

**1998 ANNUAL REPORT FOR THE PEND OREILLE
WETLANDS WILDLIFE MITIGATION PROJECTS**

Project Number: 91-060-00 & 91-060-01

Annual Report 1998

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Introduction

This report is a summary of significant results and progress made in the management of the Pend Oreille Wetlands Wildlife Mitigation project (“Flying Goose Ranch” and “Dilling Addition”) up to and including the 1998 contract period. Since purchases in 1992 and 1997, the Pend Oreille Wetlands project has been managed by the Kalispel Tribe for benefits to wildlife including Bald Eagle, Black-capped Chickadee, Yellow Warbler, Canada Goose, Mallard, muskrat, white-tailed deer, and associated habitat.

The Tribal goal for Albeni Falls Dam wildlife mitigation remains:

“Protect and develop in-kind wildlife habitat to mitigate losses associated with the construction and operation of Albeni Falls Dam.”

To meet this goal the Tribe is continuing to manage and enhance the “Flying Goose Ranch” and “Dilling Addition” as well as continue to explore opportunities for additional protection, mitigation, and enhancement measures. Other opportunities for habitat protection and enhancement are currently being brought to the regional ranking and prioritization process through the Albeni Falls Interagency Workgroup.

Project Description

The Pend Oreille Wetlands project consists of two adjacent parcels totaling about 600 acres. The parcels are adjacent to the northern boundary of the Kalispel Indian Reservation and the Pend Oreille River, about 25 miles north of Newport and Albeni Falls Dam (Figure 1). Located in the Selkirk Mountains in Pend Oreille County Washington, the project is situated on an active floodplain, increasing its effectiveness as mitigation for Albeni Falls Dam. The combination of the River, wetlands and the north-south alignment of the valley have resulted in an important migratory waterfowl flyway. Washington Department of Fish and Wildlife and Kalispel Natural Resource Department have designated both project sites as priority habitats. Seven habitat types exist on the project properties and include four wetland habitats (open water, emergent, and scrub-shrub and forested), riparian deciduous forest, upland mixed coniferous forest and floodplain meadow. Importance of the project to wildlife is further documented by the occurrence of an active Bald Eagle nest aerie.

Project Accomplishments/Activities

Objective 1.1 Baseline Inventory

Baseline population surveys for the “Dilling Addition” and a five-year status update for the “Flying Goose Ranch” is scheduled for implementation in 1999. Initial population data on the “Flying Goose Ranch” was collected and submitted to BPA in 1993.

Objective 1.2 Cattle Grazing

Task I.2.1 Cessation

Cattle grazing was eliminated with the purchase of the “Flying Goose Ranch” in 1993 and the “Dilling Addition” in 1997.

Task I.2.2 Modified Use

Cattle grazing, if used, will only be implemented when compatible with management objectives for habitat restoration or enhancement.

Objective I.2 Bank Repair and Riparian Restoration

Task I.2.1 Initial Repair

Initial shoreline stabilization efforts were completed in 1994. These efforts were applied to approximately 1,500 feet of highly eroded shoreline along the Pend Oreille River. To date, annual maintenance and site specific repair are continuing until the cottonwood reforestation plots mature and provide long-term bank stability.

Task I.2.2 Long-term repair

In areas where initial plantings or sloping have failed or have been reduced, we have supplemented vegetative plantings to increase the stabilization efforts along the shorelines of the “Flying Goose Ranch.” Long-term stabilization will be reached when the cottonwood reforestation plots mature.

Objective I.4 Weed Control

Task I.4.1 Control and Maintenance

Weeds were controlled within both properties. Leafy spurge, napweed, and tansy are spot sprayed for continued control. Hawkweed was discovered on the “Flying Goose Ranch” for the first time and was aggressively treated in 1998. A restricted vehicle use policy was implemented in order to eliminate the spread of hawkweed to other areas of the “Flying Goose Ranch” and surrounding lands.

Objective I.4 Hydrology

Well points and tensiometers have proven to reveal little useful information on the project site. Soil moisture information is consistent with long-term observations of soil saturation. 100% soil saturation and inundation dominate the spring until late June. Summer soils are reduced in saturation to nearly 0% to 8” in depth with hydrophytic vegetation persisting throughout the year supporting evidence of saturated soils below 8” in depth. Well points and tensiometers also support these observations (Table 1). Wetland control structures are being operated under moist soil management principles and have changed the soil saturation schedule in the area of influence (Figures 2 and 3).

Objective II.1 Increased Perch Tree Height/Upland Forest Management

Task II.1.1 Thinning from below

The use of timber harvest to meet project goals will be assessed in 1999. The method of thinning from below will be used to meet tree height and species composition goals for improved Bald Eagle breeding and wintering habitat. Shrub communities will be improved using prescribed burning to maximize white-tailed deer winter food availability as described in the Albeni Falls Dam Mitigation Planning report (Martin et al. 1988).

Task II.1.2 Maintain forest health

No timber harvest activities are planned until a timber management plan is completed in 1999.

Objective II.2 Increased Deciduous Tree Density

Task II.2.1 Aspen Release

Aspen and other hardwood stand management was conducted by standard techniques of removing invader species (conifers) and subsequent root disturbance using fire or mechanical methods. Approximately 15 acres of this habitat type were enhanced in 1998.

