

SHILLAPOO WILDLIFE AREA 2010 MANAGEMENT PLAN UPDATE

Washington Department of Fish and Wildlife

Land Management Summary

This is an update to the 2006 Shillapoo Wildlife Area Management Plan http://wdfw.wa.gov/lands/wildlife_areas/management_plans/ that provides management direction for the 2,341-acre Shillapoo Wildlife Area in Clark County Washington. The plan identifies needs and guides activities on the Wildlife Area based on the Washington Department of Fish and Wildlife (WDFW) Mission of "Sound Stewardship of Fish and Wildlife" and its underlying statewide goals and objectives as they apply to local conditions.



Plans are updated annually as habitat and species conditions change, as new regulations and scientific knowledge develop, as public issues and concerns evolve, and as administration of Wildlife Areas change. This management plan update also includes 2009 accomplishments, new issues, new land management strategies, and performance measures for 2010.

Updates/Changes

In 2009 several changes occurred that will affect the Wildlife Area. The funding request we submitted during the Northwest Power and Conservation Council's (NPCC) three year update process received a favorable review, which provides relative assurance that adequate funding

through Bonneville Power's (BPA) wildlife mitigation program for habitat enhancement, operation, and maintenance should be available through 2012. WDFW continues to pursue a longer term agreement with BPA, which would provide a greater level of certainty of funding levels over a longer period (ten years). By funding activities here, BPA receives mitigation credits offsetting some of the impacts of the Columbia River hydroelectric system.

Inside			
Land Management Summary	1		
Updates/Changes	1		
New Issues	2		
Major Stewardship Accomplishments	3		
Status Report of 2009 Performance Measures	4		
New Strategies	6		
2010 Performance Measures	7		
Citizens Advisory Group Input	7		
Information BPA's Wildlife Mitigation Program 8			

The major wetland project planned in the Shillapoo Lakebed remained stalled due to the long process of obtaining a reservoir permit from the Department of Ecology (DOE). DOE's water right section has a backlog of water right and reservoir permits that have not been processed. We were presented an alternative to expedite the review, which was to hire a consultant to do the analysis the DOE would ordinarily complete, but at this time we have not taken that approach. This is primarily because we have been informed that the reservoir permit may not be required in this case and we are waiting for that question to be answered. Due to the long delay and the potential of an alternative project arising, as described below under new issues, we decided to reinitiate sharecrop farming in a portion of the lakebed. This was in response to reed canary grass and other weeds beginning to invade portions of the area as well as public concerns. The farming activity will help us maintain the site until wetland enhancements are ready to proceed. Portions of the agricultural ground, where beneficial native plants have been established, will not be farmed under the agreement. WDFW will designate these areas each year prior to the cooperating farmer beginning to work the fields.

New Issues

In 2009 WDFW entered into a memorandum of agreement (MOA) with the federal government, which provides for the enhancement of habitat for out migrating and rearing juvenile salmon and steelhead in the Columbia River downstream of Bonneville Dam. The MOA contained a list of potential projects including one which would reestablish a direct connection of the Shillapoo Lakebed with the hydrology of the Columbia River, with the goal of providing additional rearing habitat for ESA listed fish. This project concept is substantially different than that outlined in the Wildlife Area Plan, which focused on reestablishing native type plant communities. The new project raises concerns as to what the plant communities and resulting habitat for waterfowl, sandhill cranes, and other species would look like if implemented. WDFW plans to conduct an initial feasibility study to begin to assess potential benefits and impacts and engage the Citizens Advisory Group and other stakeholders prior to deciding whether to make a commitment to move forward with this type of a project.



A large flock of Snow Geese feeding alongside Canada Geese in the North Unit

Major Stewardship Accomplishments

Tree planting continued at five locations as part of our enhancement efforts directed toward riparian and oak habitat and maintenance of great blue heron nesting habitat. The initial planting effort at two of these sites is now considered complete. A total of approximately 6,000 seedlings or cuttings were installed in the spring. All rooted stock had tree tubes and mats placed on them to increase soil moisture, reduce competition, and reduce rodent damage. Because many of the trees were interplanted with stock from prior years, survival rates could not be verifiably quantified but were believed to be very good based on a qualitative assessment. In future years we plan to provide unique markers for plants installed each year so that initial survival rates can be assessed more accurately.

