

**APPENDIX A**

**ANADROMOUS FISH HABITAT ASSESSMENT PLAN**

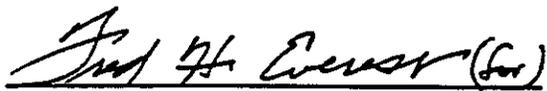
**March 9, 1994**

**USDA FOREST SERVICE**

**ALASKA REGION  
PACIFIC NORTHWEST RESEARCH STATION**

USDA FOREST SERVICE  
ALASKA REGION  
PACIFIC NORTHWEST RESEARCH STATION  
ANADROMOUS FISH HABITAT  
ASSESSMENT PLAN

APPROVED BY



CHARLES PHILPOT  
DIRECTOR  
PACIFIC NORTHWEST RESEARCH STATION

DATE: 3/16/94



MICHAEL BARTON  
REGIONAL FORESTER  
ALASKA REGION

DATE: 3/28/94

ANADROMOUS FISH HABITAT ASSESSMENT PLAN  
Including Stevens' Amendment to FY 94 Appropriations Act.

MARCH 9, 1994

A. Background

The USDA Forest Service and USDI Bureau of Land Management have developed a strategy for protection and restoration of Pacific Salmon and Steelhead habitats on USFS and BLM administered lands in the West. The Strategy is called PACFISH. The Secretaries of Agriculture and Interior are currently evaluating the strategy to assess the effects of its implementation. Implementation is an iterative, adaptive process that will be ongoing.

The FY 1994 Appropriations Act for Interior and Related Agencies includes the following section, sponsored by Senator Stevens:

"SEC. 321. None of the funds provided in this Act may be used to implement the Bureau of Land Management/United States Forest Service comprehensive strategy for Pacific salmon and steelhead habitat (PACFISH) or to impose interim guidelines for such strategy in the Tongass National Forest: Provided, That nothing in this section shall be construed to enlarge or diminish minimum timber no harvest buffer zones required by the Tongass Timber Reform Act or to enlarge or diminish site-specific management prescriptions which increase no harvest fish stream buffer zones applied under the Tongass Land Management Plan and existing standards and guidelines of the Tongass National Forest."

The Conference Committee Report on the Act also includes the following explanation of the Amendment:

"The managers recognize that Alaska is the only State which has statutory minimum no harvest buffer zones on State, private, and Federal lands resulting from Federal and State laws. For this reason and because of the differences between the existing good condition of anadromous fish habitat in Alaska and other areas of the country, the managers have revised Senate proposed language to prohibit implementation of the PACFISH strategy in Alaska in 1994. The language also clarifies that this prohibition does not apply to any management prescriptions involving anadromous fish habitat under current standards and guidelines in the Tongass NF."

"The managers recognize that more studies are needed prior to making any decisions on implementing the strategy in Alaska. The Forest Service therefore should proceed with stream analyses and studies and review procedures related to the PACFISH strategy in 1994 in order to study the effectiveness of the current procedures, such as buffer strips, and to determine if any additional protection is needed. The Forest Service should provide an interim report on studies conducted to date to the Appropriations Committees by April 1, 1994. Funding for such studies and analyses shall come from salvage funds identified previously for that purpose and other programs such as soil, water and air, and research."

The purpose of this Assessment Plan is to describe briefly how the Forest Service's Alaska Region (Region) and Pacific Northwest Research Station (Station) intend to respond to direction in the Appropriations Act. Staff leadership responsibility for this Assessment is jointly held by Jack Capp, Alaska Region, and Fred Everest, Pacific Northwest Research Station.

Three documents are attached to this plan:

1. Flow diagram for the follow-up report.
2. Flow diagram for the Anadromous Fish Habitat Assessment.
3. Timeline for the Anadromous Fish Habitat Assessment.

