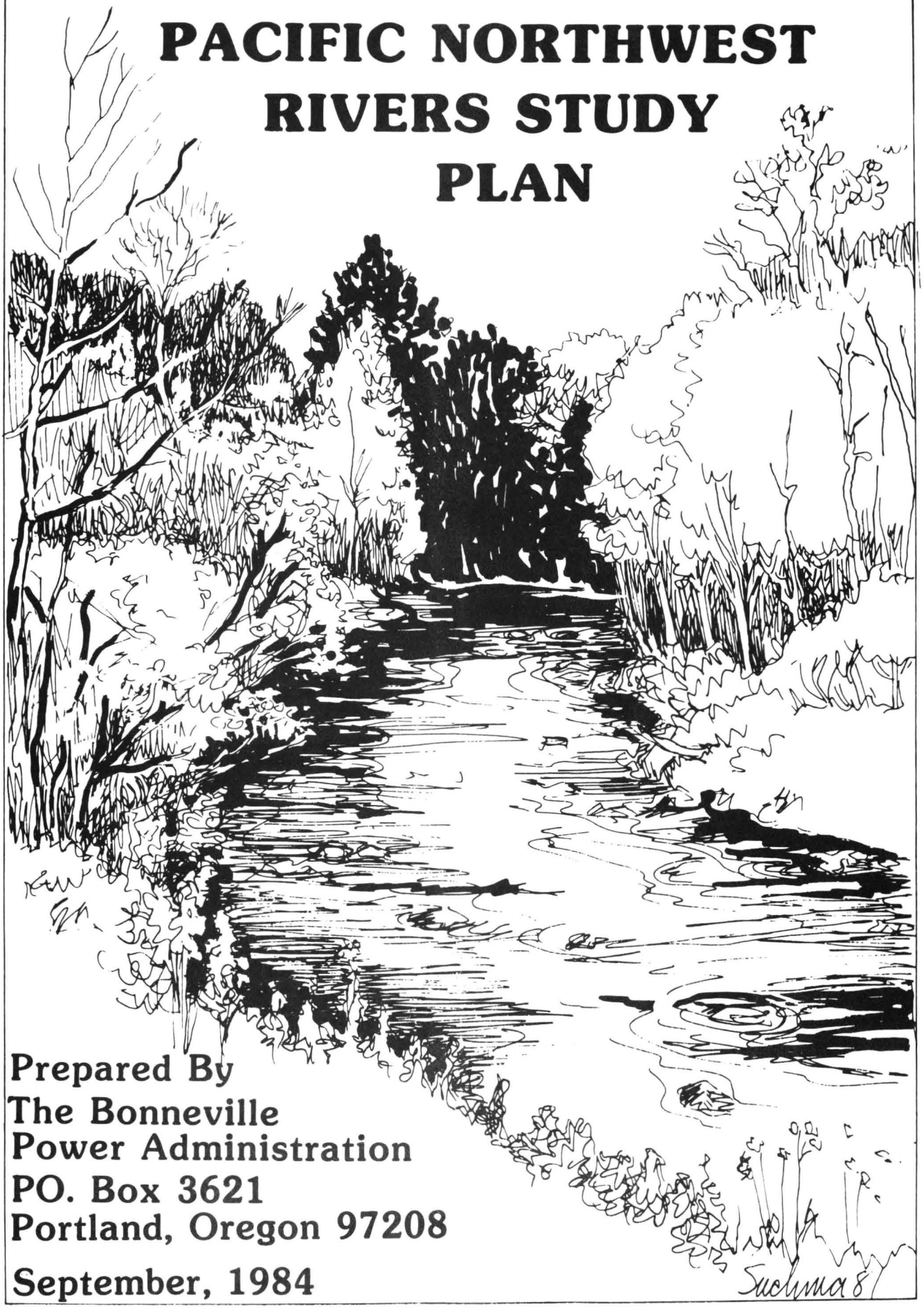
PACIFIC NORTHWEST RIVERS STUDY PLAN



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September, 1984

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I. INTRODUCTION

A. Foreword

The rivers of the Pacific Northwest are one of its most valuable resources. There are more than 250,000 miles of year around stream-courses in the four state region. They provide water for recreation, fish habitat, irrigation, and a variety of other uses. The recent surge of interest in hydropower as an energy resource has intensified public awareness of the potential for conflict between hydroelectric development and other river values.

The Northwest Power Planning Council (Council) was established by the Pacific Northwest Electric Power Planning and Conservation Act (Regional Act) of 1980 (P.L. 96-501). The Council, through its Conservation and Electric Power Plan and its Fish and Wildlife Program, seeks to minimize impacts to river resources yet plan for needed electric energy. The Bonneville Power Administration (BPA) must reliably forecast and acquire as needed future cost effective hydropower available to the region. To assure that all relevant values are considered by the states, BPA, and the Federal Energy Regulatory Commission (FERC) when evaluating potential hydropwer sites, BPA will assist the states, the Tribes, the Federal resource and land management agencies, energy development interests, and the interested public to identify significant river values throughout the region. As proposed, the study will assess and document the significance of the region's river resources. Findings will form a resource information base for use in Council, BPA, and state hydropower planning activities.

The recent surge of interest in hydropower has intensified public awareness of the potential conflict between facility development and environmental values. The Northwest Power Planning Council's Energy Plan and Fish and Wildlife Program are evaluating hydropower development strategies which will minimize impacts to river resources yet produce electrical energy. The Bonneville Power Administration recognizes the need to consider environmental factors that may affect the completion of hydropower projects in its energy supply forecasts.

The BPA proposes to use a river assessment method developed by the National Park Service in the northeastern United States. The model places emphasis on the assessment of multiple resource values and the development of consensus among interest groups. The model was successfully applied in the State of Maine, where the Maine Rivers Study became the formulation for major river use legislation passed in 1983. The Maine Comprehensive Hydropower Plan, submitted to the Federal Energy Regulatory Commission in October 1982, was also based on the findings of the assessment process. The process outlined in this Study Plan adapts the National Park Service river assessment model to the four state Northwest region.

B. Purpose

The Pacific Northwest Rivers Study Plan was developed in response to needs expressed in the Northwest Power Planning Council's (NPPC) Conservation and Electric Power Plan and Fish and Wildlife Program. The study will assess the significance of river segments and systems for a variety of fish, wildlife, natural, cultural and recreational resource values. Four separate studies will be conducted, one within each state; each river resource value will be assessed independently. The Council and BPA will develop guidelines to assure consistent interstate results. However, state studies will be individually designed to respond to existing policies and programs, fish and wildlife concerns, data availability, and river character. The study will use the many prior investigations of the region's rivers performed by the states and Federal resource and land management agencies.

