



# SHILLAPOO WILDLIFE AREA 2012 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/](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 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.



*Yellow Warbler*

Plans are updated biennially 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 2010-11 accomplishments, new issues, new land management strategies, and performance measures for 2012-13.

## Updates/Changes

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 to the hydrology of the Columbia River with the goal of providing additional rearing habitat for Endangered Species Act (ESA) listed fish. This project concept is substantially different than what is outlined in the Wildlife Area Management Plan, which focuses on reestablishing native plant communities, and raises concerns as to what the plant communities and resulting habitat for waterfowl, sandhill cranes and other species would be appropriate. Due to delays, the feasibility study is just getting under way and will be

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split into two phases. The first phase will investigate real estate acquisition probabilities and questions related to relocating a major petroleum pipeline. The federal agencies are reluctant to move forward with other work until these two critical issues, which could preclude levee breaching, are addressed. Other work related to habitat quality assessments and design will wait until the second phase. Questions still exist as to how the project would influence the quality of habitat for waterfowl and other important species that have received a management emphasis up to this point.



*A flock of Dusky Canada Geese resting on the shoreline of Pencil Lake*

### **New Issues**

Conflicts during the 2010-2011 waterfowl hunting season between disabled hunters and non-disabled hunters lead to the creation of a Disabled Hunter Preference Area surrounding the Americans with Disabilities Act (ADA) accessible blind at Mulligan Point, in the Vancouver Lake Unit. At the heart of the issue was non-disabled hunters unwilling to yield or move far enough away from the blind when disabled hunters were present. The designation of this area has solved many of the issues that we were having between the hunting groups in this area. As often happens, this new rule raised other legitimate questions and we will be exploring further changes that may be implemented for the 2012-2013 waterfowl season. This relates to other hunters being able to use the site when disabled hunters are not present and not knowing if a disabled hunter will arrive. What we are exploring is an expectation that the disabled hunters arrive by a certain amount of time prior to shooting hours in order to receive preference. This rule is already in place at other sites in the state and we feel that it would help to make the situation more workable for all parties.

### **Major Stewardship Accomplishments**

A major accomplishment in 2011 was the completion of the North Basin fence, which provides more cost effective and improved management of about 50 acres of winter waterfowl pasture through improved grazing management. A temporary employee was hired for the summer months with this project being their primary task. This was also the first large project where we used the hydraulic driver to install wood posts. After very little trial and error, we found that the driver



*North Basin Fence*

worked extremely well and helped reduce a high quality product and save a great deal of labor time.

### **Weed Management**

Progress was made in regards 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. In 2010 old man's beard was discovered for the first time on the Wildlife Area along a wetland in the South Unit. The site was treated and good control of the invasive weed was achieved. Monitoring for Eurasian water speedwell continues to be a top priority in hopes of keeping it from spreading to other wetlands. On a brighter note, monitoring has indicated the number of purple loosestrife plants found has been reduced by over 87% since the summer of 2007 in one of our worst infestation areas. All major stands of poison hemlock were treated, and all known English ivy patches were either pulled or treated on 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.

### **Forage Enhancements**

Three pasture sites totaling about 30 acres were tilled and replanted with a grass/clover mix, and another 40 acres was over seeded with a ryegrass mix in the past two years.

Unusually wet conditions during the two consecutive planting seasons kept us from being able to plant and enhance additional acreage in 2010-11. Several areas totaling more than 150 acres were sprayed to control Himalayan blackberry, Canada thistle, or other broadleaf weeds to improve habitat value. Washington Department of Natural Resources (DNR) crews cleared over 15 acres of blackberries along five wetlands to either improve sight distances, for waterfowl, or to prepare sites for eventual planting of trees and shrubs. The initial clearing has or will be followed by herbicide treatment for long term control.



*Blackberry clearing in the Vancouver Lake Unit*

Tree planting continued at six locations over the past two years as part of our enhancement efforts directed toward restoring riparian and oak habitat, and maintenance of one great blue heron nesting site. A total of over 5,000 trees have been planted the past two years, along with 2,300 shrubs and 2,500 cuttings. All of the trees that were planted had tree tubes and mats placed to increase soil moisture, reduce competition with other vegetation, and decrease rodent damage. Our survival rate of the trees was about 90%, when surveyed eight months after planting. The exception though was in the great blue heron rookery site where survival was below 50%. This low survival was primarily due to high water levels and the trees being submerged for a long period of time.

**Status Report of 2010 Performance Measures**

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 2012.