We continued to make progress with regard to reducing problems associated with noxious weeds, but this is tempered with the continual threat of new invasive species either on the Wildlife Area or on nearby sites. Italian and slender-flowered thistle are two weeds that have been encroaching onto the Wildlife Area in small infestations, and are treated whenever found. On a brighter note, monitoring has indicated the number of purple loosestrife plants has been reduced by over 60% since the summer of 2007 in one of our worst infestation areas. A coordinated release of biological control agents for purple loosestrife occurred in the summer around Vancouver Lake, including part of the Vancouver Lake Unit. All major stands of poison hemlock were treated and all known English ivy patches were pulled, treated, and removed from the Wildlife Area. We continued our increased efforts to control other broadleaf weeds including Canada thistle and teasel in particular, which have been a problem in projects to improve waterfowl pasture habitat.

Three pasture sites totaling about 50 acres were tilled and replanted in the spring with a grass/clover mix. Wet conditions early in the spring delayed the workup and planting date. As a result, much of the acreage did not establish well, which contributed to weed problems. Because of the issues with last year's pasture plantings, we will focus on improving those and other previously planted sites in 2010 rather than attempt to work up and reseed additional ground. Several areas totaling over 180 acres were sprayed to control



Queen Anne's lace infestation in one of the pasture plantings

Himalayan blackberry, Canada thistle, or other broadleaf weeds to improve habitat value. One other waterfowl forage area on the South Unit was improved by removing blackberries along fence lines and a drainage canal and a number of berry thickets were sprayed on the Vancouver Lake Unit.

<u>Status Report of 2009 Performance Measures</u>

Key performance measures are identified each year to monitor progress and identify any issues that might interfere with planned priority activities. This information will be used to delete, add, or alter priority strategies for 2010.

2009 Performance Measure	Status of Performance Measure	Explanation of Progress/ 2010 Related Activity/ Comments
Continue to work with the US Army Corps of Engineers in pursuing completion of major wetland enhancements in the lakebed. Target construction starting in summer.	Progress was made and one of the two remaining permits was obtained. The reservoir permit from the Department of Ecology is still pending. An alternative is being explored that would expand intertidal fish habitat directly connected to the Columbia River but would limit our ability to optimize the habitat benefits of reestablishing native plant communities. If selected, this option will require reevaluation of almost all existing enhancements as well as planned activities in the North and South Units and would change current public use patterns and opportunities.	Participate in the feasibility study on the intertidal option. Help to identify potential benefits and impacts to resulting plant communities and terrestrial species.
Continue planting and maintaining trees and shrubs in the Lake River and Buckmire Slough riparian zones, abandoned heron rookery site, the old agricultural site in the North Unit, and others where planting has already been initiated. Initiate planting the old slough site (Chapman Island) if fencing is completed.	Planting occurred at all locations except the old slough site. Due to difficulty in identifying trees planted in different years, only a qualitative assessment of survival of this year's planting was possible. Based on this assessment, we believe that the survival rate was about 75 to 80%.	Planting will continue for several years until plant density and survival reach desired rates. Attempt to make a better assessment of first year plant survival.

Continue clearing dense Himalayan blackberry along Buckmire Slough in preparation for ongoing understory enhancements. Continue removal of Himalayan blackberry in the Vancouver Lake unit.	Good progress was made in the Vancouver Lake Unit; and some clearing was also accomplished along Buckmire slough, but not as much as anticipated.	Continue to maintain as a performance measure. Whenever possible, focus efforts on the Buckmire Slough area.
Continue wetland basin enhancement through the removal of reed canary grass by disking.	Disking occurred in five wetland basins distributed throughout the three Wildlife Area units. We also conducted a trail where canary grass was sprayed prior to disking and it appears this may have improved the results.	Due to low water levels in the Columbia reducing our ability to manage water levels in the wetlands, some of the acreage may require retreatment in 2010.
Control 200 acres of Canada thistle and treat all major stands of poison hemlock and individual plants to the extent possible.	This work was accomplished through both routine mowing and an increased spraying effort.	Continue to maintain as a priority performance measure.
Continue monitoring and control of English ivy at all known locations and maintain diligence in monitoring for early detection and control of new invasions of exotic weeds	One new location of ivy was found. Control occurred at three locations and it appears that we have eradicated it from another. Italian thistle was identified in the North Unit in one location. Eurasian water speedwell was indentified in the Vancouver Lake Unit in a single wetland with minimal size and distribution.	This is among the most important aspects of land management and should remain a priority.