#### B. General Framework of the Assessment

##### Interim Report

The Region and Station will jointly prepare an Interim Report which will describe how the questions raised in the Appropriations Act will be addressed. The Interim Report will describe the status of the actions being taken and will be submitted to Congress by the Washington Office. The congressional due date is April 1, 1994.

##### Follow-up Report

The Region and Station will jointly prepare a Follow-up Report about the end of FY 1994 to answer the two questions explicitly raised by the Appropriations Act regarding the Tongass National Forest:

1. Are current fish habitat protection procedures effective relative to procedures included in the proposed PACFISH strategy?
2. Is additional protection needed?

The following questions may be addressed in the Assessment and included in the Follow-up Report:

1. Status of studies to determine what unique and sensitive salmon stocks exist in SE Alaska and are any of those declining?
2. What watershed/fish habitat restoration needs exist on the Tongass and a summary of watershed conditions--the extent to which watersheds on the Tongass show signs of degradation.
3. What can be said regarding the relationship among salmon harvests off Alaska, salmon production, and anadromous fish habitat conditions on the Tongass National Forest, as well as between sensitive, unique, and declining stocks and fish habitat quality in SE Alaska? This information will be summarized and provided as background material.

4. What monitoring has been done in FY 1994 and what further monitoring activities are needed to generate more definitive answers to the two Appropriations Act questions.

Both Reports will focus only on the Tongass National Forest. Past studies on effectiveness of stream buffers and other relevant protection measures similar to current procedures in the Region, lower 48, and British Columbia will also be reviewed and their implications considered. Both reports will be approved by the Regional Forester, the Station Director, and the WO before they are transmitted to Congress.

Throughout this process, the Region and Station will consult with the Alaska State Office of the Bureau of Land Management.

### C. Establishment of Technical Analysis Teams

Six different technical analysis teams of three types will be formed. They will be inter-disciplinary and composed of scientific and technical personnel from the Forest Service, the National Marine Fisheries Service, the Environmental Protection Agency and State of Alaska government. Forest Service representatives from outside Alaska are included because they can provide needed information on science used in development of PACFISH, additional professional, scientific, and analytical skills and information, and help put Alaska information in a larger perspective. The role of the teams will be to complete technical and scientific analysis only. They will not develop management recommendations for direct use in decision making.

Teams will be:

1. One Regional and three Area Watershed Analysis Teams. The Regional Team (RWAT) will develop and test protocols and procedures for conducting watershed analysis following the format of the Federal Agency Guide for Pilot Watershed Analysis, as well as provide for quality assurance and control. The Regional Team will be providing more specific details about the objectives and methodology of watershed analysis, to address the congressional questions and ensure consistency in application on the three Tongass Areas. The three Area teams will carry out the watershed analyses to assist FHAT with answering the questions stipulated in the Appropriations Act.

2. The Fish Habitat Analysis Team (FHAT) will identify fish habitat protection elements that comprise current management direction and the proposed PacFish strategy. Drawing on the established literature of studies done in coastal Alaska, British Columbia, and Pacific Northwest forests, as well as information gathered from the Areas and the Station, monitoring studies, the results of the 3 test watershed analyses, and the project plans designed after watershed analysis, the Team will produce a technical analysis report that will be used to complete the Follow-up Report on the two questions raised by the Appropriations Act.

3. A FY 1994 Effectiveness Monitoring Team will review the three Tongass Areas' monitoring plans of work to recommend a coordinated FY 1994 effectiveness monitoring program.

#### Watershed Analysis

1. The Regional Watershed Analysis Team will include:

Mike Kuehn (chair), Regional Office - Lands Minerals and Watershed  
 Ron Dunlap, Regional Office - Wildlife and Fisheries  
 Greg Nowacki, Regional Office - Wildlife and Fisheries  
 Doug Swanston, Juneau Forestry Science Lab  
 John Day, Tongass Land Management Planning Team  
 Dick Aho, Stikine Area  
 Dan Kelliher, Chatham Area  
 Ron Medel, Ketchikan Area  
 Jim Ferguson, (consultant) Alaska Dept. of Environmental Conservation  
 Mike Furniss, Six Rivers National Forest, California

The RWAT will consult with other Assessment Teams, other organizations, and the Alaska Working Group on Cooperative Forestry/Fisheries Research. The RWAT will report to the Regional Director of Lands, Minerals, and Watershed and the Pacific Northwest Station Program Manager for Aquatic/Land Interactions. Each area Watershed Analysis Team (AWAT) will include that Area's representative on the RWAT.