Identification of significant river values will contribute to the achievement of several objectives. The study will respond to the Northwest Power Act's directive to the BPA to "protect, mitigate, and enhance fish and wildife." Specifically, findings will provide input into the Council's Hydropower Site Ranking (Conservation and Electric Power Plan, §14.2 and §14.3) and Protected Areas Program [Fish and Wildlife Program, §1204(c)]. Findings of the Rivers Study will also assist in estimating regional hydropower potential by identifying areas potentially developable and those where resource conflicts exist. Other Council activities, including the Cumulative Effects Study and Anadromous Fish Goals Study (Fish and Wildlife Program, §1204(b) and §201), will benefit from the Rivers Study findings. The U.S. Department of the Interior's National Park Service, as part of their river conservation technical assistance program, will assist the development of assessment procedures during the study. The Bonneville Power Administration will provide both administrative and financial support.

The proposed study is a resource assessment not a policy assessment. Hence, the emphasis will be on resource decisions made by resource experts. To the extent possible, state and Tribal experts will be integrated into one decision process with participation and review solicited from the Federal resource and land management agencies and user groups. Resource experts will be asked to rate specific resources. Anadromous fish and Indian cultural values will be obtained seperately by the Council. State and Tribal experts and Federal resource and land management agencies such as the Bureau of Land Management and the U.S. Forest Service which regionally manage over 100 million acres will make substantial contributions. A public involvement process will be used including appropriate publicity and opportunity for public and user group input to resource characterizations.

C. Process

The resource assessment method is structured to consider a wide range of fish, wildlife, natural, recreational, and cultural values. Each river resource category is assessed independently of all others using a standardized yet flexible format. A sequence of tasks is specified for the assessment of each river resource value including a review and feedback mechanism to ensure that agreement is reached before proceeding to the next task. Project participants will be involved in the development of the assessment process for each resource value.

The objective of the assessment process is to identify the significance of river segments and systems for each resource category individually and in combination. Comparative assessment is the major feature of the process. The result is not rivers ranked in numerical order; rather, it is a clustering of river reaches into general groups according to their significance.

The method stresses objectivity and the development of verifiable results. To accomplish this, all river resources are evaluated without regard to specific development proposals. A precise method and frequent review and comparison of results will promote this objectivity. The method does not require extensive field inventory. The emphasis is on the use of existing information, expert evaluation, and user and public input.

The assessment method incorporates both quantitative information and qualitative values. The objective is to bring together divergent information and expertise systematically and to display information for expert evaluation and public review.

The method consists of eight distinct sequential steps:

1. River Resource Category Identification
2. Inventory of Existing Information
3. Evaluation Method and Criteria Development
4. Resource Evaluation for each Category
5. Display Results for each Category
6. Information Synthesis
7. Composite Resource Value Evaluation (optional)
8. Documentation and Presentation

The method recognizes that individual rivers and streams are ecologically connected to larger drainage systems. Tributaries which support resource values of larger segments are recognized in Step 4. Findings are displayed using a basin by basin approach.

Funds for the Pacific Northwest Rivers Study will be provided by the Bonneville Power Administration, with state and Federal agencies contributing support services. The total budget for Fiscal Year (FY) 1984 and FY 1985 is approximately $1.0 million.

II. PROJECT ORGANIZATION

A. Structure

The organizational structure for the Northwest Rivers Study must respond to the needs of varied river interests while using existing governmental programs and structures. It must be simple and efficient. It must clearly divide responsibilities among participants, encourage public input while emphasizing the role of resource experts, and still retain organizational flexibility.

The Northwest Power Planning Council will review and provide advice on the Rivers Study. The resource assessments will be conducted at the state level by a technical task force coordinated by each state. However, the study will produce consistent region-wide products. With the exception of Tribal values and anadromous fish which will be administered by the Council, contracts with participants will be administered by BPA with specific performance controls on each contract. A regional level central staff of 3 people will provide guidance and assistance to the state efforts, assure regional consistency and consolidate results.

The state level task force will consist of state, Federal, and Tribal authorities supported by a small technical staff which will conduct the project. Members of the state level task force will be technical experts with river resource expertise. Representatives from Tribal management consortiums and Federal resource and land management agencies will contribute to the decision process and, where appropriate, may serve as senior resource experts. Indian cultural sites and anadromous fish values will be given a regional emphasis by the Council. Results will, however, be integrated with those of other study components.

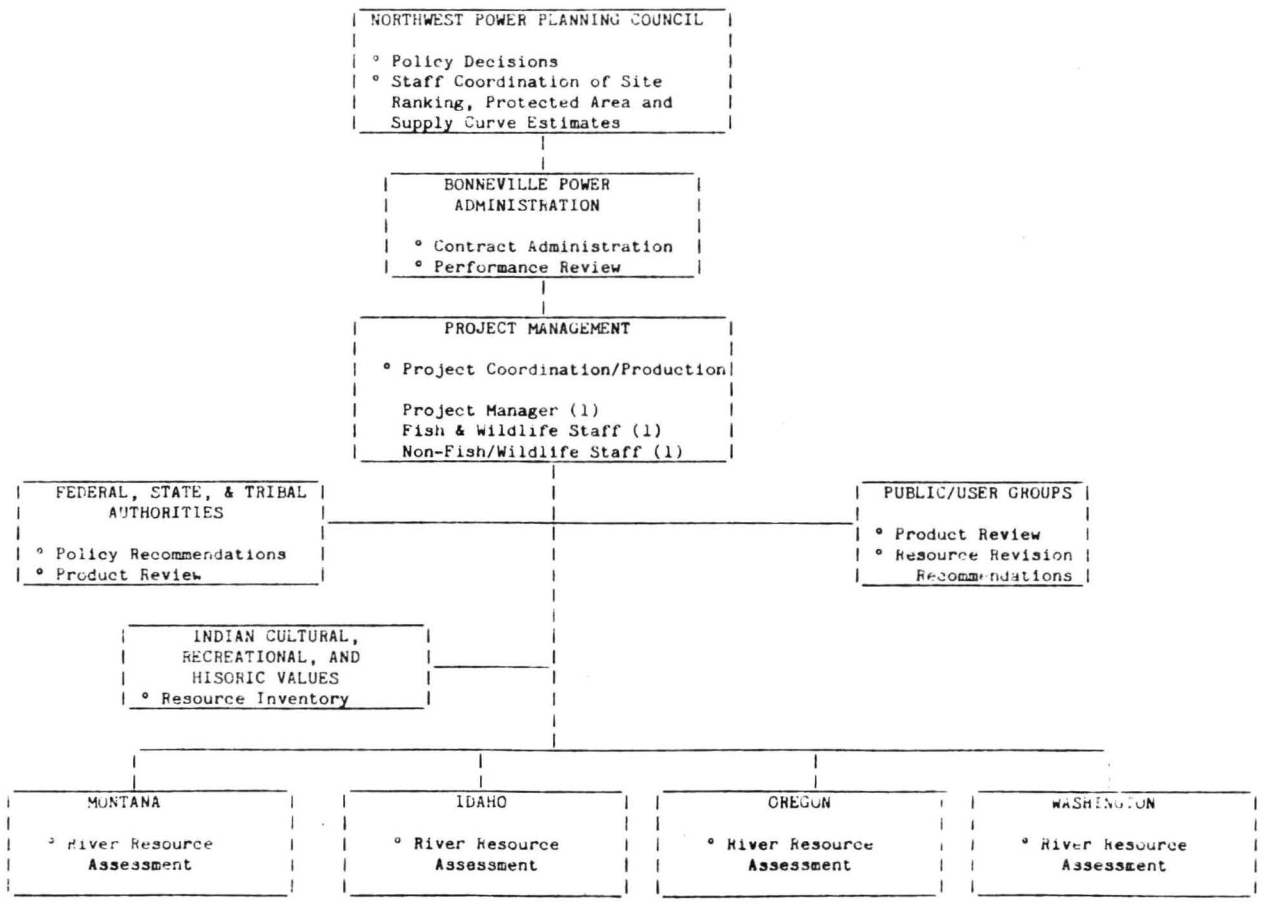
A project management function will coordinate the four state level assessments and ensure that findings are consistent with the Regional Power Plan and the Fish and Wildlife Program. A study coordinator will be identified in each state. For each state level study, a professional study team of two or three people will be used. Each study team will work under the direction of the technical task force for that state. BPA will periodically review participant progress in meeting study objectives and goals prior to issuing payment for contracted services. An organizational flow chart and a description of participant responsibilites follows.

