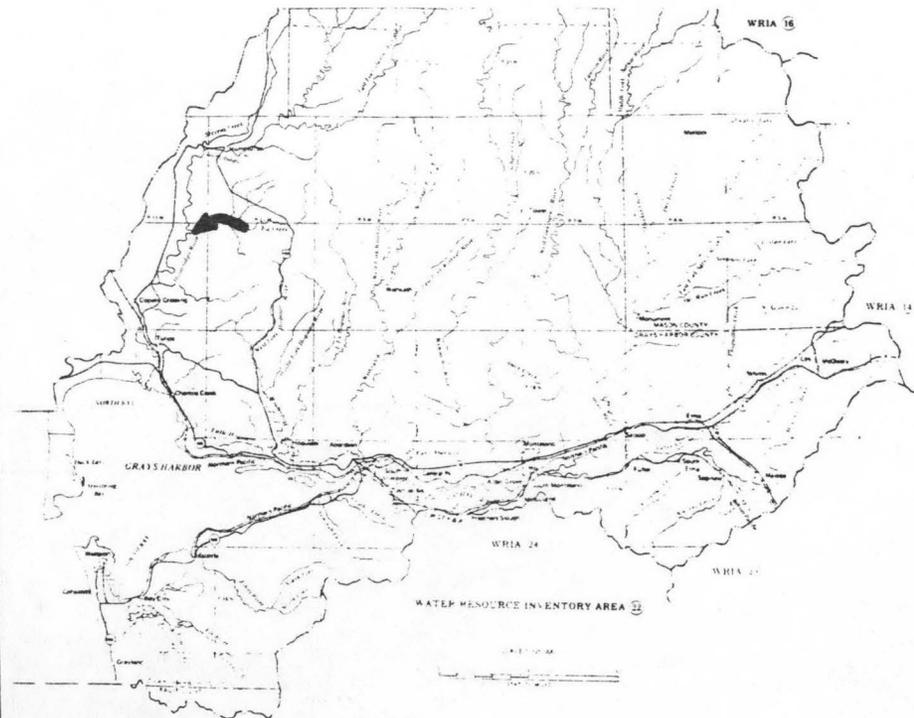
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.9	0.16	1.39	1.00
80	27.0	0.29	2.37	0.94
50	81.0	0.86	5.60	0.74
30	140	1.50	7.78	0.60
10	317	3.38	11.0	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 135 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R10W</u>
D. Latitude, Longitude	<u>47°17' 123°55'</u>
E. Stream Name	<u>Stevens Creek</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>0.0/10.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

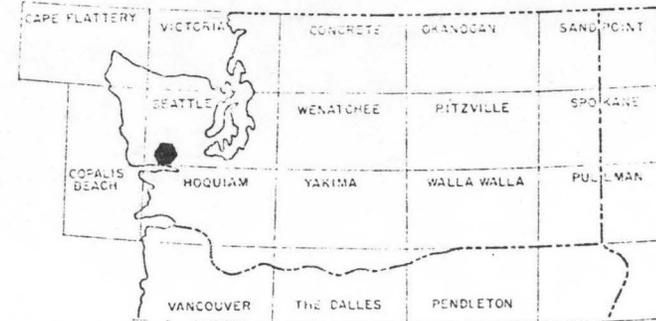
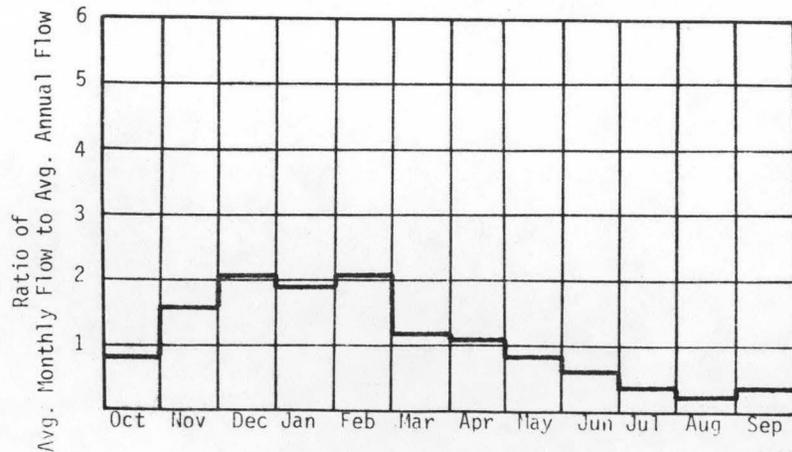
A. Upstream Elevation of Reach	<u>440</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>90</u>	Ft. MSL
C. Total Available Head in Reach	<u>350 + 66 = 416</u>	Ft.
D. Average Slope in Reach	<u>35</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>27.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.0	0.56	4.92	1.00
80	29.0	1.02	8.40	0.94
50	87.0	3.06	19.9	0.74
30	151	5.31	27.9	0.60
10	341	12.0	38.9	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 145 cfs



LOCATIONS FOR USGS 1:50,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-RC012

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T21N R9W
D. Latitude, Longitude	47°17' 123°47'
E. Stream Name	E.F. Humptulips River
F. Major Basin Name	Humptulips
G. River Mile	0.0/16.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

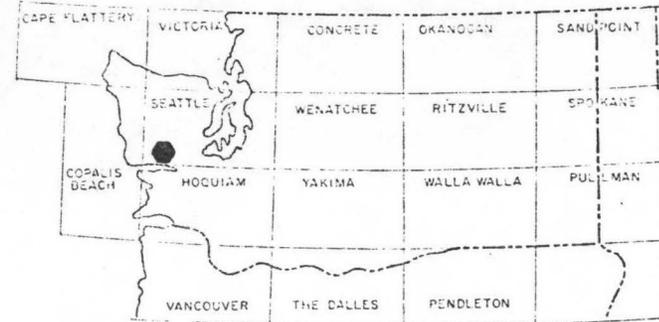
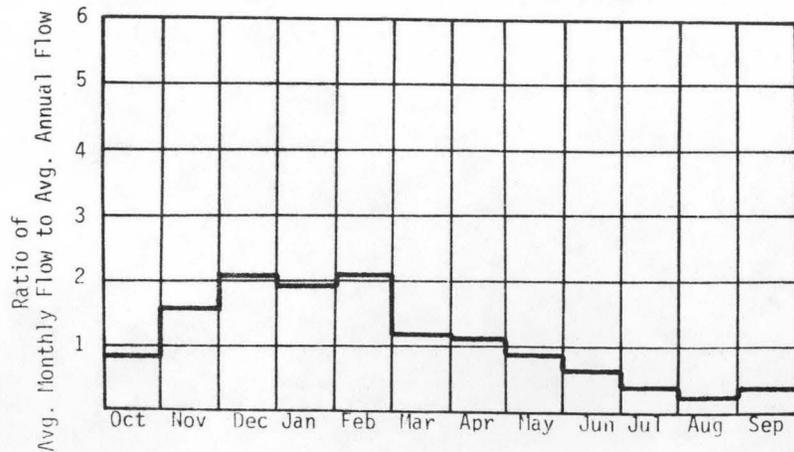
A. Upstream Elevation of Reach	525	Ft. MSL
B. Downstream Elevation of Reach	160	Ft. MSL
C. Total Available Head in Reach	365	Ft.
D. Average Slope in Reach	22	Ft./Mi.
E. Drainage Area above Reach Mouth	46.7	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

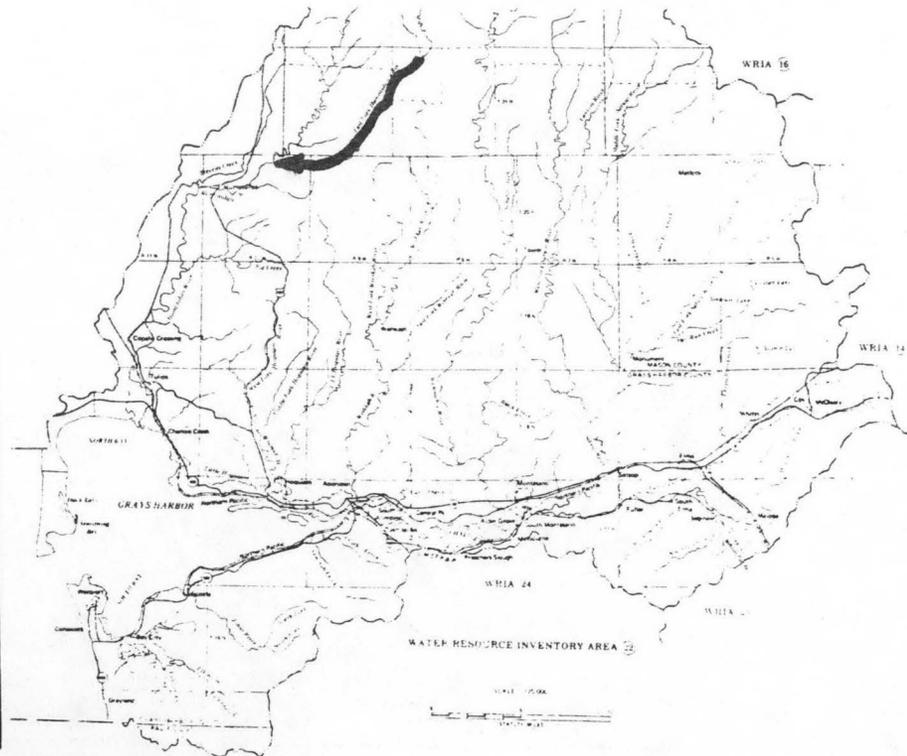
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	40.2	1.24	10.9	1.00
80	73.0	2.25	18.6	0.94
50	219	6.76	43.8	0.74
30	380	11.7	61.6	0.60
10	858	26.5	85.9	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 365 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R9W</u>
D. Latitude, Longitude	<u>47°23' 123°42'</u>
E. Stream Name	<u>E.F. Humptulips River</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>16.6/27.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

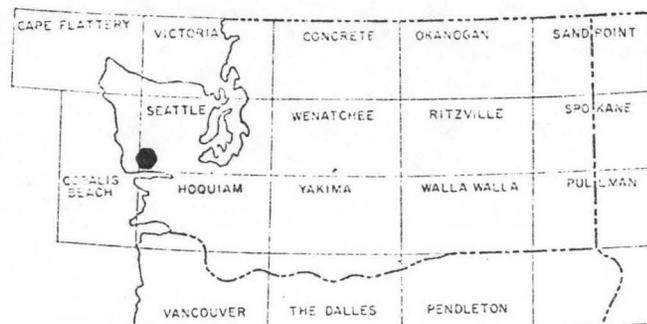
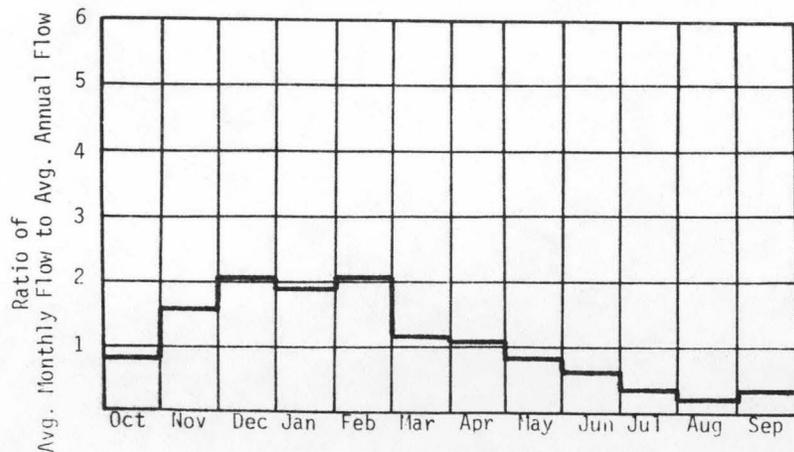
A. Upstream Elevation of Reach	<u>1000</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>525</u>	Ft. MSL
C. Total Available Head in Reach	<u>475 + 66 = 541</u>	Ft.
D. Average Slope in Reach	<u>45.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>46.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

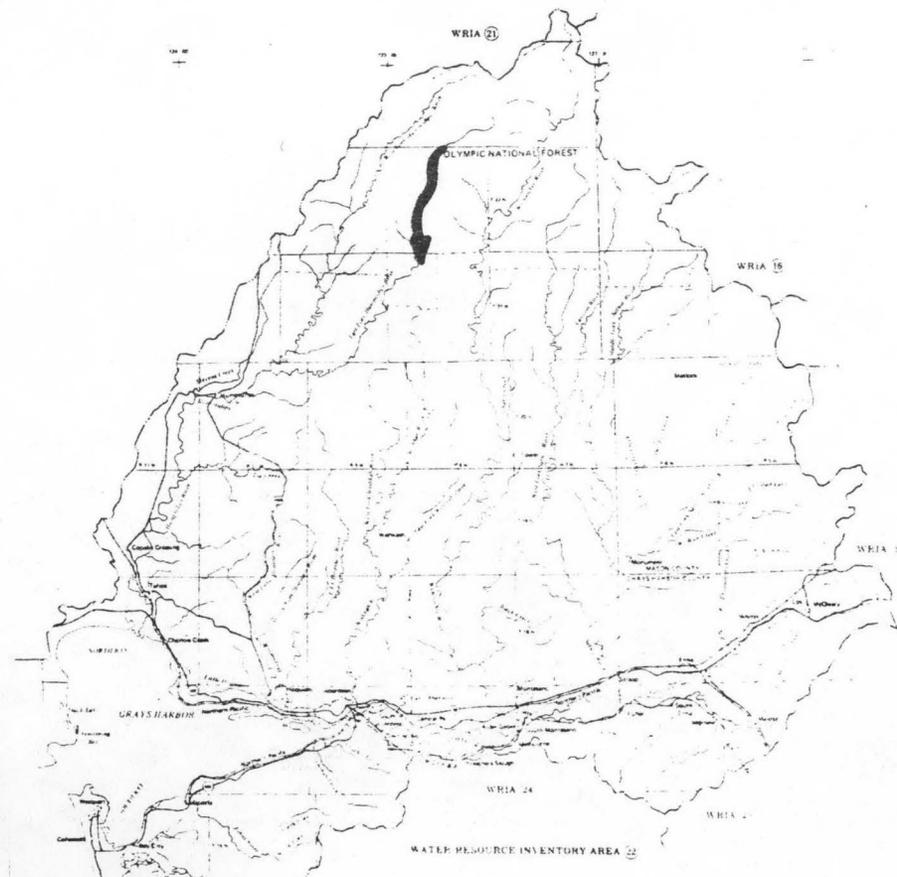
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.1	0.74	6.44	1.00
80	29.2	1.34	11.0	0.94
50	87.6	4.01	26.0	0.74
30	152	6.95	36.5	0.60
10	343	15.7	50.9	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 146 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-048-000-000-000-R0014

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R9W</u>
D. Latitude, Longitude	<u>47°24' 123°47'</u>
E. Stream Name	<u>Chester Creek</u>
F. Major Basin Name	<u>Humptulips</u>
G. River Mile	<u>0.0/1.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

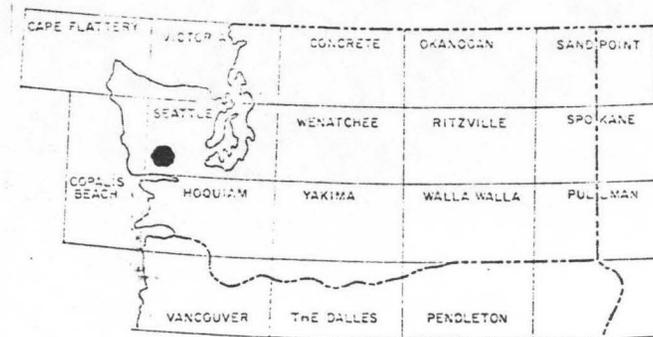
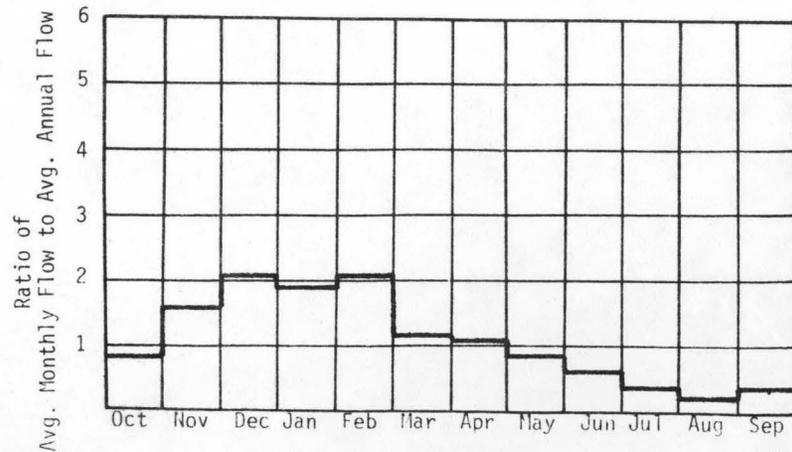
A. Upstream Elevation of Reach	<u>600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>400</u>	Ft. MSL
C. Total Available Head in Reach	<u>200</u>	Ft.
D. Average Slope in Reach	<u>111</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>10.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

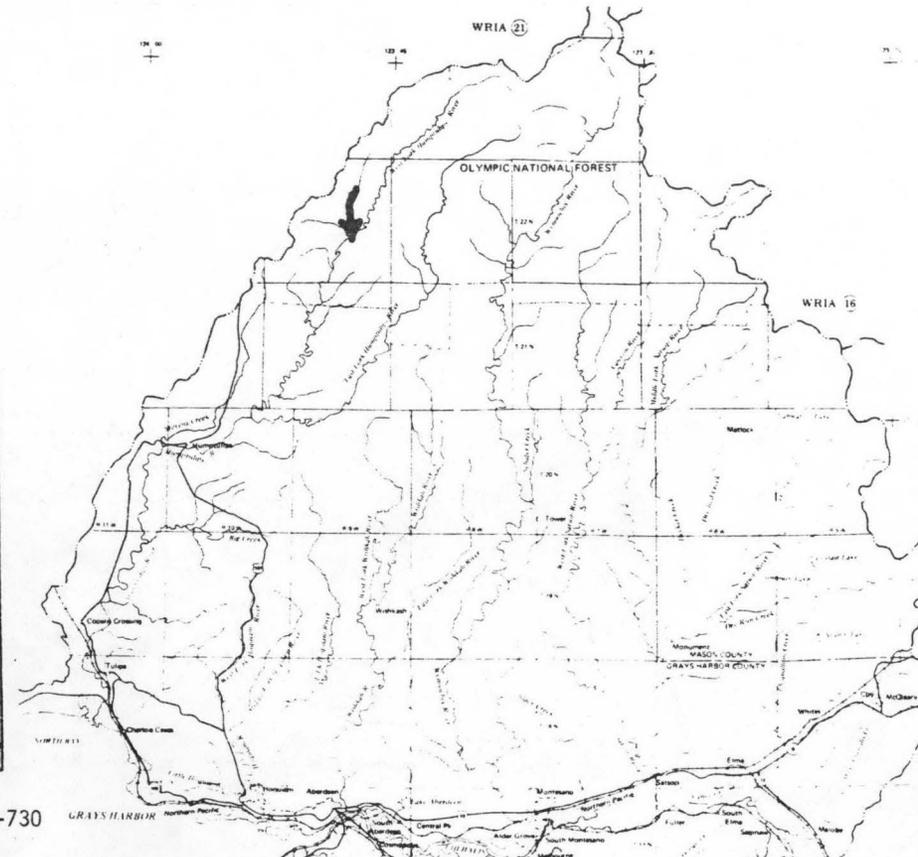
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.69	0.15	1.29	1.00
80	15.8	0.27	2.20	0.94
50	47.4	0.80	5.20	0.74
30	82.2	1.39	7.31	0.60
10	186	3.14	10.2	0.39

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 79 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R10W</u>
D. Latitude, Longitude	<u>46°58' 123°52'</u>
E. Stream Name	<u>Hoquiam River</u>
F. Major Basin Name	<u>Hoquiam</u>
G. River Mile	<u>0.0/2.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

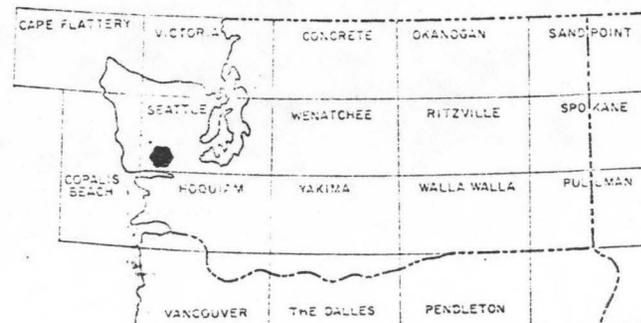
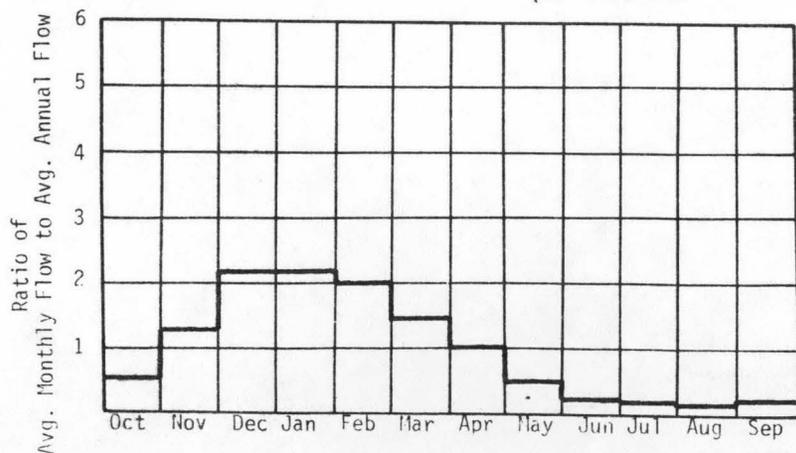
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>89</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

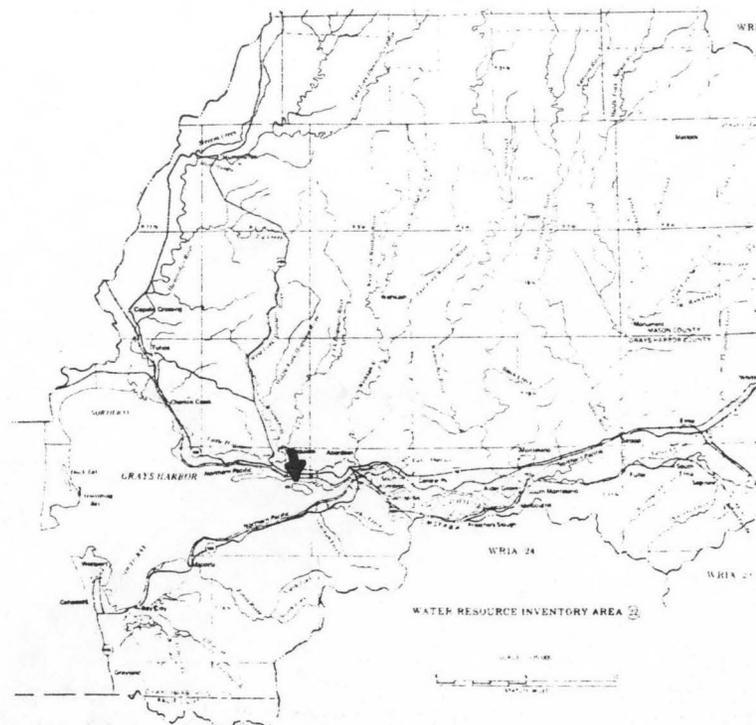
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	52.6	0.00	0.00	1.00
80	95.6	0.00	0.00	0.94
50	287	0.00	0.00	0.74
30	497	0.00	0.00	0.60
10	1120	0.00	0.00	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 478 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R10W</u>
D. Latitude, Longitude	<u>46°59' 123°53'</u>
E. Stream Name	<u>Hoquiam River</u>
F. Major Basin Name	<u>Hoquiam</u>
G. River Mile	<u>2.6/3.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

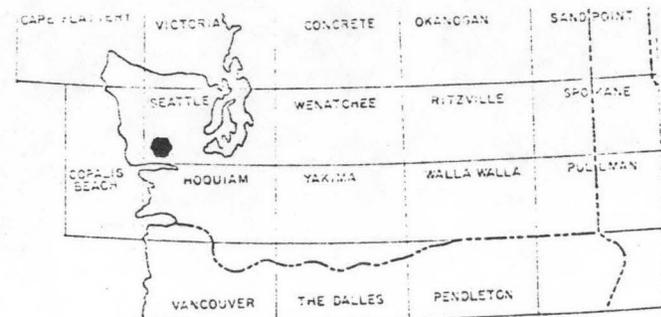
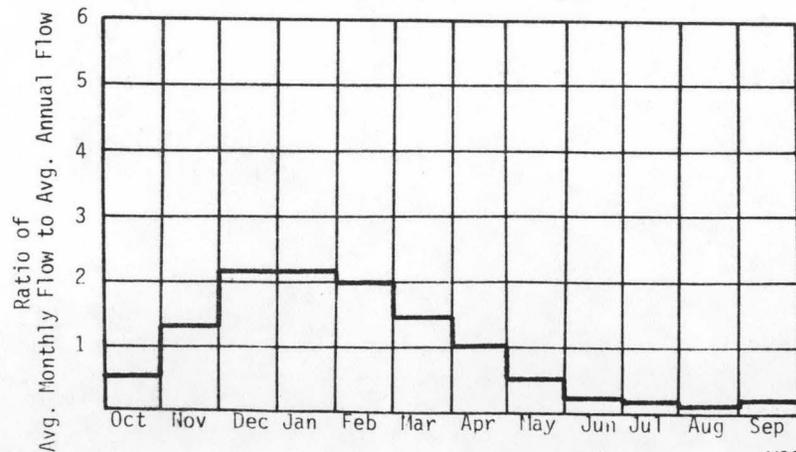
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>47.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

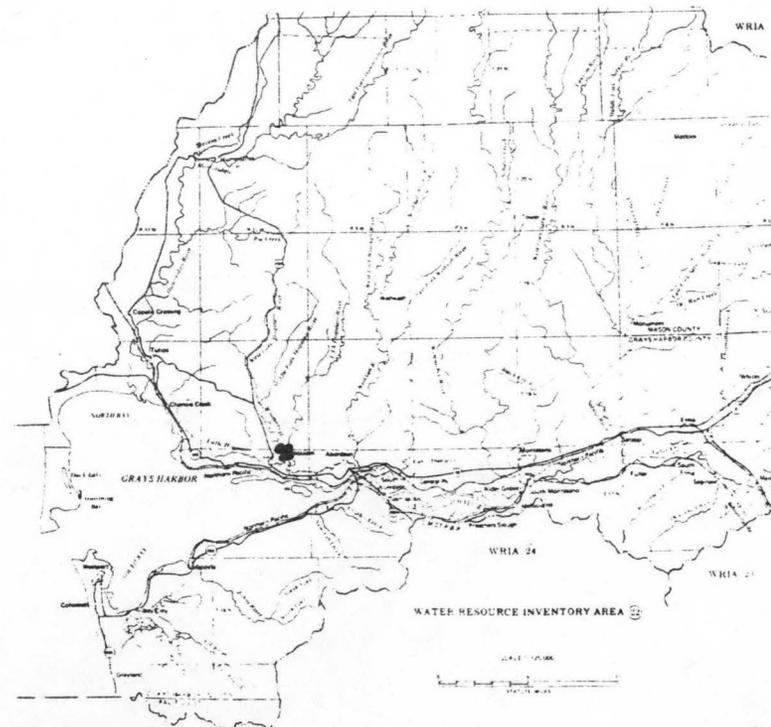
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	24.5	0.00	0.00	1.00
80	44.6	0.00	0.00	0.94
50	134	0.00	0.00	0.74
30	232	0.00	0.00	0.60
10	524	0.00	0.00	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 223 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R10W</u>
D. Latitude, Longitude	<u>47°01' 123°54'</u>
E. Stream Name	<u>Hoquiam River</u>
F. Major Basin Name	<u>Hoquiam</u>
G. River Mile	<u>3.0/7.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

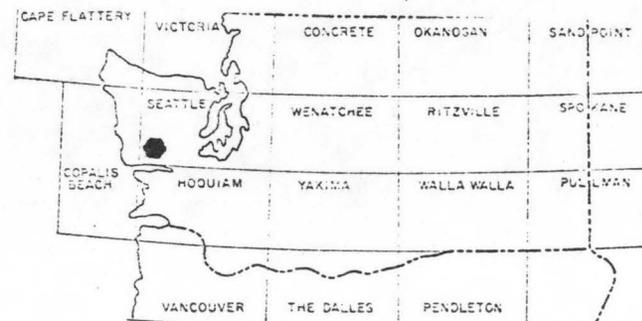
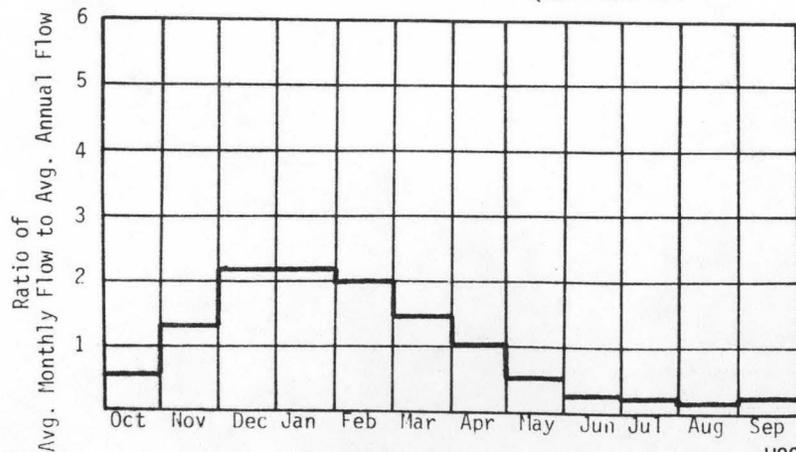
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>38.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

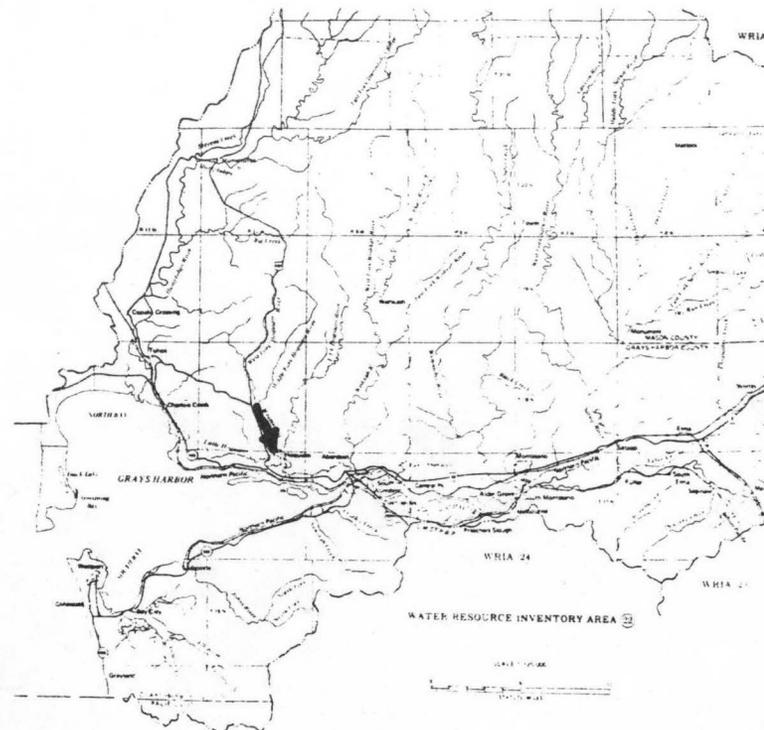
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.5	0.00	0.00	1.00
80	39.1	0.00	0.00	0.94
50	117	0.00	0.00	0.74
30	203	0.00	0.00	0.60
10	459	0.00	0.00	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 196 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R10W</u>
D. Latitude, Longitude	<u>47°03' 123°55'</u>
E. Stream Name	<u>Hogiam River</u>
F. Major Basin Name	<u>Hogiam</u>
G. River Mile	<u>7.3/10.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

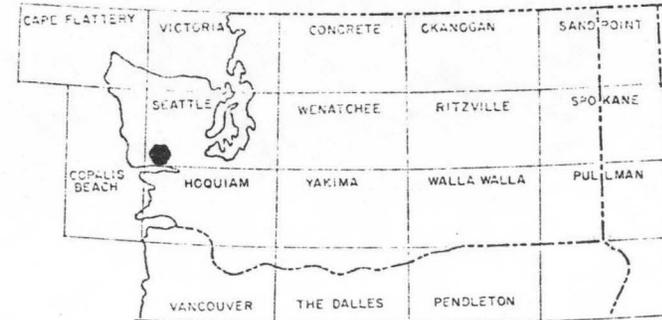
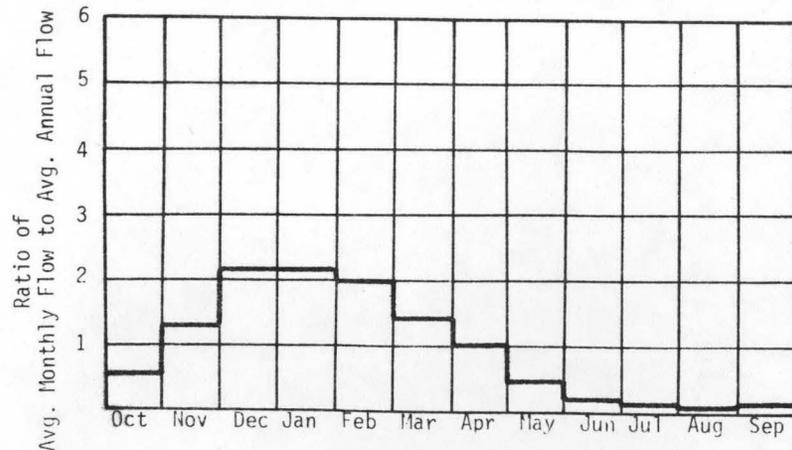
A. Upstream Elevation of Reach	<u>38</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>38 + 66 = 104</u>	Ft.
D. Average Slope in Reach	<u>11.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>21.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

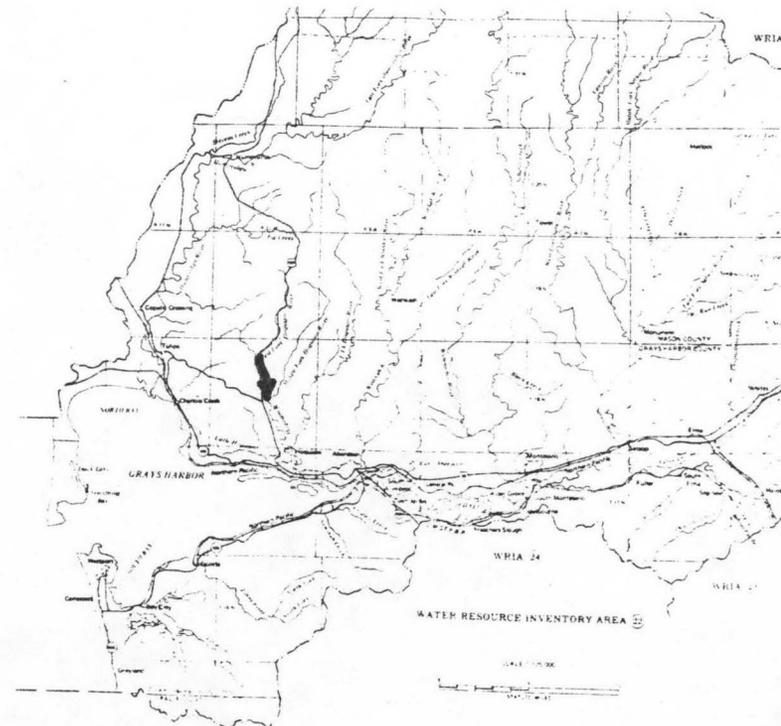
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.6	0.09	0.82	1.00
80	19.3	0.17	1.40	0.94
50	57.9	0.51	3.30	0.74
30	101	0.88	4.64	0.60
10	227	2.00	6.47	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 97 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R9W</u>
D. Latitude, Longitude	<u>47°05' 123°50'</u>
E. Stream Name	<u>E.F. Hoquiam River</u>
F. Major Basin Name	<u>Hoquiam</u>
G. River Mile	<u>0.0/17.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

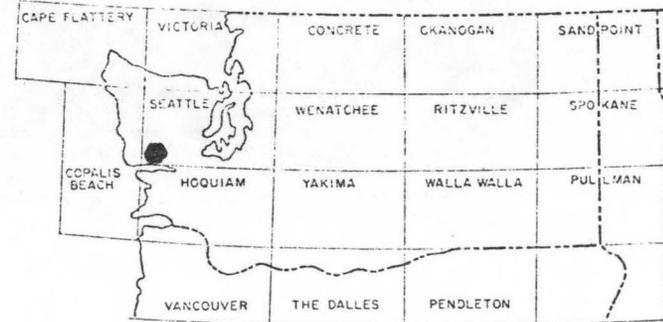
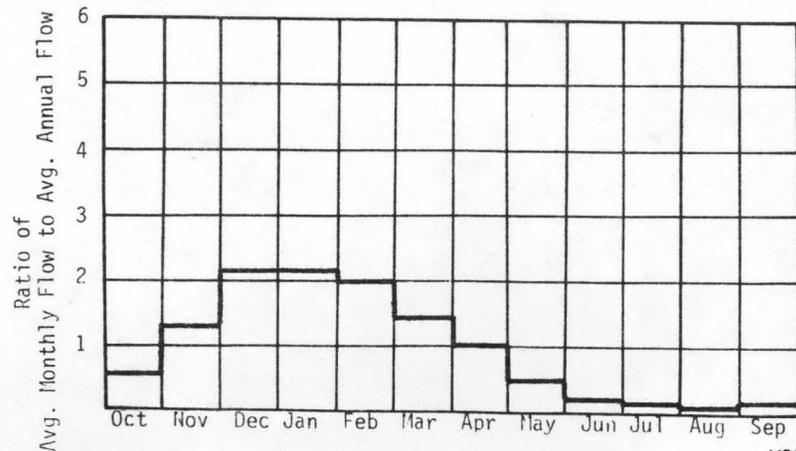
A. Upstream Elevation of Reach	<u>155</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>155 + 66 = 221</u>	Ft.
D. Average Slope in Reach	<u>8.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>40.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

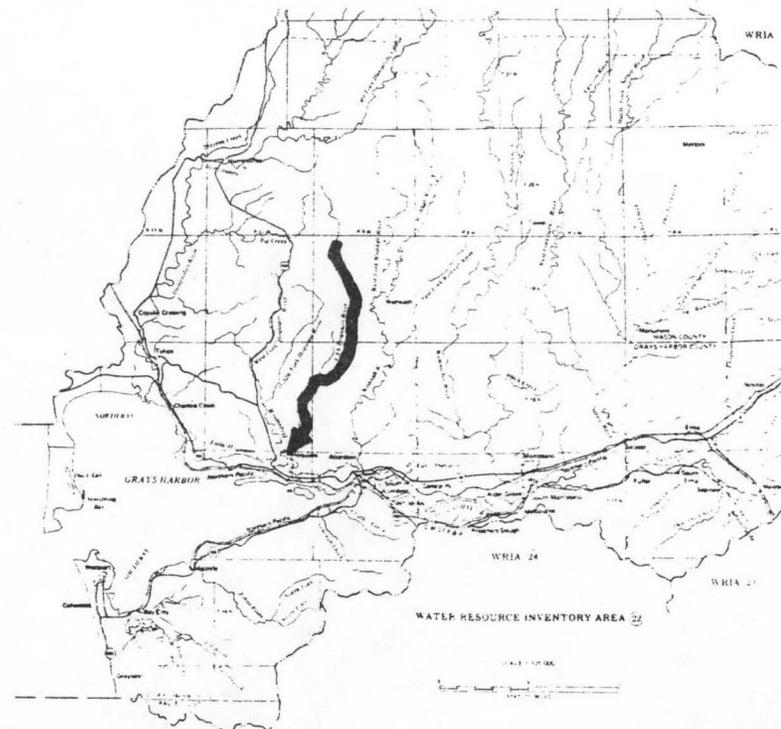
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.1	0.30	2.63	1.00
80	29.2	0.55	4.50	0.94
50	87.6	1.64	10.6	0.74
30	152	2.84	14.9	0.60
10	343	6.41	20.8	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 146 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-049-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R10W</u>
D. Latitude, Longitude	<u>47°03' 123°54'</u>
E. Stream Name	<u>Polson Slough</u>
F. Major Basin Name	<u>Hogiam</u>
G. River Mile	<u>0.0/2.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

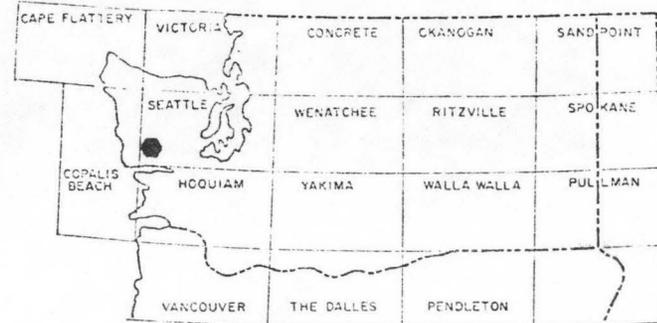
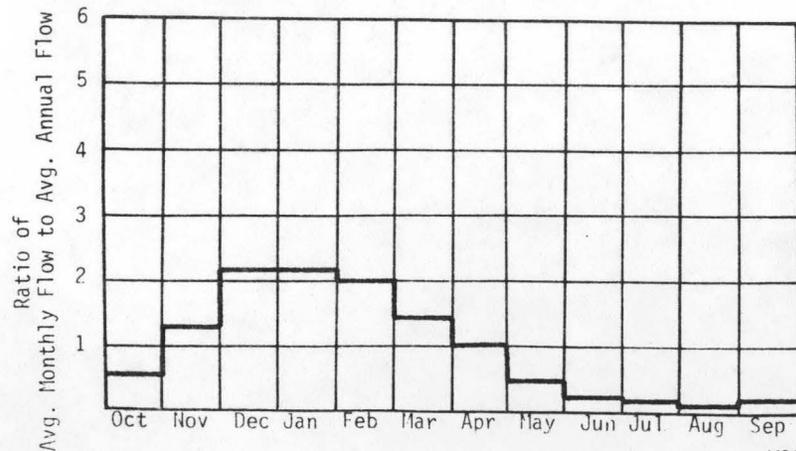
A. Upstream Elevation of Reach	<u>38</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>38 + 66 = 104</u>	Ft.
D. Average Slope in Reach	<u>19</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.21	0.06	0.56	1.00
80	13.1	0.12	0.95	0.94
50	39.3	0.35	2.24	0.74
30	68.1	0.60	3.15	0.60
10	154	1.35	4.39	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 66 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R9W</u>
D. Latitude, Longitude	<u>47°03' 123°49'</u>
E. Stream Name	<u>Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>0.0/12.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

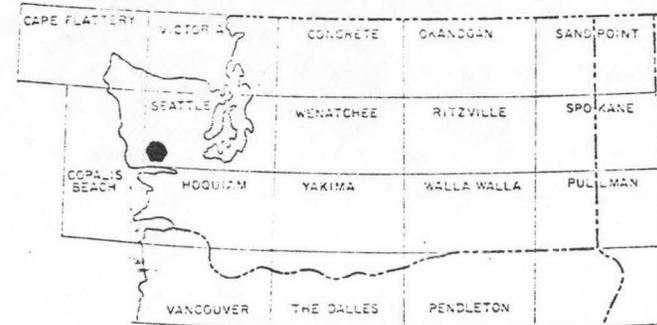
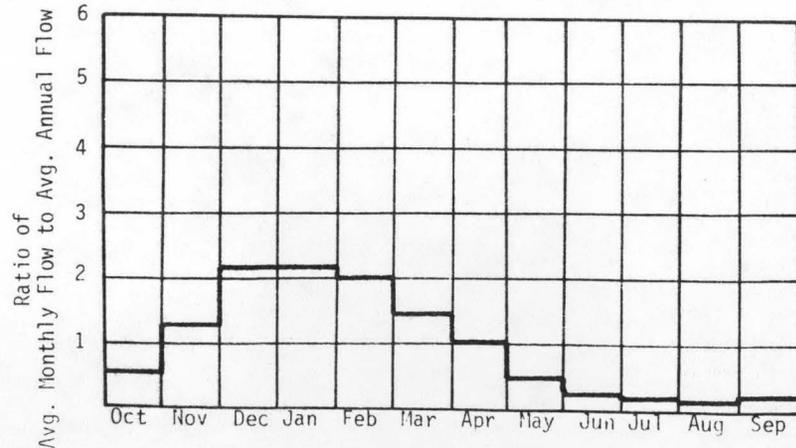
A. Upstream Elevation of Reach	<u>20</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>1.67</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>103</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

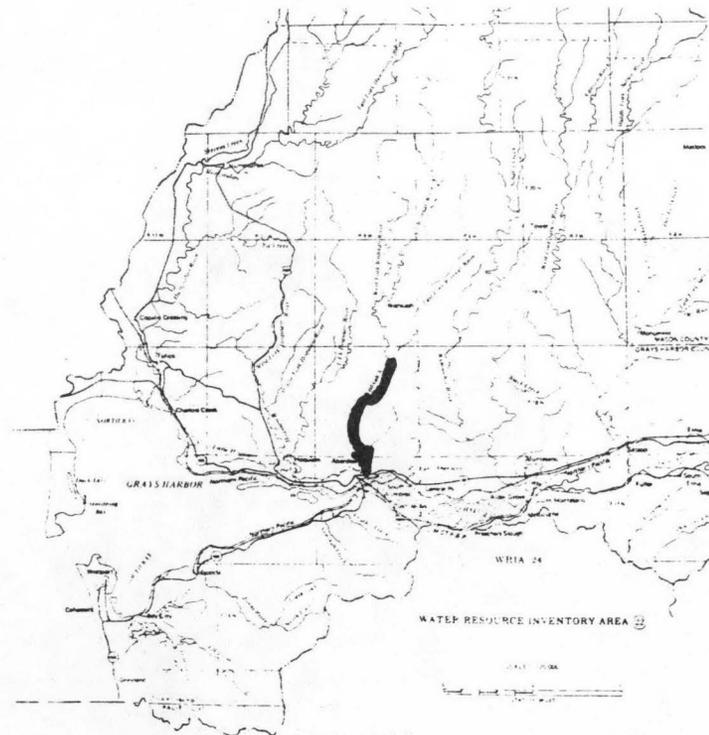
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	85.7	0.14	1.25	1.00
80	139	0.24	1.96	0.95
50	387	0.65	4.35	0.76
30	604	1.02	5.64	0.63
10	1280	2.17	7.59	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 604 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R9W</u>
D. Latitude, Longitude	<u>47°06' 123°47'</u>
E. Stream Name	<u>Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>12.0/17.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

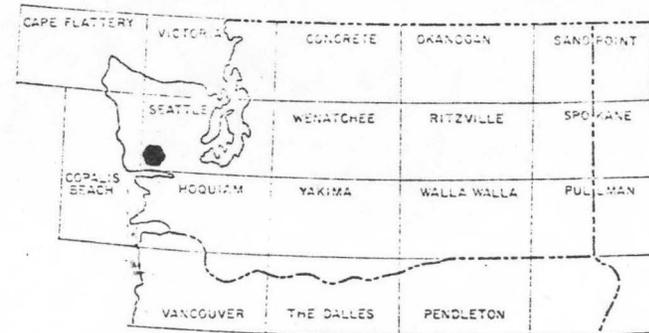
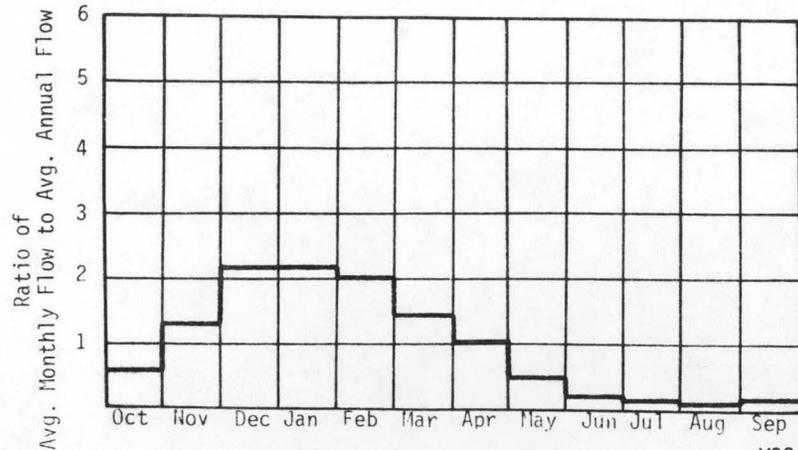
A. Upstream Elevation of Reach	<u>30</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>1.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>60.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	56.3	0.05	0.42	1.00
80	92.5	0.08	0.65	0.95
50	257	0.22	1.48	0.76
30	402	0.34	1.88	0.63
10	852	0.72	2.53	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 402 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R9W</u>
D. Latitude, Longitude	<u>47°09' 123°45'</u>
E. Stream Name	<u>Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>17.8/25.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

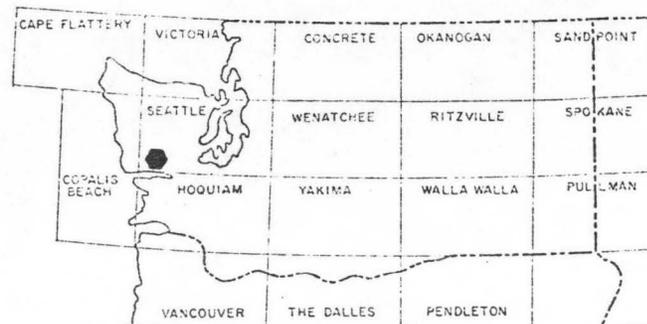
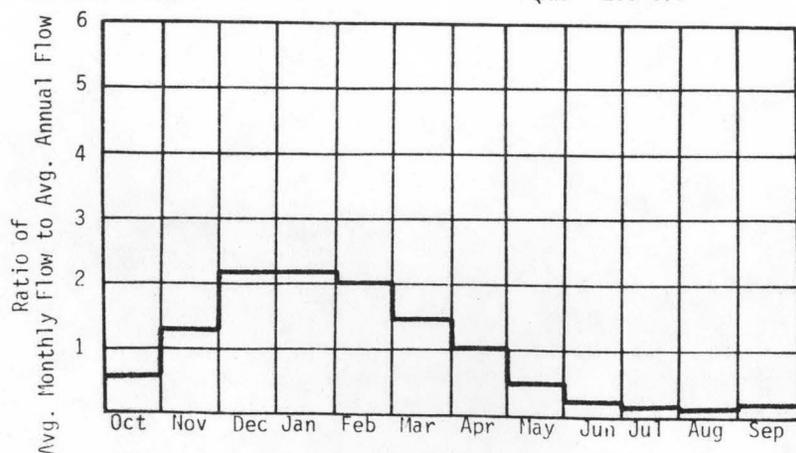
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>11.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>34.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

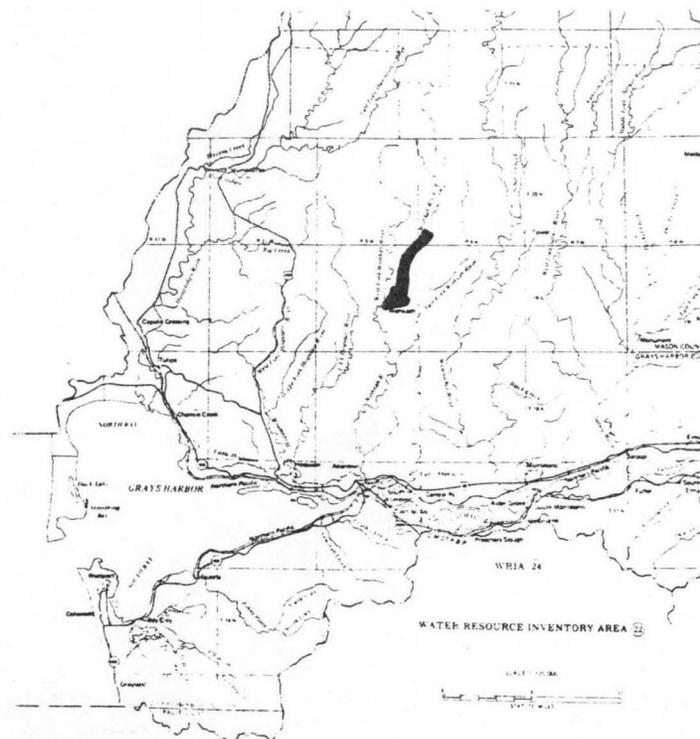
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.1	0.23	2.01	1.00
80	49.5	0.38	3.13	0.95
50	138	1.05	6.98	0.76
30	215	1.64	9.03	0.63
10	456	3.47	12.2	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 215 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R9W</u>
D. Latitude, Longitude	<u>47°12' 123°43'</u>
E. Stream Name	<u>Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>25.6/29.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

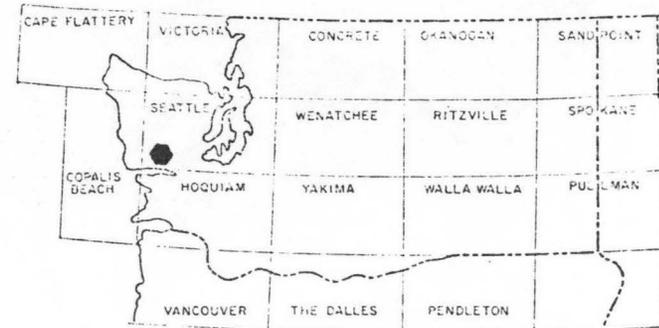
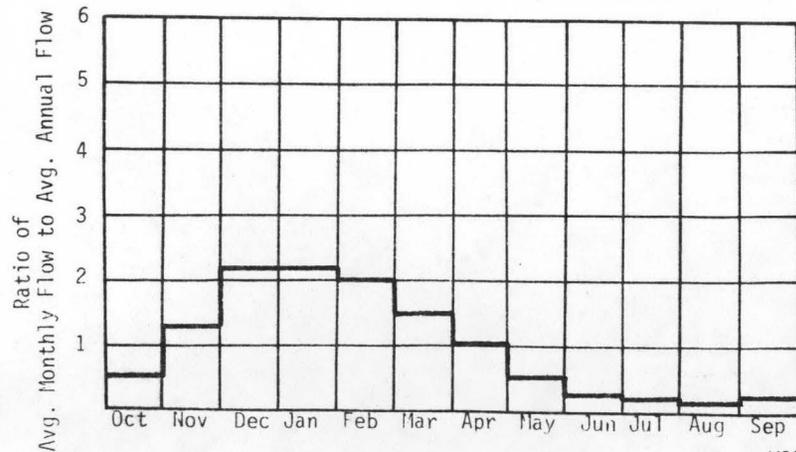
A. Upstream Elevation of Reach	<u>220</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>120</u>	Ft. MSL
C. Total Available Head in Reach	<u>100</u>	Ft.
D. Average Slope in Reach	<u>28.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>23.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.6	0.19	1.68	1.00
80	37.2	0.31	2.62	0.95
50	103	0.87	5.82	0.76
30	162	1.37	7.54	0.63
10	342	2.90	10.2	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 162 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0005

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T20N R9W
D. Latitude, Longitude	47°15' 123°44'
E. Stream Name	Wishkah
F. Major Basin Name	Wishkah
G. River Mile	29.1/33.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

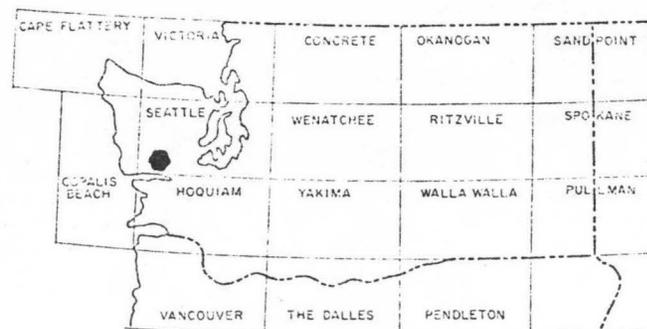
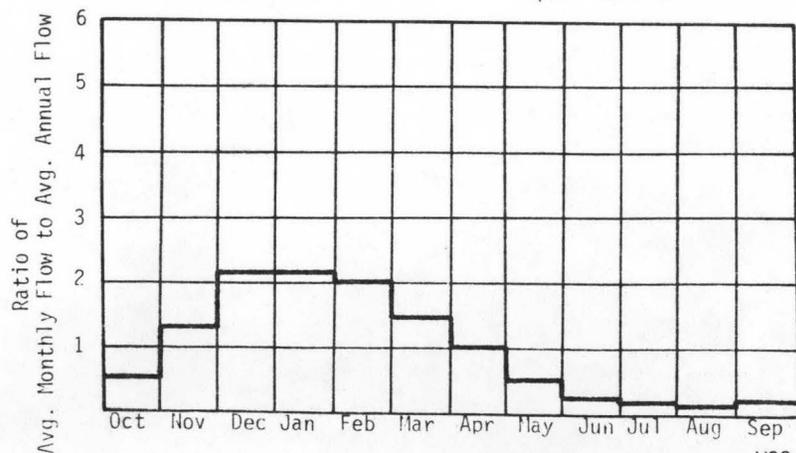
A. Upstream Elevation of Reach	440	Ft. MSL
B. Downstream Elevation of Reach	220	Ft. MSL
C. Total Available Head in Reach	220 + 66 = 286	Ft.
D. Average Slope in Reach	50	Ft./Mi.
E. Drainage Area above Reach Mouth	17.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

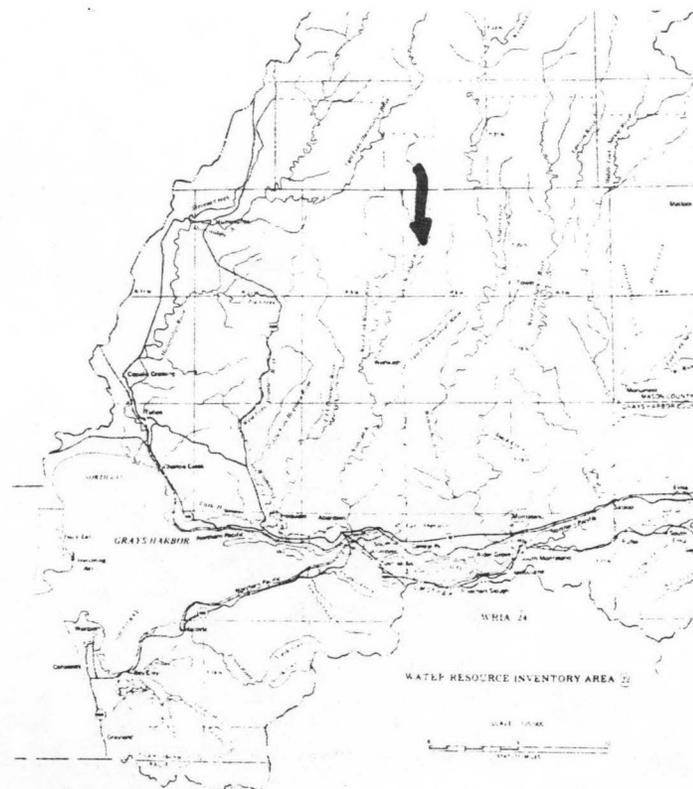
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.7	0.36	3.20	1.00
80	24.2	0.58	4.86	0.95
50	67.2	1.63	10.8	0.76
30	105	2.54	14.0	0.63
10	223	5.39	18.9	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 105 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R9W</u>
D. Latitude, Longitude	<u>47°06' 123°44'</u>
E. Stream Name	<u>E.F. Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>0.0/6.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

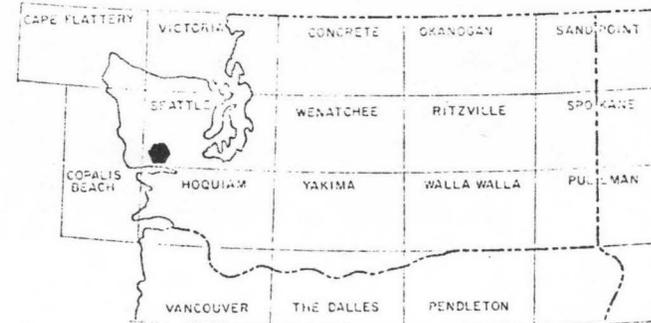
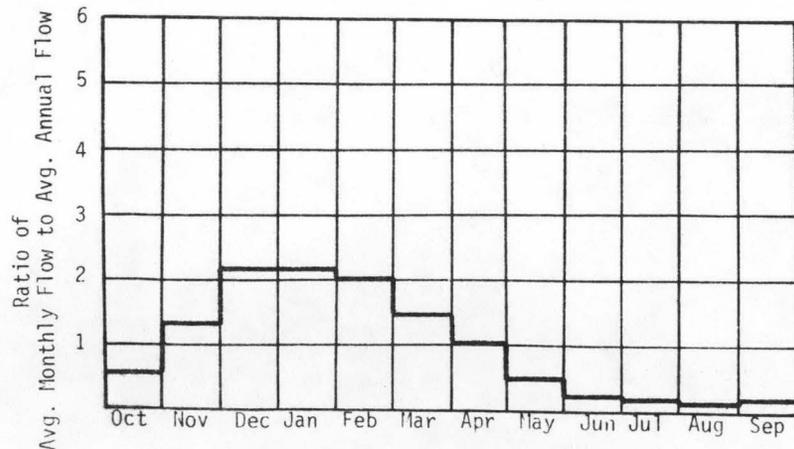
A. Upstream Elevation of Reach	<u>175</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>65</u>	Ft.
D. Average Slope in Reach	<u>10.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>14.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

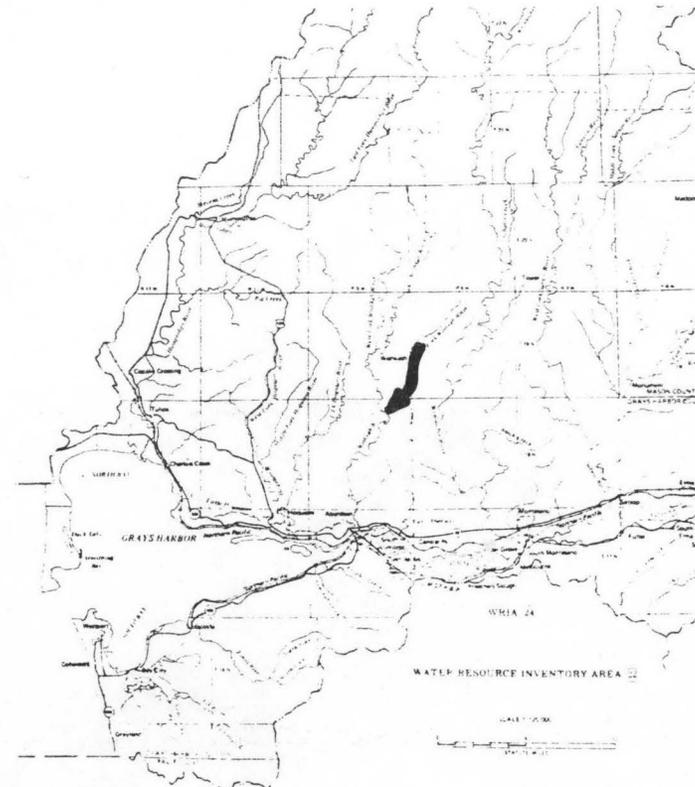
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.2	0.09	0.78	1.00
80	26.7	0.15	1.22	0.95
50	74.4	0.41	2.72	0.76
30	116	0.64	3.52	0.63
10	246	1.35	4.74	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 116 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0007

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T19N R8W
D. Latitude, Longitude	47°08' 123°42'
E. Stream Name	E.F. Wishkah River
F. Major Basin Name	Wishkah
G. River Mile	6.2/10.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

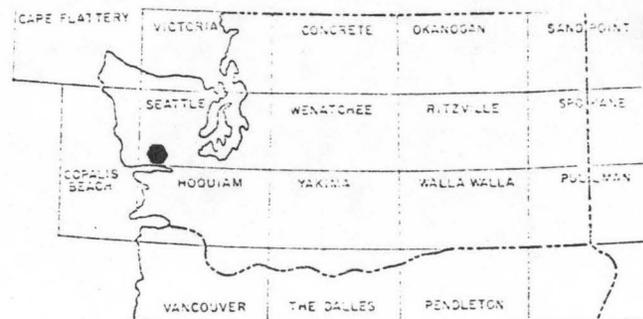
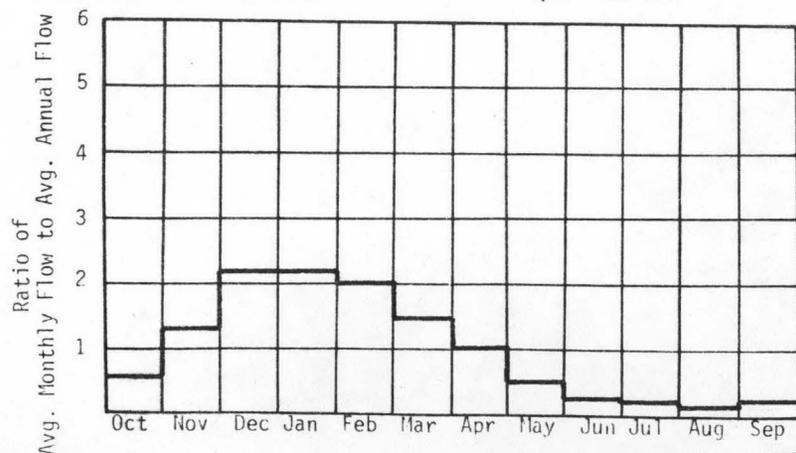
A. Upstream Elevation of Reach	175	Ft. MSL
B. Downstream Elevation of Reach	110	Ft. MSL
C. Total Available Head in Reach	65+66=131	Ft.
D. Average Slope in Reach	14.4	Ft./Mi.
E. Drainage Area above Reach Mouth	11.6	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.38	0.10	0.91	1.00
80	15.4	0.17	1.42	0.95
50	42.9	0.48	3.16	0.76
30	67.0	0.74	4.10	0.63
10	142	1.57	5.52	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 67 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R9W</u>
D. Latitude, Longitude	<u>47°09' 123°46'</u>
E. Stream Name	<u>W.F. Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>0.0/7.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

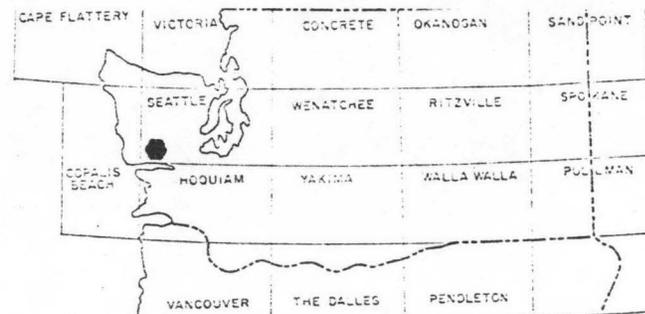
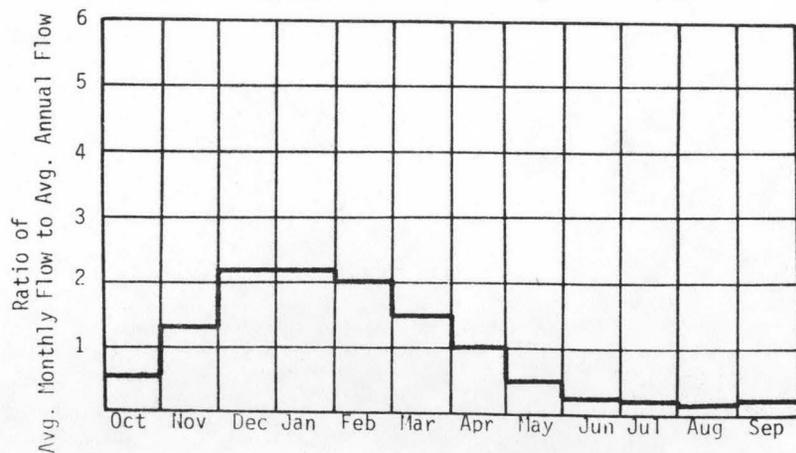
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>12.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>Natural</u>	Sq.Mi.
F. Inflow Classification		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

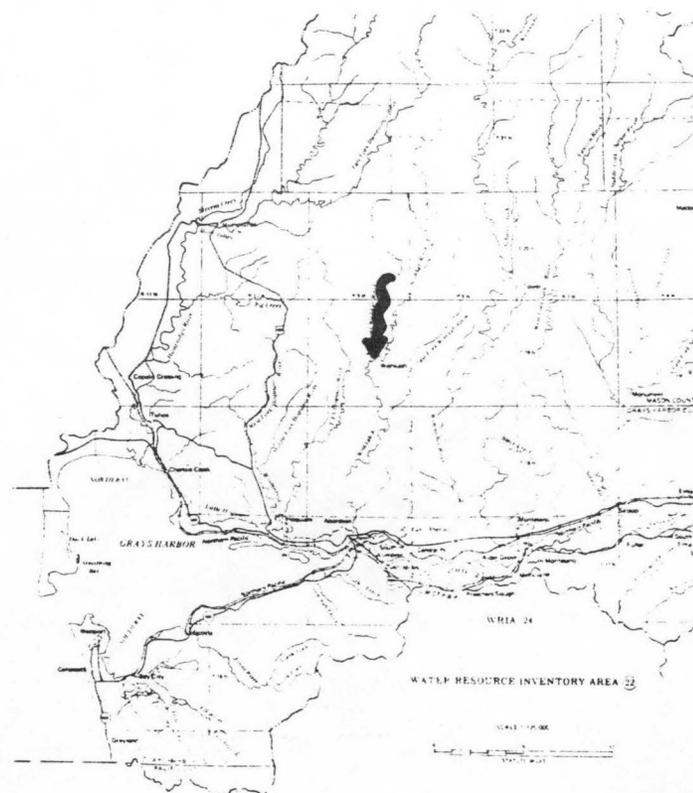
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.3	0.15	1.29	1.00
80	31.7	0.24	2.01	0.95
50	88.3	0.67	4.48	0.76
30	138	1.05	5.80	0.63
10	293	2.23	7.81	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 138 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-050-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R9W</u>
D. Latitude, Longitude	<u>47°12' 123°45'</u>
E. Stream Name	<u>W.F. Wishkah River</u>
F. Major Basin Name	<u>Wishkah</u>
G. River Mile	<u>7.0/10.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

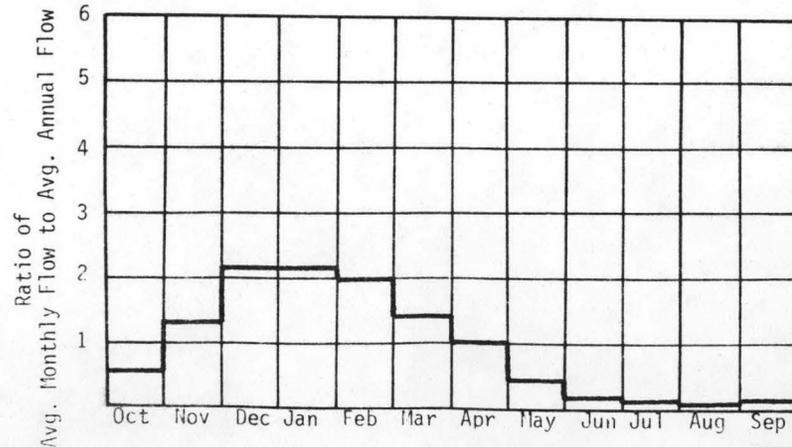
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>120</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>26.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

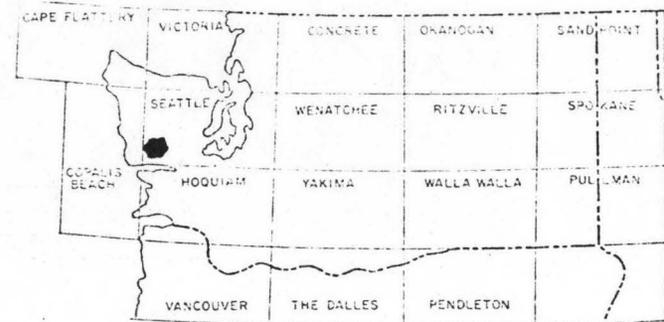
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.66	0.12	1.05	1.00
80	15.9	0.20	1.63	0.95
50	44.2	0.55	3.63	0.76
30	69.0	0.85	4.70	0.63
10	146	1.81	6.33	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



W22-745



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-052-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T16N R10W
D. Latitude, Longitude	46°52' 123°57'
E. Stream Name	Johns River
F. Major Basin Name	Johns River
G. River Mile	0.0/7.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

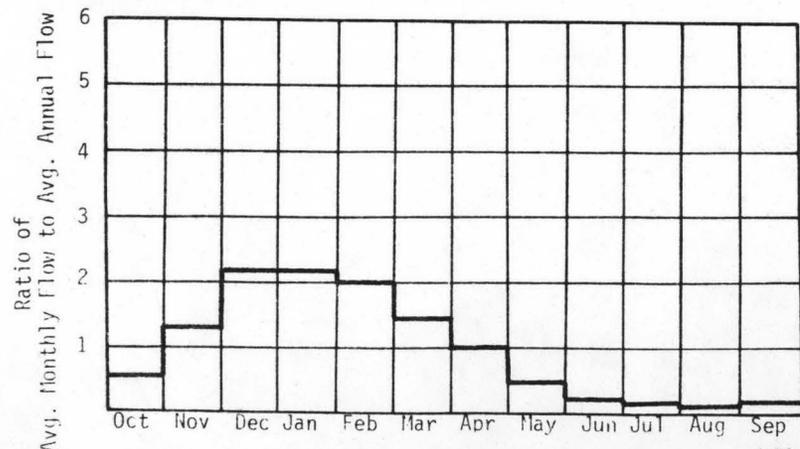
A. Upstream Elevation of Reach	50	Ft.	MSL
B. Downstream Elevation of Reach	0	Ft.	MSL
C. Total Available Head in Reach	50 + 66 = 116	Ft.	
D. Average Slope in Reach	6.6	Ft./Mi.	
E. Drainage Area above Reach Mouth	31.1	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

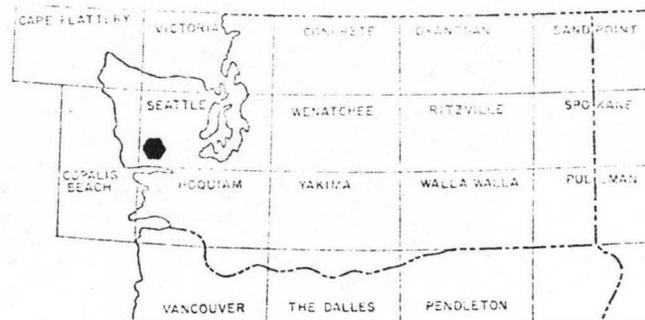
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.82	0.06	0.50	1.00
80	10.7	0.10	0.86	0.94
50	47.5	0.47	2.86	0.70
30	101	0.99	4.68	0.54
10	260	2.54	7.12	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

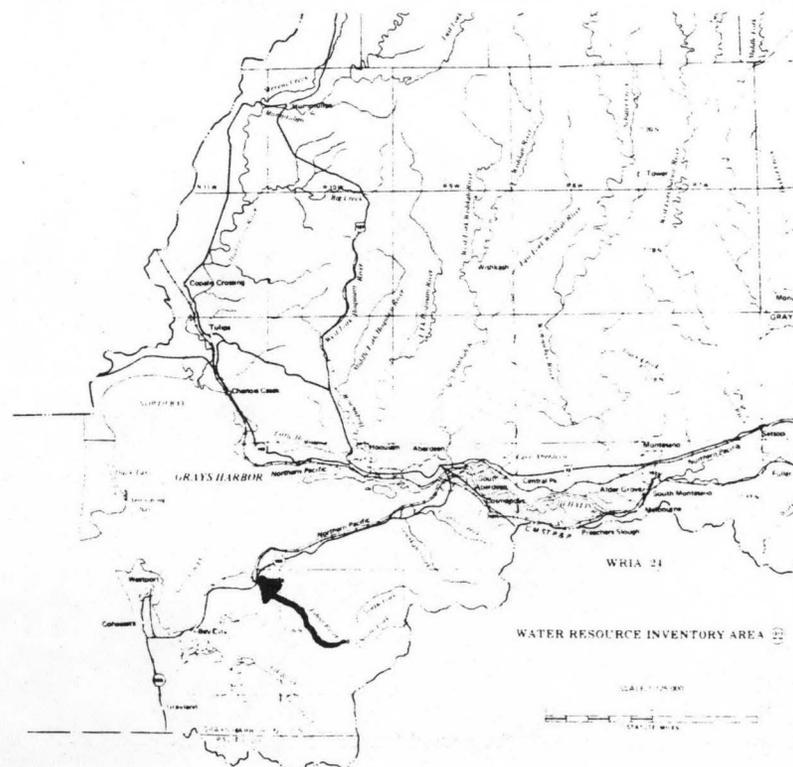
QMR = 97 cfs



W22-746



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-053-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R11W</u>
D. Latitude, Longitude	<u>46°51' 123°59'</u>
E. Stream Name	<u>Elk River</u>
F. Major Basin Name	<u>Elk River</u>
G. River Mile	<u>0.0/2.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

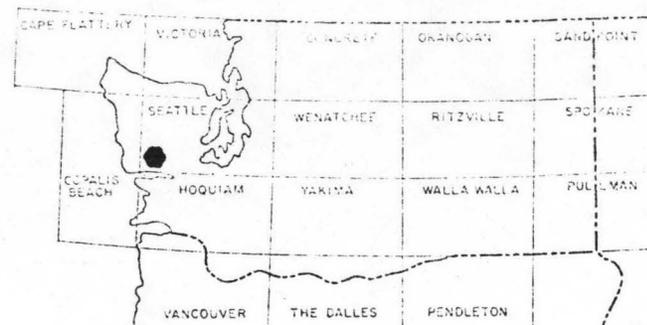
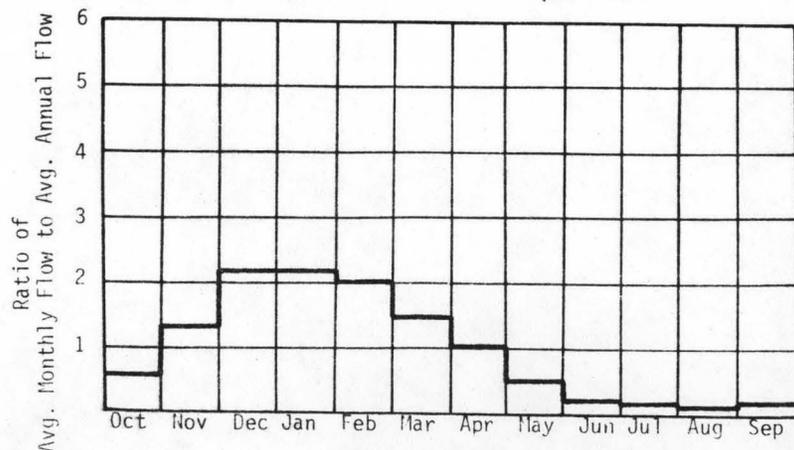
A. Upstream Elevation of Reach	<u>10</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>10 + 66 = 76</u>	Ft.
D. Average Slope in Reach	<u>4.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>18.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

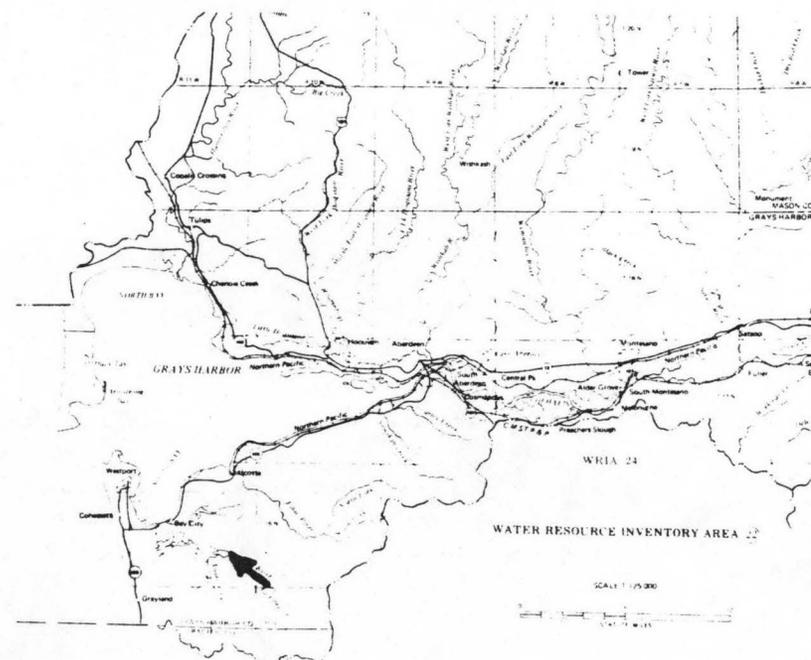
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.02	0.03	0.23	1.00
80	7.37	0.05	0.39	0.94
50	32.8	0.21	1.29	0.70
30	69.7	0.45	2.12	0.54
10	179	1.15	3.22	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 67 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Grays Harbor
 C. Township, Range T17N R8W
 D. Latitude, Longitude 46°57' 123°41'
 E. Stream Name Chehalis River
 F. Major Basin Name Chehalis
 G. River Mile 0.0/12.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

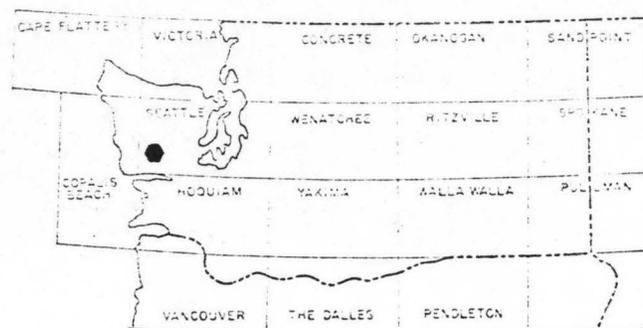
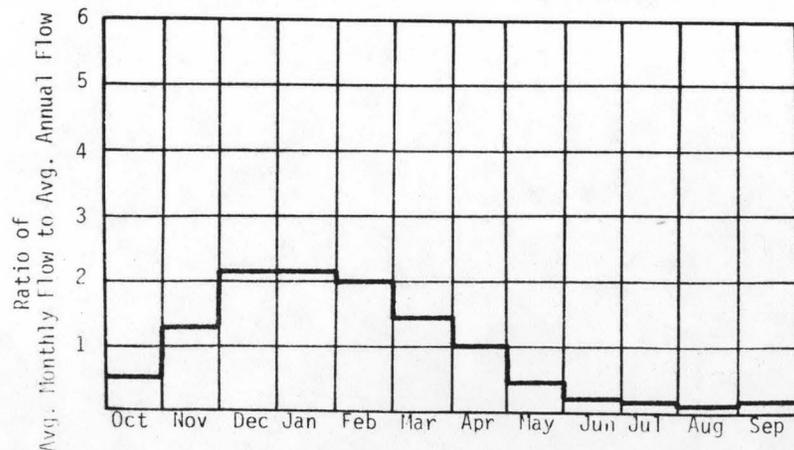
A. Upstream Elevation of Reach 0 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 0 Ft.
 D. Average Slope in Reach 0 Ft./Mi.
 E. Drainage Area above Reach Mouth 1998 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

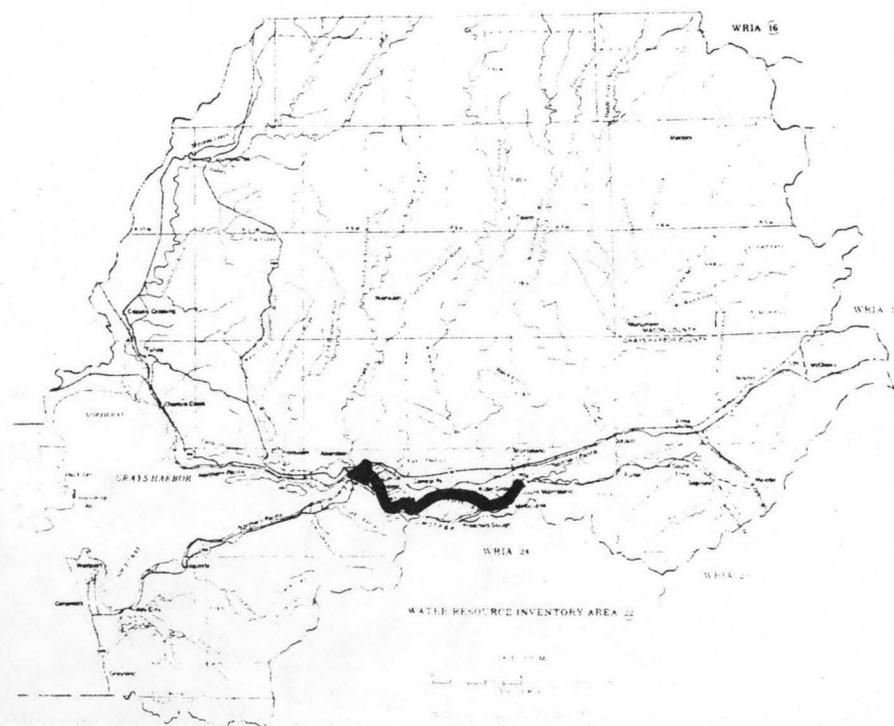
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	576	0.00	0.00	1.00
80	988	0.00	0.00	0.94
50	4200	0.00	0.00	0.70
30	9220	0.00	0.00	0.54
10	23100	0.00	0.00	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 8233 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R7W</u>
D. Latitude, Longitude	<u>46°58' 123°32'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>12.9/20.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