#### Fish Habitat Analysis

2. The Fish Habitat Analysis Team will include:

Rebecca Baldwin (chair), Regional Office - Program Planning and Budget  
 Cal Casipit, Regional Office - Wildlife and Fisheries  
 Max Copenhagen, Regional Office - Lands Minerals and Watershed  
 Steve Kessler, Tongass Land Management Planning Team  
 Steve Paustian, Chatham Area  
 Buck Bryant, Juneau Forestry Sciences Lab  
 Lana Shea, (consultant) Alaska Department of Fish and Game  
 Jack McIntyre, FS Research, Boise Idaho  
 Tamra Paris, National Marine Fisheries Service  
 Jeff Kershner, Forest Service National Fish Habitat Relationships  
 Coordinator

The FHAT will report to the Regional Director of Wildlife and Fisheries and the Pacific Northwest Station Program Manager for Aquatic/Land Interactions. The FHAT will consult with other analysis teams and other organizations, including the Alaska Working Group on Cooperative Forestry Fisheries Research, and the Forest Service National Aquatic Ecologist.

### FY 1994 Effectiveness Monitoring

#### 3. The FY 1994 Effectiveness Monitoring Team will include:

Randy Coleman (chair), Regional Office - Program Planning and Budget  
 Cal Casipit, Regional Office - Wildlife and Fisheries  
 Max Copenhagen, Regional Office - Lands, Minerals and Watershed  
 Doug Swanston, Juneau Forestry Sciences Lab  
 Hank Newhouse, Ketchikan Area  
 Julianne Thompson, Stikine Area  
 Mike Fox, Chatham Area  
 Jim Ferguson, (consultant) Alaska Dept. of Environmental Conservation

The FY 1994 Monitoring Team will report to the Regional Director of Planning, Programming, and Budgeting and the Pacific Northwest Station Program Manager for Aquatic/Land Interactions.

### Appropriations Act Questions

#### D. Are Current Procedures Effective?

This question will be addressed three ways. The FHAT will compile related research and monitoring information from studies conducted to date, with the focus on work done in Alaska, information used in formulating the PACFISH proposal, and related studies done elsewhere. The FHAT will summarize and evaluate this information and draw inferences where possible, clearly stating the limitations in doing so. FHAT will review and recommend changes in future monitoring procedures the team believes are needed to address the Appropriations Act question of effectiveness of current procedures.

The FY 1994 Effectiveness Monitoring Team will also assist with the development and implementation of a forest-wide monitoring program for FY 1994 to provide new information to help answer this question. To the extent new information can be generated this year, it will be combined with existing information in the Follow-up Report.

Finally, this question is not entirely independent from the second, due to the direction to "...review procedures related to the PACFISH strategy in 1994 in order to study the effectiveness of the current procedures, such as buffer strips, and to determine if any additional protection is needed." Accordingly, the FHAT will conduct a comparative analysis of current procedures, as reflected in Forest Service line officer Records of Decisions since enactment of the Tongass Timber Reform act of 1990 (TTRA), and the proposed PACFISH procedures and the results from the RWAT's watershed tests. The intent of this is to contrast allowed activities and outcomes. As explained in more detail below, the testing of watershed analysis by the RWAT and AWATs will identify the specific fish habitat protection measures that would hypothetically be implemented on the test watersheds under the proposed PACFISH procedures in order to complete the analysis. A discussion of the findings from all of these efforts will be included in the Follow-up Report to be submitted about the end of FY 1994.