The public and user groups will be represented throughout the assessment process. Appropriate public notification will be made. Recognized groups with resource expertise will have input into the assessment of specific resource categories (as determined by senior resource experts). The interested public and user groups will review preliminary results (e.g. fishing organizations review fishing results). In addition, existing state and Council mechanisms will be used for formal review of project findings and policy recommendations.

FIGURE 1

PACIFIC NORTHWEST RIVERS STUDY

ORGANIZATION CHART: REGIONAL LEVEL



B. Responsibilities

1. Northwest Power Planning Council

Members:

a. Provide policy direction
b. Determine final uses of study results
c. Designate state level study coordinators

Staff:

a. Provide liaison to and coordination with other related efforts
b. Coordinate anadromous fish productivity and Indian cultural values contracts

2. Bonneville Power Administration

a. Staff assistance for project management and coordination
b. Develop data management system
c. Provide input into determination of uses of project results
d. Financial assistance
e. Approve participant contractual performance and payments
f. Print final study documents
g. Administer resident fish, wildlife, natural, recreational, historical and cultural values contracts
h. Provide office space and clerical assistance for regional project management staff

3. States (Oregon, Washington, Idaho and Montana)

a. Overall state level project management and coordination
b. Adapt study method to reflect individual state circumstances and data
c. Provide office space and clerical assistance
d. Input into overall study method and approach
e. Technical staff assistance for state level resource assessment
f. Coordination with project manager, Federal resource agencies, and Indian tribes
g. State level public involvement strategy development
h. Preparation of assessment reports and maps
i. Administration of study contracts, as appropriate
j. Participate in site ranking, Protected Areas designations
k. Review of preliminary and final study results

4. Indian Tribes

a. Coordination with state level technical task forces regarding project management
b. Coordination with project manager, Federal agencies and states regarding development of state level study method
c. Input into overall study method and approach
d. Technical and policy input into development of region-wide fish and wildlife assessment methodology
e. Technical input into state level resource assessment
f. Representation on state level task forces

g. Perform assessment of Indian cultural and archeological values
h. Recommend site ranking to NPPC
i. Review of preliminary and final results (at state and regional level)
j. Input into determination of use of project results
k. Designate a regional level staff member

5. Federal Resource Agencies (U.S. Fish and Wildlife, U.S. Forest Service, U.S. Bureau of Land Management, National Marine Fisheries Service, U.S. Army Corps of Engineers, National Park Service)

a. Coordination with project manager regarding overall study method and approach
b. Technical input into state level river assessments
c. Review of preliminary and final study results (at state and regional levels)
d. Input into determination of use of project results
e. Coordination to ensure compatibility with agency mandates, planning process, and programs
f. Input into overall study method and approach
g. Staff assistance (NPS)
h. Participate in site ranking and Protected Areas designations

NOTE: Land management agencies will be responsible for presentation and review of findings on lands within their jurisdictions.

6. Pacific Northwest Utilities Conference Committee/Resource Developers

a. Review preliminary and final study results

C. Specific Project Responsibilities

1. Regional Level

a. Project Manager and Staff

Selection - Bonneville Power Administration in consultation with the NPPC

Responsibilities

i. Provide overall project management and coordination at the regional level
ii. Ensure consistency between state level studies
iii. Develop overall study design, methods, preliminary criteria and standards
iv. Provide technical assistance for state assessments
v. Coordination with state level study coordinator, and state level study team
vi. Coordination with Indian tribes and Federal agencies
vii. Coordination of state level report production
viii. Preparation of final summary report for region
ix. Administration of contracts with BPA
x. Administration of funds for state level studies with BPA

NOTE: One regional staff person will be assigned to the fish and wildlife and another to non-fish and wildlife resource categories. These people will coordinate activities of senior resource experts in each state level study. The regional staff person will: a) develop preliminary criteria and assessment procedures by November 1, 1984, b) assist resource experts in the finalization of procedures, c) develop assessment forms and information packets, d) assist in the assessment process, and e) assist in the preparation of final reports.

2. State Level

a. NPPC Council Member

Responsibilities

i. Project oversight
ii. Consult with state project coordinator
iii. Resolve disputes

b. State Level Project Coordinator

Selection - By Governor and Council member in charge (in consultation with BPA and participating agencies)

Responsibilities

i. Official project contact at state level
ii. Adapt recommended study organization to meet individual state circumstances
iii. Coordination with regional project manager, Council, state administration, State Historic Preservation Officers, etc.
iv. Coordinate the designation of "senior resource experts" for each category and the allocation of funded FTE positions
v. Administration of funding, grants, etc.
vi. Coordinate public involvement at the state level
vii. Chair technical task force meetings, ensure consistency of product between resource categories
viii. Supervise small research contracts (if needed)

c. Senior Resource Experts

Selection - Assigned by the director of the appropriate state resource agency or interest group, in consultation with the state level study coordinator. As appropriate, Tribal and/or Federal experts may share in this responsibility. Services will be contributed except for travel. Coordination of this process will be the responsibility of the regional project manager.