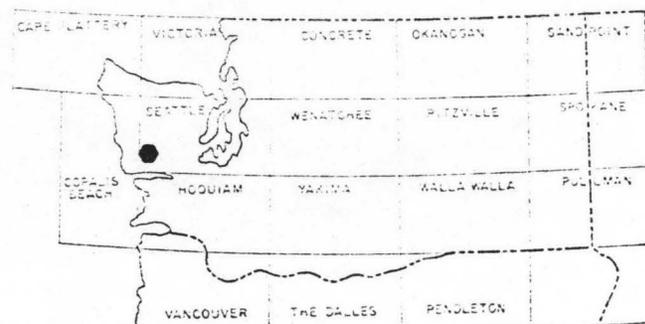
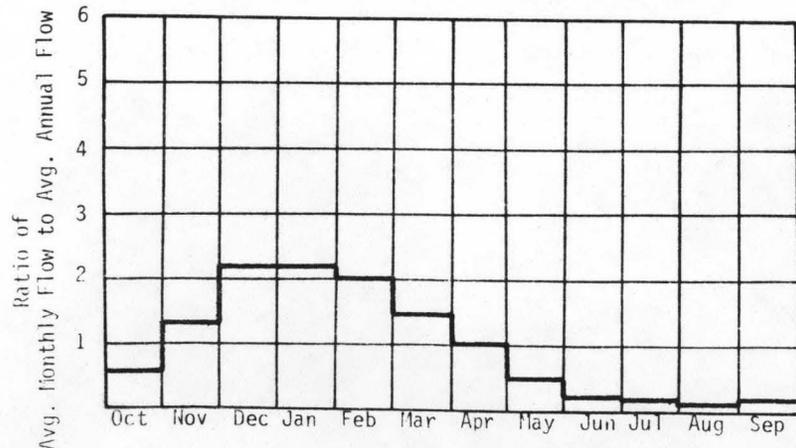
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1770</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

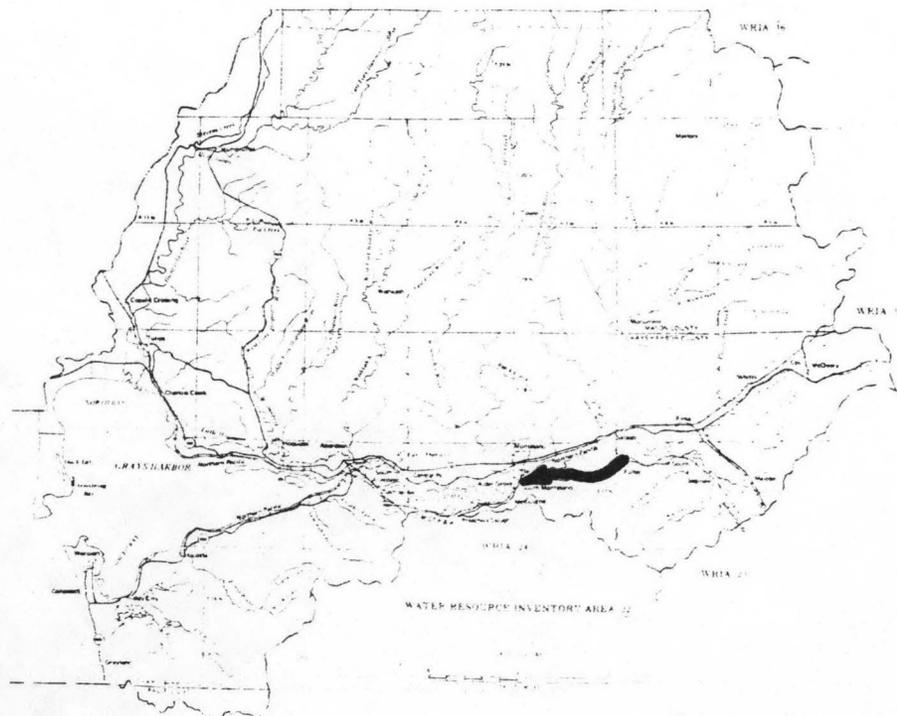
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	468	0.00	0.00	1.00
80	802	0.00	0.00	0.94
50	3410	0.00	0.00	0.70
30	7480	0.00	0.00	0.54
10	18700	0.00	0.00	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 6682 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R6W</u>
D. Latitude, Longitude	<u>46°58' 123°26'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>20.6/25.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

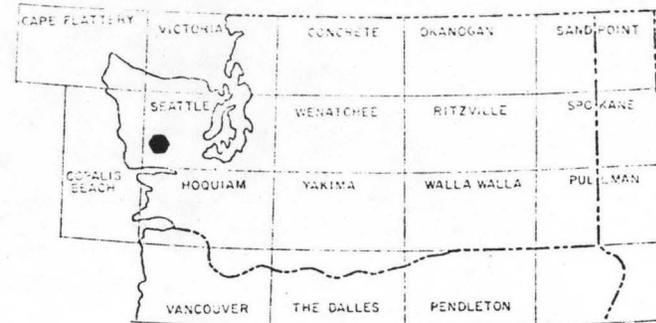
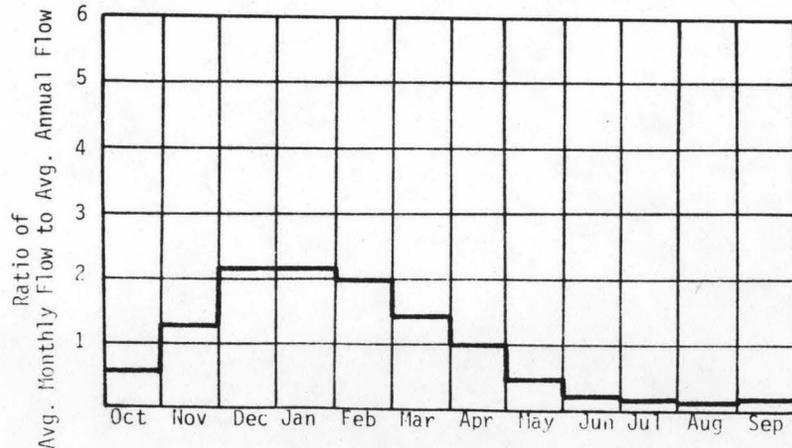
A. Upstream Elevation of Reach	<u>15</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>15</u>	Ft.
D. Average Slope in Reach	<u>3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1440</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

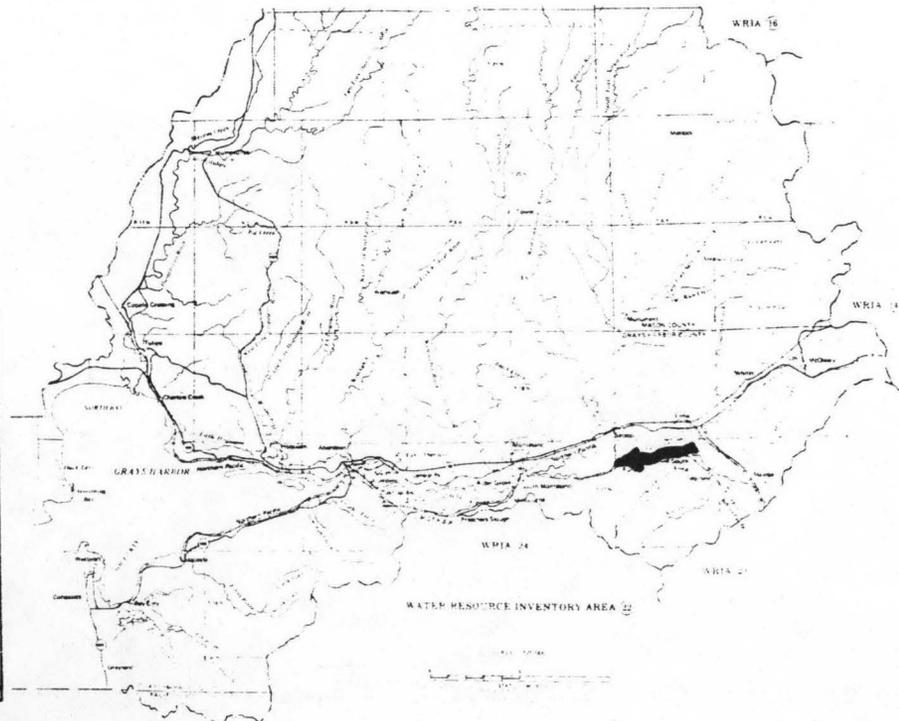
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	321	0.41	3.57	1.00
80	551	0.70	5.75	0.94
50	2340	2.97	18.2	0.70
30	5140	6.52	30.9	0.54
10	12900	16.3	47.1	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 4589 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R6W</u>
D. Latitude, Longitude	<u>46°53' 123°24'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>25.6/28.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

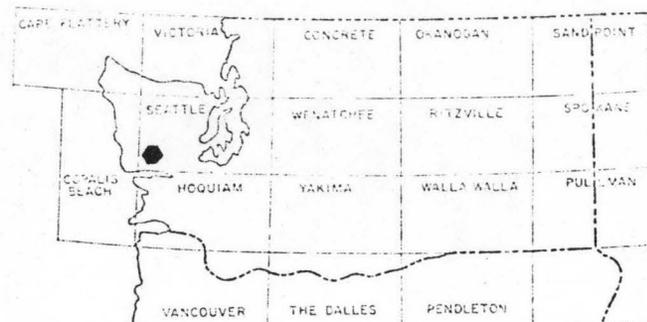
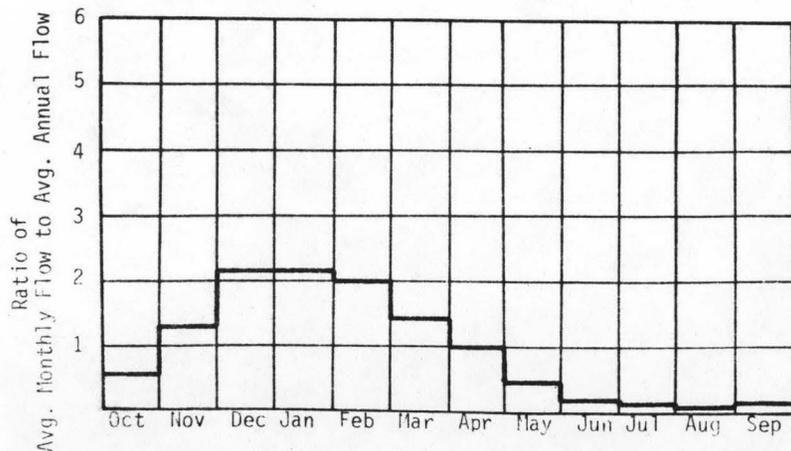
A. Upstream Elevation of Reach	<u>15</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>15</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1333</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	296	0.00	0.00	1.00
80	507	0.00	0.00	0.94
50	2150	0.00	0.00	0.70
30	4730	0.00	0.00	0.54
10	11800	0.00	0.00	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 4221 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0005

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T17N R5W
D. Latitude, Longitude	46°57' 123°21'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	28.3/33.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

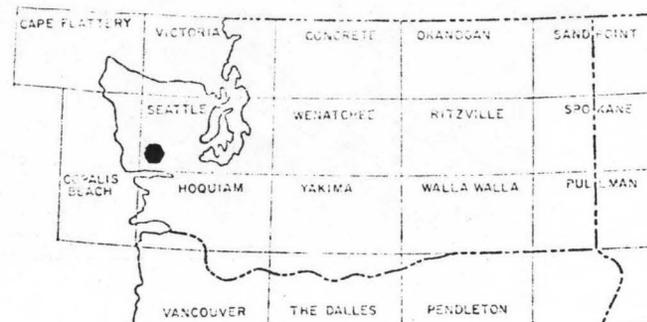
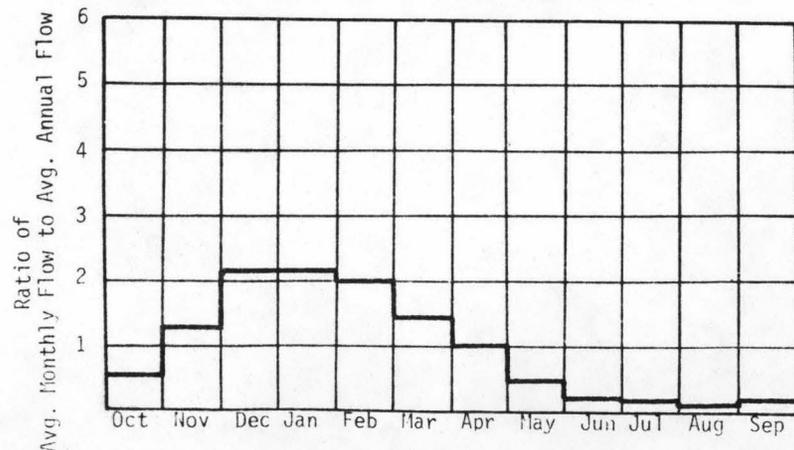
A. Upstream Elevation of Reach	30	Ft. MSL
B. Downstream Elevation of Reach	15	Ft. MSL
C. Total Available Head in Reach	15	Ft.
D. Average Slope in Reach	2.7	Ft./Mi.
E. Drainage Area above Reach Mouth	1285	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

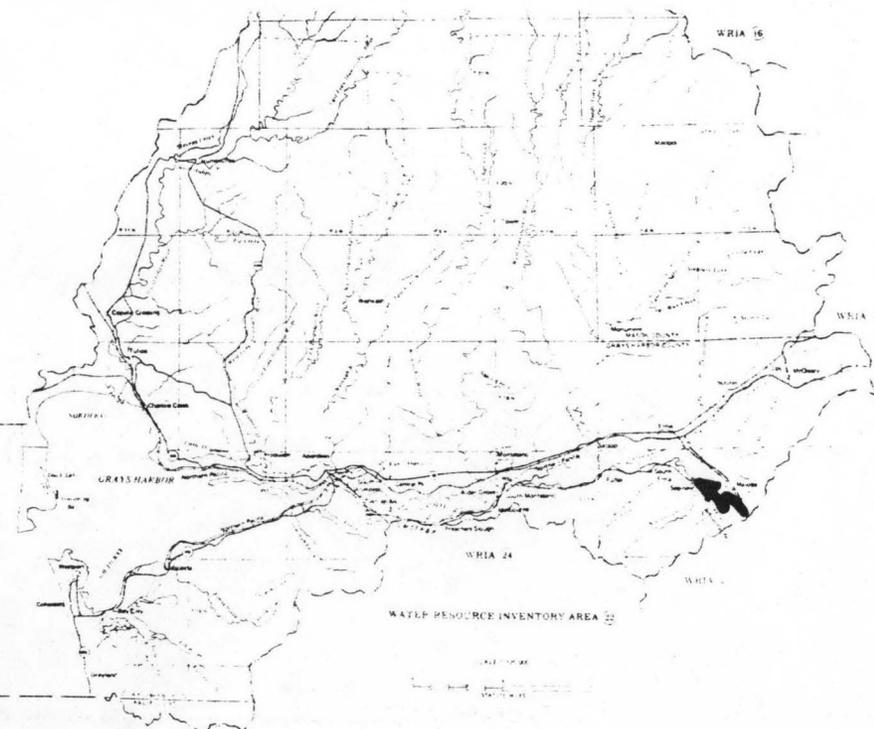
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	286	0.36	3.18	1.00
80	490	0.62	5.12	0.94
50	2080	2.64	16.2	0.70
30	4570	5.80	27.5	0.54
10	11400	14.5	42.0	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 4084 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0006

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T17N R5W
D. Latitude, Longitude	46°55' 123°18'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	33.9/39.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

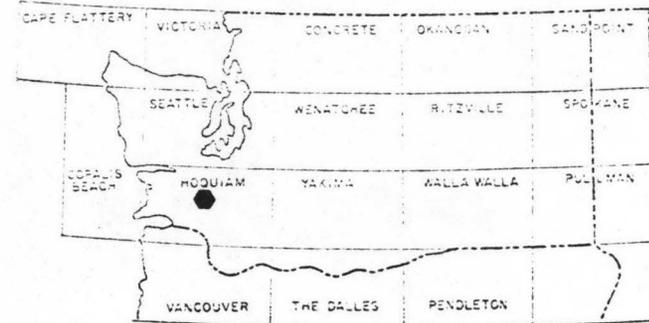
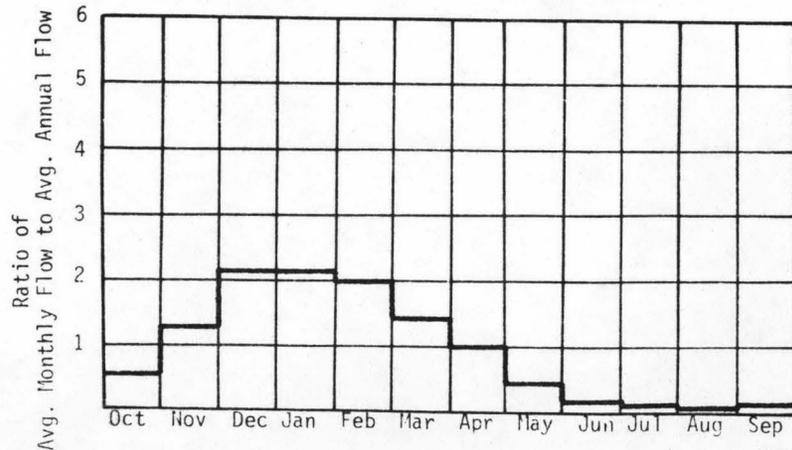
A. Upstream Elevation of Reach	40	Ft. MSL
B. Downstream Elevation of Reach	30	Ft. MSL
C. Total Available Head in Reach	10	Ft.
D. Average Slope in Reach	1.9	Ft./Mi.
E. Drainage Area above Reach Mouth	1237	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

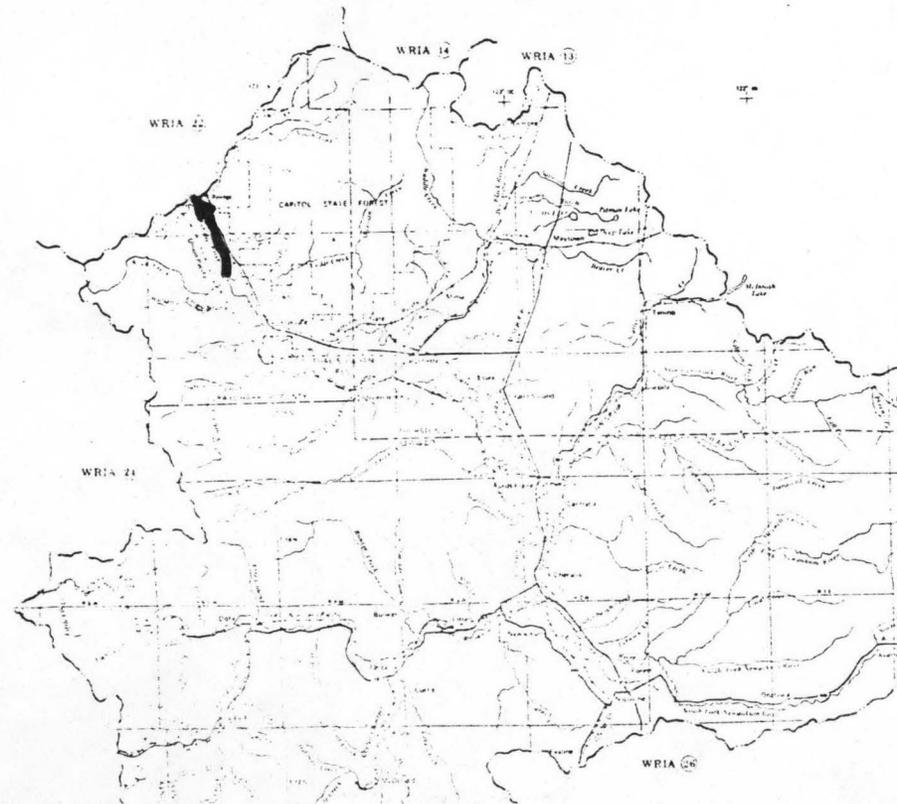
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	268	0.23	1.98	1.00
80	459	0.39	3.20	0.94
50	1950	1.65	10.1	0.70
30	4280	3.62	17.1	0.54
10	10700	9.05	26.2	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3822 CFS



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R5W</u>
D. Latitude, Longitude	<u>46°51' 123°15'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>40.0/45.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

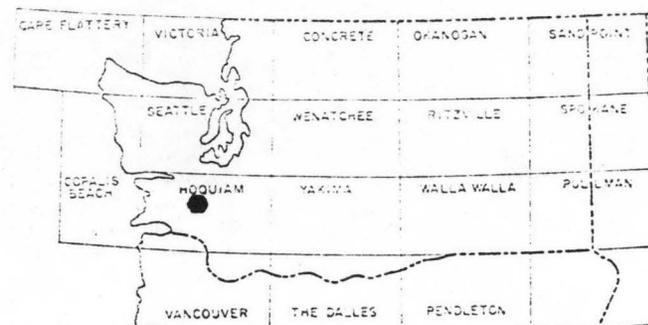
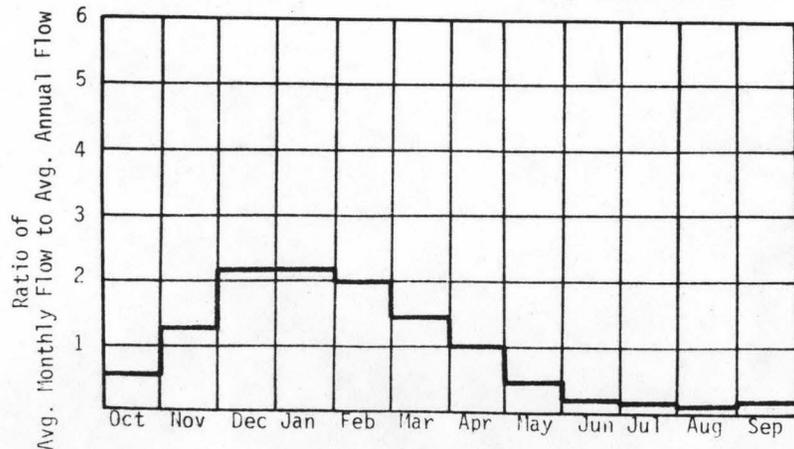
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>5.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1155</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	252	0.64	5.61	1.00
80	433	1.10	9.04	0.94
50	1840	4.67	28.6	0.70
30	4040	10.3	48.5	0.54
10	10100	25.6	74.1	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3605 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T15N R4W</u>
D. Latitude, Longitude	<u>46°48' 123°14'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>45.7/47.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

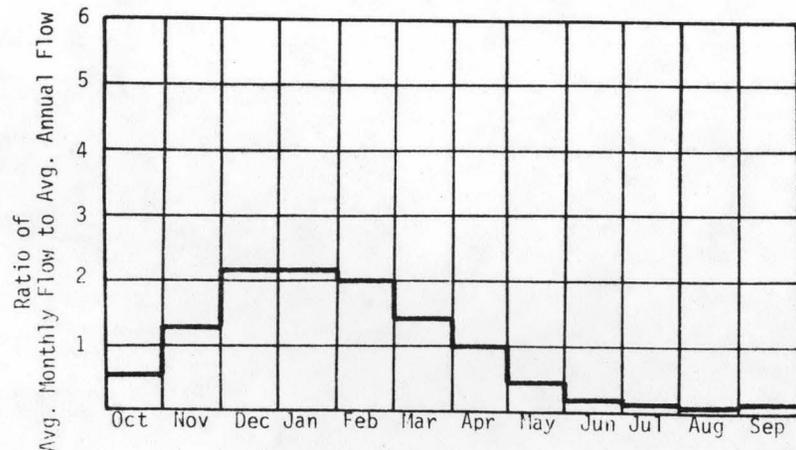
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>1110</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

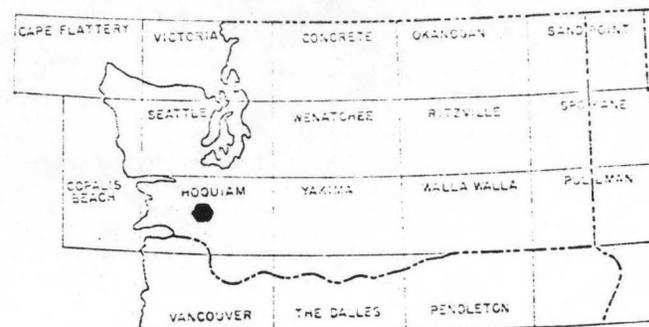
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	243	0.00	0.00	1.00
80	417	0.00	0.00	0.94
50	1770	0.00	0.00	0.70
30	3890	0.00	0.00	0.54
10	9730	0.00	0.00	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

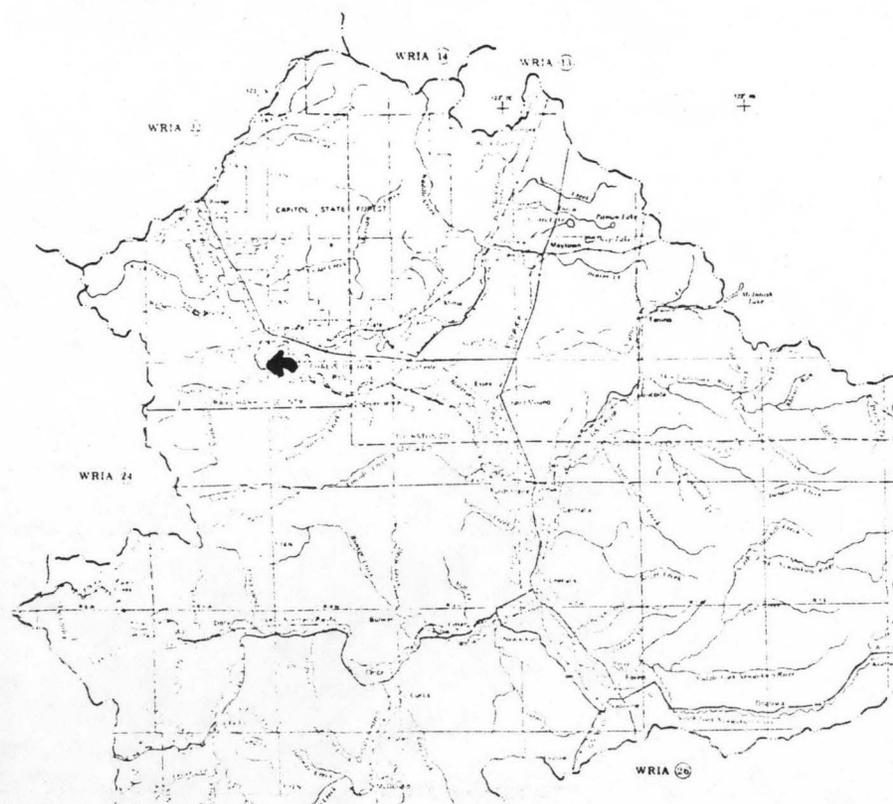
QMR = 3474 cfs



W22-755



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R4W</u>
D. Latitude, Longitude	<u>46°48' 123°12'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>47.8/52.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

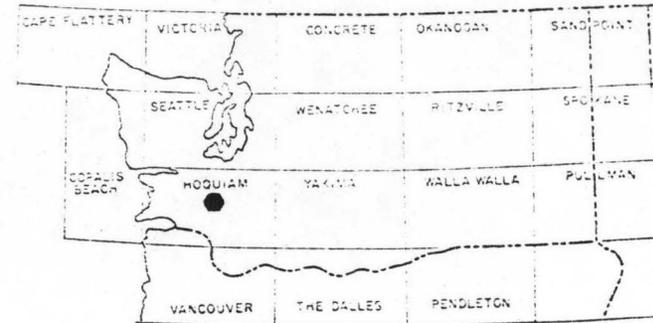
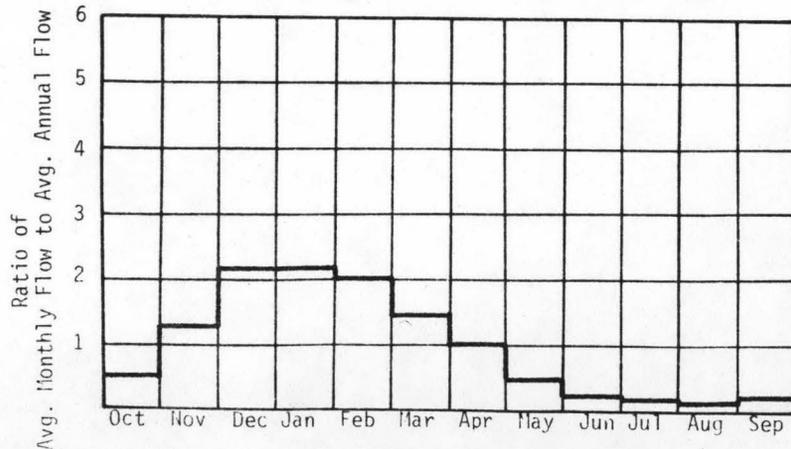
A. Upstream Elevation of Reach	<u>90</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>4.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>967</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

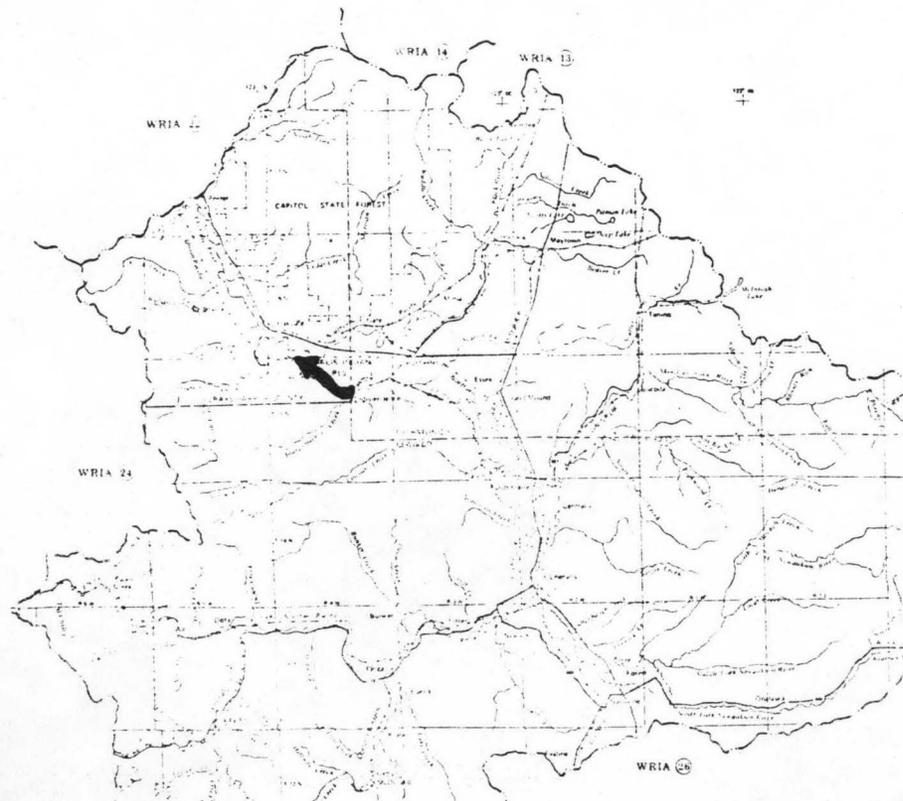
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	213	0.36	3.16	1.00
80	366	0.62	5.10	0.94
50	1550	2.63	16.1	0.70
30	3410	5.78	27.3	0.54
10	8540	14.4	41.8	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 3049 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0010

I. LOCATION

A. State	Washington
B. County	Thurston
C. Township, Range	T15N R3W
D. Latitude, Longitude	46°47' 123°05'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	52.5/60.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

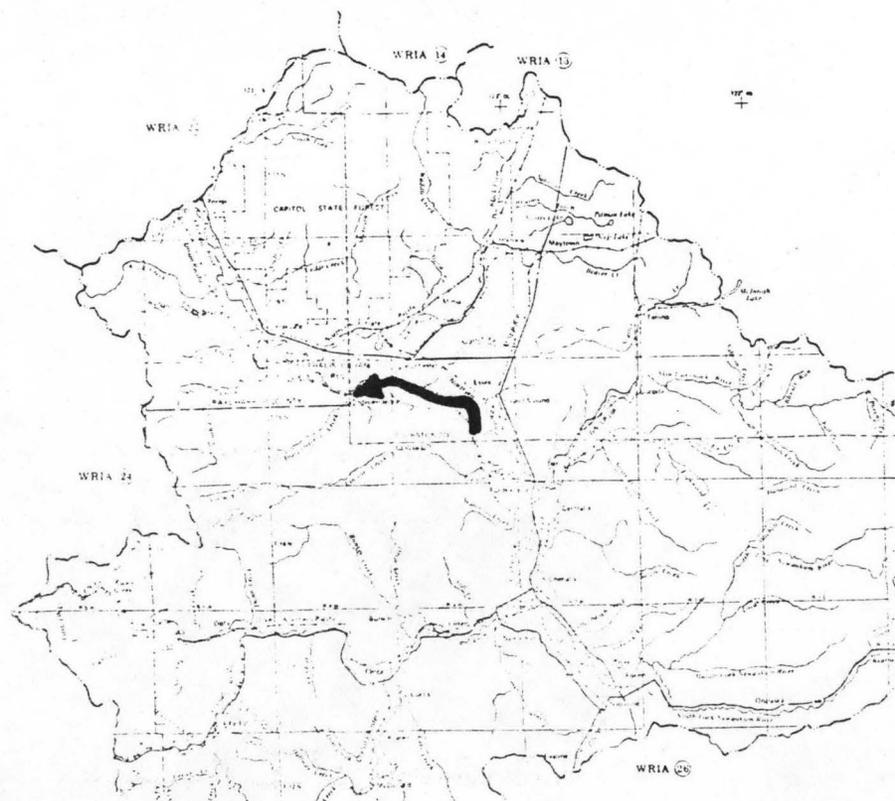
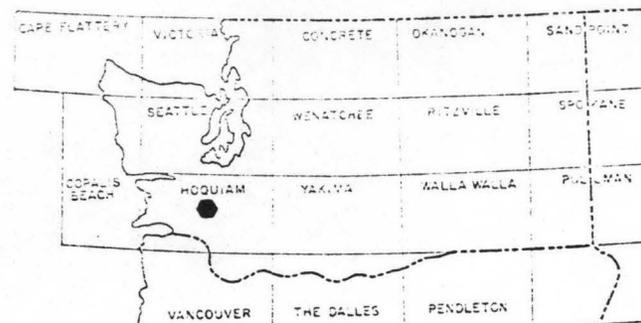
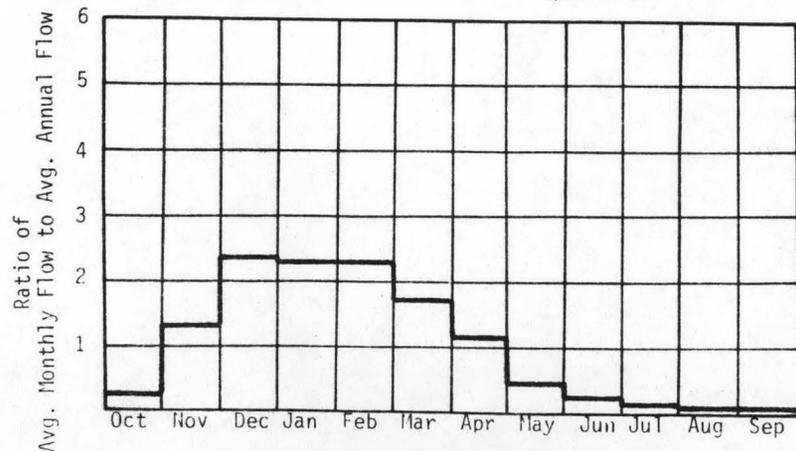
A. Upstream Elevation of Reach	130	Ft.	MSL
B. Downstream Elevation of Reach	90	Ft.	MSL
C. Total Available Head in Reach	40	Ft.	
D. Average Slope in Reach	0.8	Ft./Mi.	
E. Drainage Area above Reach Mouth	939	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	73	0.49	5.13	1.00
80	288	0.98	8.12	0.95
50	1300	4.39	26.9	0.70
30	2910	9.86	45.8	0.53
10	7960	26.9	75.5	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2884 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0011

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T15N R3W
D. Latitude, Longitude	46°46' 123°02'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	60.7/62.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

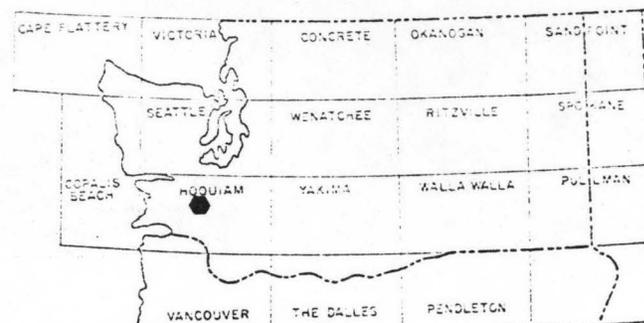
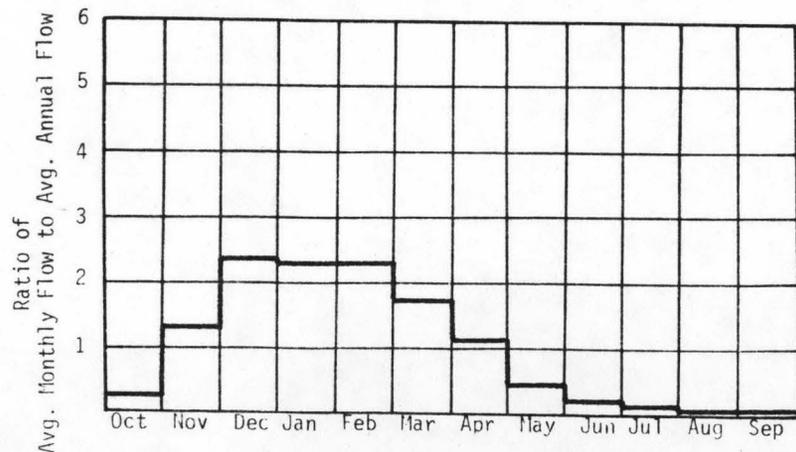
A. Upstream Elevation of Reach	140	Ft. MSL
B. Downstream Elevation of Reach	130	Ft. MSL
C. Total Available Head in Reach	10	Ft.
D. Average Slope in Reach	5.3	Ft./Mi.
E. Drainage Area above Reach Mouth	878	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

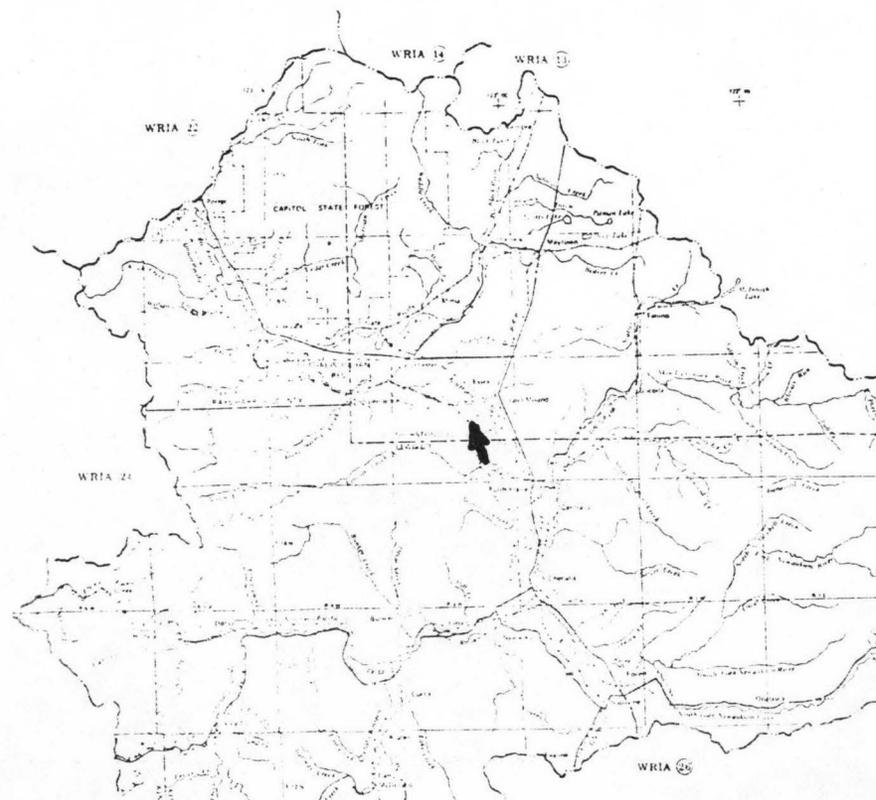
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	168	0.14	1.24	1.00
80	279	0.24	1.97	0.95
50	1260	1.06	6.52	0.70
30	2820	2.39	11.1	0.53
10	7710	6.52	18.3	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2793 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0012

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T15N R3W
D. Latitude, Longitude	46°43' 123°01'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	62.6/67.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

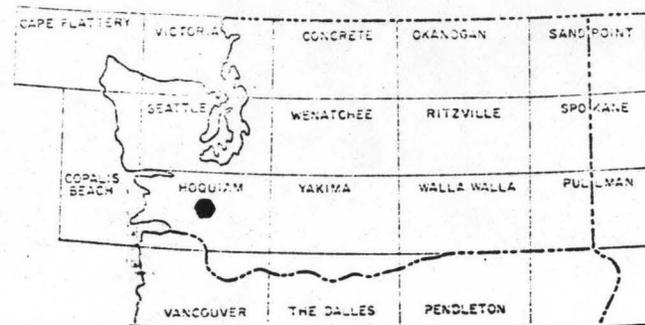
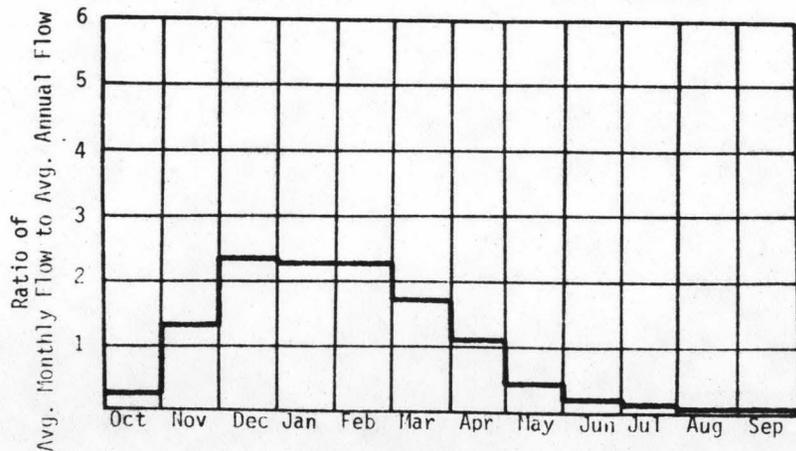
A. Upstream Elevation of Reach	150	Ft. MSL
B. Downstream Elevation of Reach	140	Ft. MSL
C. Total Available Head in Reach	10	Ft.
D. Average Slope in Reach	1.9	Ft./Mi.
E. Drainage Area above Reach Mouth	828	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

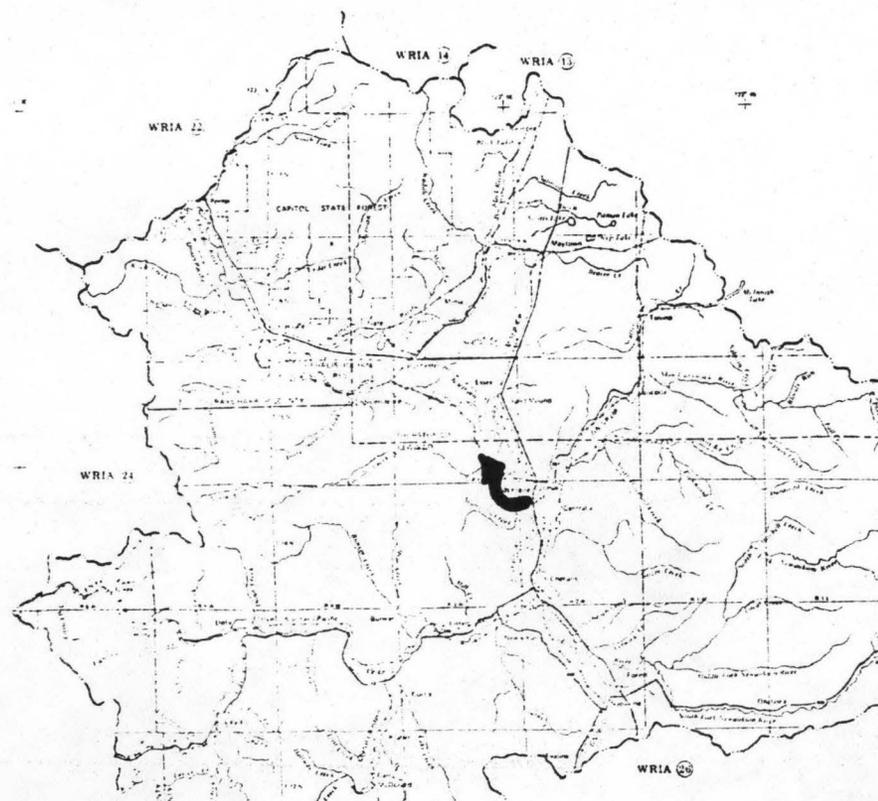
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	160	0.14	1.17	1.00
80	267	0.23	1.88	0.95
50	1200	1.02	6.24	0.70
30	2700	2.28	10.6	0.53
10	2380	6.24	17.5	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2673 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0013

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T14N R2W</u>
D. Latitude, Longitude	<u>46°41' 122°59'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>67.9/75.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

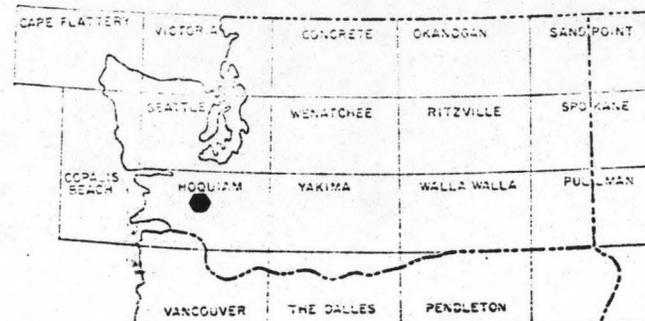
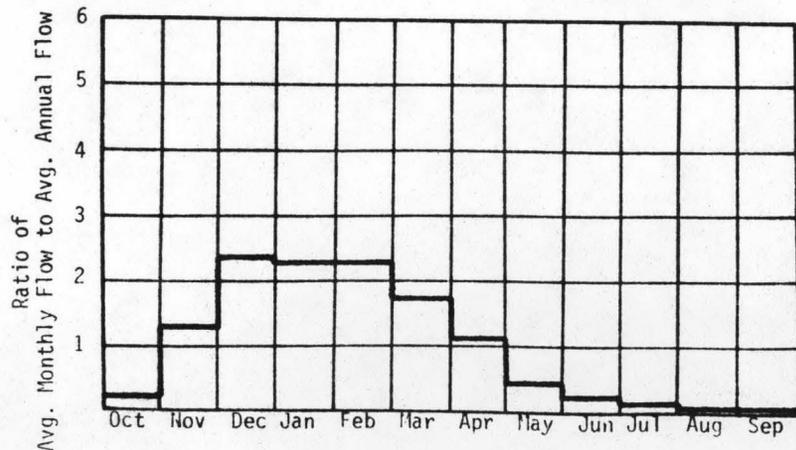
A. Upstream Elevation of Reach	<u>150</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>645</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

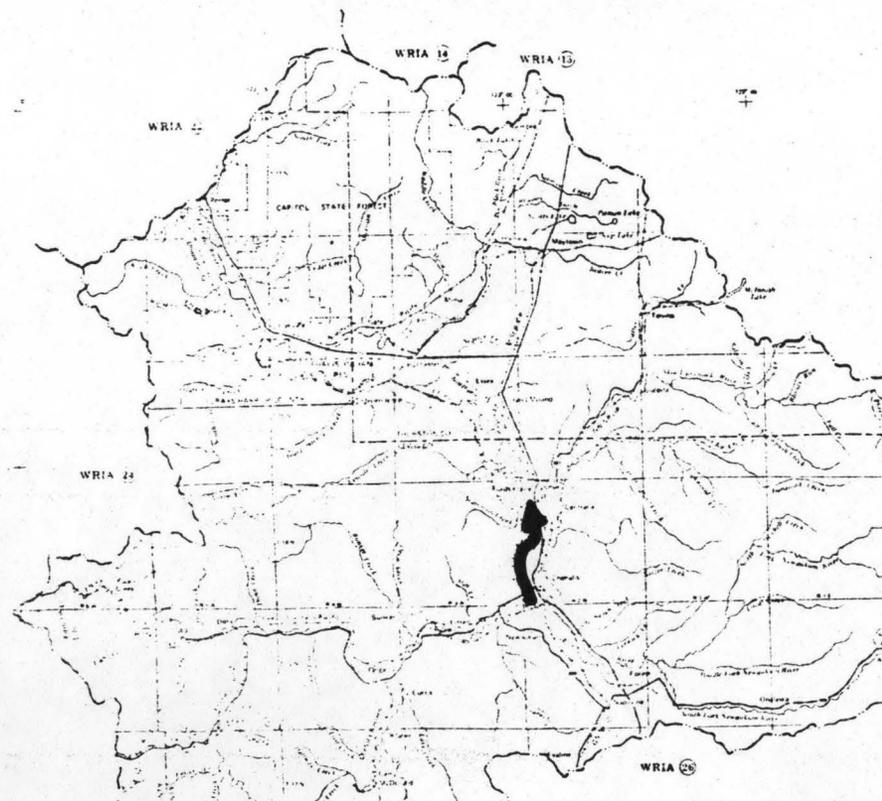
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	125	0.00	0.00	1.00
80	209	0.00	0.00	0.95
50	940	0.00	0.00	0.70
30	2110	0.00	0.00	0.53
10	5760	0.00	0.00	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 2088 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0014

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T13N R3W
D. Latitude, Longitude	46°38' 123°00'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	75.9/78.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

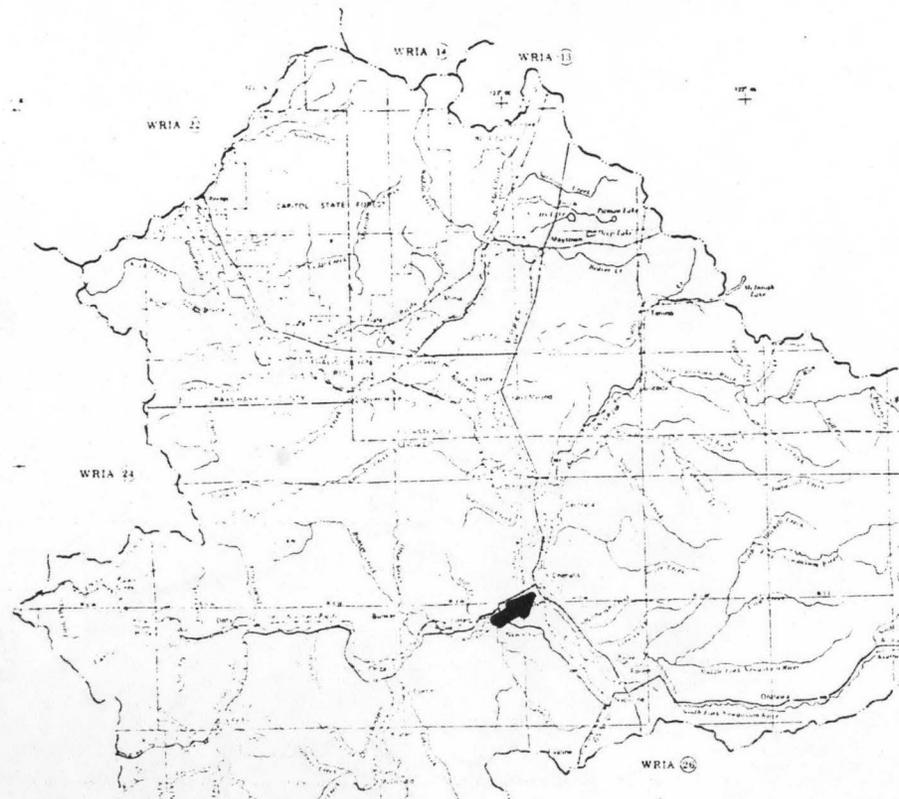
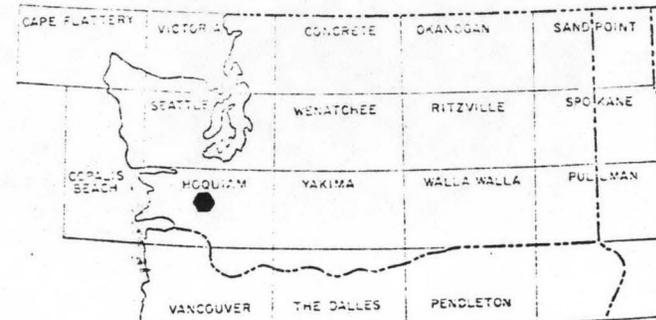
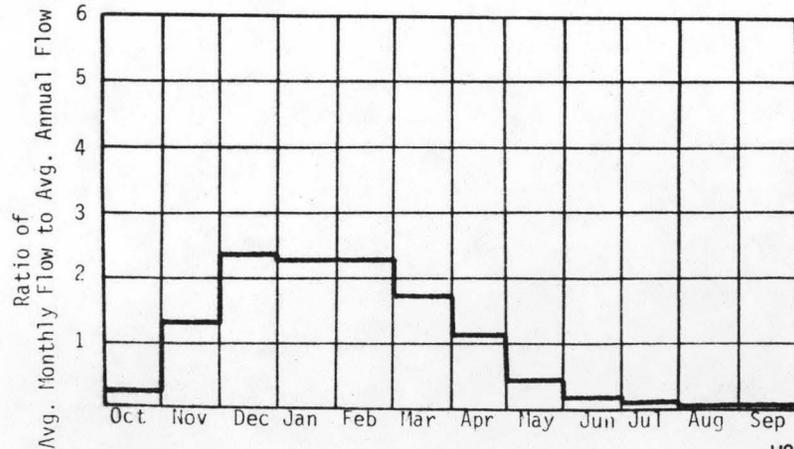
A. Upstream Elevation of Reach	150	Ft.	MSL
B. Downstream Elevation of Reach	150	Ft.	MSL
C. Total Available Head in Reach	0	Ft.	
D. Average Slope in Reach	0	Ft./Mi.	
E. Drainage Area above Reach Mouth	438	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.7	0.00	0.00	1.00
80	107	0.00	0.00	0.93
50	629	0.00	0.00	0.68
30	1470	0.00	0.00	0.52
10	3940	0.00	0.00	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1535 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0015

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R3W</u>
D. Latitude, Longitude	<u>46°38' 123°04'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>78.7/85.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

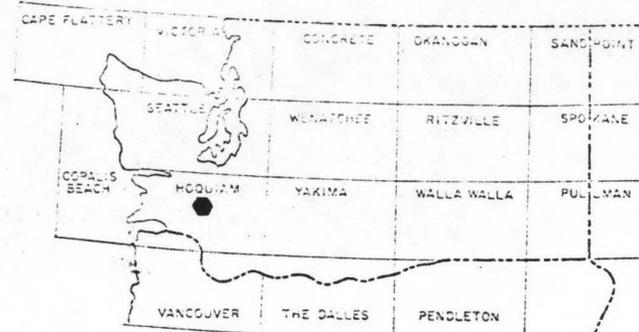
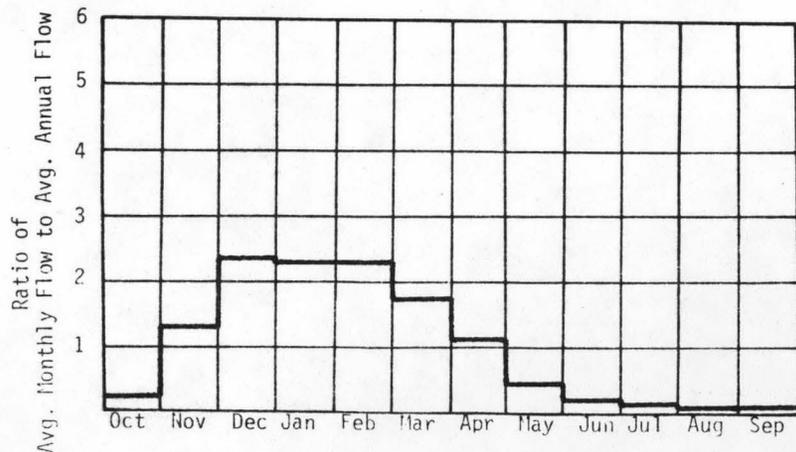
A. Upstream Elevation of Reach	<u>160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>1.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>393</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	28.7	0.02	0.21	1.00
80	101	0.09	0.69	0.93
50	589	0.50	2.97	0.68
30	1380	1.17	5.31	0.52
10	3690	3.12	8.48	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1436 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0016

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R3W</u>
D. Latitude, Longitude	<u>46°37' 123°06'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>85.1/88.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

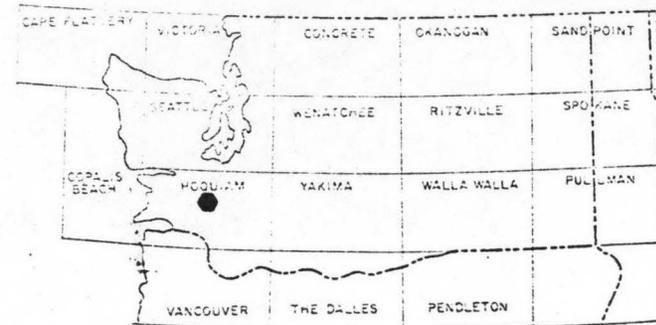
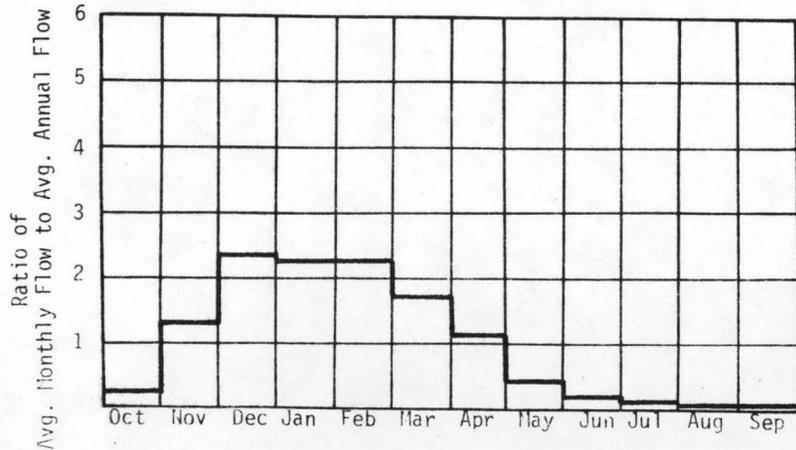
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>160</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>11.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>341</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

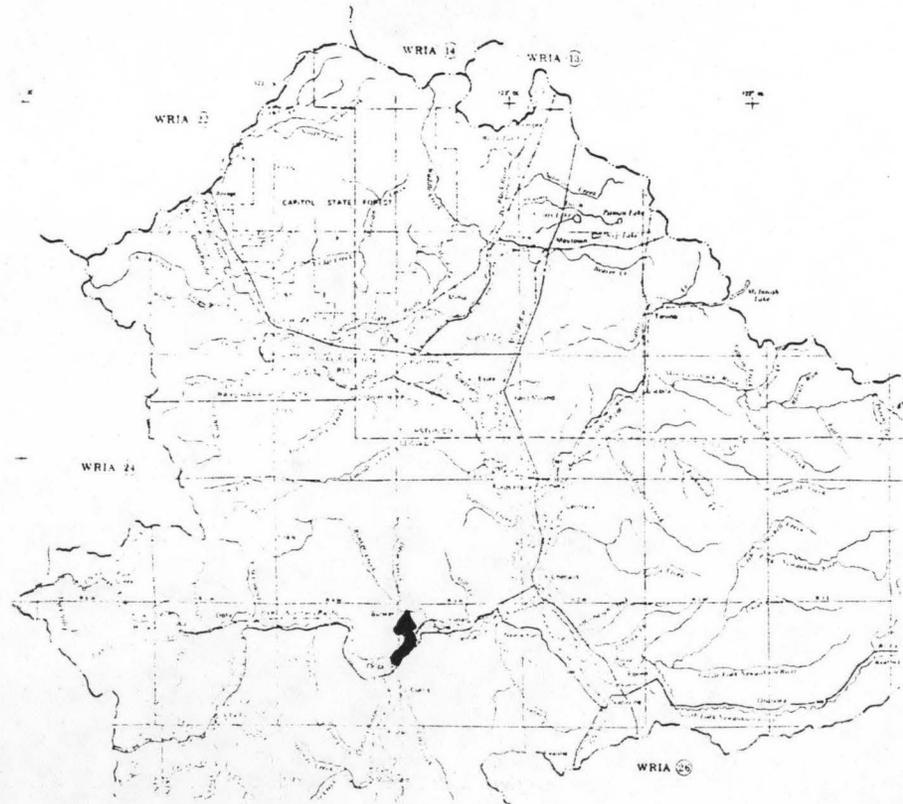
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	26.6	0.09	0.79	1.00
80	93.1	0.32	2.57	0.93
50	545	1.85	11.0	0.68
30	1280	4.32	19.7	0.52
10	3420	11.6	31.4	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1333 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0017

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R4W</u>
D. Latitude, Longitude	<u>46°38' 123°13'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>88.5/100.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

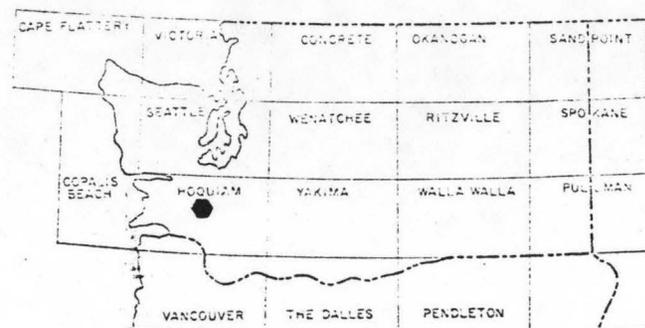
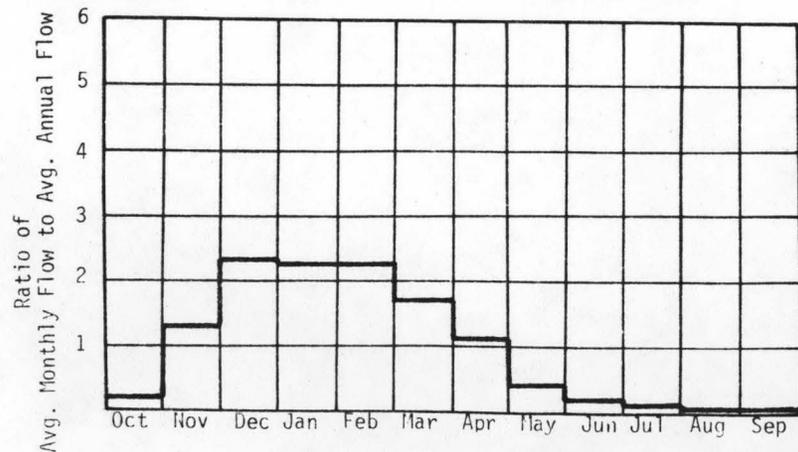
A. Upstream Elevation of Reach	<u>280</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>200</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>6.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>175</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

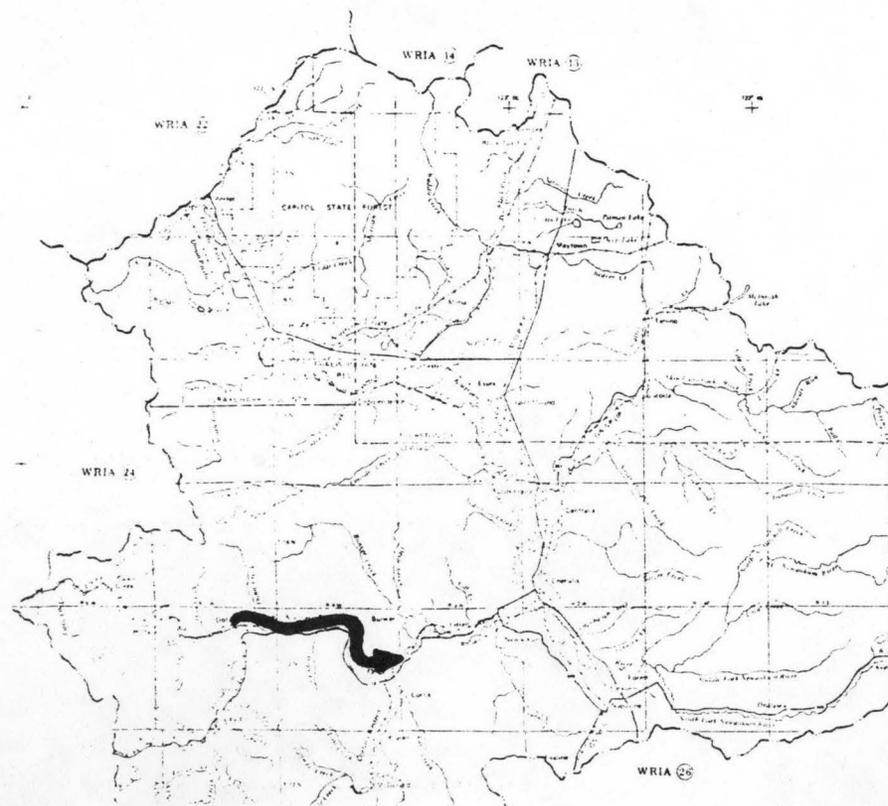
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	40.6	0.27	2.40	1.00
80	81.1	0.55	4.52	0.94
50	373	2.52	15.5	0.70
30	787	5.32	25.2	0.54
10	2080	14.0	39.2	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 811 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0018

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T13N R5W
D. Latitude, Longitude	46°35' 123°18'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	100.8/107.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

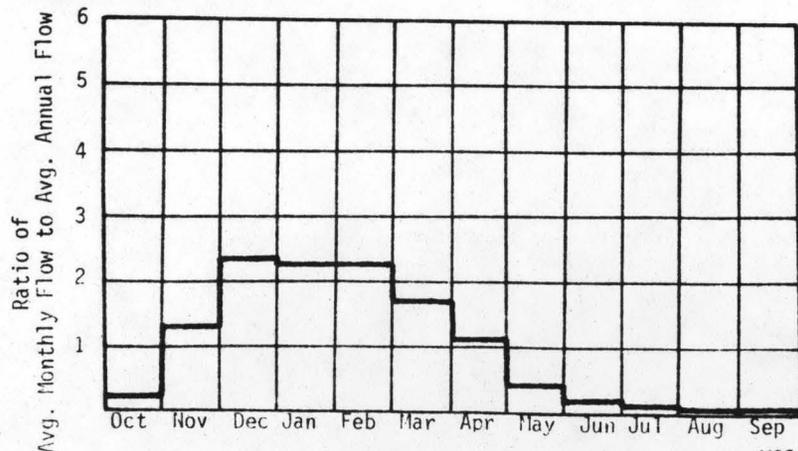
A. Upstream Elevation of Reach	370	Ft. MSL
B. Downstream Elevation of Reach	280	Ft. MSL
C. Total Available Head in Reach	90	Ft.
D. Average Slope in Reach	14.1	Ft./Mi.
E. Drainage Area above Reach Mouth	116	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

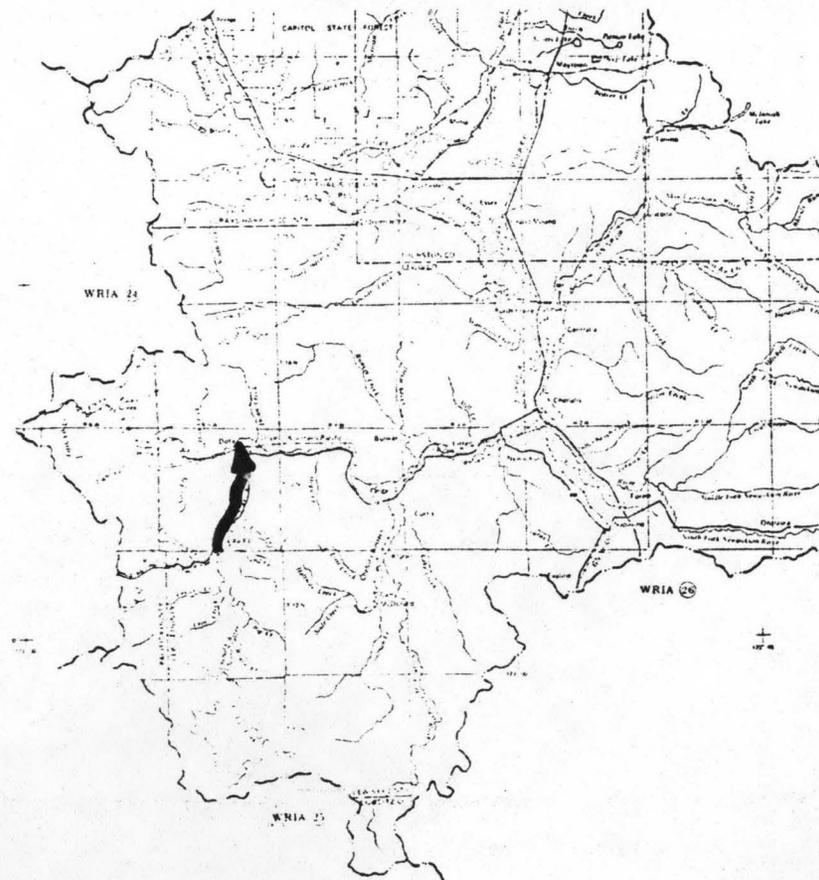
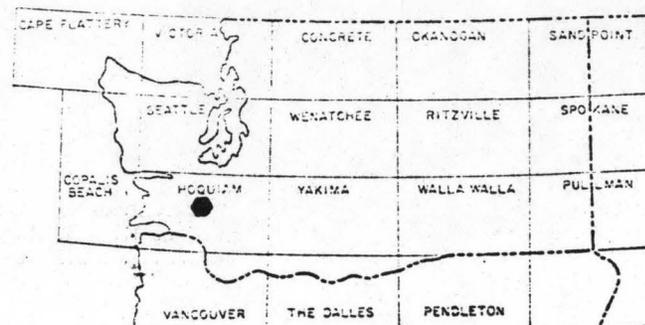
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	26.2	0.20	1.74	1.00
80	52.3	0.40	3.28	0.94
50	241	1.83	11.2	0.70
30	507	3.86	18.3	0.54
10	1330	10.2	28.5	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 523 cfs



W22-765



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0019

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T12N R5W</u>
D. Latitude, Longitude	<u>46°33' 123°19'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>107.2/109.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

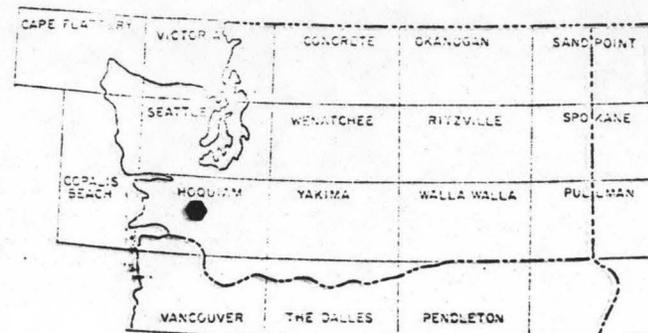
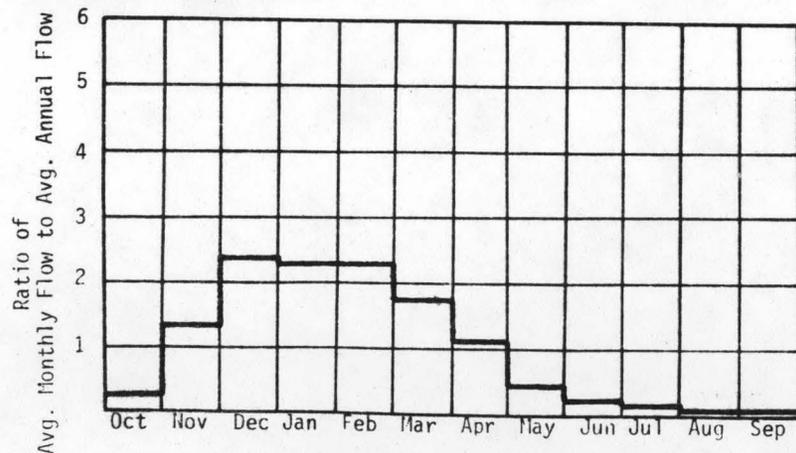
A. Upstream Elevation of Reach	<u>450</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>370</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>44</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>71.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.2	0.13	1.14	1.00
80	38.4	0.26	2.14	0.94
50	177	1.20	7.33	0.70
30	372	2.52	11.9	0.54
10	979	6.63	18.6	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 384 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0020

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T12N R5W</u>
D. Latitude, Longitude	<u>46°31' 123°17'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>109.0/117.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

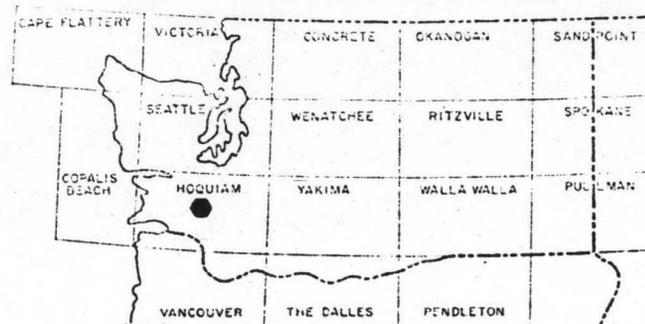
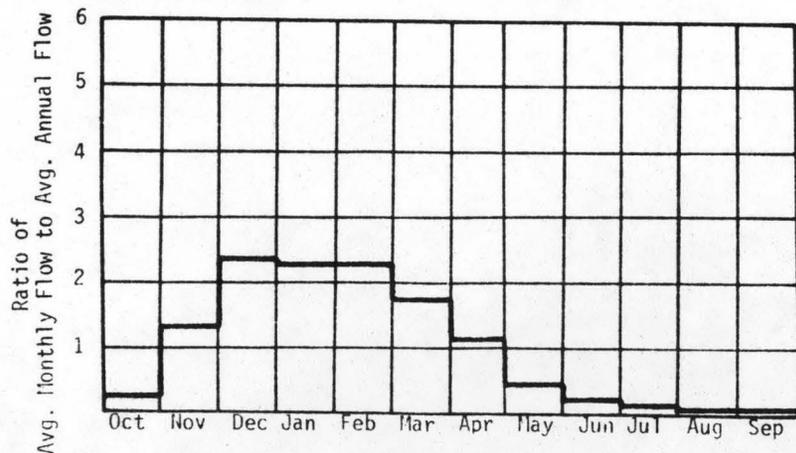
A. Upstream Elevation of Reach	<u>690</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>450</u>	Ft. MSL
C. Total Available Head in Reach	<u>240</u>	Ft.
D. Average Slope in Reach	<u>29.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>56.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.7	0.28	2.44	1.00
80	27.4	0.56	4.58	0.94
50	126	2.56	15.7	0.70
30	266	5.40	25.5	0.54
10	699	14.2	39.8	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 274 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0021

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T11N R5W</u>
D. Latitude, Longitude	<u>46°27' 123°17'</u>
E. Stream Name	<u>Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>117.1/119.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

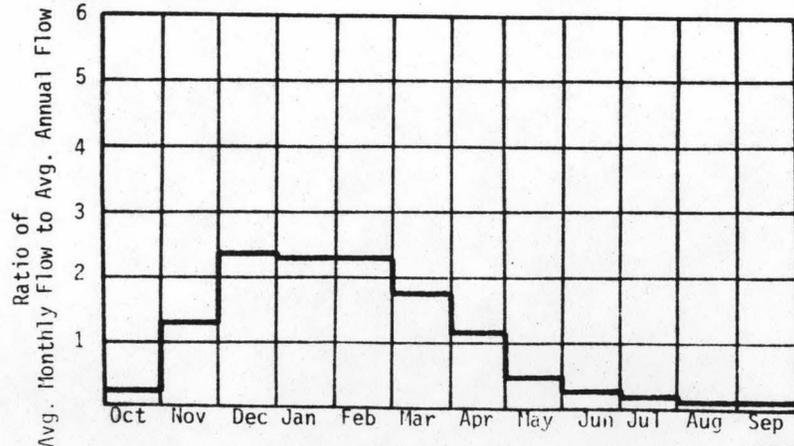
A. Upstream Elevation of Reach	<u>848</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>690</u>	Ft. MSL
C. Total Available Head in Reach	<u>158</u>	Ft.
D. Average Slope in Reach	<u>56.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>34.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

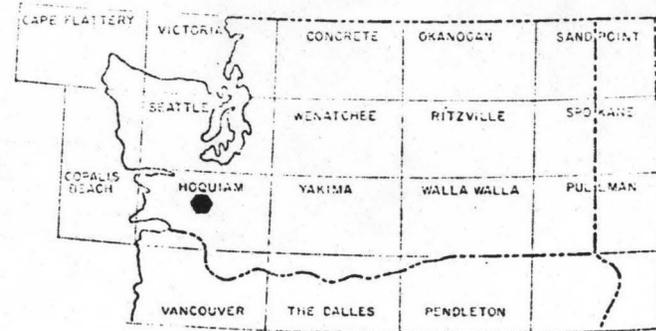
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.35	0.12	1.09	1.00
80	18.7	0.25	2.06	0.94
50	86.0	1.15	7.05	0.70
30	181	2.42	11.5	0.54
10	477	6.37	17.9	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

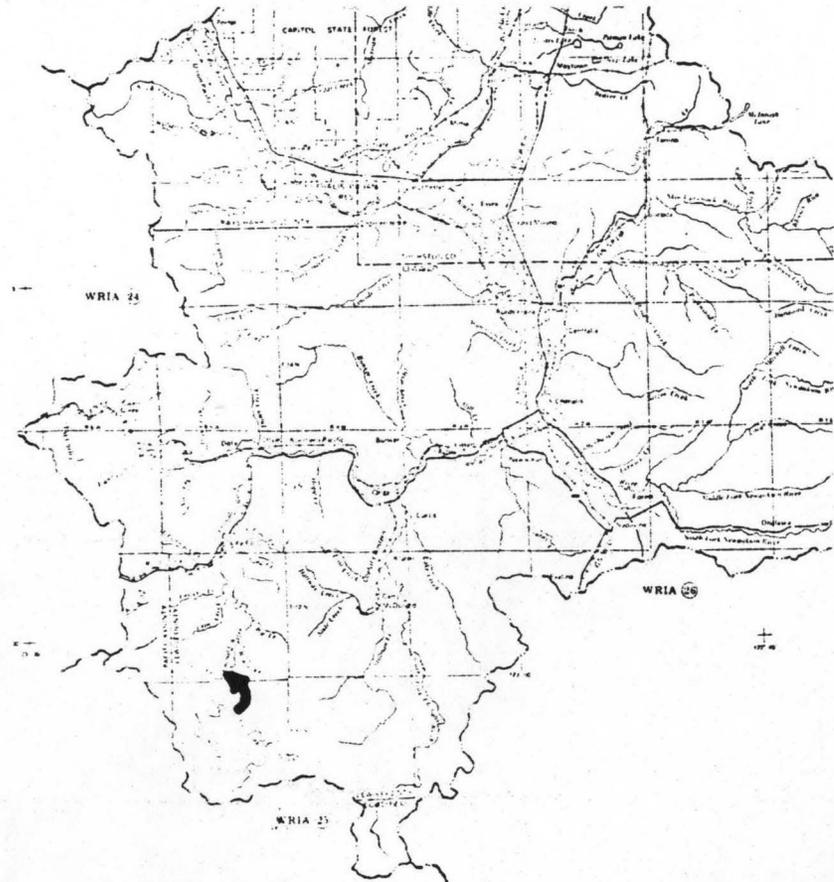
QMR = 187 cfs



W22-768



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0022

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T11N R5W
D. Latitude, Longitude	46°26' 123°17'
E. Stream Name	Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	119.9/120.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

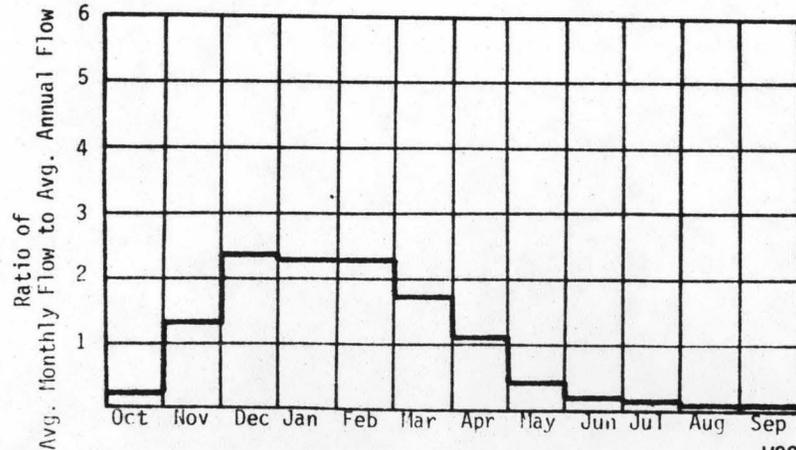
A. Upstream Elevation of Reach	940	Ft. MSL
B. Downstream Elevation of Reach	848	Ft. MSL
C. Total Available Head in Reach	92 + 66 = 158	Ft.
D. Average Slope in Reach	92	Ft./Mi.
E. Drainage Area above Reach Mouth	17.8	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

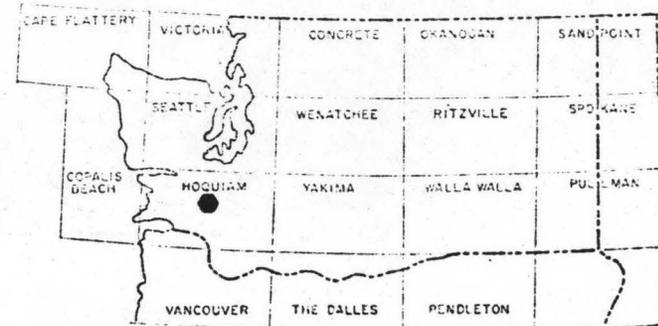
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.90	0.07	0.57	1.00
80	9.80	0.13	1.08	0.94
50	45.1	0.60	3.69	0.70
30	95.1	1.27	6.01	0.54
10	250	3.34	9.36	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 98 cfs



W22-769



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0023

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T17N R8W
D. Latitude, Longitude	46°59' 123°39'
E. Stream Name	Wynoochee River
F. Major Basin Name	Chehalis
G. River Mile	0.0/5.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

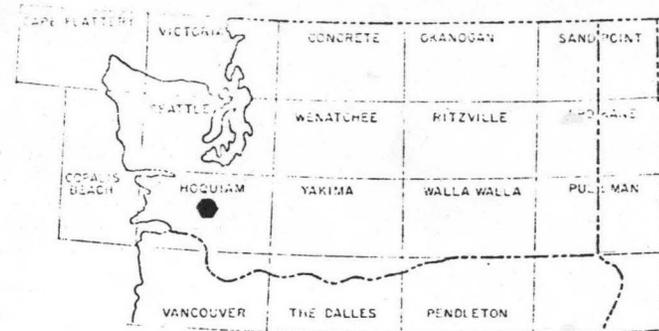
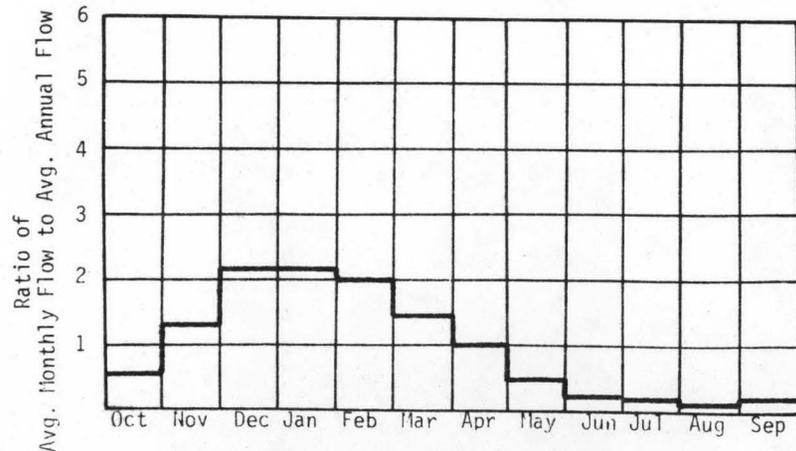
A. Upstream Elevation of Reach	30	Ft. MSL
B. Downstream Elevation of Reach	10	Ft. MSL
C. Total Available Head in Reach	20	Ft.
D. Average Slope in Reach	3.6	Ft./Mi.
E. Drainage Area above Reach Mouth	194	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

