PART II - NARRATIVE

Section 7. Abstract

Efforts of the Spokane Tribe Grand Coulee Wildlife Mitigation Project are a portion of the Northwest Power Planning Council's overall **Wildlife Mitigation Program Goal**. This is to achieve and sustain levels of habitat and species productivity in order to fully mitigate for the wildlife losses that have resulted from construction and operation of the federal and non-federal hydroelectric system. Grand Coulee Dam is the largest storage facility in the Federal Columbia River Power system. It flooded over 80,000 acres of floodplain wildlife habitat. The Spokane Tribe lost an interim acreage of 3,900 acres along the reservation. The Tribal **project goal** is to partially mitigate for the 3,900 acres. The project finds **relevancy** under the interim 1993 Washington Coalition Agreement signed between Bonneville Power Administration and the tribes and agencies having wildlife management responsibilities in Washington (see section 11.3D.2 in the 1994 NPPC Fish and Wildlife Program). A loss statement was completed and accepted into the 1994 FWP (see table 11-4). **Methods** applied are/will follow accepted protocols as defined by the NPPC/CBFWA Wildlife Working Group, including that defined under the Wildlife Plan (Appendix G of FWP). The latter is the standard operating procedure for wildlife projects. Expected Outcomes include protecting up to 1,768 acres of wildlife habitat as prioritized under guidelines developed under the 1996 Spokane Tribe- BPA Agreement. Limiting factors to preferred future habitat condition will be addressed and improved. Indicator wildlife species response will be measured and correlated with habitat improvements measured using **Habitat Evaluation Procedures (HEP).** This will be accomplished under a Timeframe of 5 years post-protection for enhancement practices, then in perpetuity/life of Grand Coulee project for Operations and Maintenance activities. M&E will be conducted using the Wildlife Plan guidelines.

Section 8. Project description

a. Technical and/or scientific background

Grand Coulee Dam flooded over 80,000-acre floodplain/riverine habitat. The Spokane Tribe lost an interim acreage of 3,900, which was once a central part of the hunter/gatherer culture of the Spokane Tribe. Habitat Evaluation Procedures (HEP) were applied to the impact, and methodology and losses were documented (see Creveling and Renfrow 1986) and accepted into the NPPC Wildlife Program in 1989. This is an ongoing Land/Habitat-based project proposal first approved by the Implementation Planning Process (IPP) in 1991 under the 1989 Wildlife Program.

Goal of this project is to partially mitigate for the inundation losses on the Spokane Indian Reservation. Wildlife losses will be mitigated on the reservation, and measured using HEP models based on a subset species used in the 1986 loss assessment. They will therefore be in-place and in-kind. **Techniques** to mitigate were explained in Merker 1993. An Environmental Assessment was drafted for public review, and completed with a FONSI in 1994 (BPA 1994). As part of the 1993 Washington Coalition Agreement with BPA, the Spokane Tribe was reserved a share of funding to implement the approved project. A contract was signed between the Tribe and BPA in1996 and funds transferred to begin implementation. **This is an ongoing project.**

Bonneville Power Administration. 1994. Blue Creek Winter Range: Wildlife Mitigation Project Final Environmental Assessment. DOE/EA-0939, USDOE/BPA, Portland, OR.

Creveling, J. and Refrow, B. 1986. Wildlife protection, mitigation and enhancement planning for Grand Coulee Dam. Wash. Dept. Game, Olympia. Funded by USDOE/BPA, Portland, OR as Project No. 86-74.

Merker, C. 1993. Wildlife mitigation and restoration for Grand Coulee Dam: Blue Creek Project Phase 1. Prepared for USDOE/BPA Portland, OR as Project No. 91-062.

b. Rationale and significance to Regional Programs

Grand Coulee Dam flooded over 80,000-acre floodplain/riverine habitat. The Spokane Tribe lost an interim acreage of 3,900, which once was a central part of the Spokane culture for hunting and gathering. Habitat Evaluation Procedures (HEP) were applied to the impact, and methodology and losses were documented (see Creveling and Refrow 1986) and accepted into the NPPC Wildlife Program in 1989. This is an ongoing Land/Habitat-based project proposal first approved by the Implementation Planning Process (IPP) in 1991 under the 1989 Wildlife Program.