Responsibilities - Coordinate resource assessment process within area of expertise (e.g. wildlife, recreation, resident fisheries). Specific responsibilities include:

i. Direct activities of paid staff

ii. Coordinate with regional staff and senior resource experts from other states and agencies regarding evaluation criteria, standards, methodology, etc.
iii. Consult with state level coordinator and experts from other resource categories regarding interdisciplinary consistency (i.e., participate in technical task force meetings)
iv. Verify accuracy of findings

d. State Level Technical Task Force

Membership - Senior resource experts, state level project coordinator

Reponsibilities

i. Ensure consistency of method and product
ii. Encourage compatibility with related programs and efforts

NOTE: Approval of findings rests with subject matter experts in individual resource categories, not with the task force as a whole. Frequent meetings of the complete task force are not anticipated.

e. State Level Study Team (Paid Staff)

Selection - Agreement between senior resource experts and state level coordinator

Staffing - Two FTE technical personnel, one for fish and wildlife, and one for other natural, cultural and recreational river values. These positions may be allocated differently in each state and may include new hires, existing staff, or a combination of both. Assistance with cultural values will be provided by the State Historic Preservation Office (SHPO) or its equivalent.

Responsibilities

i. Serve as staff to senior resource experts
ii. Coordinate with project participants, especially field level specialists and regional staff
iii. Prepare study methods
iv. Conduct assessment
v. Produce preliminary and final study documents

f. Field Level Specialists

Membership - As determined by senior resource experts within each state; to include state agency, Federal agency, and Tribal experts as appropriate

Responsibilities

i. Provide information to study team
ii. Participate with other specialists from the state, Tribes, and Federal agencies in completing evaluation within geographical and subject matter area of expertise

g. User Groups

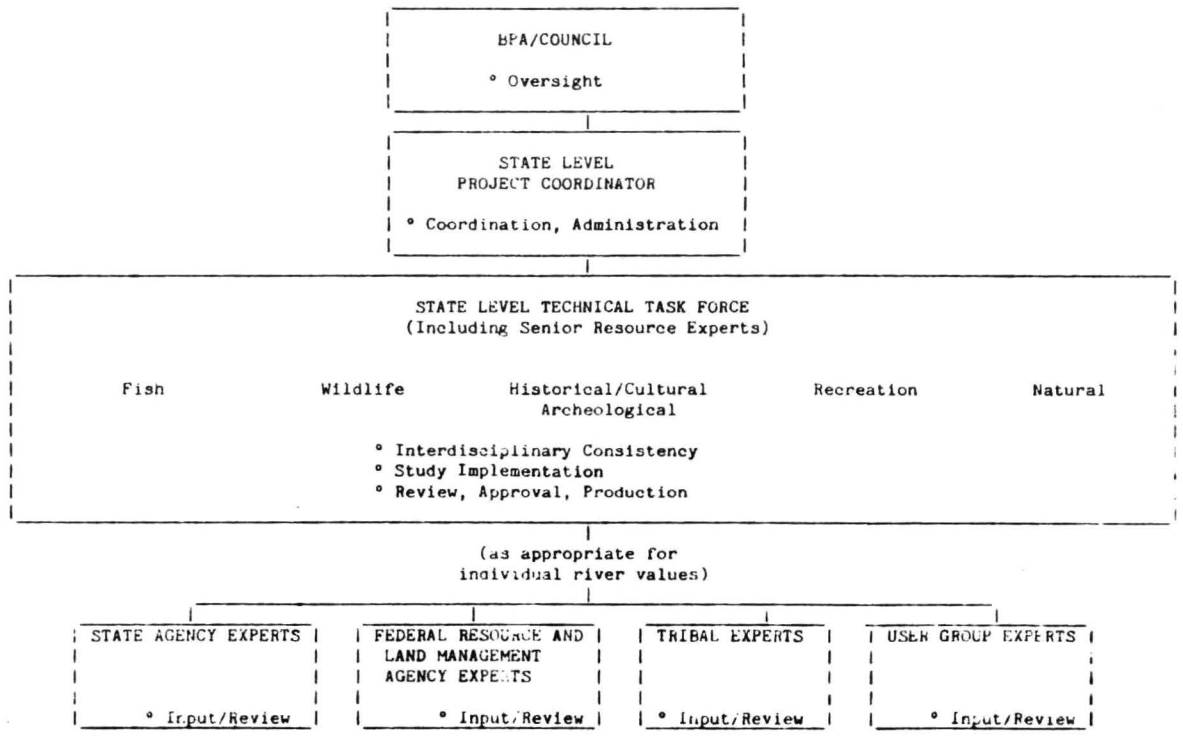
Membership - As determined by senior resource experts within each state

Responsibilities - Conduct resource evaluations and/or review project findings as appropriate. At a minimum, river resource interests and user groups will be periodically informed of study progress.

FIGURE 2

PACIFIC NORTHWEST RIVERS STUDY

ORGANIZATION CHART: STATE LEVEL



State level study organizations will be designed to meet individual circumstances.

III. ASSESSMENT METHOD

A. Process

The resource assessment method considers multiple river resource values. The Rivers Study will rely on previously collected data. Limited research funds will be made available where data gaps exist. The study is not envisioned as an inventory or data collection excercise. Rather, the focus is on evaluation by recognized resource experts and, as appropriate, user groups and the public. Study conclusions will ultimately be the responsibility of these resource specialists. The states, Tribes, and Federal agencies will be represented in the evaluation process to an extent commensurate with their legal authorities and management responsibilities.

The major objective of the process is to identify the significance of river segments and systems for each resource category and, as appropriate, for combined resource categories. Comparative assessment is a major feature of the process. The process does not, however, result in rivers being ranked in numerical order. Rather, it clusters stream reaches into groups according to their significance.

The following is a detailed description of the assessment process.

Step 1: Identification of fish and wildlife, natural, recreational, and cultural "river resource categories."

Categories are chosen to: 1) accurately reflect the overall value of rivers and streams as natural resources; 2) reflect the interests of various public and private user groups; 3) acknowledge the resource responsibilities of the Tribes, states and Federal agencies; and 4) reflect the priorities of the Regional Act.