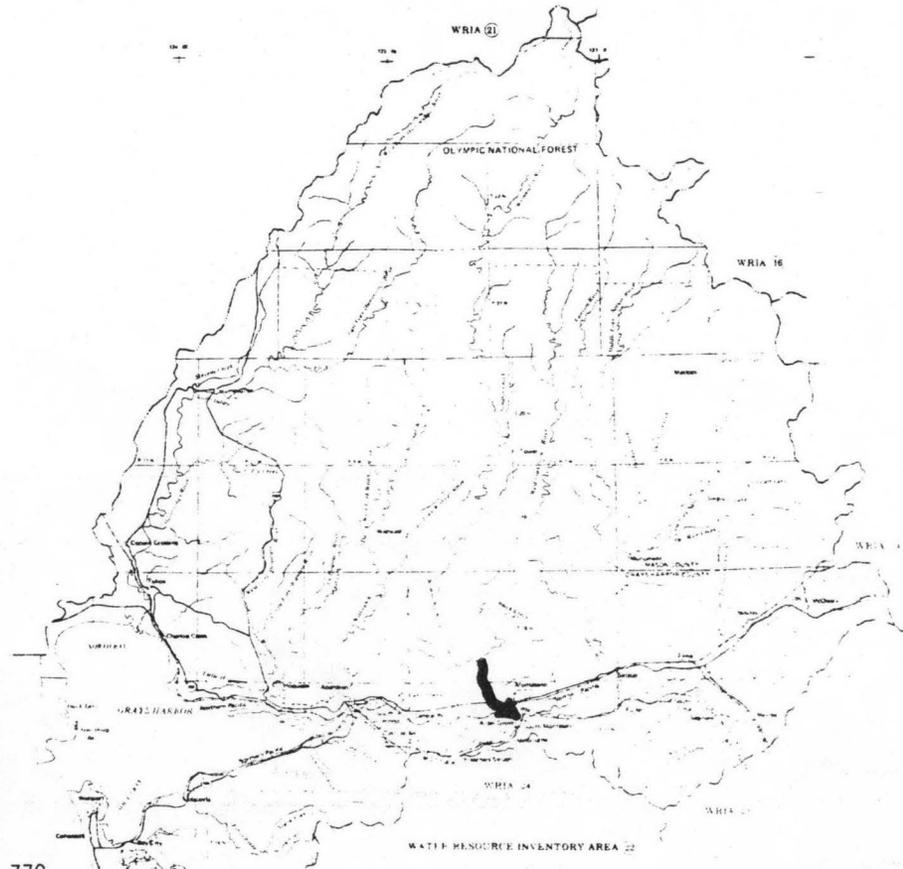
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	55.1	0.09	0.82	1.00
80	220	0.37	2.97	0.91
50	799	1.35	8.53	0.72
30	1500	2.54	12.7	0.57
10	3390	5.74	18.1	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1378 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0024

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T18N R8W
D. Latitude, Longitude	47°02' 123°42'
E. Stream Name	Wynoochee River
F. Major Basin Name	Chehalis
G. River Mile	5.5/12.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

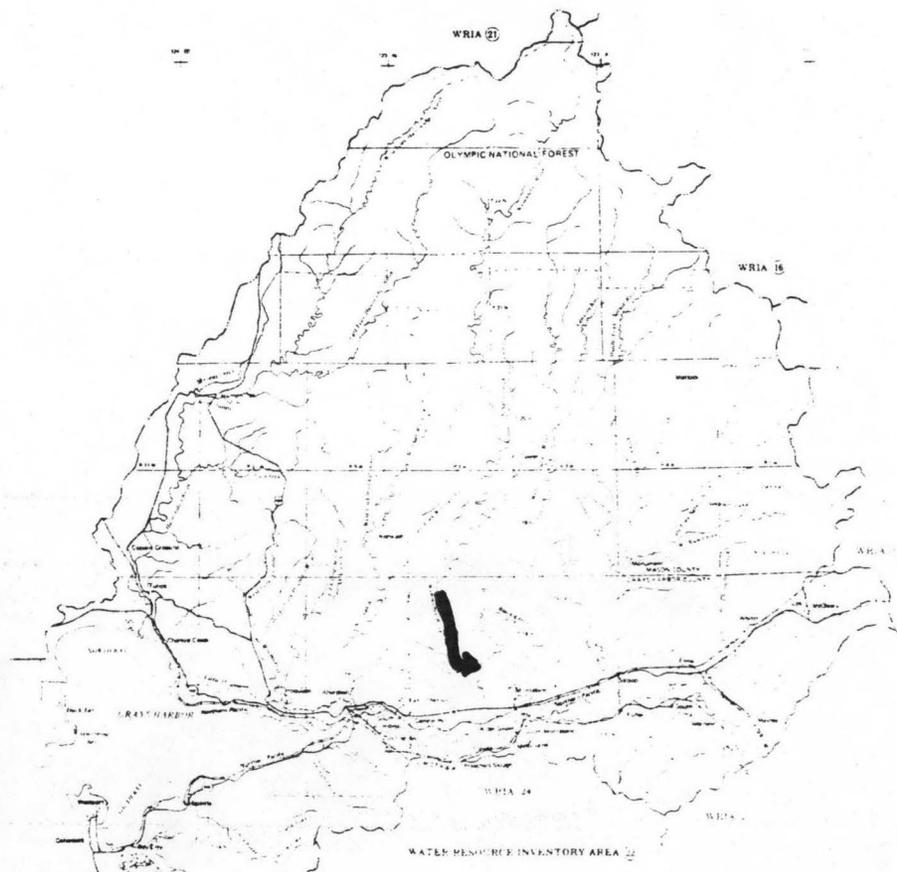
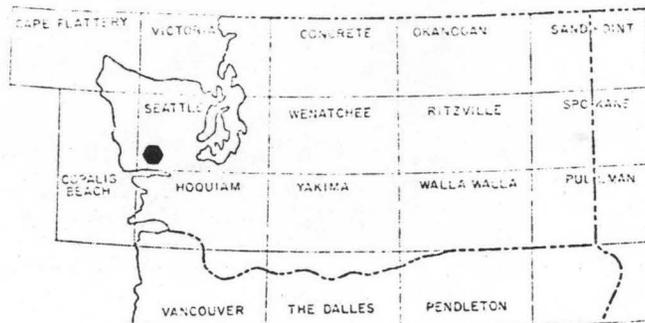
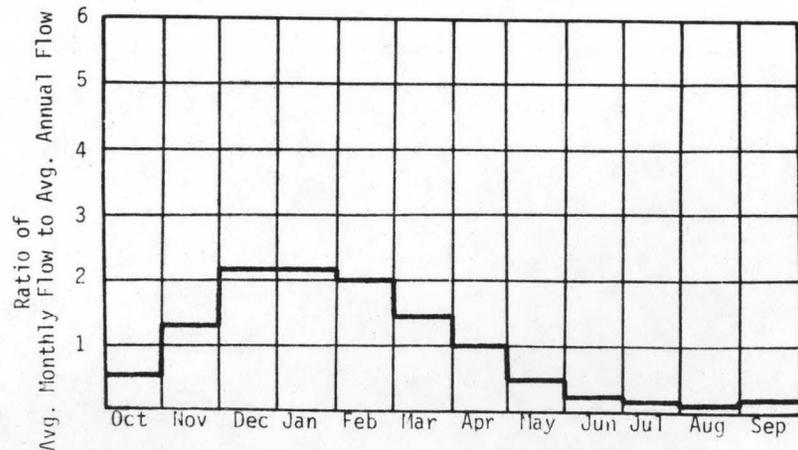
A. Upstream Elevation of Reach	80	Ft. MSL
B. Downstream Elevation of Reach	30	Ft. MSL
C. Total Available Head in Reach	50	Ft.
D. Average Slope in Reach	6.9	Ft./Mi.
E. Drainage Area above Reach Mouth	154	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	47.3	0.20	1.75	1.00
80	189	0.80	6.38	0.91
50	686	2.90	18.3	0.72
30	1290	5.45	27.2	0.57
10	2910	12.3	38.8	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1182 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0025

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R8W</u>
D. Latitude, Longitude	<u>47°05' 123°42'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>12.8/14.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

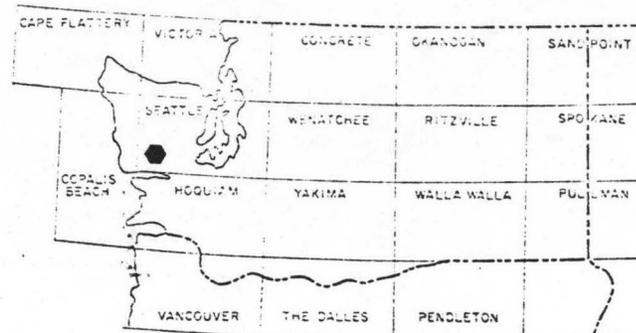
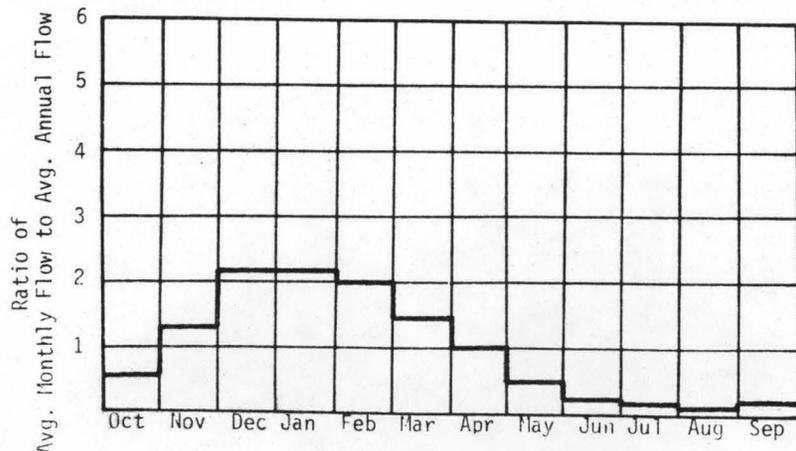
A. Upstream Elevation of Reach	<u>80</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>133</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

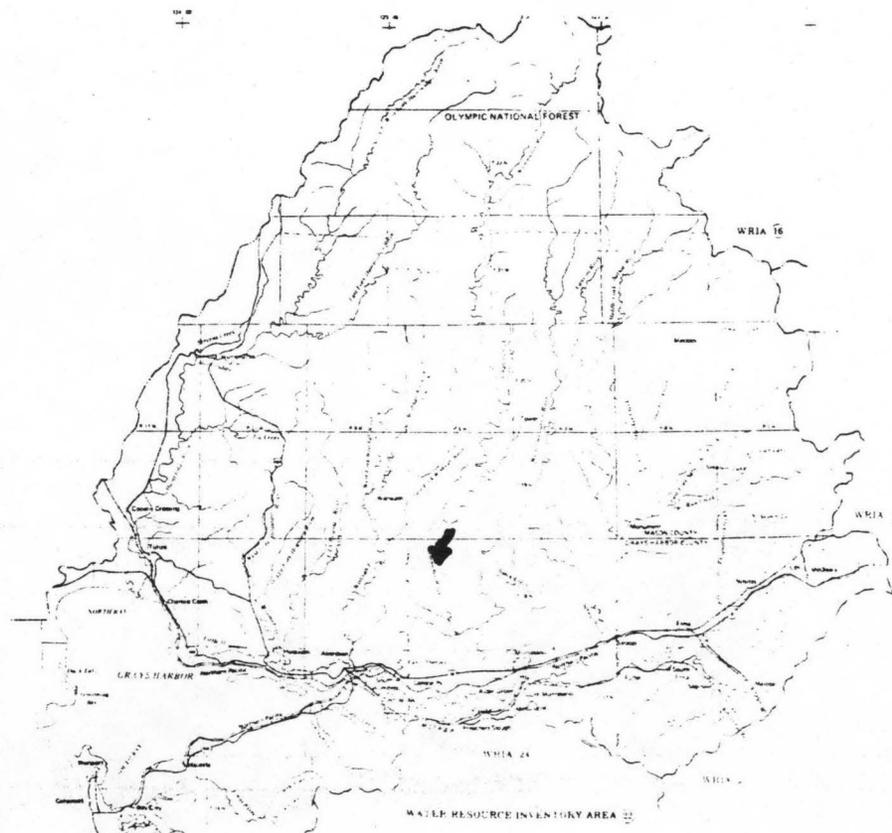
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	45.3	0.00	0.00	1.00
80	181	0.00	0.00	0.91
50	657	0.00	0.00	0.72
30	1230	0.00	0.00	0.57
10	2790	0.00	0.00	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1133 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0026

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R8W</u>
D. Latitude, Longitude	<u>47°06' 123°40'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>14.8/20.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

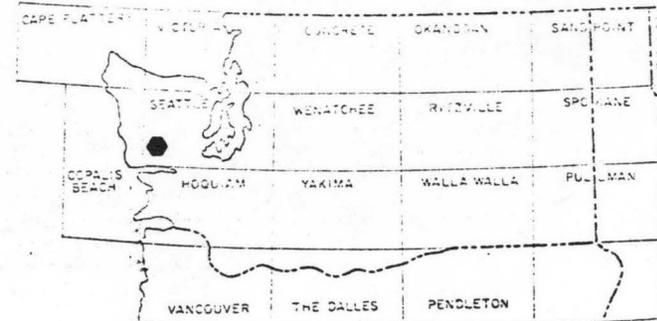
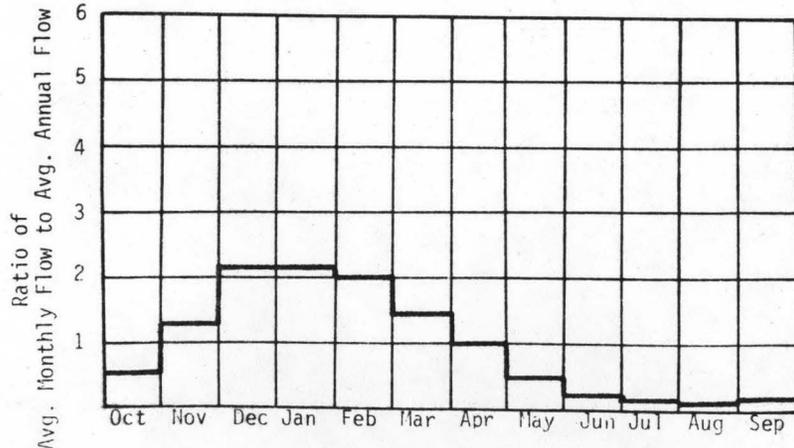
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>40</u>	Ft.
D. Average Slope in Reach	<u>7.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>126</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

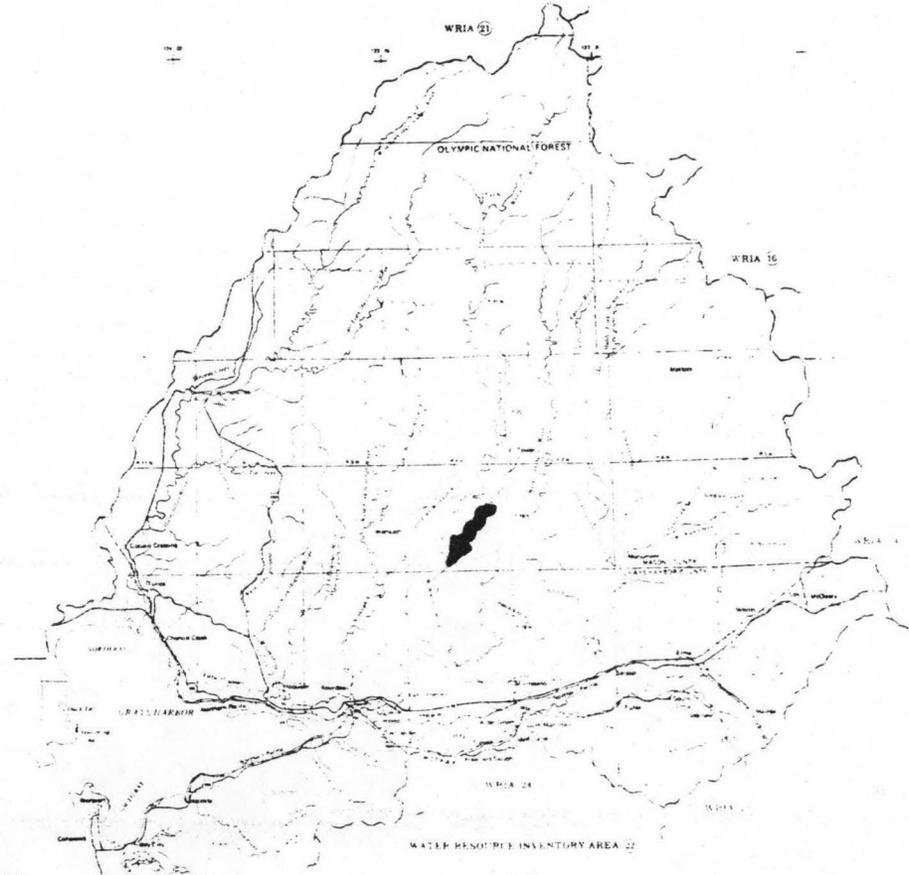
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	43.4	0.15	1.29	1.00
80	174	0.59	4.69	0.91
50	630	2.13	13.4	0.72
30	1180	4.01	20.0	0.57
10	2670	9.04	28.5	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1086 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 21

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0027

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R8W</u>
D. Latitude, Longitude	<u>47°10' 123°38'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>20.4/28.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

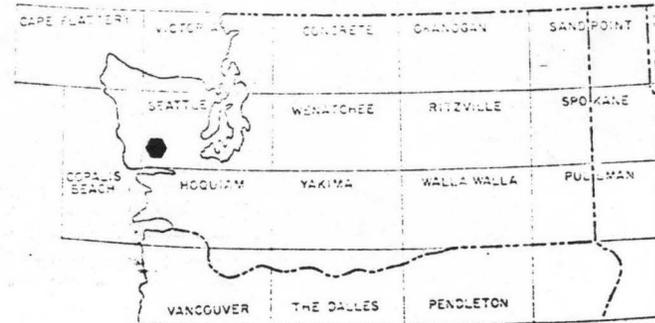
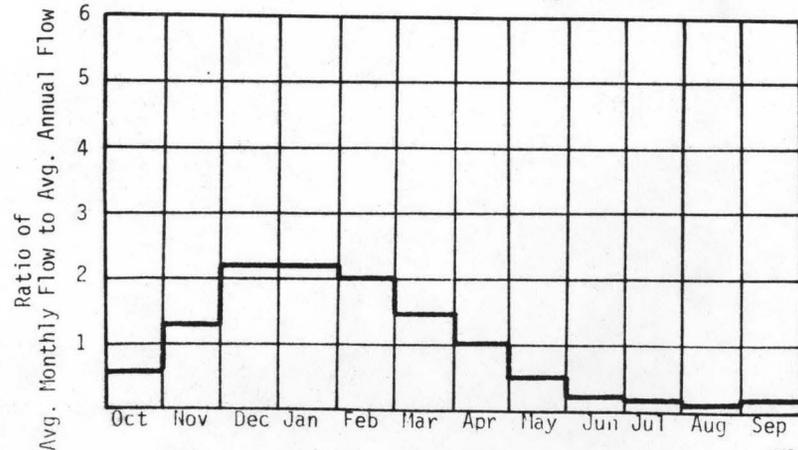
A. Upstream Elevation of Reach	<u>240</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>120</u>	Ft. MSL
C. Total Available Head in Reach	<u>120</u>	Ft.
D. Average Slope in Reach	<u>15.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>112</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	40.8	0.41	3.62	1.00
80	163	1.66	13.2	0.91
50	591	6.00	37.8	0.72
30	1110	11.3	56.3	0.57
10	2510	25.5	80.3	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1019 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0028

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R8W</u>
D. Latitude, Longitude	<u>47°17' 123°39'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>28.1/46.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

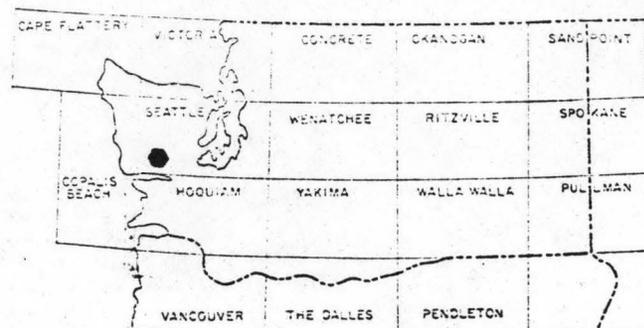
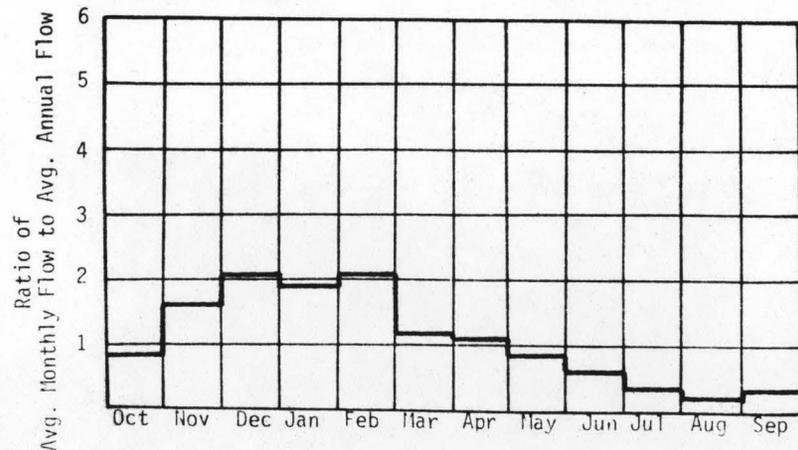
A. Upstream Elevation of Reach	<u>480</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>240</u>	Ft. MSL
C. Total Available Head in Reach	<u>240</u>	Ft.
D. Average Slope in Reach	<u>12.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>92.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

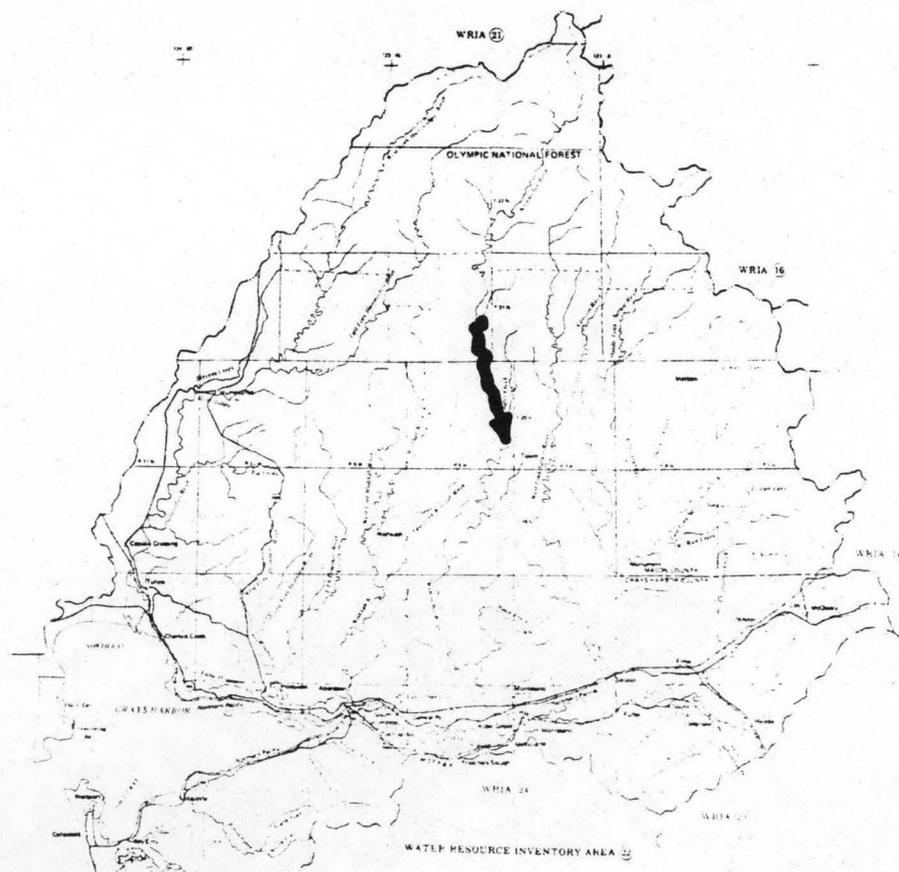
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	32.0	0.65	5.69	1.00
80	128	2.60	20.7	0.95
50	464	9.42	59.4	0.76
30	872	17.7	88.4	0.63
10	1970	40.0	126	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 800 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0029

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R8W</u>
D. Latitude, Longitude	<u>47°22' 123°39'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>46.8/48.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

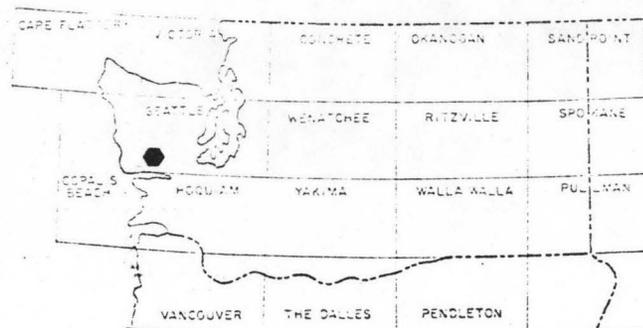
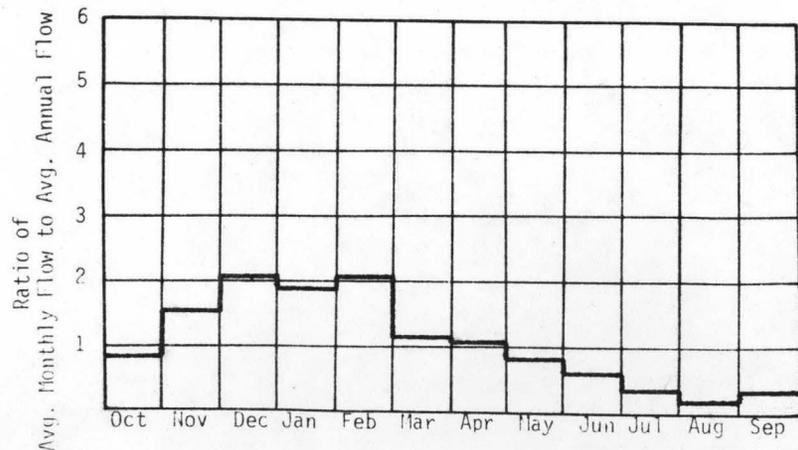
A. Upstream Elevation of Reach	<u>560</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>480</u>	Ft. MSL
C. Total Available Head in Reach	<u>80</u>	Ft.
D. Average Slope in Reach	<u>47.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>55.8</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	92.3	0.62	5.47	1.00
80	215	1.46	11.9	0.93
50	394	2.66	18.4	0.79
30	627	4.25	24.2	0.65
10	1300	8.82	31.7	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 615 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0030

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R8W</u>
D. Latitude, Longitude	<u>47°25' 123°35'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>48.5/56.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

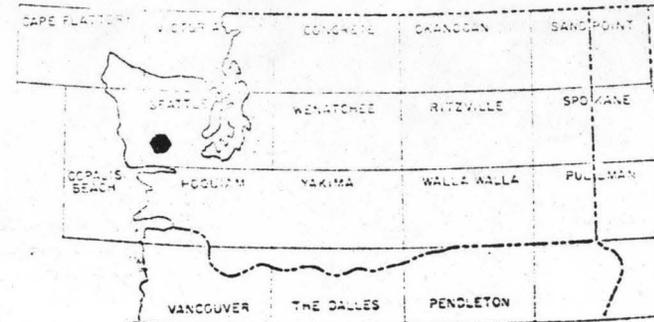
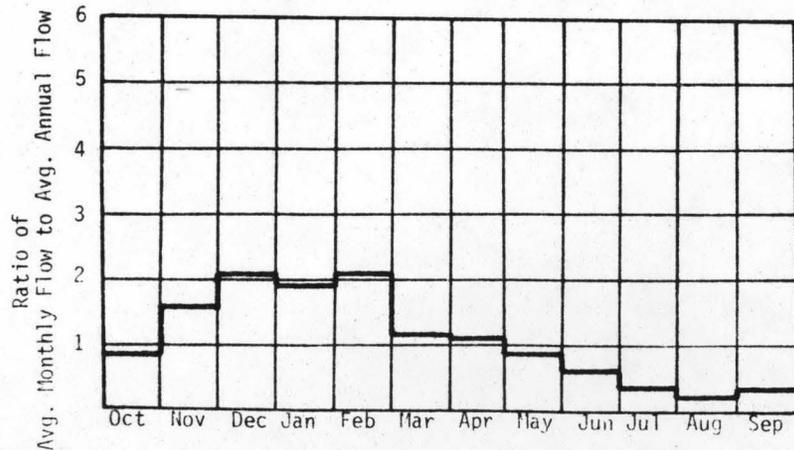
A. Upstream Elevation of Reach	<u>800</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>560</u>	Ft. MSL
C. Total Available Head in Reach	<u>240</u>	Ft.
D. Average Slope in Reach	<u>31.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>44.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

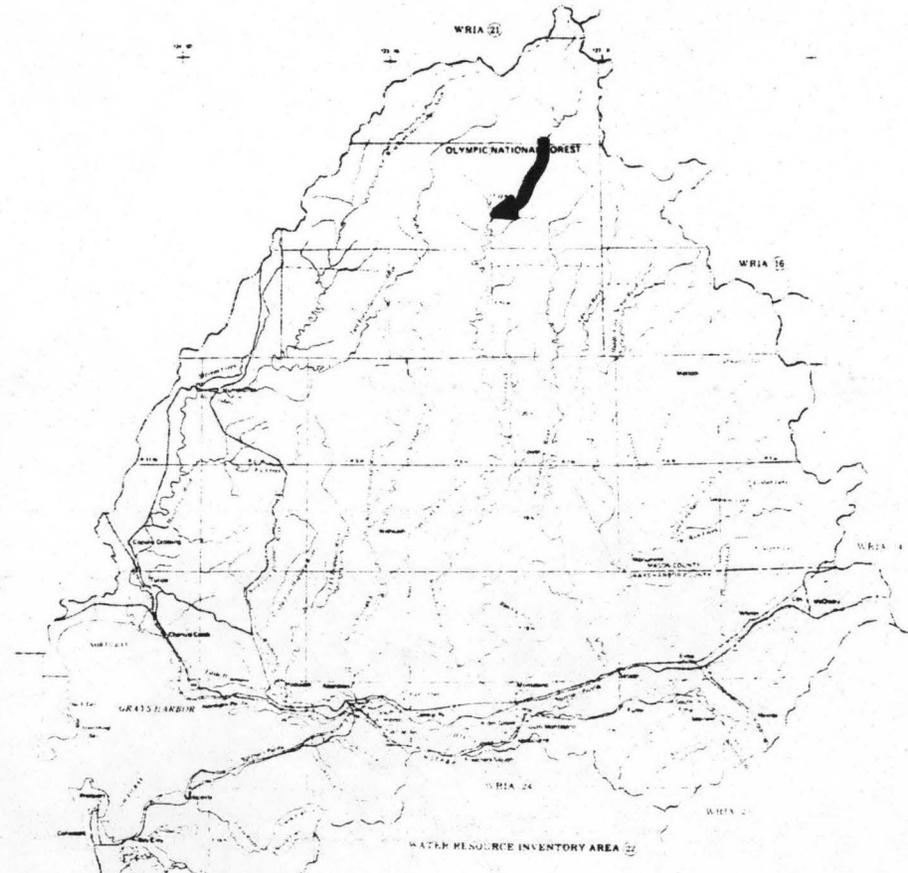
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	60.8	1.23	10.8	1.00
80	142	2.88	23.5	0.93
50	259	5.26	36.4	0.79
30	413	8.39	47.8	0.65
10	859	17.4	62.6	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 405 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0031

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R7W</u>
D. Latitude, Longitude	<u>47°28' 123°31'</u>
E. Stream Name	<u>Wynoochee River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>57.4/62.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

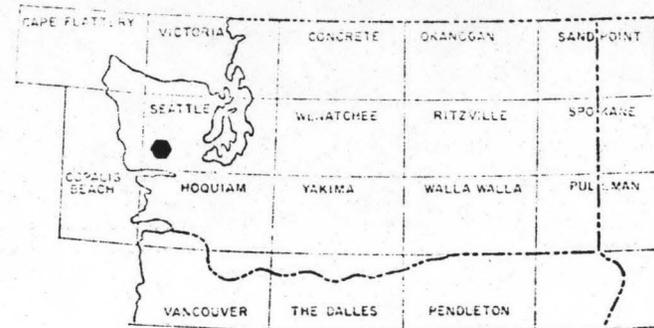
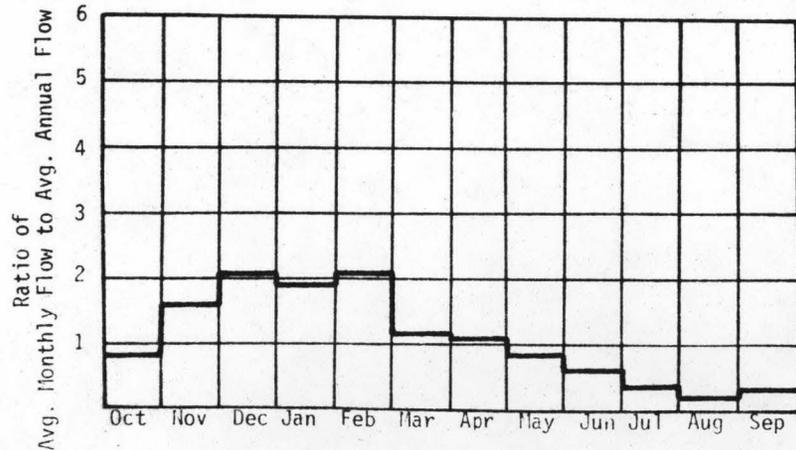
A. Upstream Elevation of Reach	<u>1600</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>840</u>	Ft. MSL
C. Total Available Head in Reach	<u>760 + 66 = 826</u>	Ft.
D. Average Slope in Reach	<u>138</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

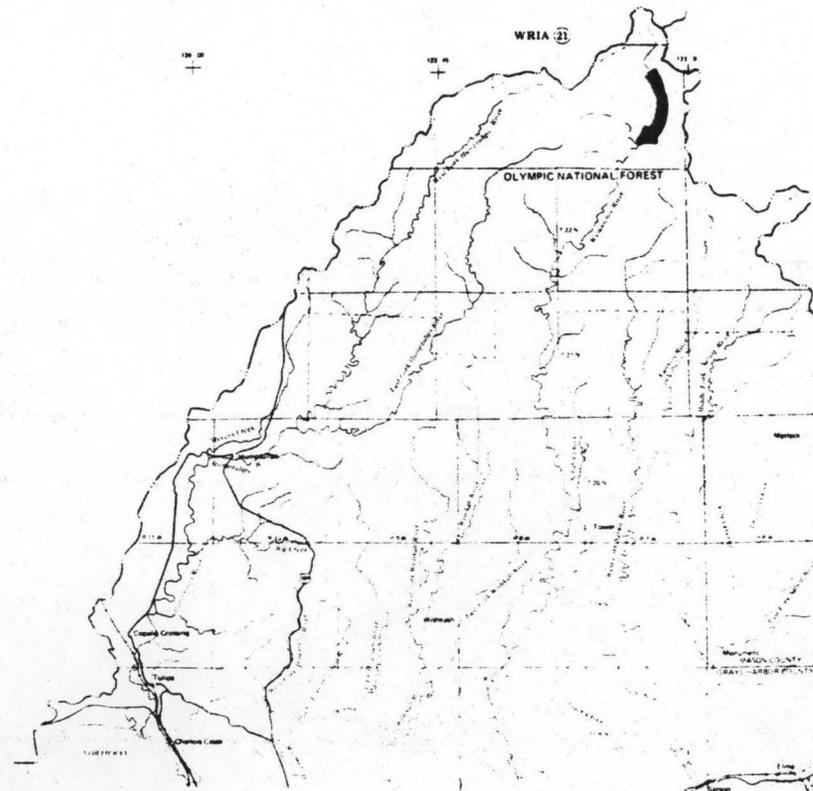
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.3	1.49	13.0	1.00
80	49.7	3.47	28.3	0.93
50	90.9	6.35	44.0	0.79
30	145	10.1	57.6	0.65
10	301	21.0	75.6	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 142 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0032

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R8W</u>
D. Latitude, Longitude	<u>47°02' 123°48'</u>
E. Stream Name	<u>Black Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/6.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

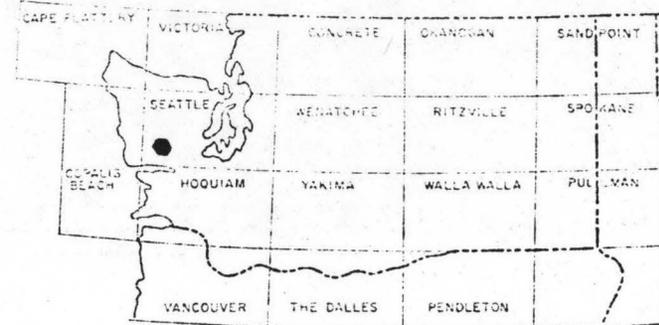
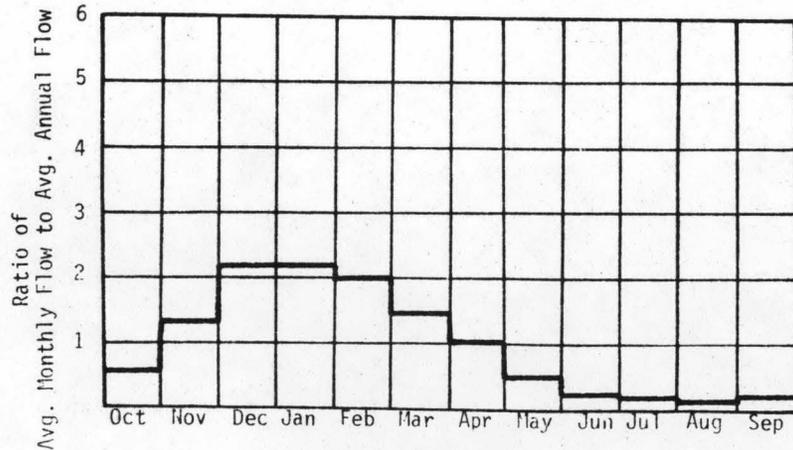
A. Upstream Elevation of Reach	<u>55</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>25 + 66 = 91</u>	Ft.
D. Average Slope in Reach	<u>4.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

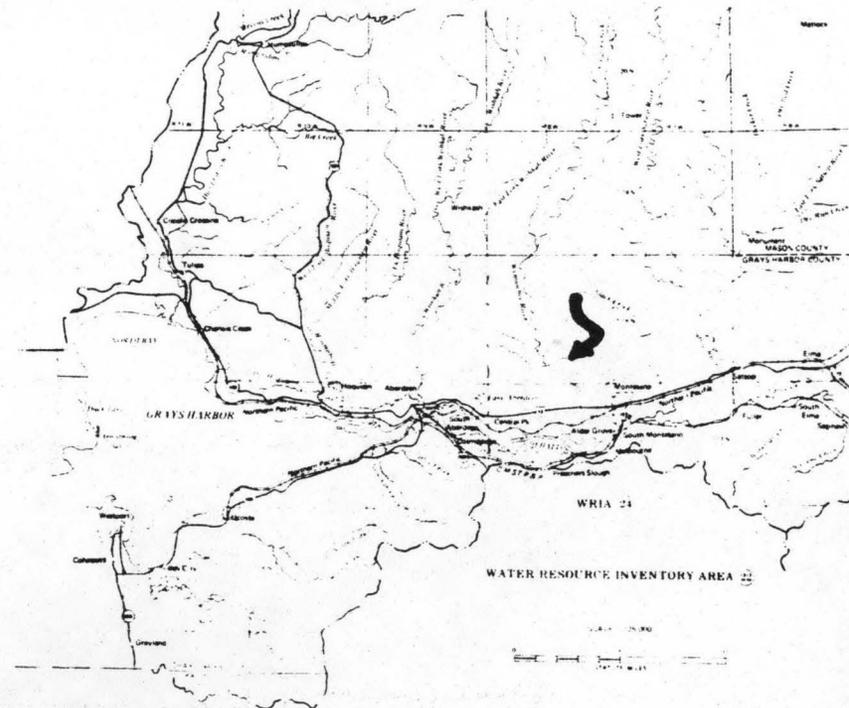
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.92	0.03	0.26	1.00
80	15.7	0.12	0.96	0.91
50	56.8	0.44	2.76	0.72
30	107	0.82	4.11	0.57
10	241	1.86	5.85	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 98 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0033

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T20N R8W
D. Latitude, Longitude	47°13' 123°36'
E. Stream Name	Schaefer Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/3.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

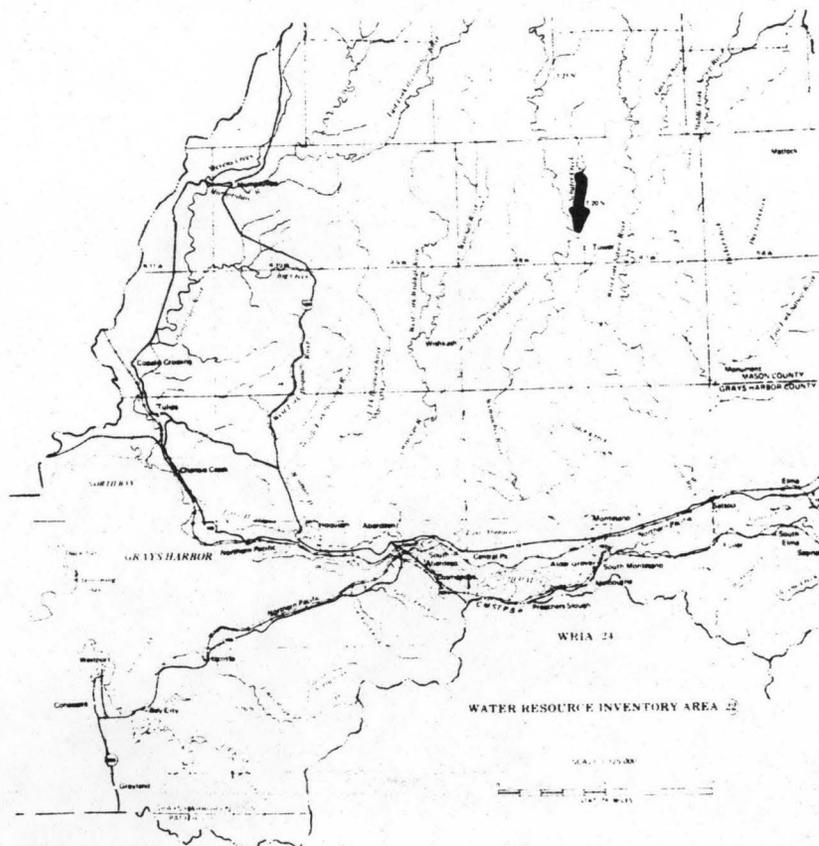
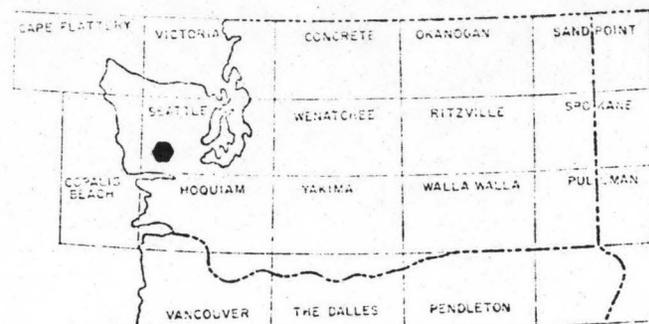
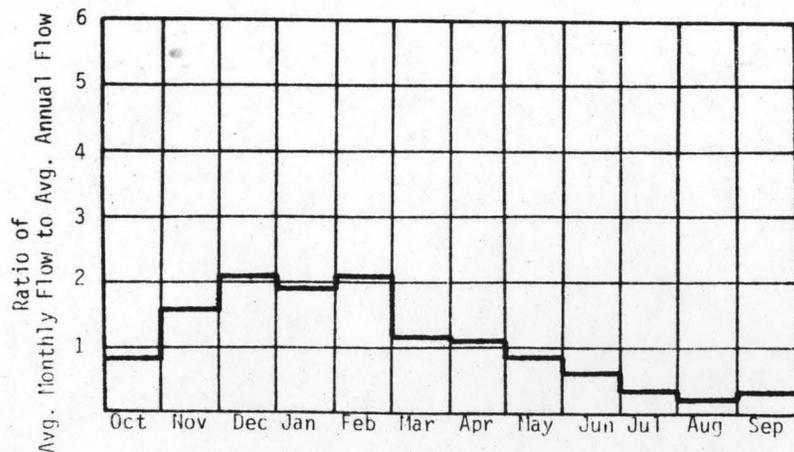
A. Upstream Elevation of Reach	320	Ft. MSL
B. Downstream Elevation of Reach	240	Ft. MSL
C. Total Available Head in Reach	80 + 66 = 146	Ft.
D. Average Slope in Reach	25	Ft./Mi.
E. Drainage Area above Reach Mouth	13.0	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	2.76	0.03	0.30	1.00
80	11.0	0.14	1.09	0.91
50	40.0	0.49	3.12	0.72
30	75.2	0.93	4.64	0.57
10	170	2.10	6.61	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0034

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T22N R8W</u>
D. Latitude, Longitude	<u>47°24' 123°39'</u>
E. Stream Name	<u>Big Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/3.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

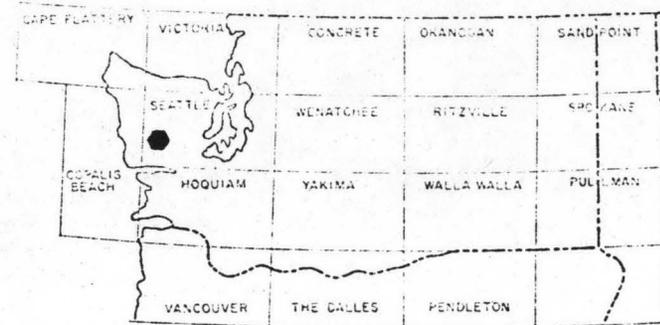
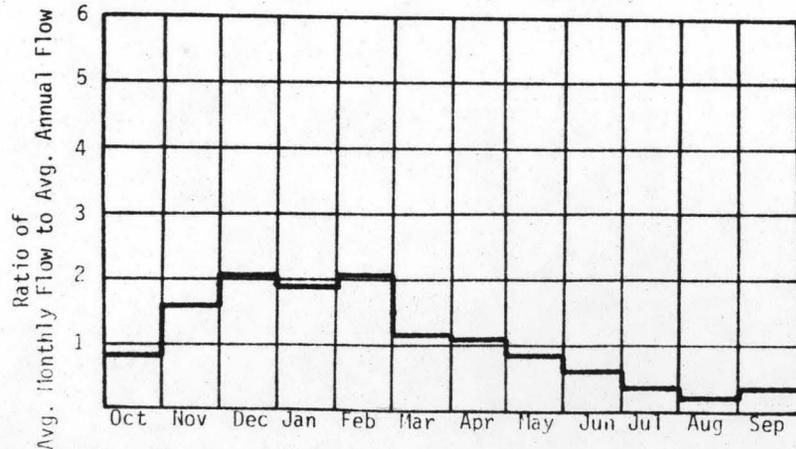
A. Upstream Elevation of Reach	<u>760</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>570</u>	Ft. MSL
C. Total Available Head in Reach	<u>190 + 66 = 256</u>	Ft.
D. Average Slope in Reach	<u>57.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

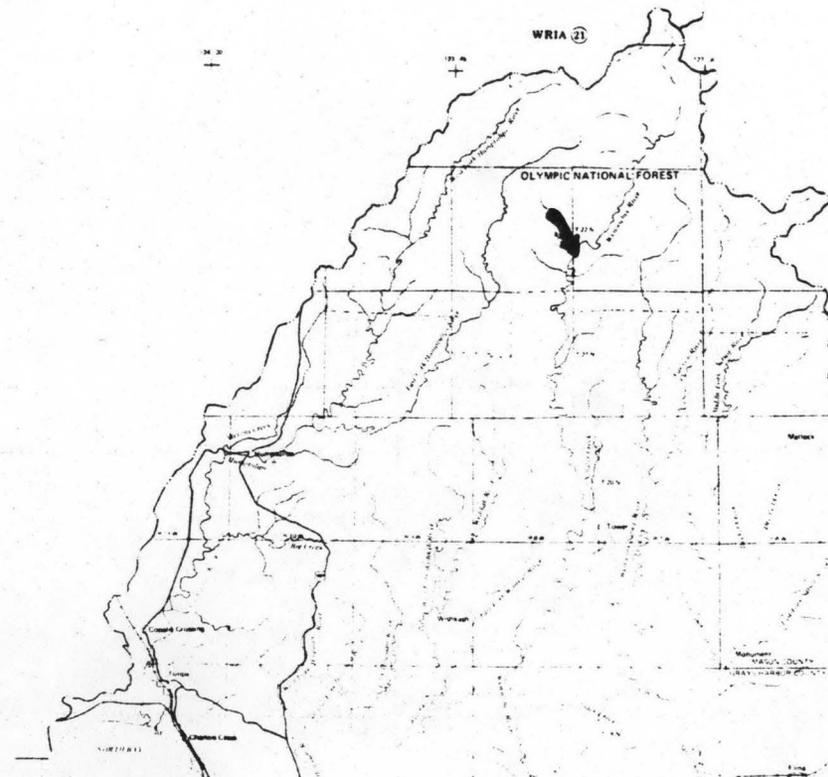
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.2	0.20	1.75	1.00
80	14.7	0.32	2.65	0.95
50	46.9	1.03	6.50	0.73
30	84.6	1.83	9.47	0.59
10	207	4.48	13.8	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 92 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0035

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T23N R7W</u>
D. Latitude, Longitude	<u>47°28' 123°34'</u>
E. Stream Name	<u>W.B. Wynoochee Riv.</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/3.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

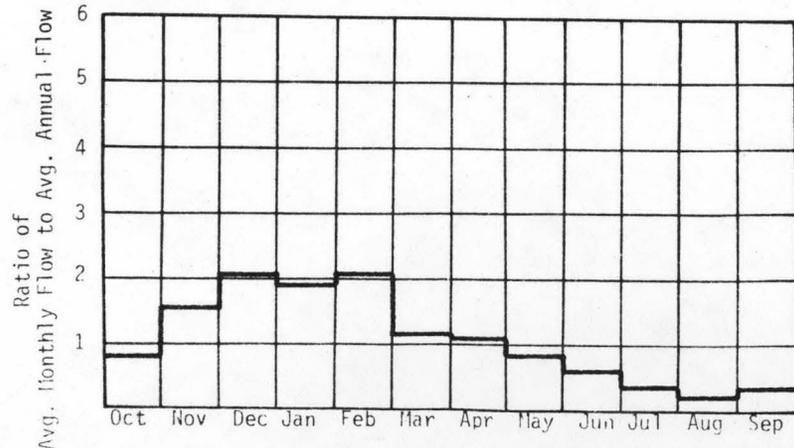
A. Upstream Elevation of Reach	<u>1320</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>840</u>	Ft. MSL
C. Total Available Head in Reach	<u>480 + 66 = 546</u>	Ft.
D. Average Slope in Reach	<u>155</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>9.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

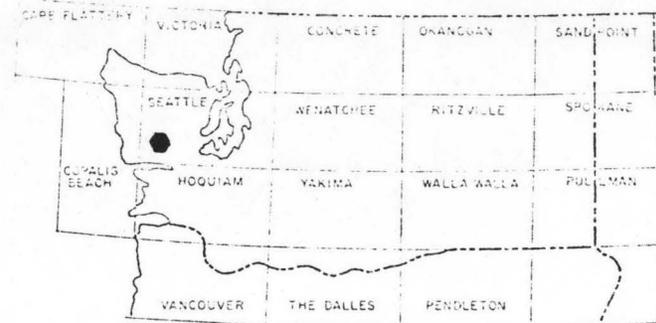
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.4	0.62	5.40	1.00
80	31.2	1.44	11.7	0.93
50	57.0	2.63	18.2	0.79
30	90.8	4.19	23.9	0.65
10	189	8.72	31.3	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

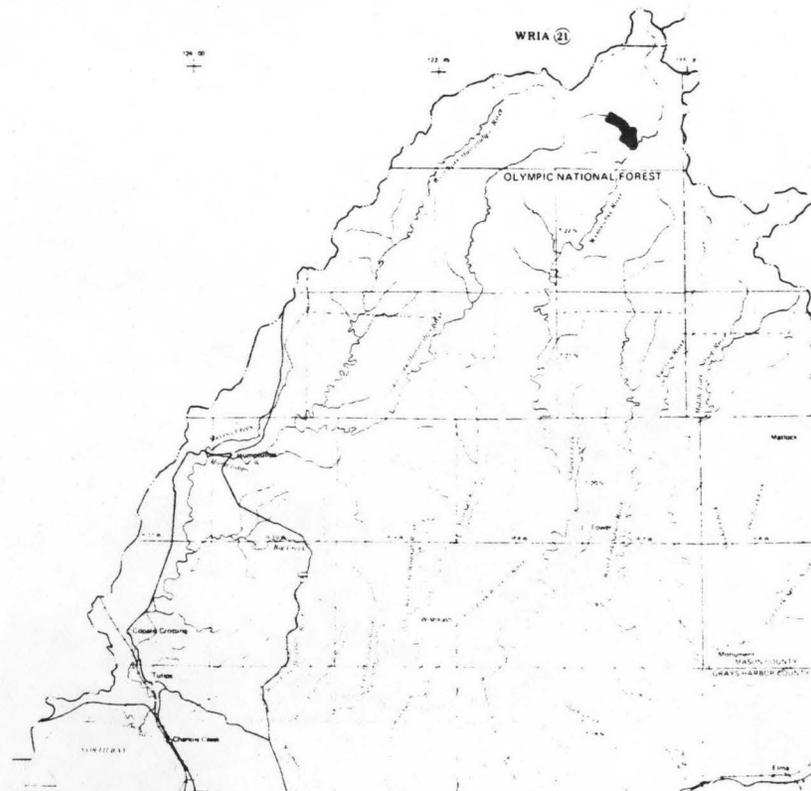
QMR = 89 cfs



W22-782



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0036

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T18N R7W
D. Latitude, Longitude	47°01' 123°30'
E. Stream Name	Satsop River
F. Major Basin Name	Chehalis
G. River Mile	0.0/6.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

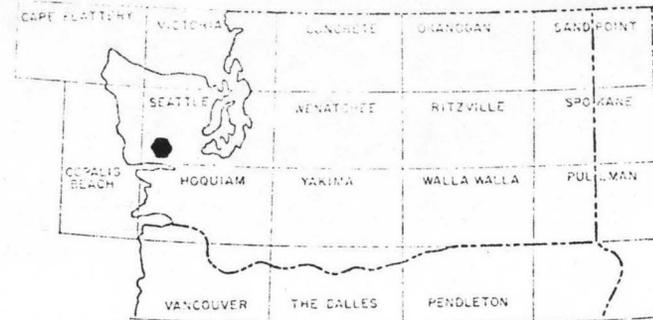
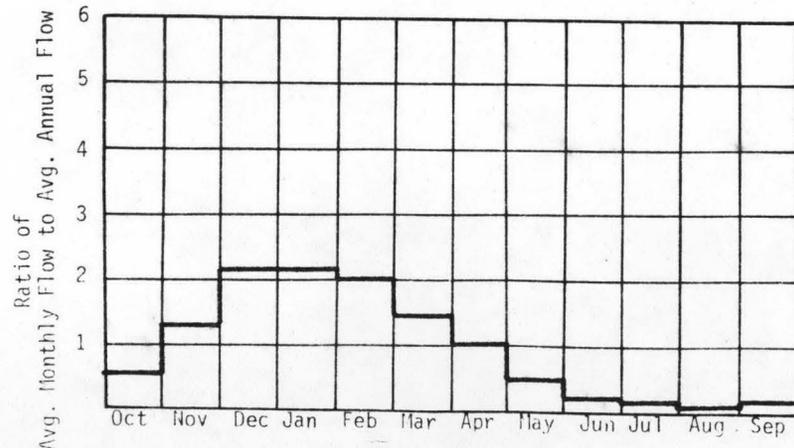
A. Upstream Elevation of Reach	50	Ft. MSL
B. Downstream Elevation of Reach	15	Ft. MSL
C. Total Available Head in Reach	35	Ft.
D. Average Slope in Reach	5.2	Ft./Mi.
E. Drainage Area above Reach Mouth	304	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

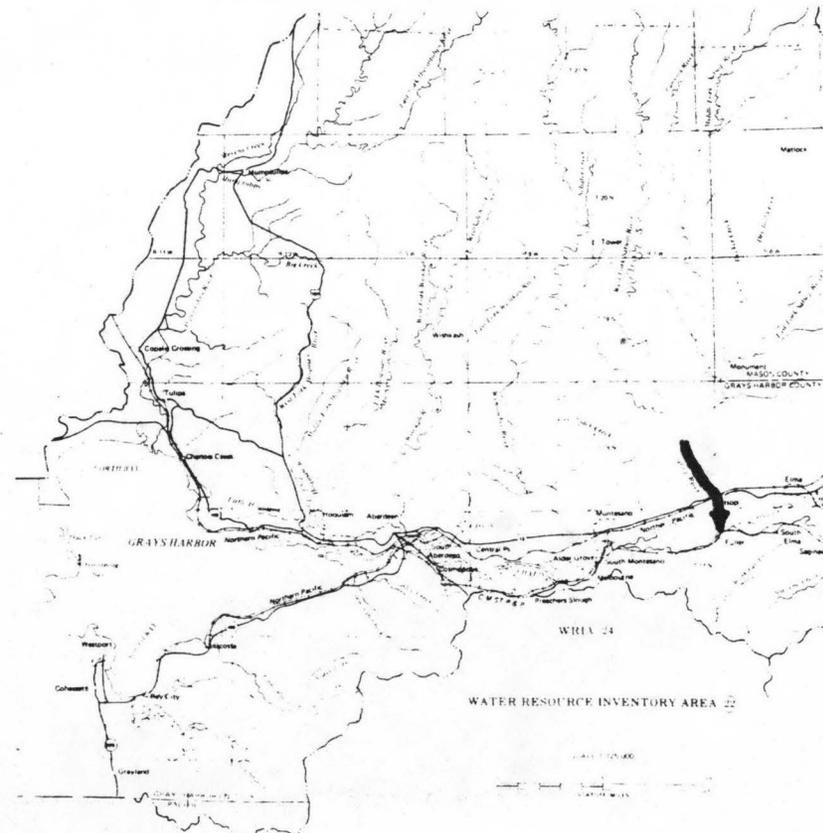
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	233	0.69	6.04	1.00
80	349	1.03	8.70	0.96
50	1140	3.39	21.7	0.73
30	2100	6.20	31.5	0.58
10	4660	13.8	44.7	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 1940 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0037

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T18N R7W
D. Latitude, Longitude	47°03' 123°32'
E. Stream Name	W.F. Satsop River
F. Major Basin Name	Chehalis
G. River Mile	0.0/3.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

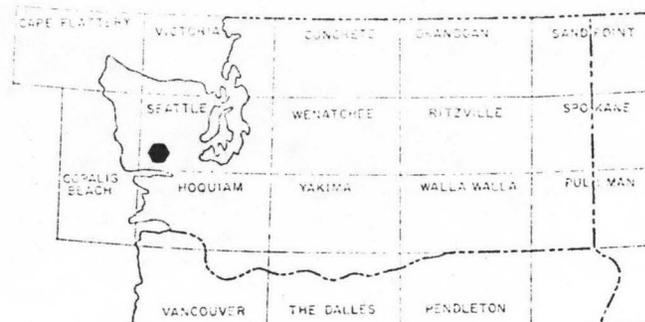
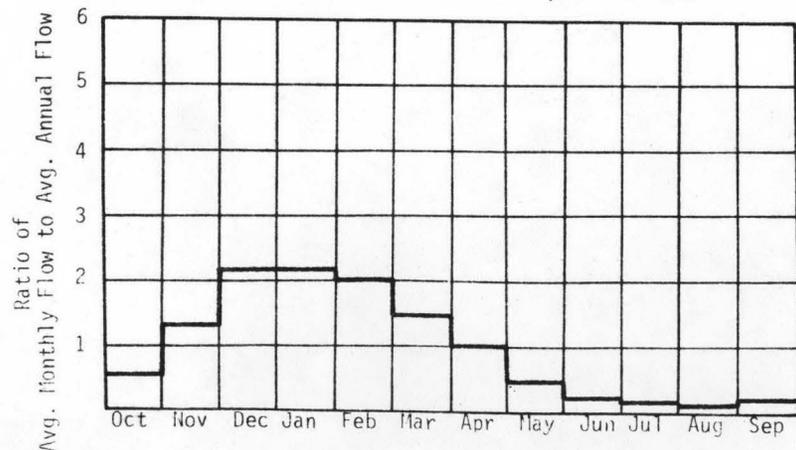
A. Upstream Elevation of Reach	70	Ft. MSL
B. Downstream Elevation of Reach	50	Ft. MSL
C. Total Available Head in Reach	20	Ft.
D. Average Slope in Reach	6.7	Ft./Mi.
E. Drainage Area above Reach Mouth	95.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	83.9	0.14	1.24	1.00
80	126	0.21	1.79	0.96
50	412	0.70	4.46	0.73
30	755	1.28	6.49	0.58
10	1680	2.84	9.20	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 699 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0038

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R7W</u>
D. Latitude, Longitude	<u>47°08' 123°35'</u>
E. Stream Name	<u>W.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>4.3/20.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

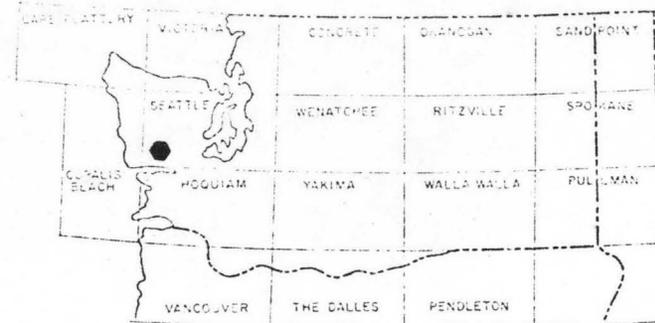
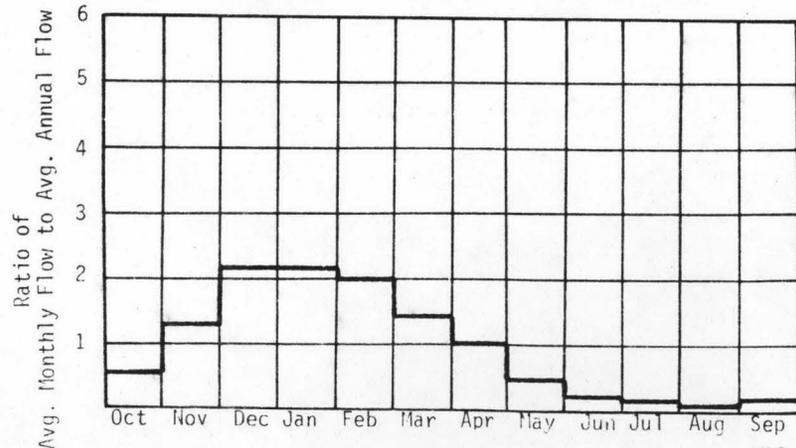
A. Upstream Elevation of Reach	<u>240</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>170</u>	Ft.
D. Average Slope in Reach	<u>10.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>85.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	70.7	1.02	8.90	1.00
80	106	1.52	12.8	0.96
50	348	5.00	32.0	0.73
30	636	9.16	46.5	0.58
10	1410	20.3	65.9	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 589 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0039

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R7W</u>
D. Latitude, Longitude	<u>47°15' 123°34'</u>
E. Stream Name	<u>W.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/8.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

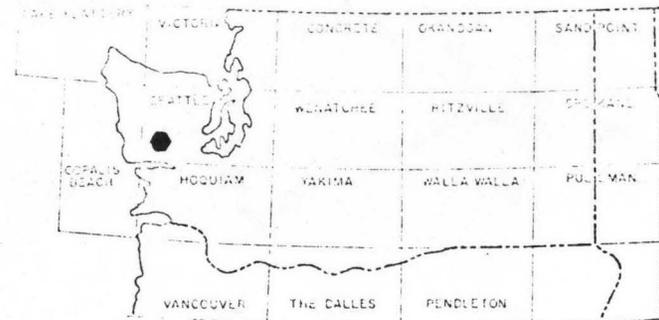
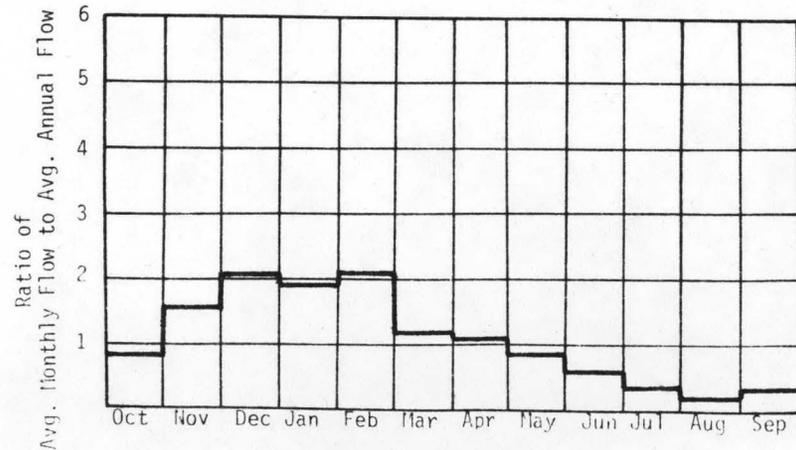
A. Upstream Elevation of Reach	<u>440</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>240</u>	Ft. MSL
C. Total Available Head in Reach	<u>200</u>	Ft.
D. Average Slope in Reach	<u>24.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>37.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

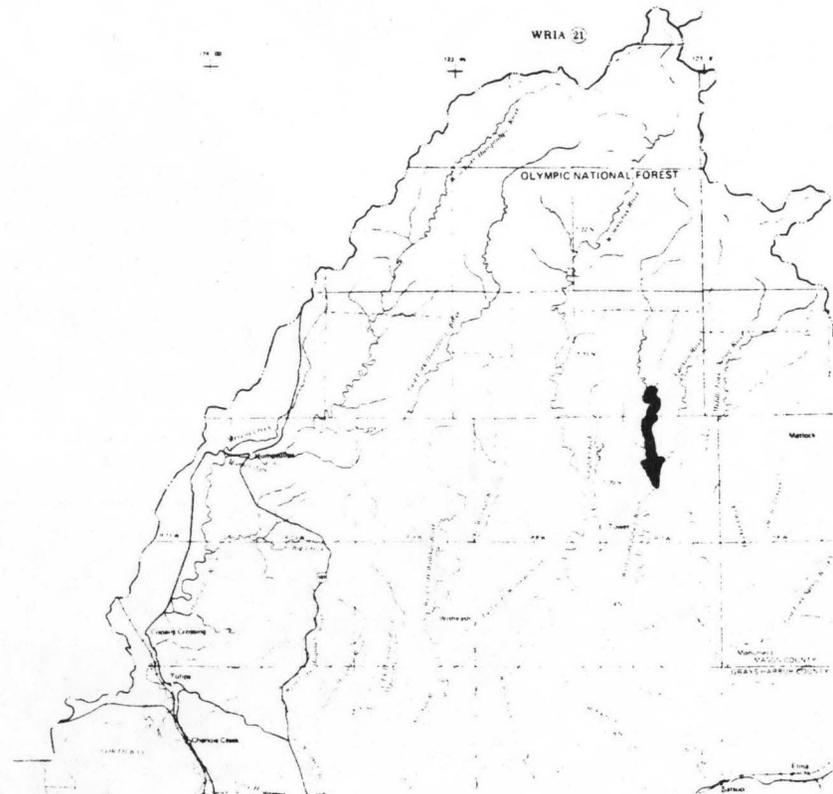
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	36.1	0.61	5.35	1.00
80	54.2	0.92	7.71	0.96
50	178	3.00	19.2	0.73
30	325	5.50	28.0	0.58
10	722	12.2	39.6	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 301 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0040

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R7W</u>
D. Latitude, Longitude	<u>47°20' 123°34'</u>
E. Stream Name	<u>W.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>8.3/19.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

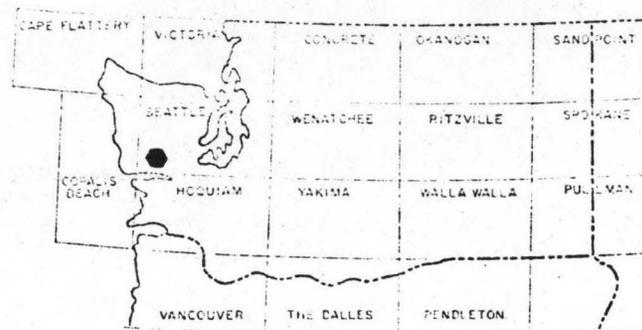
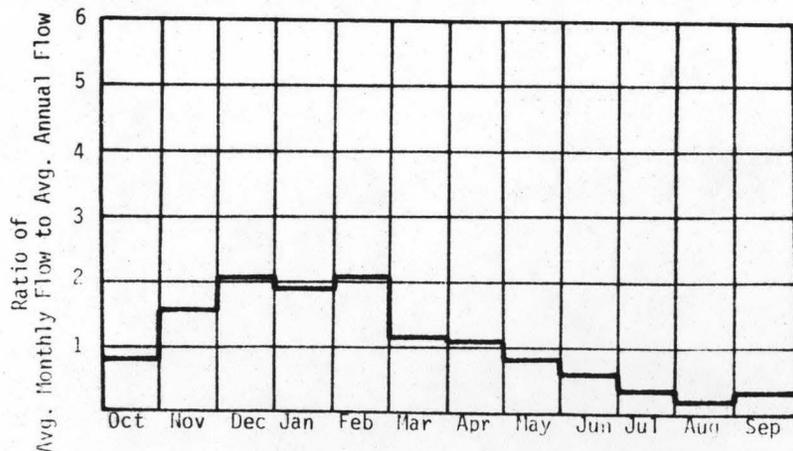
A. Upstream Elevation of Reach	<u>1100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>440</u>	Ft. MSL
C. Total Available Head in Reach	<u>660 + 66 = 726</u>	Ft.
D. Average Slope in Reach	<u>58.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

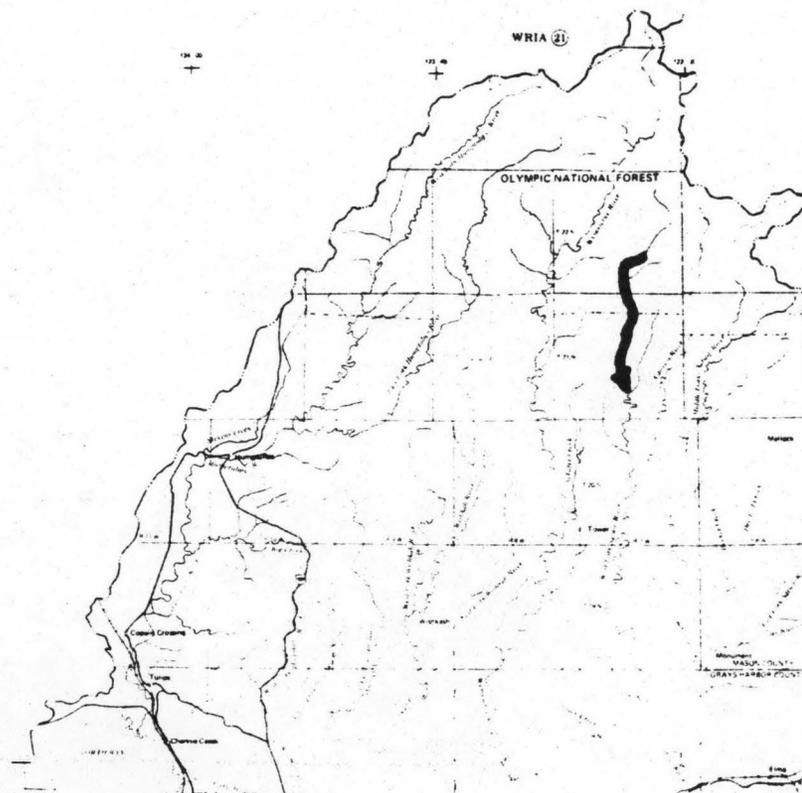
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.0	1.16	10.2	1.00
80	28.4	1.75	14.7	0.96
50	93.2	5.73	36.6	0.73
30	171	10.5	53.3	0.58
10	379	23.3	75.5	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 158 cfs



LOCATIONS FOR URGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0041

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R7W</u>
D. Latitude, Longitude	<u>47°17' 123°31'</u>
E. Stream Name	<u>Canyon Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>20.1/29.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

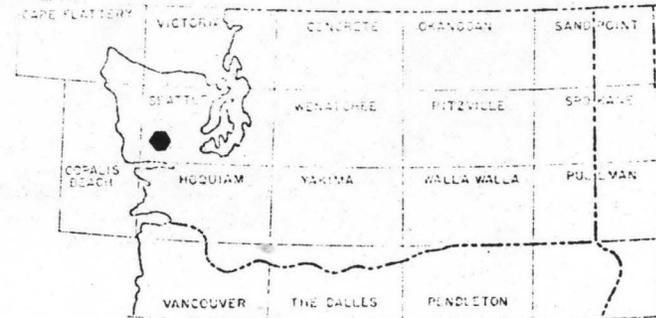
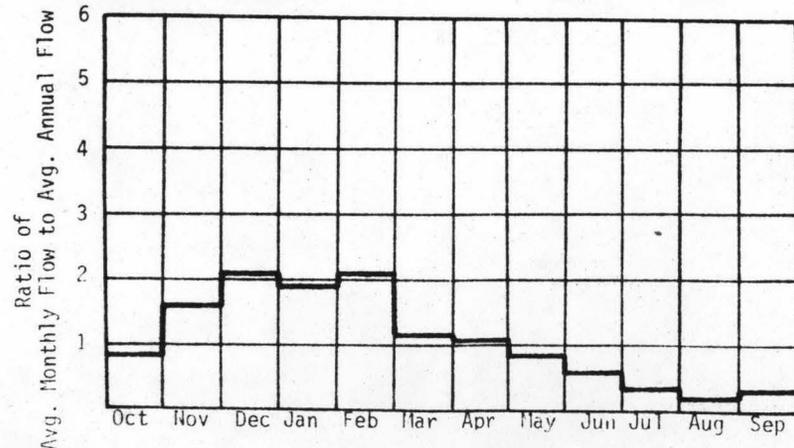
A. Upstream Elevation of Reach	<u>470</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>240</u>	Ft. MSL
C. Total Available Head in Reach	<u>230</u>	Ft.
D. Average Slope in Reach	<u>24.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>23.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

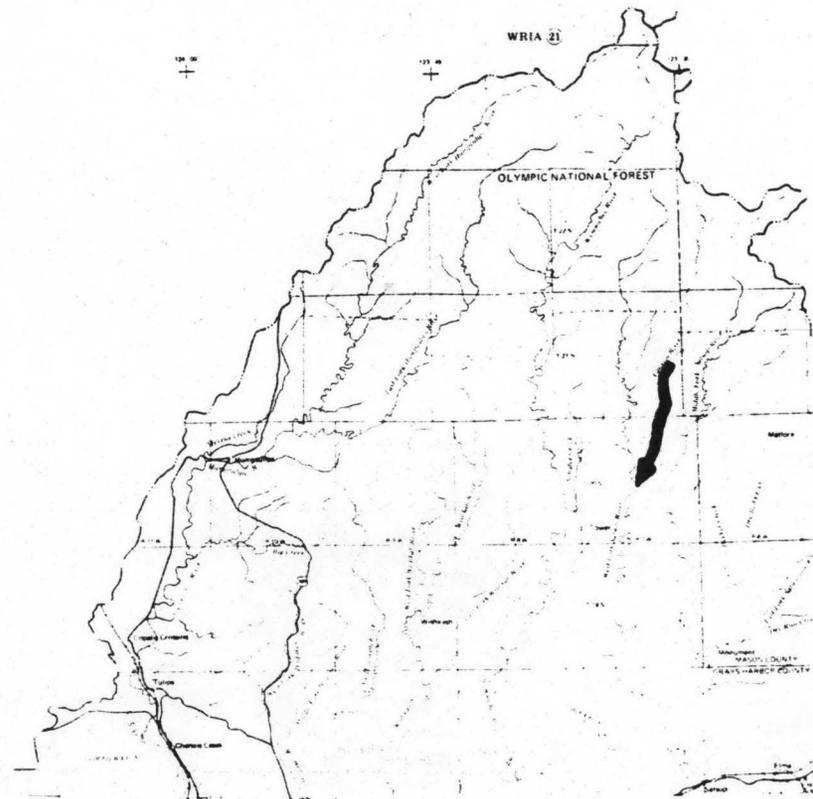
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.3	0.38	3.29	1.00
80	29.0	0.56	4.74	0.96
50	95.0	1.85	11.8	0.73
30	174	3.38	17.2	0.58
10	386	7.52	24.4	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 161 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0042

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T21N R7W</u>
D. Latitude, Longitude	<u>47°20' 123°30'</u>
E. Stream Name	<u>Canyon River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>29.6/36.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

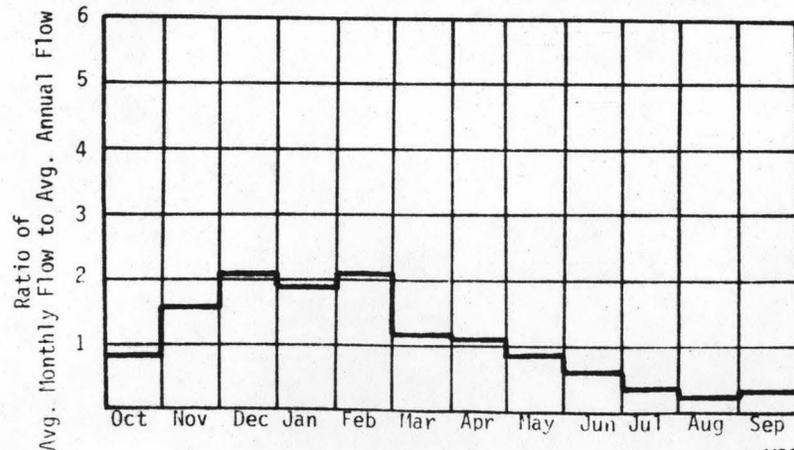
A. Upstream Elevation of Reach	<u>1080</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>470</u>	Ft. MSL
C. Total Available Head in Reach	<u>610 + 66 = 676</u>	Ft.
D. Average Slope in Reach	<u>84.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>14.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

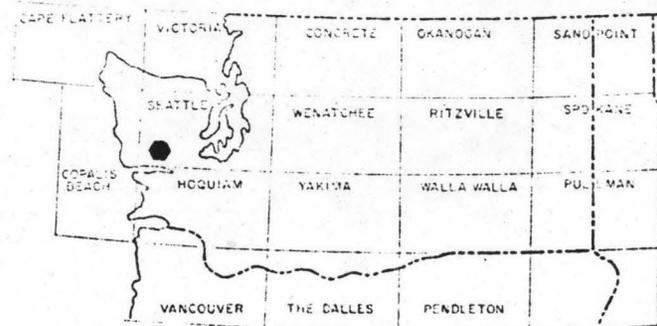
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.7	0.61	5.35	1.00
80	16.0	0.92	7.70	0.96
50	52.5	3.00	19.2	0.73
30	96.1	5.50	27.9	0.58
10	214	12.2	39.6	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

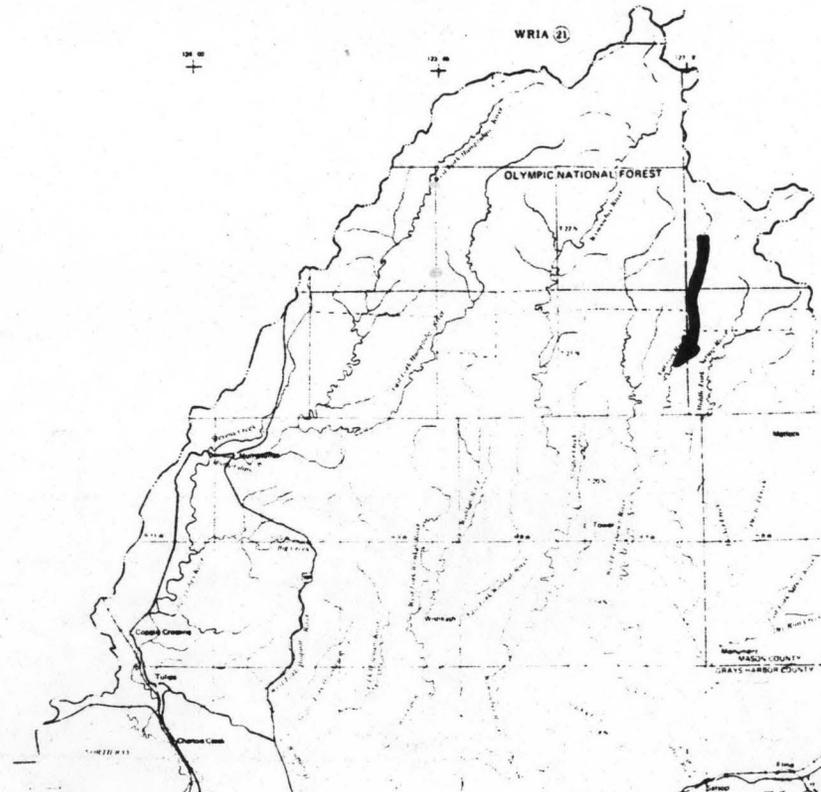
QMR = 89 cfs



W22-789



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0043

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T18N R7W
D. Latitude, Longitude	47°04' 123°30'
E. Stream Name	E.F. Satsop River
F. Major Basin Name	Chehalis
G. River Mile	6.8/11.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

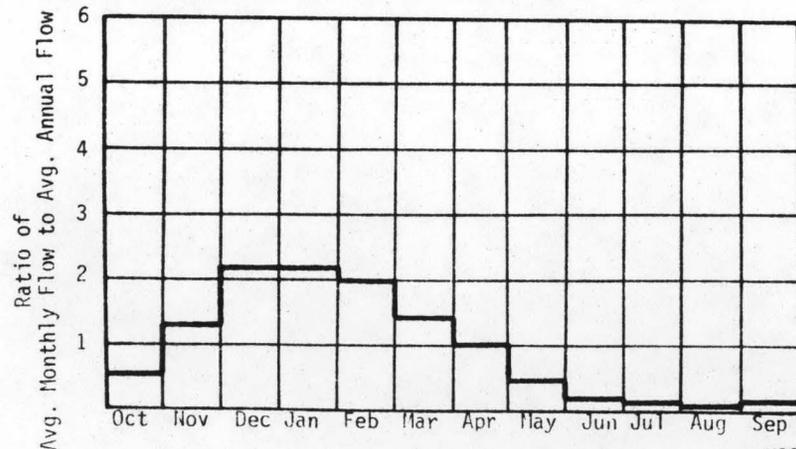
A. Upstream Elevation of Reach	80	Ft.	MSL
B. Downstream Elevation of Reach	50	Ft.	MSL
C. Total Available Head in Reach	30	Ft.	
D. Average Slope in Reach	6.25	Ft./Mi.	
E. Drainage Area above Reach Mouth	199	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

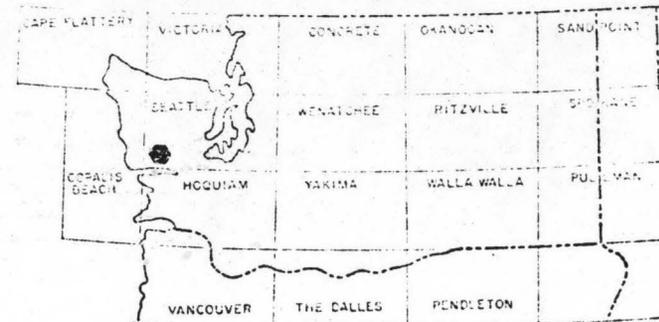
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	261	0.66	5.80	1.00
80	344	0.87	7.41	0.97
50	818	2.08	14.0	0.77
30	1360	3.46	18.8	0.62
10	2630	6.68	24.0	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

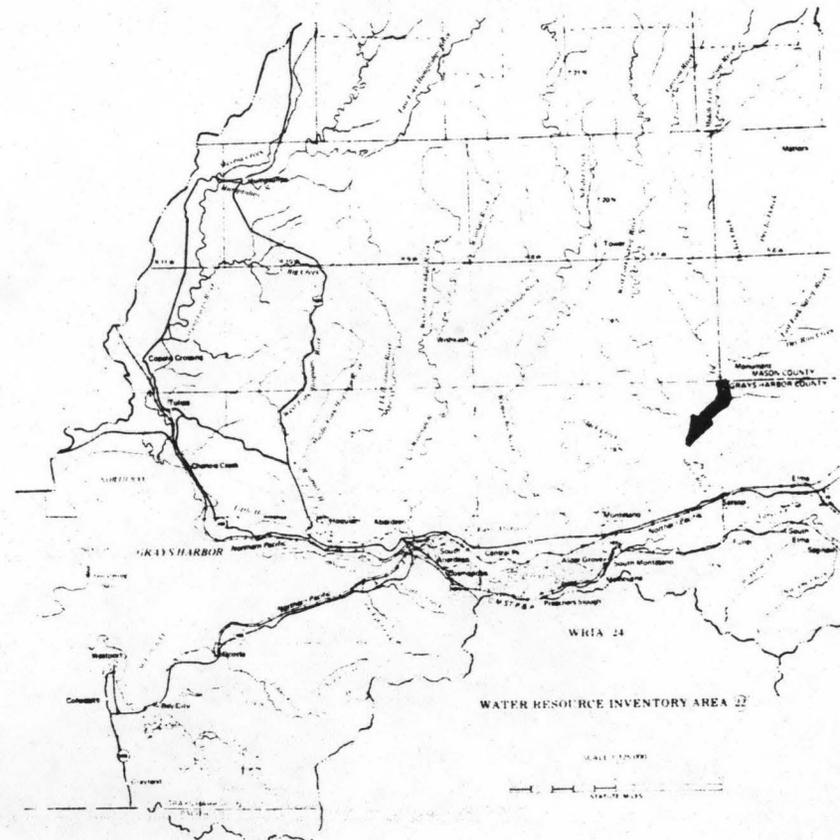
QMR = 1185 cfs



W22-790



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0044

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°05' 123°28'</u>
E. Stream Name	<u>E.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>11.6/12.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