Continue to improve upland goose/crane forage areas through fencing to improve grazing management in the North Unit, continued mowing of ungrazed areas, reseeding 50 acres of pasture, and removal of undesirable brush.	50 acres of pasture were replanted but significant portions did not germinate well and will need more work in 2010. Fencing projects were deferred due primarily to workload timing. All waterfowl pasture areas were mowed and progress was made on brush control.	Rather than take on a significant new acreage, work in 2010 will focus more on correcting problems that have cropped up in areas that were replanted in prior years.
Implementation of measures as needed to protect habitat and other features from damage due to vandalism and other unlawful acts	Installed additional boulders near the Vancouver Lake boat launch where a section of barrier cable had been stolen. We also placed brush and fence posts in a second location where off-road driving unexpectedly became a problem.	Continue to monitor and address issues as they arise.
Complete an informational document and/or poster with basic rules and information about the Wildlife Area	A draft information sheet intended for the back side of maps that are currently available was completed but has not yet finalized.	Review and finalize the text and add the information to the back of the wildlife area map available at the regional office.
Conduct a survey of waterfowl hunters to evaluate satisfaction and opinions on management issues funded through the State Migratory Bird Stamp grant. Explore funding options to include other user groups and consider using volunteers to collect some of the information.	The field survey portion of this effort was completed during the 2009-10 season. Name/addresses were collected for a mail survey to be deployed in 2010.	Analyze data from the field survey and complete the mail survey in 2010. Timing is yet to be determined.

New Strategies

No new strategies are proposed as part of this management plan update.

2010 Performance Measures

Performance measures for the Shillapoo Wildlife Area for 2010 are listed below. Accomplishments and progress toward desired outcomes will be monitored and evaluated annually.

- 1) Participate in the feasibility study of reconnecting the Shillapoo Lakebed or other parts of the Wildlife Area with the Columbia River to potentially benefit juvenile salmonids. Include an evaluation of the potential benefits or impacts to native plant communities and other terrestrial and aquatic species important in the area.
- 2) Continue planting and maintaining trees and shrubs in the Lake River and Buckmire Slough riparian zones, abandoned heron rookery site, the old agricultural site in the North Unit, and others where planting has already been initiated. Attempt to improve assessment of first year plant survival.
- Continue clearing dense Himalayan blackberry along Buckmire Slough in preparation for ongoing understory enhancements. Continue removal of Himalayan blackberry in other areas.
- 4) Continue wetland basin enhancement through the removal of reed canary grass by disking.
- 5) Control a minimum of 200 acres of Canada thistle and other broadleaf weeds by mowing or spraying; treat all major stands of poison hemlock and individual plants to the extent possible. Develop a method for tracking infestation levels at different sites and the level of success of control efforts.
- 6) Continue monitoring and control of English ivy at all known locations and maintain diligence in monitoring for early detection and control of new invasions of exotic weeds.
- 7) Maintain and enhance important waterfowl pasture areas by focusing on completing the North Basin fence and possibly other deferred fencing projects in the North Unit intended to improve grazing management, mowing of ungrazed areas, and removal of undesirable brush.
- 8) Implement measures as needed to protect habitat and other features from damage due to vandalism and other unlawful acts.
- 9) Finalize the information sheet for users and make available to the public.
- 10) Analyze the waterfowl hunter field survey data and complete the follow-up mail survey.