### E. Is Additional Protection Needed?

This question will be addressed two ways. The inferences drawn in the Follow-up Report on the effectiveness of current procedures will have implications on the need for additional protection. Hypothetically, if data were abundant, and they indicated current procedures ensure maintenance of anadromous fish habitat quality, we likely could say confidently that additional protection is not needed. However, it is unlikely that we will have adequate data to answer this question very definitively. Therefore, findings expressed in the Follow-up Report on the effectiveness of current procedures possibly will not be adequate alone to determine the need for additional protection.

It is more likely that potential need for additional protection can only be judged by comparing estimated risks of habitat degradation associated with continuing current procedures to the risks expected to result from imposing new protective measures. The FHAT analysis will compare the site-specific fish habitat protection implemented under recent timber sale NEPA and decision documents for three watersheds to the protective measures that would have been implemented had elements of PACFISH been in effect at the time the sales were planned. An estimate of what impact on fish habitat quality would result from the two strategies will be made. This will identify differences in risk of habitat degradation between current procedures and elements in the proposed PACFISH strategy. The three watersheds will include one on each Tongass area. The FHAT analysis may identify other types of additional protection that should be considered.

The FHAT will have the authority to independently formulate and conduct the details of its analysis, generally following the process outlined in attachment 2, subject to the following conditions:

1. The analysis must objective.
2. The FHAT will develop draft Riparian Habitat Management Objectives (RHMOs) using proposed PACFISH RHMOs as a reference base, which will identify the parameters that are indicators of good fish habitat quality and therefore need to be monitored to assess effectiveness of fish habitat protection measures. The RHMO's will be scientifically - based indicators of healthy fully - functioning systems. Information and rationale for refining the proposed PACFISH RHMOs will be fully documented and based on site specific information.
3. The FHAT must recognize that PACFISH is based on assumptions, procedures and information that may be different than that used in past or current fish habitat protection procedures. The FHAT will explicitly address this issue in its report.
4. The analysis will address the relationship between management practices, habitat conditions, and estimates of output of smolts as an indicator of habitat capability.

5. The FHAT will identify new information needs that the Areas must supply to complete the analysis, including channel attribute updates, and present these needs to Tongass Forest Supervisors. Needs that the Supervisors cannot provide will be identified.

The watershed analysis component of the Assessment will require new computer workstations. This will require WO approval whether leased or purchased. Locations of the workstations will be decided later.

The Watershed Analysis Teams will carry out watershed analyses and will have the authority to formulate and conduct analyses subject to the following conditions:

1. The analyses must be objective.
2. Apply the watershed and fish modules of the Federal Agency Guide for Pilot Watershed Analysis as much as possible.
3. Assure that watershed analyses, consistent with the Federal Agency Guide for Pilot Watershed Analysis, provide the information and data necessary to respond to issues related to fisheries habitat protection effectiveness from an ecological perspective.
4. Work closely with the FHAT to ensure support to and compatibility with the FHAT Analysis.
5. Watersheds to be analyzed will be selected by consensus of the RWAT, FHAT, and the forest supervisors, and consulting with the Alaska Working Group on Cooperative Forestry Fisheries Research.

#### F. FY 94 Monitoring, and Future Monitoring and Research Needs

Because we do not expect to be able to provide a definitive answer to the question regarding the effectiveness of current procedures in the required Interim Report, we will describe in the Follow-up Report the effectiveness monitoring conducted in FY 94. This information would be drawn from the work of the FY 1994 Effectiveness Monitoring Team. For the same reason, the FHAT proposes to identify future monitoring and research needs, which may also be included in the Follow-up Report.

The top analysis and monitoring priority is TTRA buffer effectiveness, per the direction in the Appropriations Act. The Team will also evaluate the effectiveness of current procedures in maintaining habitat in conservation areas that would be applied under the proposed PACFISH strategy. Doug Swanston (PNW Station) will work directly with the Ketchikan Area on a monitoring project this year to ascertain the effectiveness of past and current procedures in protecting anadromous fish habitat quality during the recent major storm on Prince of Wales Island.