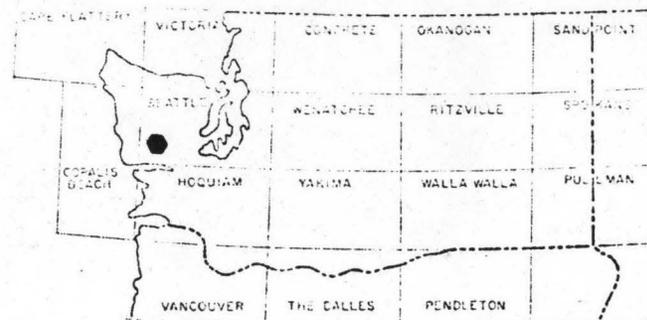
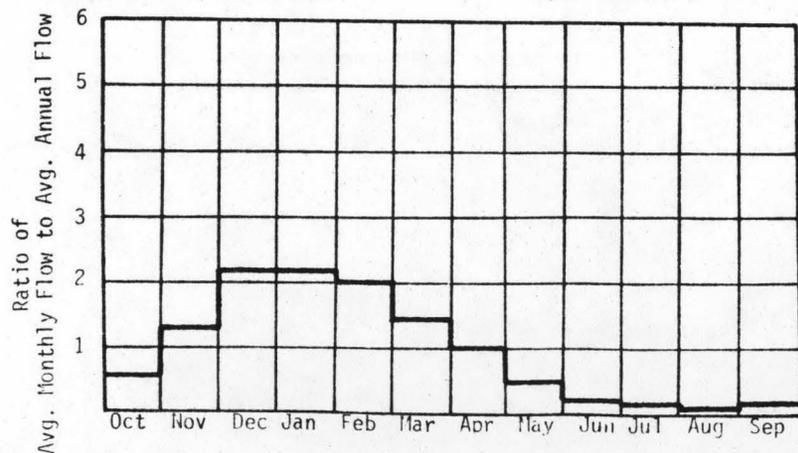
A. Upstream Elevation of Reach	<u>100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>20</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>129</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

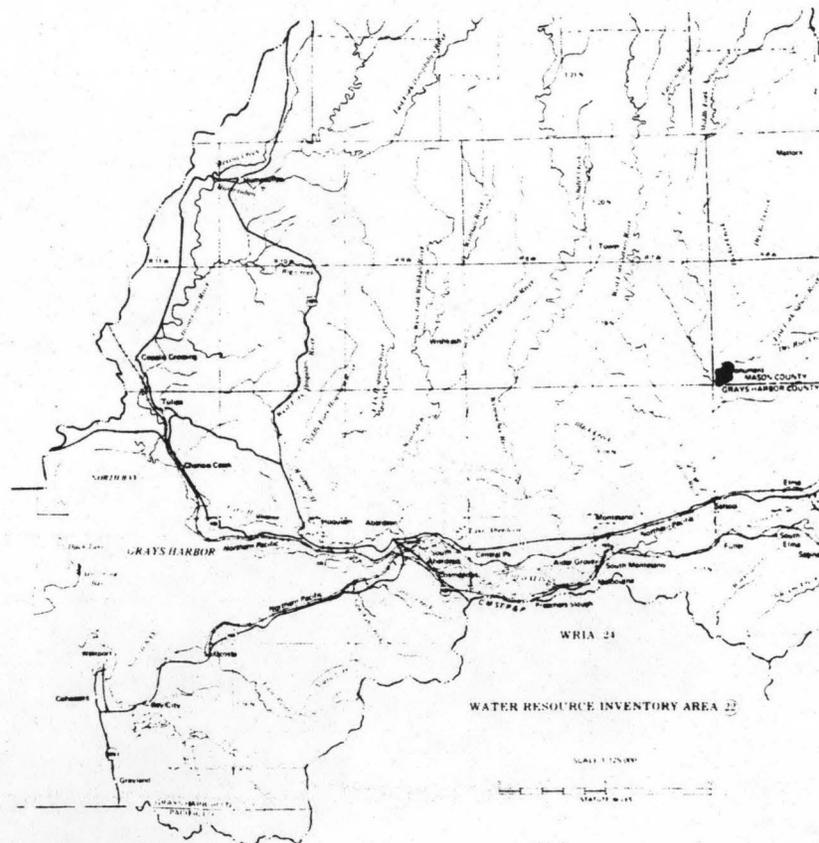
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	163	0.28	2.42	1.00
80	215	0.36	3.10	0.97
50	513	0.87	5.85	0.77
30	854	1.45	7.85	0.62
10	1650	2.79	10.0	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 743 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0045

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°06' 123°27'</u>
E. Stream Name	<u>E.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>12.6/14.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

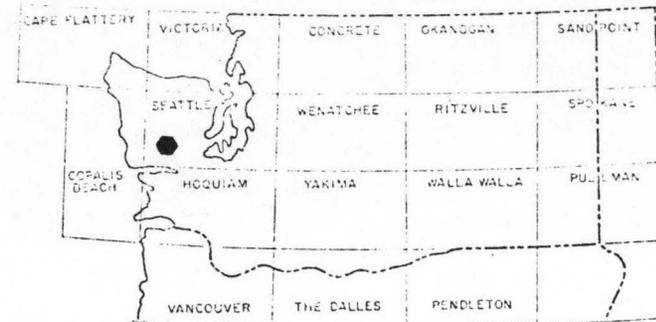
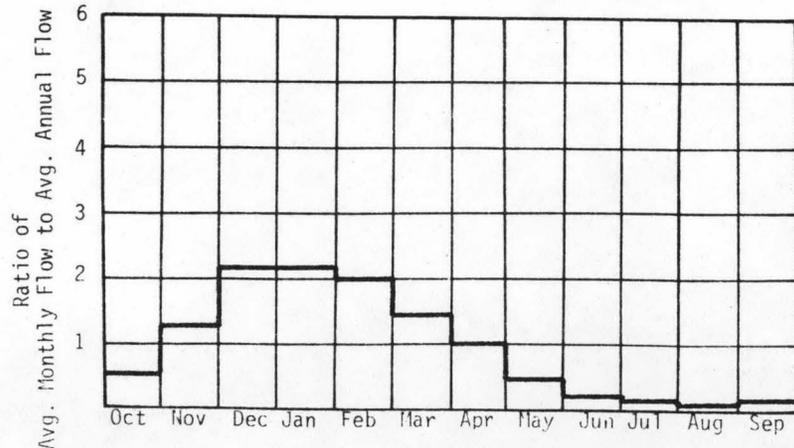
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>100</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>13.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>81.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

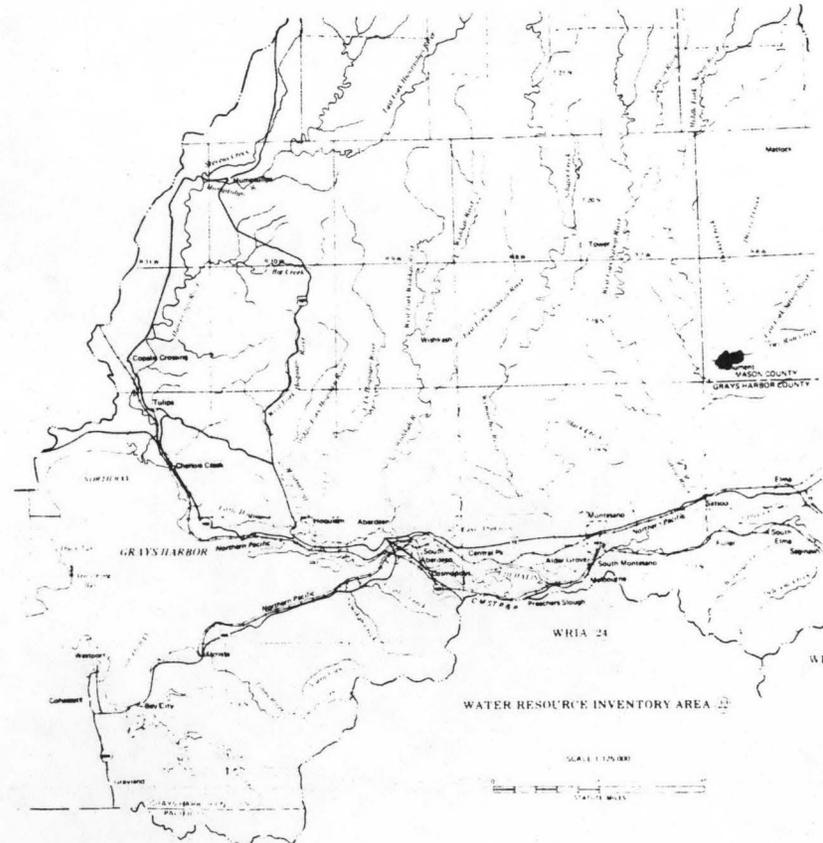
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	90.9	0.15	1.35	1.00
80	120	0.20	1.72	0.97
50	285	0.48	3.25	0.77
30	475	0.80	4.36	0.62
10	917	1.55	5.57	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 413 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0046

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°37' 123°25'</u>
E. Stream Name	<u>E.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>14.1/18.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

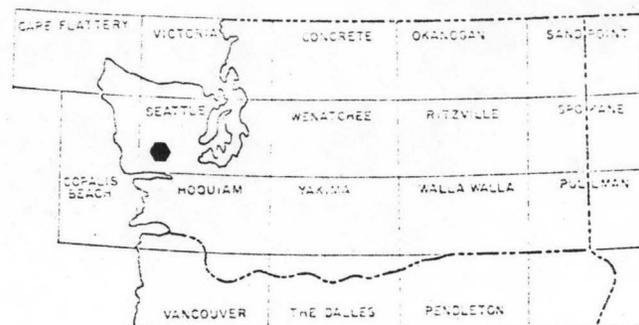
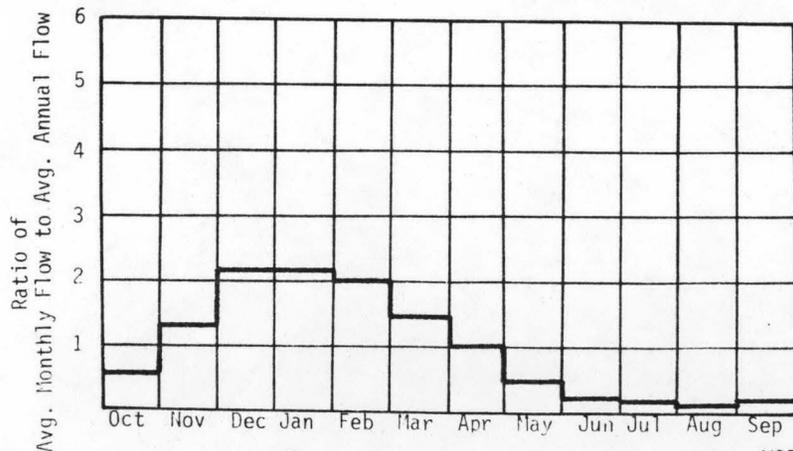
A. Upstream Elevation of Reach	<u>230</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>90</u>	Ft.
D. Average Slope in Reach	<u>20.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>70.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

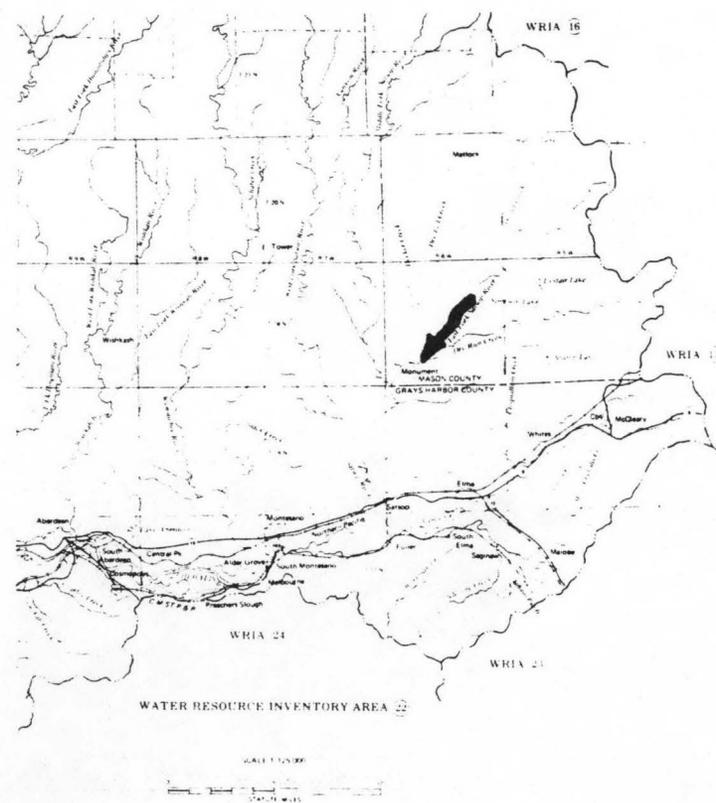
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	78.1	0.59	5.21	1.00
80	103	0.78	6.66	0.97
50	245	1.87	12.6	0.77
30	408	3.11	16.9	0.62
10	788	6.00	21.6	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 355 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0047

I. LOCATION

A. State Washington
 B. County Mason
 C. Township, Range T19N R5W
 D. Latitude, Longitude 47°10' 123°20'
 E. Stream Name E.F. Satsop River
 F. Major Basin Name Chehalis
 G. River Mile 18.5/26.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

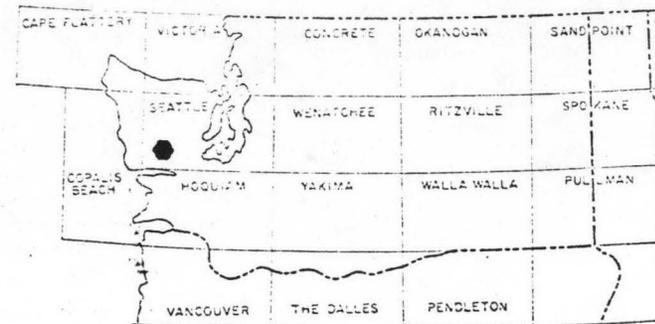
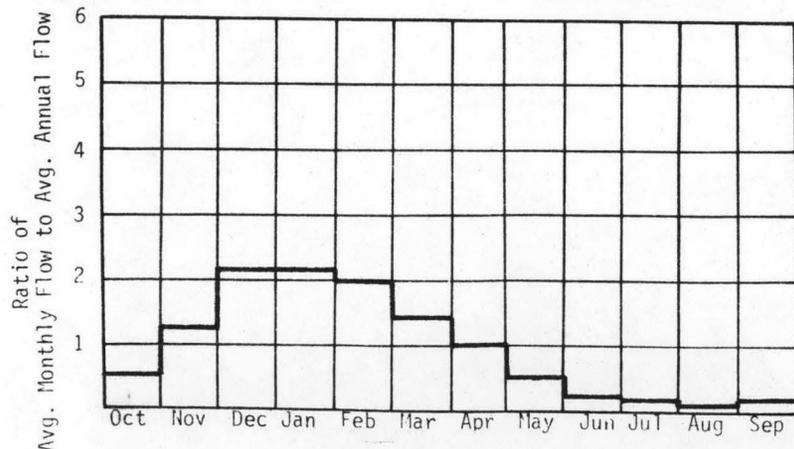
A. Upstream Elevation of Reach 330 Ft. MSL
 B. Downstream Elevation of Reach 230 Ft. MSL
 C. Total Available Head in Reach 100 + 66 = 166 Ft.
 D. Average Slope in Reach 12.6 Ft./Mi.
 E. Drainage Area above Reach Mouth 27.5 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

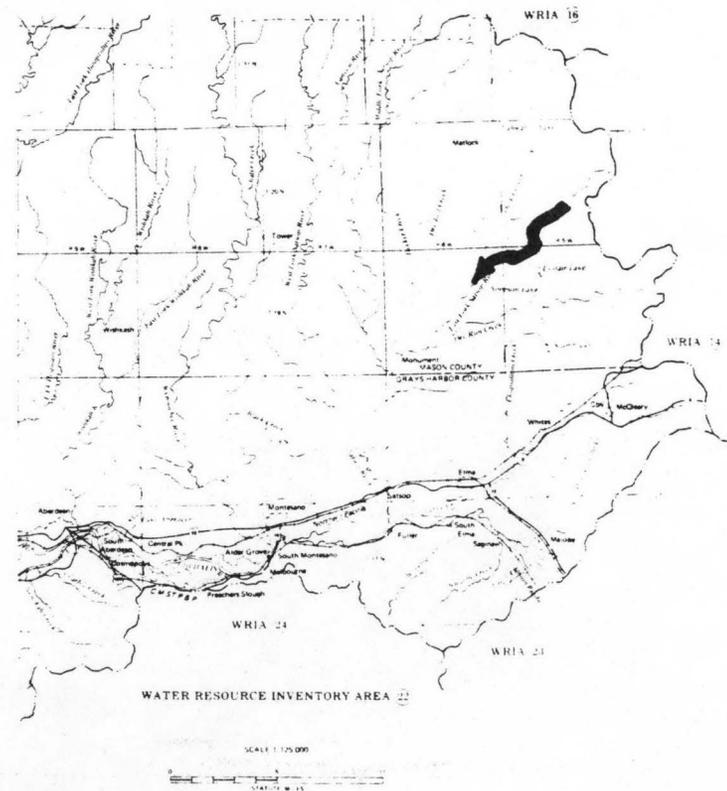
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	33.0	0.46	4.05	1.00
80	40.2	0.56	4.84	0.98
50	60.8	0.85	6.43	0.86
30	102	1.43	8.40	0.67
10	212	2.98	11.0	0.42

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 103 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0048

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R7W</u>
D. Latitude, Longitude	<u>47°06' 123°30'</u>
E. Stream Name	<u>M.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/3.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

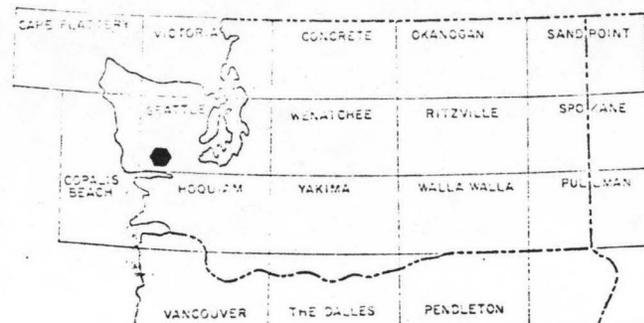
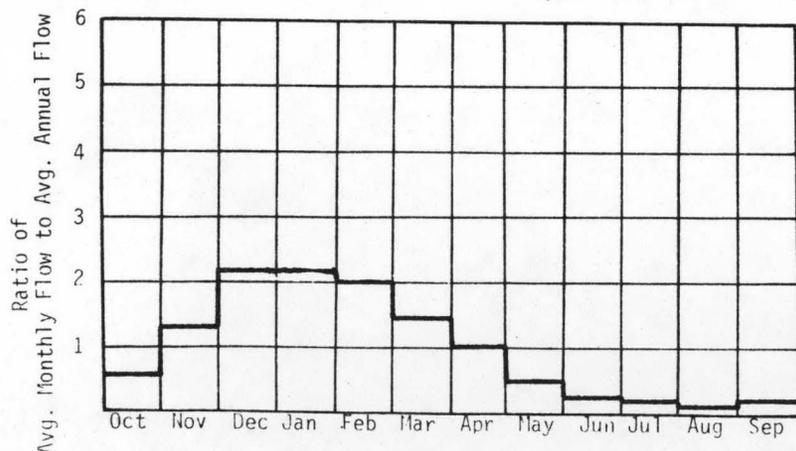
A. Upstream Elevation of Reach	<u>100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>80</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>6.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>58.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

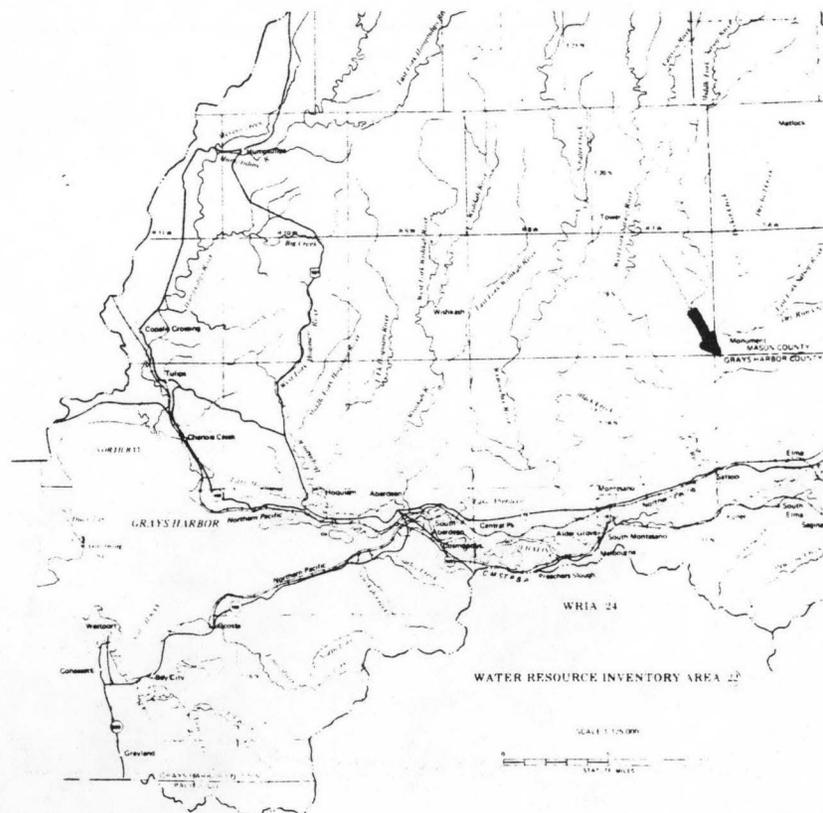
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	89.3	0.15	1.32	1.00
80	118	0.20	1.69	0.97
50	280	0.47	3.20	0.77
30	467	0.79	3.29	0.62
10	901	1.53	5.48	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 406 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0049

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T19N R7W</u>
D. Latitude, Longitude	<u>47°09' 123°31'</u>
E. Stream Name	<u>M.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>3.3/13.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

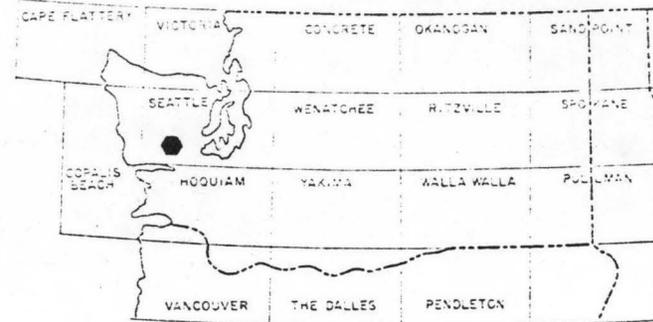
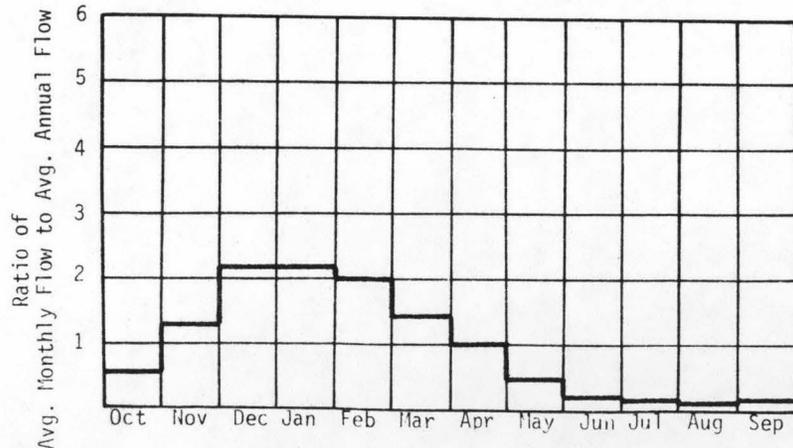
A. Upstream Elevation of Reach	<u>300</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>100</u>	Ft. MSL
C. Total Available Head in Reach	<u>200</u>	Ft.
D. Average Slope in Reach	<u>19.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>51.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

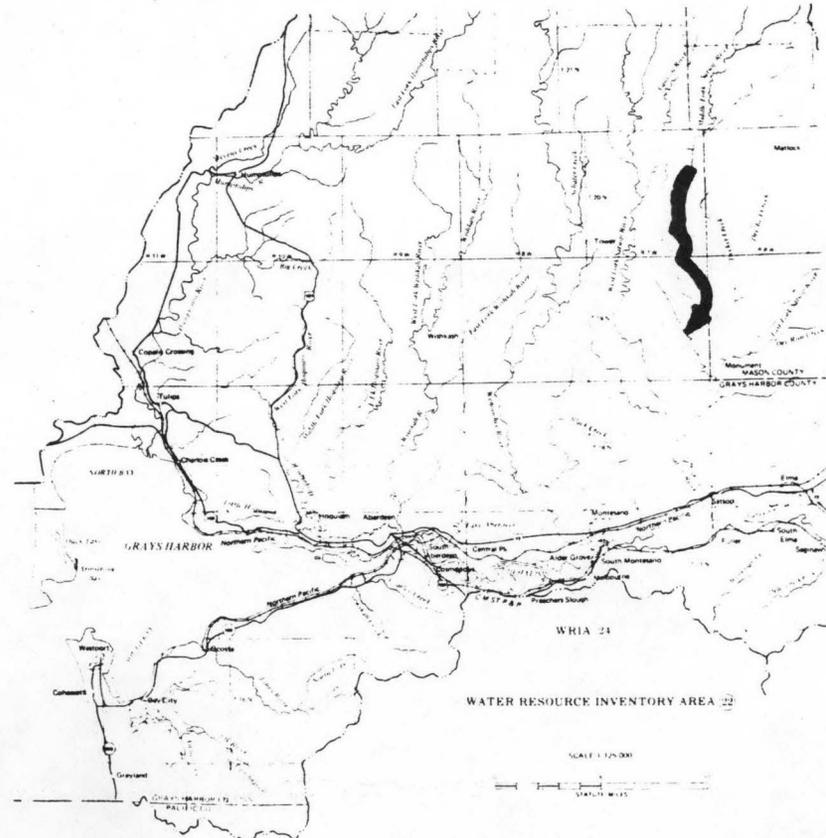
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	72.8	1.23	10.8	1.00
80	96.0	1.62	13.8	0.97
50	228	3.86	26.1	0.77
30	381	6.44	35.0	0.62
10	735	12.4	44.7	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 331 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0050

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T20N R7W</u>
D. Latitude, Longitude	<u>47°14' 123°30'</u>
E. Stream Name	<u>M.F. Satsop River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>13.4/16.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

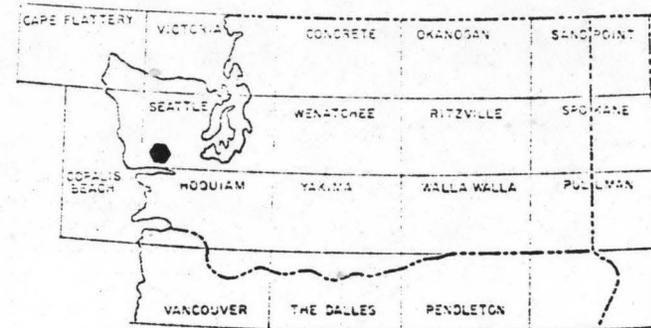
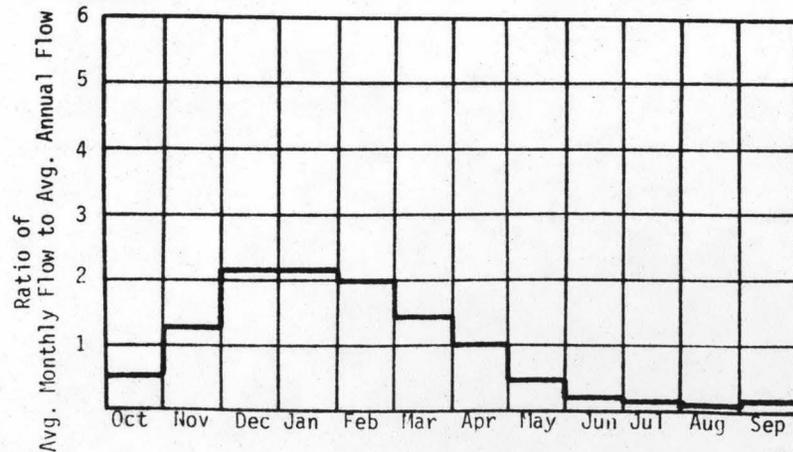
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>300</u>	Ft. MSL
C. Total Available Head in Reach	<u>60</u>	Ft.
D. Average Slope in Reach	<u>20</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>38.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

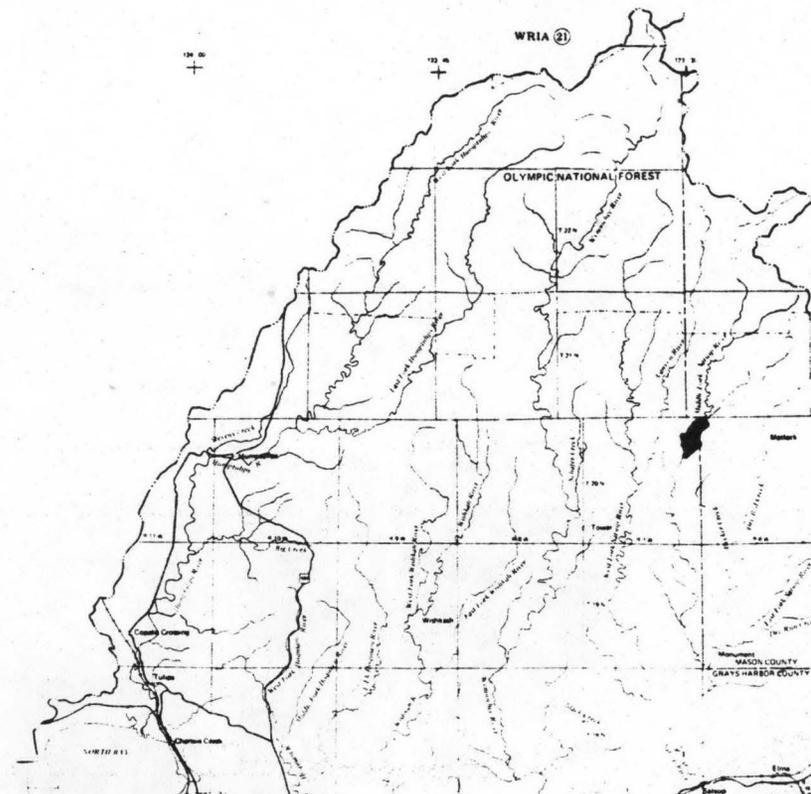
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	60.1	0.30	2.67	1.00
80	79.2	0.40	3.41	0.97
50	188	0.96	6.45	0.77
30	314	1.59	8.66	0.62
10	606	3.08	11.1	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 273 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-0-0-000-R0051

I. LOCATION

A. State Washington
 B. County Mason
 C. Township, Range T21N R7W
 D. Latitude, Longitude 47°17' 123°29'
 E. Stream Name M.F. Satsop River
 F. Major Basin Name Chehalis
 G. River Mile 16.4/23.9

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

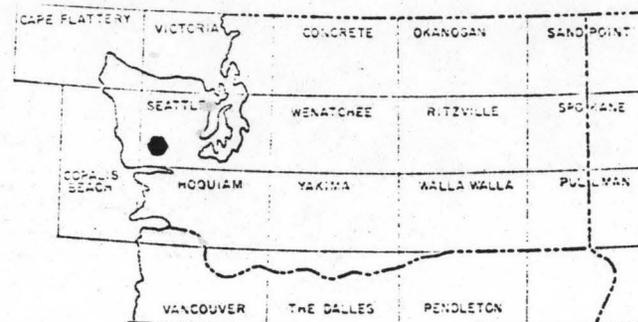
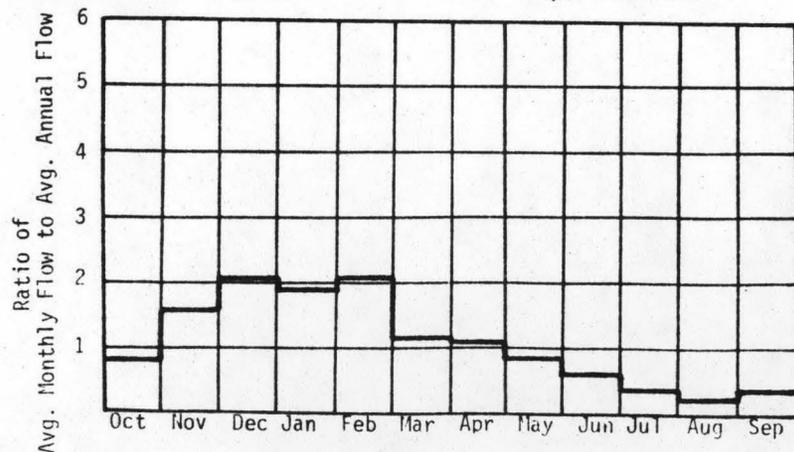
A. Upstream Elevation of Reach 630 Ft. MSL
 B. Downstream Elevation of Reach 360 Ft. MSL
 C. Total Available Head in Reach 270 Ft.
 D. Average Slope in Reach 36 Ft./Mi.
 E. Drainage Area above Reach Mouth 28.4 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

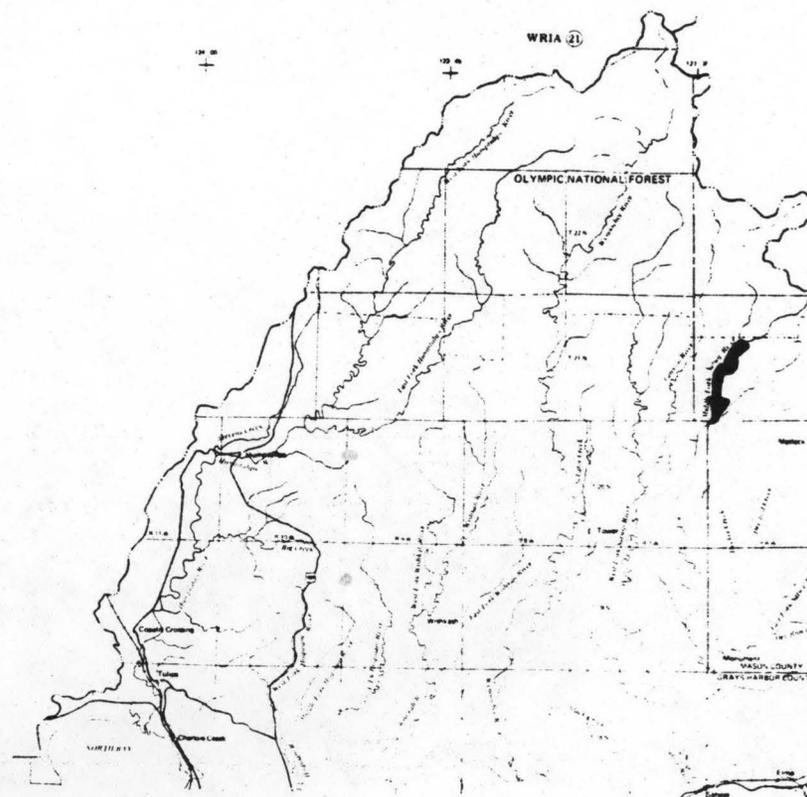
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	43.1	0.98	8.63	1.00
80	56.8	1.30	11.0	0.97
50	135	3.09	20.8	0.77
30	225	5.15	28.0	0.62
10	435	9.94	35.7	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 196 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0052

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T22N R6W
D. Latitude Longitude	47°21' 123°26'
E. Stream Name	M.F. Satsop River
F. Major Basin Name	Chehalis
G. River Mile	23.9/30.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

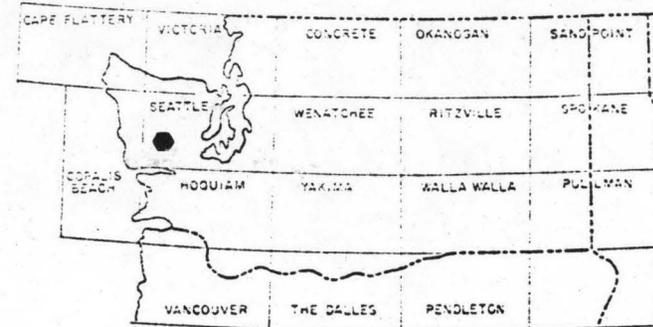
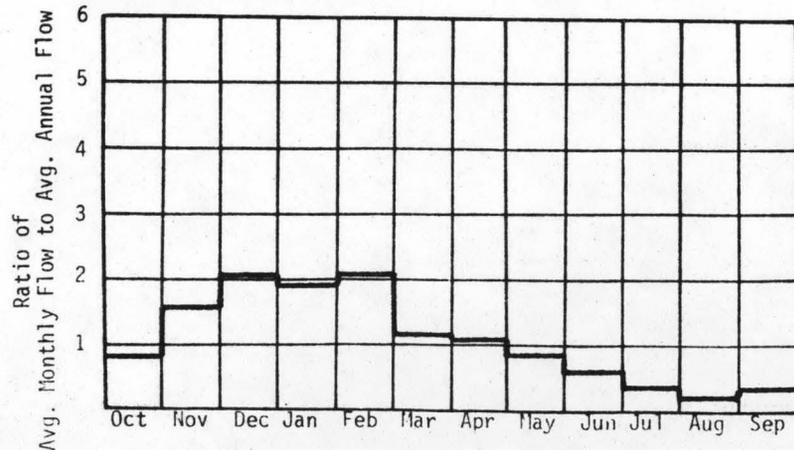
A. Upstream Elevation of Reach	1050	Ft. MSL
B. Downstream Elevation of Reach	630	Ft. MSL
C. Total Available Head in Reach	420 + 66 = 486	Ft.
D. Average Slope in Reach	68.9	Ft./Mi.
E. Drainage Area above Reach Mouth	16.1	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

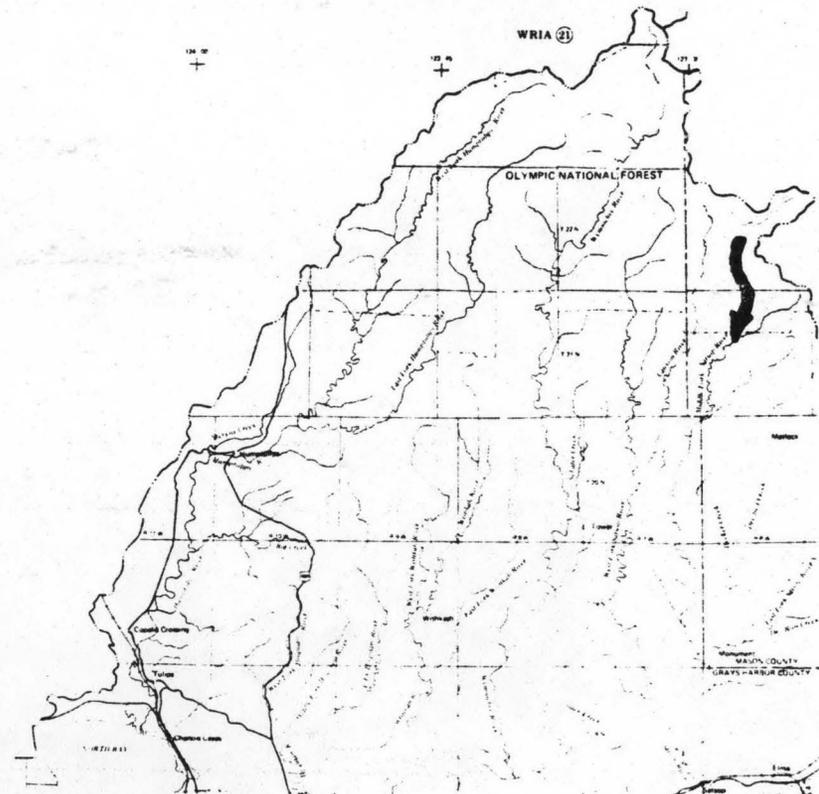
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.6	0.81	7.05	1.00
80	25.8	1.06	9.02	0.97
50	61.4	2.52	17.0	0.77
30	102	4.21	22.9	0.62
10	198	8.12	29.2	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 89 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0053

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°07' 123°28'</u>
E. Stream Name	<u>Decker Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/5.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

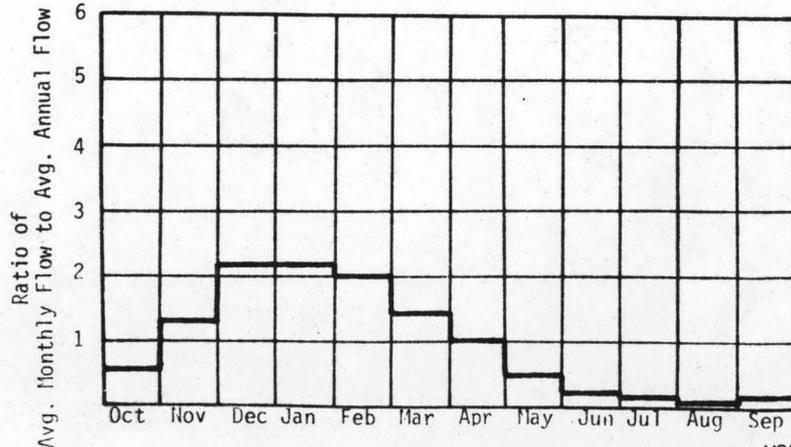
A. Upstream Elevation of Reach	<u>260</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>150</u>	Ft.
D. Average Slope in Reach	<u>26.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>46.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

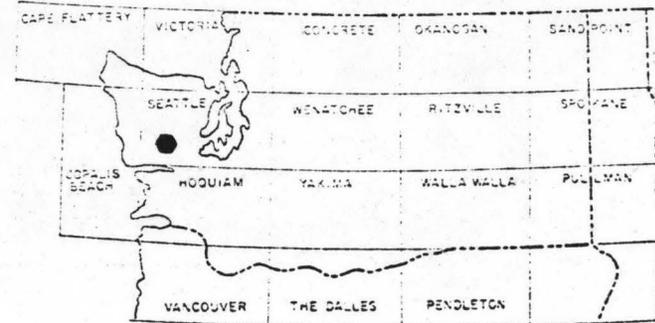
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	62.0	0.79	6.90	1.00
80	81.8	1.04	8.82	0.97
50	195	2.47	16.7	0.77
30	324	4.12	22.4	0.62
10	626	7.94	28.5	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

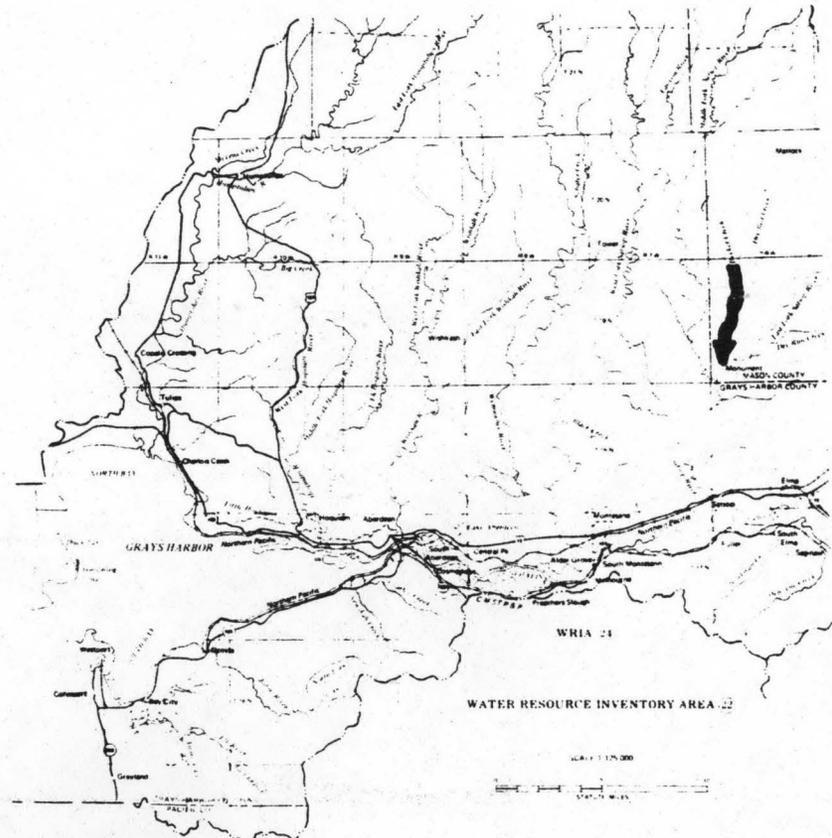
QMR = 282 cfs



W22-800



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0054

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T20N R6W</u>
D. Latitude, Longitude	<u>47°11' 123°28'</u>
E. Stream Name	<u>Decker Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>5.6/7.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

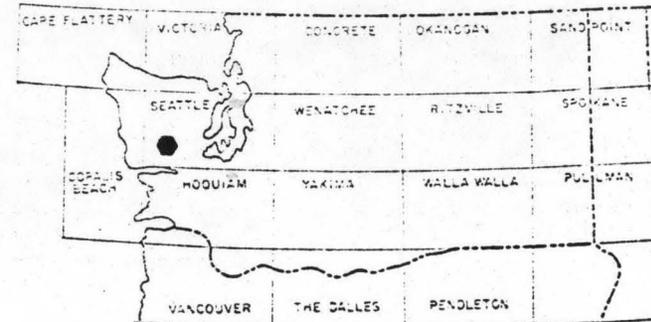
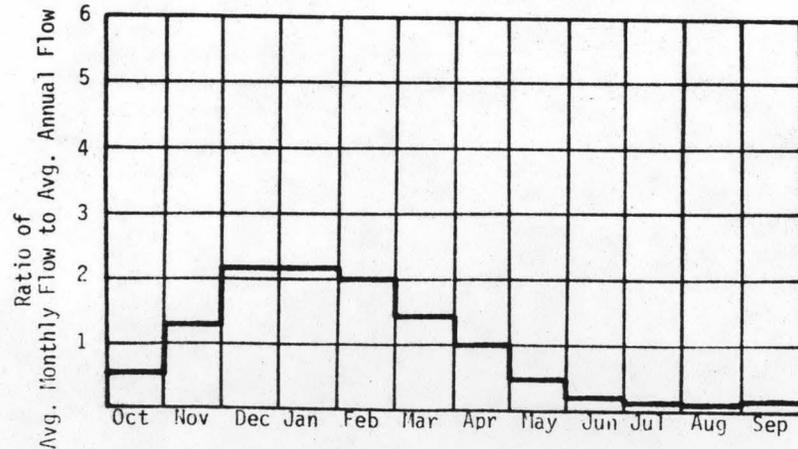
A. Upstream Elevation of Reach	<u>300</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>260</u>	Ft. MSL
C. Total Available Head in Reach	<u>40 + 66 = 106</u>	Ft.
D. Average Slope in Reach	<u>17.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

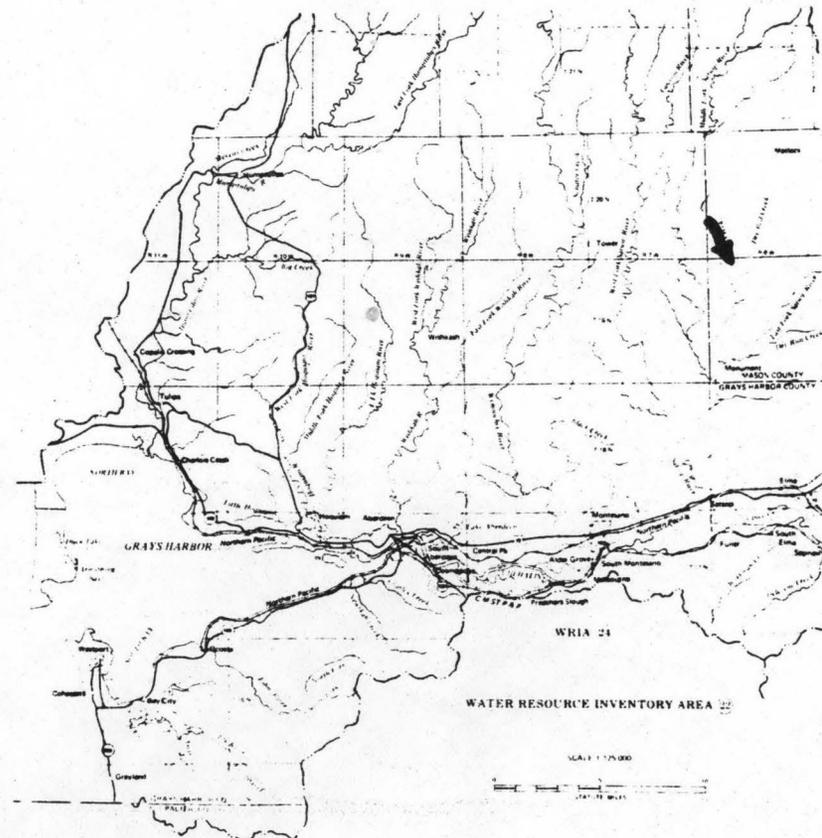
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	15.2	0.14	1.19	1.00
80	20.0	0.18	1.52	0.97
50	47.6	0.43	2.88	0.77
30	79.4	0.71	3.86	0.62
10	153	1.37	4.93	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 69 cfs



LOCATIONS FOR USGS 250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0055

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°09' 123°25'</u>
E. Stream Name	<u>Bingham Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/2.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

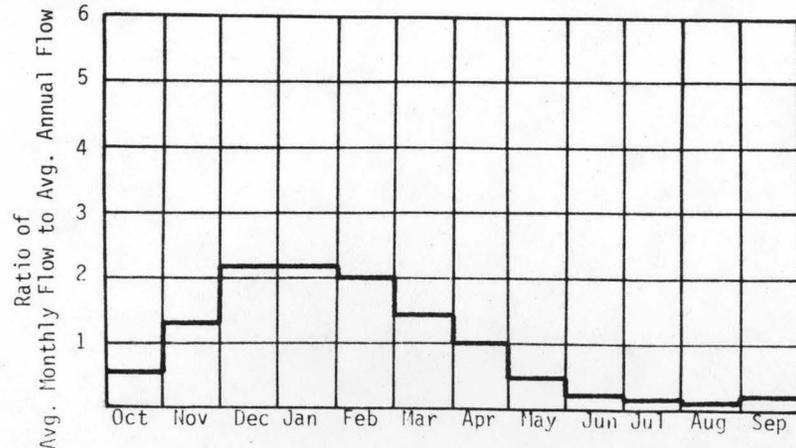
A. Upstream Elevation of Reach	<u>300</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>230</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>31.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>35.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

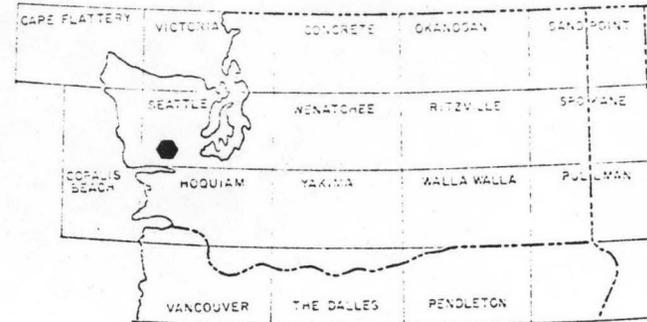
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	31.5	0.19	1.63	1.00
80	46.3	0.27	2.30	0.96
50	148	0.88	5.60	0.73
30	196	1.16	6.61	0.65
10	407	2.41	8.66	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 185 cfs



W22-802



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 22

SCALE 1:25,000



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0056

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T20N R5W</u>
D. Latitude, Longitude	<u>47°13' 123°23'</u>
E. Stream Name	<u>Bingham Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>2.2/7.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

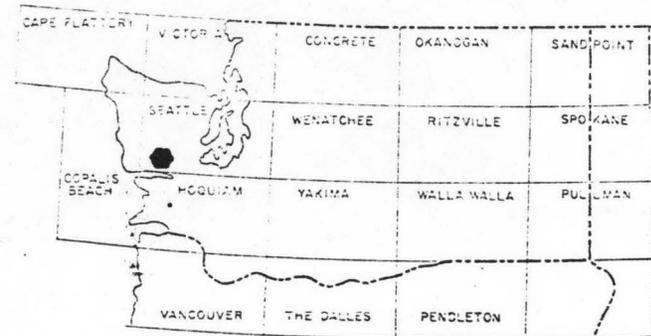
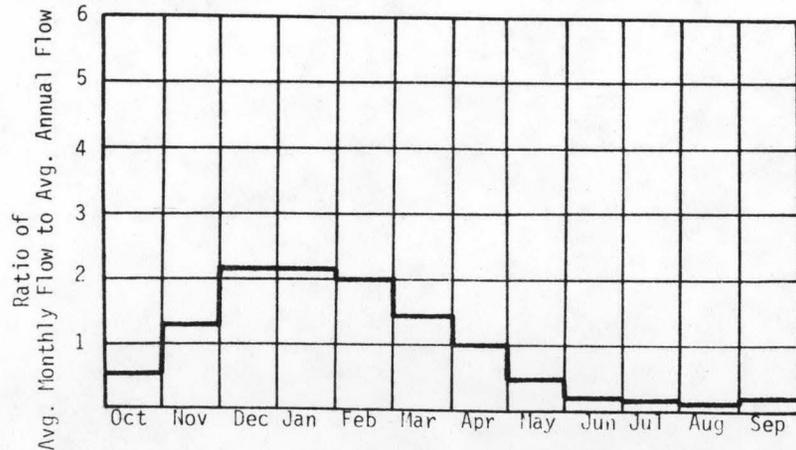
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>300</u>	Ft. MSL
C. Total Available Head in Reach	<u>60 + 66 = 126</u>	Ft.
D. Average Slope in Reach	<u>12.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	15.5	0.08	0.69	1.00
80	22.8	0.12	0.97	0.96
50	72.8	0.37	2.36	0.73
30	96.5	0.49	2.79	0.65
10	200	1.02	3.65	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 91 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



SCALE 1:250,000

STATUTE MILES

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0057

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T18N R6W</u>
D. Latitude, Longitude	<u>46°50' 123°24'</u>
E. Stream Name	<u>Cloquallum Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/4.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

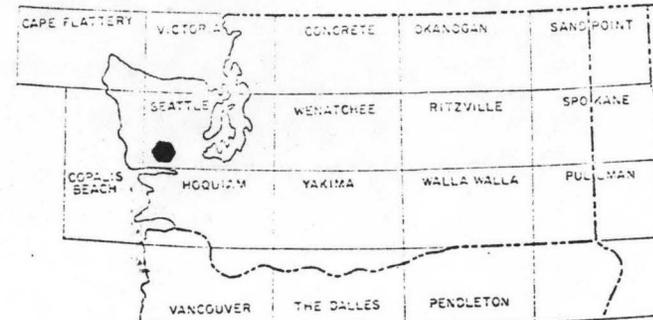
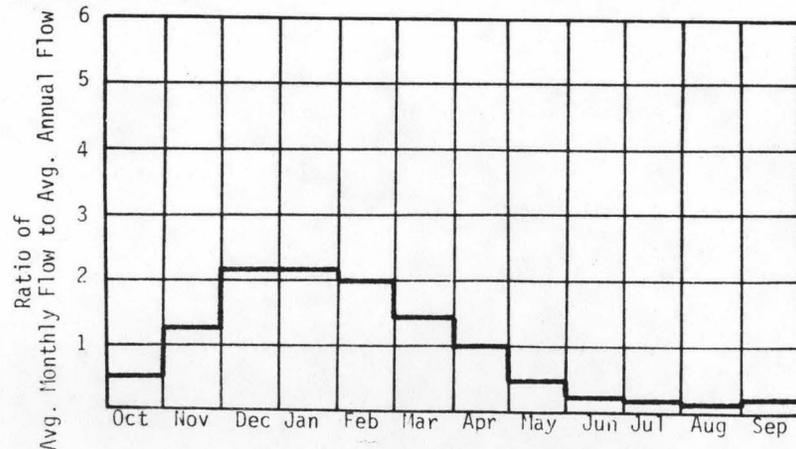
A. Upstream Elevation of Reach	<u>60</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>15</u>	Ft. MSL
C. Total Available Head in Reach	<u>55</u>	Ft.
D. Average Slope in Reach	<u>13.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>66.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

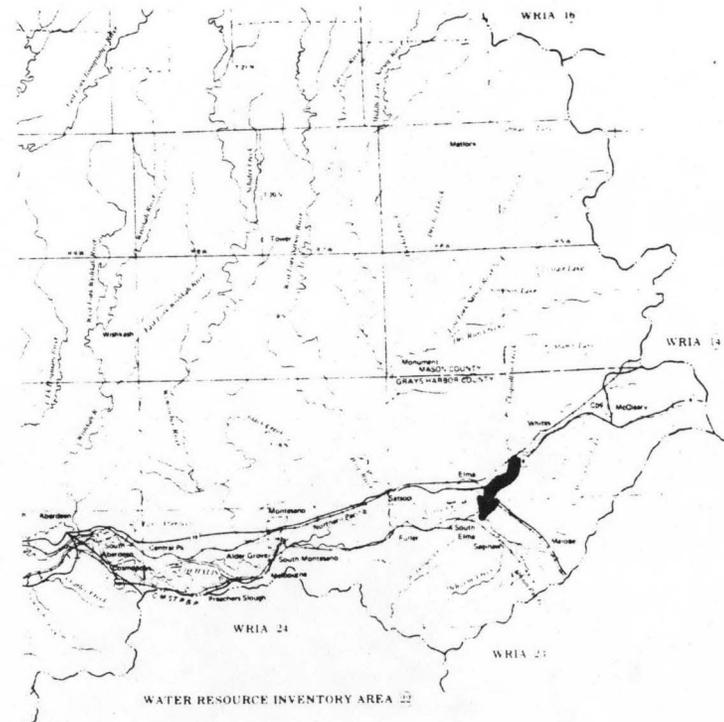
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	22.5	0.10	0.92	1.00
80	37.5	0.17	1.45	0.95
50	138	0.64	3.98	0.71
30	273	1.27	6.22	0.56
10	630	2.93	8.99	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 250 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 22

SCALE 1:25,000



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0058

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Mason</u>
C. Township, Range	<u>T19N R6W</u>
D. Latitude, Longitude	<u>47°05' 123°23'</u>
E. Stream Name	<u>Cloguallum Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>4.2/17.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

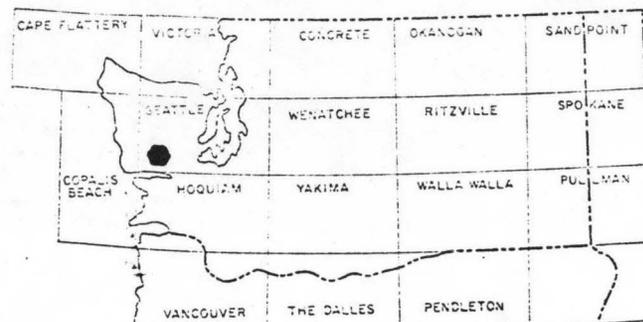
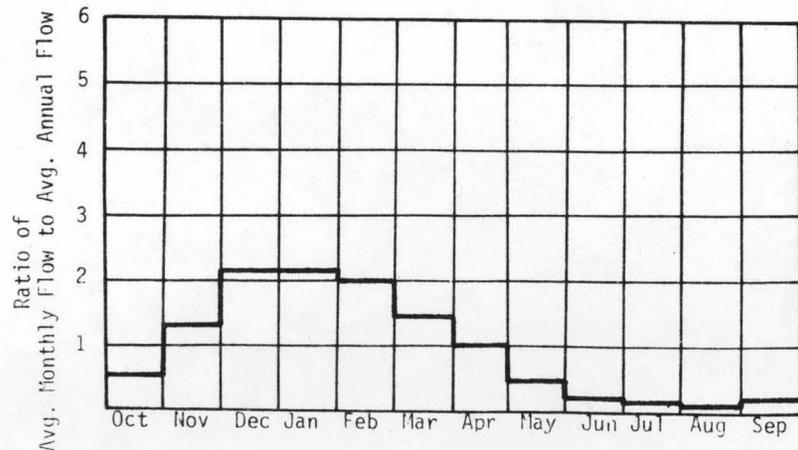
A. Upstream Elevation of Reach	<u>340</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>60</u>	Ft. MSL
C. Total Available Head in Reach	<u>280 + 66 = 346</u>	Ft.
D. Average Slope in Reach	<u>21.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.1</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

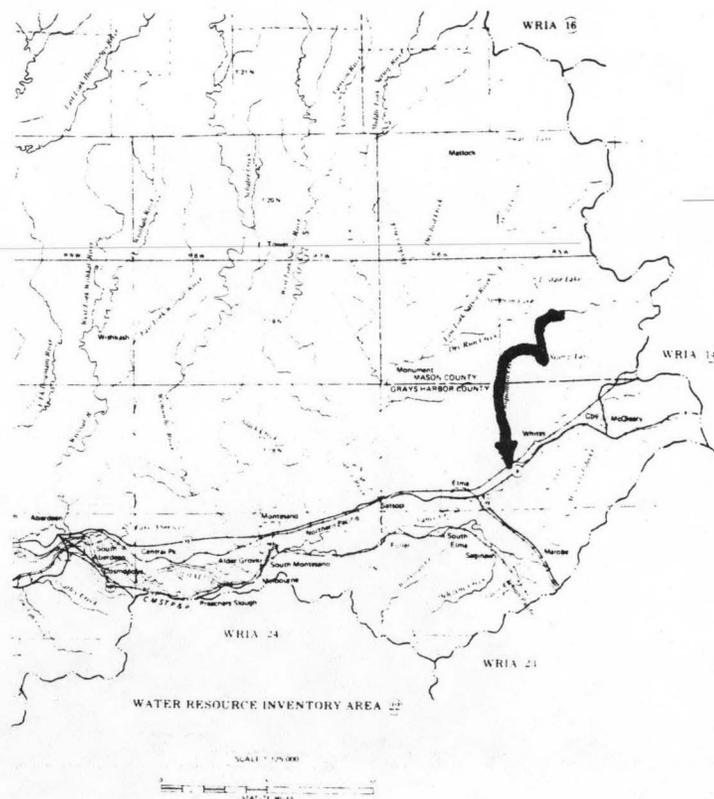
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.45	0.28	2.42	1.00
80	15.8	0.46	3.84	0.95
50	57.8	1.69	10.5	0.71
30	114	3.35	16.4	0.56
10	265	7.75	23.8	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 105 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0059

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T18N R5W
D. Latitude, Longitude	47°02' 123°20'
E. Stream Name	Wildcat Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/2.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

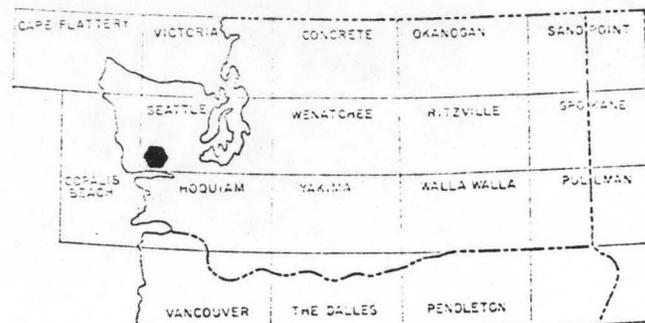
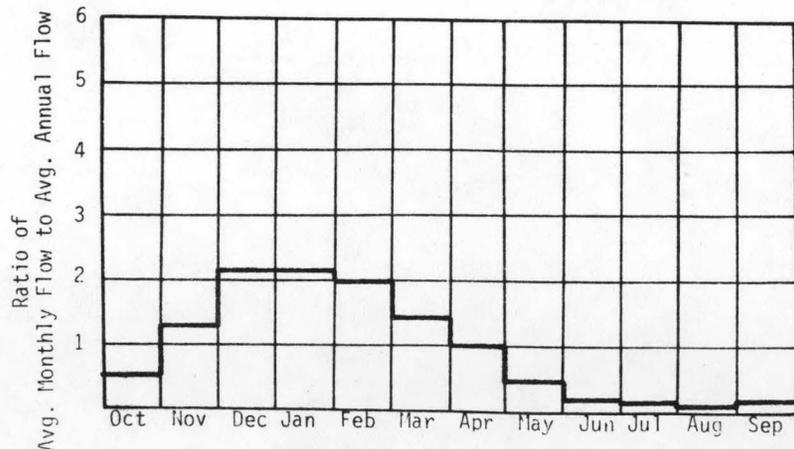
A. Upstream Elevation of Reach	150	Ft.	MSL
B. Downstream Elevation of Reach	60	Ft.	MSL
C. Total Available Head in Reach	90 + 66 = 156	Ft.	
D. Average Slope in Reach	32.1	Ft./Mi.	
E. Drainage Area above Reach Mouth	20.3	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

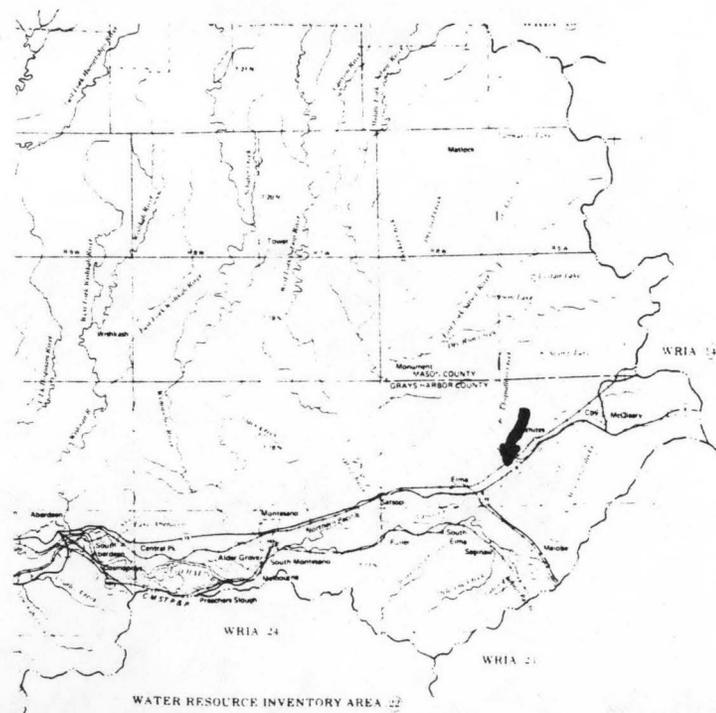
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.85	0.08	0.68	1.00
80	9.75	0.13	1.07	0.95
50	35.8	0.47	2.93	0.71
30	70.9	0.94	4.59	0.56
10	164	2.16	6.63	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 65 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



SCALE 1:25,000



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0060

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T17N R5W
D. Latitude, Longitude	46°57' 123°19'
E. Stream Name	Chehalis Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/6.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

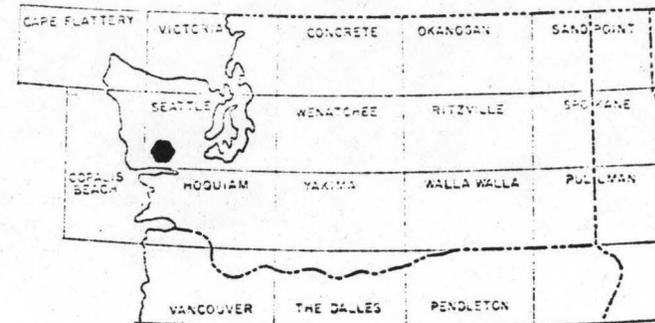
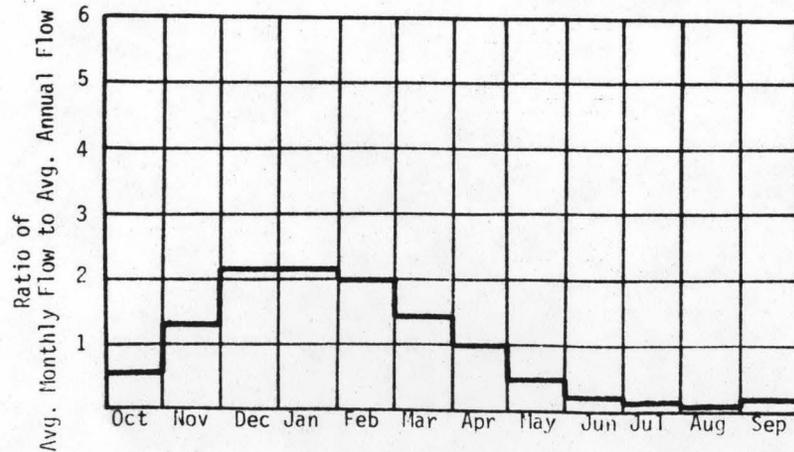
A. Upstream Elevation of Reach	90	Ft. MSL
B. Downstream Elevation of Reach	15	Ft. MSL
C. Total Available Head in Reach	$75 + 66 = 141$	Ft.
D. Average Slope in Reach	12.5	Ft./Mi.
E. Drainage Area above Reach Mouth	28.7	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

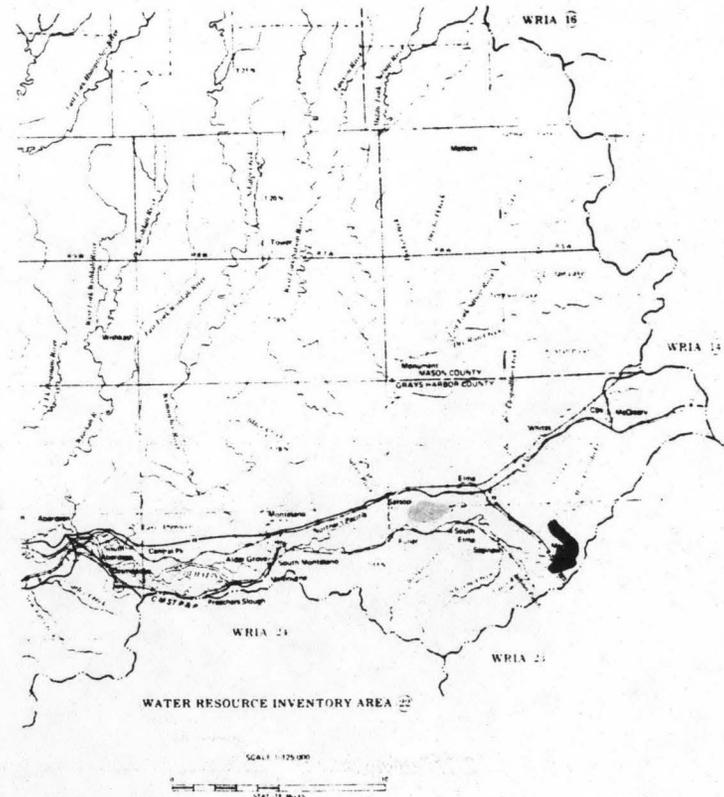
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.66	0.08	0.70	1.00
80	11.1	0.13	1.10	0.95
50	40.7	0.49	3.02	0.71
30	80.7	0.96	4.72	0.56
10	186	2.22	6.82	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 74 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-0-0-R0061

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R5W</u>
D. Latitude, Longitude	<u>46°57' 123°16'</u>
E. Stream Name	<u>Porter Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/4.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

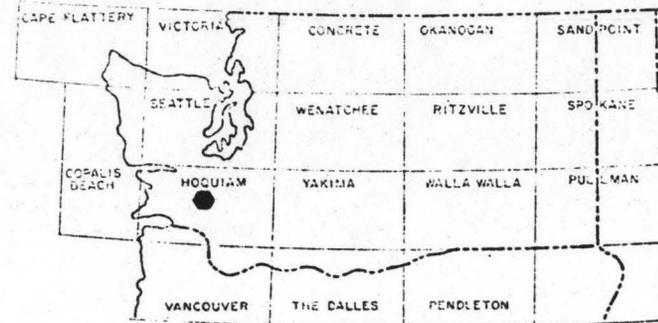
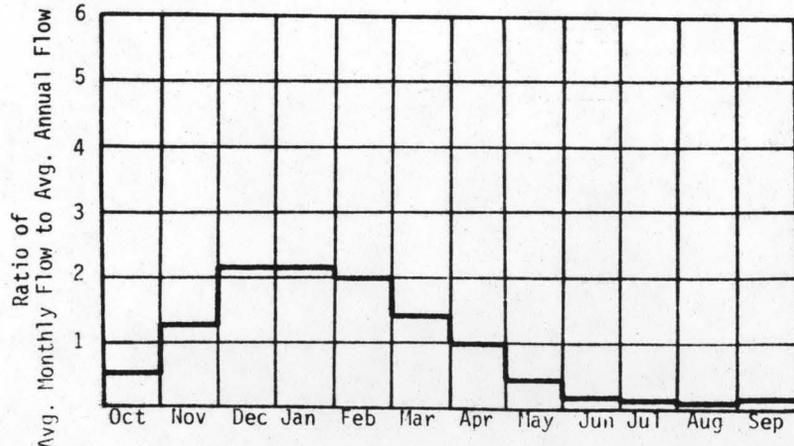
A. Upstream Elevation of Reach	<u>160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>130</u>	Ft.
D. Average Slope in Reach	<u>28.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>40.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

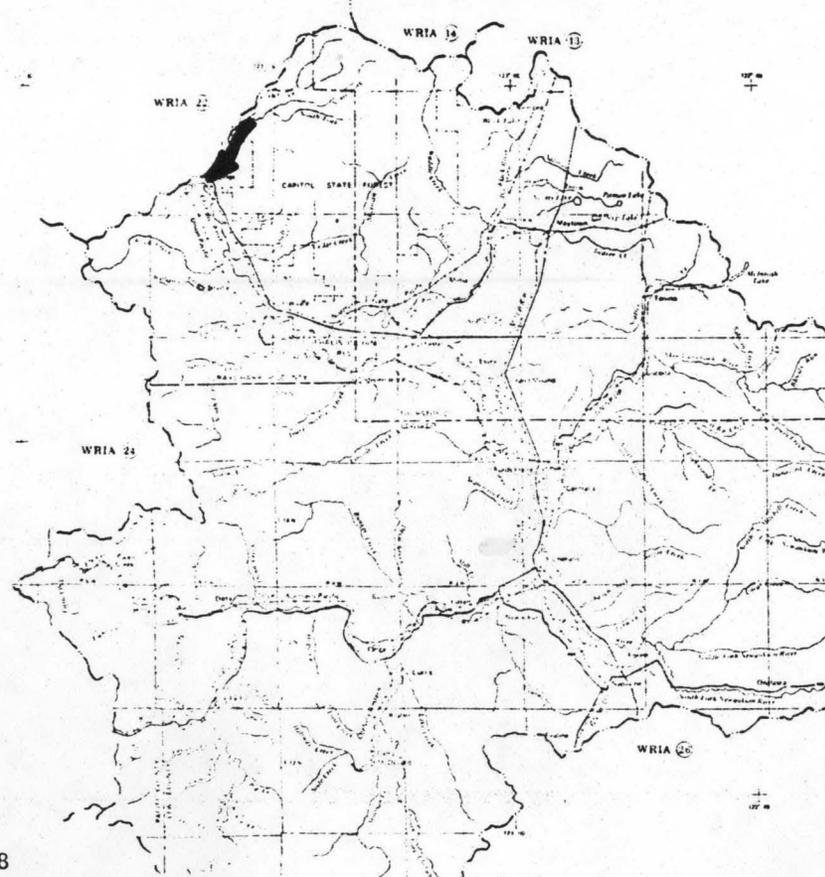
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.5	0.15	1.30	1.00
80	20.3	0.22	1.87	0.96
50	87.8	0.97	5.92	0.70
30	161	1.77	8.67	0.56
10	320	3.52	11.7	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 135 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0062

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T17N R5W</u>
D. Latitude, Longitude	<u>46°58' 123°15'</u>
E. Stream Name	<u>Porter Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>4.5/5.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

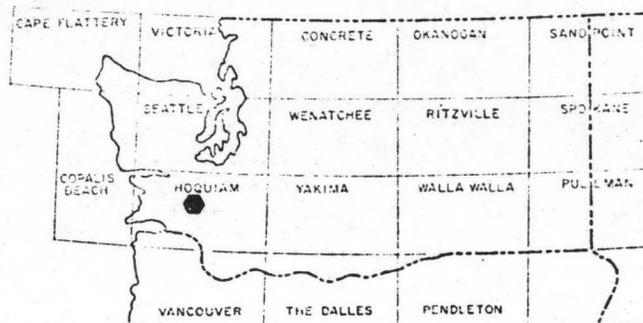
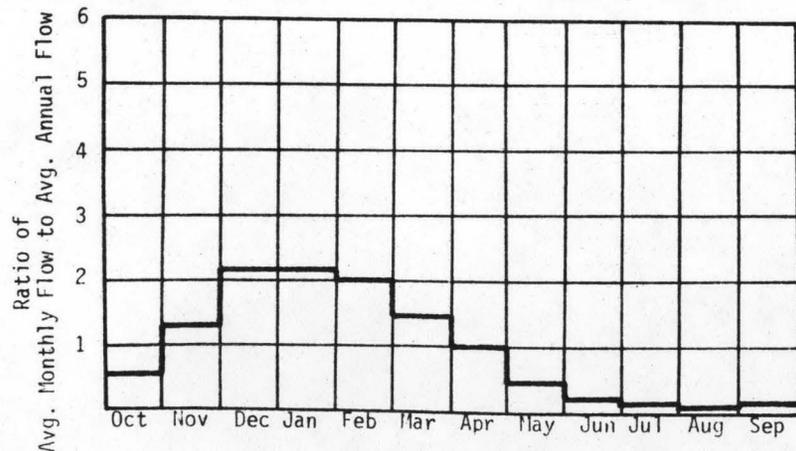
A. Upstream Elevation of Reach	<u>240</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>168</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>61.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

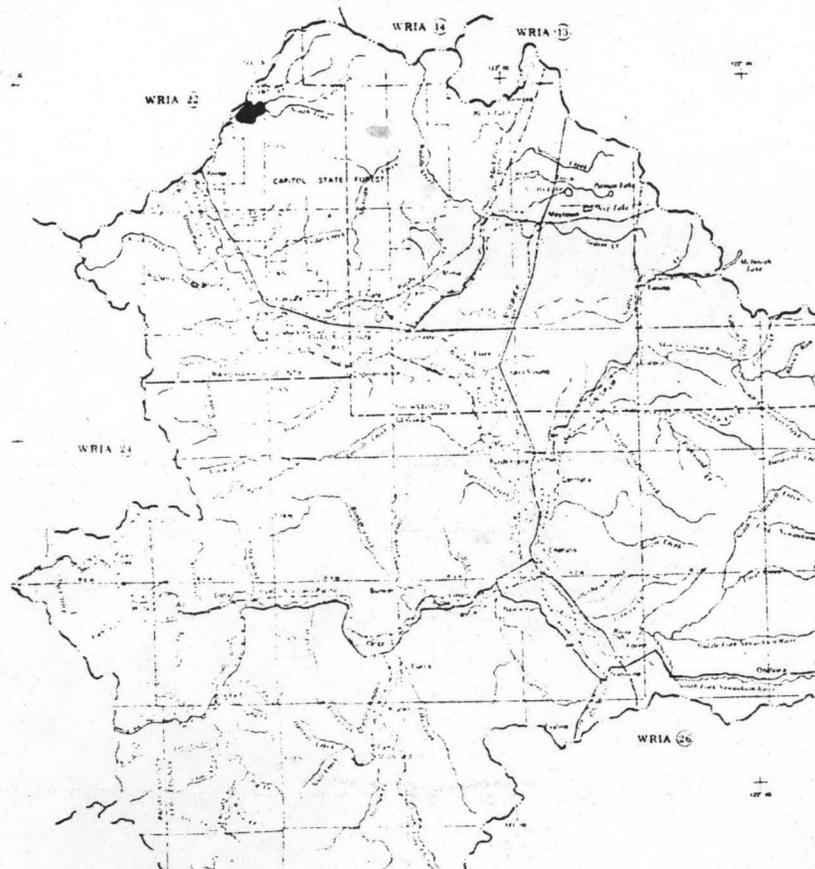
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.50	0.09	0.81	1.00
80	11.3	0.14	1.17	0.96
50	48.8	0.60	3.69	0.70
30	89.3	1.10	5.41	0.56
10	178	2.20	7.31	0.38

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 75 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0063

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R4W</u>
D. Latitude, Longitude	<u>46°53' 123°14'</u>
E. Stream Name	<u>Cedar Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/7.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

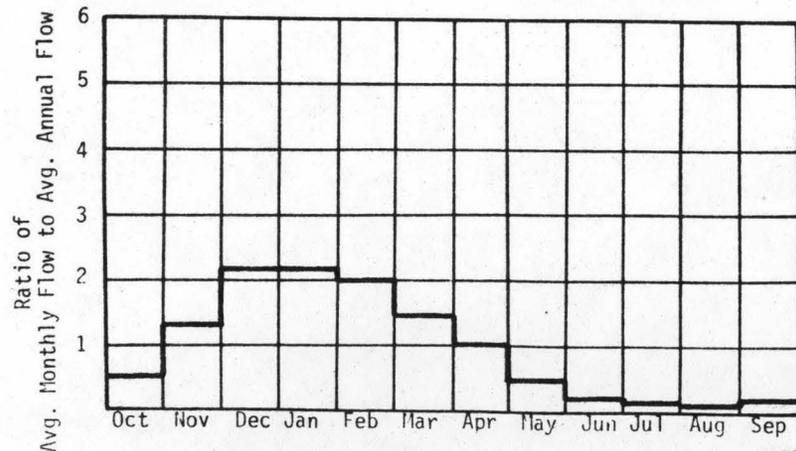
A. Upstream Elevation of Reach	<u>380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>350 + 66 = 416</u>	Ft.
D. Average Slope in Reach	<u>46.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>39.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

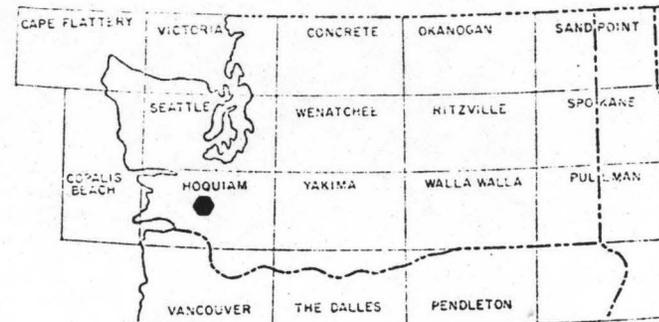
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.42	0.26	2.29	1.00
80	12.7	0.45	3.69	0.94
50	54.1	1.90	11.7	0.70
30	119	4.18	19.8	0.54
10	297	10.5	30.2	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

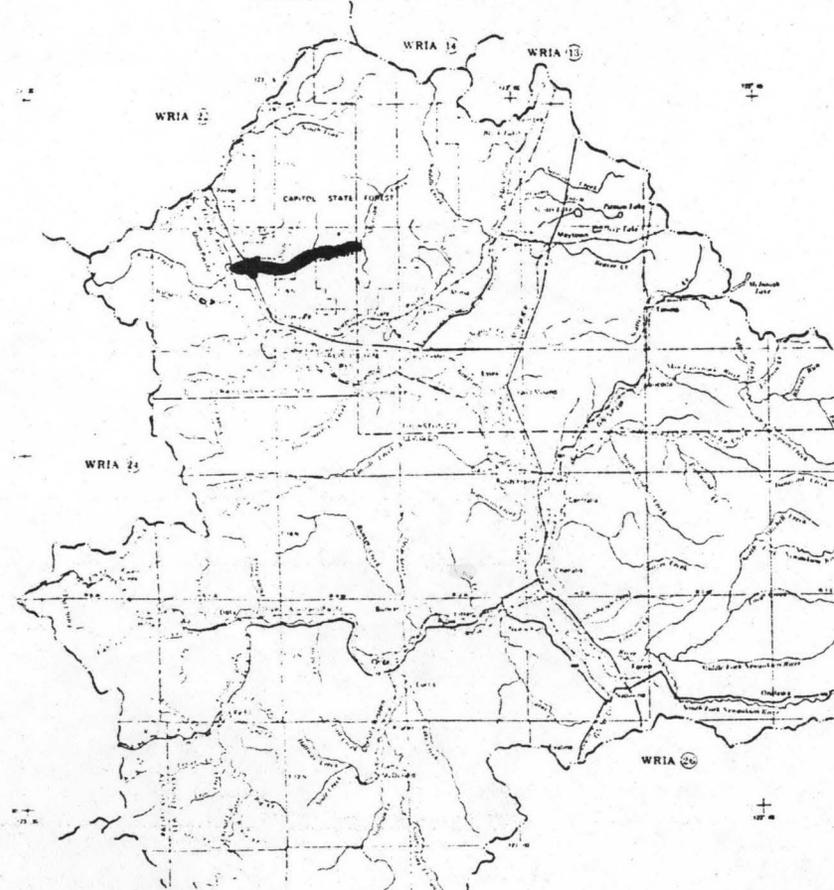
QMR = 106 cfs



W22-810



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0064

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R5W</u>
D. Latitude, Longitude	<u>46°53' 123°18'</u>
E. Stream Name	<u>Williams Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/1.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