Goal of the project is to partially mitigate for the inundation losses on the reservation. Wildlife losses will be mitigated on reservation, and measured using HEP models based on a subset of species used in the 1986 loss assessment. They will therefore be in-place

and in-kind. **Techniques** to mitigate were explained in Merker 1993. An Environmental Assessment was drafted for public review, and completed with a FONSI in 1994 (BPA 1994). As part of the 1993 Washington Wildlife Coalition Agreement with BPA, the Spokane Tribe was reserved a share of funding to implement the approved project. A contract was signed between the Tribe and BPA in 1996 and funds transferred to begin implementation. This is an ongoing project.

Furthering Program Goals:
Credit – The HU's gained from protecting existing values, or from creating new HU's through enhanced habitat condition, will be credited against the losses identified in Table 11-4 of the 1994 FWP. Credits have already accrued for losses to the indicator species white-tail deer, grouse, and beaver (riparian forest losses).

Contribution – Past impact assessments have used levels of animal populations as the standard by which impacts and benefits of a hydro or mitigation project were measure. Problems with this approach include the great variability of uncontrollable factors such as weather-induced migrations patterns, annual productivity cycles, temporal disturbance factors (e.g. adjacent timber sales, road construction, etc.) Only by collecting a great quantity of data over several years could variability be reduced through averaging. This is very expensive, time consuming and not very efficient.

The next generation measurement technique was habitat-based using HEP. It is an accepted tenet in biology that habitat is the most important factor in determining long-term population status. However, this method is based on creating somewhat subjective models.

c. Relationships to other projects

This project is for partial mitigation for Grand Coulee Dam. Other project in this effort include Colville Confederated Tribes Hellsgate, State of Washington Swanson Lakes, and National Park Service Peregrine Falcon Reintroduction. All these projects were measured against the NPPC program criteria, as well as additional criteria as defined by the Wildlife Work Group. They were ranked and funded in order, along with many other projects outside the Grand Coulee impact area. They will be credited against the losses in Table 11-4.

d. Project history (for ongoing projects)

Project Number: 5509500
Project Reports:
1) Bonneville Power Administration 1994, Blue Creek Winter Range: Wildlife Mitigation Project Final Environmental Assessment. DOE/EA-0939, USDOE/BPA, Portland, OR.
2) Creveling, J. and Renfrow, B. 1986. Wildlife protection, mitigation and enhancement planning for Grand Coulee Dam. Wash. Dept. Game. Olympia. Funded by USDOE/BPA, Portland, OR as project No. 86-74.

3) Merker, C. 1993. Wildlife mitigation and restoration for Grand Coulee Dam: Blue Creek Project Phase1. Prepared for USDOE/BPA, Portland, OR as Project No. 91-062.

Summary of major Results:
1) Purchased 1393.5 acres as of November 23, 199, with a goal of 1768.
2) Established HEP and population index transects on all parcels.
3) Wrote/writing management plans and budgets, HEP baseline results, identified/ identifying limiting factors for prioritization of implementation.
4) Planted 13,000 ponderosa pine trees (*Pinus ponderosa*) on 43 acres of "old ag fields" using 58% cost share from separate Program Grant.
5) Entered a cooperative agreement with a local high school to cut and grow native poplar species.
6) Drafting 1997 reports for BPA at this writing.

Adaptive Management Implications:
Contributions – Past impact assessments have used levels of animal populations as the standard by which impacts and benefits of a hydro or mitigation project were measured. Problems with this approach include the great variability of uncontrollable factors such as weather-induced morgration patterns, annual productivity cycles, temporal disturbance factors (e.g., adjacent timber sales, road construction, etc.) Only by collecting a great deal of data over several years could variability be reduced through averaging. This is very expensive, time consuming and not very efficient.

The next generation measurement technique was habitat-based using HEP. It is an accepted tenet in biology that habitat is the most important factor in determining long-term population status. However, this method is based on creating somewhat subjective models.

