Northwest Power and Conservation Council

December 2, 2003

MEMORANDUM

TO: Fish and Wildlife Committee

FROM: Steve Waste, Manager Program Analysis and Evaluation

SUBJECT: Update on Development of a Basinwide Research Plan

This is an informational briefing to update the Council on our progress in developing a basinwide research plan. No action is required.

Background

For over 20 years the Northwest Power and Conservation Council has supported a diverse range of research efforts. Numerous excellent projects, including dedicated research projects and restoration projects with research elements, have been completed since the inception of the program in 1982. In the 2000 Fish and Wildlife Program, the Council called for the development of a basinwide research plan to guide the development of research projects under its Fish and Wildlife Program.

Many other resource management entities share responsibility with the Council for conducting research in support of fish and wildlife restoration within the Columbia River Basin. The Council recognized that the status quo for research within the region is comprised of several potentially separate research plans. These plans make general reference to the "need to coordinate" with other similar efforts, but rarely set forth any explicit steps to implement such coordination. Consequently, staff are developing a plan to do more than just meet the requirements of the Fish and Wildlife Program, but also to play a catalytic role, and facilitate integration between the disparate research efforts within the region.

The previous lack of guidance for basinwide research has hampered our ability to focus on key research needs. Looking back, it is clear that difficulty agreeing on problem definition, coupled with shared funding responsibilities under overlapping mandates have resulted in a fragmentation of effort that explains why key uncertainties within the region have persisted. The 2000 Program called for a re-evaluation of our current approach to research and a plan to guide future research.

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A Basinwide Research Plan

Research is necessary to provide scientifically credible answers to questions pertinent to key uncertainties. The objective of this staff led effort is to identify a range of research priorities and recommended actions for the near-term and long-term.

Clearly, several of the research questions in the region that have persisted owe their longevity to the inability of resource management agencies to secure or collaborate on the funding necessary to mount large-scale field experiments to address them. This draft research plan will decompose complex issues into treatable sub-elements. It is anticipated that the answers to one question can shed light and help resolve related questions. By reducing or eliminating uncertainty, course corrections can be achieved that will increase the efficiency and the effectiveness of the Fish and Wildlife Program.

In brief, the draft research plan will profile a pool of critical uncertainties and research recommendations identified by the Council's scientific review groups, fish and wildlife managers, and other agencies and entities within the Columbia River Basin. The profiles will be compared with a summary of current research activity under the Fish and Wildlife Program in order to identify gaps in research needs. Based on scale and scope, the research gaps will be assigned to a short-term or long-term research agenda.

The Objectives of the Basinwide Research Plan

In order to further the objectives of the Fish and Wildlife Program, the basinwide research plan will be designed to direct research activity in support of anadromous and resident fish and wildlife in the Columbia River Basin. The basinwide research plan will reduce management uncertainty by increasing scientifically based knowledge. In brief, the plan will identify key research uncertainties, make research recommendations, and recommend priorities for funding. More specifically, plan objectives include:

1. identification of key uncertainties and research recommendations;
2. prioritization of major research topics;
3. accountability for the annual expenditures of research funds;
4. input from independent scientific review, fish and wildlife agencies and tribes, independent scientists and other interested parties in the region;
5. monitoring, evaluation, and the application of results;
6. coordination with the research elements of the mainstem plan;
7. coordination with the research elements of the subbasin plans; and,
8. making information from the Fish and Wildlife Program readily available.

The plan can be an important tool for managing the Fish and Wildlife Program because it is being designed to inform Council decision-making, facilitate scientific review, focus project selection, and provide a basis for re-directing research in the future. The plan will also explain the Council's basic principles for the selection, implementation, completion, and processing of research conducted under its program. The outline for the draft plan is presented in Attachment 1.

Schedule

The draft plan will be circulated for review by Council staff in early December 2003. The draft will be ready for review by December 31, as called for by the Governors. The Council will be briefed on the plan at the January Council meeting.

Regional Review of the Basinwide Research Plan

The Fish and Wildlife Program recommends that the process for developing the research plan and associated budget ensure independent scientific review, input from fish and wildlife agencies, tribes, independent scientists, and other interested parties in the region.

Staff wishes to discuss with Council the sequence of the review process for the plan. Staff proposes that the draft plan first be presented to the Council. After revisions in response to Council comments, the plan would then be submitted it to the Council's Independent Scientific Advisory Board (ISAB), Independent Scientific Review Panel (ISRP), and the Independent Economic Analysis Board (IEAB) for review. After making revisions in response to the science groups, the plan would then be reviewed by the Tribes, state and federal agencies, and other interested parties. In this manner an extensive review process of the research plan will be conducted prior to finalizing the plan, following this proposed sequence of steps.

1. Council is briefed on the draft basinwide research plan - 1/04
2. Independent science and economic groups (ISRP, ISAB and IEAB) review draft - 3/04
3. Columbia Basin Tribes and fish and wildlife managers review draft - 6/04
4. Other independent scientists and interested parties review the research plan - 6/04
5. Council adopts final basin research plan - 8/03

Finally, Council should consider how this plan will lead into funding decisions; i.e., by providing a context for second round of Provincial Reviews, or other approaches.

