

CREDITING

**White Paper Adapted From – “Crediting of Fish and Wildlife Mitigation Actions
Pursuant to
The Northwest Power Planning and Conservation Act
In the Pacific Northwest” (Carl Scheeler)
By Scott Soultz for the Wildlife Advisory Committee**

Background and Justification

Development of the hydropower system has had far reaching effects on fish and wildlife and their habitats throughout the Pacific Northwest. As a result, the Pacific Northwest Electric Power Planning and Conservation Act of 1980 directed that measures be implemented to protect, mitigate, and enhance fish and wildlife to the extent affected by development and operation of hydropower projects on the Columbia River System. This act created the Northwest Power Conservation Council (NWPCC), which in turn developed the Fish and Wildlife Program. This F&W Program established a four-part process related to the wildlife program, that includes the completion of 1) wildlife mitigation status reports, 2) wildlife impact assessments, 3) wildlife protection, mitigation and enhancement plans, and 4) implementation of protection, mitigation and enhancement projects.

*“The Council shall develop and adopt a program to protect, mitigate, and enhance fish and **wildlife** ... while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply.”* Section 4(h)(5)

*“The BPA shall fund to protect, mitigate, and enhance fish and wildlife **to the extent affected** by the development and operation of the FCRPS ... in a manner consistent with the Council’s Columbia Basin Fish and Wildlife Program.”* Section 4(h)(10)(A)

*“The Administrator shall ... exercise such responsibilities to adequately protect, mitigate, and enhance fish and wildlife including related spawning grounds and **habitat.**”* Section 4(h)(11)(A)(i)

These “effects” to wildlife and their habitat were partially quantified for the construction and inundation at numerous hydro-facilities. Construction and inundation impacts are those losses of habitat resulting from construction activities and the subsequent flooding of the pool areas (i.e. inundation) of the hydro facilities. To measure these impacts, wildlife managers used a 1970’s technique developed by the U.S. Fish and Wildlife Service - Habitat Evaluation Procedures (HEP) methodology. The impacts were summarized in loss assessments for terrestrial habitats as Habitat Unit (HU) losses and gains by indicator species and project. Since, operational losses and ecological impact

are lacking in this methodology, the full impacts of hydrological development to wildlife are not addressed.

The 1989 Wildlife Rule

- The Council adopted interim mitigation goals based on partially completed wildlife loss estimates.
- Initiated a 10-year mitigation effort until quantification of losses was completed and a long-term wildlife goal adopted.
- Did not establish any crediting protocols such as a crediting ratio.
- Called for a third-party audit of the loss estimates.

Habitat Units represent the “currency” of the losses or “debt” and incorporate a measure of quality and quantity of habitat value. These losses were amended into the F&W Program and provide a ledger of debt against which enhancement, protection and mitigation efforts can be credited. The regional wildlife mitigation program is unique in the establishment and maintenance of this losses ledger using HEP, where resident and anadromous fish mitigation efforts have not embraced a loss ledger, but have pursued a population based mitigation strategy.

The 1993 Wildlife Rule

- The interim goal was replaced with the goal of full mitigation.
- The loss estimates were considered starting points for identifying wildlife mitigation measures and for final determination of full construction/inundation impacts.
- The independent audit was completed – Council continued deliberations.
- Called for the development of a consistent method to credit protection actions and to credit wildlife benefits resulting from fish projects.
- Called for a written plan to address direct and indirect operational losses.

In 1994, the Council adopted a wildlife program strategy designed to achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by the construction and operation of the Federal and non-Federal hydroelectric system (NPPC 1995).

The 1995 Wildlife Rule

- Council reaffirms the goal of full mitigation.
- Loss estimates recognized as unannualized construction losses.
- Call to finalize the Draft Wildlife Plan and fund implementation of the final Plan.
- Recognition that some credit should be given for protection actions and fish projects that benefit wildlife.
- Second call for the wildlife managers and Bonneville to develop consistent system wide crediting methodologies.
- Fund studies to develop statements of wildlife and/or habitat losses and gains caused by the operation of the federal hydropower system

While the goal of the F&W Program's wildlife strategy is to "achieve and sustain levels of habitat and species productivity as a means of **fully mitigating** wildlife losses caused by the construction and operation of the federal and non-federal hydroelectric system", the existing assessments do not fully quantify these losses. They only quantify a portion of the losses because they were not measured through time (i.e., they are unannualized) and only construction/inundation losses were addressed. As stated in a 1993 independent audit (Beak 1993), these limitations to the original loss assessments were confirmed. Moreover, operational losses need to be measured and incorporated into the Program as called for by the NWPCC. Additionally, the measure of progress against the debt has been inconsistently applied in the past, affecting the perceived progress and remaining debt from the unannualized construction and inundation losses. It should be noted that BPA has taken a position which requires managers to give full credit for all existing habitat values (Pre-enhancement) at mitigation projects.