Fish and wildlife categories based on qualitative measures of habitat value will be explicitly included to ensure that the study meets the needs of the Council's Fish and Wildlife Program. Tribal cultural values will be included through a NPPC contract as well as Tribal participation in the state level studies. A "senior resource expert" in each state will be designated to oversee activities related to each specific resource category. Public and private experts will be identified in each state to provide input into the assessment. Major resource categories will include:

° Wildlife
- migratory birds
- resident birds
- big game
- furbearers
- small mammals
- endangered and threatened species (Federal and state)

° Fisheries
- cold water
- warm water
- spawning, rearing, and migration areas
- sport fisheries

° Natural Features
  - endangered and threatened plants
  - unique plant communities and other recognized natural areas
  - undeveloped segments
  - free flowing segments
  - scenic corridors
  - sensitive riparian wetlands
  - gorges, waterfalls, rapids, miscellaneous geologic features
  - slope/soil stability

° Social/Cultural Features
  - archeological sites
  - river related architectural sites
  - miscellaneous heritage sites
  - historic trails
  - current Indian cultural use sites
  - current public use sites

° Recreation
  - white water boating
  - flat water boating
  - river camping
  - miscellaneous water based recreation

° Institutional Constraints
  - wild and scenic rivers
  - wilderness areas
  - research natural areas
  - national parks
  - roadless areas
  - state/local constraints

Step 2: Inventory of Existing Information and Identification of Experts

Each state task force will inventory by February 15, 1985 the availability of expertise and information in each of the preceding resource categories. The inventory should produce an overview of available data through a review of existing documents, agency files, interviews, etc. Agencies, groups, individuals or other sources possessing useful data or with capability to produce useful data within the study period should be identified, including key contact person(s). Pertinent data and documents should be identified by type, quality, quantity, location, type of storage, and availability. Task force members and project staff should identify areas where existing data is insufficient and identify data collection priorities. This activity is intended to be a status review of available data rather than a standard literature review. The product will be a listing of sources and the acquisition of appropriate materials.

Step 3: Evaluation Standards and Criteria Development

For each river resource category, regional staff and senior resource experts will identify standards and criteria by December 1, 1984 by which data will be evaluated. "Standards" refer to the evaluation measures used to determine "minimum thresholds of significance." "Criteria" refers to those attributes

used to critically evaluate specific rivers or river systems meeting the minimum threshold of significance for a given resource category. Both quantitative and qualitative criteria may be employed as appropriate. In the development of standards and criteria, resource "potential" may be taken into account as appropriate.

An effort will be made to standardize criteria for each state level study. The regional level project management staff, with input from relevant state, Federal, and Tribal experts, will develop recommended criteria by December 1, 1984. These will ensure study-wide consistency. Experts in each state will consider these recommendations in adapting the study methodology to meet individual state needs. Consistency between the states will be facilitated throughout the process by the project management staff. The actual assessment method will vary by resource category. The method will be determined jointly at the state level by project management staff and appropriate senior resource experts, and approved by the BPA. Regional staff will develop criteria evaluation forms for each resource category to promote efficiency and coordination.

Step 4: Individual Resource Category Evaluation

An independent inventory of river resources will be undertaken for each resource value category. Under the direction of designated senior resource experts, rivers and streams meeting minimum threshold standards will be assessed by field level specialists using the previously identified criteria and assessment procedures. River segment descriptions and rules governing treatment of tributaries will be determined by the project management staff. The assessments will be compared for consistency, and river segments will be preliminarily grouped according to overall significance. As appropriate, similar assessments may be conducted by user groups to verify results. The resource evaluation findings will be reviewed by designated senior resource experts and agency participants. Results will be revised as appropriate by the senior resource experts in consultation with regional project management, and reviewed by private groups and citizens who have given input or expressed interest.

The final result of the category assessment will be the identification of all river areas which should be recognized for possessing a particular fisheries, wildlife, natural, recreational, or cultural value and an identification of the relative significance of each area. The terms highest significance, high significance, moderate significance, limited significance and no significance will be used to denote relative value.

Step 5: Display of Category Results

Results will be displayed in tabular form and also recorded on base maps at an appropriate scale for each resource value. Where available and applicable, a scale of 1:100,000 will be used. The basis for expert judgements will be recorded in narrative form for each river segment or segments. Maps of a scale suitable for public presentation will also be developed. Public meetings to present the findings of Step 4 and the graphic displays of step 5 may be held. Preliminary results will be available by November 1985.

Step 6: Information Synthesis

Information obtained for all resource categories will be combined. All significant values associated with a given river or stream will be identified and all tributaries which contribute to these values will be noted. A matrix format will be used as the mechanism for displaying this information. The matrix will identify the total number of resource values associated with each river segment and system and will indicate significance ratings. River segments are defined using the following general guidelines.

Step 7: Composite Resource Value Evaluation

For the purposes of optional Step 7, the following applies.

1. Where a river possesses a combination of overlapping values, a composite river segment is identified with the outer boundaries of the overlapping segments determining the boundary of the entire river area.

2. A tributary stream which flows into, and is connected to, a larger river area is included in the larger river segment description if the tributary stream: a) possesses natural or recreational values consistent with those of the main river area, and b) significantly enhances the overall value of the larger river segment's resources.

3. A tributary stream with natural or recreational values greater than those of a connecting main river area is listed separately.

4. Larger connecting rivers may be listed as tributaries to a river system in certain unique situations, where: a) the rivers are free-flowing and within an undeveloped watershed, and b) the rivers in the watershed exhibit a high degree of hydrological and ecological interdependence.

Using a standardized method, composite river resource values associated with river segments and systems will be evaluated. The objective will be to determine overall significance of segments and systems to each state and the Northwest region as well as to achieve a sense of agreement between many interests as to these findings. This evaluation must be sensitive to rivers possessing unique and/or critical values as well as rivers possessing multiple resource values. Fish and wildlife concerns will be fully incorporated into the process, as will tributaries critical to main stem values.

The combined unique and significant fish, wildlife, natural, cultural, and recreational resource values of all river segments will be evaluated comparatively to determine their relative importance. Each of the rivers will be ranked and placed into one of four significance levels. These categories represent a range of river values, from areas which are of highest significance to those of more localized importance and include: national or region-wide importance, state-wide importance, intra-state regional importance, and local importance.

Rivers and river segments are placed within particular categories based on the number and significance of various river values. The final river ranking scheme recognizes rivers which have a variety of significant values as well as importance due to specific unique resource qualities. Rivers with interstate values will also be identified.

Rivers and associated tributaries will be placed into general groupings reflecting different levels of significance. The general criteria used to place rivers within the four significance categories should be as follows:

National/Regional Importance

1. Rivers or river segments possessing a wide range of resource values with highest or high significance in a specific resource category.