A way of correlating the results of one to the other is needed to improve mitigation science. By establishing HEP transects and other data collection techniques, in conjunction with direct or indirect accounting of population levels, this correlation can be achieved. As a result, the Spokane Tribal Wildlife Program has established HEPs on all 16 parcels and deer use transects on 6 of these parcels. Results will be correlated pre- and post- enhancement.

Years Underway/Past Costs:
1991 - $22,000 for Phase 1 project planning purpose: wrote management plan and project budget for enhancement.

1992 – BPA purchase of 77.5 acres for $42,000. Title to Tribe in 1994.

1996 – Grant to Spokane Tribe under 1996 STOI/BPA Agreement for remaining lump sum owed for partial Grand Coulee Dam wildlife mitigation land protection of $1,778,000.

1998 – As of 11/21/98 1393.5 acres acquired for partial mitigation.
Tribe is currently working to close out acquisition funds by possibly purchasing another 439.98 acres, Federal Appraisal has been done, waiting on EA, and cultural assessment to be done as of date listed above.

e. Proposal objectives

Objectives:

1. Protect in perpetuity no less that 1,768 acres of wildlife habitat as partial mitigation for Grand Coulee Dam losses.
   TASKS
   a. Locate suitable lands and rank as to wildlife value, present and future condition (see enclosed criteria).
   b. Negotiate with willing sellers using standard real estate techniques.
   c. Place purchased lands under Tribal land protection covenants.
2. Protect and/or create 1,697 white-tail deer Habitat Units (HU's) on lands permanently dedicated to wildlife habitat.
   TASKS
   a. Apply HEP to measure before and after condition of habitat; identify limiting factors to indicator species; apply population indexing techniques to compare/correlate with HEP results;
   b. Create management plans and budgets;
   c. Identify partnership opportunities for cost share;
   d. Implement improved techniques approved by Interdisciplinary Team process of the Spokane Tribe.
   e. Maintain benefits through long-term Operation and Maintenance efforts.
3. Report Results
   a. Compile Land Protection, HEP and population results, and correlate the latter two;
   b. Report in standard format on an annual basis to BPA and the Wildlife Work Group.

f. Methods

OBJECTIVES

1. Protect in perpetuity no less that 1,768 acres of wildlife habitat as partial mitigation for Grand Coulee Dam losses.
   TASKS
   a. Locate suitable lands and rank as to wildlife value, present and future condition (see enclosed "Wildlife Mitigation Ranking Protocol" criteria);
   b. Negotiate with willing sellers using standard real estate techniques;

c. Place purchased lands under Tribal land protection covenants.

2. Protect and/or create 1,697 white-tail Habitat Units (HU) on lands permanently dedicated to wildlife habitat.

   TASKS

   a. Apply HEP to measure before and after condition of habitat; identify limiting factors to indicator species (for HEP methods se Merker 1993): apply population indexing techniques to compare.correlate with HEP results (this to include standard line transect pellet group counts to compute deer use days by habitat type before and after implementation enhancement;
   b. Create management plans and budgets;
   c. Identify partnership opportunities for cost share;
   d. Implement improvement techniques approved by Interdisciplinary Team process of Tribe;
   e. Maintain benefits through long-term Operation and Maintenance efforts.

3. Report Results
   a. Compile Land Protection, HEP and Population results, and correlate the latter two;
   b. Report in standard format on an annual basis to BPA and the Wildlife Working Group.

Methods have been described elsewhere, including in NPPC Wildlife Plan.

g. Facilities and equipment

Equipment on hand within the Spokane Tribe of Indians Wildlife Program, or available within other Tribal Programs, and donated without charge to the effort include:

1. two PC's
2. color scanner and printer for producing maps
3. digitizer
4. Silviculture equipment/tools for forest mensuration.
5. Fence repair equipment.
6. Two storage buildings.
7. Office Facility

Cooperative Programs and Agencies Include;

1. Bureau of Indian Affairs Realty Office Branch for assistance in ownership/Title, land descriptors, principle contacts.
2. Tribal legal assistance for recording of purchase under the 1996 STOI/BPA Mitigation MOA.
4. Tribal Forestry and Range for donation/cost share of heavy equipment and qualified operators.
5. Local School district to contract growing and planting native poplars.

h. Budget

The Spokane Tribe has hired a Wildlife Habitat Biologist and a Wildlife Technician to work on the BPA Mitigation Lands. The Wildlife Program Manager also spends work hours preparing documents to be summated to BPA (e.g., HEP Report, Management Plans, etc.), this is the reason there is an increase from the 1998 O&M Funding. The Standard Fringe Benefit of the Spokane Tribe of Indians is 27.62%, this includes FICA, FUTA, SUTA, L&I, Life Insurance, and Medicare. The supplies line item will be used to help offset the expense of paper and office materials used to process reports to Bonneville Power Administration.