Attachment 1. Outline for Columbia Basin Research Plan

I. Planning for the Future, Taking Stock of the Present

Background

A Research Plan for the Columbia River Basin

II. Mandate for a Columbia River Basin Research Plan

Northwest Power and Conservation Council

- Fish and Wildlife Program
- Directives for a Columbia River Basin Research Plan
  - Basinwide Provisions of the Fish and Wildlife Program
  - Recommendations of the Four Governors
- Regional Review of the Columbia River Basin Research Plan

The Objectives of the Fish and Wildlife Program

- The Objectives of the Columbia River Basin Research Plan
- Audience and Scope of Columbia River Basin Research Plan
- Relationship to Existing Research Plans in the Columbia River Basin

III. The Development of A Columbia River Basin Research Plan

Past as Prologue

- Best Scientific Information
- Prior Efforts to Identify Research Priorities
- 2002 Draft Columbia River Basin Research Plan

Sources of Critical Uncertainties and Research Recommendations

- Research Recommendations from NPPC Independent Science Groups
- State of the Science Documents
- Research Recommendations: A National Perspective
  - National Research Council
  - National Science and Technology Council

IV. Critical Uncertainties and Research Recommendations for the Columbia River Basin

Hatchery Effectiveness

- Artificial Production Review and Evaluation
- ISAB Review of Salmon and Steelhead Supplementation

Hydrosystem

- Mainstem Amendments
- Anadromous Fish Evaluation Program
- Federal Energy Regulatory Commission Relicensing
- Tribal Research

Habitat

- Mainstem
- Tributary
- Wildlife

Research for Recovery Planning

Monitoring and Evaluation

Harvest Management

Estuary

Natural Variation and Ocean Productivity

Impacts of Climate Change on Fish and Wildlife Restoration
Emerging Issues
    Toxics
    Invasive Species
    Impact of Human Development Patterns on Fish and Wildlife Restoration
    Alternative Futures

V. Identifying Priorities and Estimated Costs for Future Research
Profile of Current NPCC Research Projects and Budget
Comparison of Current NPCC Research Activity with Recommendations for Future Research
Summary of Gaps Between Current and Recommended Future Research
    Research Gaps Under the Mandate of the NPPC
    Research Gaps Under the Mandates of Other Parties
Identifying Priorities for Future Research: Not All Gaps Are Equal
    Existing Criteria for Establishing Research Priorities
        Relevance to Fish and Wildlife Program Objectives
        Cost-Effectiveness
        Technical Feasibility
    Beyond Technical Merit: New Review Criteria for the ISRP
        Relevance to New Responsibilities Under the ESA
        Implications of Inaction: Moving Past the Status Quo
Policy Considerations: Balancing Curative and Preventative Approaches to Restoration
Chronology of Implementation of Research Priorities: Is there a Synergistic Sequence?

VI. Implementing A Short-Term Research Plan Through the NPCC Fish and Wildlife Program
Short Term Research Priorities
Three-year Workplan for Implementing the Research Plan
Project Selection Under the Fish and Wildlife Program
    Rolling Provincial Reviews
    Innovative Project Reviews
    Requests for Proposals
    Allocation of Research Expenditures
Accountability
    Meeting Fish and Wildlife Program Standards: Annual Retrospective Review
    Evaluation and Reporting of Research Results
    Data Management
Integrating Research Results into NPPC Policy and Decision Making
    Adaptive Management
    Re-evaluating the NPCC Research Program: Science Group Retreat
    Scoping Emerging Issues: State of the Science Workshops

VII. Defining and Implementing A Long-Term Collaborative Research Plan for the Columbia River Basin
Multi-party Funding: A Shared Responsibility
    How Funding Decisions Are Made in Other Research Programs
Long Term and New Research Priorities
    Six-year Workplan for Implementing the Research Plan

Large Scale Planning Initiatives: Opportunities for Collaborative Research
- Programmatic Research Supporting Restoration and Recovery: What Research and Why?
  - NPPC Fish and Wildlife Program
  - Basinwide Recovery Strategy for Salmon NOAA/USFWS Biological Opinions
  - Anadromous Fish Evaluation Program (COE)
  - Western Fisheries Research Center (USGS)
  - Pacific Coastal Salmon Recovery Fund (NOAA and the States and Tribes)
- Subbasin Planning: Where and When to Implement Research Projects?
  - Northwest Power and Conservation Council Provincial Review
  - States
  - Tribes
- Monitoring and Evaluation: How to Evaluate Research Projects?
  - Federal Research, Monitoring, and Evaluation Plan
  - Pacific Northwest Aquatic Monitoring Partnership (PNAMP)
    - Relationship of PNAMP to Columbia Basin Research Plan
  - Tribal Monitoring Activities
- Recovery Planning for Endangered Species: How Much Research Is Enough?
  - NOAA Technical Recovery Team Products
  - USFWS Sturgeon and Bull Trout

VIII. Charting the Course for Future Research

Ecosystem Approach: Scientific Paradigm, Public Policy, or Both?
Overcoming Fragmentation: Building Bridges Between Disciplines
- Institutional Impediments
- Cooperative Management

Planning Challenges Common to Resource Allocation Fora
Challenges Within the Columbia River Basin Planning Arena
Planning Challenges Unique to the Northwest Power and Conservation Council

IX. Appendixes

Appendix A. Profiles of Other Regional Research Plans

Salmon Research Plan - Northwest Fisheries Science Center, NOAA
Pacific Region 1 Report on Columbia River Basin Accomplishments -
- U.S. Fish and Wildlife Service

U.S. Army Corp of Engineers - Anadromous Fish Evaluation Program
President's Forest Plan - U.S. Forest Service
Research Plan for Lands Administered by the U.S. Department of the Interior in the
- Interior Columbia Basin and Snake River Plateau, U.S. Geological Survey

EPA
Action Agencies - BiOp (R,M,E)
States
Tribes - Spirit of the Salmon Blocked Areas management Plan
Regional entities
LCREP research plan
Wild Salmon Center

Appendix B. List of Reviewers of the Basinwide Research Plan

(to be completed in early 2004)

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