*"It is clear that BPA should receive **some credit for protection** of existing habitat. That credit can be determined through the use of the annualization process ...or through a negotiated settlement." (FWP 1995, Section 11.3C.1)*

For an extended period of time, the Council's Program has called for the development of a consistent, system wide method for crediting new projects. In the recent past, the council has recognized the need to answer the question of how the value of BPA funded fish or "watershed" projects that benefit wildlife should be addressed and how to incorporate secondary losses into the Program.

Current Status of Crediting Issues

In response to the concerns of the managers regarding crediting of protection measures, the NWPCC amended the 2000 F&W Program to specifically address the issues of wildlife crediting by establishing a new crediting methodology. The Council achieved this by calling for the BPA and fish and wildlife managers to complete mitigation agreements to cover all construction and inundation losses, including annualized losses, for the remaining habitat units identified in Table 11-4 of the Technical Appendix to the 2000 Program. These agreements should equal 200 percent of the habitat units identified (2:1) as unannualized losses of wildlife habitat in Table 11-4 for the construction and inundation of the Federal Columbia River Power System (FCRPS). Since the adoption of this 2:1 crediting ratio into the 2000 Program, BPA has responded (BPA to NWPCC Feb 2002) to the 2:1 ratio as a "point of divergence" in the Council's Program and supports it's divergence by stating "Bonneville and the regional wildlife managers have documented through contract terms, support for Bonneville taking 1:1 credit for habitat acquisitions and enhancements." However, this position is inconsistent with the interim wildlife mitigation contracts and agreements. These interim agreements included the following stipulations:

- Permitted managers to begin mitigation work to compensate for losses that occurred and continue to persist over time.

- In order for mitigation projects to move forward, the managers found it necessary to sign contracts containing crediting language that did not reflect the Council's or managers' position.
- Re-opener clauses were included because both parties acknowledged that the Council had not made a final ruling on the protection credit issue.
 - Recognized the possibility of another crediting methodology being imposed by applicable law.
- The contracts/agreements were considered interim in nature.
 - Crediting methodology unresolved
 - Provisions for long-term O&M funding not secured

Additionally, along with the change in the Council's 2000 Program moving to integrate fish and wildlife measures into a more comprehensive ecosystem approach, BPA continues to raise the issue of receiving "credit" for non-wildlife projects but has not indicated how to measure such credit without a HEP based losses ledger for fish. In the absence of HEP losses assessments for anadromous and resident fish, the wildlife ledger for construction and inundation losses is the only place where "credits" might exist. This could result in an out-of-place and out-of-kind mitigation that would not meet the needs of the wildlife populations impacted by the hydrological system development. BPA has maintained that they have the sole discretion as to where such credit could be applied. This has had the effect of creating a new crediting issue by potentially jeopardizing wildlife mitigation efforts targeting construction/inundation impacts in areas where significant losses remain unmitigated and effectively stalling important watershed protection measures in areas where significant mitigation has already been implemented for construction/inundation losses.

In the 2000 program the Council again stated the need to assess operational losses.

"Quantify wildlife losses caused by the construction, inundation and operation of the hydropower projects." (P. 17)

"Complete the current mitigation program for construction and inundation losses and include wildlife mitigation for all operational losses as an integrated part of habitat protection and restoration." (P 30)

As a general position of the managers, the use of HUs may be appropriate as a method of crediting activities intended to mitigate losses associated with the construction and inundation of dams, the use of HUs is not appropriate for crediting wildlife benefits which result from watershed projects targeting recovery of resident fish or anadromous salmonids unless the projects were specifically designed to meet the losses to terrestrial habitats. While resident and anadromous fish habitat and watershed projects can provide significant secondary benefits to wildlife, such projects are not necessarily targeting the specific terrestrial habitat types and wildlife species impacted by construction of the hydroelectric system. However, since watershed mitigation projects targeting recovery of anadromous salmonids directly address one element of the cause of secondary losses (i.e.

loss of the ocean-derived-nutrients from anadromous fish runs), any benefits to wildlife from such projects should be credited entirely to secondary losses.