<b>2010-11 Performance Measure</b>	<b>Status of Performance Measure</b>	<b>Explanation of Progress/ 2012 Related Activity/ Comments</b>
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 other species important in the area.	The feasibility study has yet to be started. The first step will be to determine if additional property in the lakebed can be purchased and a petroleum pipeline can be rerouted. Next steps would include assessing habitat influences and engineering considerations.	Wildlife Area staff will continue to be engaged in the process to assure that wildlife habitat concerns are addressed.
Continue planting and maintaining trees and shrubs in the Lake River and Buckmire Slough riparian zones, abandoned heron rookery site, the old ag site in the North Unit, and others where planting has already been initiated.	Planting occurred at all locations. We began painting tree stakes different colors for each year trees were planted to assess first season survival. Survival rates have been over 90% eight months after planting. Permanent survey plots were also set up in each of the plantings to track longer term survival.	Planting will continue for several years until plant density and survival reach desired rates.
Continue clearing dense Himalayan blackberry along Buckmire Slough in preparation for ongoing understory enhancements.	Good progress was made along Buckmire slough, clearing about 8 acres blackberries.	Long term goal will require at least several more years of effort.
Continue wetland basin enhancement through the removal of reed canary grass by disking.	Disking occurred in three wetland basins, one in the North Unit and two in the South Unit in 2011. One site was sprayed prior to disking, in hopes of increasing efficacy. The two sites in the South Unit had been disked the year before in 2010.	Optimal water levels in the spring and early summer of 2011 gave us good control of canary grass in all of the wetlands, but did have a disadvantage in that the annual native plants did not have the right conditions to germinate and mature before the end of the growing season.

<p>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.</p>	<p>This work was accomplished through both routine mowing and an increased spraying effort. Most weeds seem to be having a downward trend in population size and distribution, on the Wildlife Area. A survey method was developed and several sample sites have been established.</p>	<p>Continue to maintain as a priority performance measure and utilize monitoring results to inform adaptive management.</p>
<p>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.</p>	<p>Two new locations of English ivy were found. Three sites were treated with a foliar spray. Italian thistle was identified at one location in the North Unit (same site as previous years). Eurasian water speedwell was detected and controlled in the “V-2” wetland. Old man’s beard was discovered at the “old rookery” site and was effectively controlled but a follow up is needed to get an area that was missed.</p>	<p>This is among the most important aspects of land management and should remain a priority.</p>
<p>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.</p>	<p>The North Basin fence was completed in the fall of 2011. All waterfowl pasture areas were mowed each year, and progress was made on brush control. Enough blackberry removal has occurred in the pastures that we soon may be at a level where this will be considered routine maintenance rather than a major project. Additional enhancement included reseeding several sites.</p>	<p>In 2012 our focus will be on replanting three pastures, totaling about 50 acres</p> <p>Lake River fence would be the next priority for waterfowl, but needs further review.</p> <p>Map or inventory further blackberry clearing needs in pastures and develop a methodical approach.</p>
<p>Implement measures as needed to protect habitat and other features from damage</p>	<p>More boulders were placed along the roadway at Vancouver Lake where a</p>	<p>Continue to monitor and address issues as they arise.</p>

due to vandalism and other unlawful acts.	section of barrier cable was stolen. A cable gate was also stolen along the Reiger Highway, which was replaced with a gate.	
Finalize the information sheet for users and make available to the public.	The information was finalized and placed on the back of the existing maps which are available to the public	The information and maps are available to the public at the regional office. Consider adding to the website and making a separate sheet specifically for waterfowl hunting.
Analyze the waterfowl hunter field survey data and complete the follow up mail survey.	Field survey information was entered into a database. Unfortunately delays have rendered the addresses for the mail survey obsolete and an alternative approach to identifying potential participants is needed.	Analyze data from the field survey and explore options to conduct a more in-depth opinion survey by mail.

**New Strategies**

The wildlife area plan identifies many strategies or activities to address the agency’s strategic plan goals and objectives, why the area was purchased, habitat conditions, species present and public issues and concerns. The following updated strategies have been added to respond to previously unaddressed or new issues or changes on the Wildlife Area. New strategies may also be in response to adaptive management as staff evaluate the impacts of past management activities.

Note: No new or updated strategies are being proposed at this time.

**2012-13 Performance Measures**

Performance measures for the Shillapoo Wildlife Area for 2012 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 and/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 migratory waterfowl and other species important in the area.
- 2) Continue planting and maintaining trees and shrubs in the Lake River and Buckmire Slough riparian zones, “old rookery” site, “old ag” site and others where planting has already been initiated.

- 3) Continue clearing dense Himalayan blackberry along Buckmire Slough in preparation for ongoing understory enhancements.
- 4) Continue wetland basin enhancement through the removal of reed canary grass by disking. Continue to evaluate efficacy of including herbicide use, and/or planting cover crops.
- 5) Control a minimum of 200 acres of Canada thistle and other broadleaf weeds by mowing or spraying.
- 6) Continue weed monitoring efforts and strive for early detection and rapid response to controlling new high priority weeds
- 7) Maintain and enhance waterfowl pasture areas by replanting 50 acres, mowing all sites, and continued removal of undesirable brush that obscures sight distances.
- 8) Implement measures as needed to protect habitat and other features from damage due to vandalism and other unlawful acts.
- 9) Begin developing a plan to address user conflicts and improve hunter satisfaction. Include opinion surveys in the process and consider that potential landscape changes may affect recreation.
- 10) Initiate construction of the Old Slough Fence and preparation of the site for reforestation.

