MOUNT ST. HELENS WILDLIFE AREA
2014 MANAGEMENT PLAN UPDATE

Washington Department of Fish and Wildlife

Land Management Summary

This is an update to the 2006 Mt. St. Helens Wildlife Area Management Plan (http://wdfw.wa.gov/lands/wildlife_areas/management_plans/) that provides management direction for the Mt. St. Helens Wildlife Area Complex including the 6,589-acre Mt. St. Helens Wildlife Area in Cowlitz County Washington and eighteen smaller "satellite" Wildlife Areas totaling 1,774 acres located in Skamania, Clark, Cowlitz, and Wahkiakum Counties. The plan identifies needs and guides activities on the area based on the Washington Department of Fish and Wildlife's (WDFW) Mission of *"Sound Stewardship of Fish and Wildlife"* and its underlying statewide goals and objectives as they apply to local conditions.

Plans are now updated every two years, 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 2012 and 2013 accomplishments, new issues, new land management strategies, and performance measures for 2014 and 2015.

Updates/Changes

A major change to the Wildlife Area the past two years has been the staff, with the Manager, Assistant Manager, and Natural Resource Technician all being new to their respective positions since the last plan update. Even with staffing shortfalls in the past, most of the Performance Measures were still met, because of the new Natural Resource Technician position for the Wildlife Area. This position has allowed us to spend more time on projects that otherwise would not have been accomplished due to workloads and other priorities.

Since the last update, WDFW has agreed to be a cooperating agency with the Corps of Engineers in writing the Supplemental Environmental Impact Statement (SEIS) for sediment management on the Toutle and Cowlitz Rivers.

Inside

Land Management Summary	1
Updates/Changes	1
New Issues	2
Major Stewardship Accomplishments	3
Status Report of 2012-13 Performance Measures	6
New Strategies	8
2014-15 Performance Measures	8
Wildlife Area Advisory Committee Input	9

As a cooperating agency, WDFW provides information, reviews, and edits the SEIS; and acts as a guide in the decision making processes associated with sediment, wildlife, fish, and habitat management in the watershed. The topic of sediment management is discussed further below in "New Issues". With the potential of having significant changes to the landscape due to the sediment management measures that are being proposed, WDFW has not moved forward with developing more specific management strategies for the Hoffstadt Unit.

New Issues

Army Corps of Engineers Sediment Management

The largest issue that faces the Wildlife Area is the sediment management proposal by the Army Corps of Engineers on the North Fork Toutle River. The newest development has been the Department's willingness to become a cooperating agency; specifically assisting in the draft Supplemental Environmental Impact Statement (SEIS) in order to manage the debris and sediment from the 1980 eruption of Mt. St. Helens that flows down the Toutle and Cowlitz Rivers. Although WDFW would not like to see any impacts to the habitat and wildlife resources in the area due to sediment management projects by the Corps, we understand that they have been given a directive from the U.S. Congress to implement and provide flood control measures along the Toutle and Cowlitz Rivers, and we realize that all of the proposed alternatives in the SEIS have impacts to the area and region. The alternatives in the SEIS to manage sediment from Mt. St. Helens are: 1) no action, 2) dredging the Cowlitz and Toutle Rivers, 3) A one-time 30 foot raise of the Sediment Retention Structure Spillway, 4) a hybrid approach of two 10ft spillway raises, grade building structures, and dredging that would occur as needed. No matter which alternative is selected by the Corps, there will be impacts and consequences to the natural resources in the region. Even with the "no action" alternative wetlands will fill in, spawning habitat will disappear, forest stands will be inundated with water and die, vegetation recovery will be slowed, and fish and wildlife will be displaced. By partnering with the Corps, our hope is that we can lessen the impacts to natural resources in the area by helping guide the decision making process, communicating fish and wildlife values, and by offering measures that will mitigate any potential impacts from the proposed actions.

Invasive Weeds

In 2011, wildlife area staff discovered mouse-ear and yellow hawkweed on the Mudflow Unit. What we had thought was a localized infestation of about 10 acres of mouse-ear hawkweed and 1 acre of yellow hawkweed, became much broader in size with the discovery of new sites in the Unit from the west end by the Bear Creek Bridge to the eastern boundary with the Mt. St. Helens National Monument. Although the footprint of each site that contained the weeds was relatively small (5-2,000 sq ft.), the locations were spread out over 600 acres on the landscape, from the two most distant points. Even with such a large area of possible infestation, we feel very confident that the vast majority of the invasive weeds were treated and controlled last year.

