Joint ISAB and ISRP Review

of the

Draft Research, Monitoring & Evaluation Plan for the NOAA-Fisheries 2000 Federal Columbia River Power System Biological Opinion

18 February 2004
Boise, Idaho

Monitoring Contributions

- Shrimp monitoring - Kodiak Island and Gulf of Alaska

  - picked up shift to bottom fish, collapse of shrimp

- Ozone monitoring in New Zealand

- The National Wetlands program

  - showed significant losses over a 20 year period

  - used a valid US-wide sampling and interpretation of aerial photos

- Fish counting at the Columbia River Dams

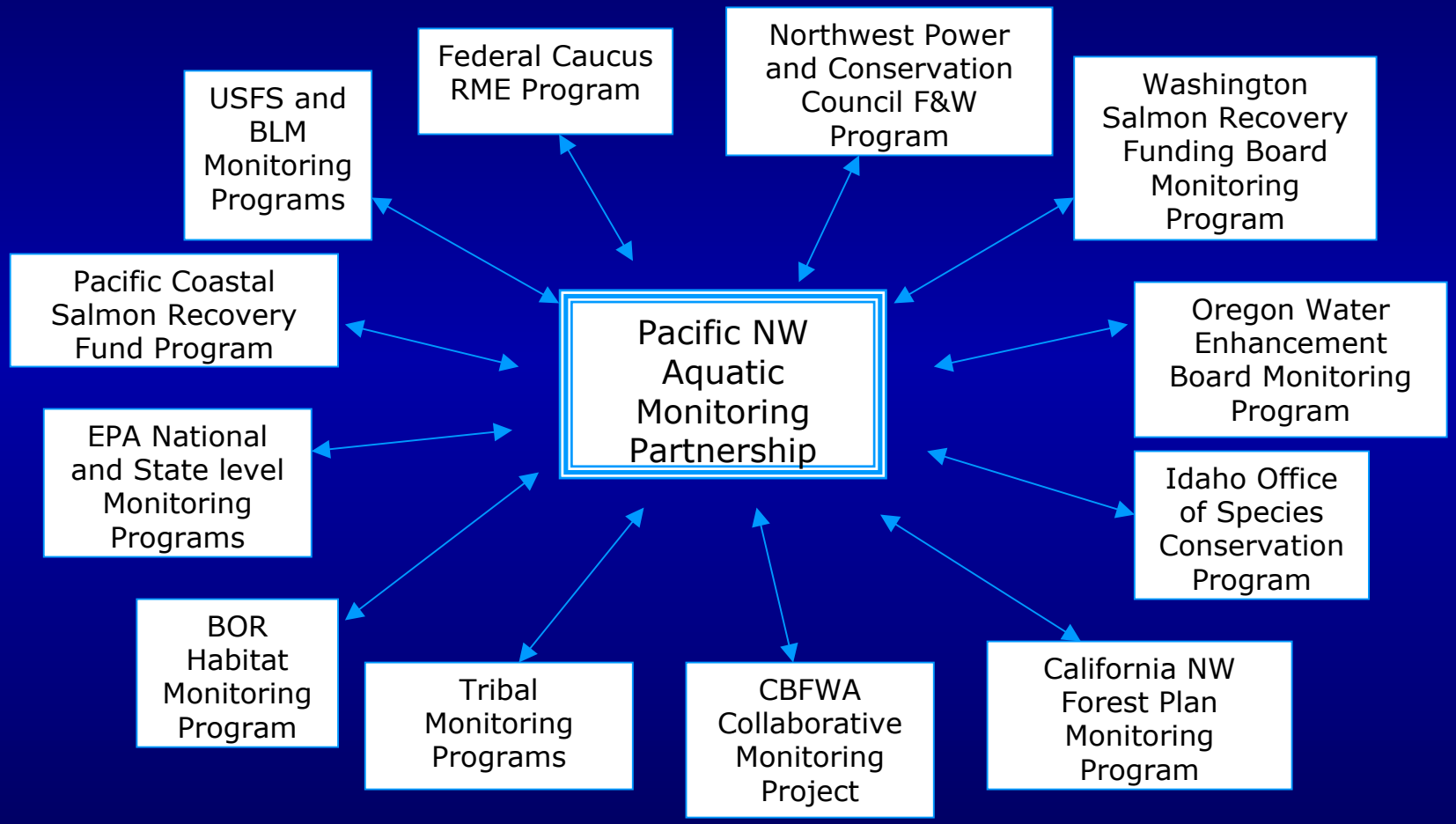
  - important monitoring project for management of Salmon

  (need also spawning & habitat monitoring, etc.)

Monitoring:

Many efforts in common, but no common effort

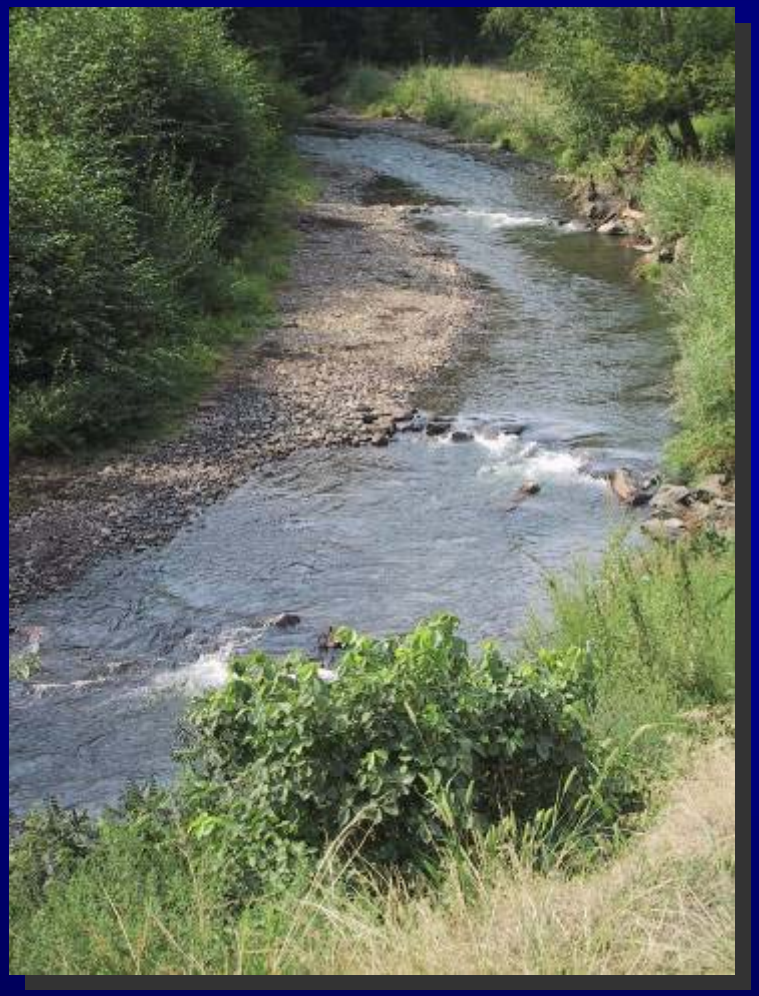
Partnership Hub



PNAMP

Organization of the Plan

- Tributary/Habitat
  - *status, action effectiveness*
  - *84 pages + 31 pages*
- Hydrosystem
  - *30 pages plus 3 attachments*
- Hatchery/Harvest
  - *20 pages*
- Data Management
  - *21 pages*
- Estuary/Plume
  - *52 pages*



General Issues

- Conceptual Framework and Coordination across the Hs
- Regional Coordination
- Incorporation of the Corp's AFEP Program

- Issues of Experimental Design and Existing Data
- Monitoring Designs for Natural Populations
- Prioritization of Elements of the Plan
- Costs and Benefits of Measurement Precision

- Pilot Projects
- Plan Development and Implementation

Coordination and Integration

- Regional Coordination
- Conceptual Framework and coordination across the Hs
- Incorporation of the Corp's AFEP Program

Experimental and Sampling Design

- Issues of Experimental Design and Existing Data
- Prioritization of Elements of the Plan
- Monitoring Designs for Natural Populations
- Costs and Benefits of Measurement Precision

Phased and Adaptive Implementation

- Pilot Projects
- Plan Development
  and Implementation

Acclimation Ponds and ladders,
Twisp River, Methow subbasin

NOAA RME Plan draft

- Strengths
  - Great start
  - Identified most critical Problems
- Weaknesses
  - Incomplete
  - Needs more Integration & Coordination
  - Needs more Design details

Overall ISRP/ISAB Recommendations

- **Strengthen <u>Integration</u>**
  - *efficient, integrated data collection*
  - *coordinate experimental design, sampling, and data sharing*
- **Experimental Design**
  - *Base <u>experimental designs</u> and <u>data precision</u> targets on analysis and synthesis of existing data*
- **Biological Opinion**
  - *Meet the <u>basic objectives</u> of the BiOp (rather than specific RPAs)*

Overall ISRP/ISAB Recommendations

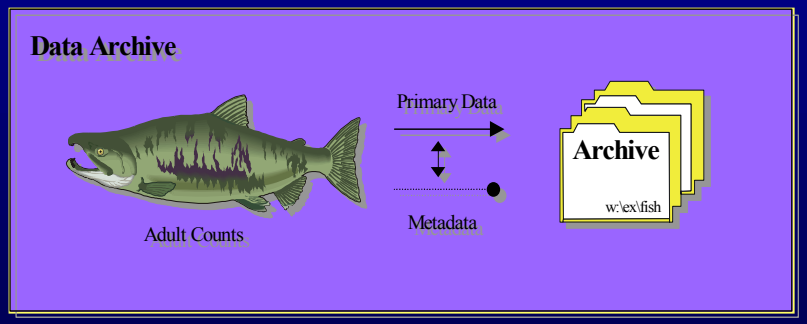
- Develop a plan for Phased development and implementation
- Develop specific Priorities
  - *core integrative or essential measures*
  - *cost/benefit analysis: precision and power vs cost and need*
- Include a Conceptual Model
  - *coordinate, integrate, prioritize, evaluate, and modify*

Data Management

- Prioritize for the Essentials
  - *Quickly Available, Verified, Electronic Data/Metadata*
  - *Data Integrity, Maintenance, Access, and Documentation*

- Take advantage of Existing Data Centers
  - *use Columbia River Basin FWP database(s)*
  - *move to create Columbia Basin Coop. Info. System*

- Use the Pilot Projects to refine methods and procedures:
  - *QA/QC, data transfer and entry*
  - *data access rules*
  - *metadata standards*
  - *methods to link data for queries*



Bottom Line??

- Important program
- Significant & solid beginning
- Needs some critical details
  - *sampling and experimental design*
  - *priorities*
  - *concrete, phased implementation plan*
- Needs increased Coordination
  - *both within the Plan itself and with other regional efforts*