2. Rivers or river segments possessing resource values which are recognized as being unique in a given resource category.

3. Rivers with interstate values of regional significance.

State-Wide Importance

1. Rivers or river segments possessing one or more resource values which are recognized to be among the state's most significant in a given resource category.

Intrastate Regional Importance

1. Rivers or river segments possessing resource values with moderate significance in a specific resource category.

Local Importance

1. Rivers or river segments possessing one or more resource values of limited significance.

Composite value findings will give an indication of multiple interest public values and can thus guide the Council, the states, and Federal agencies in setting priorities. These findings will not diminish the individual category findings derived in Step 4 as they relate to Council programs directed at specific resource categories.

Step 8: Documentation and Presentation

The study's findings will be documented and graphic presentations of data prepared. Detailed state by state reports and a summary region-wide report will be prepared. A special effort will be made to document the significance of reaches and systems found to possess high composite and/or unique resource values, as well as those reaches reflecting the priorities of the Regional Act. Statutory recognition (Wild and Scenic Rivers, inclusion in Wilderness Areas, etc.) will be included. The final report will include identification of potential Protected Areas, narrative descriptions, tabular information and maps which depict and document the comparative significance of resources for each value category and, as appropriate, for combined resource values. Resource groupings will identify rivers of significance.

B. Products of the Resource Assessment

1. State Level Study Products (November 1985)

a. Documentation - A final study document will be produced which:

i. Identifies the fish and wildlife, natural, recreational, cultural and institutional values associated with specific rivers and streams within each state's geographical boundaries and signifies the relative significance of river resources for each value category.
ii. Depicts the interconnection of resource values within specific drainage systems.
iii. Documents the value of segments and systems found to be of high significance within each state.
iv. Describes the method used to reach conclusions, including a description of criteria and standards.
v. Identifies participants.
vi. Identifies and analyzes Federal, state, and local laws and Tribal policies relating to river use and development.
vii. Identifies management strategies at the local, state, and Federal government levels and within the private sector which are used to conserve significant river resources.
viii. Identifies gaps in resource information which can be filled by future studies.

b. Graphics - The final document will be accompanied by appropriate graphics including:

i. Maps which specify the location of significant natural, recreational, cultural and institutional values. Both linear and specific site data will be included. Information regarding sensitive fish and wildlife, plants, and archeological sites will be displayed in accordance with state and Tribal policy and conservation of these resources.
ii. Maps of cumulative resource values associated with significant river systems.

2. Regionwide Products

a. Documentation - A summary document which:

i. Synthesizes and summarizes the findings of the state studies.
ii. Outlines Bonneville recommendations regarding potential applications of the Pacific Northwest Rivers Study to meet the requirements of the Regional Act.
iii. Identifies areas of regional significance.

b. Graphics - Maps including:

i. Standardized and reproducible state resource summary maps at 1:100,000.
ii. Regionwide maps suitable for public presentation and reference which depict river resource values and which identify potential hydropower site locations.

TABLE 1

PACIFIC NORTHWEST RIVERS STUDY

SCHEDULE OF PRODUCTS

Task [1/]	Responsible Parties	Product	Completion Dates
Study Design			
1. Approve Work Plan	Council	Approved Work Plan	Sep 1984
2. Completed Contracts	BPA; with U.S. Forest Service, National Park Service, Tribes, States U.S. Fish and Wildlife Service Bureau of Land Management	Memoranda of Agreement	Sep 1984
3. Designate State Level Coordinators	Council Members/State Governors		Sep 1984
4. Establish River Assessment Staff	BPA	3 Staff Specialists Hired Including Project Manager	Nov 1984
5. Establish State Offices/Define Methods General Criteria, Standards, and Activities	State Coordinators	State Offices Staffed Revised Plan	Dec 1984
6. Identify State Level Technical Task Force; Public Involvement Process	State Level Staff/Study Coordinator	State Task Forces Memorandum on Public Involvement to Council	Jan 1985
7. Acquire Reference Materials/Maps	Regional Staff/State Staff	Reference Collection by Resource Value	Feb 1985
8. Refine Categories - Fish, Wildlife, Natural, Recreational, Cultural, and Institutional Features	Regional Staff/Technical Task Forces	Written Detailed Description of River Value Categories with Standards for Each	Feb 1985
9. Refine Historic/Cultural Tribal Area Categories	NPS/Tribes	Written Detailed Description of River Value Categories with Standards for Each	Feb 1985
Resource Assessment			
10. Inventory of Existing Information	State Level Task Forces	Annotated Index of Holdings	Feb 1985
11. Contact Principle Information Sources	State Level Task Forces/ Regional Staff	Summaries of Information from Sources	Mar 1985
12. Complete Base Maps	State Level Staff	Base Maps for State	Apr 1985
13. Prepare Evaluation Forms for Each River Value	Regional Staff/State Level Staff	Completed Forms	Apr 1985
14. BPA/Council GIS Computer System Development	Regional Staff/BPA	Data Base/ Geographic Information System	May 1985

1/ Products and Tasks reflect the Schedule in Figure 1 [illegible]

TABLE 1 (Continued)

PACIFIC NORTHWEST RIVERS STUDY

SCHEDULE OF PRODUCTS

	Task [1/]	Responsible Parties	Product	Completion Dates
15.	Complete River Resource Assessments	State Level Staff/Agencies/Tribes	Report with Completed Maps and Evaluation Forms for Each River Value	Oct 1985
16.	Public Meetings as Required	State Level Staff/Agencies/Tribes	Public Notice; Memo on Meeting Issues	Nov 1985
17.	Display Results by State and Region for Each Value	State Level Staff/Agencies/Tribes/ Council Staff	Maps with Brief Description of Process	Nov 1985
18.	Identify Significant River Segments for Each River Value	State Coordinator/Task Force/ Agencies/Tribes	Maps of Values	Nov 1985
19.	Document Significant River Segments	State Coordinator/Task Force/ Agencies/Tribes	Report	Nov 1985
	Implementation			
20.	Complete Hydropower Site Overlay	Regional Staff/Council Staff	Map of Region's Hydro Sites	Nov 1985
21.	Review of Evaluations by Technical Task Force for Each Value Category	State Level Staff/Agencies/Tribes/ Technical Experts	Revised Maps and Report	Feb 1986
22.	Complete Resource/Reach Matrix	State Level Staff	Matrix of Reach/Resource Values	Feb 1986
23.	Complete Statewide Valuations	State Level Staff	Maps and Report; Statewide Data File	Apr 1986
24.	Present Findings	State Level Staff/Agencies/Tribes	Public Notice; Meeting Summary	May 1986
25.	Computerize River Reach Data	Regional Staff	Composite Data File From States	Jun 1986
26.	Complete Resource Composite Evaluations	State Level Staff/Regional Staff	Summary Report to Coordinator with Maps	Jun 1986
27.	Present Composite Values	State Level Staff/Regional Staff	Public Notice, Meeting Issues Data to Council for Energy Plan	Jun 1986
28.	Prepare Supply Curves	Council Staff/BPA	Supply Curves	Jul 1986
29.	Complete Final Study Documentation	State Level Staff	Final State Level Reports with Maps	Jul 1986
30.	Provide Draft Regional Report/Maps to States	Regional Staff	Draft Report with Maps	Aug 1986
31.	Prepare Regional Report	Regional Staff	Final Report with Maps	Sep 1986