To muddy the crediting issue even more, there is a perception that BPA may be intending to apply credits towards various loss ledgers for projects implemented outside of the appropriate areas of impact for each facility. It has been implied that BPA may credit habitat units associated with an acquisition in Dam “A” against the loss ledger for Dam “B” or any other hydro facility simply because the existing loss ledger for Dam “A” is completed. We believe this to be a very inappropriate practice that is both biologically and politically unacceptable. Furthermore, such an action would be in direct contrast to the guidance provided in the current Program.

BPA has stated “For over a decade the NWPPC has tried to facilitate Regional agreement for how to quantify the impacts of the Federal Columbia River Power System (FCRPS) to wildlife and the means of crediting the BPA’s efforts to mitigate those impacts” (BPA 2002). Since the first loss assessment of Libby Dam in 1984 (BPA 1984) there has been a range of hydro facility assessment variables, from numbers of animals lost, HU’s to recent Gap Analysis Program (GAP) parameters. As stated above, the independent review of several assessments (Beak 1993) noted inconsistencies such as: study area defined differently, habitat model issues, differences in interpreting structural habitat diversity, no criteria for species selection, and issues related to the coordination between projects.

In 2002, the NWPCC setup a Wildlife Crediting Subcommittee to work through the fish and wildlife managers and BPA to lay out a schedule for resolving issues. It is easy to understand why the crediting dilemma continues to this day, when one adds up the number of parties involved, the complexity of crediting issues (i.e., crediting ratios, assessment methodologies, unannualized credits, protection credits, credit accounting, and placement of credits) and differences of opinions. Even though BPA has stated “BPA does not believe an attempt to annualize losses would be fair or accurate enough to warrant the effort and expense it would require to complete the process” (BPA 2002), the annualization issue still polarizes discussions. Some of the toughest questions lie with crediting impacts “outside the basin”, where mitigation credits assess for a particular basin are potentially placed in another distinctly different part of the region. As recent as 2004, crediting rises to the top in statements such as: “What wildlife crediting ratio will be used and what project will this proposal credit against” (NWPCC 2004).

Failure to resolve the issues of crediting and tackling issues such as assuring in-place mitigation for remaining construction/inundation losses, jeopardizes the effective continuation of the NWPCC F&W Program, and future habitat protection and restoration efforts for both fish and wildlife. To move toward accurate and reasonable attempts at negotiating crediting issues, defining “full mitigation” and the following discussion points will need to be addressed:

New Amendment Language:

Discussion items needed to be addressed:

- Address and influence how mitigation is credited so that compensation reflects real value lost.
- Discuss the use crediting ratios - incentive to influence mitigation decisions on a case-by-case basis.
- A political trade-off that recognizes BPA's financial investment and the wildlife benefit derived from land protection actions – discussions related to protection credits, annualization, 2:1 ratio and definition of “**full mitigation**”.
- Maintenance agreements to sustain the minimum credited habitat values for the life of the project are to be drafted for Council consideration.
- Provision of long-term O&M funding as a condition of crediting.
- BOG language – joint oversight committee of CBFWA, ISRP and BPA to provide Oversight responsibility for tracking the crediting accounting ledger.
- Implementation of the Wildlife Plan
- In-lieu definition/issues
- Ecological Connectivity - the relationship between terrestrial and aquatic ecosystems.
- Definition, assessment and crediting issues related to secondary impacts.
- Species/habitat substitution - the need for a standardized methodology and guidelines.
- Agreement of an ecosystem-based operational loss framework to be implemented region wide and to create a ledger associated with ecological units/indices.
- Clarification of ambiguities in the 2000 FWP language.

Example Measures for Wildlife Mitigation for Operational Losses

Bonneville Power shall establish hydro-project specific trust funds to support project implementation for the life of the hydro-project to mitigate annual operational impacts to wildlife populations. These losses may include direct losses to habitat (e.g. erosion of islands), increased mortality to affected wildlife populations (winter deer loss at Dworshak), and loss of ecological function. These funds shall be sized based on operation loss assessments to be funded by BPA and completed by 2010. Trust funds shall be established by 2011. BPA receives full credit for mitigating operational losses when the trust funds are fully vested.

The Northwest Power and Conservation Council shall establish and Bonneville Power Administration shall fund an crediting oversight group (COG) consisting of representatives of CBFWA, ISRP and BPA to track crediting of mitigation actions targeting impacts to wildlife habitats and populations attributable to the FCRPS, and to address disputes, inconsistencies, and other issues related to application of credit against wildlife losses. Unresolved disputes shall be mediated by independent arbitration.