### G. Unique and Sensitive Salmonid Stocks in Southeast Alaska

The development of the proposed PACFISH national strategy was triggered in part by the identification and evaluation of "extinct" and "at risk" California, Oregon, Washington and Idaho anadromous fish stocks in a report published by the American Fisheries Society (AFS). A similar evaluation of Alaskan stocks is currently being conducted by AFS. This work is expected to be completed about the end of FY 1995.

At the request of the Region in 1991, the PNW Station began identifying and evaluating unique and sensitive salmon stocks in Southeast Alaska. Preliminary results from this effort were cited in PACFISH briefing materials and this topic was cited by Senator Stevens in his correspondence. Therefore, a summary of the status and implications of the PNW Station reports, including addressing relationships among stocks and their habitats, and the AFS study as well, may be included in the Follow-up Report.

The presence or absence of "high-risk", "unique", or "sensitive" stocks is not prerequisite to making appropriate modifications to current fish habitat protection procedures in order to prevent unacceptably high risk situations for a stock.

### H. Watershed/Fish Habitat Restoration Needs

The Appropriations Act does not directly address habitat restoration needs. There are four reasons to include restoration needs in our assessment and report to Congress. First, identifying watersheds in need of anadromous fish habitat restoration will be useful in identifying what past practices may have contributed to fish habitat degradation.

Second, whatever the findings may be regarding effectiveness of current procedures, we understand that timber harvest in some watersheds on the Tongass was done following procedures that were consistent with policy at the time, but do not reflect timber harvest policies and procedures currently used to protect anadromous fish habitats. However, some of these areas logged in the past are contributing to declining habitat capabilities.

Third, while answers to the effectiveness and additional protection questions developed in FY 1994 are very unlikely to be definitive, it is important to develop a list of restoration needs this year for potential funding.

Fourth, restoration is a key element of the PACFISH strategy and as such needs to be reviewed in our assessment.

### I. Relationship to Decision Making:

The Anadromous Fish Habitat Assessment is a technical analysis. It is not a decision document nor will it result in alternatives for decisions. The Assessment results will be available as background information for use in project planning and revision of the Tongass Land Management Plan. It is envisioned that the information will enter our normal planning and decision processes as technical information input to interdisciplinary teams who

formulate alternatives and recommendations for line officer decisions. NEPA is a part of our normal process, so the public and others will be fully involved and consequences of any actions to protect fish habitats will be fully disclosed. There will not be a formal public involvement process as part of this technical analysis.

#### J. Assessment Budget

##### Regional Office

Planning, Programming, and Budget staff	\$ 76,500
Land, Minerals, and Watershed staff.	\$110,000
Wildlife and Fisheries staff	\$160,500