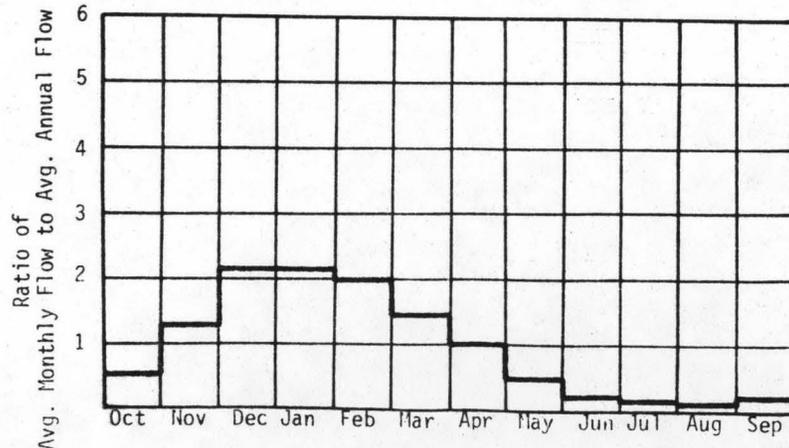
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>30</u>	Ft. MSL
C. Total Available Head in Reach	<u>40 + 66 = 106</u>	Ft.
D. Average Slope in Reach	<u>26.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>24.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

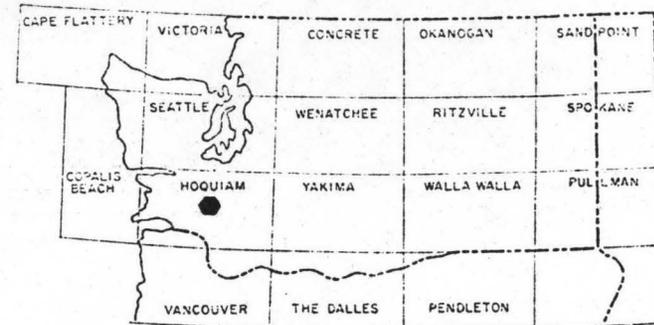
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.70	0.02	0.13	1.00
80	4.25	0.04	0.31	0.93
50	36.6	0.33	1.90	0.66
30	88.4	0.79	3.54	0.51
10	239	2.14	5.63	0.30

IV. TYPICAL ANNUAL HYDROGRAPH

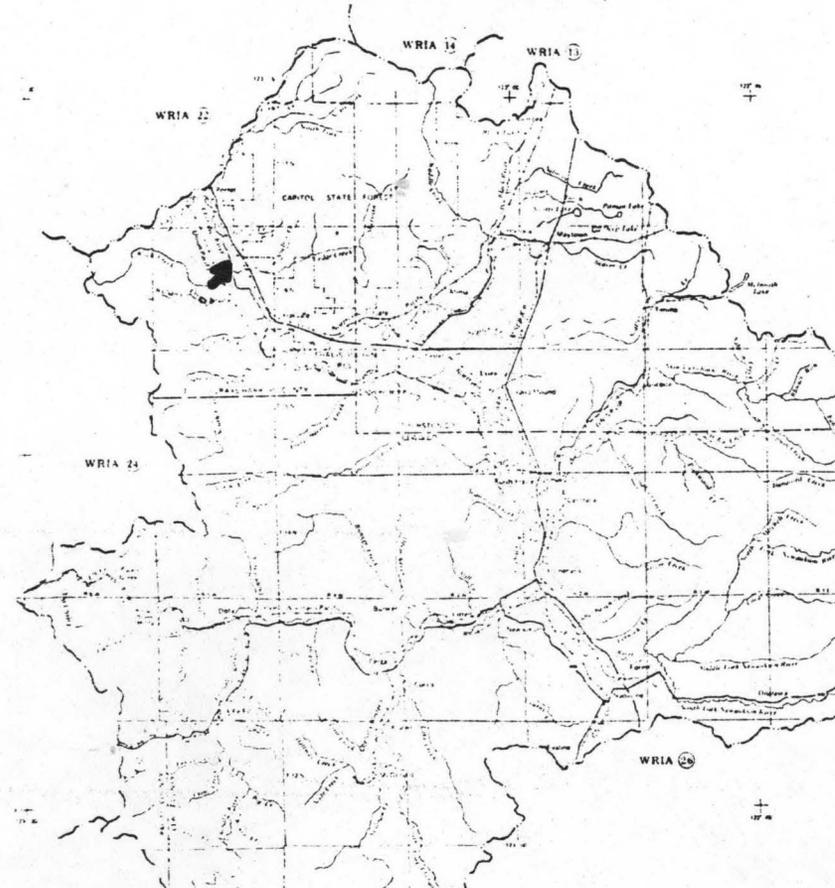
QMR = 85 cfs



W22-811



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0065

I. LOCATION

A. State	Washington
B. County	Grays Harbor
C. Township, Range	T15N R5W
D. Latitude, Longitude	46°58' 123°16'
E. Stream Name	Garrard Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/5.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

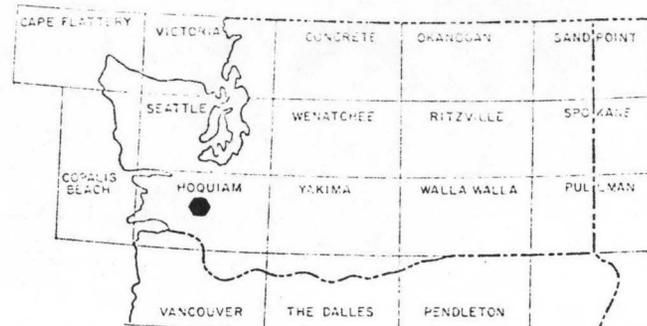
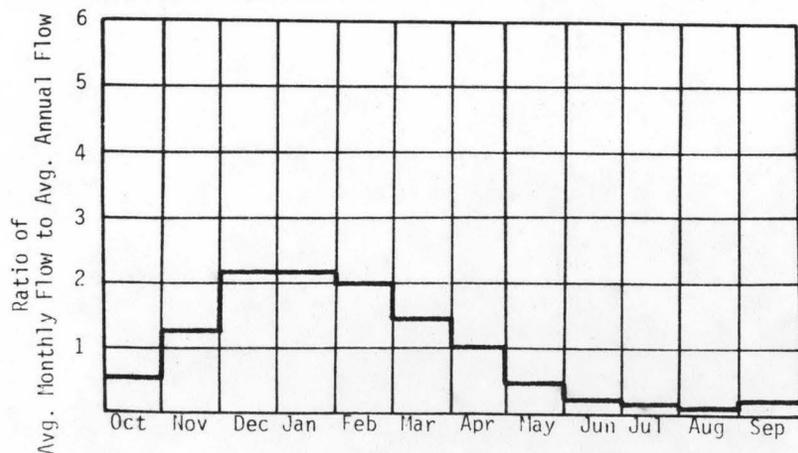
A. Upstream Elevation of Reach	110	Ft.	MSL
B. Downstream Elevation of Reach	70	Ft.	MSL
C. Total Available Head in Reach	40 + 66 = 106	Ft.	
D. Average Slope in Reach	7.4	Ft./Mi.	
E. Drainage Area above Reach Mouth	26.8	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

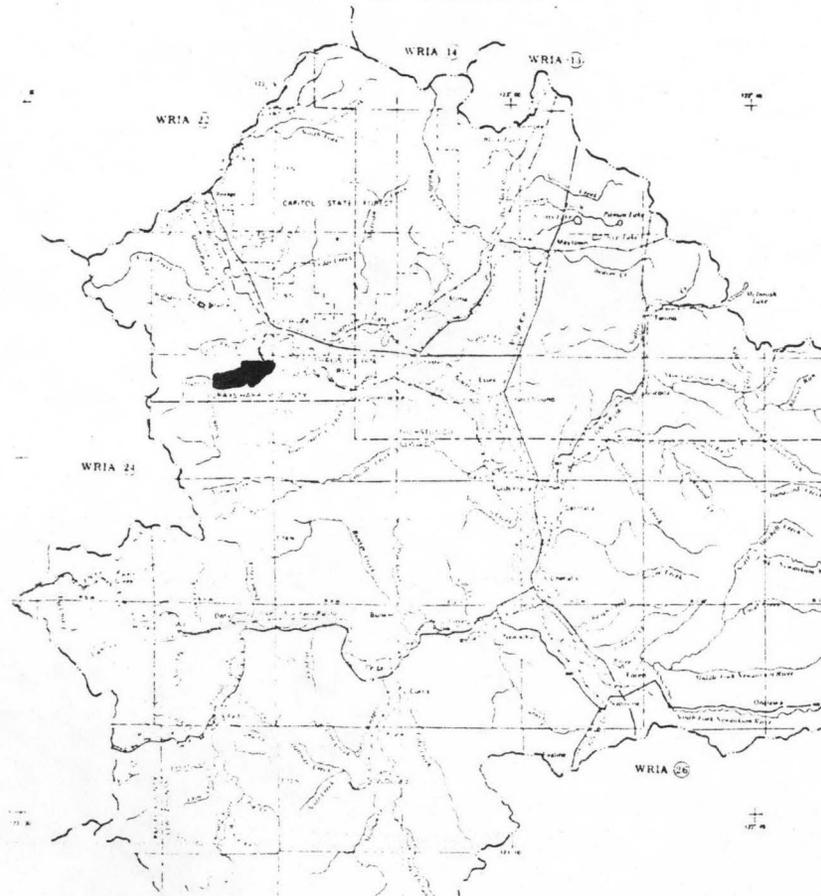
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.70	0.02	0.13	1.00
80	4.25	0.04	0.31	0.93
50	36.6	0.33	1.90	0.66
30	88.4	0.79	3.54	0.51
10	239	2.14	5.63	0.30

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 85 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0066

I. LOCATION

A. State	Washington
B. County	Thurston
C. Township, Range	T16N R4W
D. Latitude, Longitude	46°50' 123°09'
E. Stream Name	Black River
F. Major Basin Name	Chehalis
G. River Mile	0.0/12.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

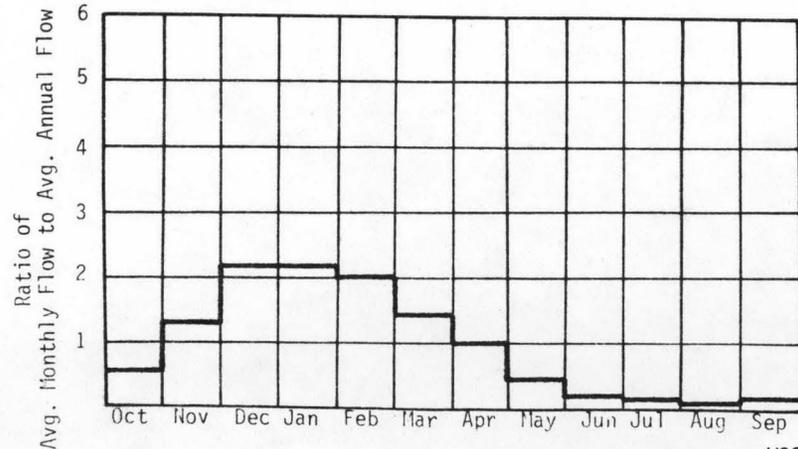
A. Upstream Elevation of Reach	90	Ft. MSL
B. Downstream Elevation of Reach	70	Ft. MSL
C. Total Available Head in Reach	20	Ft.
D. Average Slope in Reach	1.6	Ft./Mi.
E. Drainage Area above Reach Mouth	139	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

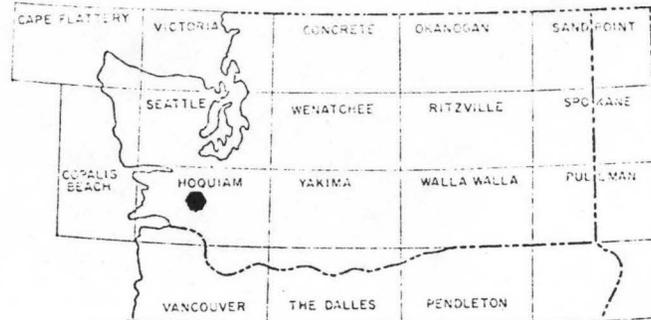
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	27.5	0.05	0.41	1.00
80	43.2	0.07	0.61	0.95
50	224	0.38	2.29	0.69
30	444	0.75	3.55	0.54
10	1040	1.76	5.25	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 393 cfs



W22-813



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0067

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T16N R3W</u>
D. Latitude, Longitude	<u>46°53' 123°02'</u>
E. Stream Name	<u>Black River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>12.2/18.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

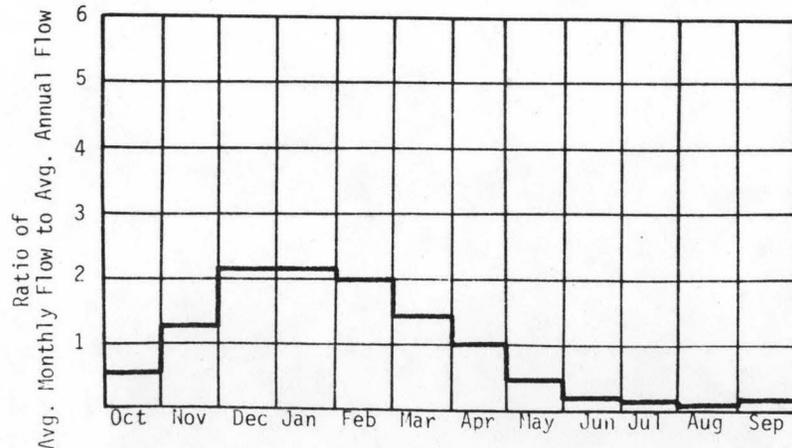
A. Upstream Elevation of Reach	<u>122</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>90</u>	Ft. MSL
C. Total Available Head in Reach	<u>32</u>	Ft.
D. Average Slope in Reach	<u>5.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>110</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

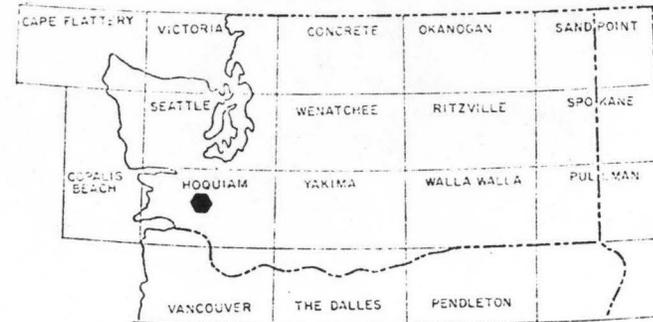
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	19.0	0.05	0.45	1.00
80	29.8	0.08	0.67	0.95
50	154	0.42	2.53	0.69
30	306	0.83	3.92	0.54
10	718	1.94	5.79	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

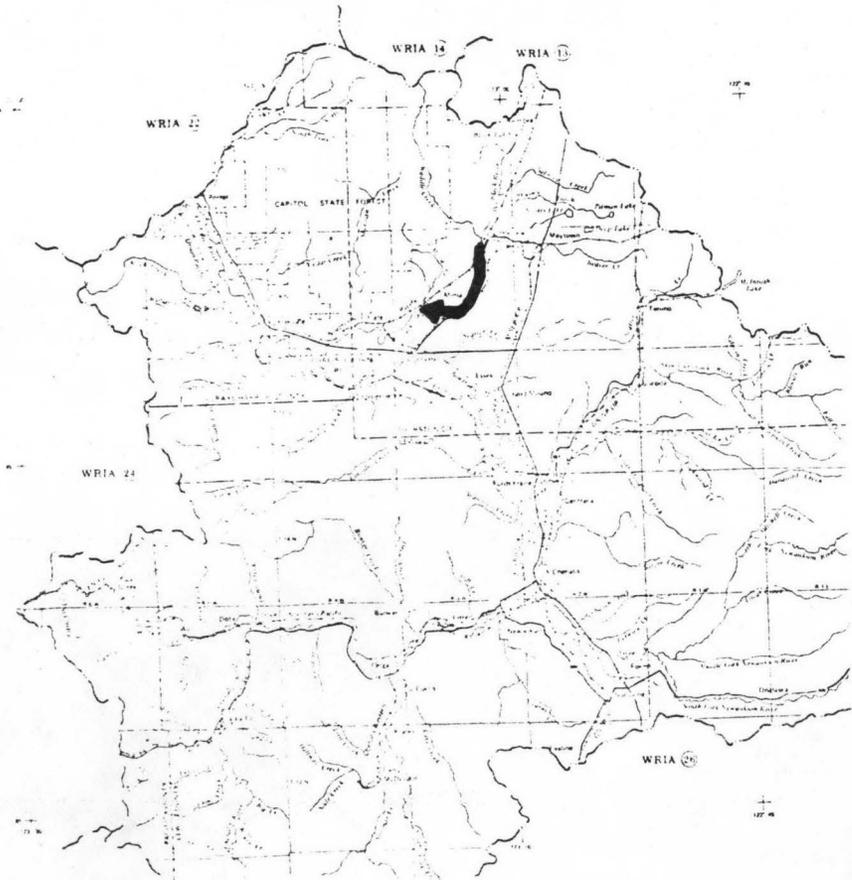
QMR = 271 cfs



W22-814



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0068

I. LOCATION

A. State	Washington
B. County	Thurston
C. Township, Range	T17N R3W
D. Latitude, Longitude	46°56' 123°00'
E. Stream Name	Black River
F. Major Basin Name	Chehalis
G. River Mile	18.0/24.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

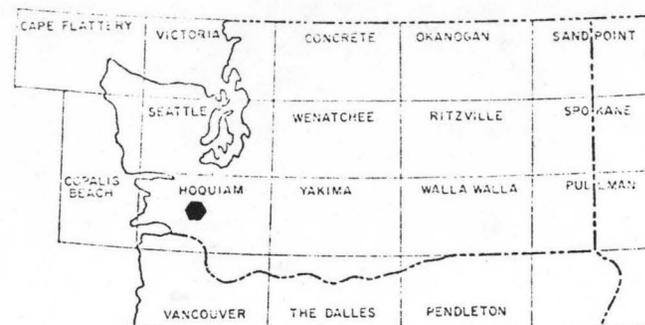
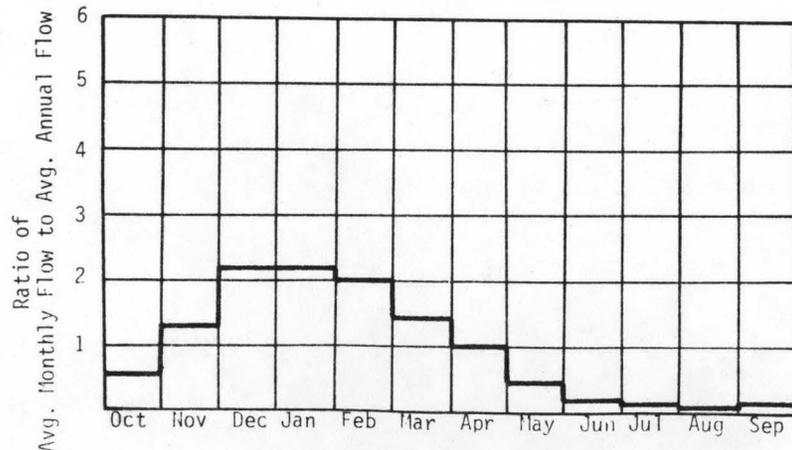
A. Upstream Elevation of Reach	131	Ft.	MSL
B. Downstream Elevation of Reach	120	Ft.	MSL
C. Total Available Head in Reach	11	Ft.	
D. Average Slope in Reach	1.7	Ft./Mi.	
E. Drainage Area above Reach Mouth	60	Sq.Mi.	
F. Inflow Classification	Regulated		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

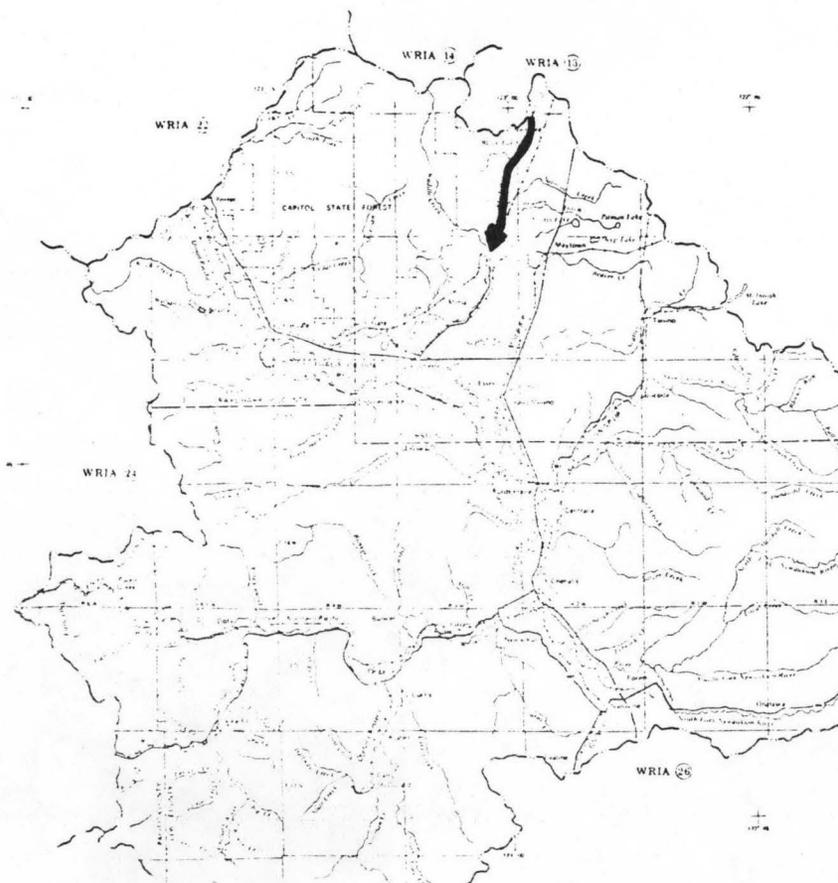
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.32	0.00	0.04	1.00
80	8.36	0.01	0.06	0.95
50	43.3	0.04	0.24	0.69
30	85.9	0.08	0.38	0.54
10	201	0.19	0.56	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 76 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0069

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T15N R4W</u>
D. Latitude, Longitude	<u>46°47' 123°10'</u>
E. Stream Name	<u>Independence Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/0.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

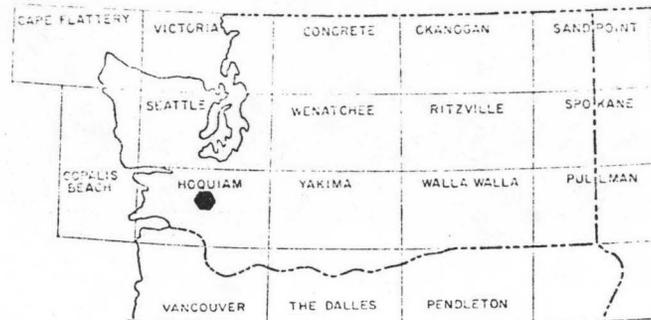
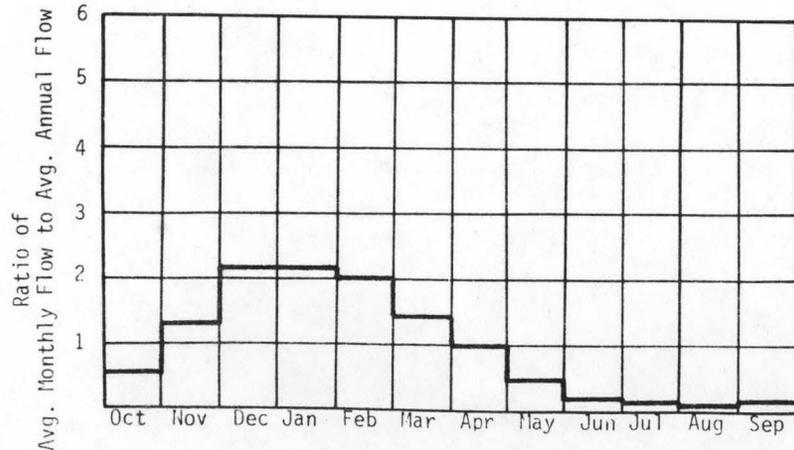
A. Upstream Elevation of Reach	<u>90</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>90</u>	Ft. MSL
C. Total Available Head in Reach	<u>0 + 66 = 66</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

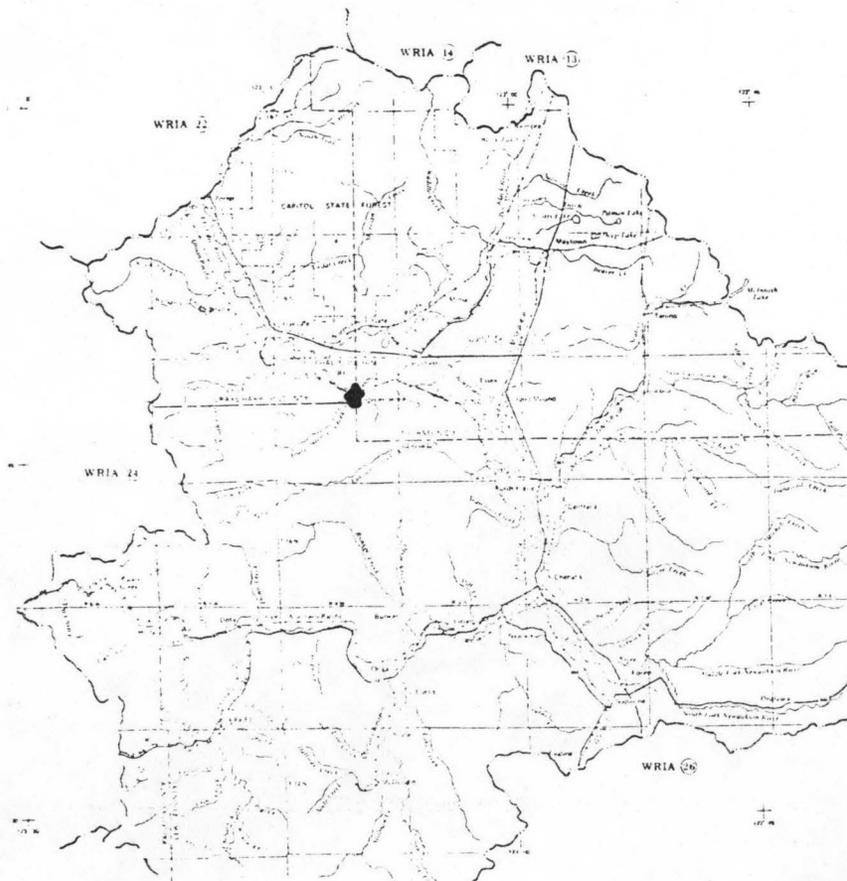
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.24	0.01	0.06	1.00
80	3.10	0.03	0.14	0.93
50	28.5	0.16	0.92	0.66
30	63.9	0.36	1.62	0.52
10	171	0.96	2.59	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 62 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0070

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Thurston</u>
C. Township, Range	<u>T16N R3W</u>
D. Latitude, Longitude	<u>46°50' 123°04'</u>
E. Stream Name	<u>Scatter Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/9.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

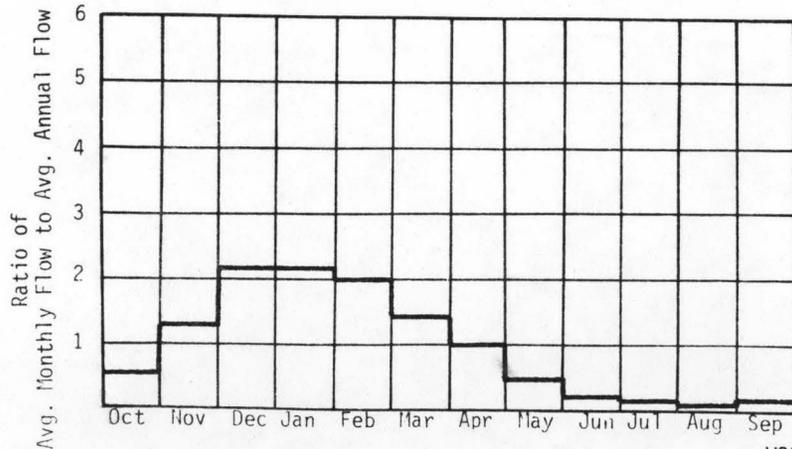
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>100</u>	Ft. MSL
C. Total Available Head in Reach	<u>100 + 66 = 166</u>	Ft.
D. Average Slope in Reach	<u>10.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

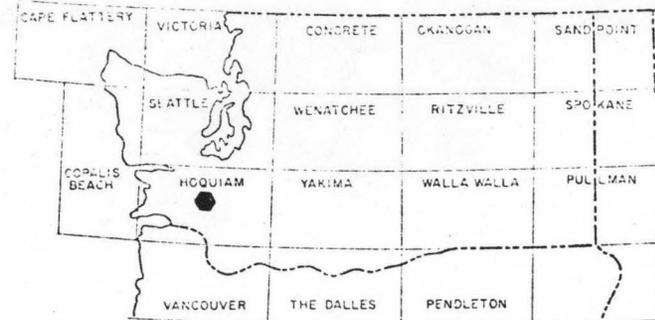
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.90	0.11	0.97	1.00
80	20.5	0.29	2.35	0.93
50	38.7	0.54	3.81	0.00
30	85.3	1.20	6.09	0.58
10	183	2.57	8.34	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

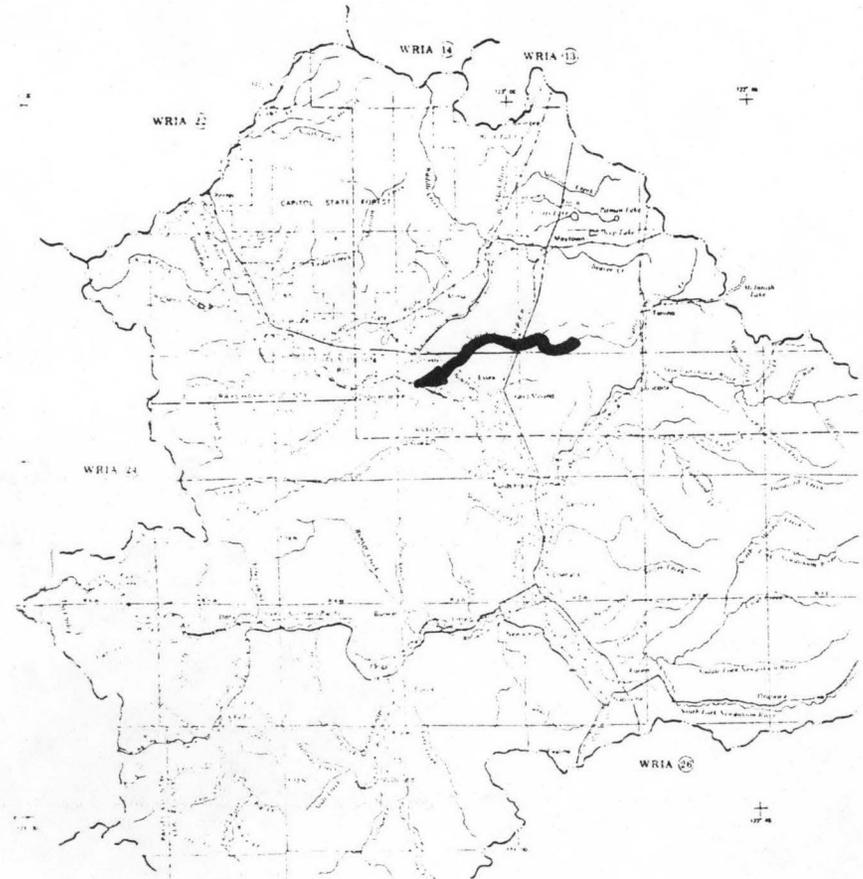
QMR = 79 cfs



W22-817



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0071

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R3W</u>
D. Latitude, Longitude	<u>46°46' 123°06'</u>
E. Stream Name	<u>Lincoln Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/11.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

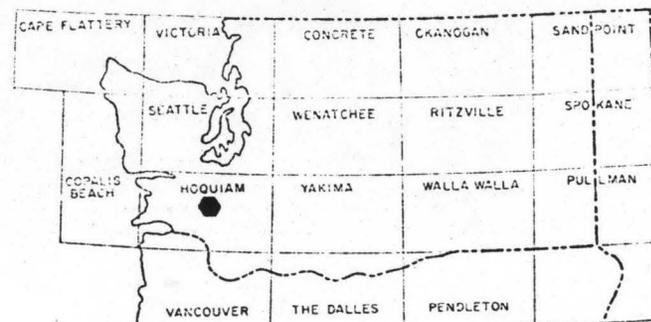
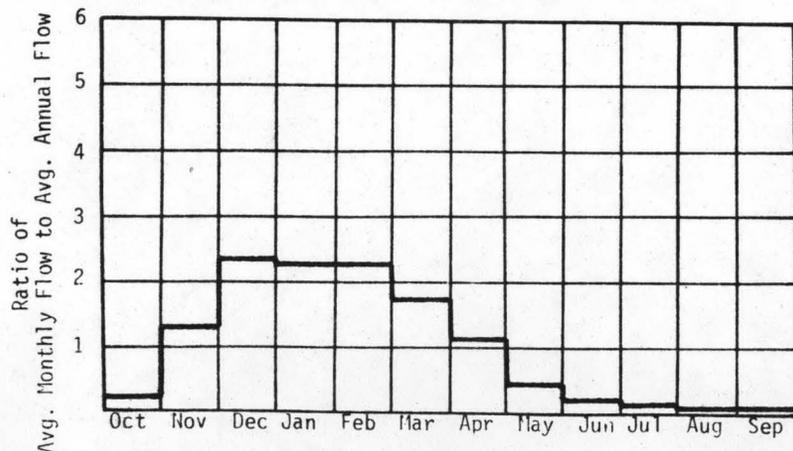
A. Upstream Elevation of Reach	<u>220</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>80 + 66 = 146</u>	Ft.
D. Average Slope in Reach	<u>7.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>43.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

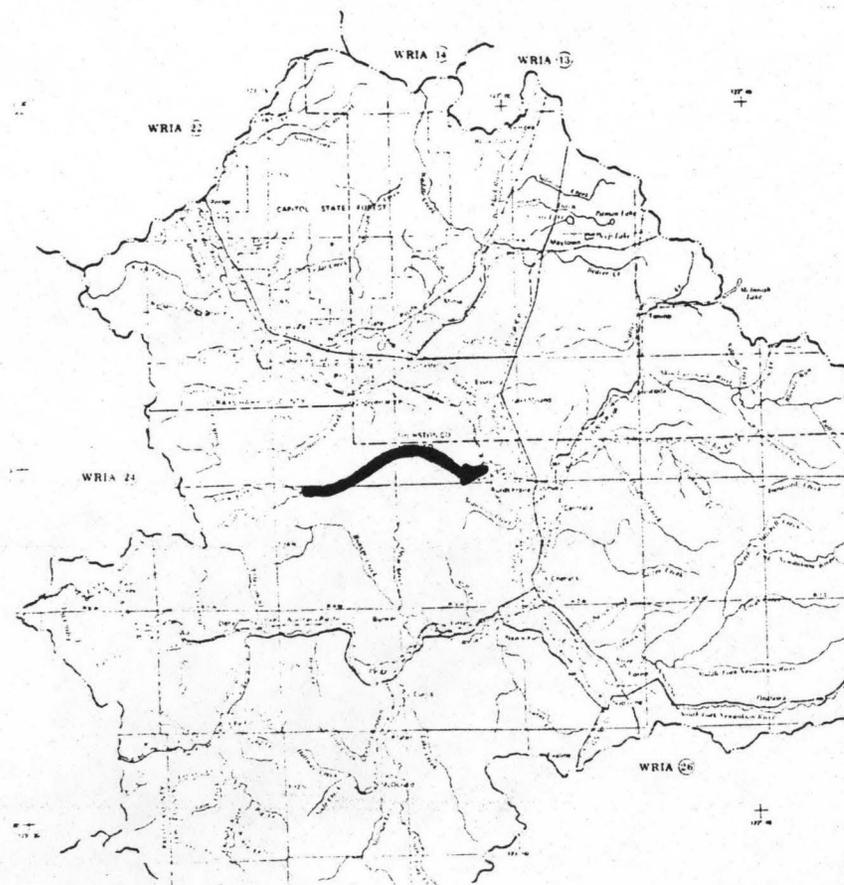
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.64	0.02	0.18	1.00
80	4.10	0.05	0.41	0.93
50	37.7	0.47	2.69	0.66
30	84.5	1.04	4.75	0.52
10	226	2.80	7.59	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 82 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0072

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R2W</u>
D. Latitude, Longitude	<u>46°44' 123°57'</u>
E. Stream Name	<u>Skookumchuck River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/3.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

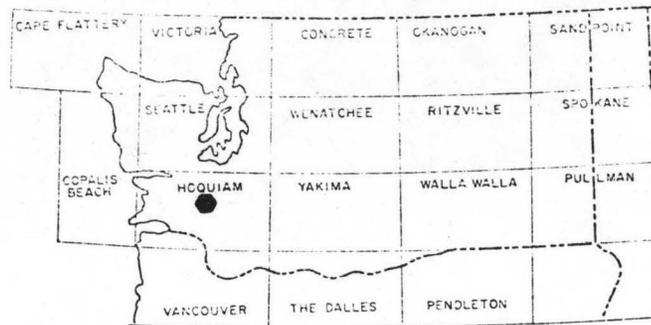
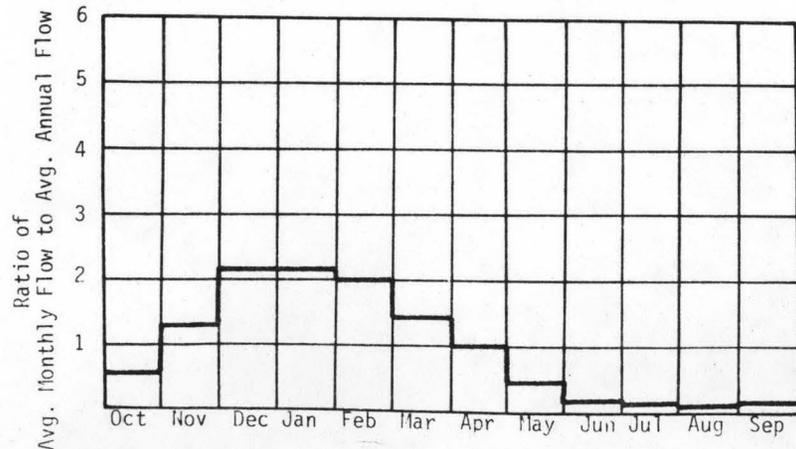
A. Upstream Elevation of Reach	<u>180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>30</u>	Ft.
D. Average Slope in Reach	<u>7.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u> </u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

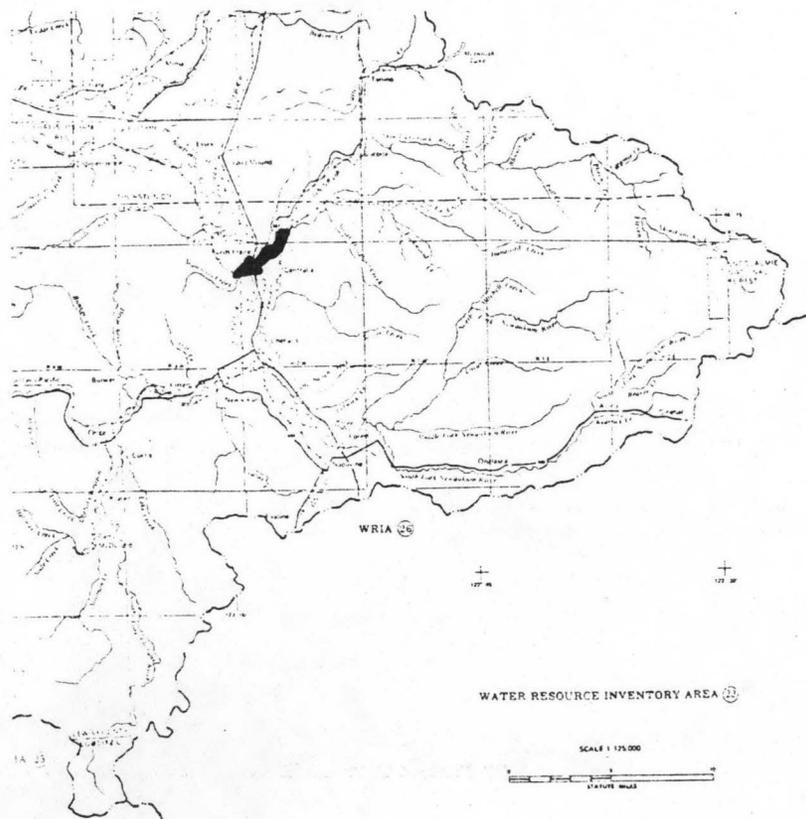
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	51.4	0.13	1.14	1.00
80	134	0.34	2.76	0.93
50	252	0.64	4.48	0.80
30	555	1.41	7.16	0.58
10	1190	3.03	9.81	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 514 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0073

I. LOCATION

A. State Washington
 B. County Thurston
 C. Township, Range T15N R2W
 D. Latitude, Longitude 46°48' 123°52'
 E. Stream Name Skookumchuck River
 F. Major Basin Name Chehalis
 G. River Mile 3.8/18.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

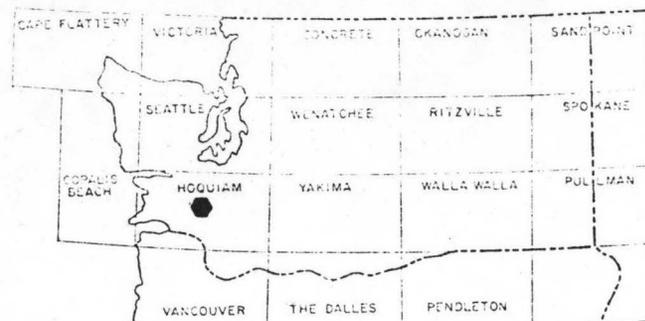
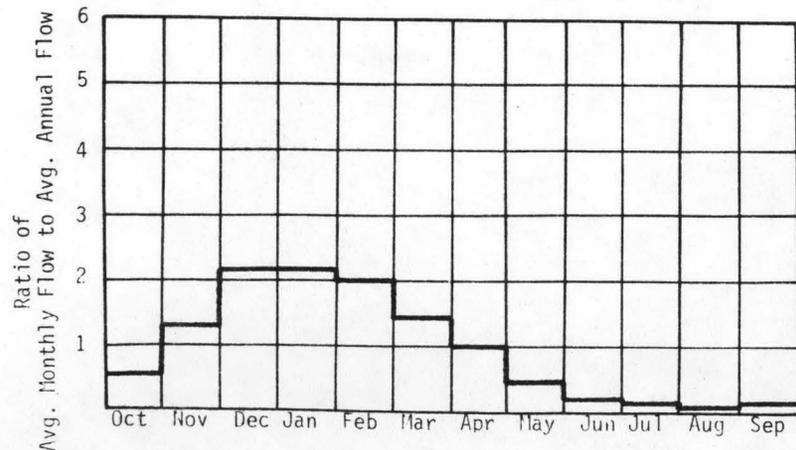
A. Upstream Elevation of Reach 290 Ft. MSL
 B. Downstream Elevation of Reach 180 Ft. MSL
 C. Total Available Head in Reach 110 Ft.
 D. Average Slope in Reach 7.5 Ft./Mi.
 E. Drainage Area above Reach Mouth 118 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

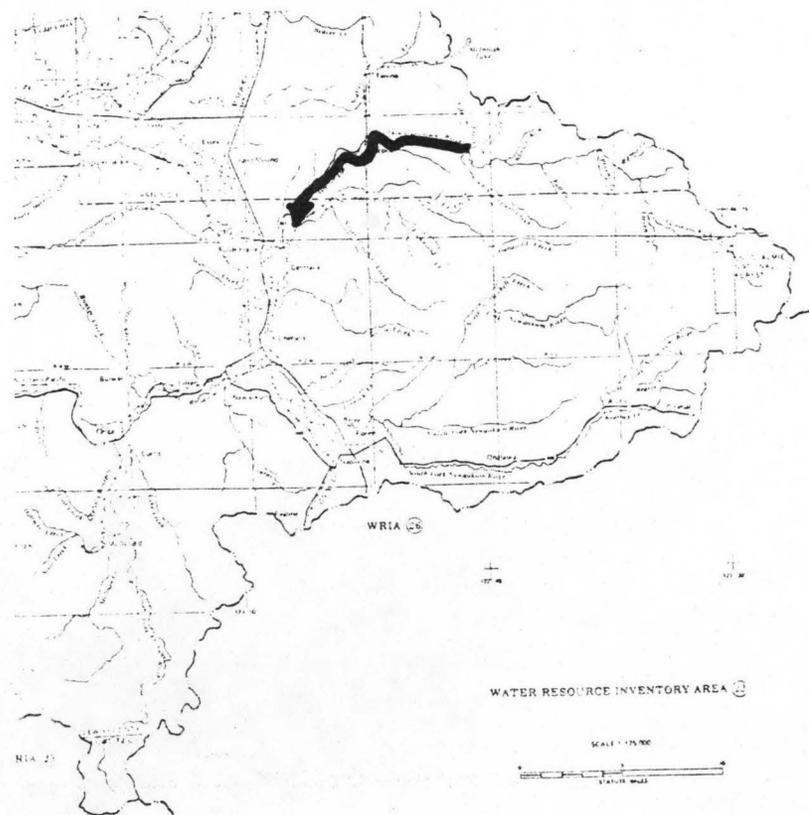
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	31.8	0.30	2.59	1.00
80	82.7	0.77	6.27	0.93
50	156	1.45	10.2	0.80
30	343	3.20	16.2	0.58
10	738	6.87	22.3	0.37

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 318 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0074

I. LOCATION

A. State	Washington
B. County	Thurston
C. Township, Range	T15N R7E
D. Latitude, Longitude	46°47' 123°40'
E. Stream Name	Skookumchuck River
F. Major Basin Name	Chehalis
G. River Mile	18.5/32.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

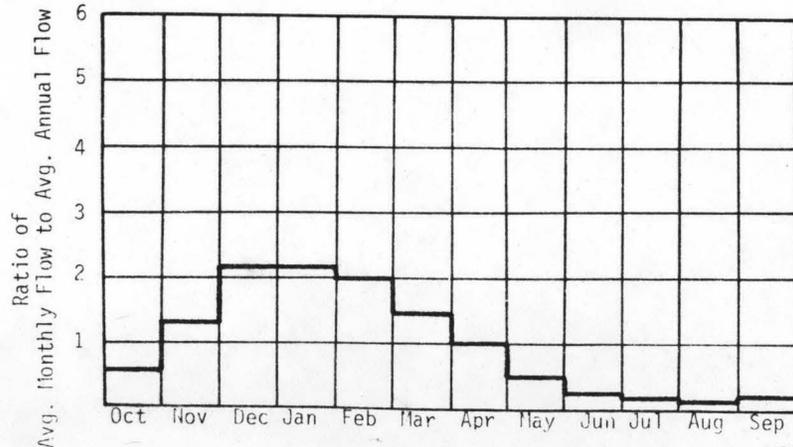
A. Upstream Elevation of Reach	800	Ft. MSL
B. Downstream Elevation of Reach	290	Ft. MSL
C. Total Available Head in Reach	510	Ft.
D. Average Slope in Reach	35.9	Ft./Mi.
E. Drainage Area above Reach Mouth	68.2	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

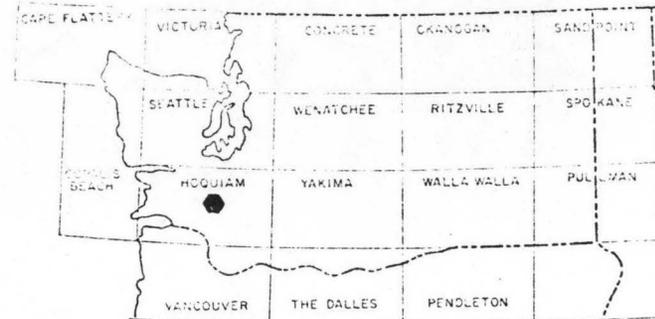
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.6	0.63	5.50	1.00
80	27.0	1.17	9.61	0.94
50	108	4.67	29.0	0.71
30	223	9.60	46.3	0.55
10	524	22.6	67.4	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

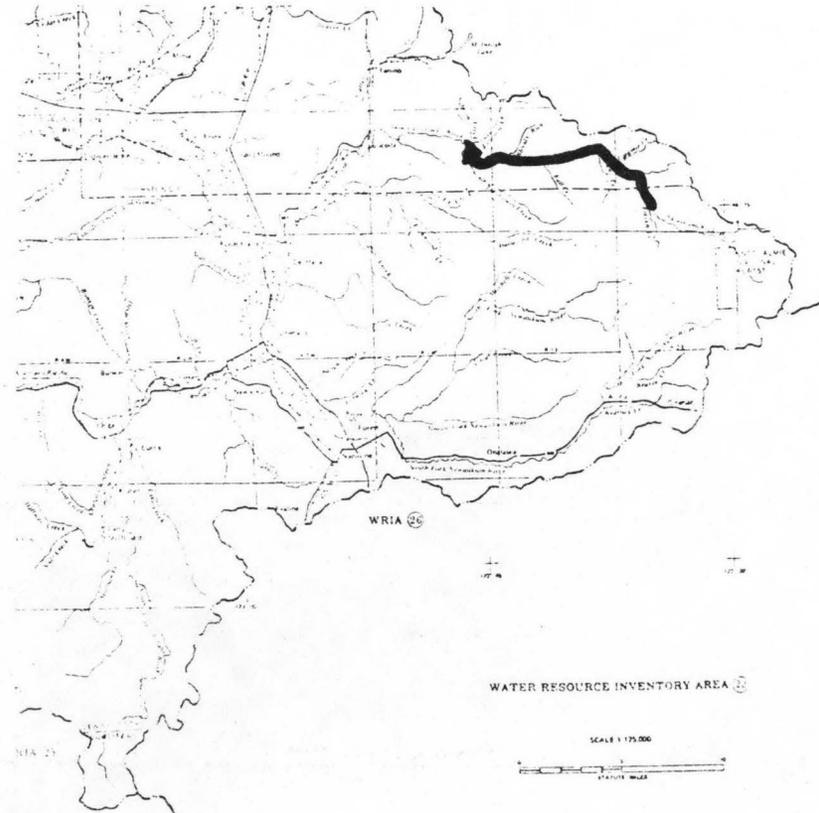
QMR = 208 cfs



W22-821



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0075

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T14N R2E
D. Latitude, Longitude	46°44' 122°31'
E. Stream Name	Skookumchuck River
F. Major Basin Name	Chehalis
G. River Mile	32.7/38.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

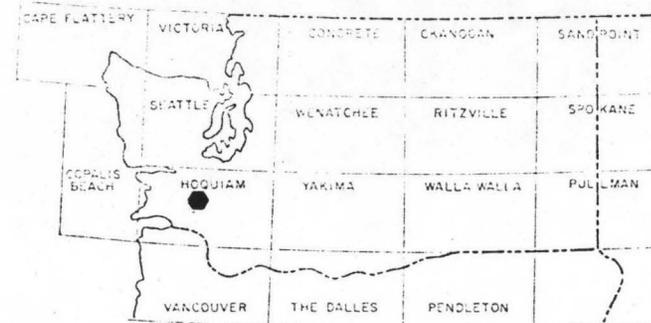
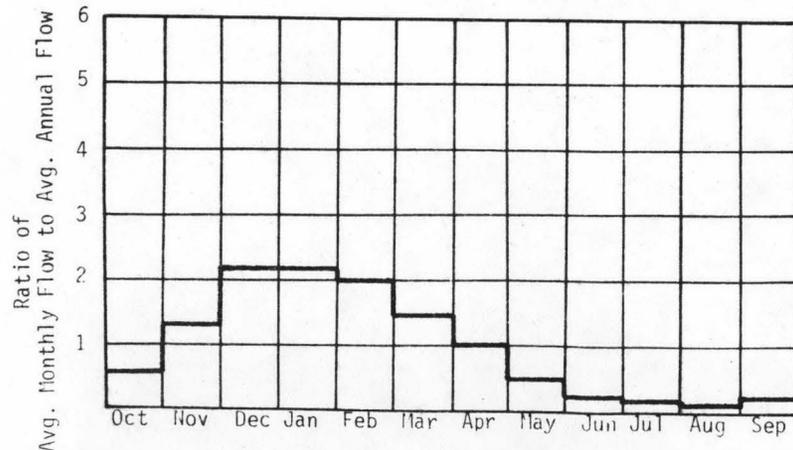
A. Upstream Elevation of Reach	1360	Ft. MSL
B. Downstream Elevation of Reach	800	Ft. MSL
C. Total Available Head in Reach	560 + 66 = 626	Ft.
D. Average Slope in Reach	94.9	Ft./Mi.
E. Drainage Area above Reach Mouth	24.9	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

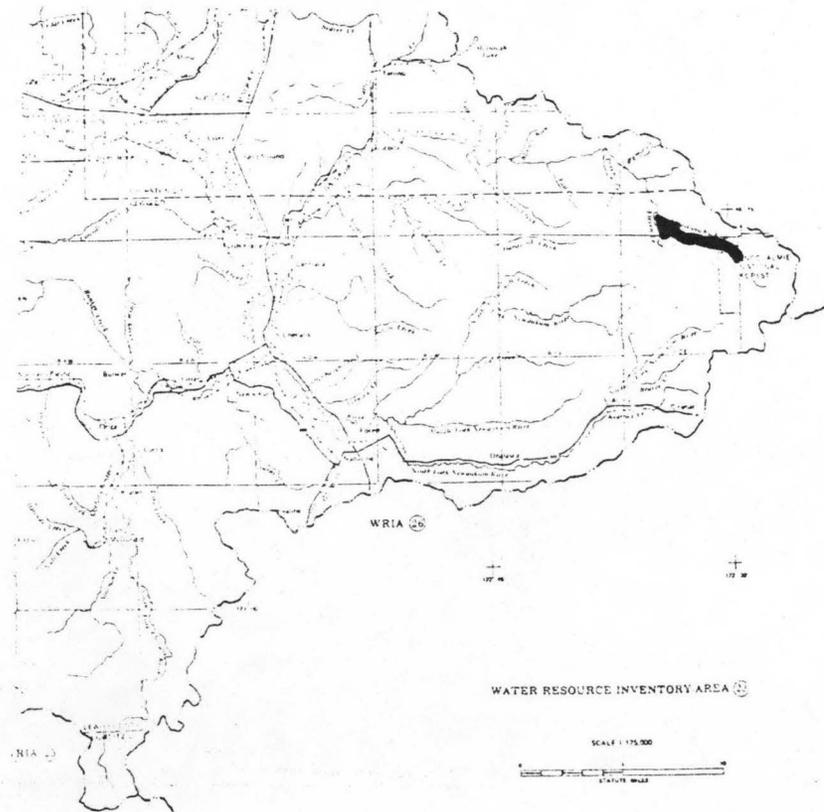
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.37	0.34	2.96	1.00
80	11.8	0.63	5.16	0.94
50	47.3	2.51	15.6	0.71
30	97.4	5.16	24.8	0.55
10	229	12.1	36.2	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 91 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0076

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T15N R7W</u>
D. Latitude, Longitude	<u>46°46' 122°50'</u>
E. Stream Name	<u>Hanaford Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/4.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

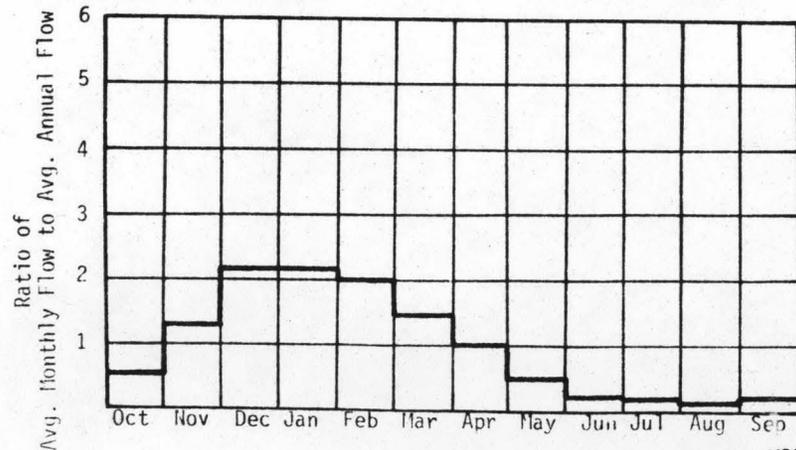
A. Upstream Elevation of Reach	<u>205</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>180</u>	Ft. MSL
C. Total Available Head in Reach	<u>25 + 66 = 91</u>	Ft.
D. Average Slope in Reach	<u>5.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>58.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

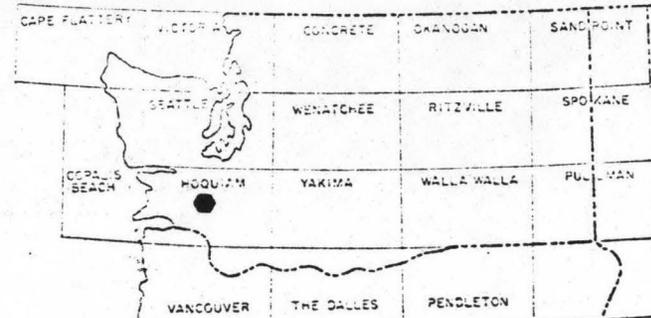
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.49	0.06	0.51	1.00
80	13.9	0.11	0.88	0.94
50	55.6	0.43	2.66	0.71
30	115	0.88	4.25	0.55
10	270	2.08	6.18	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

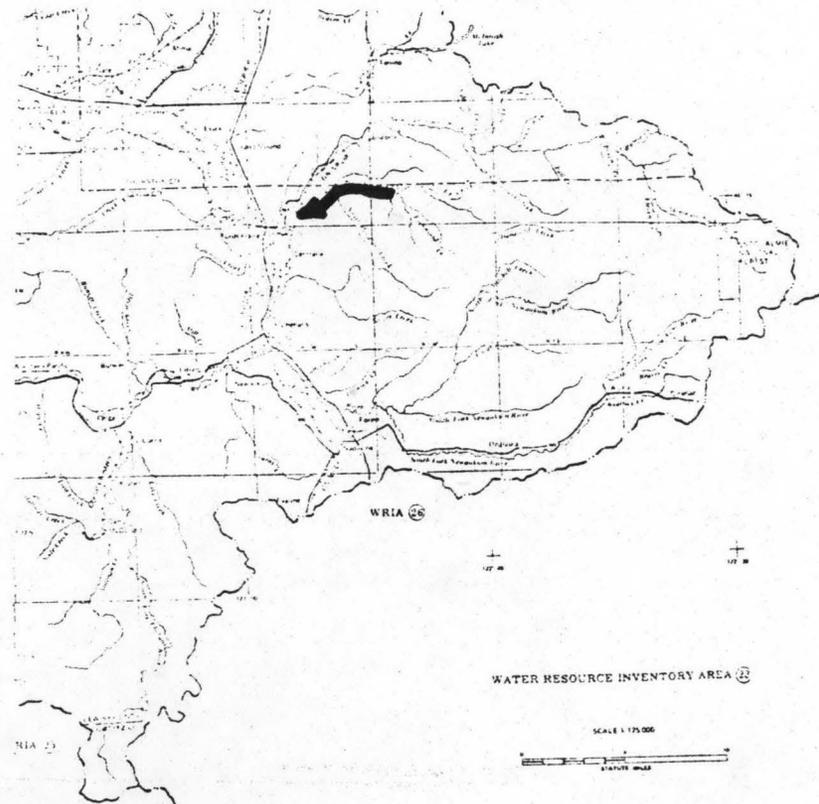
QMR = 107 cfs



W22-823



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0077

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R2W</u>
D. Latitude, Longitude	<u>46°36' 122°56'</u>
E. Stream Name	<u>Newaukum River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/10.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

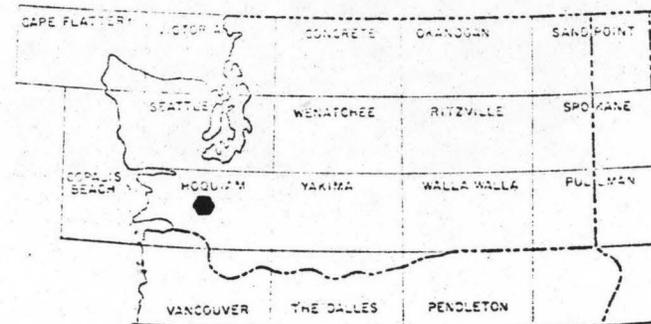
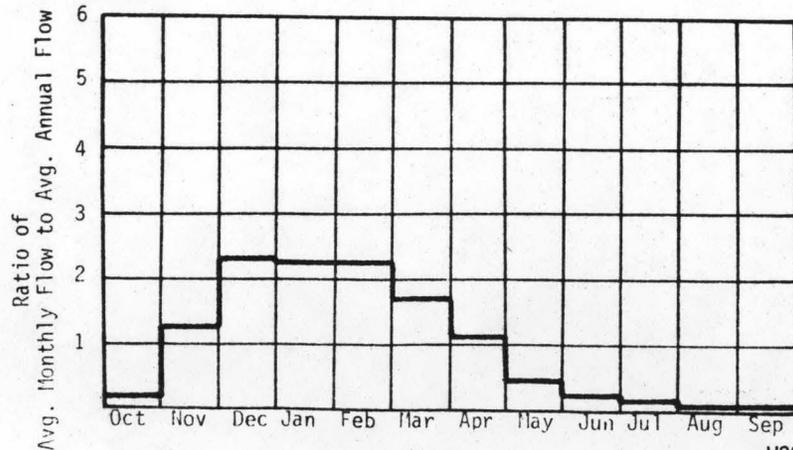
A. Upstream Elevation of Reach	<u>260</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>110</u>	Ft.
D. Average Slope in Reach	<u>10.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>157</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

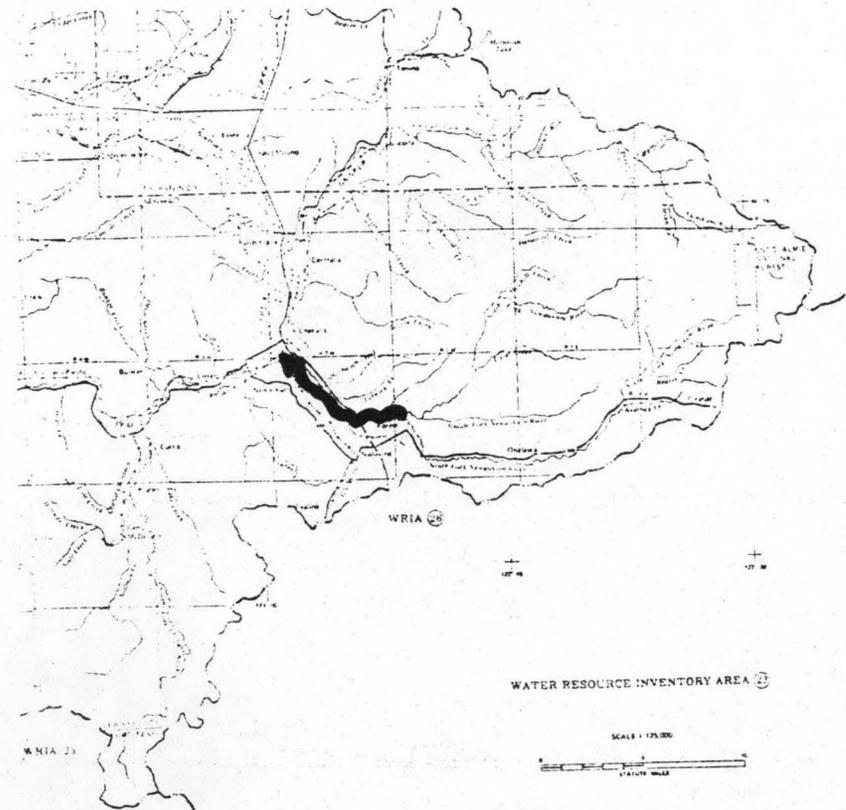
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	26.1	0.24	2.13	1.00
80	48.5	0.45	3.72	0.94
50	194	1.80	11.2	0.71
30	399	3.71	17.9	0.55
10	940	8.75	26.1	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 373 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0078

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R2W</u>
D. Latitude, Longitude	<u>46°34' 122°45'</u>
E. Stream Name	<u>S.F. Newaukum River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>10.9/27.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

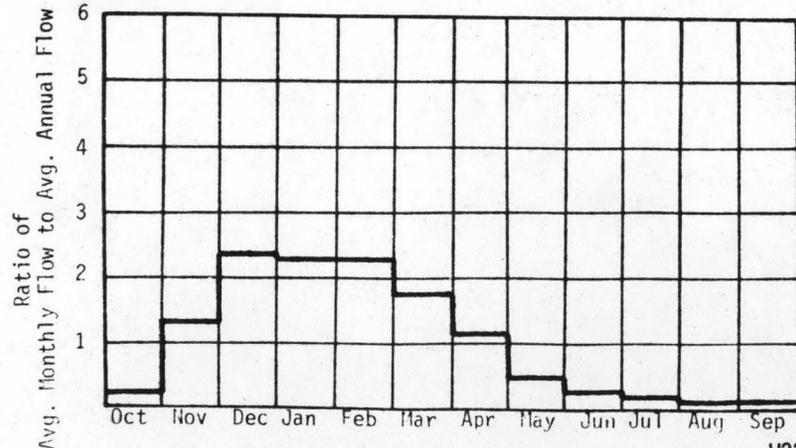
A. Upstream Elevation of Reach	<u>640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>260</u>	Ft. MSL
C. Total Available Head in Reach	<u>380</u>	Ft.
D. Average Slope in Reach	<u>22.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>65.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

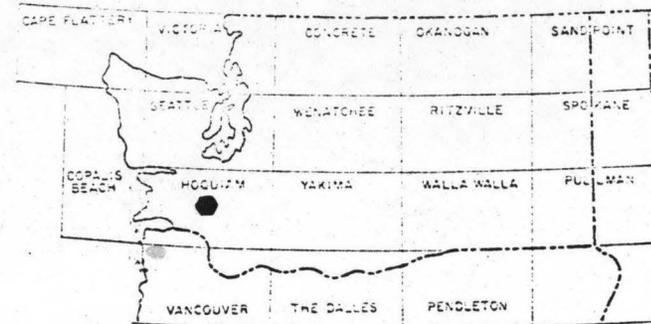
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	29.5	0.94	8.32	1.00
80	48.5	1.56	13.0	0.95
50	148	4.75	30.8	0.74
30	241	7.73	41.3	0.61
10	464	14.9	44.5	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

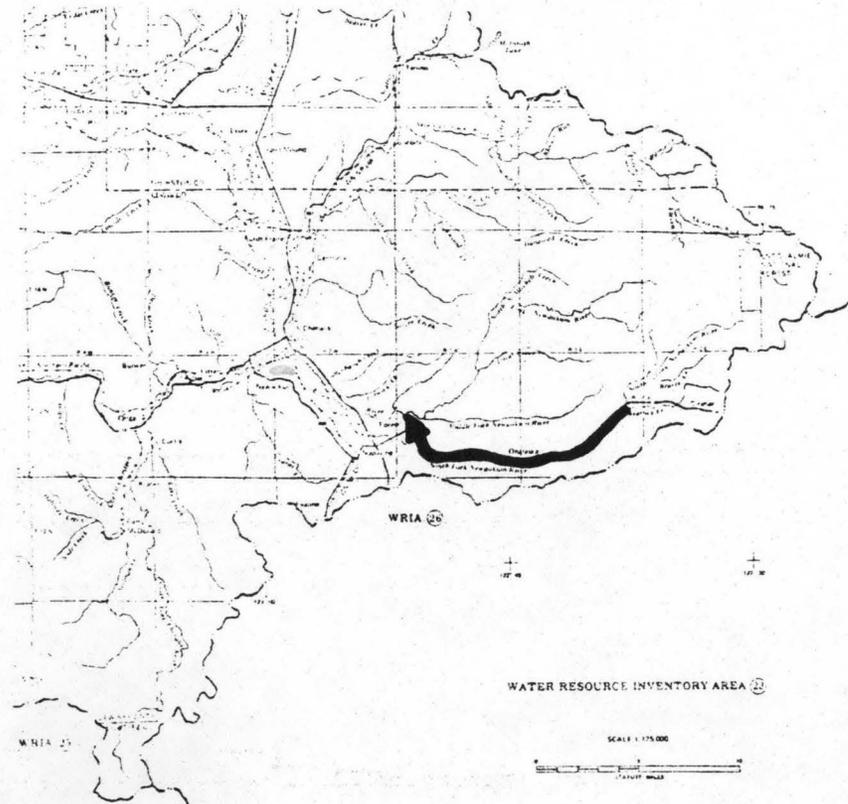
QMR = 211 cfs



W22-825



LOCATIONS FOR USGS 1:250,000 MAP SERIES



WATER RESOURCE INVENTORY AREA 25

SCALE 1:175,000

REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0079

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R2E</u>
D. Latitude, Longitude	<u>46°38' 122°36'</u>
E. Stream Name	<u>S.F. Newaukum River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>27.7/35.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

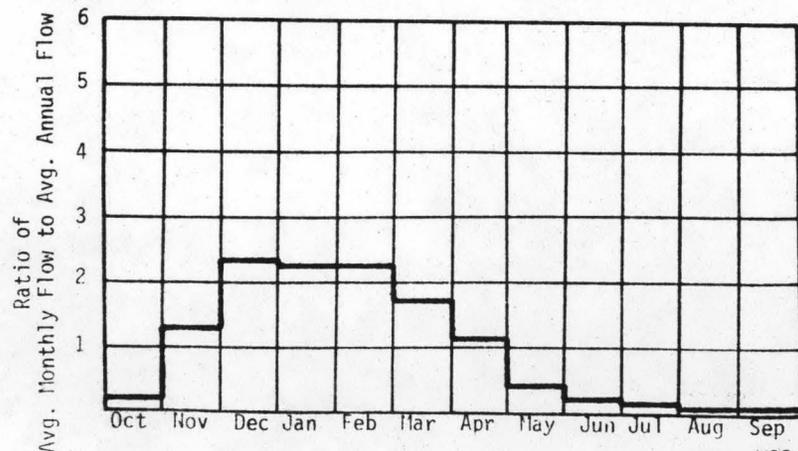
A. Upstream Elevation of Reach	<u>1200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>640</u>	Ft. MSL
C. Total Available Head in Reach	<u>560 + 66 = 626</u>	Ft.
D. Average Slope in Reach	<u>76.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>26.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

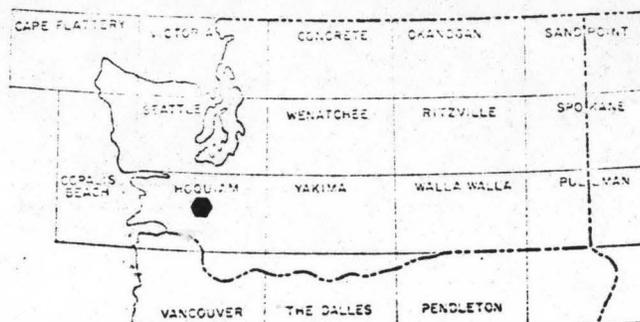
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	13.0	0.69	6.04	1.00
80	21.4	1.13	9.43	0.95
50	65.1	3.45	22.4	0.74
30	106	5.61	30.0	0.61
10	205	10.8	32.3	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

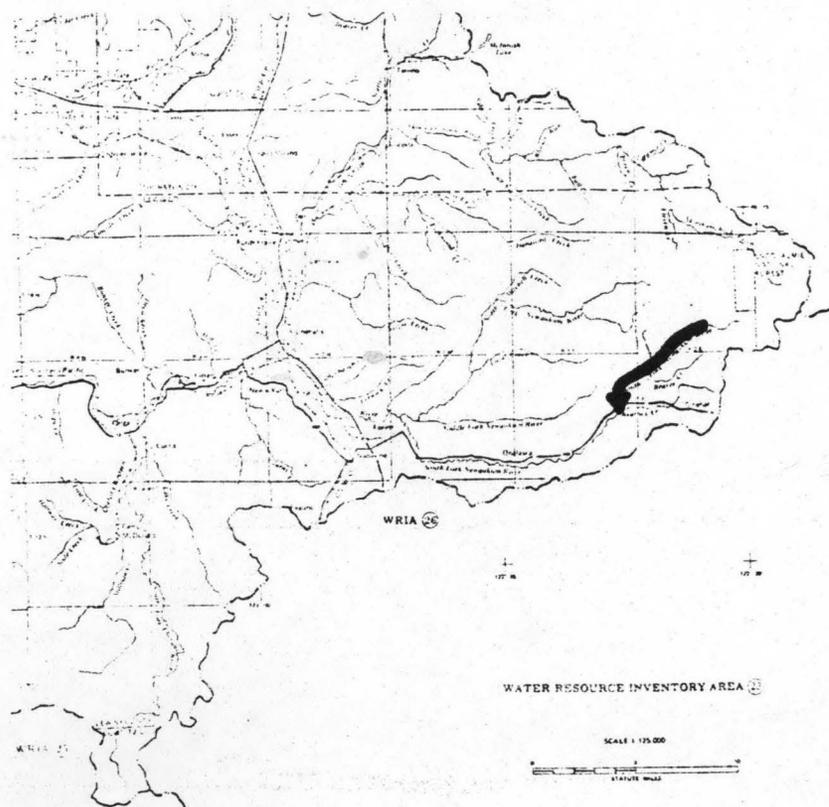
QMR = 93 cfs



W22-826



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0080

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R7W</u>
D. Latitude, Longitude	<u>46°36' 122°51'</u>
E. Stream Name	<u>N.F. Newaukum River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/1.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

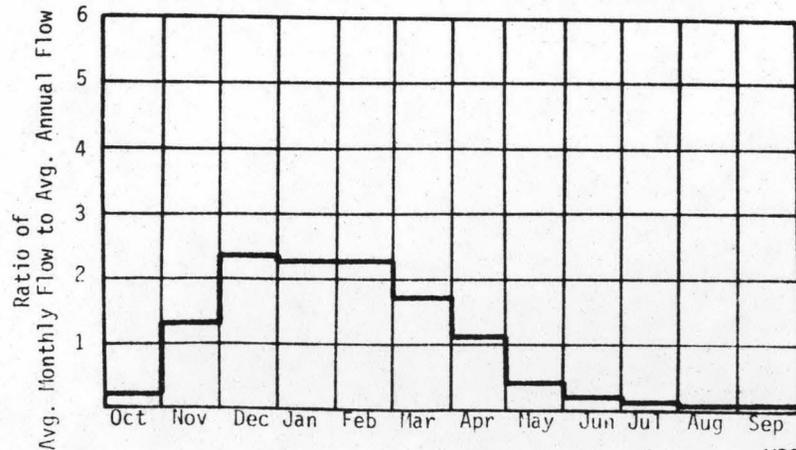
A. Upstream Elevation of Reach	<u>260</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>260</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>71.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

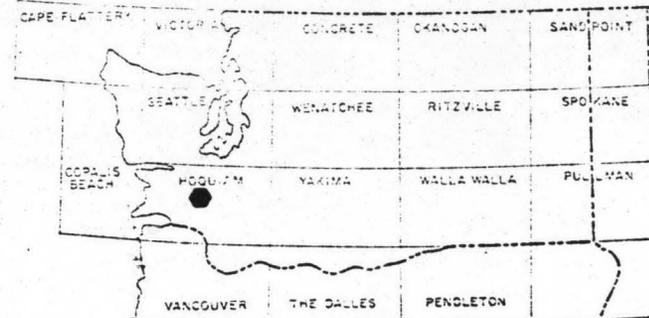
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.2	0.00	0.00	1.00
80	30.5	0.00	0.00	0.94
50	114	0.00	0.00	0.70
30	217	0.00	0.00	0.56
10	503	0.00	0.00	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 203 cfs



W22-827



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0081

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R1W</u>
D. Latitude, Longitude	<u>46°37' 123°38'</u>
E. Stream Name	<u>N.F. Newaukum River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>1.3/5.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

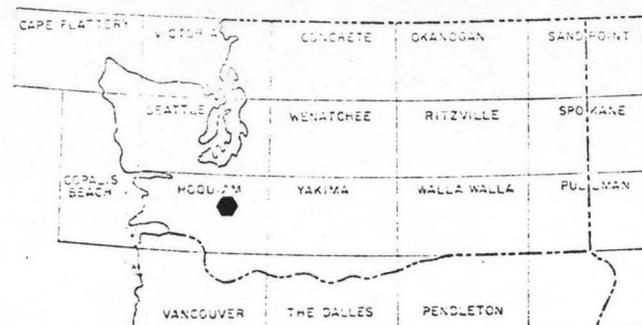
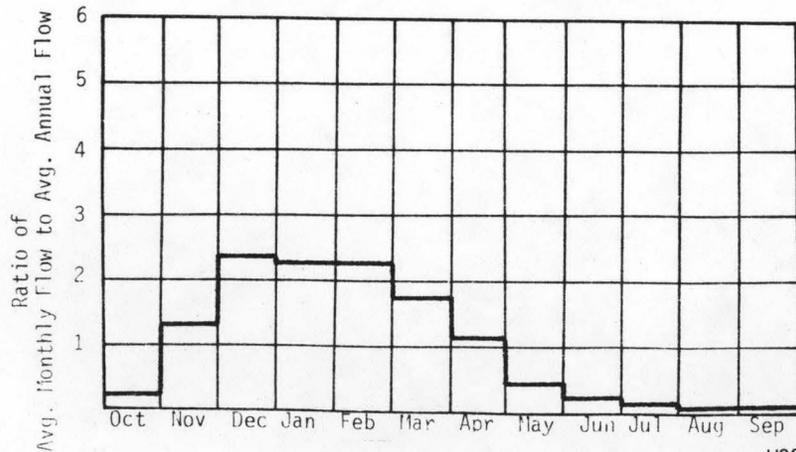
A. Upstream Elevation of Reach	<u>330</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>260</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>16.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>52.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

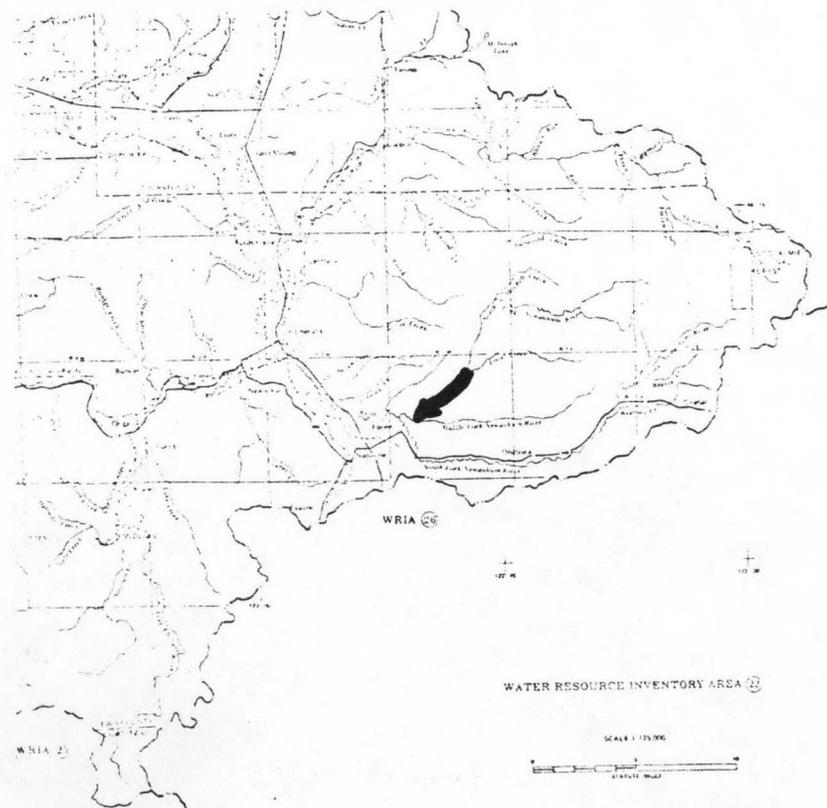
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.45	0.04	0.39	1.00
80	22.4	0.13	1.07	0.92
50	83.4	0.49	3.03	0.70
30	159	0.94	4.63	0.56
10	370	2.19	6.71	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 149 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0082

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T14N R1W
D. Latitude, Longitude	46°40' 123°46'
E. Stream Name	N.F. Newaukum River
F. Major Basin Name	Chehalis
G. River Mile	5.5/9.7

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

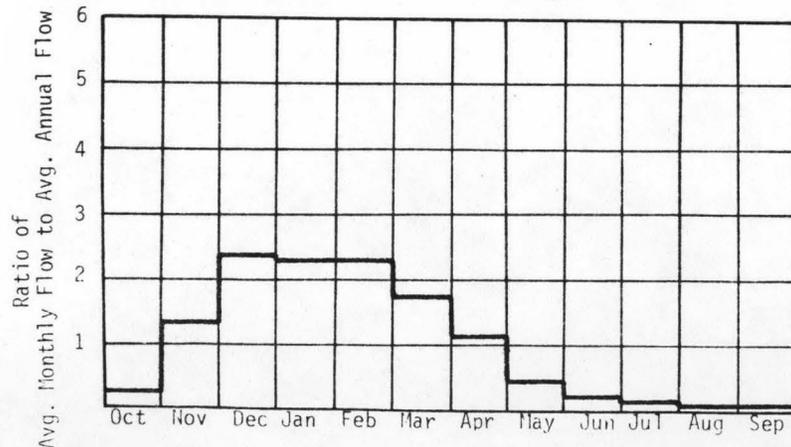
A. Upstream Elevation of Reach	440	Ft. MSL
B. Downstream Elevation of Reach	330	Ft. MSL
C. Total Available Head in Reach	110 + 66 = 176	Ft.
D. Average Slope in Reach	26.2	Ft./Mi.
E. Drainage Area above Reach Mouth	33.0	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

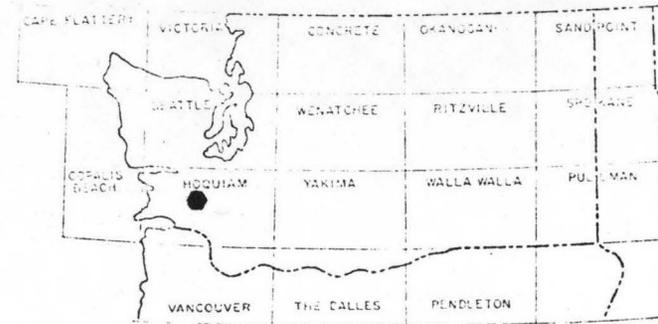
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.90	0.07	0.64	1.00
80	14.7	0.22	1.76	0.92
50	54.9	0.82	5.01	0.70
30	105	1.56	7.66	0.56
10	243	3.62	11.1	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

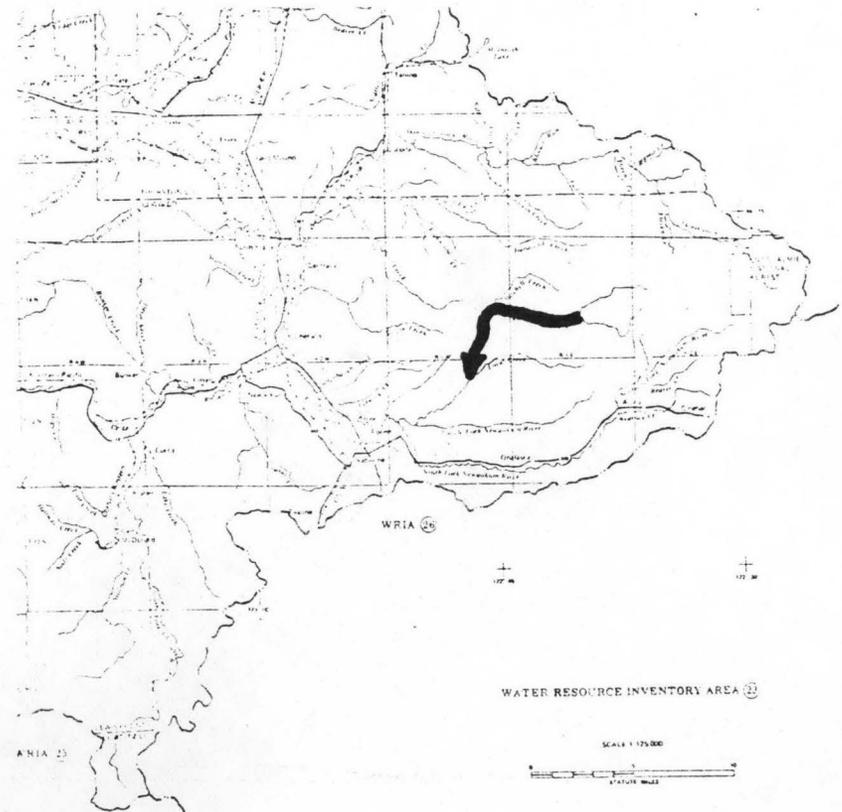
QMR = 98 cfs



W22-829



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0083

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R3W</u>
D. Latitude, Longitude	<u>46°39' 123°07'</u>
E. Stream Name	<u>Bunker Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/0.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

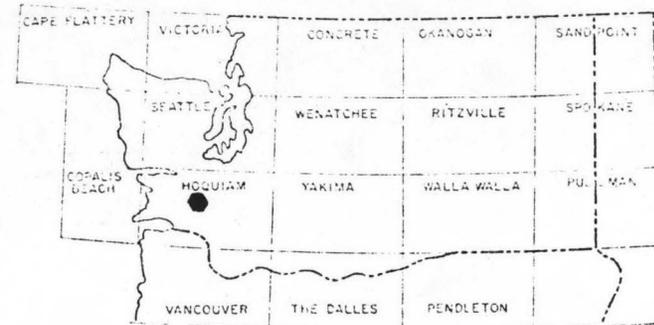
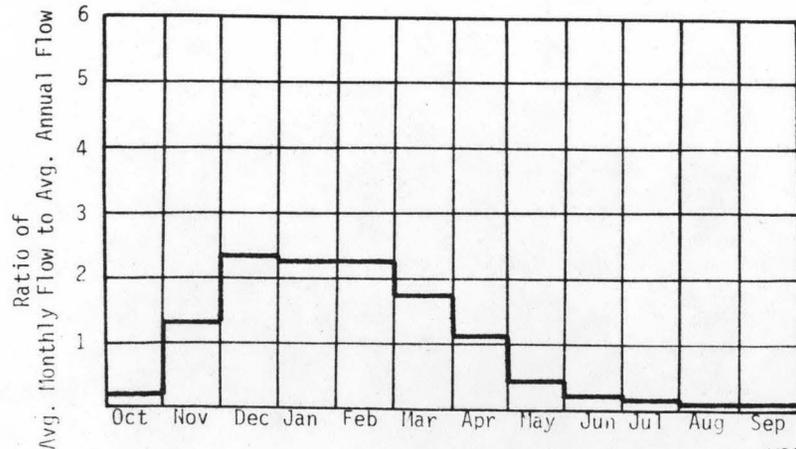
A. Upstream Elevation of Reach	<u>180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>160</u>	Ft. MSL
C. Total Available Head in Reach	<u>20 + 66 = 86</u>	Ft.
D. Average Slope in Reach	<u>22.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.44	0.01	0.09	1.00
80	3.60	0.03	0.21	0.93
50	33.1	0.24	1.39	0.66
30	74.2	0.54	2.46	0.52
10	199	1.45	3.93	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 72 cfs