IV. SCHEDULE OF ACTIVITIES

The Pacific Northwest Rivers Study will be performed in 3 phases: 1) Study Design, 2) Resource Assessment, and 3) Implementation as shown in Figures 3 and 4. The objective of study design is to develop the project strategy and parameters, to identify and inform potential participants, and to develop a funding strategy. This Study Plan reflects the efforts of study design by the Council, BPA, and the National Park Service.

The objective of the 12 to 15 month resource assessment phase is to undertake a comparative resource evaluation process and prepare final state products. This phase will be the responsibility of those shown on Figures 1 and 2, Regional and State Organizations in Chapter II.

Finally, implementation will consist of compiling state findings into a summary document and developing recommendations for integrating project results into specific Council and BPA programs.

FIGURE 3

PACIFIC NORTHWEST RIVERS STUDY

SCHEDULE FY 1984-85

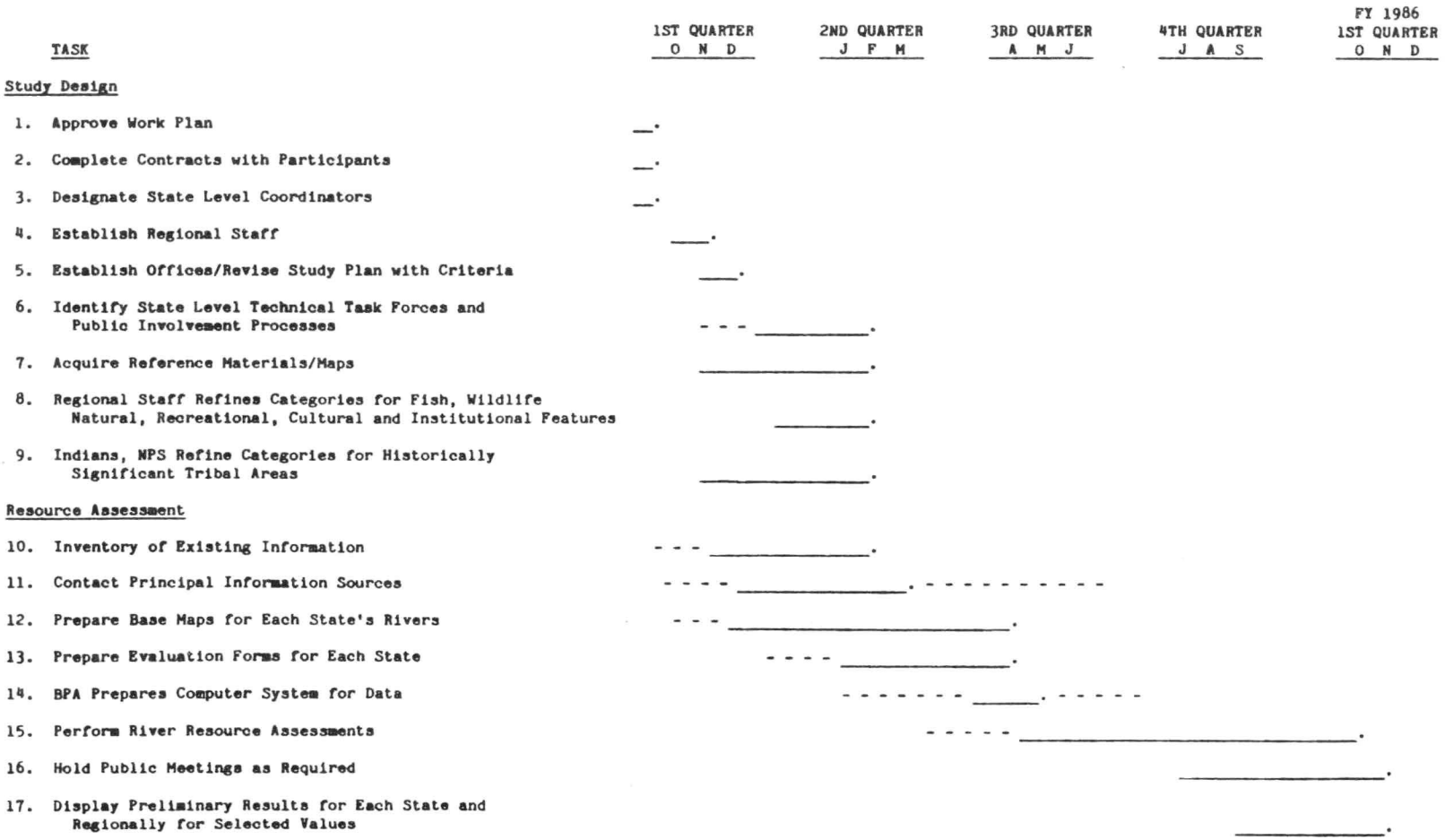
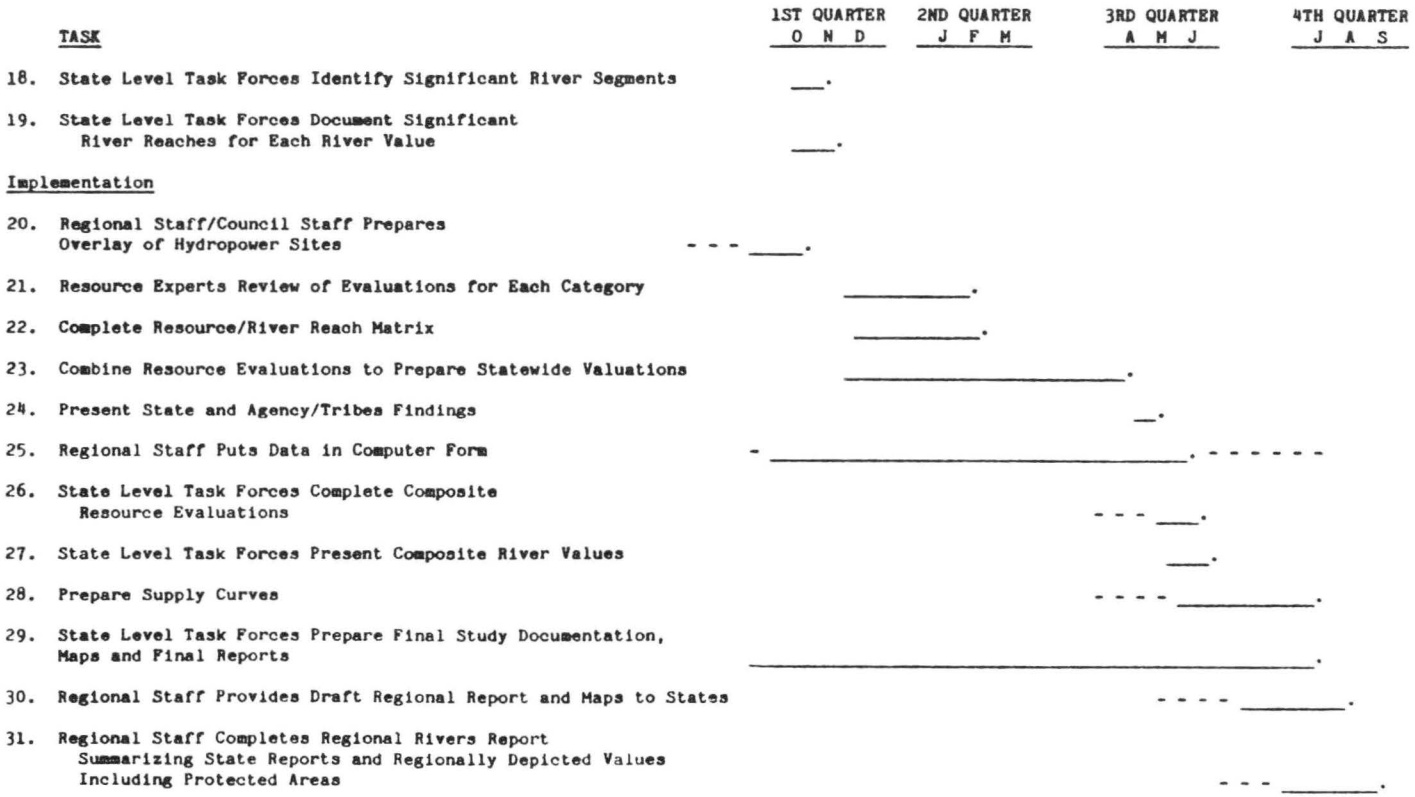