TLMP Revision IDT	\$171,500 <sup>1</sup> <sub>-</sub>
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Juneau Forestry Sciences Laboratory	\$100,000
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Stikine Area	\$252,500 <sup>1</sup> <sub>-</sub>
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Chatham Area	\$305,500 <sup>1</sup> <sub>-</sub>
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Ketchikan Area	\$253,500 <sup>1</sup> <sub>-</sub>
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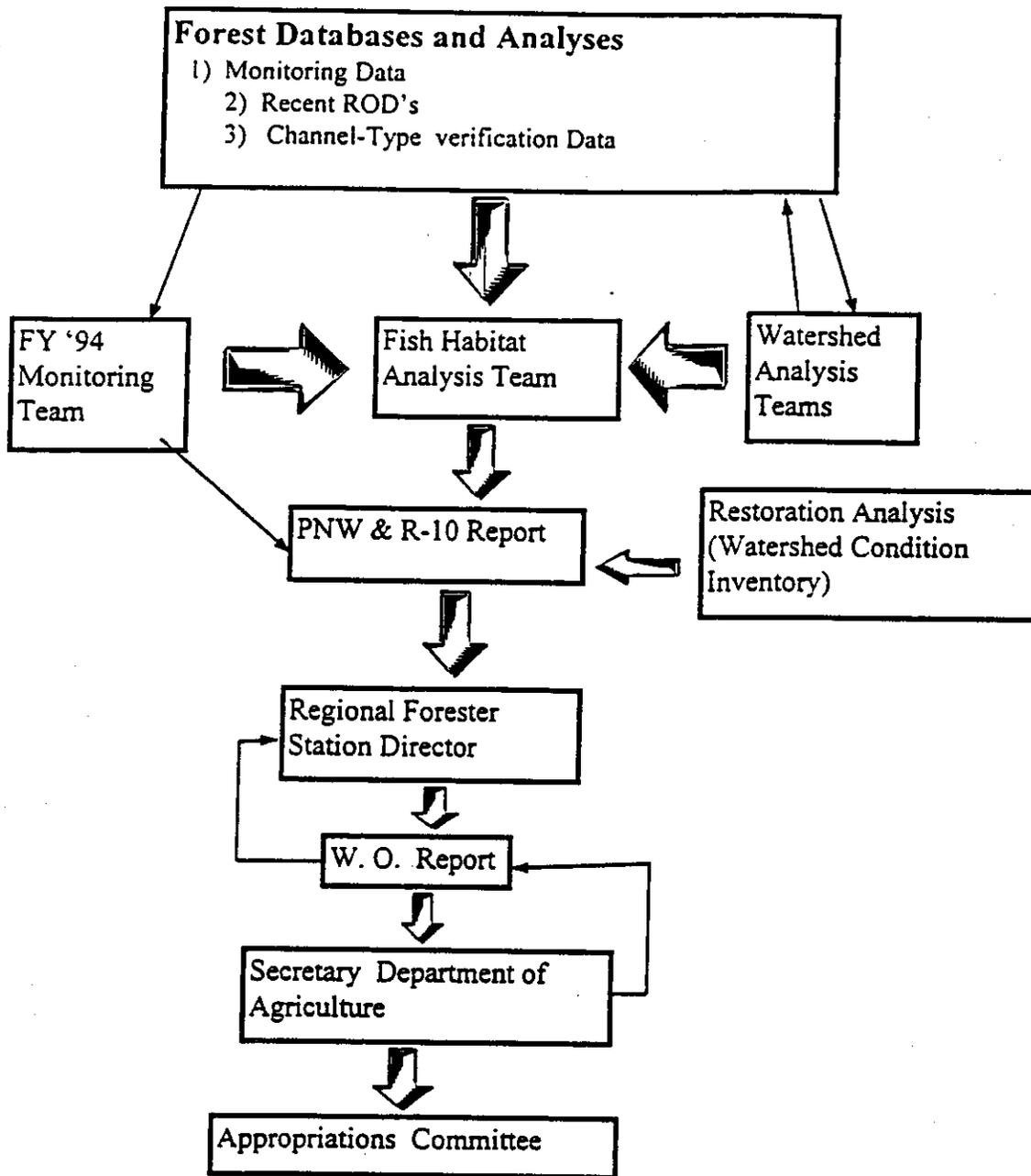
##### Reserve in Regional Office

Restoration Needs Assessment	\$ 70,000
Outside participation/other expenses	\$ 90,000
Report writing and printing	\$ 10,000