LOCATIONS FOR URS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0084

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T13N R4W
D. Latitude, Longitude	46°36' 123°07'
E. Stream Name	S.F. Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	0.0/1.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

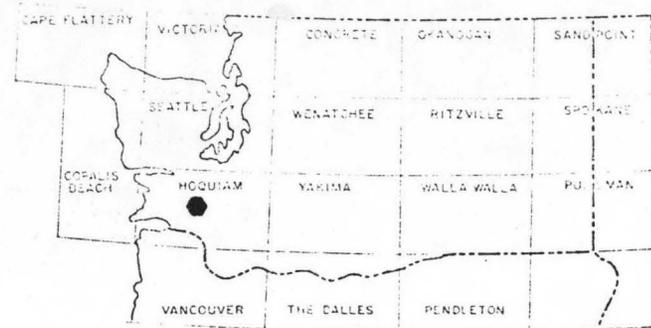
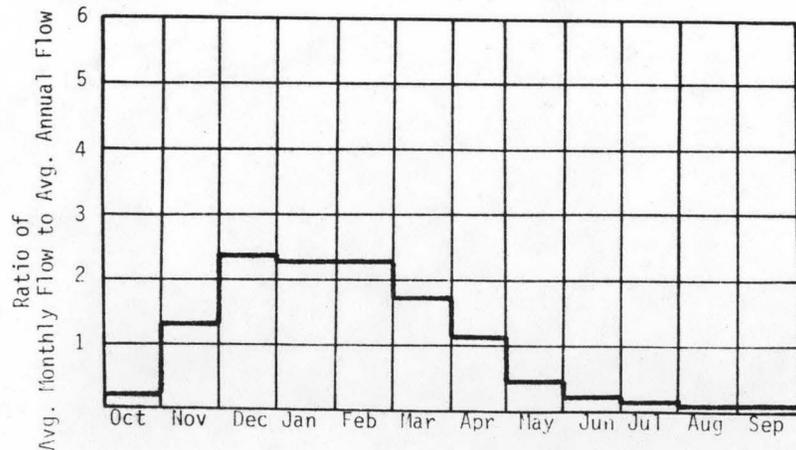
A. Upstream Elevation of Reach	200	Ft.	MSL
B. Downstream Elevation of Reach	200	Ft.	MSL
C. Total Available Head in Reach	0	Ft.	
D. Average Slope in Reach	0	Ft./Mi.	
E. Drainage Area above Reach Mouth	124	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.30	0.00	0.00	1.00
80	32.4	0.00	0.00	0.93
50	190	0.00	0.00	0.68
30	444	0.00	0.00	0.52
10	1190	0.00	0.00	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 463 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0085

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T13N R4W
D. Latitude, Longitude	46°34' 123°07'
E. Stream Name	S.F. Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	1.5/5.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

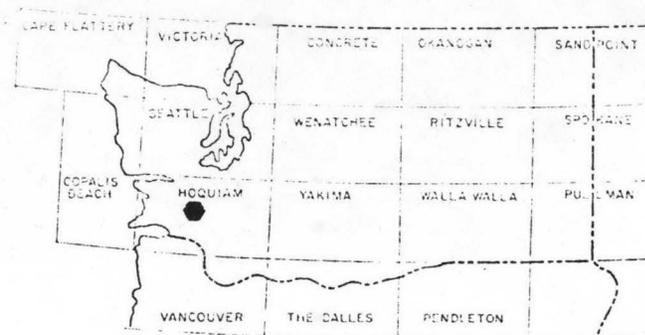
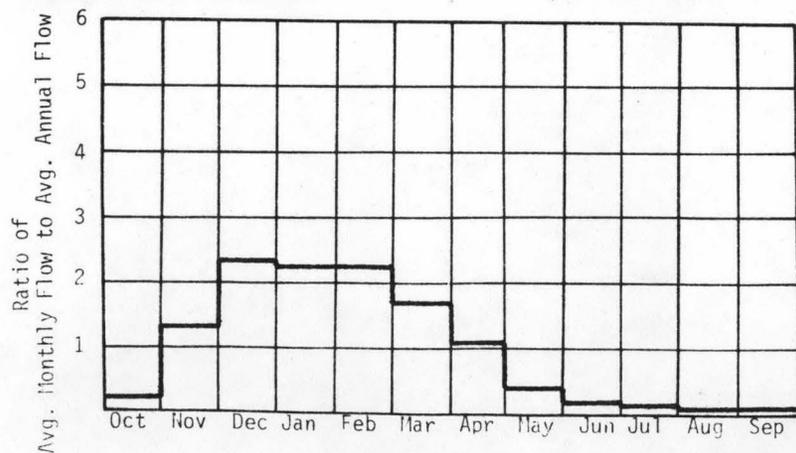
A. Upstream Elevation of Reach	235	Ft.	MSL
B. Downstream Elevation of Reach	200	Ft.	MSL
C. Total Available Head in Reach	35	Ft.	
D. Average Slope in Reach	9.2	Ft./Mi.	
E. Drainage Area above Reach Mouth	100	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.78	0.02	0.20	1.00
80	27.2	0.08	0.66	0.93
50	159	0.47	2.81	0.68
30	373	1.11	5.04	0.52
10	1000	2.96	8.04	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 389 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0086

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T17N R3W
D. Latitude, Longitude	46°29' 123°07'
E. Stream Name	S.E. Chehalis River
F. Major Basin Name	Chehalis
G. River Mile	5.3/17.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

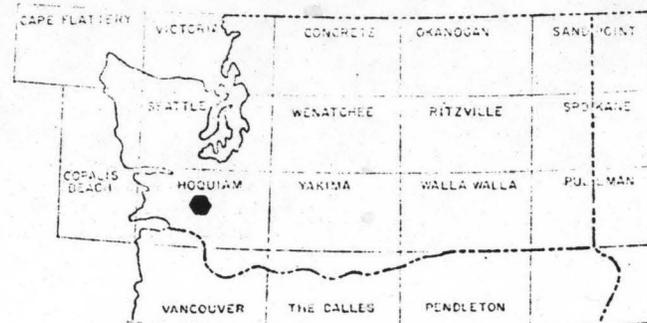
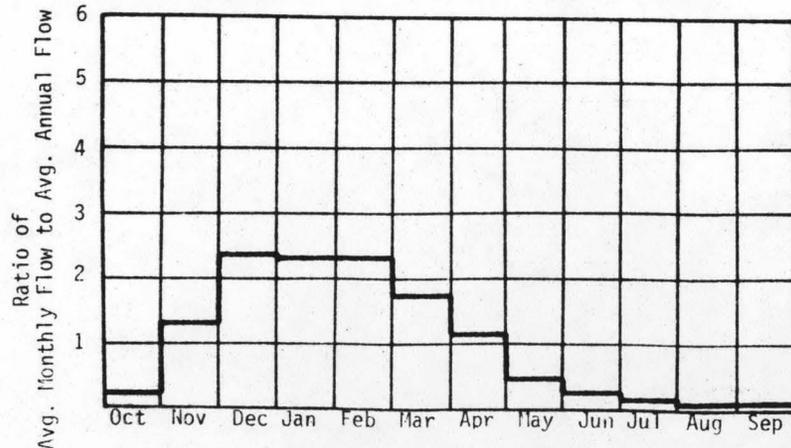
A. Upstream Elevation of Reach	360	Ft. MSL
B. Downstream Elevation of Reach	235	Ft. MSL
C. Total Available Head in Reach	125	Ft.
D. Average Slope in Reach	10.2	Ft./Mi.
E. Drainage Area above Reach Mouth	48.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.14	0.03	0.29	1.00
80	9.42	0.10	0.79	0.91
50	64.4	0.68	4.00	0.67
30	163	1.73	7.71	0.51
10	418	4.42	12.0	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 157 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0087

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T11N R3W</u>
D. Latitude, Longitude	<u>46°25' 123°06'</u>
E. Stream Name	<u>S.F. Chehalis River</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>17.6/24.6</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

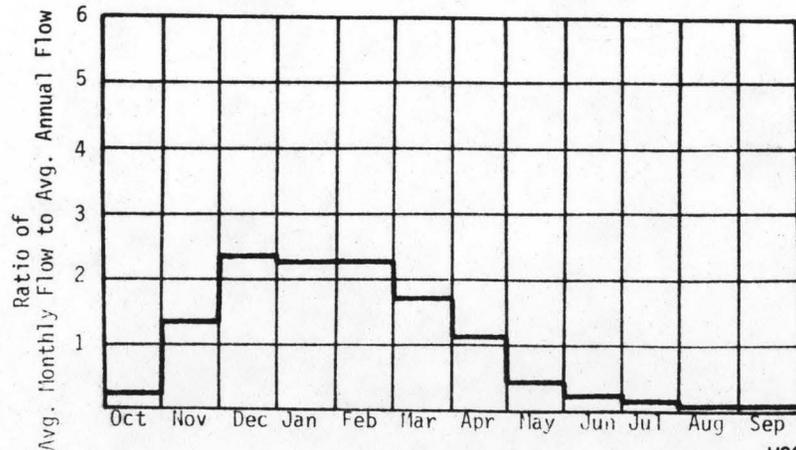
A. Upstream Elevation of Reach	<u>650</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>360</u>	Ft. MSL
C. Total Available Head in Reach	<u>290 + 66 = 356</u>	Ft.
D. Average Slope in Reach	<u>41.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

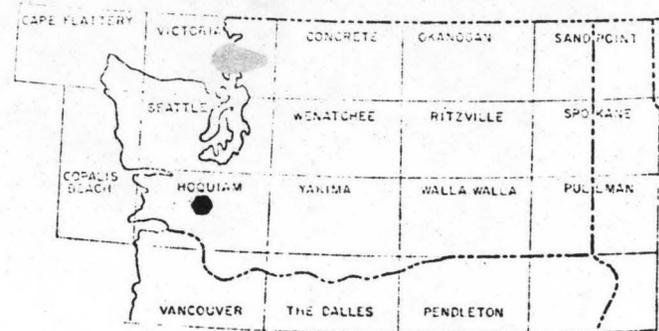
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.68	0.05	0.44	1.00
80	5.04	0.15	1.21	0.91
50	34.4	1.04	6.09	0.67
30	87.4	2.63	11.8	0.51
10	223	6.73	18.3	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

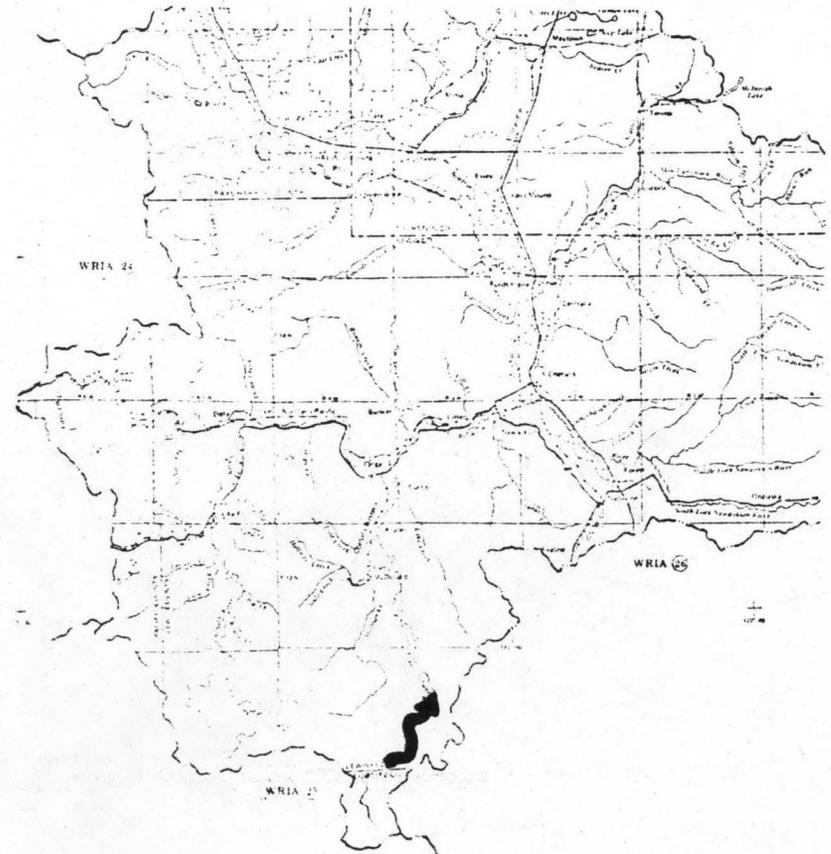
QMR = 84 cfs



W22-834



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0088

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T12N R4W
D. Latitude, Longitude	46°33' 123°
E. Stream Name	Halfway Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/2.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

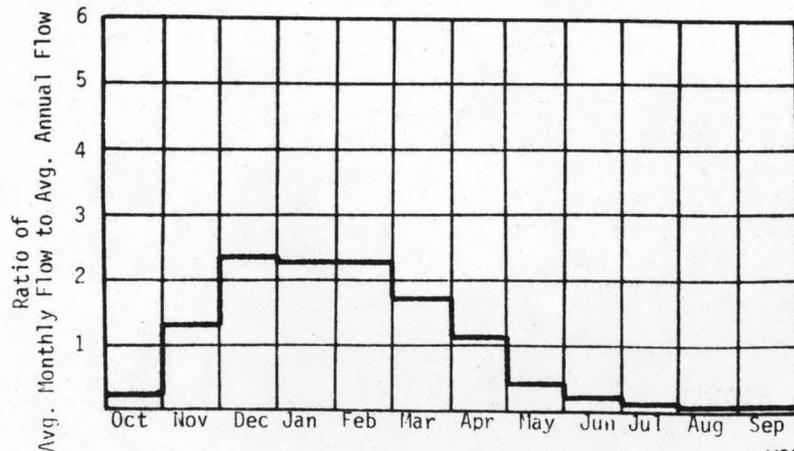
A. Upstream Elevation of Reach	300	Ft. MSL
B. Downstream Elevation of Reach	235	Ft. MSL
C. Total Available Head in Reach	65	Ft.
D. Average Slope in Reach	27.1	Ft./Mi.
E. Drainage Area above Reach Mouth	45.6	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

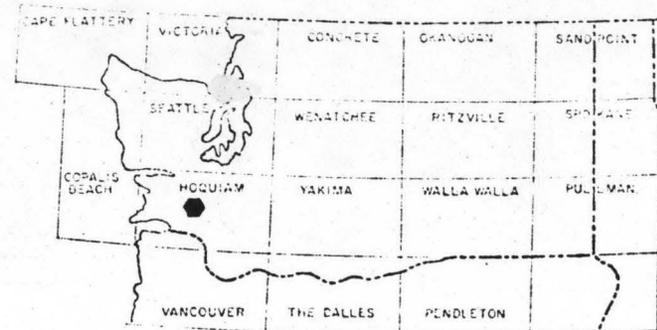
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.30	0.02	0.16	1.00
80	11.6	0.06	0.52	0.93
50	67.7	0.37	2.22	0.68
30	158	0.87	3.97	0.52
10	242	2.33	6.33	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

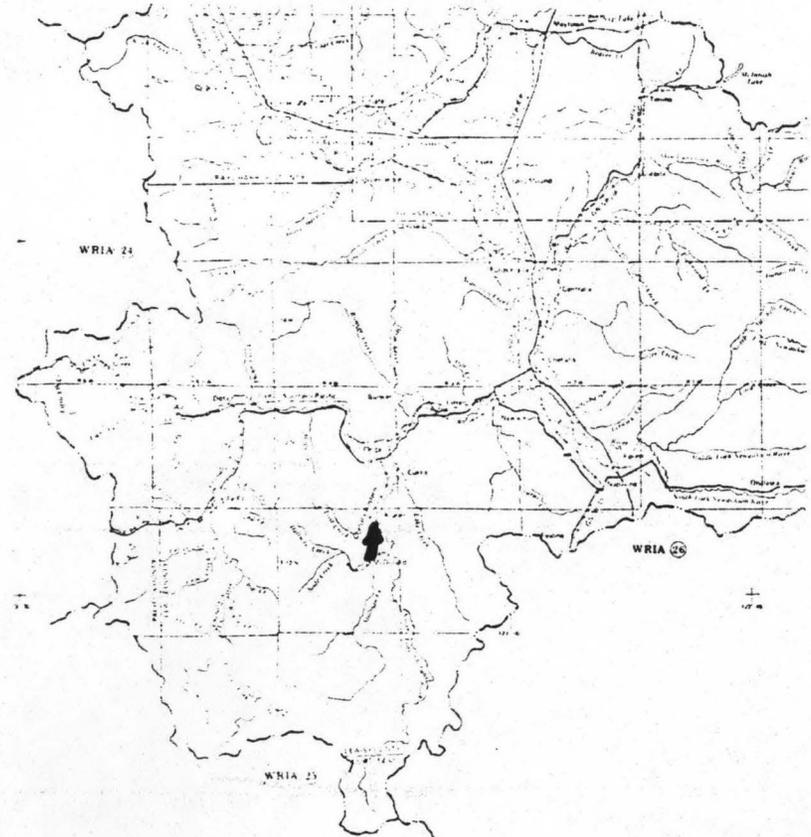
QMR = 165 cfs



W22-835



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0089

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T12N R4W
D. Latitude, Longitude	46°30' 123°08'
E. Stream Name	Stiltman Creek
F. Major Basin Name	Chehalis
G. River Mile	2.4/7.2

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

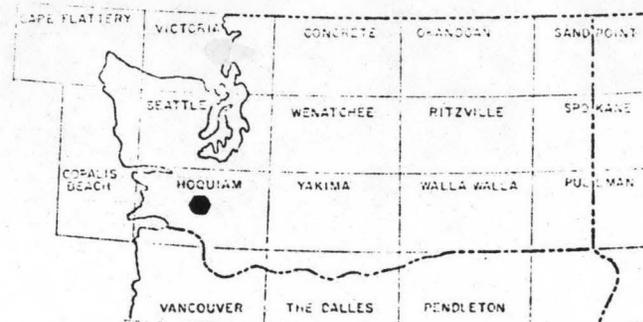
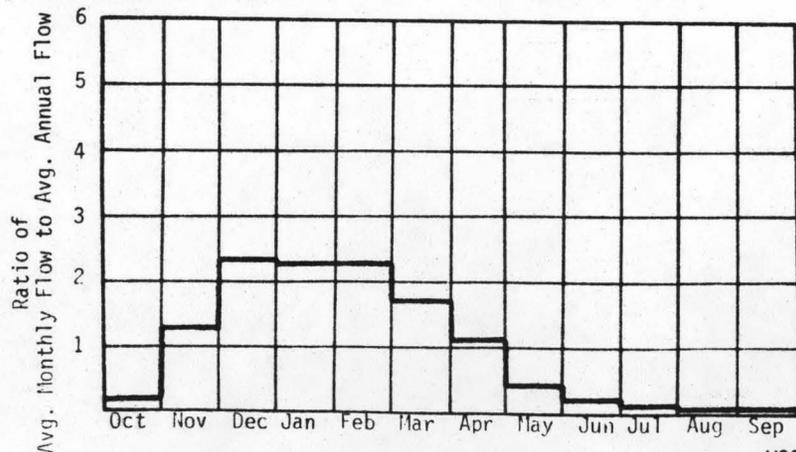
A. Upstream Elevation of Reach	600	Ft.	MSL
B. Downstream Elevation of Reach	300	Ft.	MSL
C. Total Available Head in Reach	300 + 66 = 366	Ft.	
D. Average Slope in Reach	62.5	Ft./Mi.	
E. Drainage Area above Reach Mouth	13.5	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.74	0.04	0.39	1.00
80	6.09	0.15	1.26	0.93
50	35.7	0.71	5.49	0.68
30	83.5	2.12	9.66	0.52
10	224	5.67	15.4	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 87 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0090

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T13N R5W
D. Latitude, Longitude	46°37' 123°21'
E. Stream Name	Elk Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/9.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

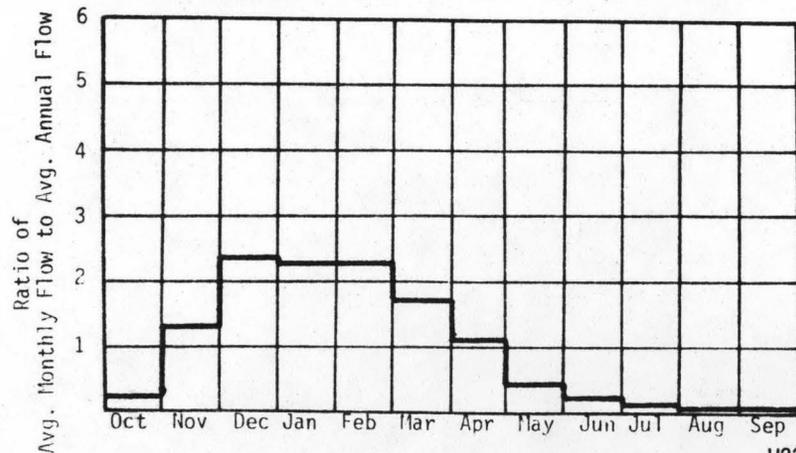
A. Upstream Elevation of Reach	460	Ft.	MSL
B. Downstream Elevation of Reach	280	Ft.	MSL
C. Total Available Head in Reach	140 + 66 = 206	Ft.	
D. Average Slope in Reach	14.3	Ft./Mi.	
E. Drainage Area above Reach Mouth	58.5	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

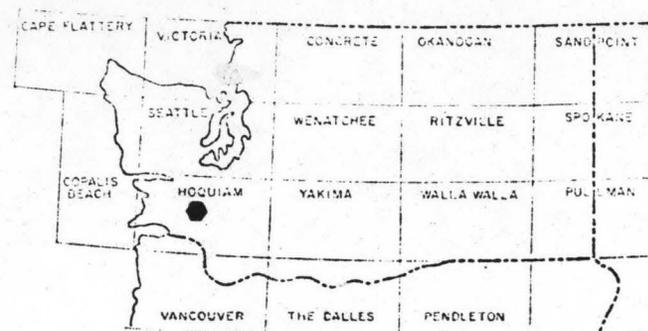
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.3	0.20	1.73	1.00
80	18.9	0.33	2.71	0.94
50	75.6	1.32	8.19	0.71
30	137	2.39	12.0	0.57
10	309	5.38	17.0	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 126 cfs



W22-837



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0091

I. LOCATION

A. State	Washington
B. County	Lewis
C. Township, Range	T12N R5W
D. Latitude, Longitude	46°33' 123°19'
E. Stream Name	Rock Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/1.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

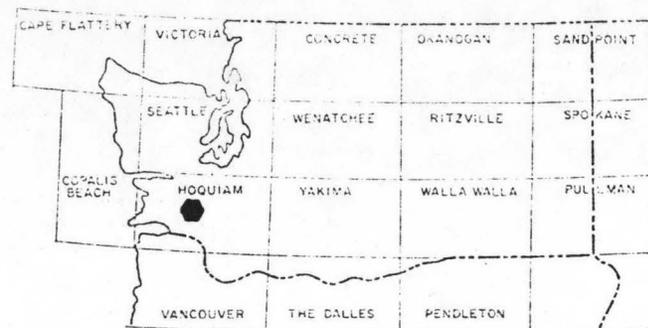
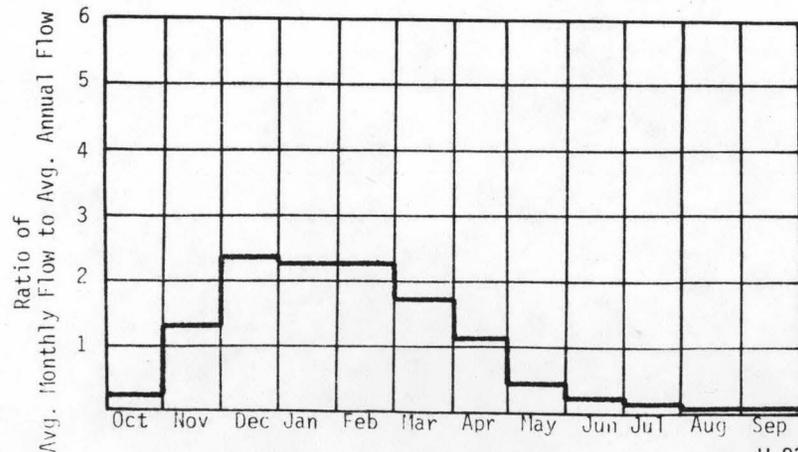
A. Upstream Elevation of Reach	440	Ft. MSL
B. Downstream Elevation of Reach	370	Ft. MSL
C. Total Available Head in Reach	70 + 66 = 136	Ft.
D. Average Slope in Reach	43.8	Ft./Mi.
E. Drainage Area above Reach Mouth	22.0	Sq. Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

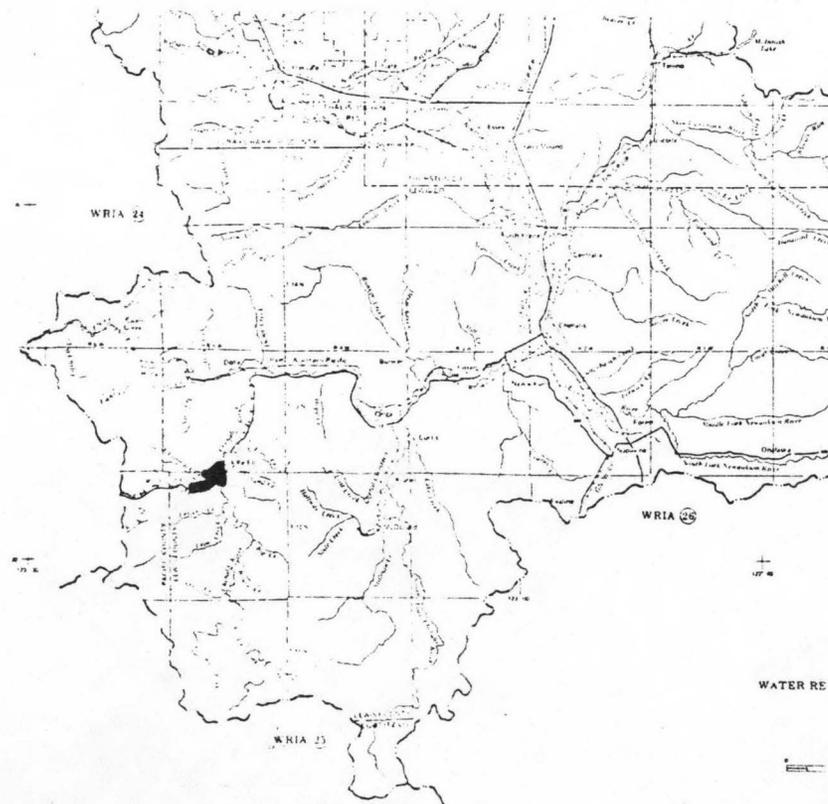
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.15	0.05	0.42	1.00
80	8.30	0.10	0.79	0.94
50	38.2	0.44	2.69	0.70
30	80.5	0.93	4.38	0.54
10	212	2.44	6.83	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 83 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-051-000-000-000-R0092

I. LOCATION

A. State	Washington
B. County	Mason
C. Township, Range	T20N R6W
D. Latitude, Longitude	47°13' 123°26'
E. Stream Name	Dry Bed Creek
F. Major Basin Name	Chehalis
G. River Mile	0.0/7.6

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

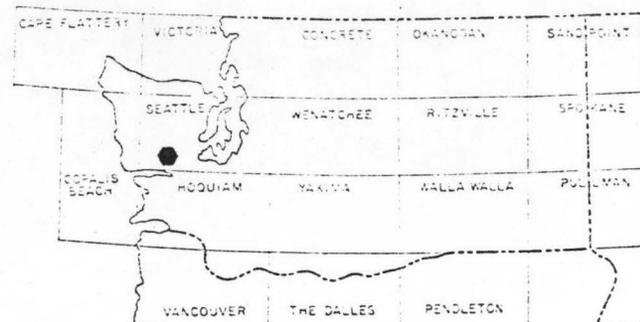
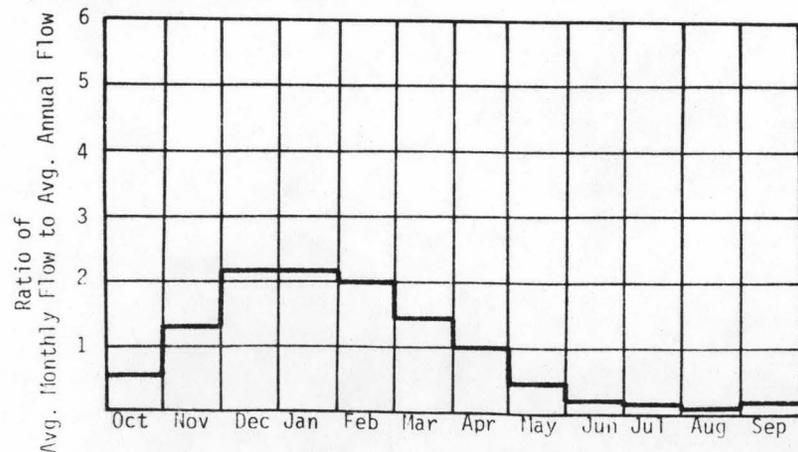
A. Upstream Elevation of Reach	450	Ft. MSL
B. Downstream Elevation of Reach	260	Ft. MSL
C. Total Available Head in Reach	190 + 66 = 256	Ft.
D. Average Slope in Reach	25.0	Ft./Mi.
E. Drainage Area above Reach Mouth	24.4	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

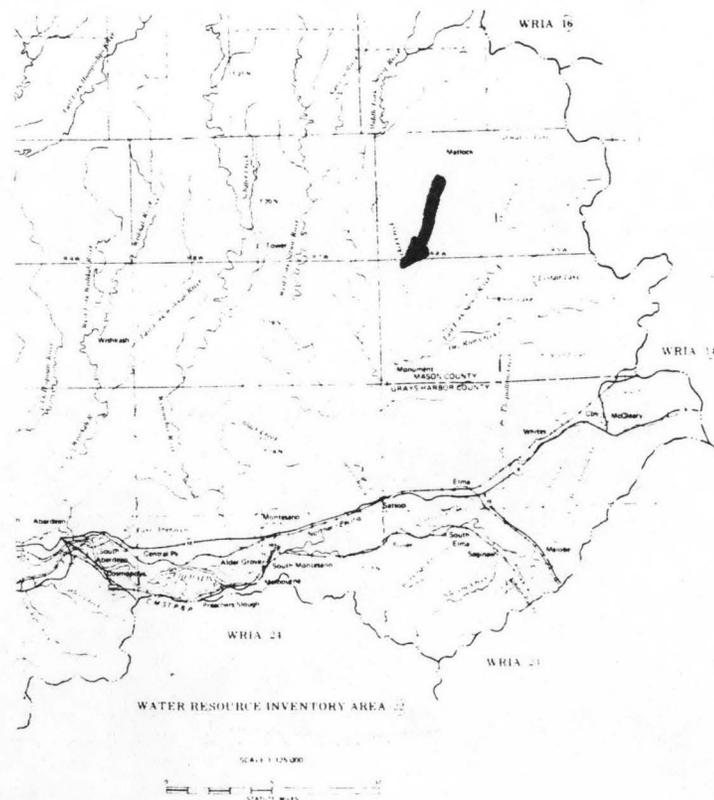
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	29.7	0.64	5.63	1.00
80	39.2	0.85	7.20	0.97
50	93.2	2.02	13.6	0.77
30	155	3.36	18.3	0.62
10	300	6.49	23.3	0.41

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 135 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-051-000-000-000-R0093

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Lewis</u>
C. Township, Range	<u>T13N R3W</u>
D. Latitude, Longitude	<u>46°37' 123°01'</u>
E. Stream Name	<u>Stearns Creek</u>
F. Major Basin Name	<u>Chehalis</u>
G. River Mile	<u>0.0/3.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

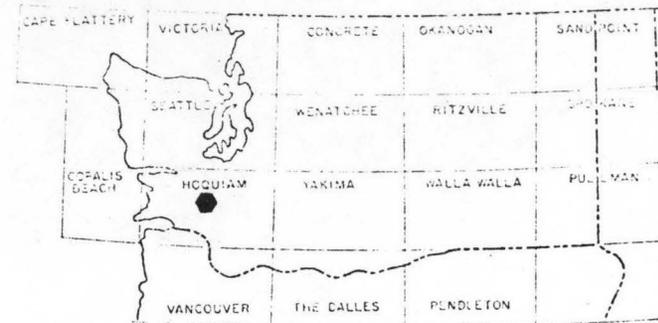
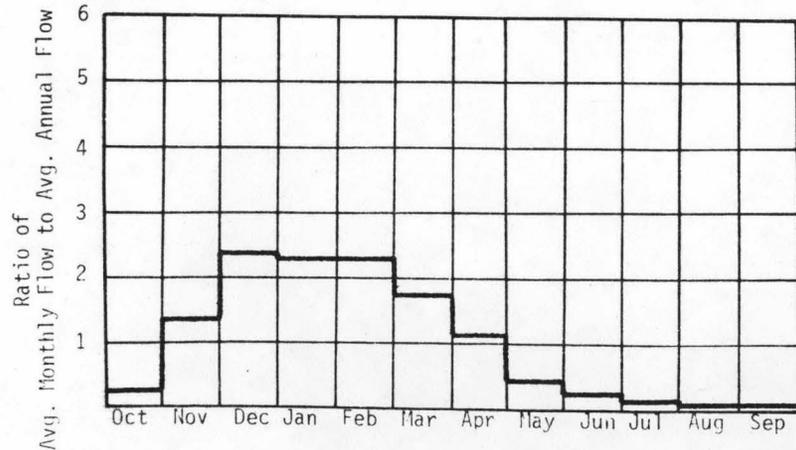
A. Upstream Elevation of Reach	<u>190</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>150</u>	Ft. MSL
C. Total Available Head in Reach	<u>40 + 66 = 106</u>	Ft.
D. Average Slope in Reach	<u>11.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>36.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	1.54	0.01	0.12	1.00
80	5.39	0.05	0.39	0.93
50	31.6	0.28	1.69	0.68
30	73.9	0.66	3.02	0.52
10	198	1.77	4.82	0.31

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 77 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Pacific
C. Township, Range	T15N R10W
D. Latitude, Longitude	46°45' 123°53'
E. Stream Name	North River
F. Major Basin Name	North
G. River Mile	0.0/6.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

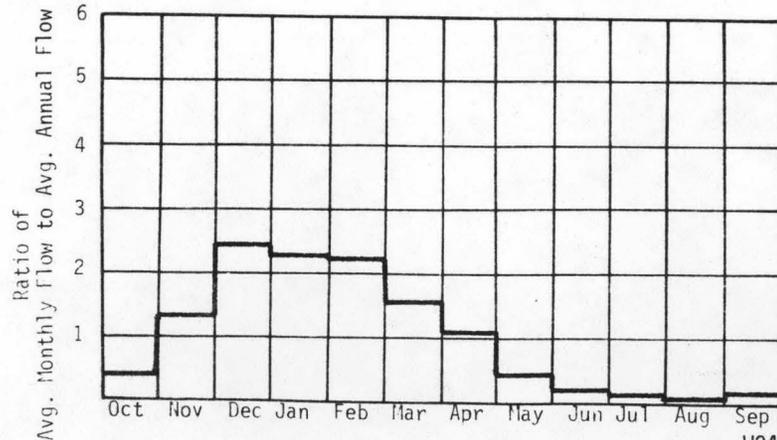
A. Upstream Elevation of Reach	20	Ft. MSL
B. Downstream Elevation of Reach	0	Ft. MSL
C. Total Available Head in Reach	20	Ft.
D. Average Slope in Reach	3.3	Ft./Mi.
E. Drainage Area above Reach Mouth	250.0	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

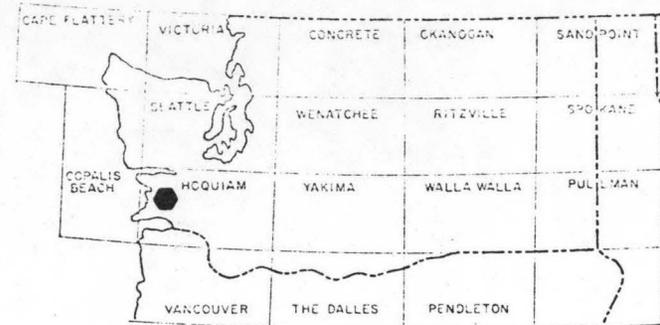
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	64.9	0.11	0.96	1.00
80	119	0.20	1.66	0.94
50	530	0.90	5.50	0.70
30	1130	1.90	9.01	0.54
10	2890	4.89	13.7	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

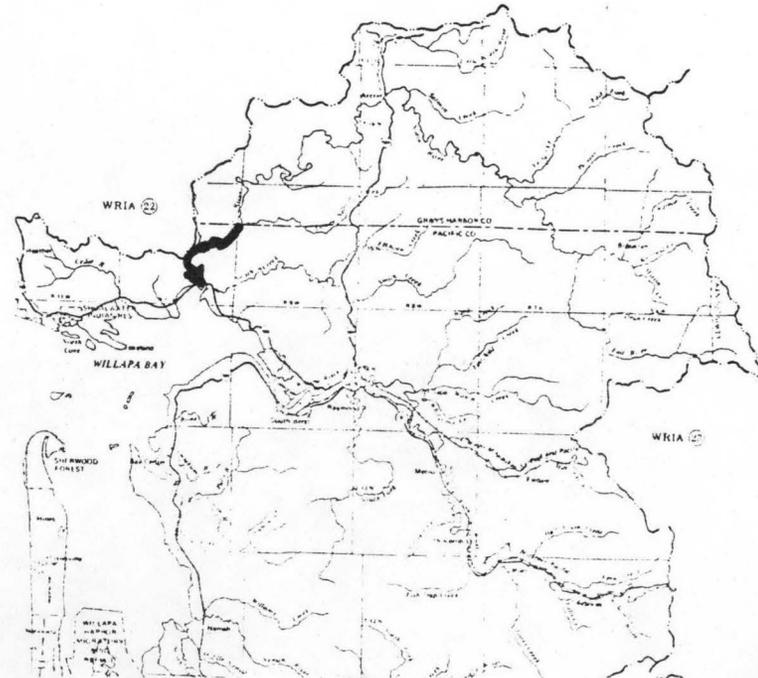
QMR = 1082 cfs



W24-841



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R9W</u>
D. Latitude, Longitude	<u>46°50' 123°45'</u>
E. Stream Name	<u>North River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>6.0/27.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

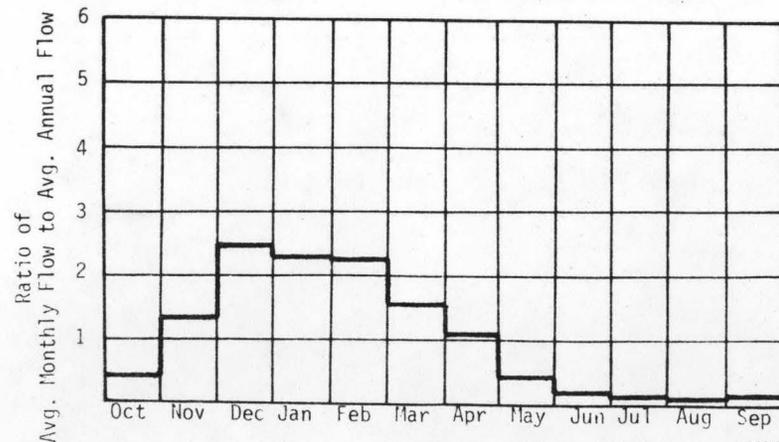
A. Upstream Elevation of Reach	<u>70</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>2.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>218.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

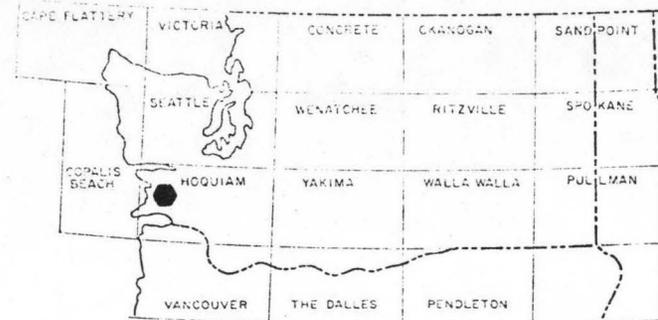
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	50.8	0.21	1.88	1.00
80	93.2	0.39	3.25	0.94
50	415	1.76	10.8	0.70
30	881	3.73	17.6	0.54
10	2260	9.57	26.8	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 847 cfs



W24-842



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-054-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R8W</u>
D. Latitude, Longitude	<u>46°52' 123°38'</u>
E. Stream Name	<u>North River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>27.5/47.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

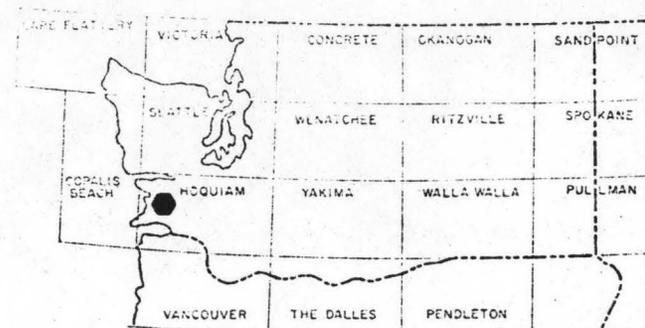
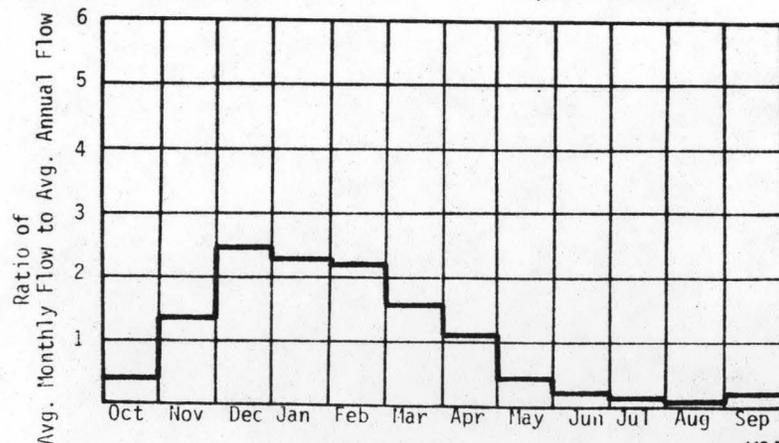
A. Upstream Elevation of Reach	<u>140</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>70</u>	Ft.
D. Average Slope in Reach	<u>3.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>161.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

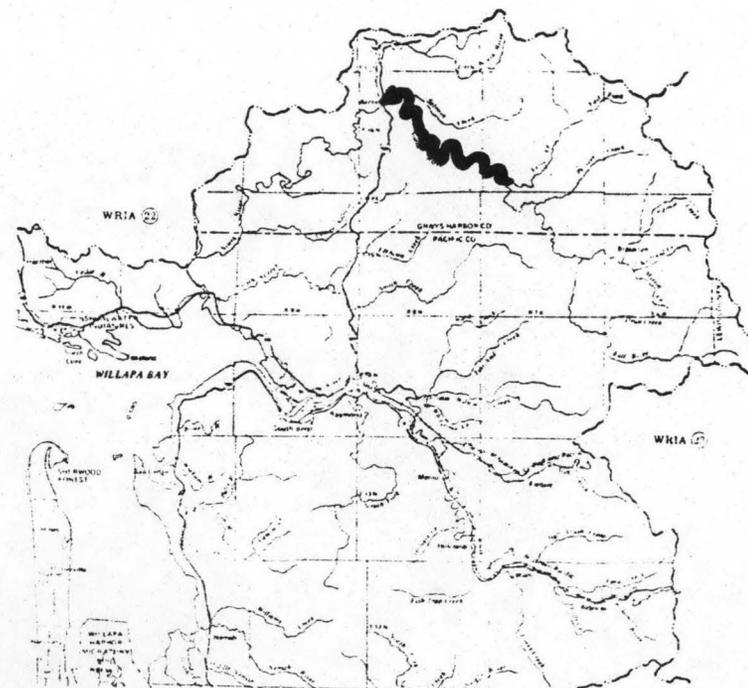
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	34.9	0.21	1.80	1.00
80	69.7	0.41	3.40	0.94
50	279	1.65	10.2	0.71
30	558	3.30	15.9	0.55
10	1200	7.11	22.4	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 498 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T15N R7W</u>
D. Latitude, Longitude	<u>46°47' 123°32'</u>
E. Stream Name	<u>North River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>47.1/54.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

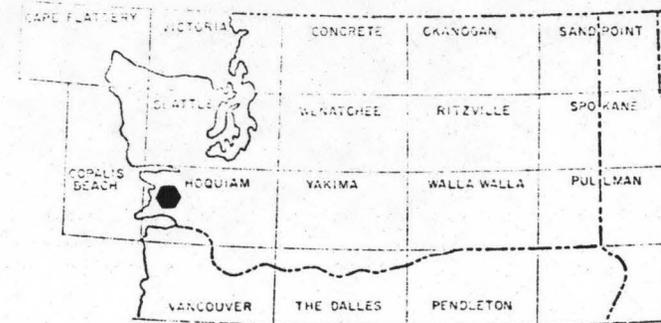
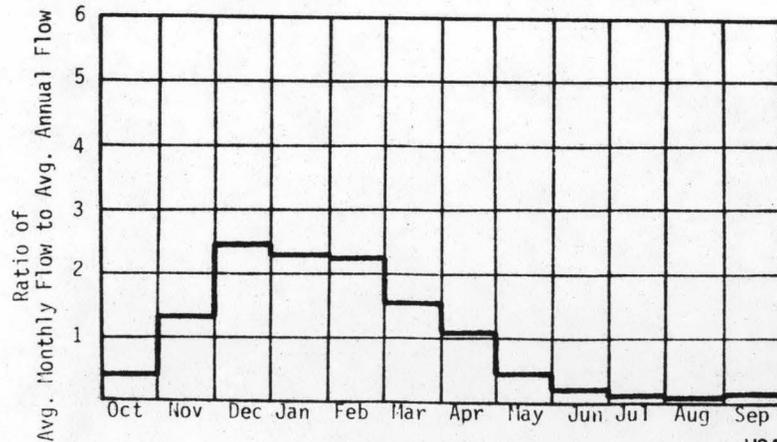
A. Upstream Elevation of Reach	<u>190</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>50</u>	Ft.
D. Average Slope in Reach	<u>6.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>84.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

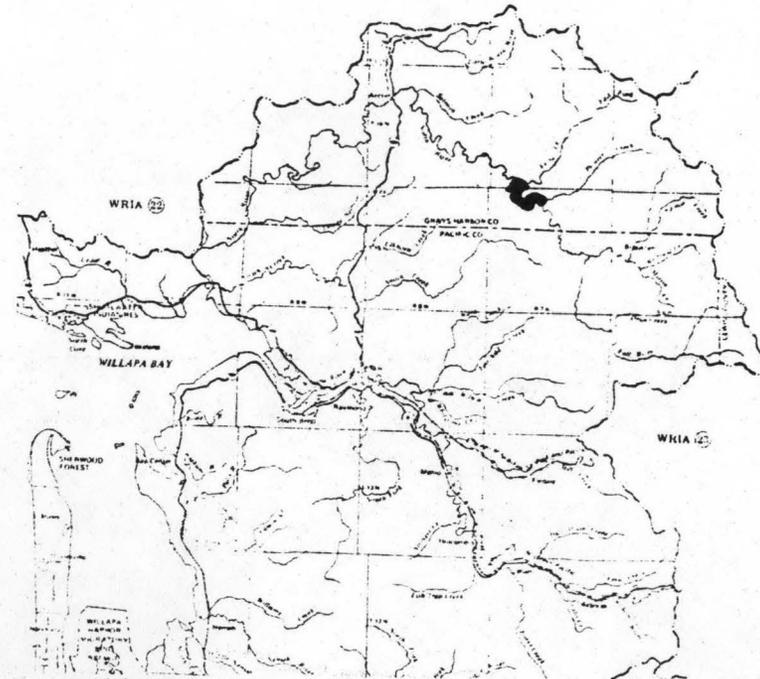
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.2	0.09	0.75	1.00
80	40.5	0.17	1.41	0.94
50	162	0.68	4.26	0.71
30	324	1.37	6.60	0.55
10	696	2.95	9.29	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 289 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R6W</u>
D. Latitude, Longitude	<u>46°46' 123°29'</u>
E. Stream Name	<u>North River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>54.4/57.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

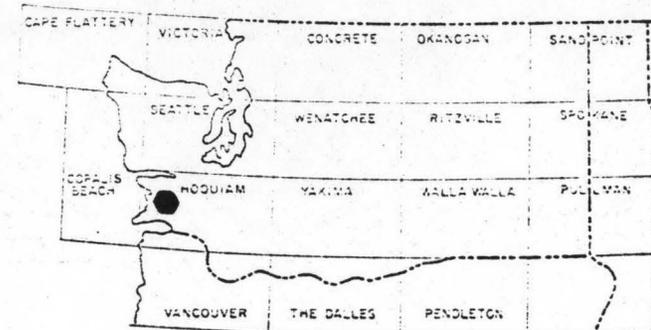
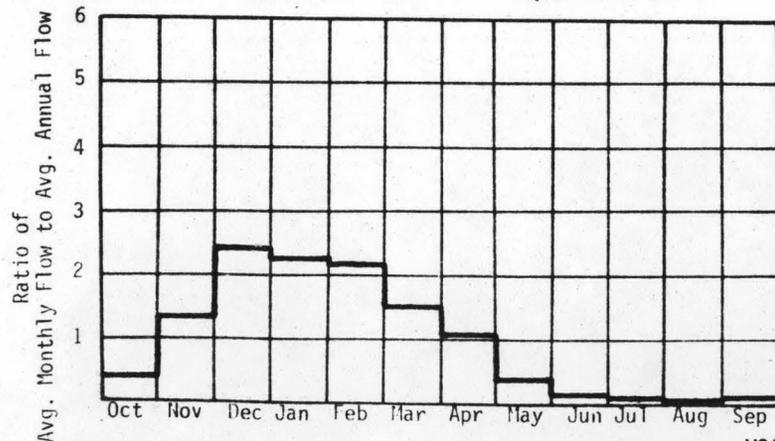
A. Upstream Elevation of Reach	<u>230</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>190</u>	Ft. MSL
C. Total Available Head in Reach	<u>40 + 66 = 106</u>	Ft.
D. Average Slope in Reach	<u>12.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>31.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.07	0.06	0.56	1.00
80	14.1	0.13	1.04	0.94
50	56.6	0.51	3.15	0.71
30	113	1.01	4.89	0.55
10	243	2.18	6.88	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 101 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T15N R9W</u>
D. Latitude, Longitude	<u>46°47' 123°45'</u>
E. Stream Name	<u>Lower Salmon Creek</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>0.0/4.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

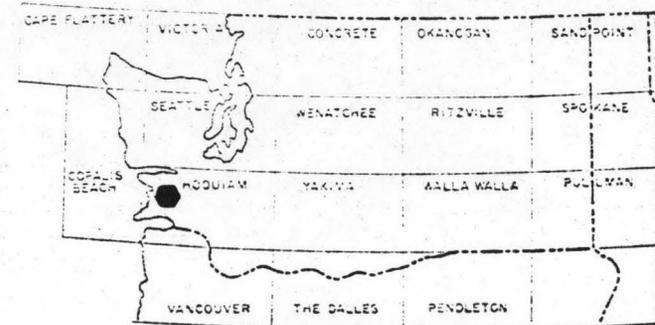
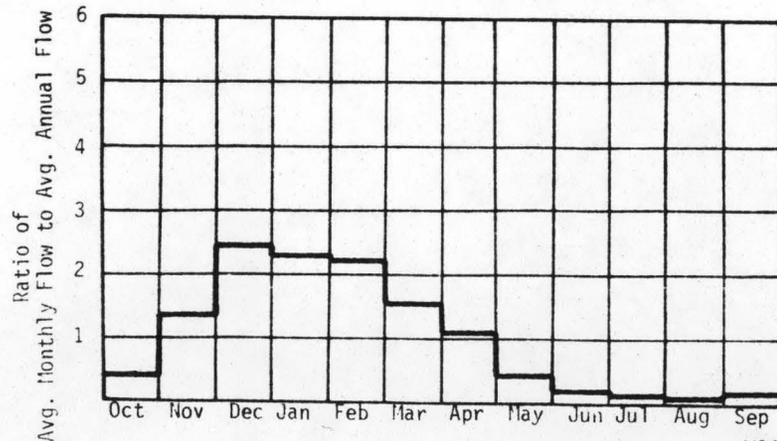
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>100 + 66 = 166</u>	Ft.
D. Average Slope in Reach	<u>23.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.80	0.07	0.59	1.00
80	8.80	0.12	1.02	0.94
50	39.2	0.55	3.38	0.70
30	83.2	1.17	5.53	0.54
10	219	3.00	8.41	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 80 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R5W</u>
D. Latitude, Longitude	<u>46°54' 123°43'</u>
E. Stream Name	<u>Little North River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>0.0/2.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

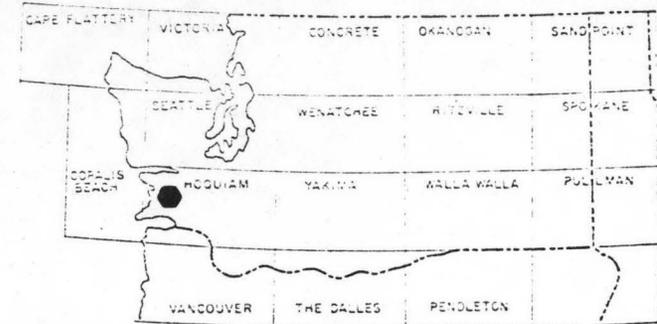
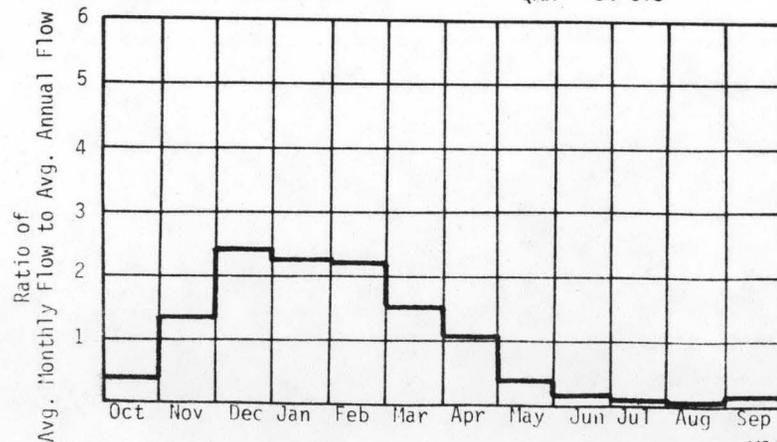
A. Upstream Elevation of Reach	<u>115</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>70</u>	Ft. MSL
C. Total Available Head in Reach	<u>45 + 66 = 111</u>	Ft.
D. Average Slope in Reach	<u>22.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.5</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.36	0.03	0.28	1.00
80	7.56	0.07	0.58	0.93
50	38.6	0.36	2.19	0.69
30	86.5	0.81	3.77	0.53
10	224	2.11	5.90	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 84 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Grays Harbor</u>
C. Township, Range	<u>T16N R7W</u>
D. Latitude, Longitude	<u>46°51' 123°32'</u>
E. Stream Name	<u>Vesta Creek</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>0.0/6.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

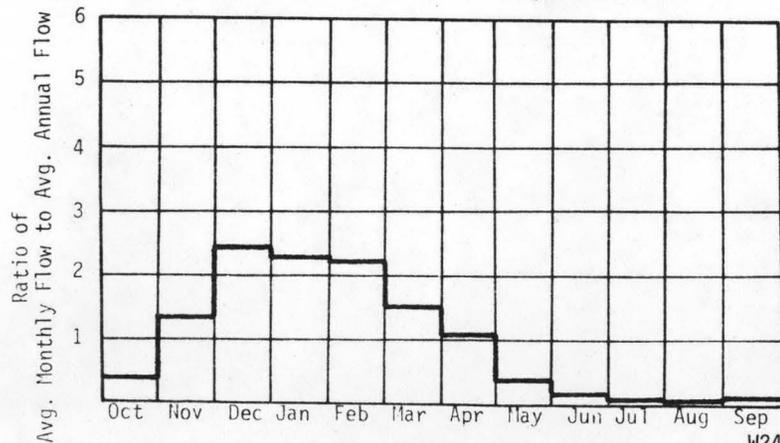
A. Upstream Elevation of Reach	<u>180</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>130</u>	Ft. MSL
C. Total Available Head in Reach	<u>50 + 66 = 116</u>	Ft.
D. Average Slope in Reach	<u>7.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>30.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

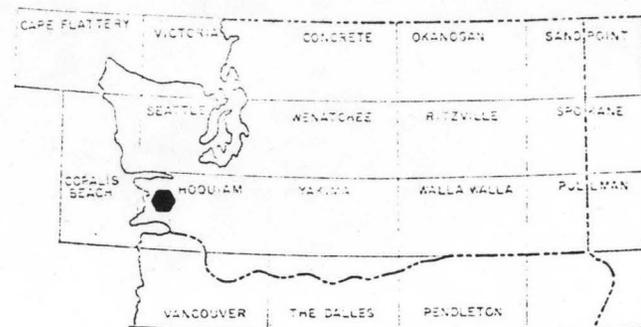
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.74	0.06	0.49	1.00
80	11.5	0.11	0.93	0.94
50	45.9	0.45	2.80	0.71
30	91.8	0.90	4.34	0.55
10	198	0.94	6.12	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 82 cfs



W24-948



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-054-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R7W</u>
D. Latitude, Longitude	<u>46°45' 123°30'</u>
E. Stream Name	<u>Fall River</u>
F. Major Basin Name	<u>North</u>
G. River Mile	<u>0.0/8.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

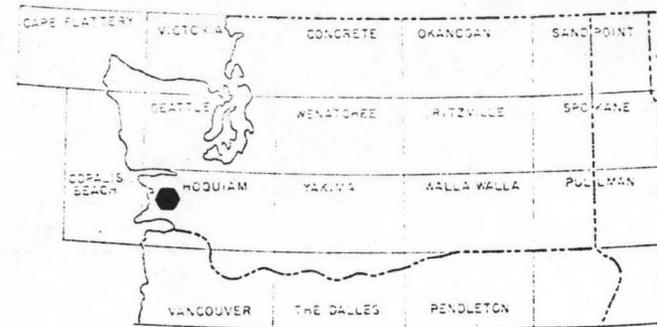
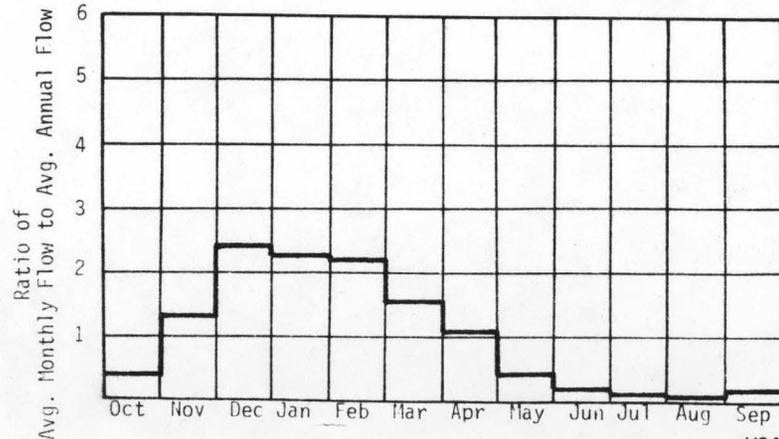
A. Upstream Elevation of Reach	<u>520</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>190</u>	Ft. MSL
C. Total Available Head in Reach	<u>330 + 66 = 396</u>	Ft.
D. Average Slope in Reach	<u>38.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>41.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.98	0.27	2.34	1.00
80	16.0	0.53	4.40	0.94
50	63.8	2.14	13.3	0.71
30	128	4.28	20.6	0.55
10	245	9.20	29.0	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 114 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-055-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R9W</u>
D. Latitude, Longitude	<u>46°45' 123°48'</u>
E. Stream Name	<u>Smith Creek</u>
F. Major Basin Name	<u>Smith Creek</u>
G. River Mile	<u>0/10.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

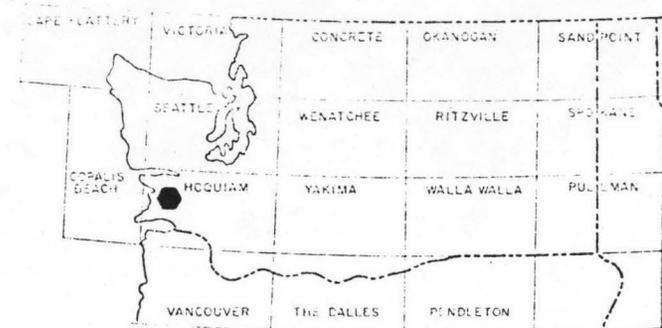
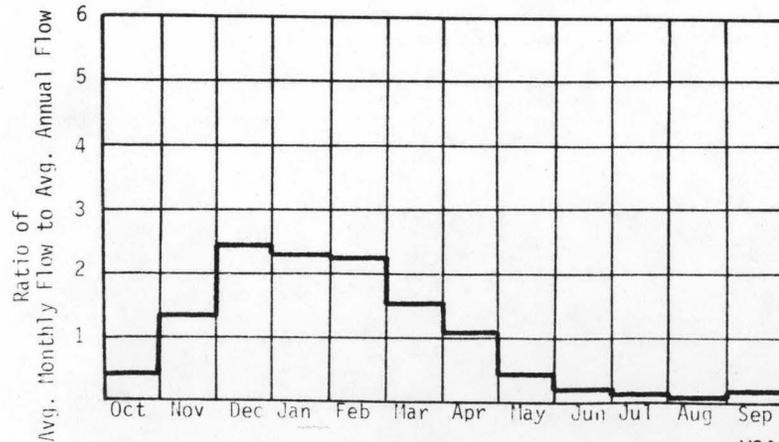
A. Upstream Elevation of Reach	<u>100</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>100</u>	Ft.
D. Average Slope in Reach	<u>9.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>67.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

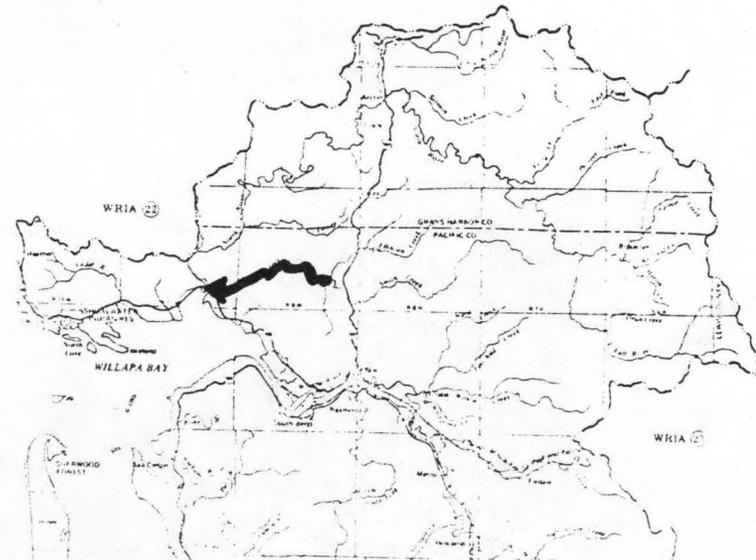
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	11.7	0.10	0.87	1.00
80	32.1	0.27	2.19	0.92
50	123	1.04	6.45	0.71
30	307	2.59	11.8	0.52
10	783	6.62	18.6	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 292 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-055-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R9W</u>
D. Latitude, Longitude	<u>46°46' 123°46'</u>
E. Stream Name	<u>Smith Creek</u>
F. Major Basin Name	<u>Smith Creek</u>
G. River Mile	<u>10.9/11.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

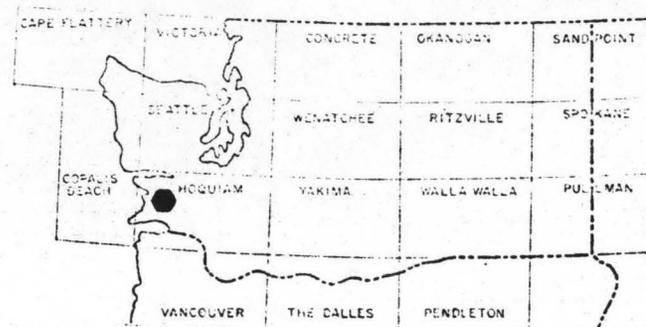
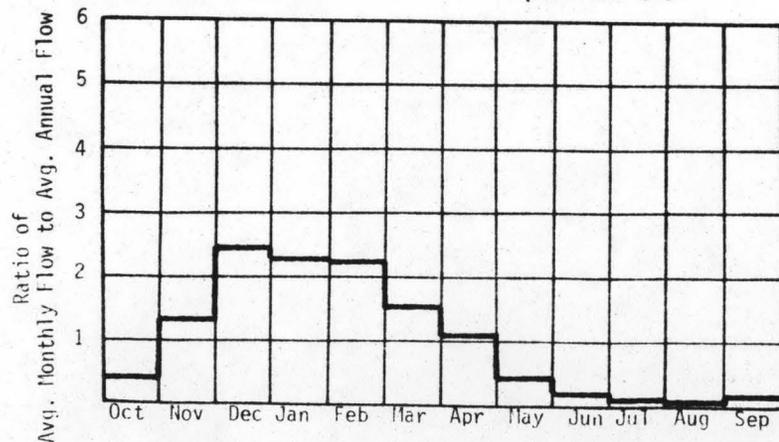
A. Upstream Elevation of Reach	<u>110</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>100</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>50</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>53.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

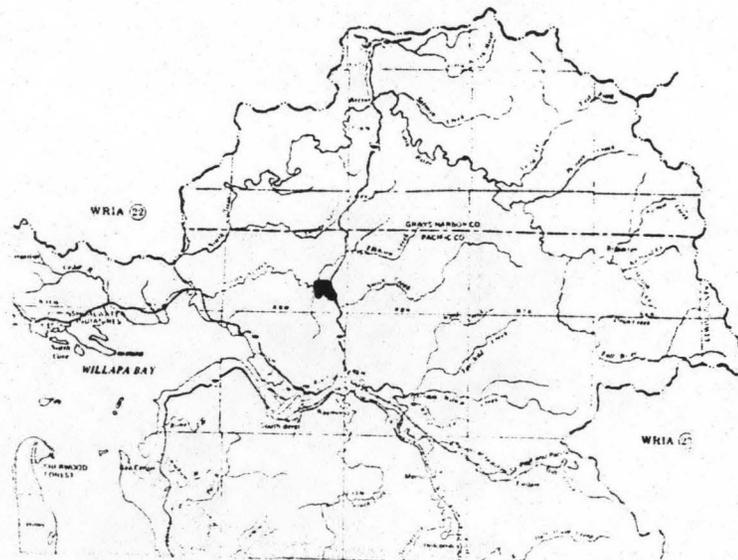
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.96	0.01	0.07	1.00
80	27.4	0.02	0.19	0.92
50	105	0.09	0.55	0.71
30	261	0.22	1.01	0.52
10	667	0.56	1.58	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 249 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-055-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R8W</u>
D. Latitude, Longitude	<u>46°45' 123°44'</u>
E. Stream Name	<u>Smith Creek</u>
F. Major Basin Name	<u>Smith Creek</u>
G. River Mile	<u>11.1/15.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

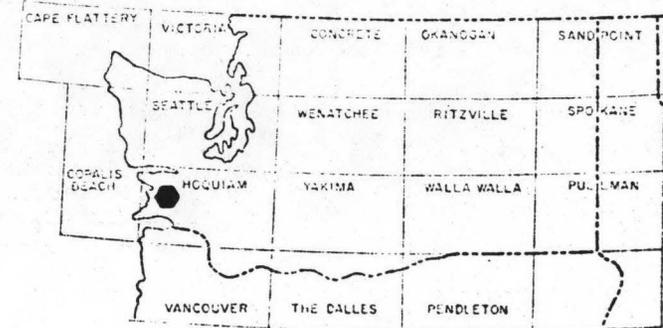
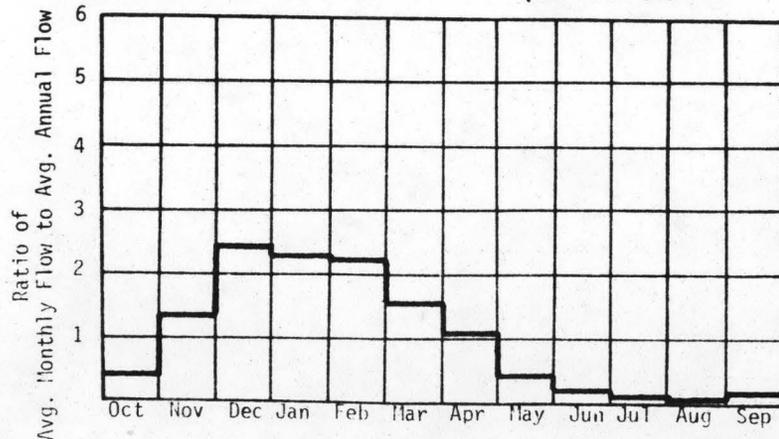
A. Upstream Elevation of Reach	<u>160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>50 + 66 = 116</u>	Ft.
D. Average Slope in Reach	<u>11.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>35.7</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

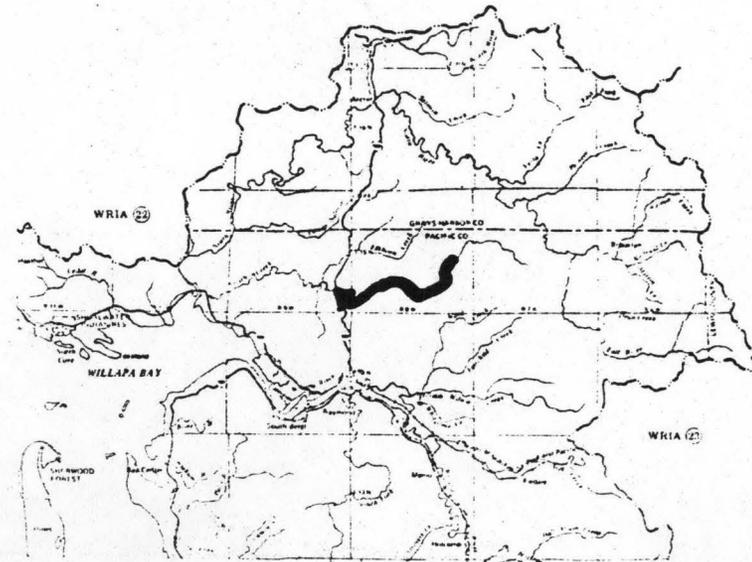
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.48	0.05	0.47	1.00
80	15.1	0.15	1.19	0.92
50	57.5	0.56	3.51	0.71
30	144	1.41	6.43	0.52
10	367	3.60	10.1	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 137 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-055-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T15N R9W</u>
D. Latitude, Longitude	<u>46°45' 123°47'</u>
E. Stream Name	<u>Elkhorn Creek</u>
F. Major Basin Name	<u>Smith Creek</u>
G. River Mile	<u>0.0/4.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

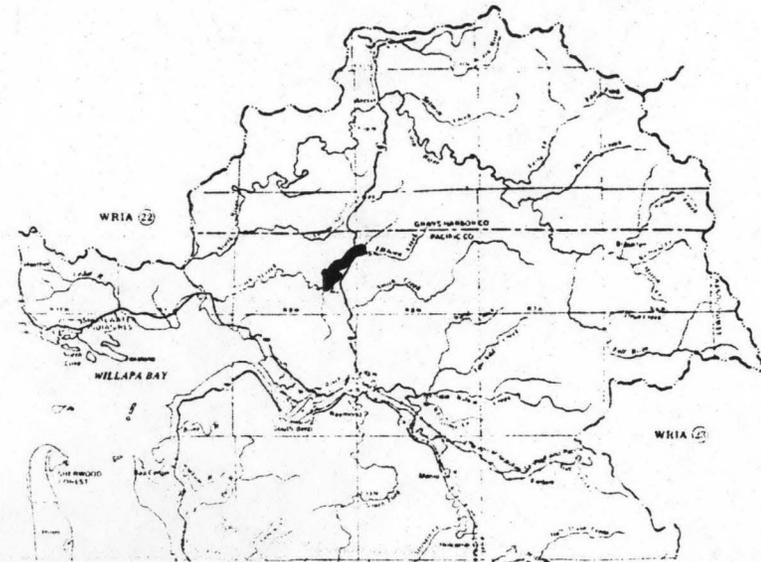
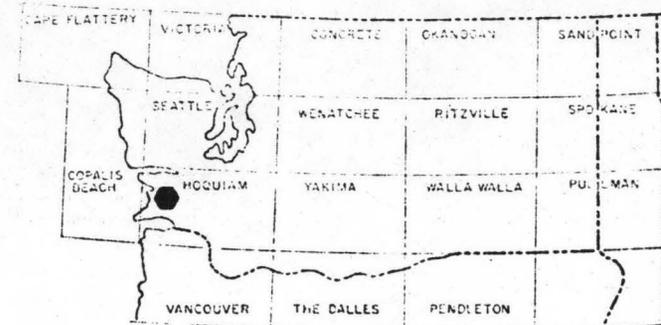
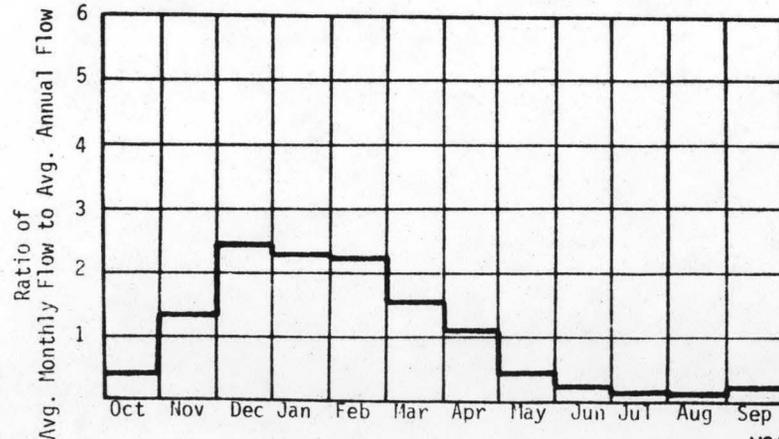
A. Upstream Elevation of Reach	<u>160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>110</u>	Ft. MSL
C. Total Available Head in Reach	<u>50 + 66 = 116</u>	Ft.
D. Average Slope in Reach	<u>12.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	2.60	0.03	0.22	1.00
80	7.15	0.07	0.57	0.92
50	27.3	0.27	1.67	0.71
30	68.3	0.67	3.05	0.52
10	174	1.71	4.79	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 65 cfs



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T14N R9W</u>
D. Latitude, Longitude	<u>46°42' 123°45'</u>
E. Stream Name	<u>Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0/7.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

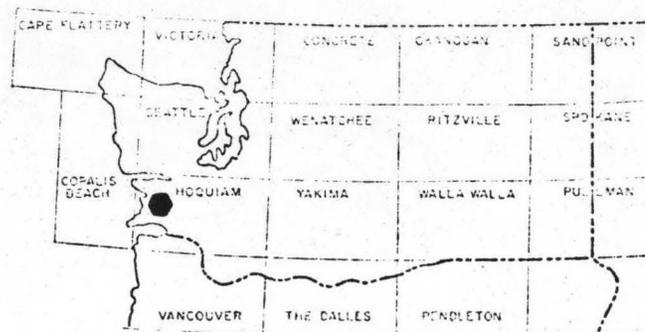
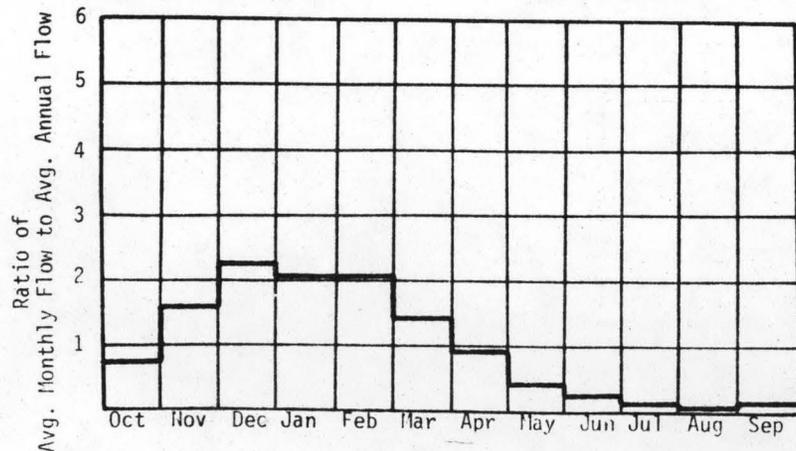
A. Upstream Elevation of Reach	<u>10</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>1.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>263.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

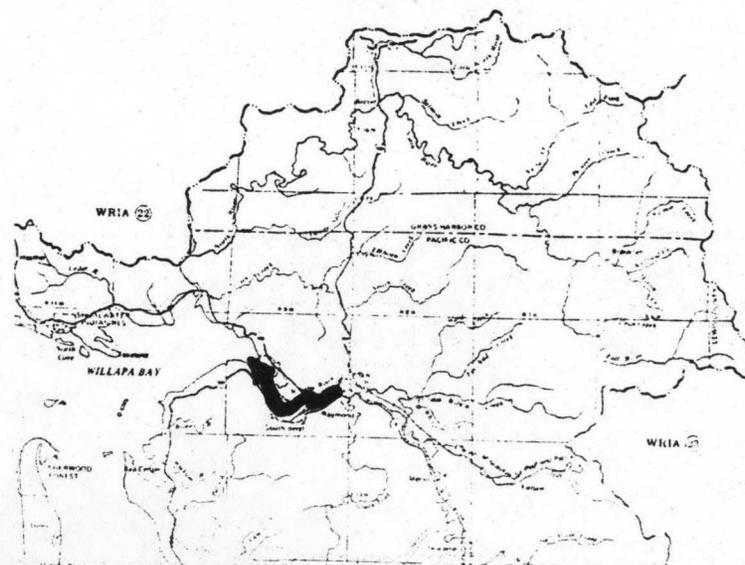
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.36	0.00	0.03	1.00
80	9.81	0.01	0.07	0.93
50	50.1	0.04	0.26	0.69
30	112	0.09	0.44	0.53
10	291	0.25	0.69	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 109 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # Q1-056-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T14N R8W</u>
D. Latitude, Longitude	<u>46°42' 123°41'</u>
E. Stream Name	<u>Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>7.2/12.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

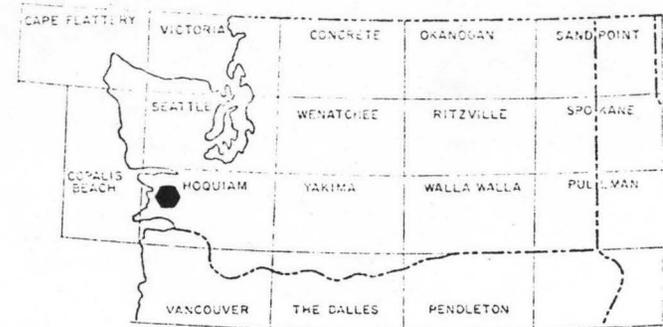
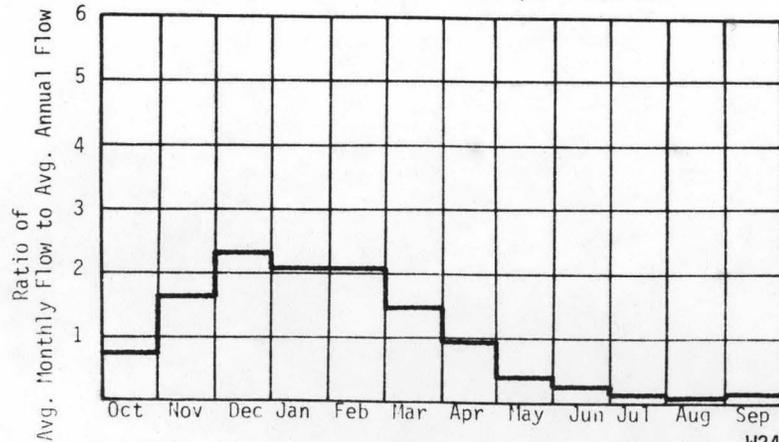
A. Upstream Elevation of Reach	<u>20</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>10</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>21</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>195.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

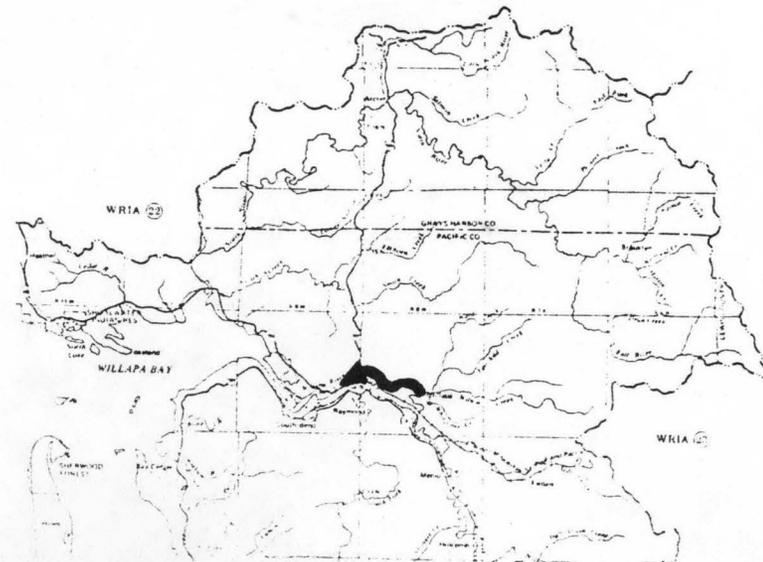
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	35.7	0.03	0.26	1.00
80	80.3	0.07	0.55	0.93
50	410	0.35	2.10	0.69
30	919	0.78	3.61	0.53
10	2380	2.01	5.65	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 892 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-056-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T24N R8W</u>
D. Latitude, Longitude	<u>46°40' 123°40'</u>
E. Stream Name	<u>Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>12.1/18.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

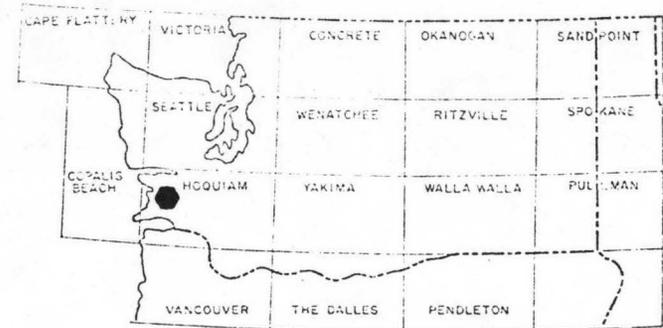
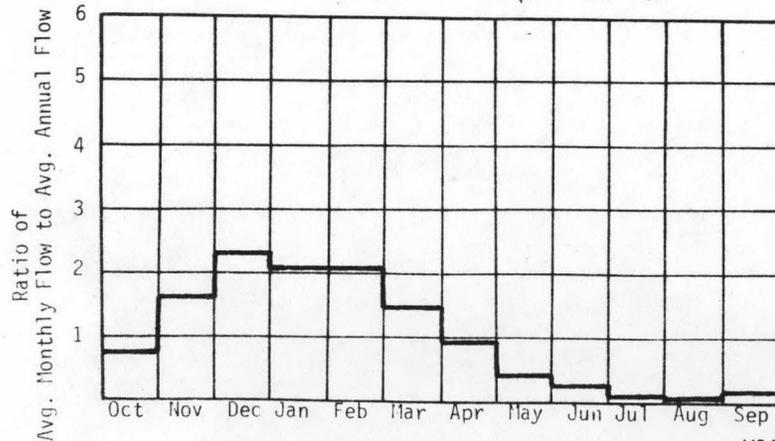
A. Upstream Elevation of Reach	<u>40</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>20</u>	Ft.
D. Average Slope in Reach	<u>3.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>136.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	25.7	0.04	0.38	1.00
80	57.8	0.10	0.80	0.93
50	295	0.50	3.02	0.69
30	661	1.12	5.19	0.53
10	1710	2.90	8.13	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 642 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R8W</u>
D. Latitude, Longitude	<u>46°37' 123°40'</u>
E. Stream Name	<u>Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>18.2/25.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

