### The Columbia River Basin Research Plan of the Northwest Power and Conservation Council

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#### A Time of Transition

The art of progress is to preserve order amid change and to preserve change amid order.

-- Alfred North Whitehead



### Mandates for a Columbia River Basin Research Plan

- The Northwest Power and Conservation Council
- 2000 Fish and Wildlife Program
- Recommendations of the Four Governors

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### **Goal and Objectives of the Plan**

- Identification of key uncertainties and research recommendations;
- Prioritization of major research topics;
- Accountability for the annual expenditures of research funds;
- Input from independent scientific review, fish and wildlife agencies and tribes, independent scientists and other interested parties in the region;
- Monitoring, evaluation, and the application of results; and,
- Coordination with the research elements of the mainstem plan and subbasin plans.



#### **Schedule for Completing Research Plan**

Oct 1-Oct 30 30-day public review period

Nov 22-Dec 22 30-day ISAB/ISRP review period

Feb 15-17 Present final research plan to Council

(Contingent on potential schedule conflicts with adoption of subbasin plans, power plan)

March 15 Final Columbia Basin Research Plan completed

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## Identifying Critical Uncertainties in the Columbia River Basin

Critical uncertainties identify important gaps in our knowledge about the resources and functional relationships that determine fish and wildlife productivity. Resolution of uncertainties will greatly improve chances of attaining recovery goals in the Fish and Wildlife Program.

-- Scientific Review Group (1993)



#### Developing Research Recommendations for the Columbia River Basin

Hatchery Effectiveness (7)
Hydrosystem (21)
Habitat (23)
Recovery Planning (13)
Monitoring and Evaluation (17)
Harvest Management (4)
Estuary (16)
Natural Variation and
Ocean Productivity (3)

Emerging Issues

Impacts of Climate Change (TBD)
Toxics (9)
Invasive Species (7)

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## Charting A Course for the Future: Identifying Research Priorities

Science is subject to the common tendency to add knowledge about already well-defined topics instead of seeking entirely new approaches and concepts...Research directed at further incremental gains in familiar subject areas must be balanced by research to close the many knowledge gaps. (Emphasis added.)

-- Committee on the Environment and Natural Resources, 2000



### Implementing the Columbia River Basin Research Plan in Support of the Fish and Wildlife Program

- Project Selection Process
- Beyond Technical Merit: New Review Criteria for the ISRP?
- Subbasin Plans

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# Using the CRB Research Plan to Build a Regional Research Partnership

...the components of the salmon problem are so diverse that no one person can know all that needs to be known for a comprehensive solution. Thus, the salmon problem is in a sense a cognitive problem whose solution will depend on <a href="close-cooperation">close-cooperation</a> and collaboration of people with many kinds of <a href="experience-experi

-- National Research Council, 1996



#### **Adaptive Management**

.... adaptive management provides a framework within which measures can be evaluated systematically as they are carried out. Information from these evaluations should enable planners to estimate the effectiveness of protection and enhancement measures on a systemwide basis....Monitoring must be designed at the outset. Biological confirmation is the fundamental measure of effectiveness. (Emphasis added.)

-- Kai Lee and Jody Lawrence, 1986

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#### Coda

Let us not go over the old ground, let us rather prepare for what is to come.

-- Marcus Tullius Cicero (106-43 B.C.)