### **Citizens Advisory Group Input**

The Citizen Advisory Group meeting was held on April 10<sup>th</sup>, 2012 at the WDFW Regional office in Vancouver. In attendance were representatives from; Bonneville Power Administration, Duck Unlimited, Washington Waterfowl, Pheasants Forever, U.S. Fish and Wildlife Service, Vancouver Wildlife League, Vancouver Audubon, Vancouver Diking District, Clark County Weed Management and WDFW.

The following issues and new input were addressed at the meeting.

**Issue:** Representatives from the Washington Waterfowl Association made the comment that the Columbia River Channel Deeping Project Environmental Impact Statement (EIS) identified Shillapoo Wildlife Area as a mitigation site for ecosystem restoration for impacts caused by the disposal of dredge material in upland areas along the river. With the proposed wetland enhancement project currently on hold, members were concerned that the funding for the wildlife enhancement project stated in the EIS would not be accomplished.

**Response:** The members of the group agreed that the EIS should be revisited and amended, so that funding for the wildlife enhancement projects stated in the document would not be lost, and other mitigation sites be proposed and funded if the Shillapoo Wildlife Area wetland enhancement project is not accomplished.

**Issue:** A first time representative to the advisory group made the comment that waterfowl did not seem to be our primary focus of management, and that we were not going to evaluate waterfowl in the management of the Wildlife Area.

**Response:** Although there was little direct mention in the update that our primary goal in managing the Wildlife Area was for waterfowl, the main focus of almost all of our work on the area is to enhance and protect habitats for wintering waterfowl. Most of the work that is done on the Wildlife Area is for the benefit of waterfowl. Whether

it is pasture enhancements, weed control, cattle grazing, growing of agricultural crops, or the management of the wetland hydrology; our primary goal in mind is to enhance the value of the area to manage waterfowl.

Every year 20-50 acres of pastures are replanted with a grass/clover mix to increase forage production for wintering ducks, geese and Sandhill cranes. These and other pastures, totaling more than 500 acres, also have weed control work occurring in them to control invasive noxious weeds, to reduce the competition with beneficial plants and increase the forage value in these areas. These areas are highly important in supporting waterfowl over the winter and to decrease the amount of crop damage on private lands, which often ranges in the thousands of dollars annually.

The grazing and agricultural leases were also developed to enhance forage opportunities for wintering waterfowl. Grazing is used as a tool to manage vegetation stubble heights, vegetation quality and weed management. Grazed fields often have higher quality forage than many of the pastures that are mechanically mowed, thus increasing waterfowl use. Growing of agricultural crops is also beneficial to waterfowl, as the leasee is required to leave a percentage of the crop grown every year as a food source for wintering waterfowl.

Manipulation of the hydrology in the wetlands is also for the management of waterfowl, by creating conditions that are favorable to the production of native plant communities, while also suppressing the growth of non-native plant species. This helps in creating a more diverse and higher quality wildlife habitat, for both winter and summer resident species.

Many of our management tasks mentioned in the plan update might not have specific verbiage to the direct management of waterfowl, but most of our work associated with the management of the area has key benefits for waterfowl. The 2006 Wildlife Area Management Plan specifically describes the emphasis of waterfowl management for this Wildlife Area

**Issue:** Advisory members from Washington Waterfowl Association commented that there was not any discussion in the update to the potential impacts carp might have to waterfowl habitat, if Shillapoo Lake is reconnected to the Columbia River to enhance/create migrating juvenile salmonid habitat.

**Response:** Wildlife Area Staff discussed that carp are a concern to them if the levee is breached to reconnect the Columbia River to Shillapoo Lake, and that the second phase of the feasibility study will look at the potential impacts that the non-native fish have on waterfowl habitat. Carp have the potential to severely degrade waterfowl habitat given the right conditions to thrive. During the feasibility study several local waterways that have a connection to the Columbia River and have juvenile salmonid rearing habitat will be studied to determine the likely outcome of fish and wildlife habitat if the Columbia River is connected to Shillapoo Lake. This phase of the study will likely not start until 2013.

**Issue:** A member of the group mentioned the possibility of enhancing fish habitat on Vancouver Lake since it is already connected to the Columbia River.



**Response:** Currently juvenile salmonids do use Vancouver Lake as they migrate to the ocean. There are no known salmon enhancement projects currently taking place on the lake, but there are studies looking into the water quality issues of the lake.

### **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, as described above in the Major Stewardship Accomplishment section. 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 of 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. 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. A wildlife viewing area and parking facility are planned to be constructed on the South Unit, and a storage facility is needed, but additional funds will be required to complete construction.

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