Citizens Advisory Group Input

In lieu of holding a meeting to review the management plan update, a draft of the document was sent to all advisory group members. Comments received and responses to those comments are outlined below. However, an on-site meeting was held with the CAG in order to facilitate a discussion to gather input on projects and focus more on potential changes to the concepts associated with future management of wetlands, most notably in the Shillapoo Lakebed.

CAG Membership included the following organizations: the Diking District, an adjacent landowner, Vancouver Wildlife League, Vancouver Audubon, Washington Waterfowl Association, Ducks Unlimited, dog trainers, Pheasants Forever, Columbia Land Trust, Vancouver-Clark Parks and Recreation Department, Port of Vancouver, Clark County Weed Management, and U.S. Fish and Wildlife Service (Ridgefield National Wildlife Refuge).

The following comments were received:

Issue: We received one comment which asked for further clarification in two separate parts of the text where permitting delays of the Shillapoo Lakebed enhancement project and the potential option of creating intertidal habitat to benefit fish.

Response: We changed and added text in both of these areas in to provide a better understanding of why permits have been delayed and the types of issues that may arise as we evaluate whether to establish an open flowing connection with the Columbia River.

Information on BPA's Wildlife Mitigation Program

The Bonneville Power Administration (BPA) has received mitigation credit for funding land acquisition, habitat enhancement, and ongoing management of habitats on the Shillapoo Wildlife Area. The project provides an estimated 1,581 habitat units (HUs) toward their overall Wildlife Mitigation Debt for the Columbia River hydroelectric system. Habitat Units are related to a portion of the wildlife impacts from Bonneville, John Day, and The Dalles Dams. The number of habitat units achieved is based on the sampling of a number of habitat characteristics that are components of mathematical models for individual species that generate a numeric value for habitat quality from zero to one, known as a Habitat Suitability Index. The suitability index is then multiplied by the number of acres being evaluated to generate the number of HUs. This process is commonly referred to as a Habitat Evaluation Procedure or HEP. Species models being applied to mitigation activities on the Shillapoo Wildlife Area include: black-capped chickadee, western meadowlark, yellow warbler, mink, great blue heron, Canada goose, mallard, and dabbling duck.

Most of the management strategies relating to habitat management identified in the Shillapoo Wildlife Area Management Plan are funded through BPA's mitigation program. A summary of these activities can be found in our most recent project review and funding proposal to the Northwest Power and Conservation Council who provides oversight of BPA's mitigation programs. The Shillapoo Wildlife Area Proposal (Project #200301200) is located at: http://www.nwcouncil.org/Fw/budget/2010/proposal.asp?id=1008. This document includes a summary of activities (work elements), a link to the project narrative, an itemized budget request for 2010-2012, and estimated budgets through 2018. A number of activities included in the mitigation work plan are designed to monitor the effectiveness of the project, including habitat/plant community monitoring, wildlife population response, and periodic HEP surveys to track progress toward mitigation goals.

As mentioned above, BPA helped to acquire portions of the Wildlife Area as part of their mitigation commitment to this site. One key parcel, that included the remaining portions of the Shillapoo Lakebed that is still in private ownership, was not acquired as the landowner was not willing to sell at the time. This parcel remains the highest priority for acquisition for this Wildlife Area, however, other properties in the vicinity should be considered as the opportunity may arise, including the area lying between the Wildlife Area and the Ridgefield National Wildlife Refuge.

While BPA funds most of the habitat management activity on the Wildlife Area, other contributions have come from outside sources including grants obtained in cooperation with Ducks Unlimited, Columbia Land Trust, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, Vancouver Clark Parks and Recreation, Clark Public Utilities, and others. These grants have helped to fund many of the wetland enhancement projects on the Wildlife Area. We continue to work with the US Army Corps of Engineers and the Lower Columbia Ports on a project to reestablish wetland plant communities in the Shillapoo Lakebed. While habitat work has been well funded, dollars for wildlife surveys and recreational management have lagged behind. Improvement of recreational activities will have to be funded through state funding or other grant sources. Much of the recreational emphasis in recent years has been directed toward waterfowl hunting through State Migratory Bird Stamp grants. There are plans and a need for a wildlife viewing area, parking facility, and a storage facility; additional funds will be required to accomplish these activities.

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