



**COLUMBIA BASIN
FISH AND WILDLIFE
AUTHORITY**

Wildlife Program Amendments

*Joint Technical Committees and Members Advisory
Group Amendment Strategy Workshop*



Full Mitigation?



2000 Program Objectives

- Quantify wildlife losses due to construction, inundation, and operations
- Develop and implement habitat projects
- Coordinate with fish mitigation and restoration
- Maintain existing and enhanced habitat values
- Monitor and evaluate habitat and species responses to mitigation actions



2000 Wildlife Program Attributes

- Habitat Evaluation Procedure (HEP) measured wildlife losses.
- Only construction and inundation losses are currently being addressed.
- Impacts summarized as habitat units (HU)
- Created "ledger" (Table 11-4)



HEP 101 What does HEP assess?

*HSI Model :
Black-capped Chickadee*



HU = # acres x HSI (measure of habitat quality on a scale 0 to 1)

Limitations of HEP for Columbia Basin Hydrosystem Impacts

- Little record of vegetation communities prior to dam construction
- Highly simplistic models fail to capture complexities of losses
 - Single species focus often prioritized wrong species for management & restoration
 - Models applicable to NW often not available
 - Some out-of-place, out-of-kind mitigation contained habitats not considered in the loss assessments
- Inconsistent assessments across basin

Priority Wildlife Amendment Issues

- Crediting including Addition of Secondary and Operational Losses
- Operations and Maintenance
- Monitoring and Evaluation



Crediting

- 2000 Program

*“...Bonneville and the fish and wildlife managers should complete mitigation agreements for the remaining habitat units. **These agreements should equal 200 percent of the habitat units (2:1 ratio) identified as unannualized losses of wildlife habitat from construction and inundation...** This mitigation is presumed to cover all construction and inundation losses, including annualized losses”*

Crediting –Program Language cont'd

- 2000 program
 - *“An assessment should be conducted of direct operational impacts on wildlife habitat. Subbasin plans will serve as the vehicle to provide mitigation for direct operational losses and secondary losses”*



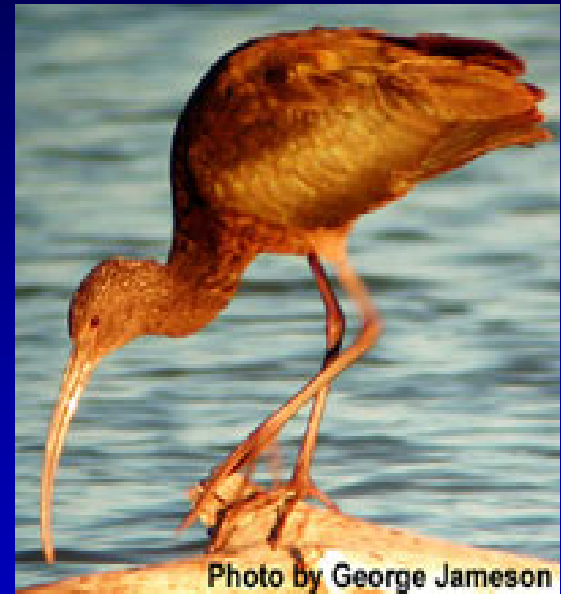
Crediting – Current Concerns

- BPA does not recognize the 2:1 crediting ratio.
- MOAs with BPA have stressed 1:1 crediting ratio.
- Operational losses have not been addressed.

Crediting Concerns - cont'd

Issue of “credit” for non-wildlife projects

- No loss ledger for fish habitat
- May not meet priority wildlife needs
- Disagreements on current application of credits (location and amount)



Crediting - Recommendations

- Incorporate crediting ledger into the program and establish regional oversight committee to track the crediting ledger
- Address disagreements on protection credits and annualization (2:1 ratio)
- Develop O&M agreements to sustain credited habitat values for life of project
 - Condition crediting on adoption of long-term O&M agreements

Crediting - Recommendations

- Develop ecosystem-based framework for measuring operational losses and credits
- Resolve in-lieu/match fund issues
- Resolve crediting of secondary impacts

Operations and Maintenance

2000 Program

- *“maintain existing and credited habitat values”*
- BPA and applicable managers propose for Council adoption, maintenance agreement adequate to sustain minimum habitat values for the life of the project

1995 program

- *“Within three years following adoption of this program, develop long-term agreements for all wildlife mitigation”* including a funding level likely to achieve stated objectives



O&M - Current Concerns

- Council concerned over variable O&M costs
- Current project funding based on historical allocations
- Lack of long-term agreements
- Annual contracts lead to inefficiencies
- Confusion of O&M versus enhancement



O&M - Requirements

Managers need adequate, stable O&M budget to maintain baseline conditions and the flexibility to adapt to changing needs on the landscape



O&M Recommendations

BPA should develop a funding mechanism, outside existing prioritization process, to assure:

1. Long-term, stable funding
2. Maintain proper ecological functions
3. Address known and unforeseen external threats (e.g. invasives, wildfires, etc)



Wildlife Monitoring and Evaluation

2000 Program Scientific Principles

- #1. The abundance, productivity and diversity of organisms are integrally linked to the characteristics of their ecosystems. ...
- #5. Species play a key role in developing and maintaining ecological conditions. ...
- #6. Biological diversity allows ecosystems to persist in the face of environmental variation. ...

Wildlife M&E – Current Concerns

- M&E largely limited to HEP Assessments
- HEP does not determine if desired habitat or ecological conditions are attained
- Most wildlife M&E not funded.
- No support to participate in regional monitoring programs (e.g. State conservation strategies).

Consequences of no M&E

- Cannot measure success of the habitat strategy.
- Little feedback for adaptive management.
- An inefficient use of resources (funding and staff time) - lack of data to direct and inform management decisions.
- Few data that link to regional or basin-wide monitoring efforts.

Wildlife M&E – Recommendations

- M&E needs based on management plan objectives
- M&E needs to be adequate to:
 - Track crediting
 - Track trends in ecological functions and restoration effectiveness
 - Complement larger scale efforts
 - Focus on status/trend and effectiveness
 - Use reference sites to define habitat objectives
- Transition from HEP to new paradigm (IEI, CHAP, etc)