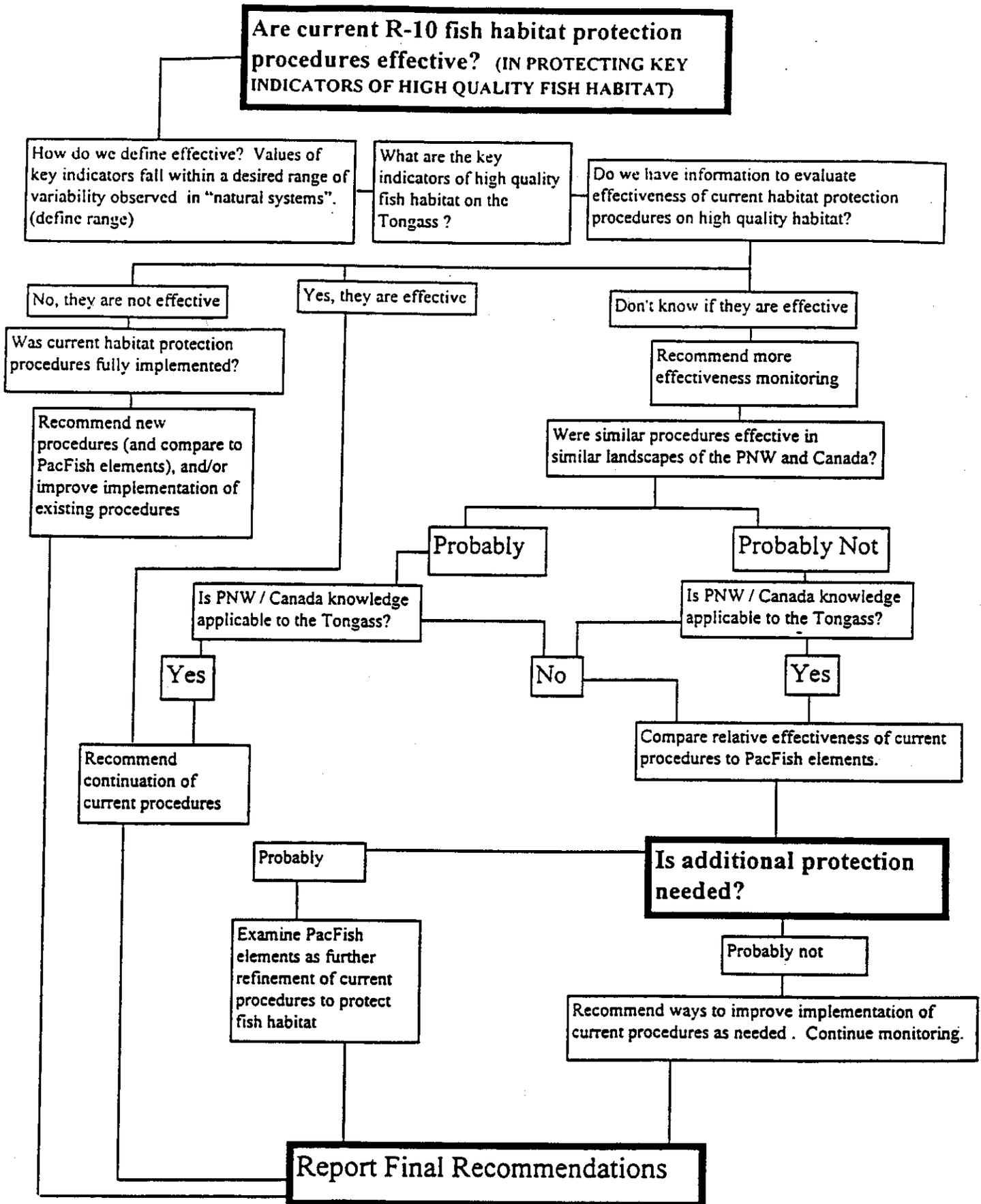
<b>TOTAL BUDGET</b>	<b>\$1,600,000</b>
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<sup>1</sup><sub>-</sub> Included in the Unit's allocation is \$62,500 that is being held in the Regional Office reserve account for procurement of one workstation for the Unit.