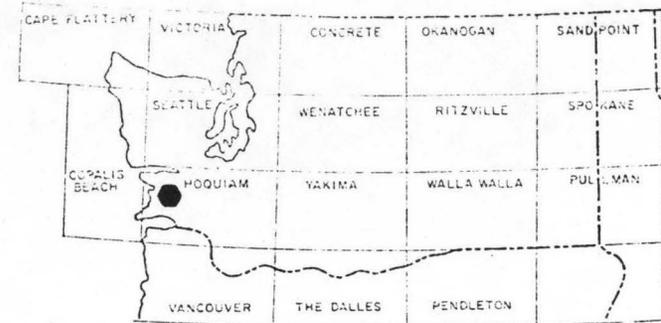
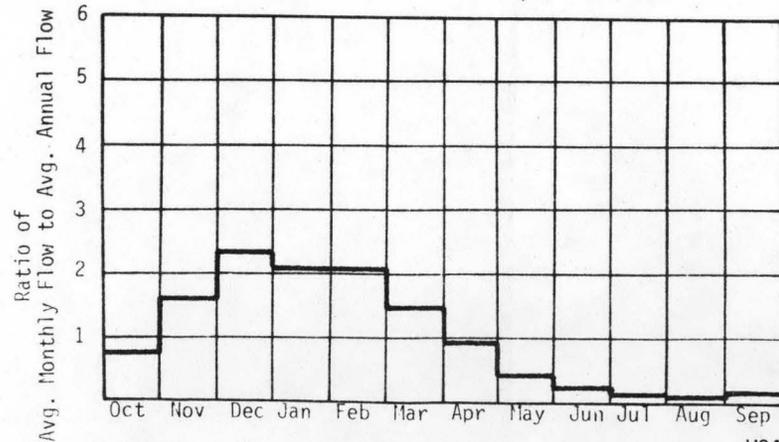
A. Upstream Elevation of Reach	<u>75</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>35</u>	Ft.
D. Average Slope in Reach	<u>4.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>107.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.0	0.06	0.32	1.00
80	45.1	0.13	1.09	0.93
50	230	0.68	4.12	0.69
30	516	1.53	7.09	0.53
10	1340	3.96	11.1	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 501 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R7W</u>
D. Latitude, Longitude	<u>46°33' 123°36'</u>
E. Stream Name	<u>Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>25.4/38.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

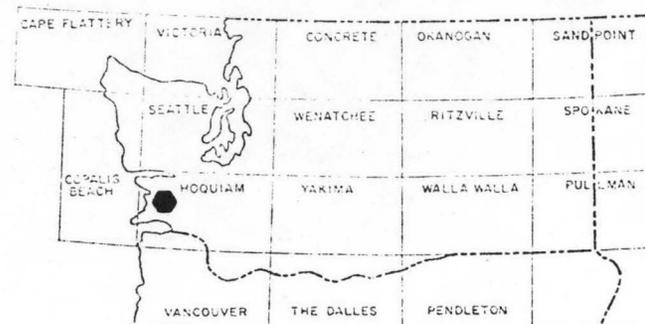
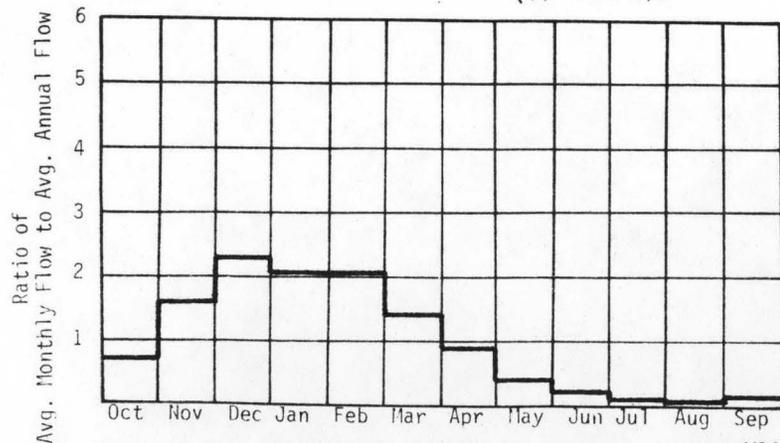
A. Upstream Elevation of Reach	<u>220</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>75</u>	Ft. MSL
C. Total Available Head in Reach	<u>145 + 66 = 211</u>	Ft.
D. Average Slope in Reach	<u>10.51</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>91.0</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.8	0.19	1.69	1.00
80	24.3	0.43	3.53	0.93
50	124	2.22	13.4	0.69
30	278	4.96	23.1	0.53
10	721	12.9	36.1	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 270 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R8W</u>
D. Latitude, Longitude	<u>46°39' 123°44'</u>
E. Stream Name	<u>S.F. Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0/10.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

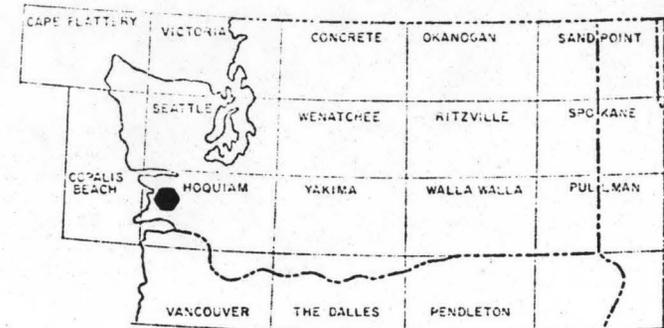
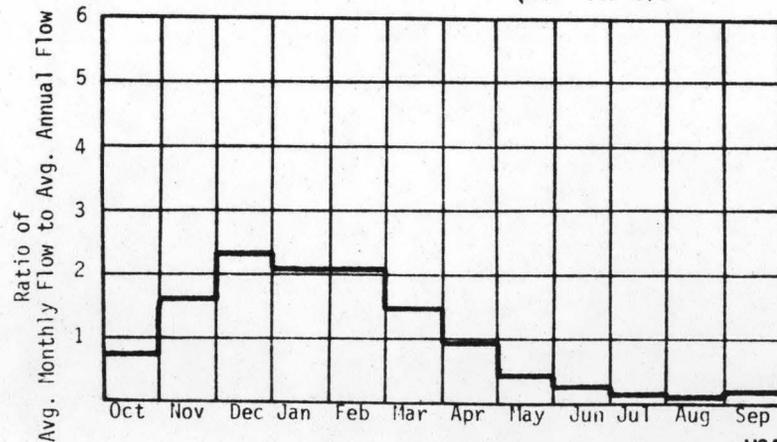
A. Upstream Elevation of Reach	<u>155</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>10</u>	Ft. MSL
C. Total Available Head in Reach	<u>145</u>	Ft.
D. Average Slope in Reach	<u>14.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>43.9</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

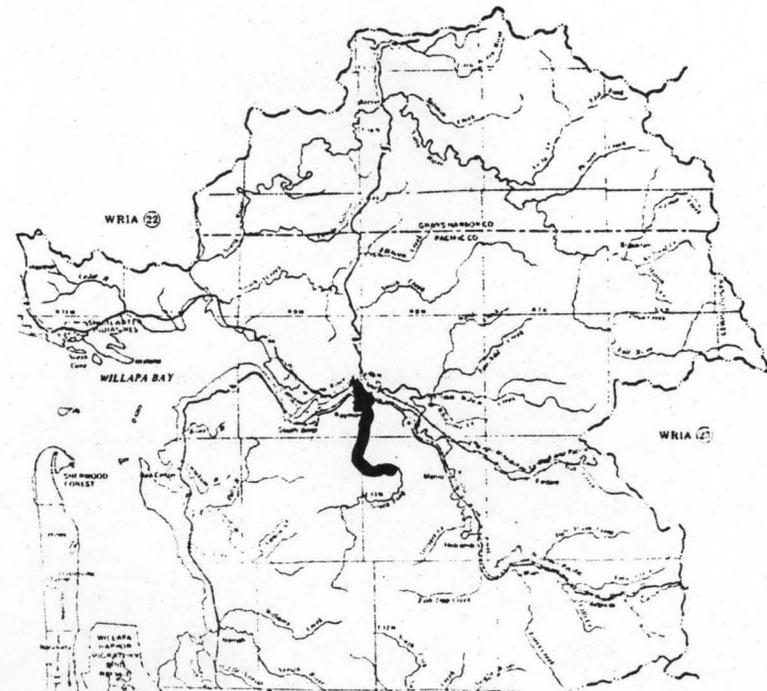
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	17.6	0.22	1.89	1.00
80	28.1	0.34	2.87	0.95
50	78.4	0.96	6.23	0.74
30	135	1.65	8.68	0.60
10	269	3.30	11.6	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 117 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-056-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R8W</u>
D. Latitude, Longitude	<u>46°36' 123°45'</u>
E. Stream Name	<u>S.F. Willapa</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>10.1/15.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

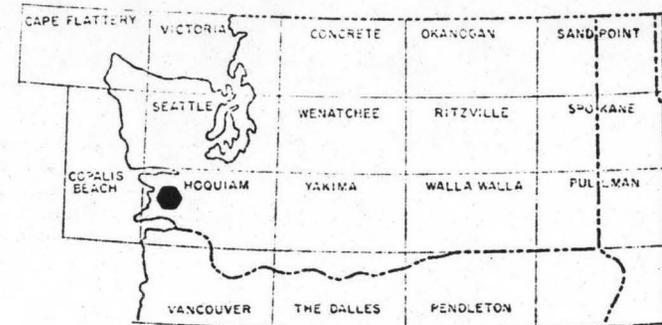
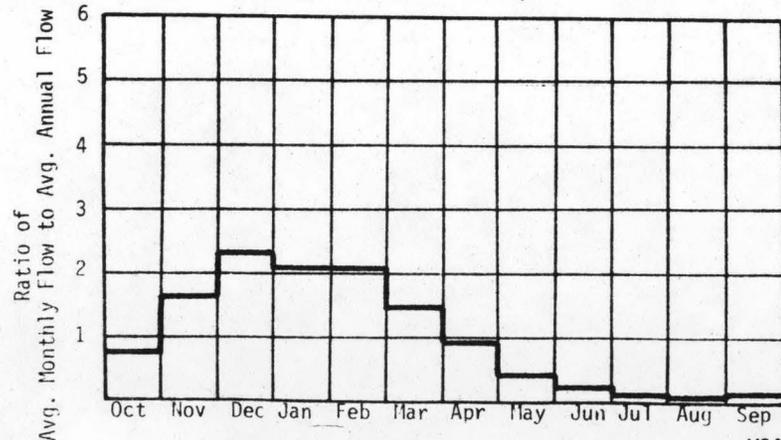
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>155</u>	Ft. MSL
C. Total Available Head in Reach	<u>205 + 66 = 271</u>	Ft.
D. Average Slope in Reach	<u>36.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.1</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

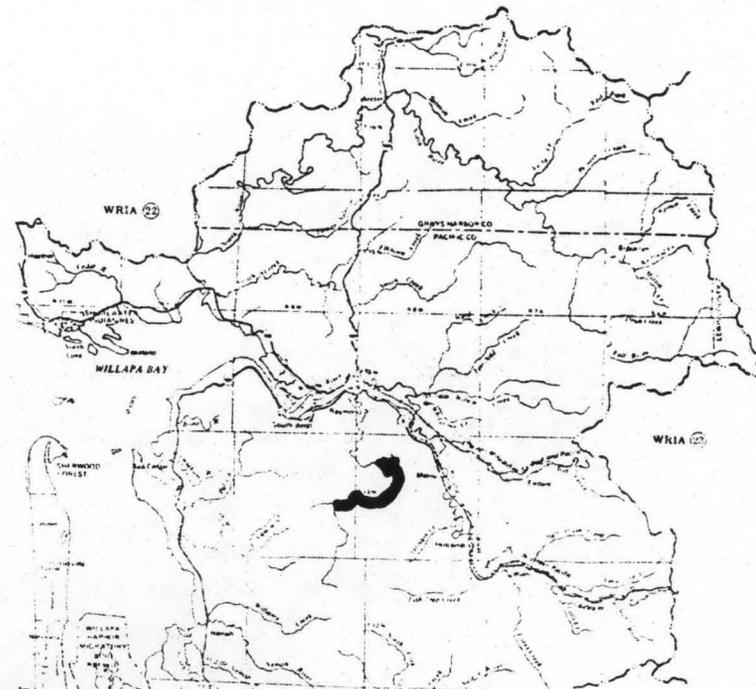
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.9	0.23	1.99	1.00
80	15.8	0.36	3.02	0.95
50	44.2	1.01	6.57	0.74
30	75.9	1.74	9.15	0.60
10	152	3.48	12.2	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 66 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T14N R8W</u>
D. Latitude, Longitude	<u>46°42' 123°40'</u>
E. Stream Name	<u>Ward Creek</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0/0.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

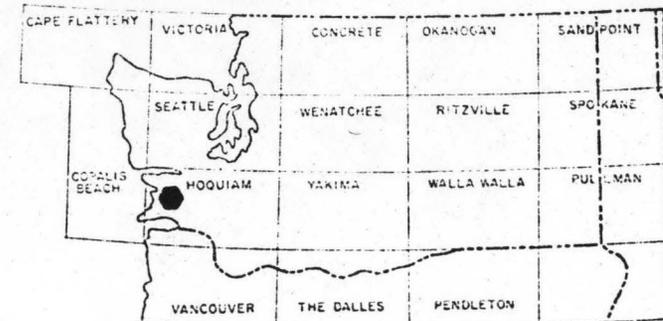
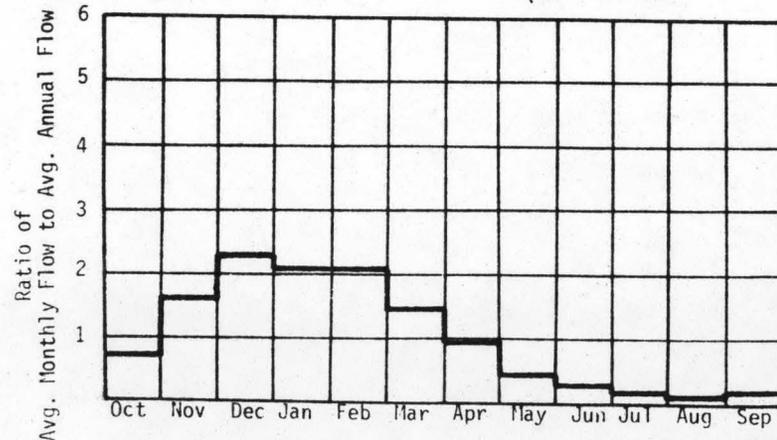
A. Upstream Elevation of Reach	<u>25</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>5</u>	Ft.
D. Average Slope in Reach	<u>5.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>47.7</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.92	0.00	0.03	1.00
80	17.8	0.01	0.06	0.93
50	91.1	0.04	0.23	0.69
30	204	0.09	0.40	0.53
10	529	0.22	0.63	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 198 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0010

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T14N R8W</u>
D. Latitude, Longitude	<u>46°42' 123°36'</u>
E. Stream Name	<u>Wilson Creek</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0/3.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

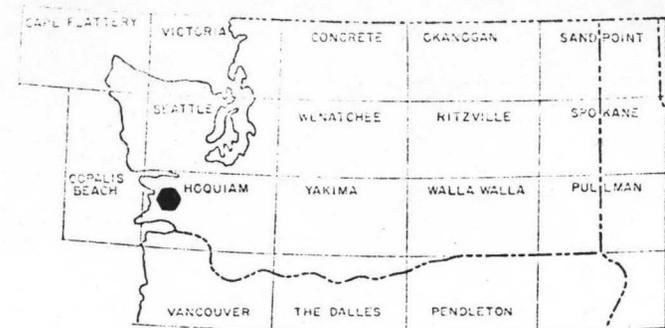
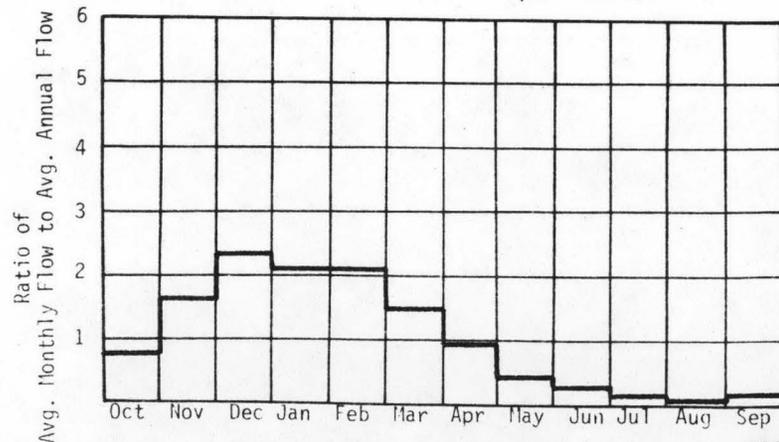
A. Upstream Elevation of Reach	<u>40</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>25</u>	Ft. MSL
C. Total Available Head in Reach	<u>15 + 66 = 81</u>	Ft.
D. Average Slope in Reach	<u>4.1</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.32	0.02	0.20	1.00
80	7.47	0.05	0.42	0.93
50	38.2	0.26	1.58	0.69
30	85.5	0.59	2.72	0.53
10	222	1.52	4.26	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 83 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0011

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R8W</u>
D. Latitude, Longitude	<u>46°37' 123°35'</u>
E. Stream Name	<u>Mill Creek</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0.0/4.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

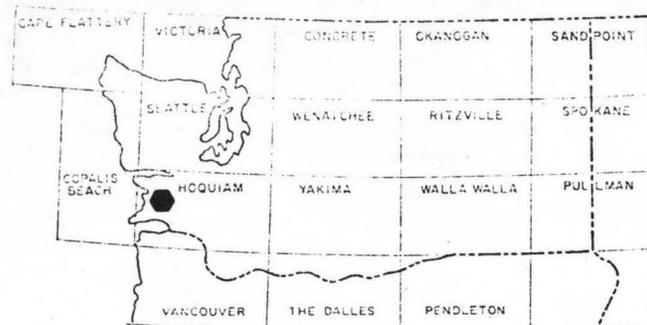
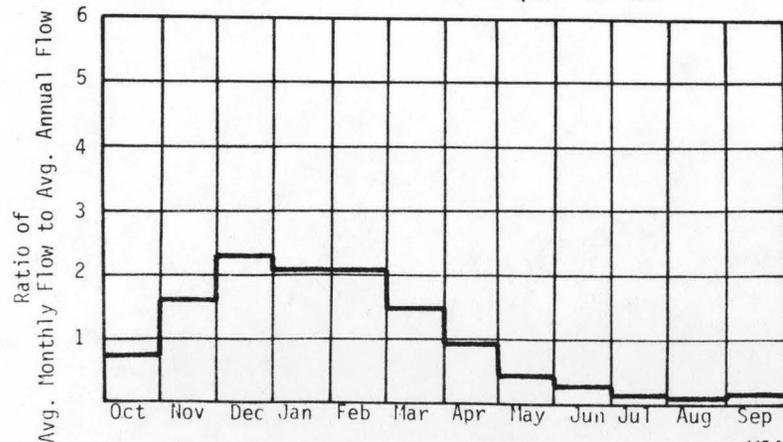
A. Upstream Elevation of Reach	<u>190</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>150 + 66 = 216</u>	Ft.
D. Average Slope in Reach	<u>37.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>23.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.52	0.06	0.56	1.00
80	7.92	0.14	1.18	0.93
50	40.5	0.74	4.47	0.69
30	90.6	1.66	7.69	0.53
10	235	4.29	12.0	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 88 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-056-000-000-000-R0012

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T12N R7W</u>
D. Latitude, Longitude	<u>46°33' 123°35'</u>
E. Stream Name	<u>Fork Creek</u>
F. Major Basin Name	<u>Willapa</u>
G. River Mile	<u>0.0/5.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

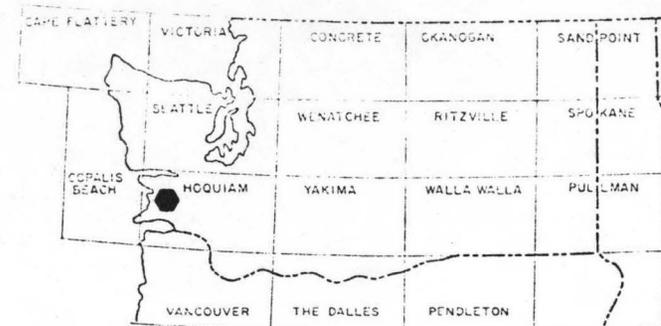
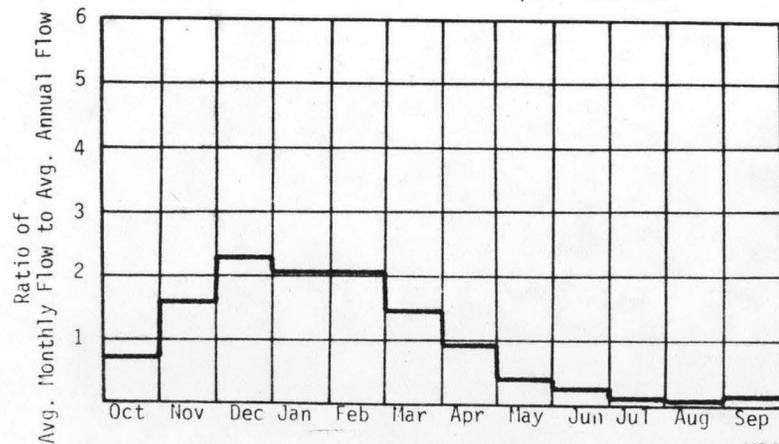
A. Upstream Elevation of Reach	<u>310</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>140</u>	Ft. MSL
C. Total Available Head in Reach	<u>170 + 66 = 236</u>	Ft.
D. Average Slope in Reach	<u>34.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>21.3</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	4.48	0.09	0.78	1.00
80	13.4	0.27	2.16	0.92
50	48.2	1.16	7.13	0.70
30	114	2.28	11.0	0.55
10	282	5.64	16.8	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 112 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-059-000-000-000-R0001

I. LOCATION

A. State Washington
 B. County Wahkiakum
 C. Township, Range T10N R10W
 D. Latitude, Longitude 46°20' 124°55'
 E. Stream Name Bear River
 F. Major Basin Name Bear
 G. River Mile 0/6.3

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

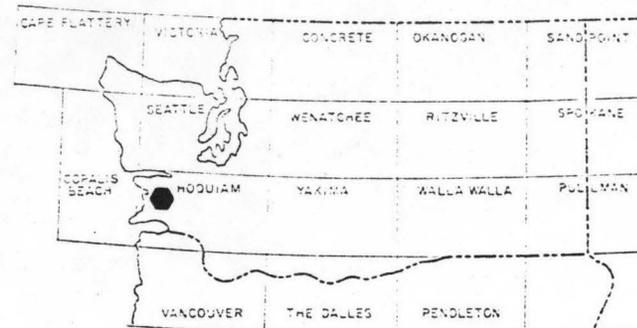
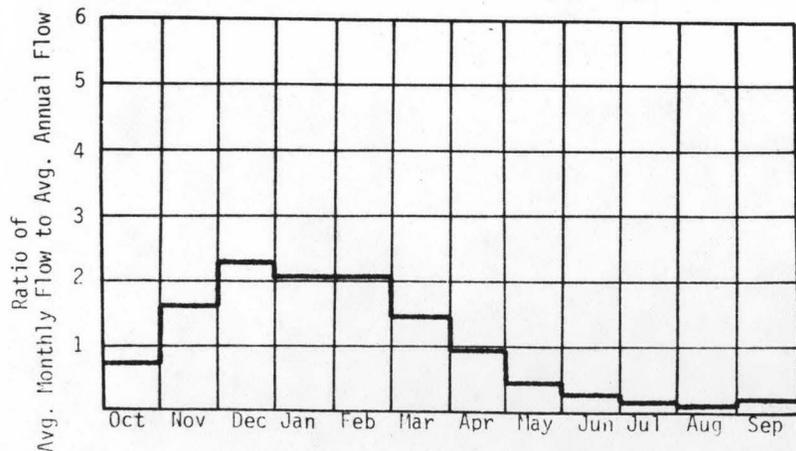
A. Upstream Elevation of Reach 30 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 30 + 66 = 96 Ft.
 D. Average Slope in Reach 4.8 Ft./Mi.
 E. Drainage Area above Reach Mouth 21.7 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

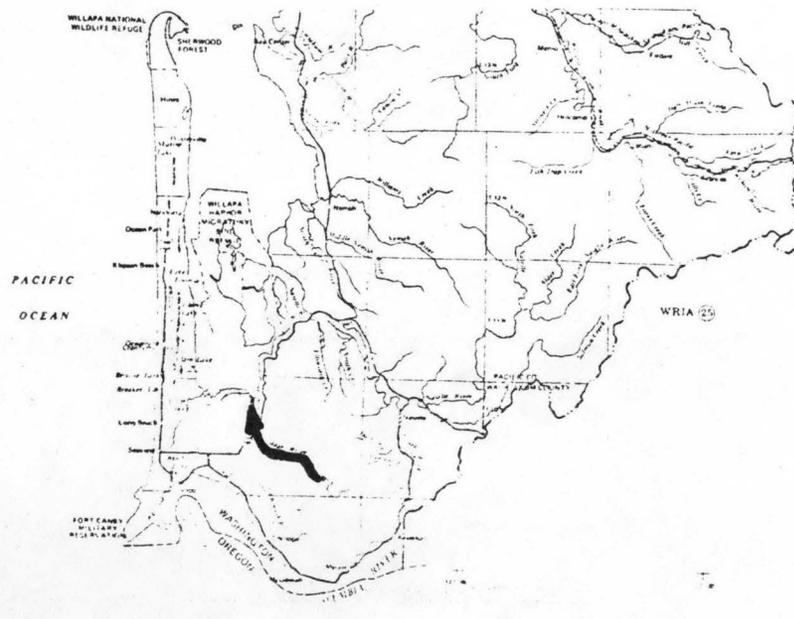
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.64	0.07	0.61	1.00
80	18.4	0.15	1.23	0.94
50	60.5	0.49	3.14	0.73
30	122	0.99	4.86	0.56
10	264	2.14	6.75	0.36

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 108 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-062-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R10W</u>
D. Latitude, Longitude	<u>46°36' 123°54'</u>
E. Stream Name	<u>Palix River</u>
F. Major Basin Name	<u>Palix</u>
G. River Mile	<u>0.0/1.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

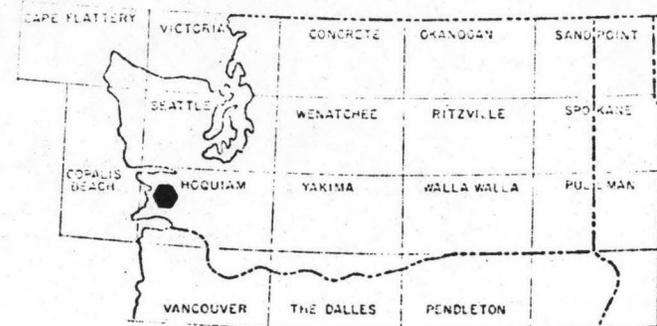
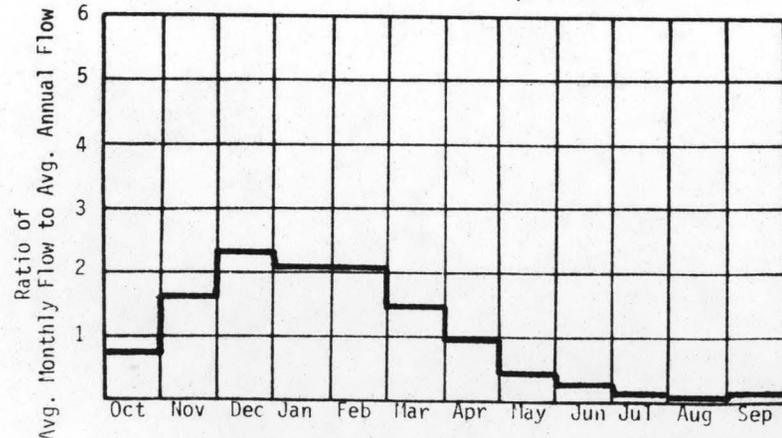
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>37.2</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

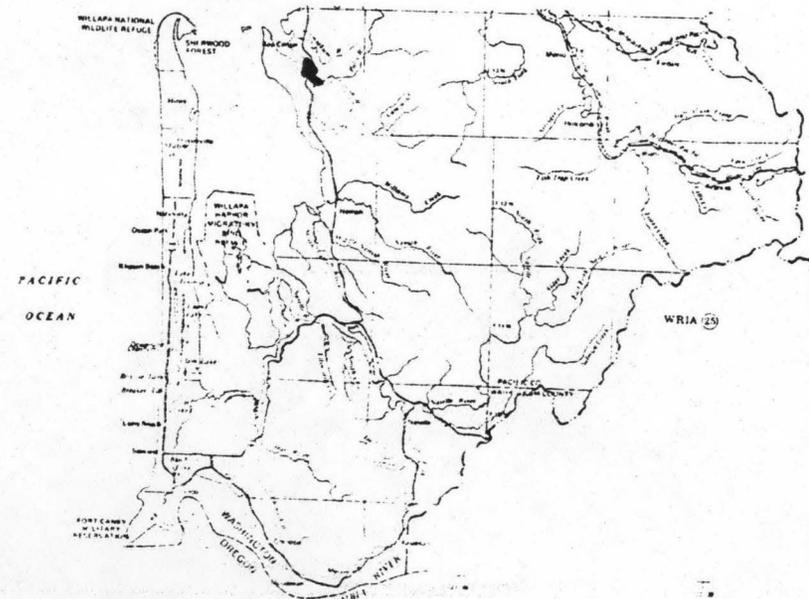
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	27.0	0.00	0.00	1.00
80	43.2	0.00	0.00	0.95
50	121	0.00	0.00	0.74
30	207	0.00	0.00	0.60
10	414	0.00	0.00	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 180 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-062-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R10W</u>
D. Latitude, Longitude	<u>46°36' 123°54'</u>
E. Stream Name	<u>Palix River</u>
F. Major Basin Name	<u>Palix</u>
G. River Mile	<u>1.2/1.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

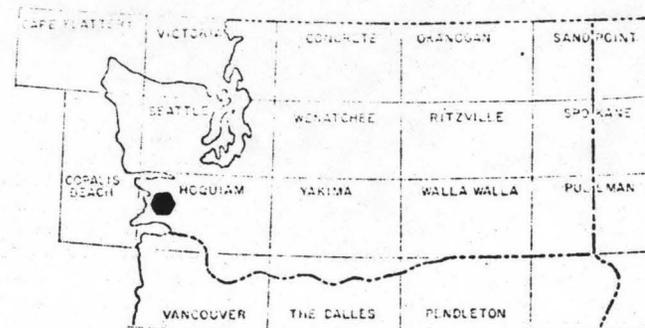
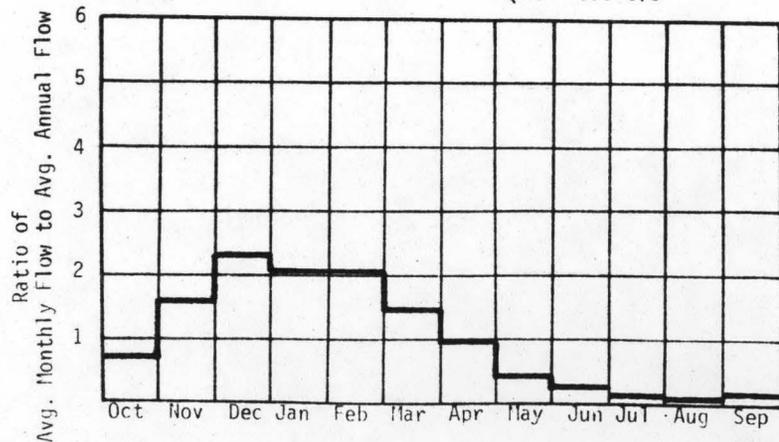
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>31.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

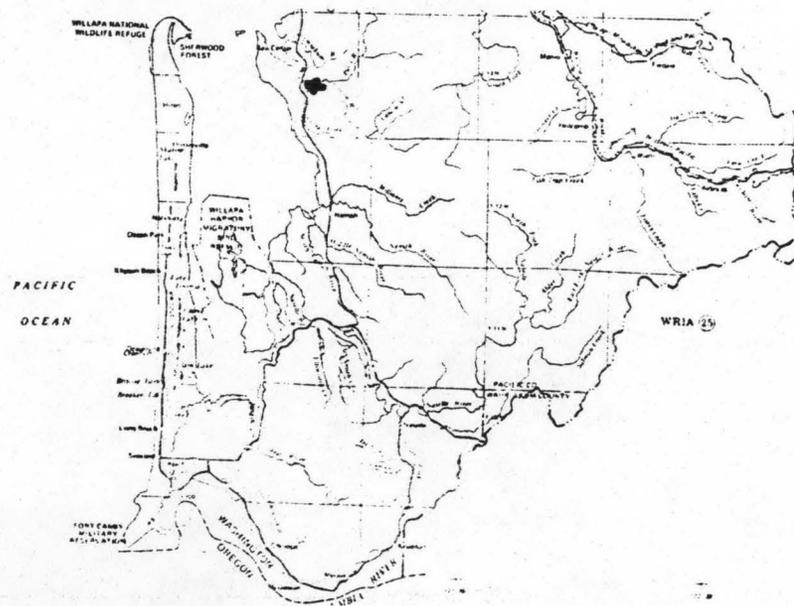
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.3	0.00	0.00	1.00
80	37.2	0.00	0.00	0.95
50	104	0.00	0.00	0.74
30	178	0.00	0.00	0.60
10	357	0.00	0.00	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 155 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-062-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T13N R10W</u>
D. Latitude, Longitude	<u>46°26' 123°53'</u>
E. Stream Name	<u>Canon River</u>
F. Major Basin Name	<u>Palix</u>
G. River Mile	<u>1.8/7.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

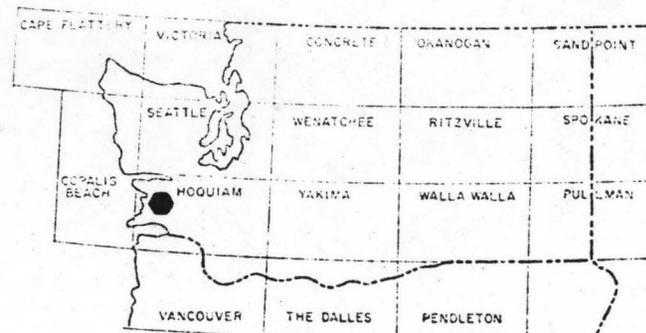
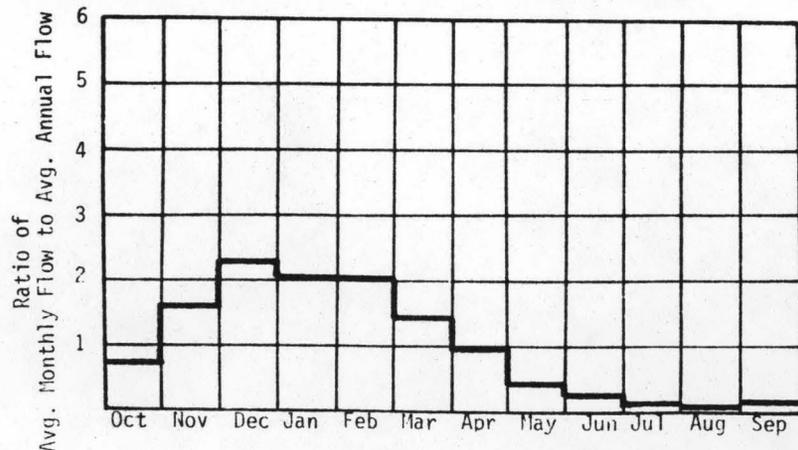
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>200 + 66 = 266</u>	Ft.
D. Average Slope in Reach	<u>33.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>17.6</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

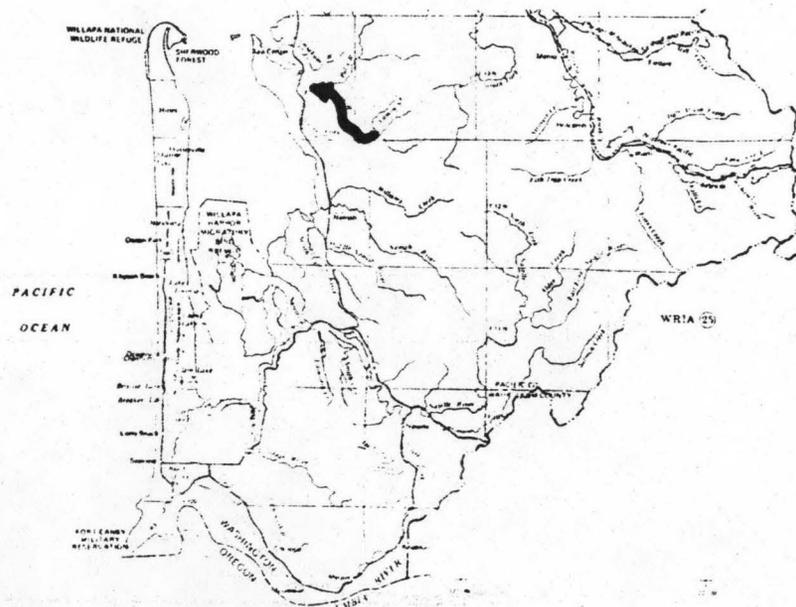
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	12.2	0.27	2.40	1.00
80	19.4	0.44	3.64	0.95
50	54.3	1.22	7.92	0.74
30	93.2	2.10	11.0	0.60
10	186	4.19	14.7	0.40

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 81 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-057-000-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T12N R10W</u>
D. Latitude, Longitude	<u>46°31' 123°53'</u>
E. Stream Name	<u>North Nemah River</u>
F. Major Basin Name	<u>North Nemah</u>
G. River Mile	<u>0.0/1.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

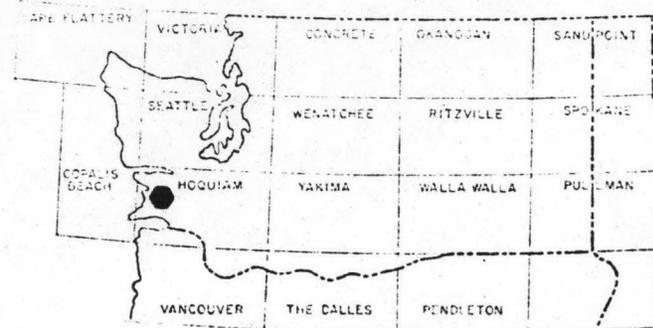
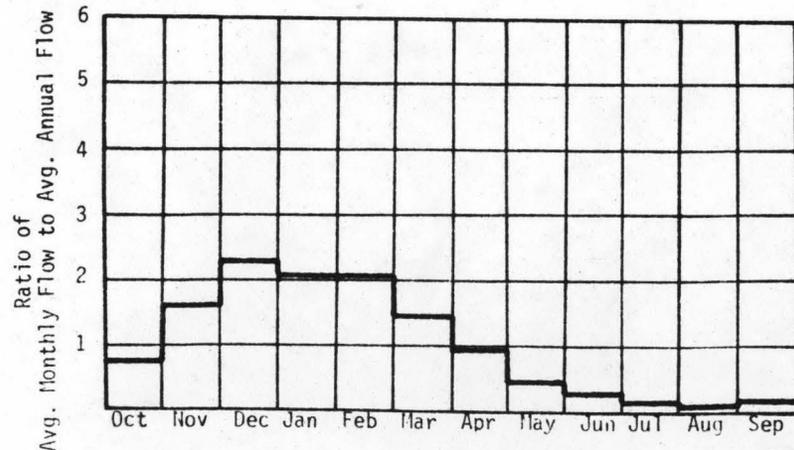
A. Upstream Elevation of Reach	<u>0</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>0</u>	Ft.
D. Average Slope in Reach	<u>0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>34.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	16.2	0.00	0.00	1.00
80	30.3	0.00	0.00	0.94
50	103	0.00	0.00	0.72
30	210	0.00	0.00	0.56
10	513	0.00	0.00	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 202 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-057-000-000-000-R0002

I. LOCATION

A. State	Washington
B. County	Pacific
C. Township, Range	T12N R10W
D. Latitude, Longitude	46°30' 123°51'
E. Stream Name	North Nemah River
F. Major Basin Name	North Nemah
G. River Mile	1.1/6.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

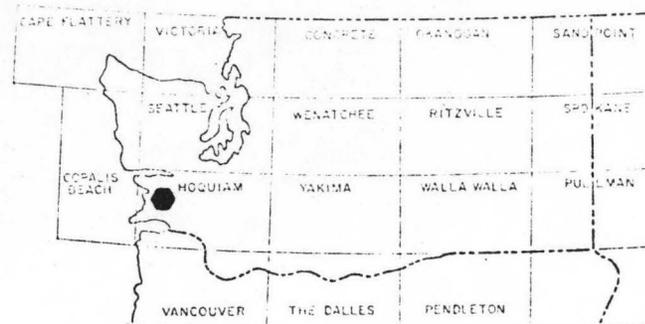
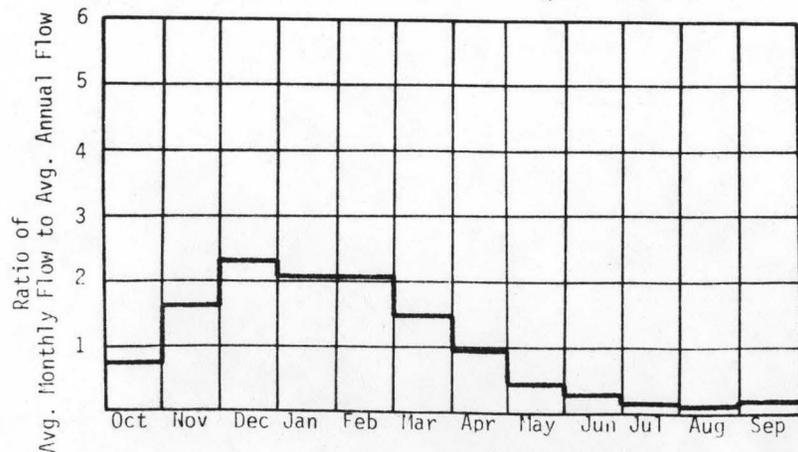
A. Upstream Elevation of Reach	40	Ft.	MSL
B. Downstream Elevation of Reach	0	Ft.	MSL
C. Total Available Head in Reach	40	Ft.	
D. Average Slope in Reach	8.0	Ft./Mi.	
E. Drainage Area above Reach Mouth	22.4	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

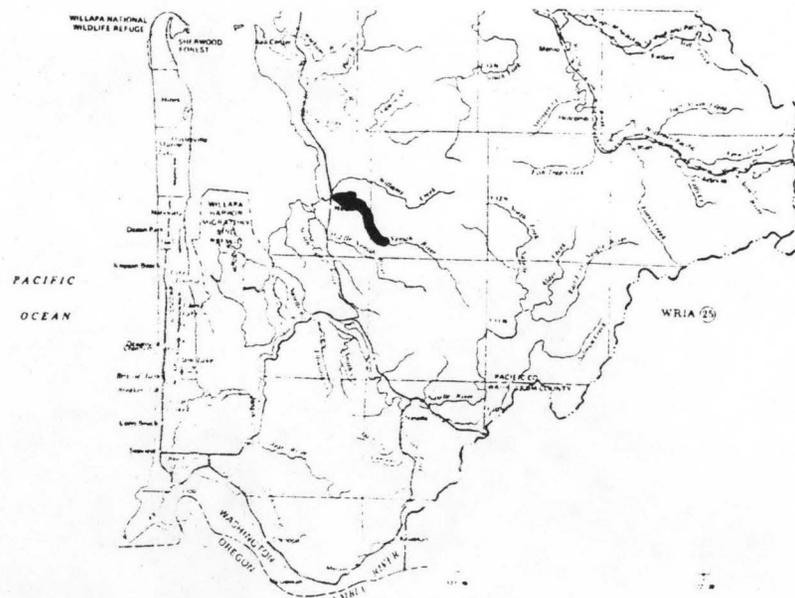
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.84	0.03	0.29	1.00
80	18.5	0.06	0.51	0.94
50	62.7	0.21	1.34	0.72
30	128	0.43	2.12	0.56
10	312	1.06	3.15	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 123 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-057-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T12N R9W</u>
D. Latitude, Longitude	<u>46°28' 123°48'</u>
E. Stream Name	<u>North Nemah River</u>
F. Major Basin Name	<u>North Nemah</u>
G. River Mile	<u>6.1/10.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

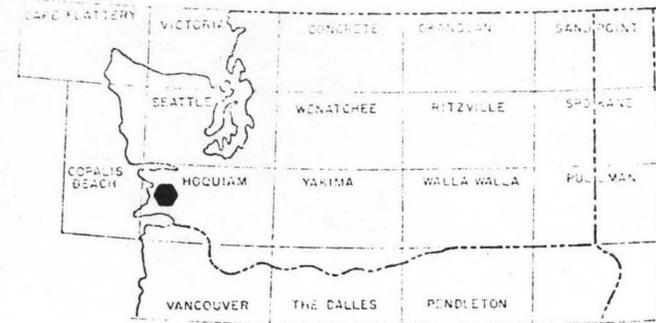
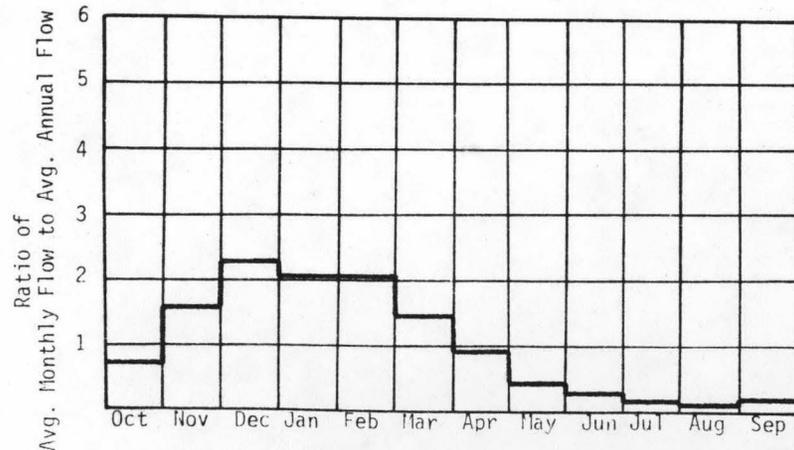
A. Upstream Elevation of Reach	<u>200</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>40</u>	Ft. MSL
C. Total Available Head in Reach	<u>160 + 66 = 226</u>	Ft.
D. Average Slope in Reach	<u>34.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>13.2</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

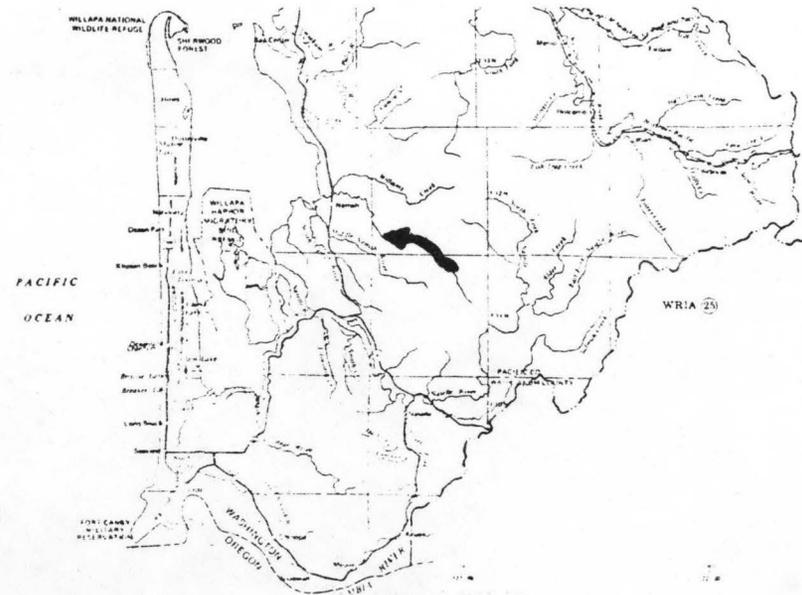
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.04	0.10	0.84	1.00
80	9.45	0.18	1.49	0.94
50	32.1	0.61	3.87	0.72
30	65.5	1.25	6.15	0.56
10	160	3.06	9.11	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 63 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0001

I. LOCATION

A. State	Washington
B. County	Wahkiakum
C. Township, Range	T10N R9W
D. Latitude, Longitude	46°22' 123°49'
E. Stream Name	S.F. Naselle River
F. Major Basin Name	Naselle
G. River Mile	11.2/13.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

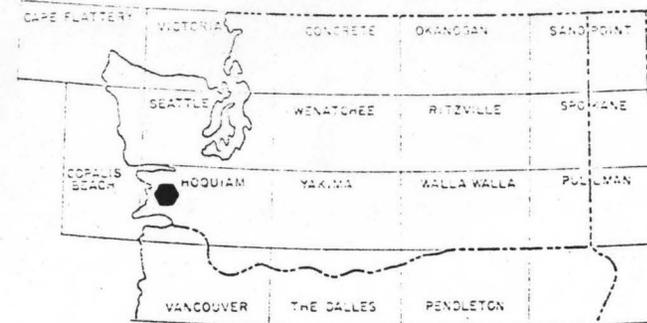
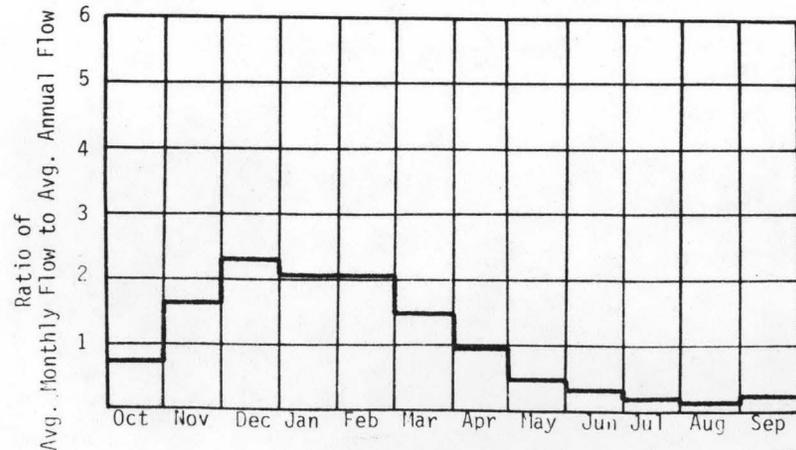
A. Upstream Elevation of Reach	15	Ft. MSL
B. Downstream Elevation of Reach	5	Ft. MSL
C. Total Available Head in Reach	10	Ft.
D. Average Slope in Reach	5.6	Ft./Mi.
E. Drainage Area above Reach Mouth	107	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

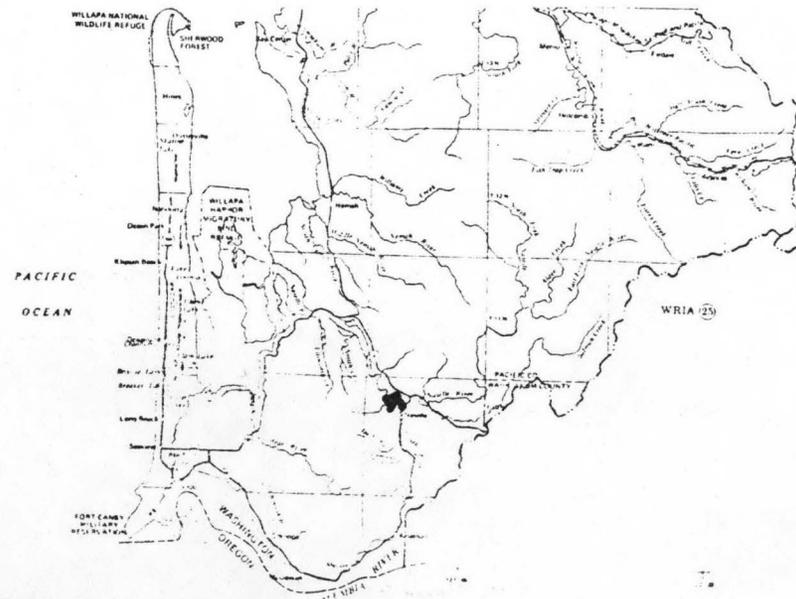
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	63.3	0.05	0.47	1.00
80	111	0.09	0.78	0.95
50	396	0.33	2.11	0.72
30	815	0.69	3.38	0.56
10	1990	1.69	5.02	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 791 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R9W</u>
D. Latitude, Longitude	<u>46°22' 123°47'</u>
E. Stream Name	<u>S.F. Naselle River</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>13.0/15.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

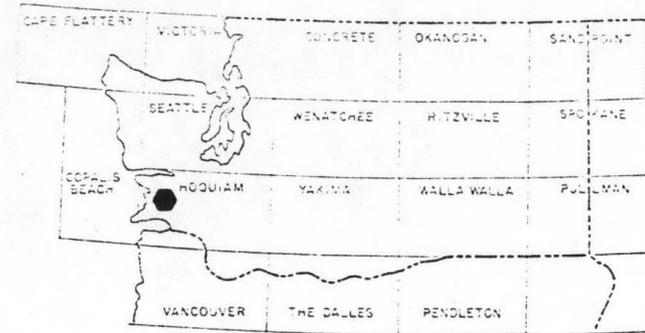
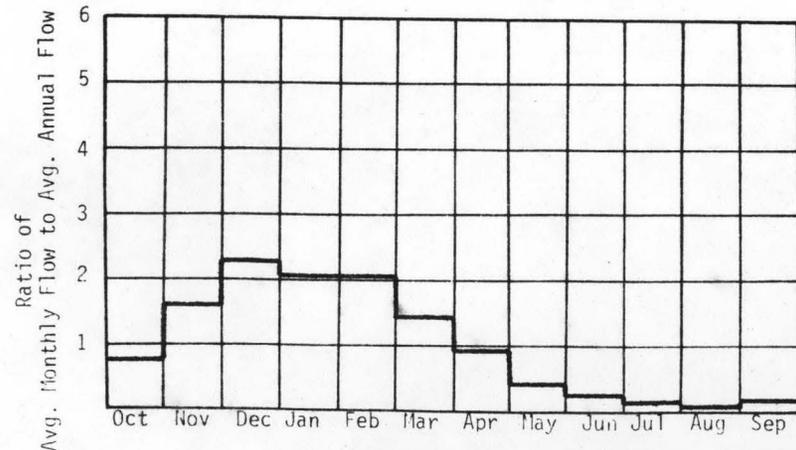
A. Upstream Elevation of Reach	<u>20</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>15</u>	Ft. MSL
C. Total Available Head in Reach	<u>5</u>	Ft.
D. Average Slope in Reach	<u>2.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>80.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

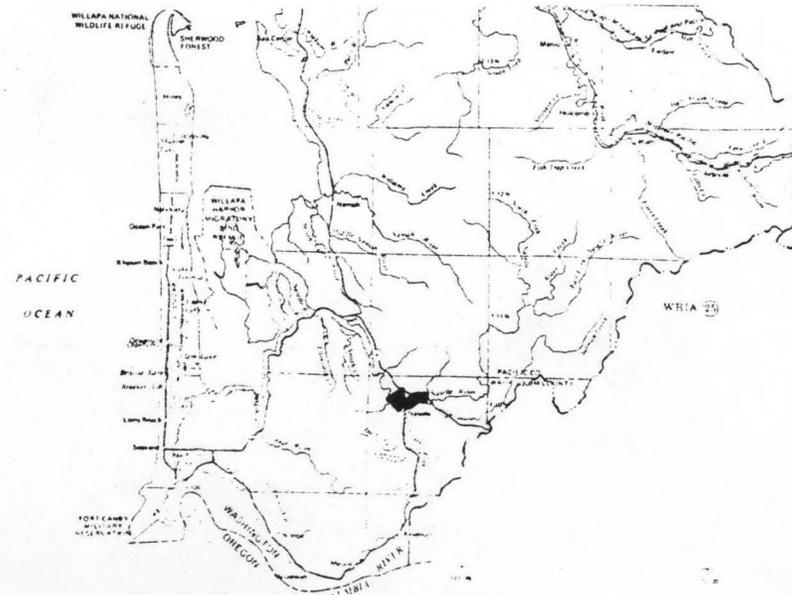
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	46.8	0.02	0.17	1.00
80	81.9	0.03	0.29	0.95
50	293	0.12	0.78	0.72
30	602	0.25	1.25	0.56
10	1470	0.62	1.86	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 585 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-058-000-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R9W</u>
D. Latitude, Longitude	<u>46°22' 123°45'</u>
E. Stream Name	<u>S.F. Naselle River</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>15.2/28.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

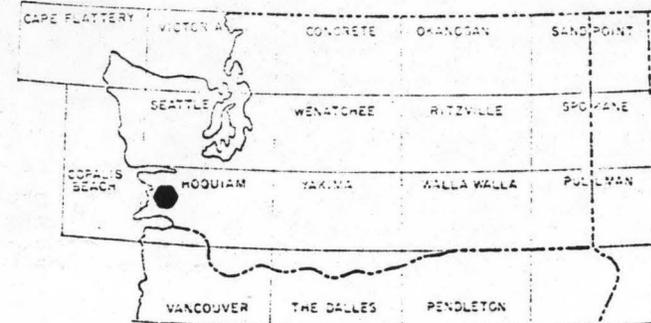
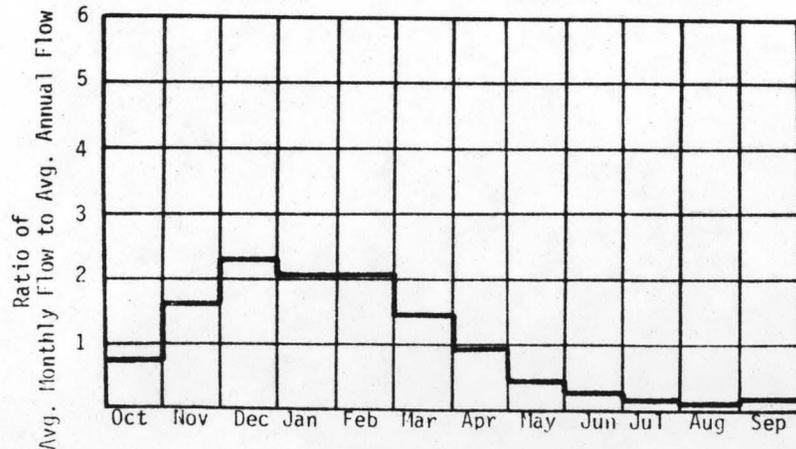
A. Upstream Elevation of Reach	<u>280</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>260</u>	Ft.
D. Average Slope in Reach	<u>20.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>57.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

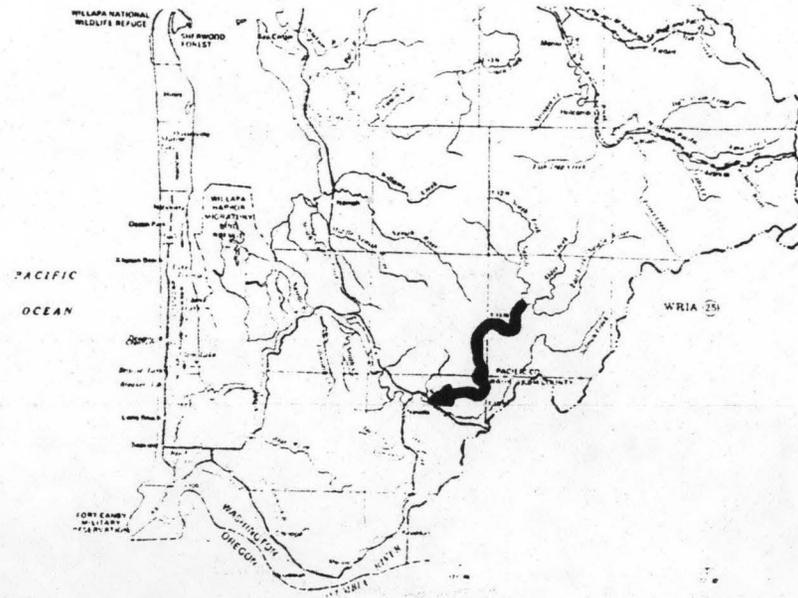
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	30.5	0.67	5.87	1.00
80	53.3	1.17	9.76	0.95
50	191	4.19	26.4	0.72
30	392	8.63	42.3	0.56
10	960	21.1	62.9	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 381 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R8W</u>
D. Latitude, Longitude	<u>46°26' 123°41'</u>
E. Stream Name	<u>S.F. Naselle River</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>28.0/28.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

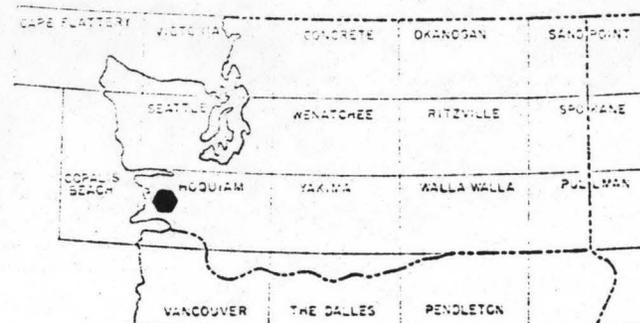
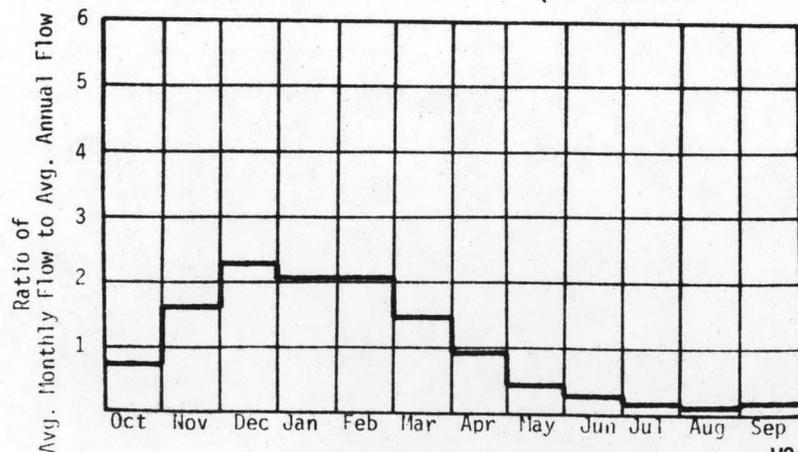
A. Upstream Elevation of Reach	<u>285</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>280</u>	Ft. MSL
C. Total Available Head in Reach	<u>5</u>	Ft.
D. Average Slope in Reach	<u>12.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>23.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

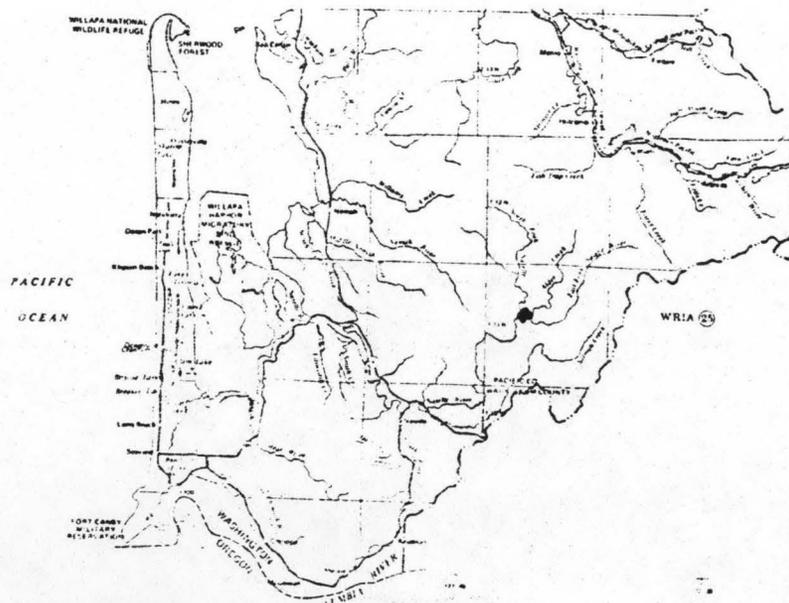
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	14.4	0.01	0.05	1.00
80	25.2	0.01	0.09	0.95
50	90.0	0.04	0.24	0.72
30	185	0.08	0.38	0.56
10	454	0.19	0.57	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 180 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R8W</u>
D. Latitude, Longitude	<u>46°25' 123°38'</u>
E. Stream Name	<u>E.F. Naselle River</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>28.4/32.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

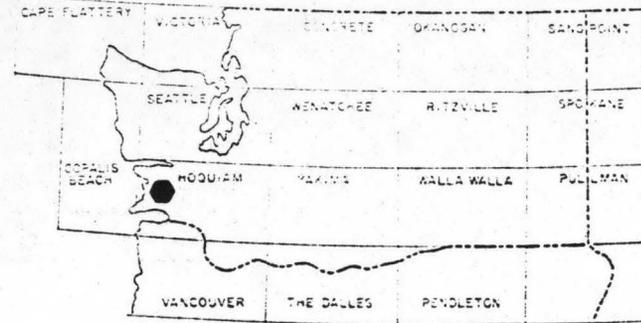
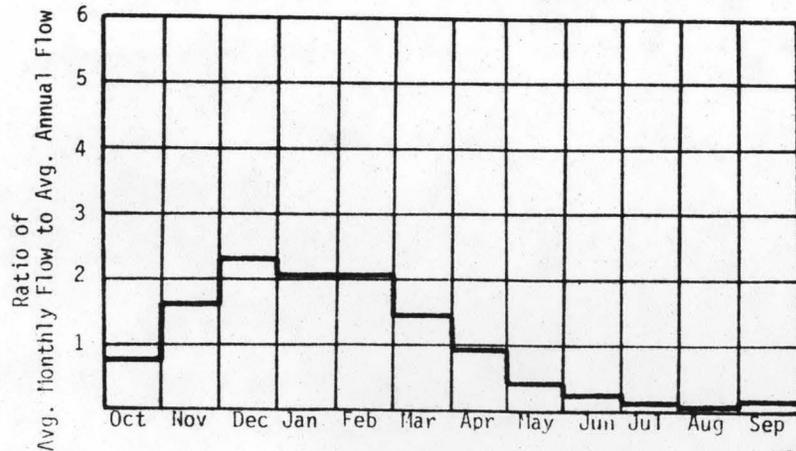
A. Upstream Elevation of Reach	<u>405</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>285</u>	Ft. MSL
C. Total Available Head in Reach	<u>120+66 = 186</u>	Ft.
D. Average Slope in Reach	<u>50.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.1</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

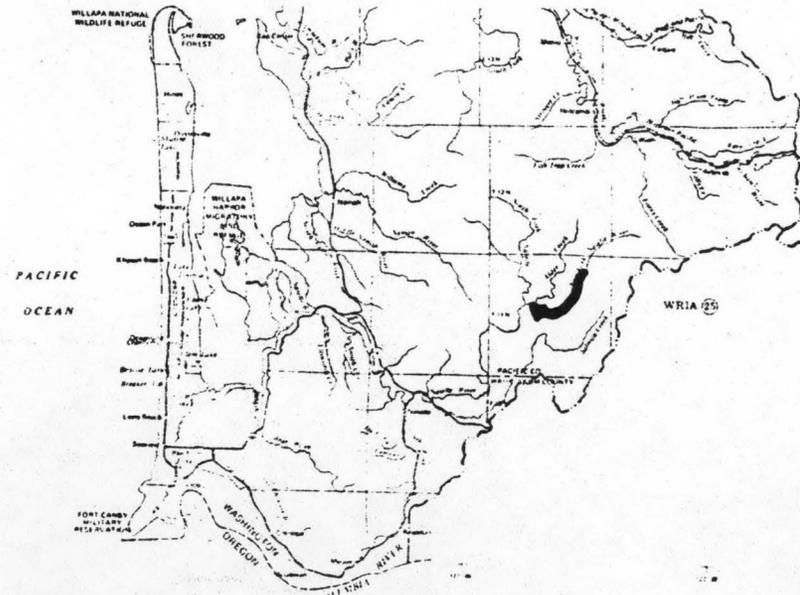
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.08	0.10	0.84	1.00
80	10.6	0.17	1.39	0.95
50	38.0	0.60	3.77	0.72
30	78.3	1.23	6.04	0.56
10	192	3.01	8.98	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 76 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R9W</u>
D. Latitude, Longitude	<u>46°21' 123°48'</u>
E. Stream Name	<u>S. Naselle River</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>0/3.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

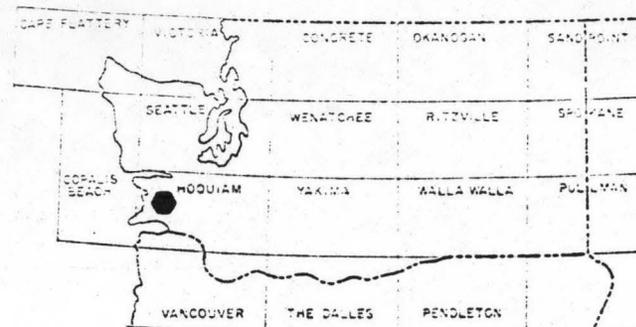
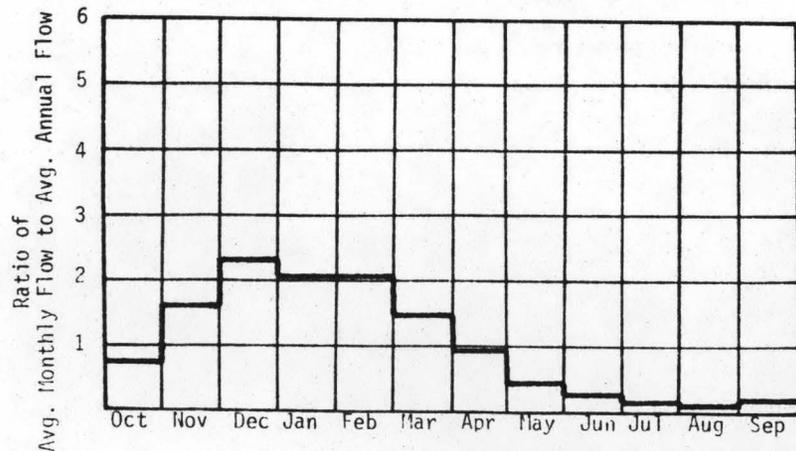
A. Upstream Elevation of Reach	<u>25</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>15</u>	Ft. MSL
C. Total Available Head in Reach	<u>10 + 66 = 76</u>	Ft.
D. Average Slope in Reach	<u>2.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>19.4</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

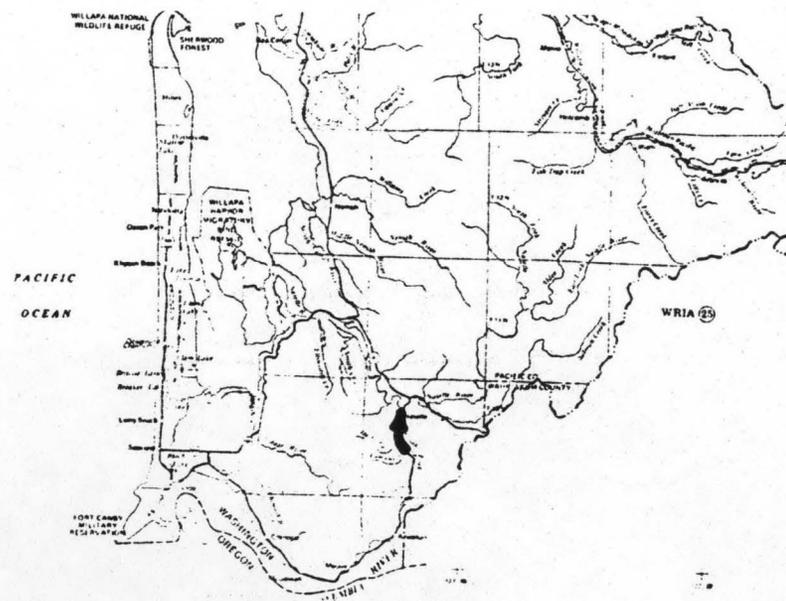
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.78	0.02	0.21	1.00
80	12.6	0.08	0.65	0.91
50	58.0	0.37	2.25	0.69
30	127	0.82	3.80	0.53
10	334	2.15	6.02	0.32

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 126 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R8W</u>
D. Latitude, Longitude	<u>46°22' 123°40'</u>
E. Stream Name	<u>Salmon Creek</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>0/9.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

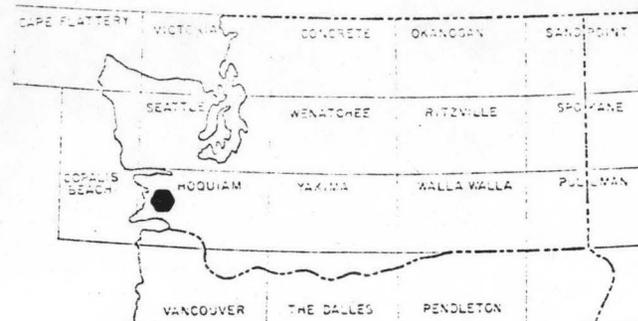
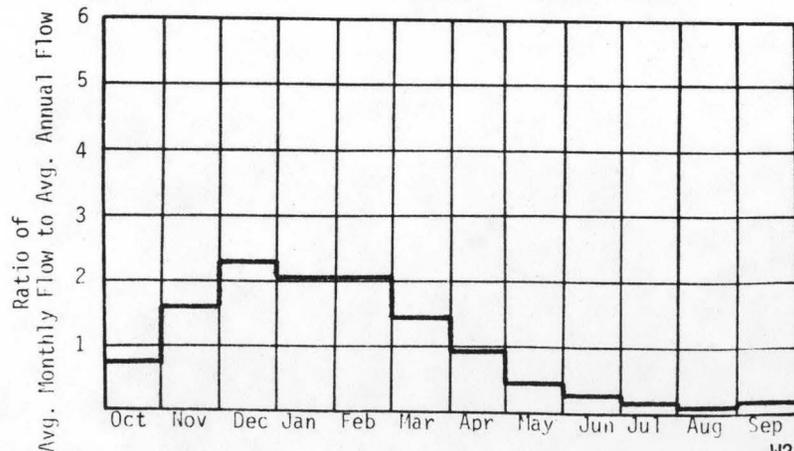
A. Upstream Elevation of Reach	<u>160</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>140 + 66 = 206</u>	Ft.
D. Average Slope in Reach	<u>15.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>18.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

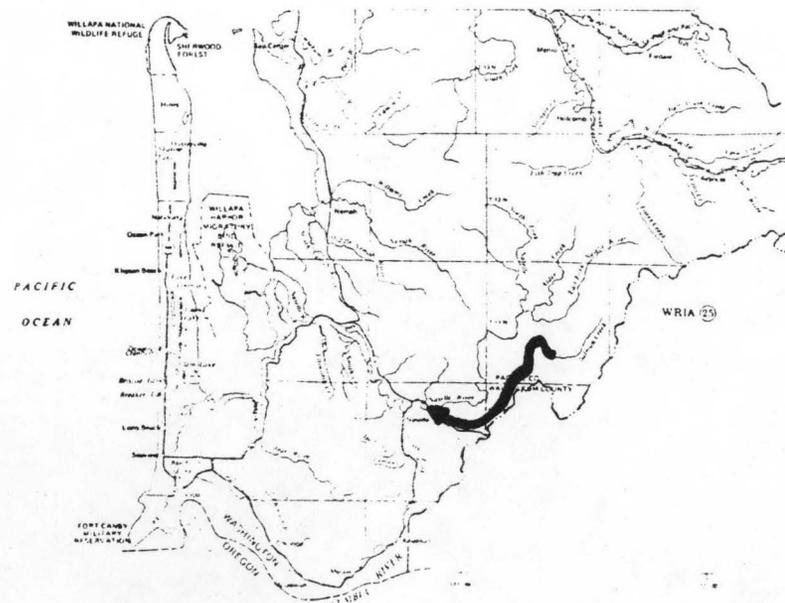
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	3.64	0.06	0.56	1.00
80	10.0	0.17	1.41	0.92
50	45.5	0.79	4.79	0.69
30	93.7	1.63	7.73	0.54
10	239	4.17	12.1	0.33

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 91 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0008

I. LOCATION

A. State	Washington
B. County	Pacific
C. Township, Range	T11N R8W
D. Latitude, Longitude	46°28' 123°42'
E. Stream Name	N.F. Naselle River
F. Major Basin Name	Naselle
G. River Mile	0.0/6.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

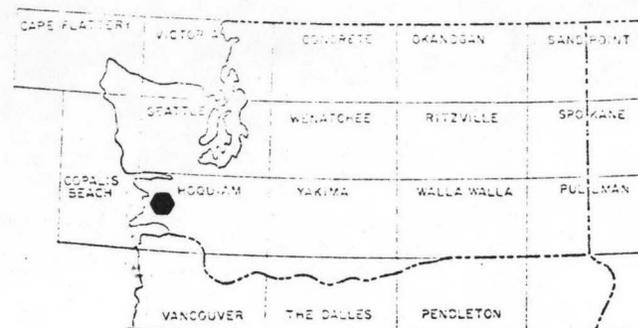
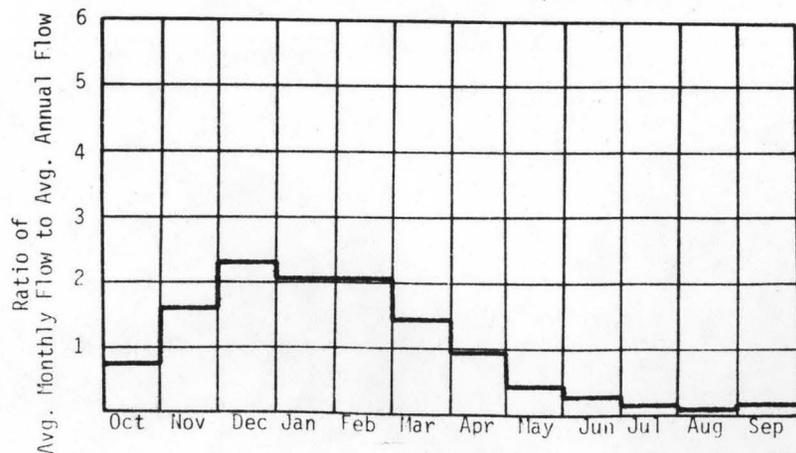
A. Upstream Elevation of Reach	780	Ft.	MSL
B. Downstream Elevation of Reach	280	Ft.	MSL
C. Total Available Head in Reach	500+66 = 566	Ft.	
D. Average Slope in Reach	73.5	Ft./Mi.	
E. Drainage Area above Reach Mouth	15.4	Sq.Mi.	
F. Inflow Classification	Natural		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

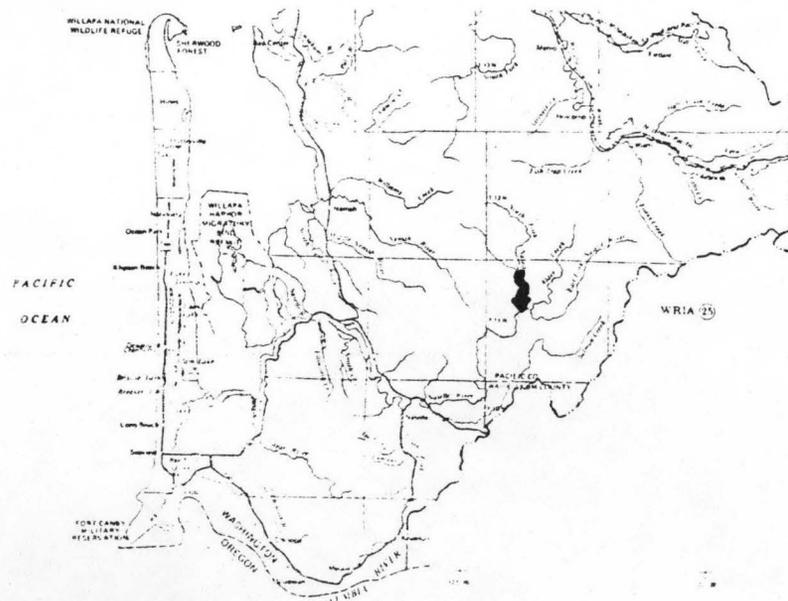
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.68	0.37	3.22	1.00
80	13.4	0.64	5.19	0.95
50	48.0	2.30	14.5	0.72
30	98.9	4.73	23.2	0.56
10	242	11.6	34.5	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 96 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-058-000-000-000-R0009

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R8W</u>
D. Latitude, Longitude	<u>46°28' 123°39'</u>
E. Stream Name	<u>Alder Creek</u>
F. Major Basin Name	<u>Naselle</u>
G. River Mile	<u>0/2.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

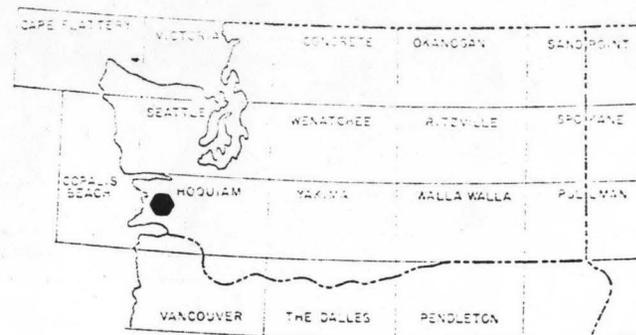
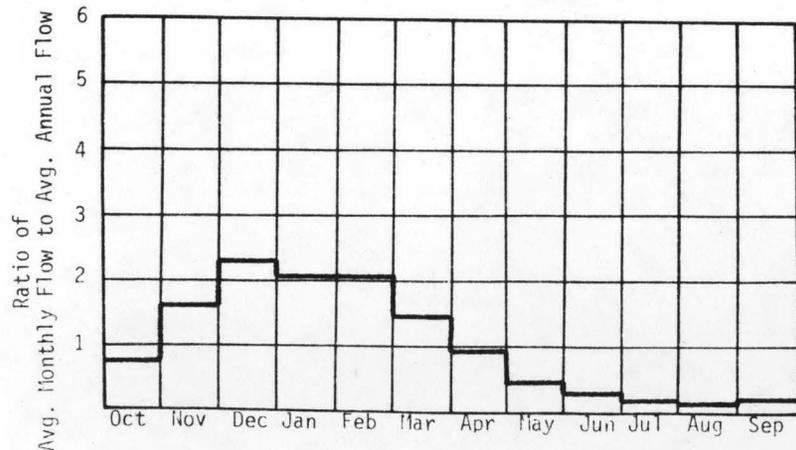
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>285</u>	Ft. MSL
C. Total Available Head in Reach	<u>75 + 66 = 141</u>	Ft.
D. Average Slope in Reach	<u>27.8</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>11.2</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

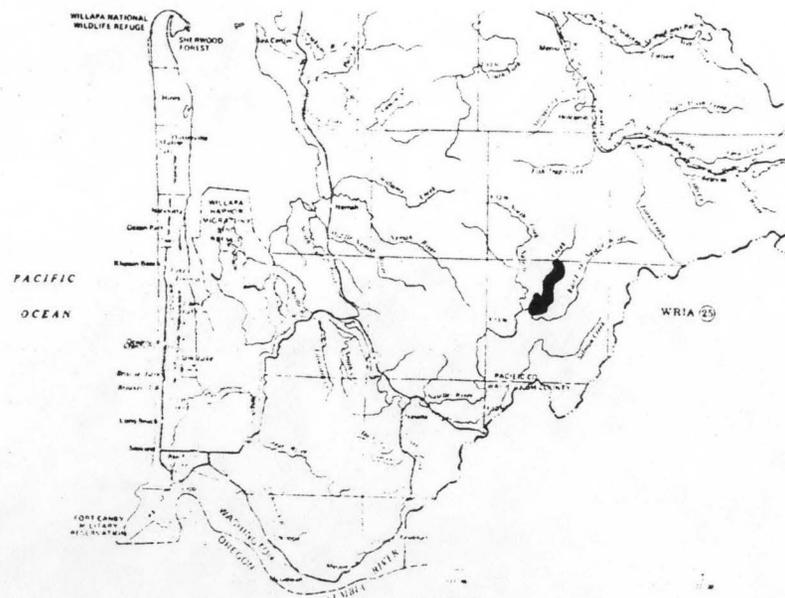
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.92	0.07	0.62	1.00
80	10.4	0.12	1.00	0.95
50	37.0	0.44	2.78	0.72
30	76.2	0.91	4.46	0.56
10	186	2.22	6.63	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 74 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0001

I. LOCATION

A. State Washington
 B. County Wahkiakum
 C. Township, Range T10N R8W
 D. Latitude, Longitude 46°20' 123°39'
 E. Stream Name Grays River
 F. Major Basin Name Grays
 G. River Mile 0/7.8

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

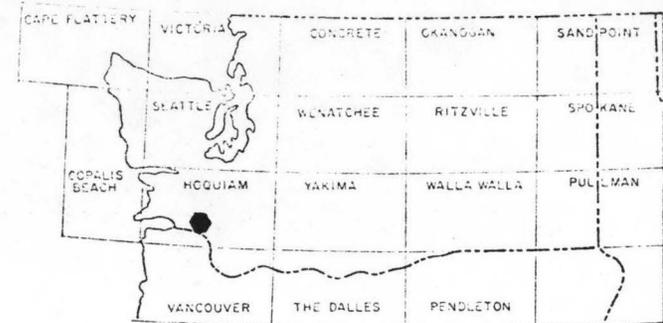
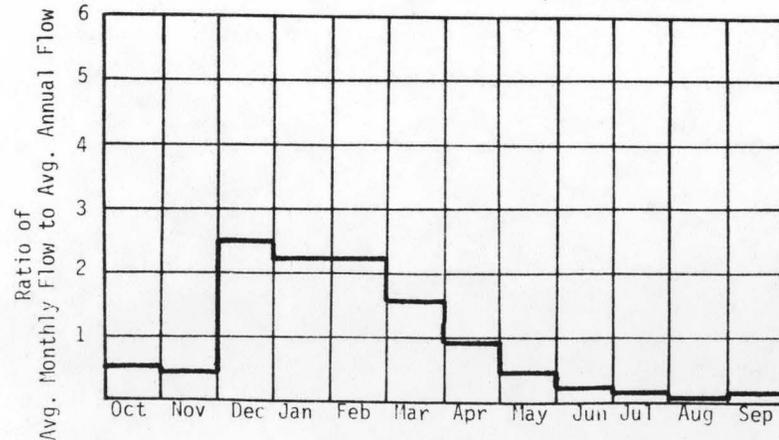
A. Upstream Elevation of Reach 16 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 16 Ft.
 D. Average Slope in Reach 2.1 Ft./Mi.
 E. Drainage Area above Reach Mouth 124.6 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