FIGURE 4

PACIFIC NORTHWEST RIVERS STUDY

SCHEDULE FY 1986



V. BUDGET

The Bonneville Power Administration will contribute the major share of the project funding. During the assessment phase, each state will contribute a small amount of existing staff services. No financial assistance will be required of the states beyond this in-kind contribution. Tribal and Federal resource agency involvement will also take the form of clerical support and office space contributions; however, selected activities may be reimbursed. Total study costs for 2 years are expected to be $1,000,000.

Table 2 describes estimated project costs allocated over a 2 year period. All numbers are estimates only and may be revised during contract negotiations with individual participants.

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9/7/84

TABLE 2

PACIFIC NORTHWEST RIVERS STUDY

BUDGET EXPENDITURES BY PARTICIPANT

Participant	FY 1985	FY 1986	2 Year Total
1. BPA			
a. Project Manager	40,000	40,000	80,000
b. F&W Staff (1)	12,000	24,000	36,000
c. Natural/recreational/cultural staff (1)	12,000	24,000	36,000
d. Travel, report production	12,000	12,000	24,000
e. Overhead	Contributed 1/	Contributed	Contributed
	76,000	100,000	176,000
2. National Park Service			
a. Staff assistance (PNRO)	25,000	25,000	50,000
b. Overhead	Contributed	Contributed	Contributed
	25,000	25,000	50,000
3. Federal Resource and Land Management Agencies 2/			
a. Staff assistance	Contributed	Contributed	Contributed
b. Contract (BLM, USFS, USFWS) for inventory on Federal lands	125,000	100,000	225,000
	125,000	100,000	225,000
4. Tribes			
a. Fish and Wildlife Values	35,000	35,000	70,000
b. Overhead	Contributed	Contributed	Contributed
	35,000	35,000	70,000
5. Oregon			
a. State coordinator	Contributed	Contributed	Contributed
b. Study staff (2 @ $24,000) 3/	24,000	24,000	48,000
c. Support personnel	Contributed	Contributed	Contributed
d. Contract(s)	25,000	25,000	50,000
e. Travel, production, miscellaneous, contingency	10,000	10,000	20,000
f. Overhead	Contributed	Contributed	Contributed
	59,000	59,000	118,000
6. Washington			
a. State coordinator	Contributed	Contributed	Contributed
b. Study staff (2 @ $24,000) 3/	24,000	24,000	48,000
c. Support personnel	Contributed	Contributed	Contributed
d. Contract(s)	25,000	25,000	50,000
e. Travel, production, miscellaneous, contingency	10,000	10,000	20,000
f. Overhead	Contributed	Contributed	Contributed
	59,000	59,000	118,000

1/ Overhead is generally valued at 50% of salaries to be contributed by participants.

2/ The region has over 40 national forests; BLM manages over 20 districts; the U.S. Fish and Wildlife Service operates over 50 refuges.

3/ Includes one fish and wildlife and one non-fish staff member.

TABLE 2 (Continued)

PACIFIC NORTHWEST RIVERS STUDY

BUDGET EXPENDITURES BY PARTICIPANT

Participant	FY 1985	FY 1986	2 Year Total
7. Idaho			
a. State coordinator	Contributed	Contributed	Contributed
b. Study staff (2 @ $24,000) 3/	24,000	24,000	48,000
c. Support personnel	Contributed	Contributed	Contributed
d. Contract(s)	25,000	25,000	50,000
e. Travel, production, miscellaneous, contingency	10,000	10,000	20,000
f. Overhead	Contributed	Contributed	Contributed
	59,000	59,000	118,000
8. Montana			
a. State coordinator	Contributed	Contributed	Contributed
b. Study staff (2 @ $24,000) 3/	24,000	24,000	48,000
c. Support personnel	Contributed	Contributed	Contributed
d. Contract(s)	25,000	25,000	50,000
e. Travel, production, miscellaneous, contingency	10,000	10,000	20,000
f. Overhead	Contributed	Contributed	Contributed
	59,000	59,000	118,000
Total	$497,000	$496,000	$ 993,000