Task II.2.2 Cottonwood Enhancement

By disturbing existing root systems and planting cuttings, we increased deciduous tree densities. The recruitment within the riparian forest is beginning to establish an understory and contribute to density goals for black cottonwoods on the project. Aspen stands were similarly addressed by removing coniferous competitors and root disturbance. A forest management plan is planned for completion and implementation in 1999.

Objective II.3 Nesting Islands

Task II.3.1 Waterfowl Islands

Nesting islands have vegetated nicely since 1997. Use of the islands has increased, with observations of geese, ducks, deer, Great Blue Heron, coyote, bear, and raccoon being noted during 1998. Water level management will improve the habitat quality associated with the islands. Some deleveling along the eastern edge will be necessary to complete the project. Water levels, without deleveling, will not be sufficient to deter predators.

Objective II.4 Shoreline Re-vegetation

Task II.4.1 Woody plantings

Sandbar willow (*Salix exigua*) is the dominant woody planting along the un-vegetated portions of the shoreline. Project goals are to improve the vegetated state of the shorelines in order to improve habitat and erosion conditions along the Pend Oreille River. Each year of implementation several areas are targeted and re-vegetated along the river.

Task II.4.2 Bulrush Plantings

Several species of bulrush are being planted along the shoreline to compliment the woody plantings by improving herbaceous cover along the shoreline. These aspects of re-vegetation will improve the structural diversity of a once barren shoreline. Once again several areas along the shore are targeted each year for implementation.

Objective II.5 Restoration of Scrub Swamp

Task II.5.1 Wetland shrub planting

Scrub-shrub re-vegetation efforts went well and first year survival appears to be nearly 90%. Presently we have completed approximately 10 acres of scrub-shrub wetland restoration. Continued scrub-shrub development will continue in future implementation years with focus shifting to the "Dilling Addition" in 1999.

Objective II.6 Increased Grass nesting cover

By removing cattle in 1993 and 1997 on the two projects sites, grass nesting cover was allowed to fully recover. Annual area-specific mowing and/or burning are the techniques being used to achieve healthy stands of native grasses providing nesting cover to waterfowl and other avian grass nesting guilds. Each year approximately 50 to 100 acres are cut and/or burned.

Objective III.1 Wetland Restoration

Task III.1.3 Wetland water control management

The three wetland water control structures are being managed according to Figure 2. This moist soil management scheme is being utilized to maximize the wetland diversity and potential throughout the project. Water management is also allowing for a unique opportunity to develop a remote incubation site for brown trout in a water return ditch. This cooperative project with the KNRD Fisheries Division was completed in the fall of 1998. Monitoring of gravel movement and spawning will occur in 1999 and beyond.

Objective III.2 Riparian Forest Restoration

Task III.2.3 Rooted Cuttings

Rooted native stocks of black cottonwood are being used to reforest approximately 25 to 30 acres on the “Flying Goose Ranch.” The results of these efforts have been described in the Irrigation and Costs section of this report. We are planning to implement this strategy for restoration work on the “Dilling Addition” starting in 1999.

Task III.2.4 Irrigation and Costs

Black cottonwood reforestation along the riverbanks was completed with the planting of the last five acres on the “Flying Goose Ranch.” The 1998 plot was tilled prior to planting. The 1997 cottonwood plots experienced lower levels of as plots 3 & 4 were planted without removing competing vegetation due to the 1997 flooding and experienced about 25% to 50% survival, respectively. Of 980 plants between the two plots, approximately 360 survived the first year.

We propose to replant areas that did not take in future years along with new plots on the “Dilling Addition.”

Objective III.3 Forest Buffer

Starting in 1993, the Tribe has planted coniferous trees in the open area along LeClerc Road. Each year the Tribe has secured surplus conifer trees from the US Forest Service and others to achieve this objective.

Objective III.3.1 Pasture Management

Pastures are managed by removing decadent grass cover for goose brood habitat and winter food habitat. Swathing and/or fire were used to reduce grass heights associated with the brood and winter habitat pasture areas.

Objective IV.1 Monitoring and Evaluation

The five-year update HEP for the “flying Goose Ranch” was completed in 1997 along with the baseline HEP for the “Dilling Addition.” Baseline population surveys for the “Dilling Addition” will be conducted in 1999 along with an update survey for the “Flying Goose Ranch.” Project monitoring showed an increase of 182 HU’s associated with the “flying Goose Ranch” at year five.

Objective IV.2 Operations and Maintenance

In 1998, the Tribe continued to improve and maintain the existing physical improvements on the project. This included continued control of noxious weeds. Physical improvements and maintenance included fence repair, fence removal and new gate placements. The Pend Oreille PUD will remove overhead power lines and

transformers located on the “Dilling Addition” as scheduling permits. Operation and maintenance of the wetland control structures will continue through the life of the project.

Discussion of Events

Several significant events transpired during the 1998 field season. In 1998, the Tribe began talks with the US Forest Service and Pend Oreille County to develop MOA’s that would place adjacent and contiguous parcels of land into permanent like-management. This will effectively bring the managed acreage total to nearly 700 acres. These are early discussions, yet have the potential to greatly benefit the project on a broader scope.

One other important event was the completion of the draft management plan for the “Dilling Addition” of 164 acres of land adjacent to the Pend Oreille Wetlands project. This new addition is to be incorporated into the management activities of the Pend Oreille Wetlands project to reduce the overall costs of management.

Future Recommendations/Planned Activities

The draft management plan for the new addition is enclosed as Appendix A. Future budgeting and scopes of work will be submitted as one project including both properties.