The Operation and Maintenance line item has three major components:

1) Weed control – there will always be a need for weed control on the parcels acquired through the mitigation.
2) Fence maintenance – because the parcels are scattered the fences will need annual repairs to exclude livestock from these parcels.
3) Vehicle maintenance – there is one vehicle which needs to be maintained in order for work on the parcels to be completed.

Indirect Cost – see above budget.

Section 9. Key personnel

Principal Investigator:

B.J. Kieffer, STOI Wildlife Program Manager

BS Degree, Wildlife Resources, University of Idaho, Dec 1995.

Habitat Evaluation Procedures Certification (HEP), Yakima, WA. August 1998.

Related Work Experience:

March 1, 1998 to Present – STOI Wildlife Program Manager.

BPA Processes:

1. Assisting Habitat Biologist with HEP Reports, Management Plan.
2. Preparing for spring enhancement and restoration on mitigation lands.
3. Working with local high school to harvest and grow native poplars from the Spokane Reservation and replant them.
4. Developing a 7000 acre Watershed Management Plan, with approximately 335 acres of mitigation lands located within this watershed. Also, developing a working group with a local community for the watershd.

April 1, 1996 to 28, 1998 – STOI Wildlife Habitat Biologist.

Worked on assessing vegetation on mitigation lands, writing management plan, and HEP Report to BPA.

1994 – USDA, Wildlife Technician. Bighorn National Forest, Buffalo, WY.

Rosgen Stream Surveys, Vegetation Monitoring, Mist netting for Neotrpoical Birds. Pool to Riffle stream surveys.

Hours on BPA Project: 0.2 FTE, or 416 hours/year.

Project Manager:

Kelly J. Singer, STOI Wildlife Habitat Biologist
BS Degree, Natural Resource Management, Washington State University, May 1995.
Habitat Evaluation Procedures Certification (HEP), Yakima, WA. August 1998.
Related Work Experience:
August 5, 1998 to Present – STOI Wildlife Habitat Biologist.
HEP completion on mitigation lands. Finalizing HEP report to BPA, Working on completing management plans for mitigation lands. Some test plots for native poplars on mitigation lands.
March – July 1998 – Conservation Tech 1, Nebraska Game and Parks Commission.
Prescribed burning to enhance vegetation, food plot establishment, wildlife population surveys, tree plantings, noxious weed control, equipment maintenance, game check stations.
April – November 1997, Conservation Tech 1, Nebraska Game and Parks Commission.
Prescribed burning to enhance vegetation, food plots establishment, wildlife population surveys, tree plantings, noxious weed control, equipment maintenance, game check stations.
Hours on BPA Project: FTE or 2080 hours/year

Technician:
Twa-le Abrahamson, STOI Wildlife Technician
Working on A.A.S. Degree from SKC in Wellpinit, WA. 1998
Internet Course to complete her degree.
Habitat Evaluation Procedures Certification (HEP), Yakima, WA. August 1998.
Related Work Experience:
July 22, 1998 to Present – STOI Wildlife Technician
Assisting the Wildlife Habitat Biologist on preparing HEP Report and Management Plans. Working on tables for both Reports. Working on restoration and enhancement activities to begin in the spring.
October 1996 to February 1998 – Environmental Engineering,Womer and Associates, Spokane WA.
Word processing for Environmental Engineer.

Section 10. Information/technology transfer

1. Annual Reports to BPA on accomplishments and achievements.
2. Annual CBFWA project Presentation.
3. Through NPPC Wildlife Work Group/ CBFWA Wildlife Caucus.