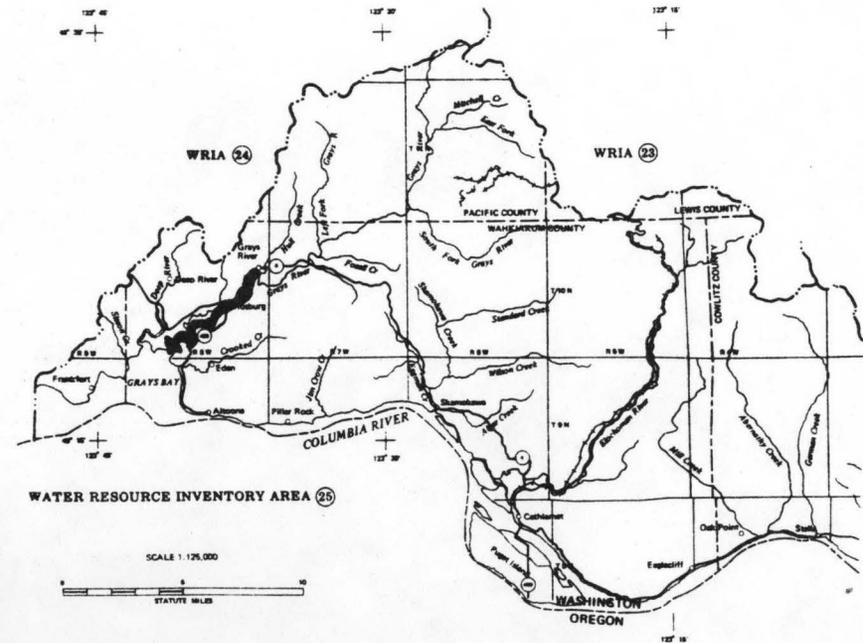
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	62.9	0.09	0.75	1.00
80	144	0.19	1.58	0.93
50	476	0.64	4.06	0.72
30	889	1.20	6.01	0.57
10	2190	2.97	8.83	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 898 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



SCALE 1:125,000



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R7W</u>
D. Latitude, Longitude	<u>46°22' 123°35'</u>
E. Stream Name	<u>Grays River</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>7.8/12.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

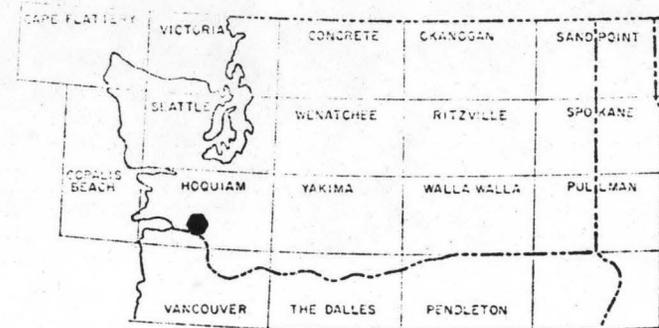
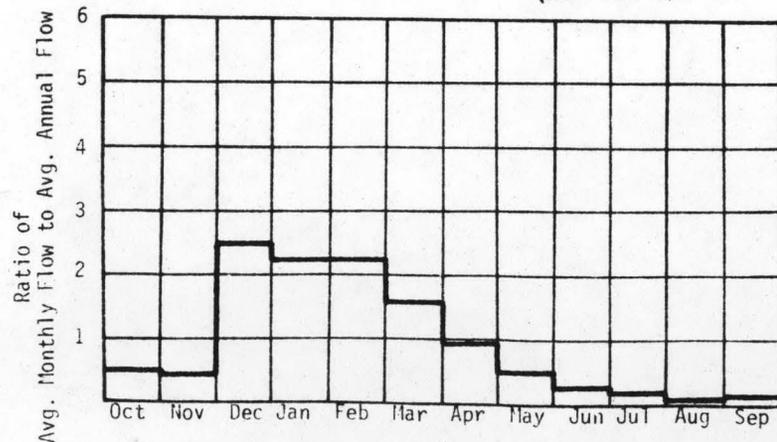
A. Upstream Elevation of Reach	<u>50</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>16</u>	Ft. MSL
C. Total Available Head in Reach	<u>34</u>	Ft.
D. Average Slope in Reach	<u>7.2</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>97.7</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

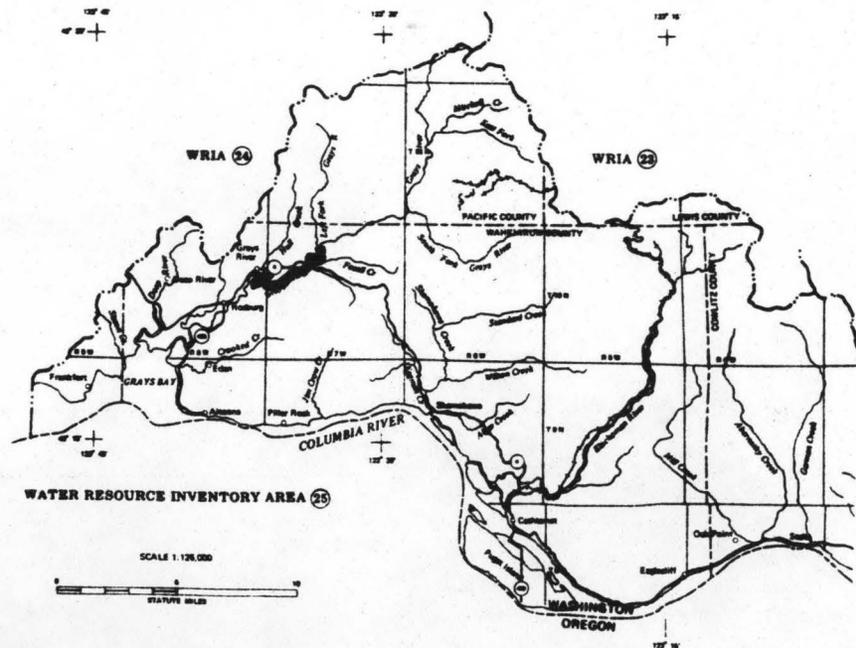
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	49.9	0.14	1.26	1.00
80	114	0.33	2.67	0.93
50	378	1.09	6.86	0.72
30	706	2.03	10.1	0.57
10	1740	5.00	14.9	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 713 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH #: 01-500-002-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T11N R7W</u>
D. Latitude, Longitude	<u>46°23' 123°31'</u>
E. Stream Name	<u>Grays River</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>12.5/17.1</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

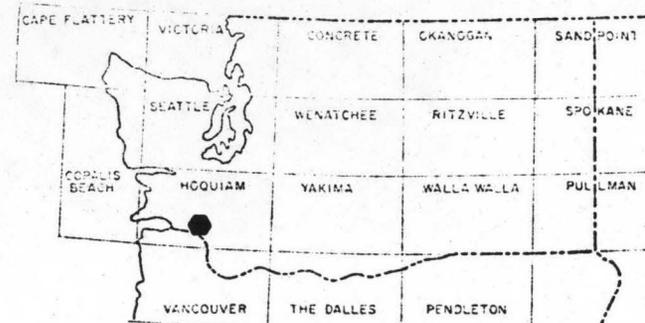
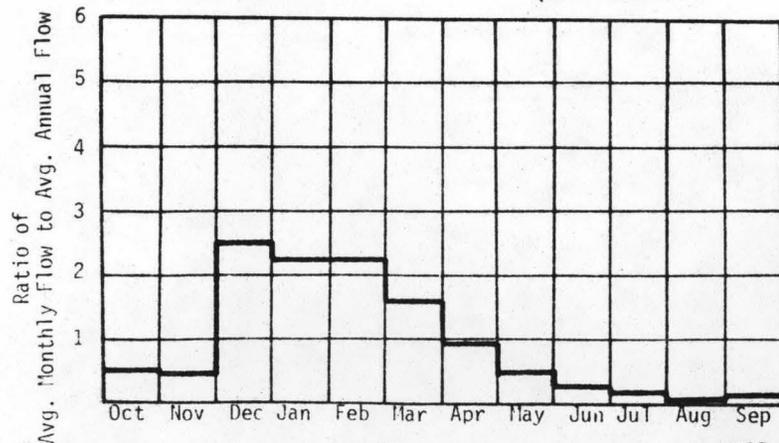
A. Upstream Elevation of Reach	<u>360</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>310</u>	Ft.
D. Average Slope in Reach	<u>67.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>66.4</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

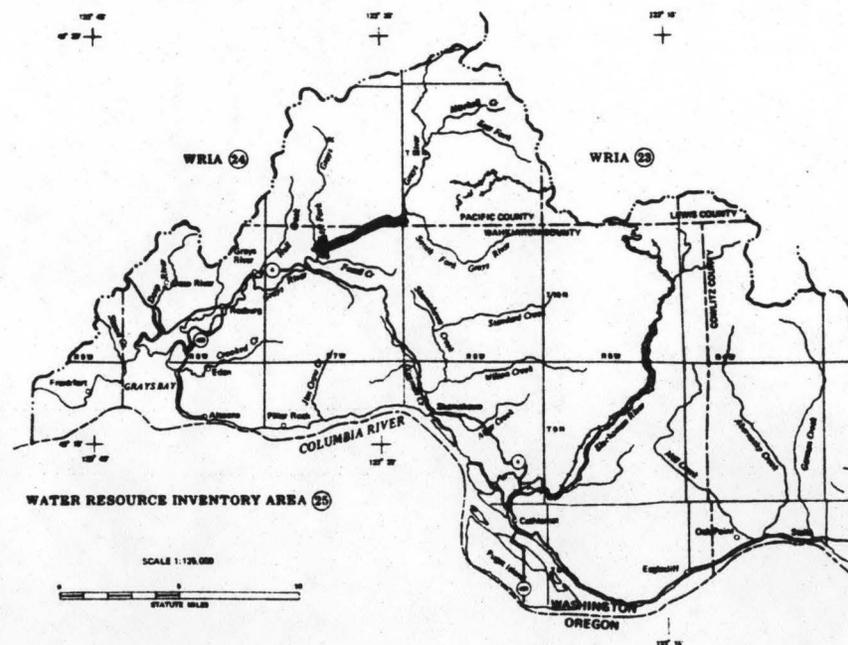
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	41.0	1.07	9.41	1.00
80	76.8	2.01	16.6	0.94
50	266	6.98	44.0	0.72
30	532	14.0	68.5	0.56
10	1250	32.8	100	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 512 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0004

I. LOCATION

A. State	Washington
B. County	Pacific
C. Township, Range	T11N R6W
D. Latitude, Longitude	46°25' 123°28'
E. Stream Name	Grays River
F. Major Basin Name	Grays
G. River Mile	17.1/21.1

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

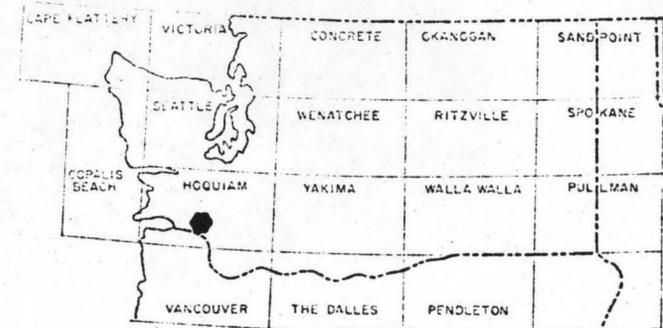
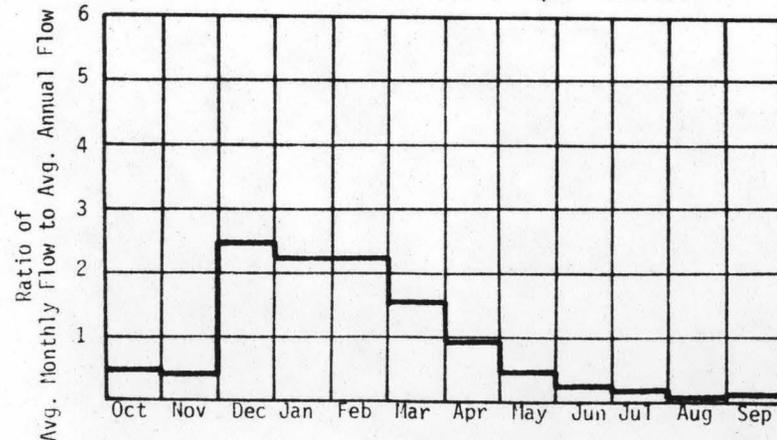
A. Upstream Elevation of Reach	506	Ft. MSL
B. Downstream Elevation of Reach	360	Ft. MSL
C. Total Available Head in Reach	146	Ft.
D. Average Slope in Reach	36.5	Ft./Mi.
E. Drainage Area above Reach Mouth	40.0	Sq.Mi.
F. Inflow Classification	Natural	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

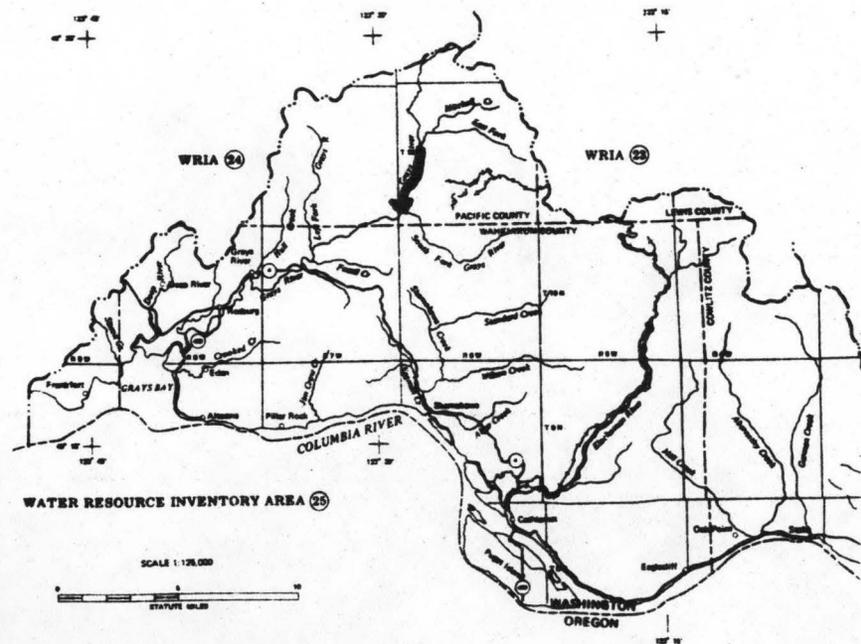
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	23.4	0.39	2.54	1.00
80	44.0	0.54	4.47	0.94
50	152	1.88	11.9	0.72
30	305	3.76	18.5	0.56
10	715	8.83	27.1	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 293 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R6W</u>
D. Latitude, Longitude	<u>46°27' 123°27'</u>
E. Stream Name	<u>Grays River</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>21 1/22.9</u>

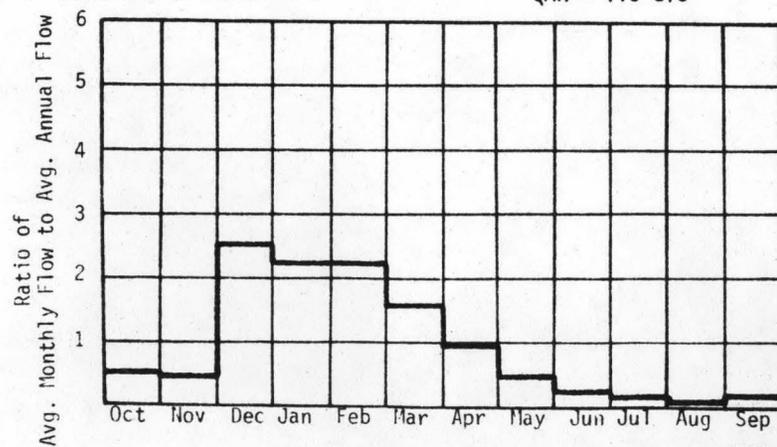
II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

A. Upstream Elevation of Reach	<u>640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>506</u>	Ft. MSL
C. Total Available Head in Reach	<u>134 + 66 = 200</u>	Ft.
D. Average Slope in Reach	<u>74.4</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>15.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

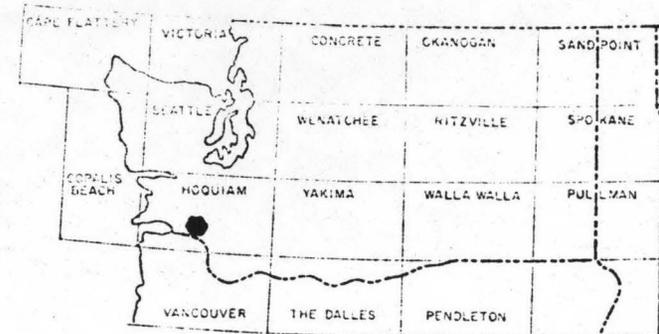
III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.80	0.15	1.30	1.00
80	16.5	0.28	2.30	0.94
50	57.2	0.97	6.10	0.72
30	114	1.94	9.50	0.56
10	268	4.54	13.9	0.35

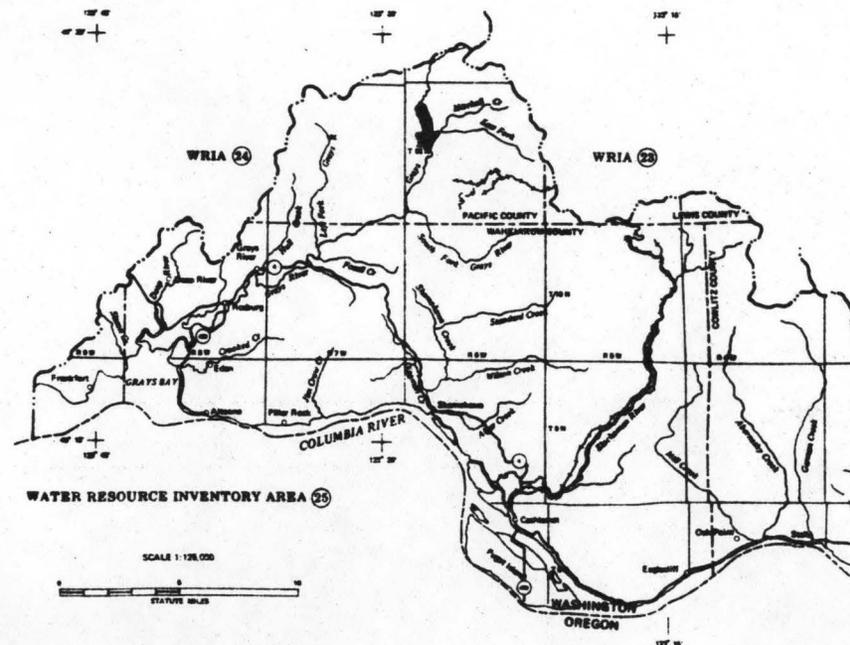
IV. TYPICAL ANNUAL HYDROGRAPH



W25-886



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0006

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R7W</u>
D. Latitude, Longitude	<u>46°22' 123°36'</u>
E. Stream Name	<u>Hull Creek</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>0/2.2</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

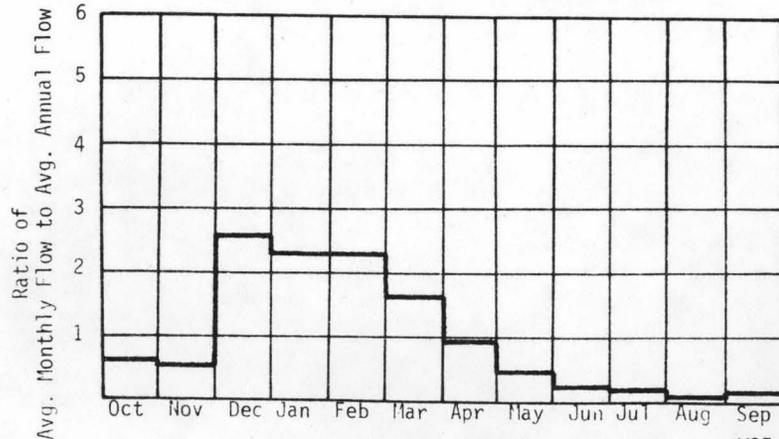
A. Upstream Elevation of Reach	<u>35</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>16</u>	Ft. MSL
C. Total Available Head in Reach	<u>19 + 66 = 85</u>	Ft.
D. Average Slope in Reach	<u>8.6</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

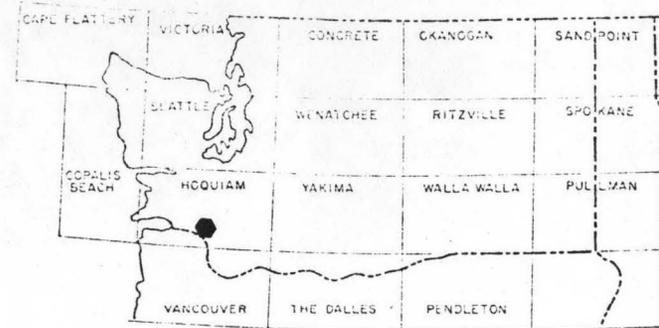
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	5.60	0.04	0.35	1.00
80	12.8	0.09	0.75	0.93
50	42.4	0.30	1.92	0.72
30	79.2	0.57	2.84	0.57
10	195	1.40	4.19	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

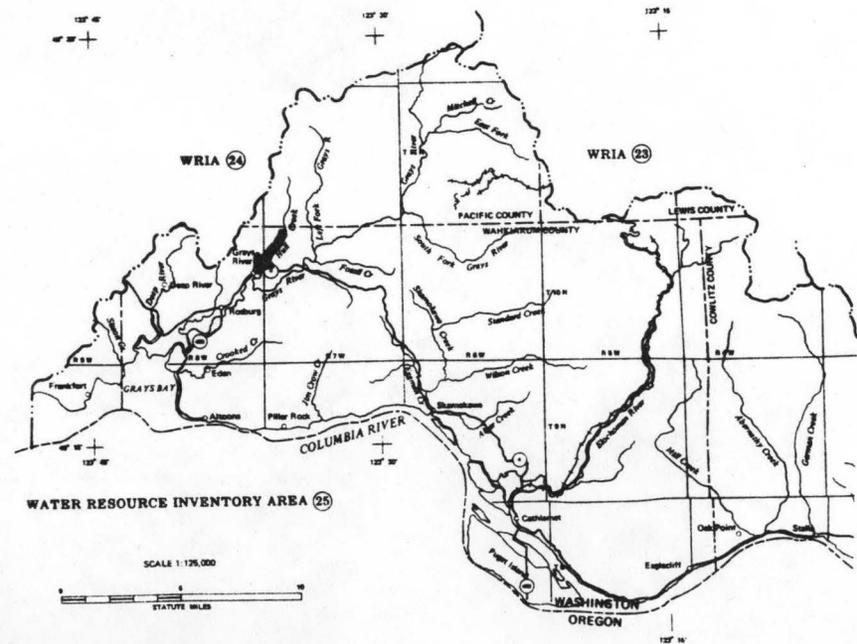
QMR = 80 cfs



W25-887



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0007

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Pacific</u>
C. Township, Range	<u>T11N R7W</u>
D. Latitude, Longitude	<u>46°23' 123°33'</u>
E. Stream Name	<u>W.F. Grays River</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>0/3.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

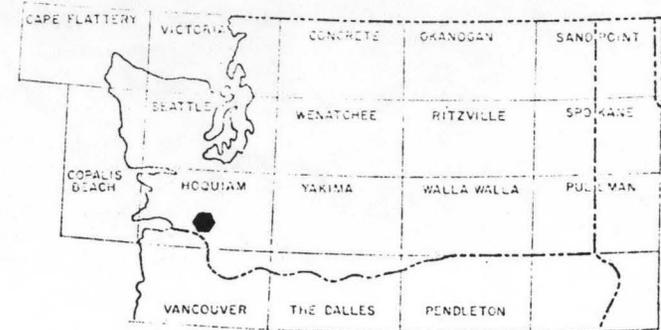
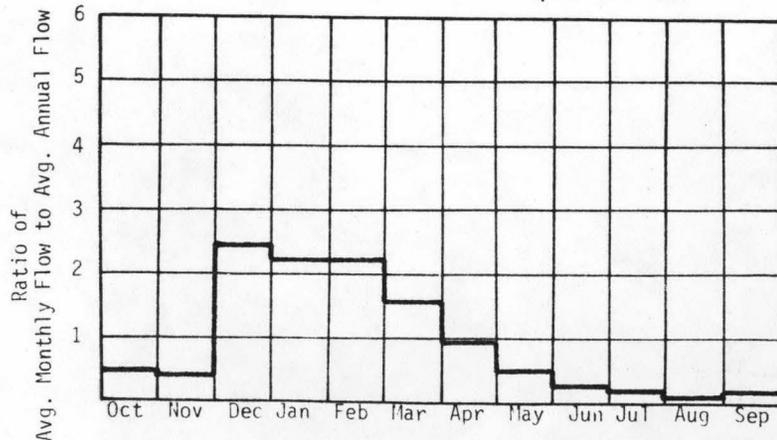
A. Upstream Elevation of Reach	<u>225</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>50</u>	Ft. MSL
C. Total Available Head in Reach	<u>175 + 66 = 241</u>	Ft.
D. Average Slope in Reach	<u>44.9</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>16.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

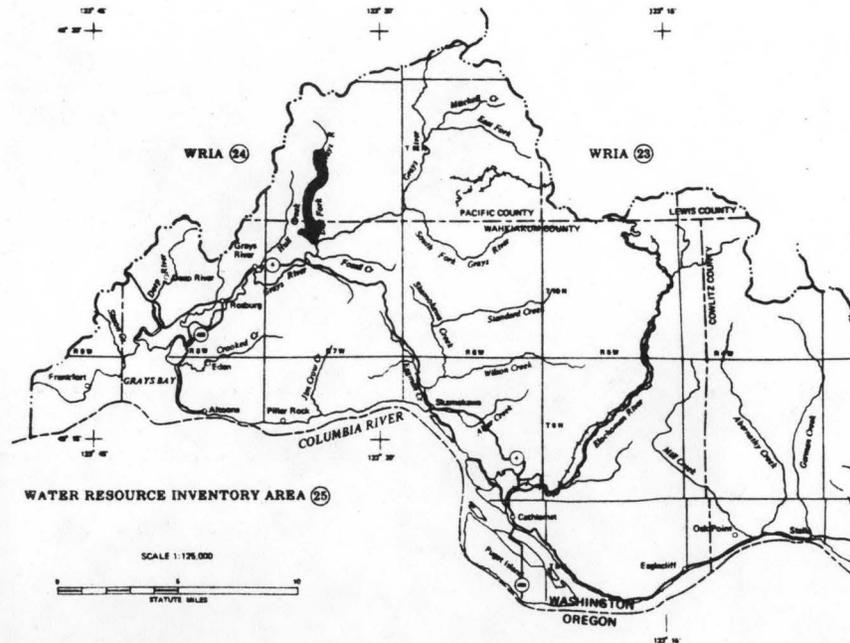
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	8.68	0.18	1.55	1.00
80	19.8	0.40	3.30	0.93
50	65.7	1.34	8.45	0.72
30	123	2.50	12.5	0.57
10	303	6.17	18.4	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 124 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0008

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R6W</u>
D. Latitude, Longitude	<u>46°22' 123°27'</u>
E. Stream Name	<u>S.E. Grays River</u>
F. Major Basin Name	<u>Grays</u>
G. River Mile	<u>0/5.3</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

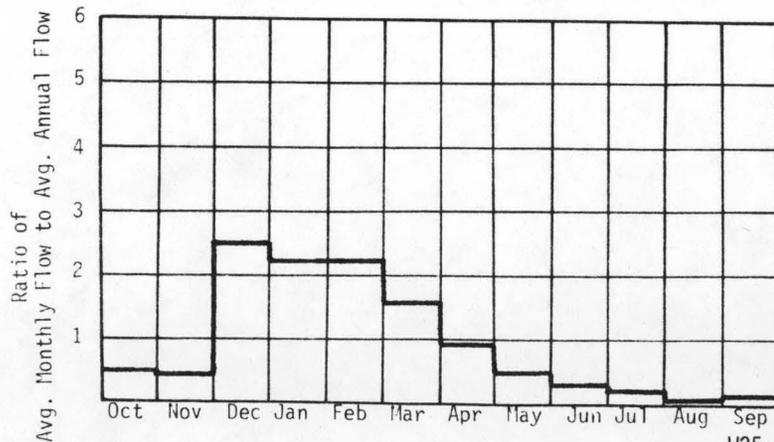
A. Upstream Elevation of Reach	<u>1060</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>360</u>	Ft. MSL
C. Total Available Head in Reach	<u>700 + 66 = 766</u>	Ft.
D. Average Slope in Reach	<u>132</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>20.4</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

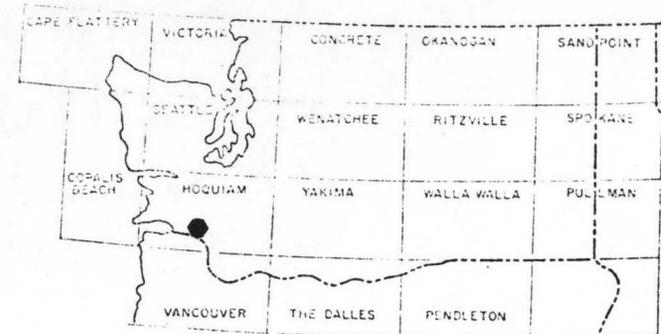
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.03	0.59	5.13	1.00
80	20.6	1.34	10.9	0.93
50	68.4	4.43	27.9	0.72
30	128	8.28	41.3	0.57
10	315	20.4	60.8	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

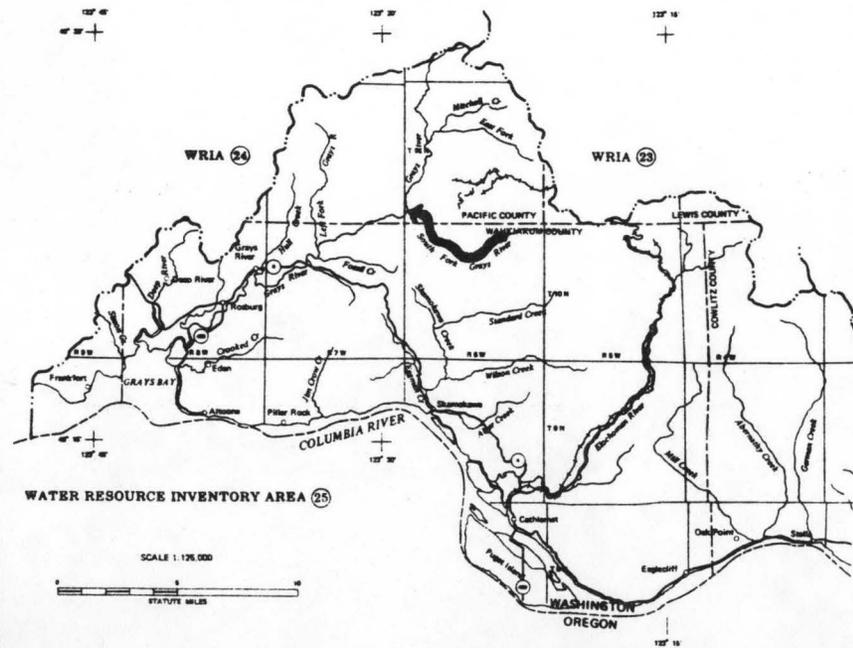
QMR = 129 cfs



W25-889



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-002-000-000-R0009

I. LOCATION

A. State Washington
 B. County Pacific
 C. Township, Range T11N R6W
 D. Latitude, Longitude 46°27' 123°27'
 E. Stream Name F.E. Grays River
 F. Major Basin Name Grays
 G. River Mile 0/1.0

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

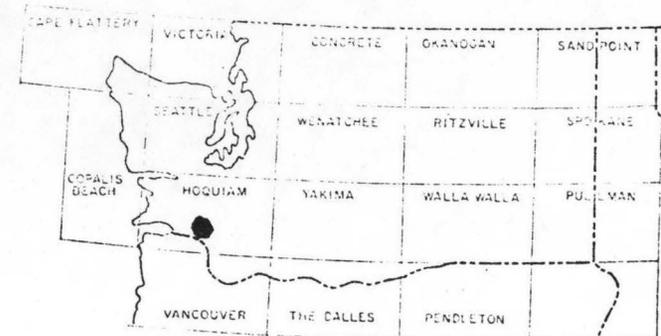
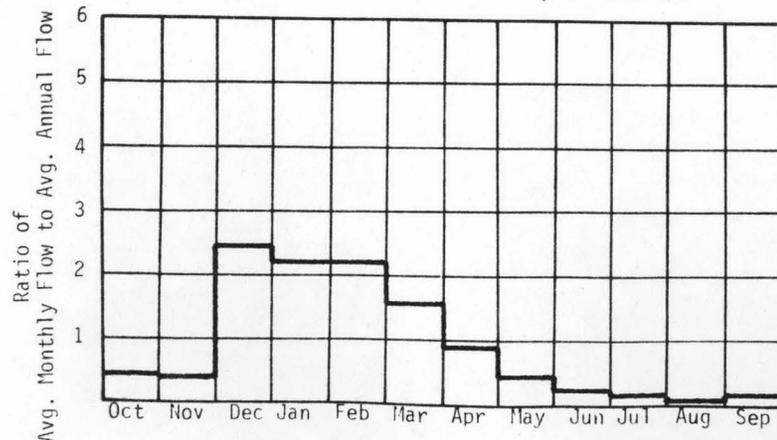
A. Upstream Elevation of Reach 560 Ft. MSL
 B. Downstream Elevation of Reach 506 Ft. MSL
 C. Total Available Head in Reach 54 + 66 = 120 Ft.
 D. Average Slope in Reach 54.0 Ft./Mi.
 E. Drainage Area above Reach Mouth 16.7 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

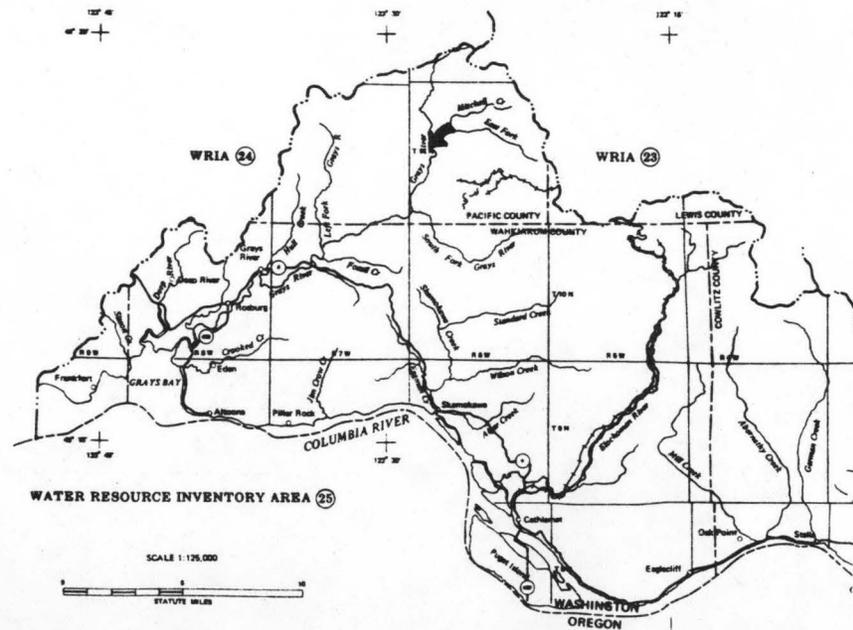
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	10.4	0.11	0.92	1.00
80	19.5	0.20	1.63	0.94
50	67.6	0.69	4.33	0.72
30	135	1.37	6.73	0.56
10	317	3.22	9.87	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 130 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-004-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T9N R6W</u>
D. Latitude, Longitude	<u>46°17' 123°27'</u>
E. Stream Name	<u>Skamokawa River</u>
F. Major Basin Name	<u>Skamokawa</u>
G. River Mile	<u>0/0.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

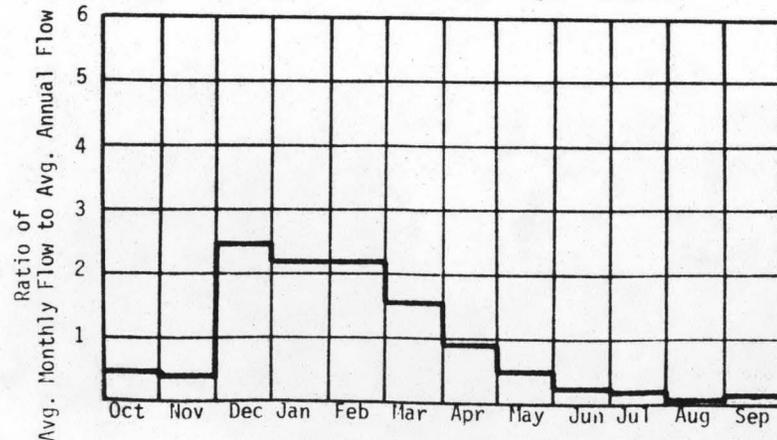
A. Upstream Elevation of Reach	<u>10</u>	Ft.	MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft.	MSL
C. Total Available Head in Reach	<u>10</u>	Ft.	
D. Average Slope in Reach	<u>12.5</u>	Ft./Mi.	
E. Drainage Area above Reach Mouth	<u>50.7</u>	Sq.Mi.	
F. Inflow Classification	<u>Natural</u>		

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

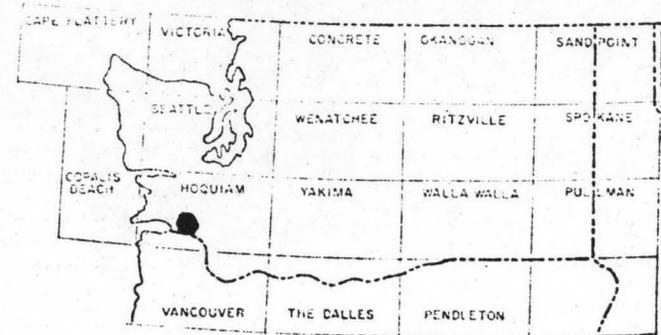
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	27.1	0.02	0.20	1.00
80	50.9	0.04	0.35	0.94
50	190	0.16	1.00	0.71
30	363	0.31	1.51	0.56
10	831	0.70	2.15	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

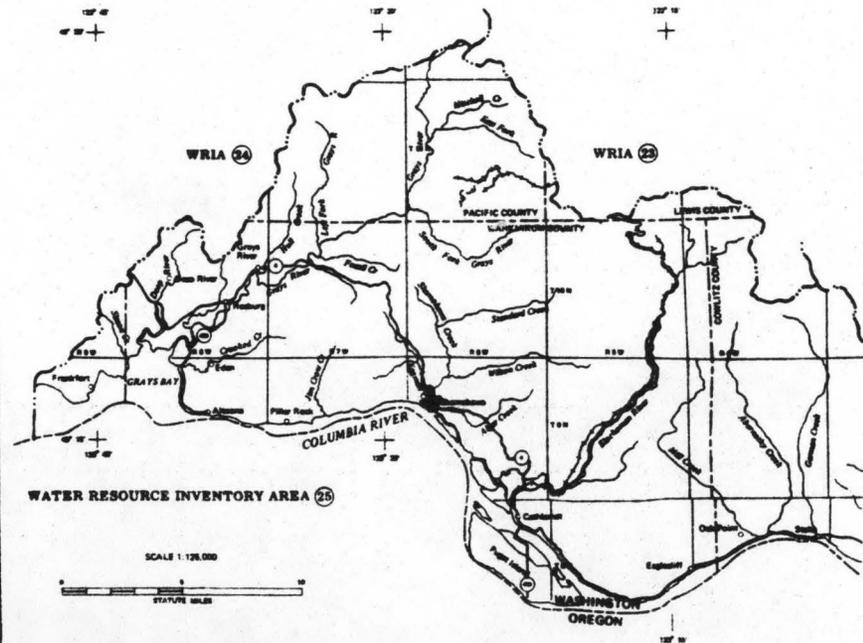
QMR = 339 cfs



W25-891



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-004-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T9N R6W</u>
D. Latitude, Longitude	<u>46°17' 123°27'</u>
E. Stream Name	<u>Skamokawa River</u>
F. Major Basin Name	<u>Skamokawa</u>
G. River Mile	<u>0.8/1.8</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

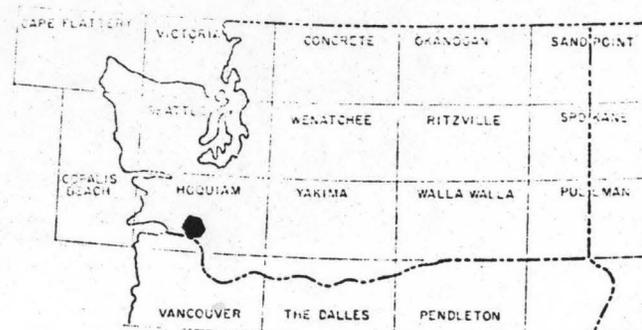
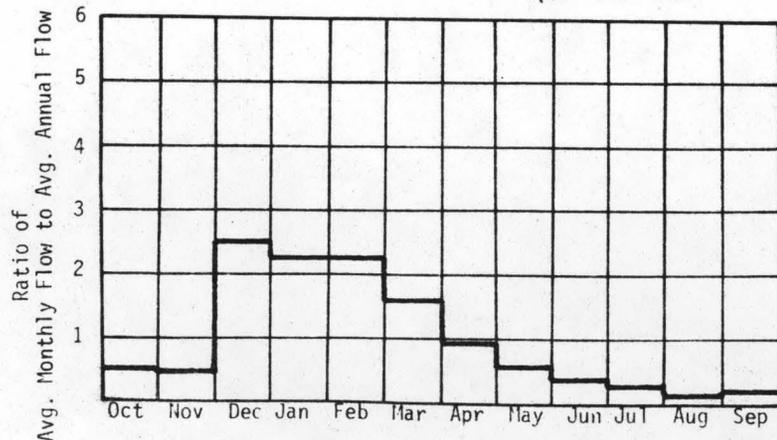
A. Upstream Elevation of Reach	<u>20</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>10</u>	Ft. MSL
C. Total Available Head in Reach	<u>10</u>	Ft.
D. Average Slope in Reach	<u>10.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>49.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

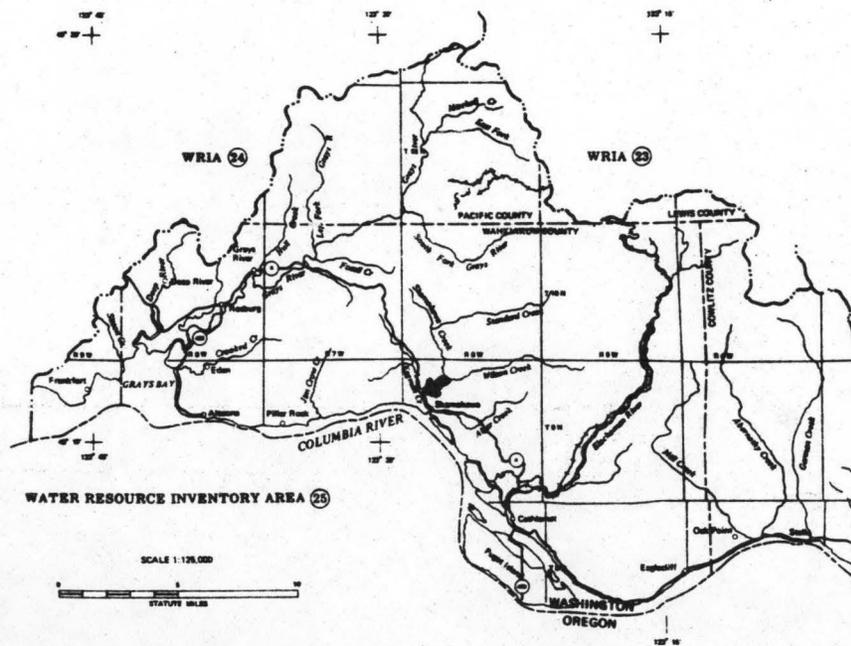
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	20.3	0.02	0.15	1.00
80	38.1	0.03	0.27	0.94
50	142	0.12	0.75	0.71
30	272	0.23	1.13	0.56
10	622	0.53	1.61	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 254 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-004-000-000-R0003

I. LOCATION

A. State Washington
 B. County Wahkiakum
 C. Township, Range T10N R6E
 D. Latitude, Longitude 46°18' 123°26'
 E. Stream Name Skamakowa River
 F. Major Basin Name Skamakowa
 G. River Mile 1.8/4.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

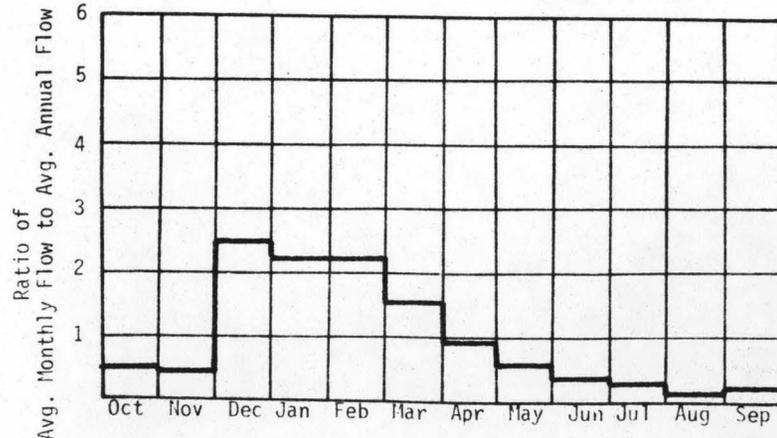
A. Upstream Elevation of Reach 60 Ft. MSL
 B. Downstream Elevation of Reach 20 Ft. MSL
 C. Total Available Head in Reach 40 + 66 = 106 Ft.
 D. Average Slope in Reach 15.4 Ft./Mi.
 E. Drainage Area above Reach Mouth 17.5 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

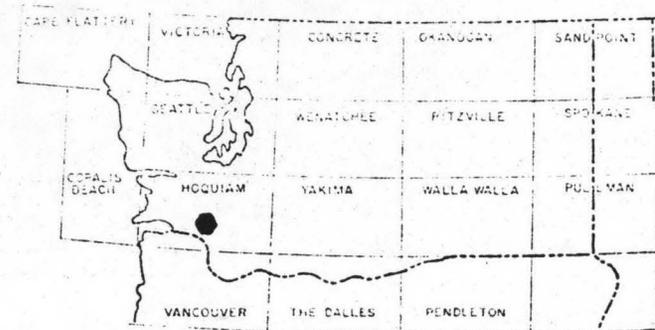
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.44	0.09	0.74	1.00
80	17.7	0.16	1.31	0.94
50	66.1	0.59	3.69	0.71
30	126	1.13	5.55	0.56
10	289	2.59	7.95	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

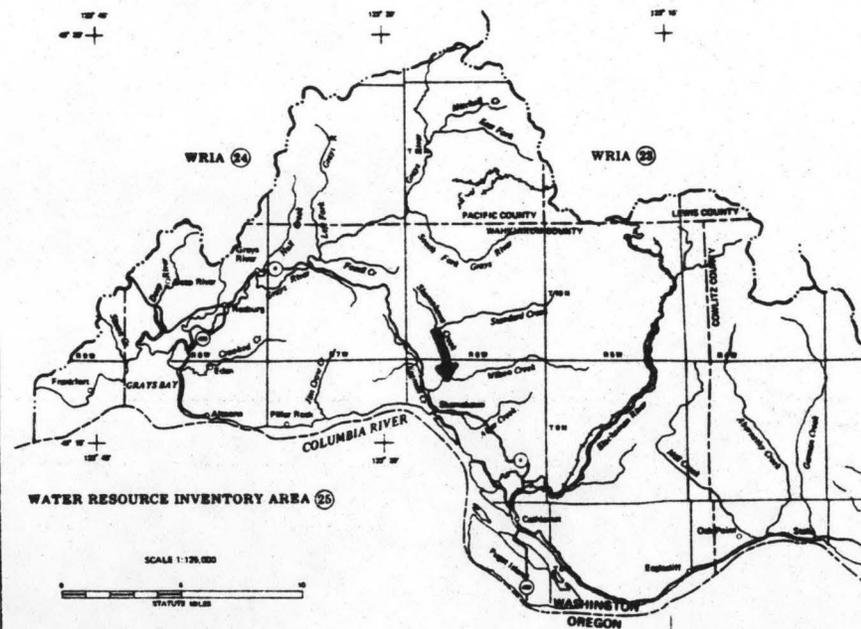
QMR = 118 cfs



W25-893



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-004-000-000-R0004

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T9N R6E</u>
D. Latitude, Longitude	<u>46°18' 123°28'</u>
E. Stream Name	<u>W.F. Skamokawa River</u>
F. Major Basin Name	<u>Skamokawa</u>
G. River Mile	<u>0/1.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

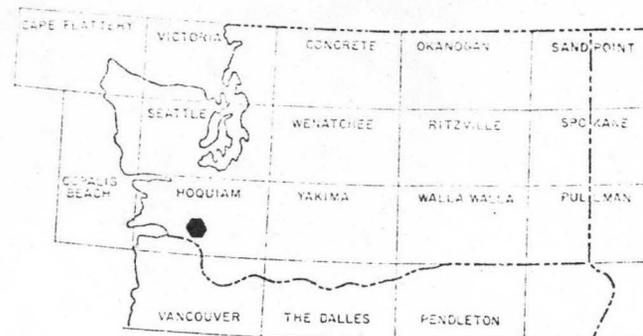
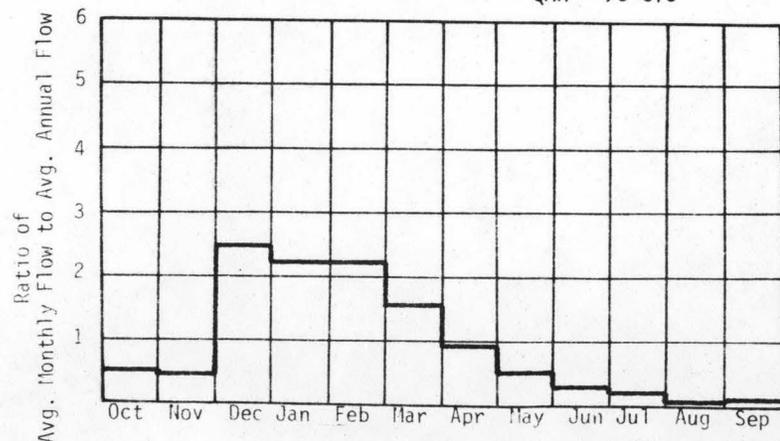
A. Upstream Elevation of Reach	<u>40</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>20 + 66 = 86</u>	Ft.
D. Average Slope in Reach	<u>13.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>12.8</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

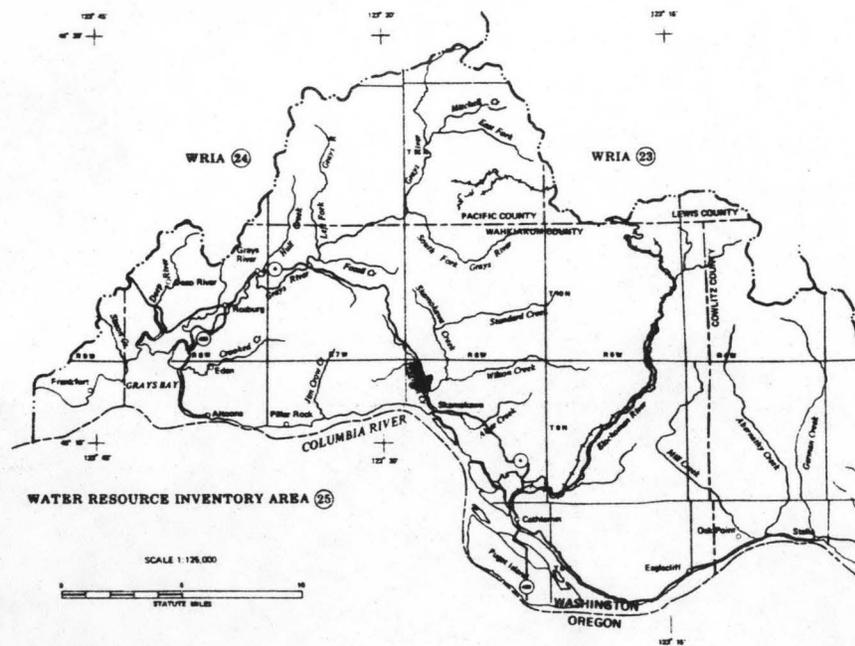
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.08	0.04	0.39	1.00
80	11.4	0.08	0.68	0.94
50	42.6	0.31	1.93	0.71
30	81.3	0.59	2.90	0.56
10	186	1.35	4.15	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 76 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-004-000-000-R0005

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T9N R6E</u>
D. Latitude, Longitude	<u>46°18' 123°25'</u>
E. Stream Name	<u>Wilson Creek</u>
F. Major Basin Name	<u>Skamakowa</u>
G. River Mile	<u>0/2.5</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

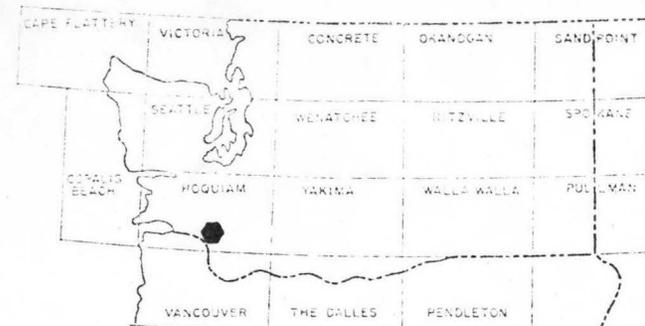
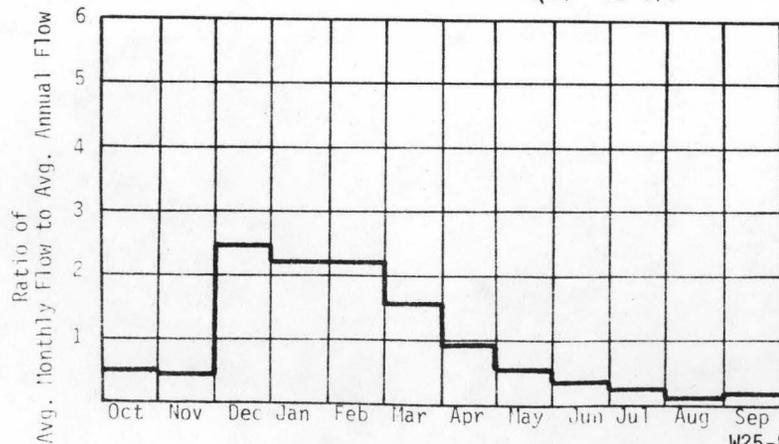
A. Upstream Elevation of Reach	<u>40</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>20</u>	Ft. MSL
C. Total Available Head in Reach	<u>20 + 66 = 86</u>	Ft.
D. Average Slope in Reach	<u>8.0</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>14.3</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

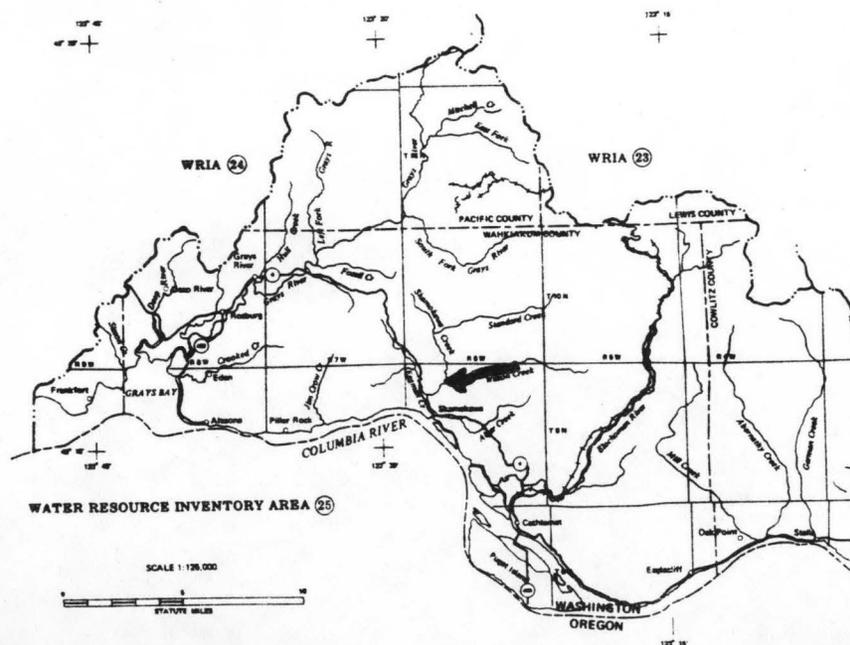
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	7.12	0.05	0.45	1.00
80	13.4	0.10	0.80	0.94
50	49.8	0.36	2.26	0.71
30	95.2	0.69	3.40	0.56
10	218	1.59	4.86	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 89 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-006-000-000-R0002

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T9N R5W</u>
D. Latitude, Longitude	<u>46°17' 123°16'</u>
E. Stream Name	<u>Flochoman River</u>
F. Major Basin Name	<u>Flockoman</u>
G. River Mile	<u>5.0/15.0</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

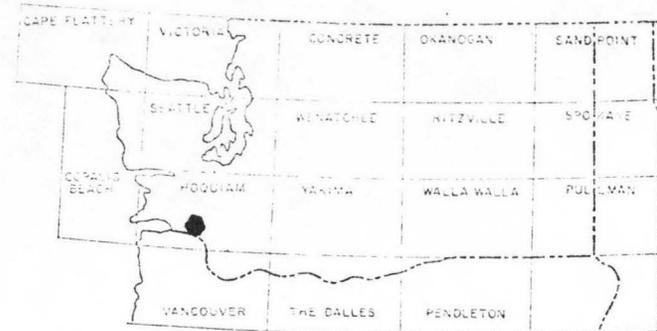
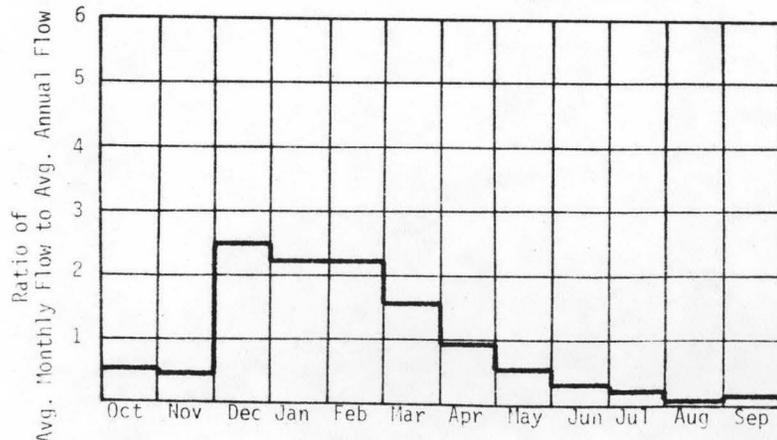
A. Upstream Elevation of Reach	<u>380</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>35</u>	Ft. MSL
C. Total Available Head in Reach	<u>345</u>	Ft.
D. Average Slope in Reach	<u>34.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>56.5</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

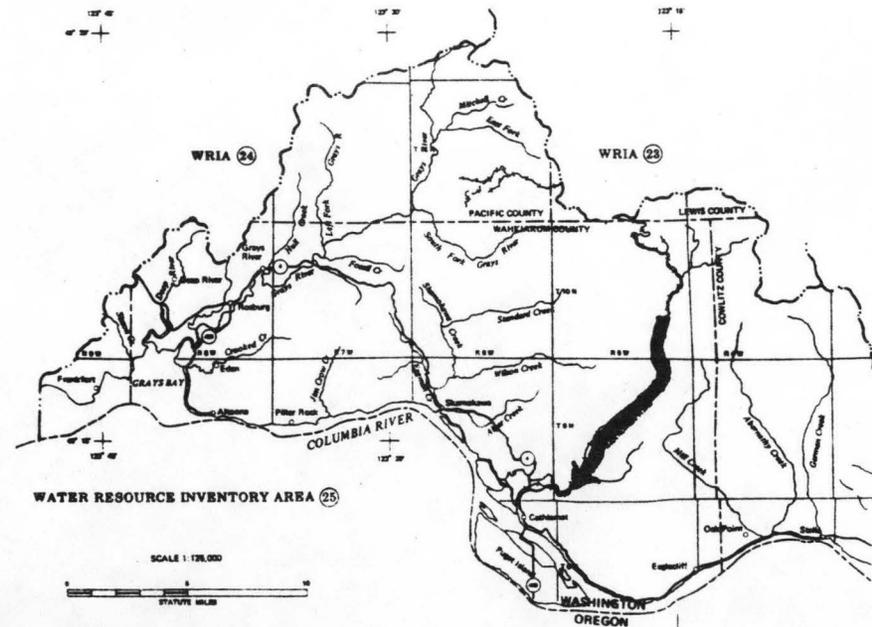
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	21.5	0.63	5.50	1.00
80	40.4	1.18	9.70	0.94
50	151	4.40	27.4	0.71
30	288	8.40	41.2	0.56
10	659	19.2	59.0	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 269 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-500-006-000-000-R0003

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Wahkiakum</u>
C. Township, Range	<u>T10N R5W</u>
D. Latitude, Longitude	<u>46°20' 123°15'</u>
E. Stream Name	<u>Flochoman River</u>
F. Major Basin Name	<u>Flockoman</u>
G. River Mile	<u>15.0/18.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

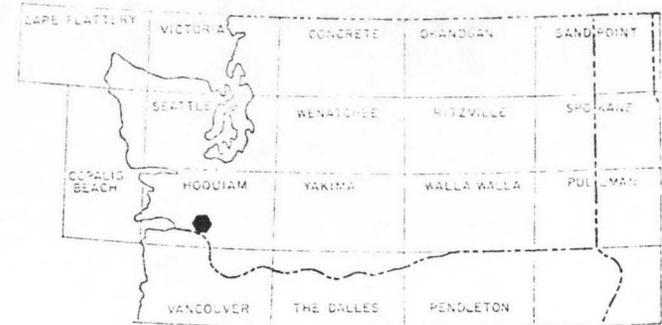
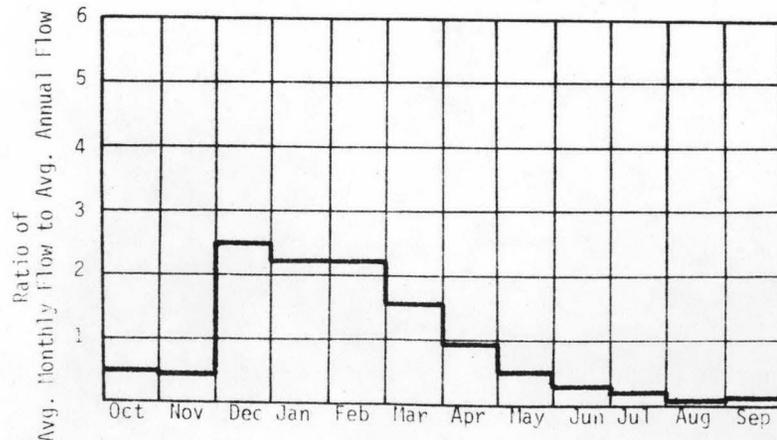
A. Upstream Elevation of Reach	<u>640</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>380</u>	Ft. MSL
C. Total Available Head in Reach	<u>260 + 66 = 326</u>	Ft.
D. Average Slope in Reach	<u>76.5</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>25.2</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

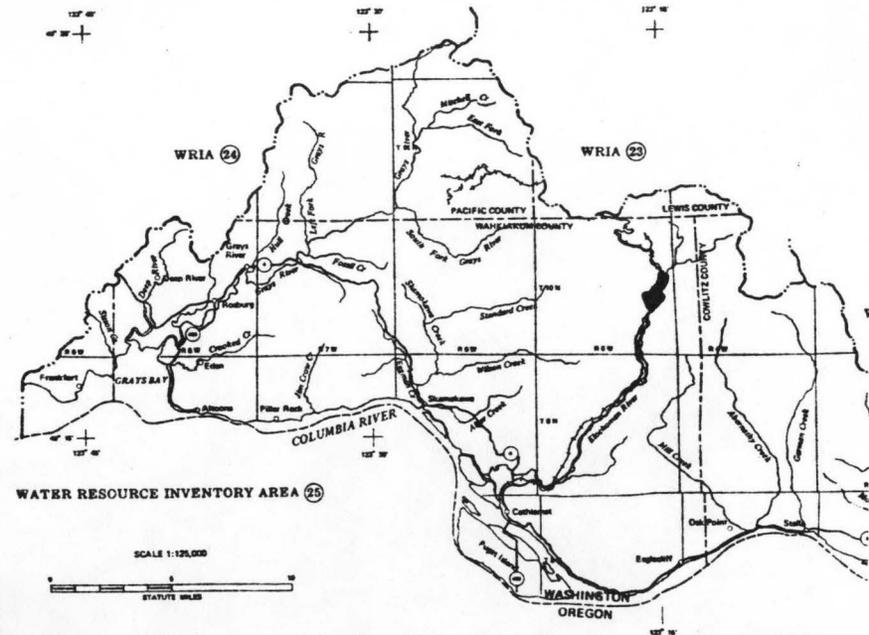
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.12	0.25	2.20	1.00
80	17.1	0.47	3.88	0.94
50	63.8	1.76	11.0	0.71
30	122	3.36	16.5	0.56
10	279	7.70	23.6	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 114 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-500-008-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Cowlitz</u>
C. Township, Range	<u>T8N R4W</u>
D. Latitude, Longitude	<u>46°12' 123°11'</u>
E. Stream Name	<u>Mill Creek</u>
F. Major Basin Name	<u>Mill Creek</u>
G. River Mile	<u>0/0.9</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

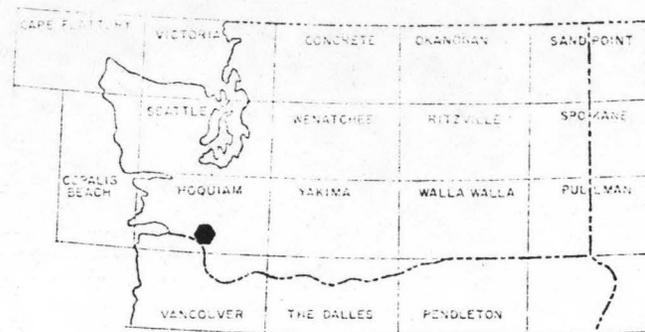
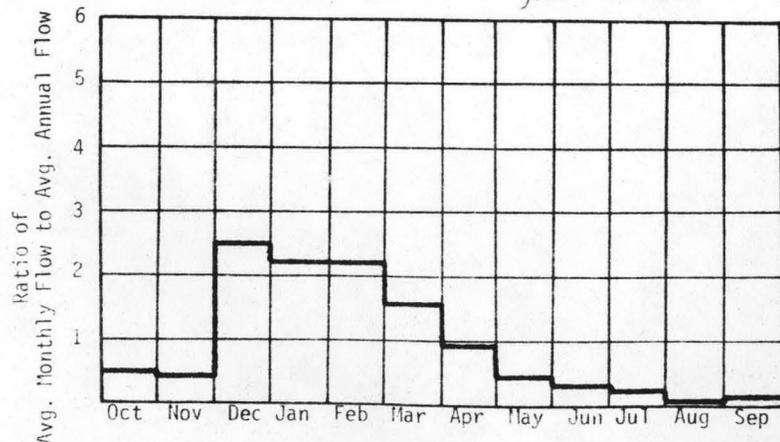
A. Upstream Elevation of Reach	<u>120</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>120 + 66 = 186</u>	Ft.
D. Average Slope in Reach	<u>133.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>28.8</u>	Sq. Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

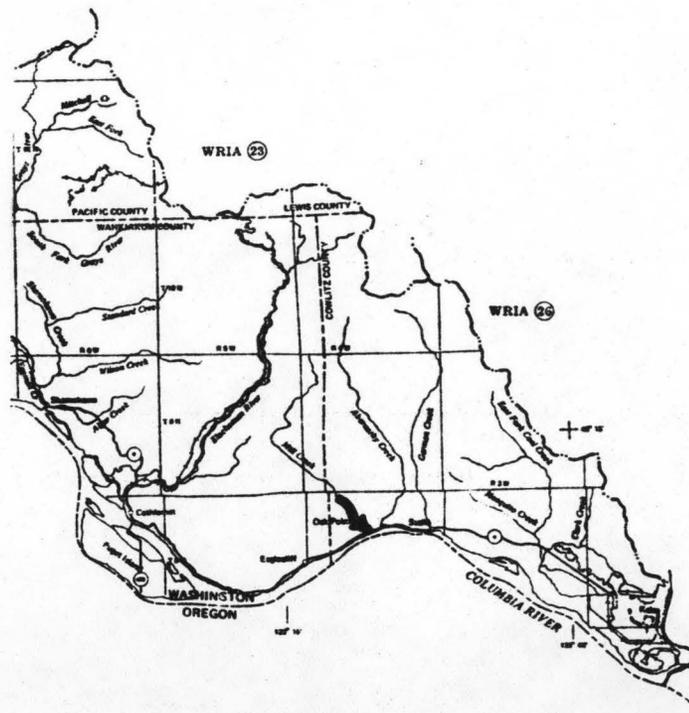
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.48	0.10	0.89	1.00
80	13.0	0.20	1.68	0.94
50	48.6	0.76	4.76	0.71
30	123	1.94	8.82	0.52
10	260	4.10	12.6	0.35

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 108 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-010-000-000-R0001

I. LOCATION

A. State Washington
 B. County Cowlitz
 C. Township, Range T8N R4W
 D. Latitude, Longitude 46°12' 123°10'
 E. Stream Name Abernathy Creek
 F. Major Basin Name Abernathy Creek
 G. River Mile 0/0.4

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

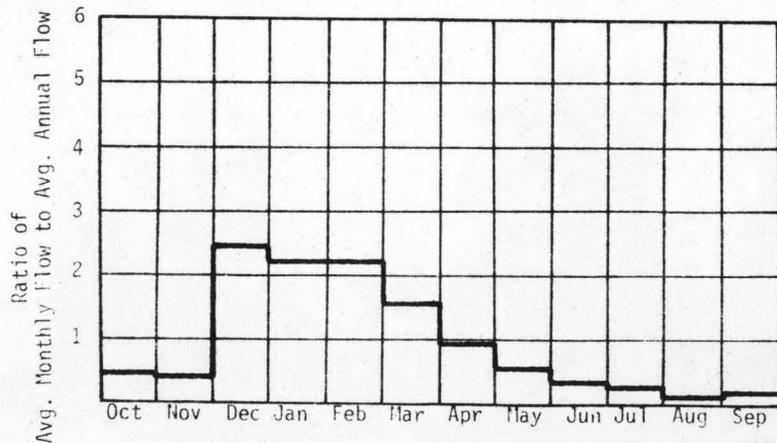
A. Upstream Elevation of Reach 30 Ft. MSL
 B. Downstream Elevation of Reach 0 Ft. MSL
 C. Total Available Head in Reach 30 Ft.
 D. Average Slope in Reach 75 Ft./Mi.
 E. Drainage Area above Reach Mouth 29 Sq.Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

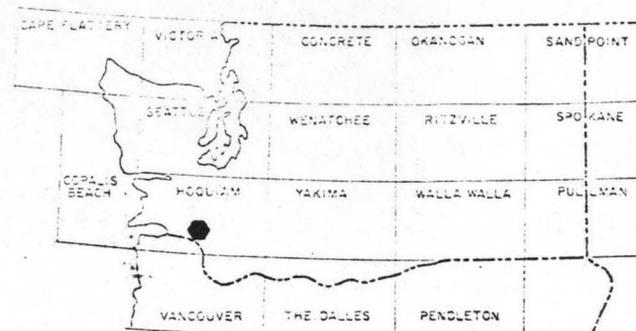
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	9.17	0.02	0.20	1.00
80	17.0	0.04	0.36	0.94
50	66.8	0.17	1.05	0.71
30	149	0.38	1.79	0.54
10	337	0.85	2.54	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

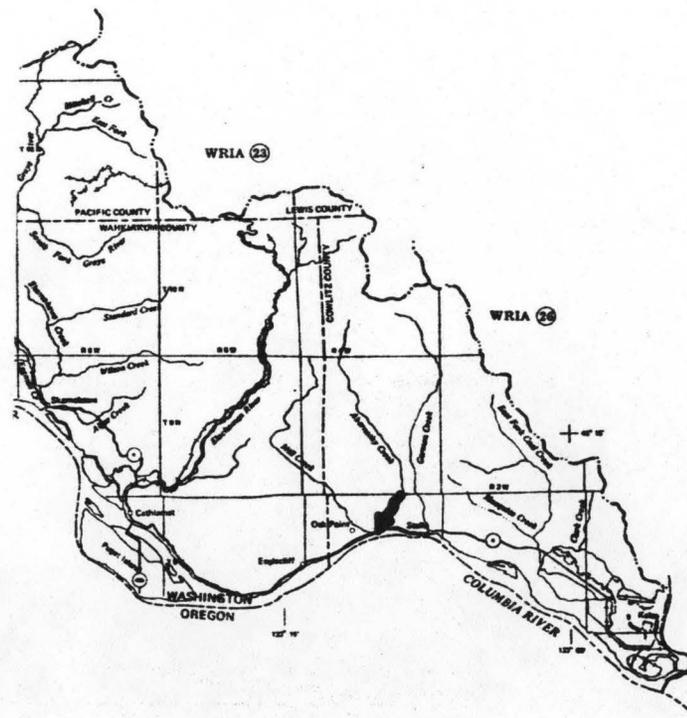
QMR = 131 cfs



W25-900



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-010-000-000-R0002

I. LOCATION

A. State Washington
 B. County Cowlitz
 C. Township, Range T8N R4W
 D. Latitude, Longitude 46°18' 123°09'
 E. Stream Name Abernathy Creek
 F. Major Basin Name Abernathy Creek
 G. River Mile 0.4/3.5

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

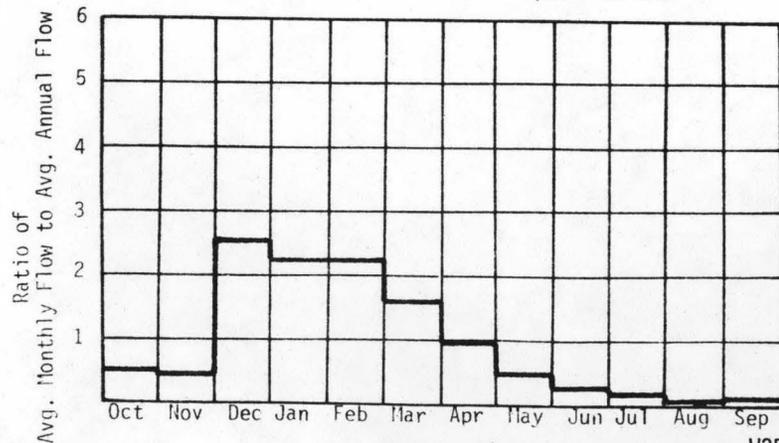
A. Upstream Elevation of Reach 240 Ft. MSL
 B. Downstream Elevation of Reach 30 Ft. MSL
 C. Total Available Head in Reach 210 + 66 = 276 Ft.
 D. Average Slope in Reach 67.7 Ft./Mi.
 E. Drainage Area above Reach Mouth 20.9 Sq. Mi.
 F. Inflow Classification Natural

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

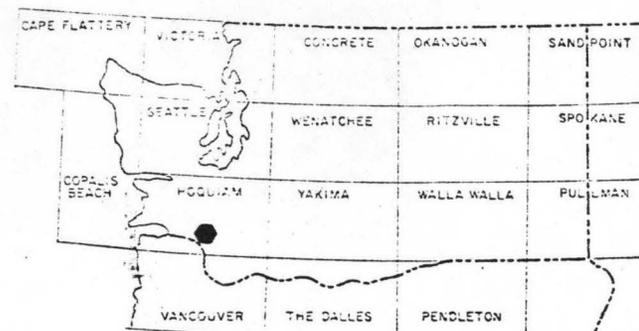
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.23	0.15	1.27	1.00
80	11.6	0.27	2.22	0.94
50	45.4	1.06	6.59	0.71
30	101	2.37	11.2	0.54
10	229	5.34	15.9	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

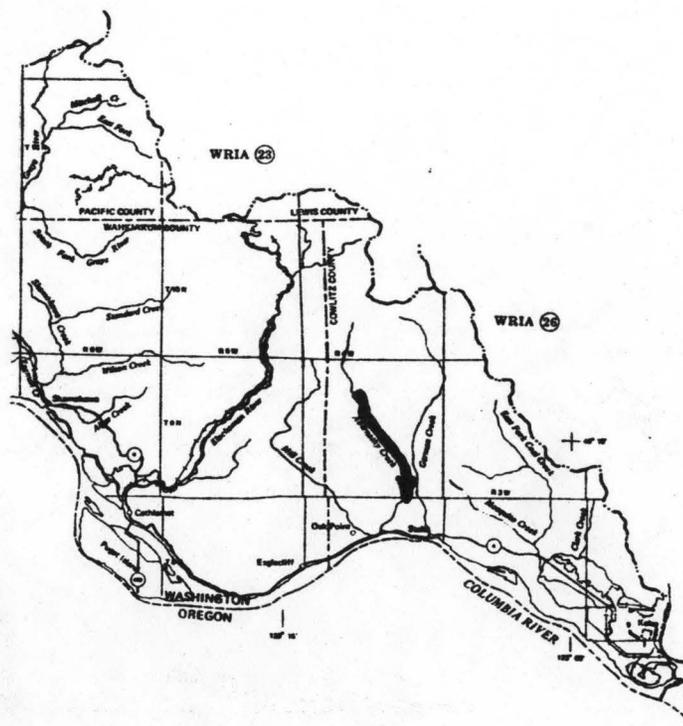
QMR = 89 cfs



W25-901



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH # 01-500-012-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Cowlitz</u>
C. Township, Range	<u>T9N R4W</u>
D. Latitude, Longitude	<u>46°14' 123°08'</u>
E. Stream Name	<u>Germany Creek</u>
F. Major Basin Name	<u>Germany Creek</u>
G. River Mile	<u>0/7.4</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

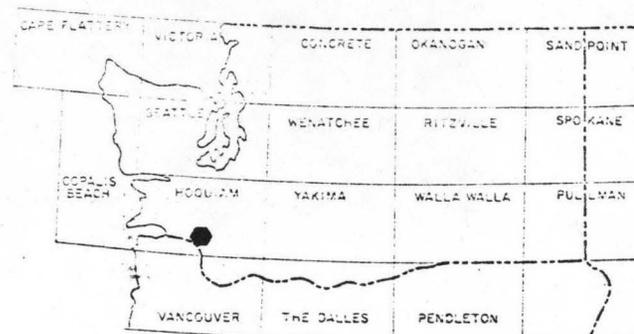
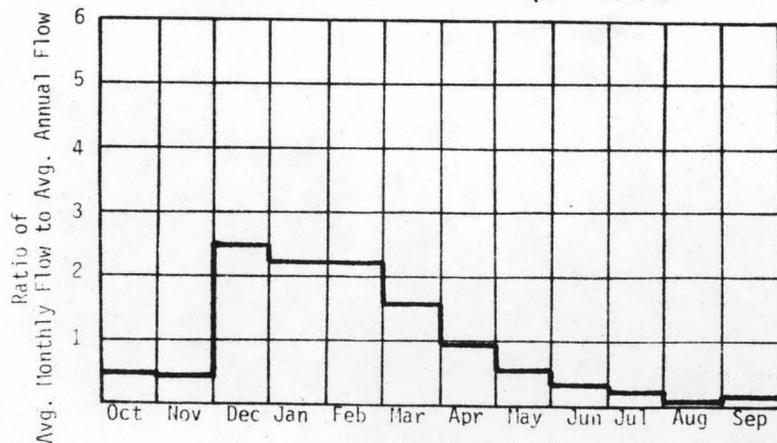
A. Upstream Elevation of Reach	<u>550</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>550 + 66 = 616</u>	Ft.
D. Average Slope in Reach	<u>74.3</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>22.7</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

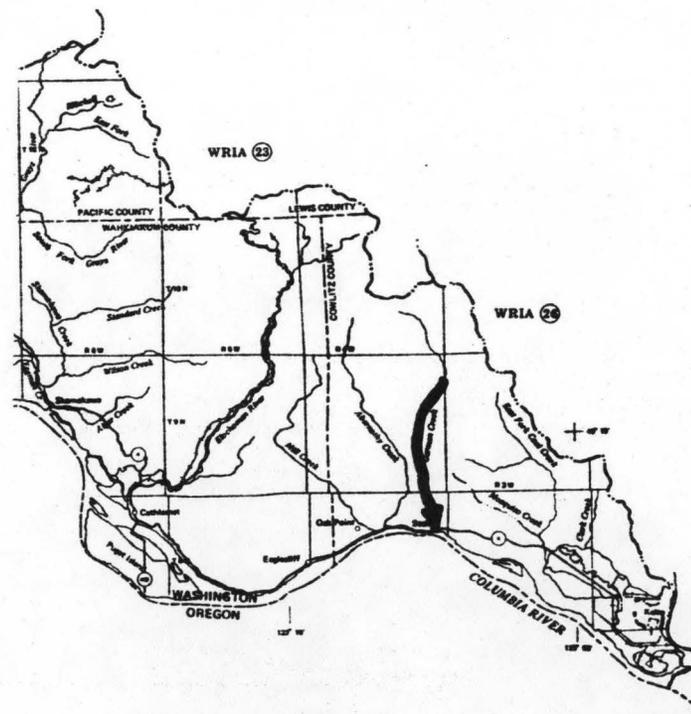
Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.30	0.33	2.88	1.00
80	11.7	0.61	5.02	0.94
50	45.9	2.39	14.9	0.71
30	103	5.35	25.3	0.54
10	231	12.1	35.9	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 90 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES



REACH HYDRO POTENTIAL CHARACTERISTICS

REACH = 01-500-014-000-000-R0001

I. LOCATION

A. State	<u>Washington</u>
B. County	<u>Cowlitz</u>
C. Township, Range	<u>T8N R3W</u>
D. Latitude, Longitude	<u>46°11' 123°02'</u>
E. Stream Name	<u>Coal Creek</u>
F. Major Basin Name	<u>Coal Creek</u>
G. River Mile	<u>0/0.7</u>

II. HYDROLOGIC AND HYDRAULIC CHARACTERISTICS

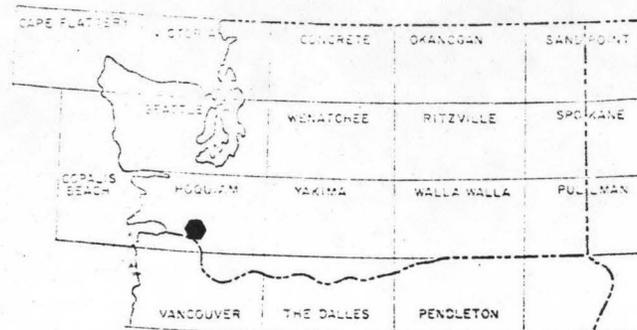
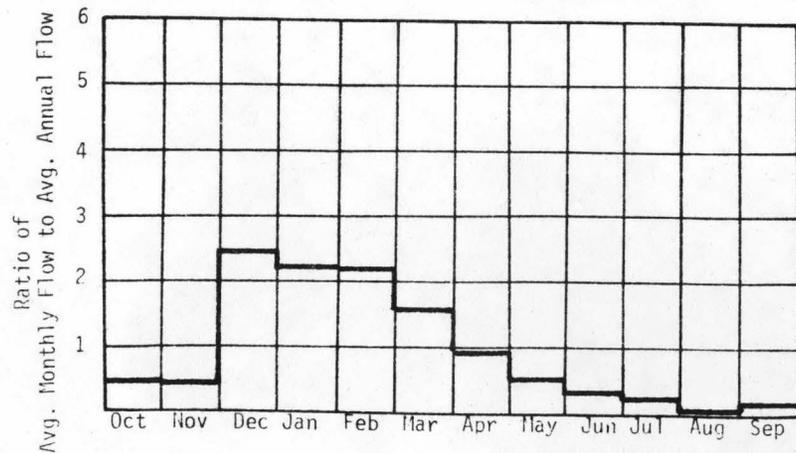
A. Upstream Elevation of Reach	<u>25</u>	Ft. MSL
B. Downstream Elevation of Reach	<u>0</u>	Ft. MSL
C. Total Available Head in Reach	<u>25 + 66 = 91</u>	Ft.
D. Average Slope in Reach	<u>35.7</u>	Ft./Mi.
E. Drainage Area above Reach Mouth	<u>26.5</u>	Sq.Mi.
F. Inflow Classification	<u>Natural</u>	

III. REACH FLOW DURATION AND THEORETICAL POTENTIAL ENERGY CHARACTERISTICS

Exceedance Percentage	Discharge CFS	Theoretical Plant Size MW	Annual Energy Available GWH	Plant Factor
95	6.37	0.05	0.43	1.00
80	11.8	0.09	0.75	0.94
50	46.4	0.36	2.22	0.71
30	104	0.80	3.78	0.54
10	234	1.80	5.36	0.34

IV. TYPICAL ANNUAL HYDROGRAPH

QMR = 91 cfs



LOCATIONS FOR USGS 1:250,000 MAP SERIES