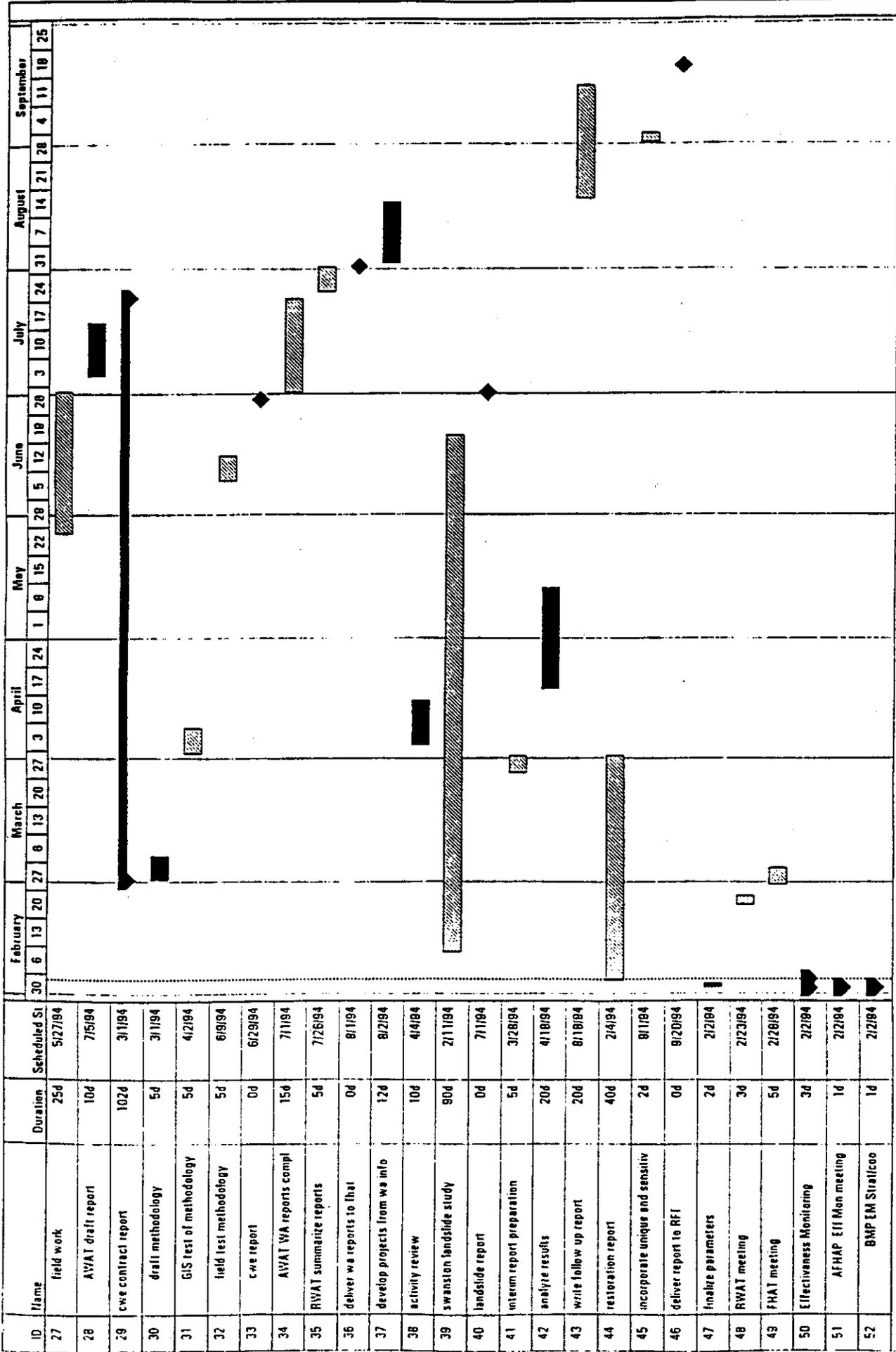
1994 Appropriations - PACFISH  
Follow - Up Report Flow Diagram



Anadromous Fish Habitat Assessment Plan Flow Diagram 2/25/94







Project:  
Date: 2/4/94