Major Stewardship Accomplishments

Elk Forage Enhancement

Natural Resource Technician Sample fertilizing the North East Flat

Over the past two years our forage enhancement work on the Mudflow Unit has encompassed up to 160 acres, with forage sites receiving one or more of the following treatments each year: liming, fertilizing or harrowing. The overall production of forage at these sites continues to increase, with up to 40% more forage at treated sites versus non-treated sites. We have been able to maintain this amount of acreage in large part because of grants funded by the Rocky Mountain Elk Foundation (RMEF). We have also been able to expand our forage enhancements on the western portion of the Mudflow Unit by about 8 acres. We are planning additional enhancements in areas upstream of the old N-1 sediment dam in the coming year, once the old roadway into the site is cleared of encroaching trees and brush; and aerial spraying has been conducted to control the scotch broom. These new areas will increase our forage enhancement by about 40 acres. Without the funding from RMEF, our overall forage enhancement areas would be cut in half and expansion into new areas would not be possible. In addition, the old pastures near Pullen Creek in the Hoffstadt Unit have been mowed to help maintain and improve elk forage conditions, and the borders of the pastures were sprayed to control the encroachment of non-native blackberries into the pastures. Additional herbicide applications will also be conducted in the future to control any regrowth and new infestations of blackberries into the pastures.

Invasive Weeds

Controlling invasive weeds continues to be a high priority on the Mudflow Unit. Over 200 acres were treated by hand herbicide application each of the past two years to control Scotch broom. Each year our ground based efforts begin at the eastern boundary of the Wildlife Area and work toward the West. Typically each year a little more ground is covered and by this systematic approach we are beginning to see areas that are almost clear of Scotch broom. With the detection of more hawkweed infestation sites, our efforts have also increased to control the weeds. Cowlitz County Weed Management and the U.S. Forest Service have worked in cooperation with WDFW to help survey and control invasive weed species on the Wildlife Area and the Toutle River Valley, and each have contributed significantly in controlling the spread of the two invasive hawkweed species in the area.

Top photos of before and after treatment. Photo to the right bottom illustrates the size of the ivy that was thriving at the site.

English ivy was controlled in the recently acquired Oneida Unit last year. Upon the new manager's initial visit to the area, very large and mature ivy thickets were noticed climbing 50-80 feet up into several trees, which could cause the trees to fall prematurely due to all of the extra weight. The ivy was cut at the base using a chain saw because of its large diameter and the stump was treated with an herbicide. Upon a later visit to the unit all of the ivy had died and no regrowth was detected.

Land Acquisition

Miller Point located in Grays Bay is a 26 acre intertidal parcel acquired in 2013 for wintering waterfowl and juvenile salmon habitat, and is close in proximity to the Oneida and Altoona Units. The unit was purchased through a grant from the U.S. Fish and Wildlife Service to preserve and protect wetland and intertidal habitats. The property and areas surrounding it in Grays Bay are very popular waterfowl hunting locations and support thousands of ducks, geese, swans, and marine birds during the winter months. Management of this property will primarily consist of invasive weed control, enhancement of waterfowl nesting habitat, and promoting the site for boating, waterfowl hunting, and wildlife watching.

Miller Point Unit

Fish Habitat Restoration

Two fish enhancement projects have occurred on or near two of the satellite units since the last update. These projects have been designed, funded, and constructed by the Lower Columbia Fish Recovery Board, Salmon Recovery Funding Board, Bonneville Power Administration, Clark County Parks and Recreation, and WDFW Habitat Program. The project at the Duck Lake Unit, located along the East Fork Lewis River was the removal of a small earthen levee which restricted fish access onto the 40 acre site. With the completion of this project, models indicate that the site will become inundated more often which should be beneficial to waterfowl and native wetland plant species, and will hopefully make conditions unfavorable for non-native reed canary grass.

Construction of an Estuary MOA project, funded by the Bonneville Power Administration was completed in late 2012 to improve habitat for rearing juveniles and spawning adult anadromous salmonids at Abernathy Creek Wildlife Area. This project will benefit fish originating from both Abernathy Creek and populations upstream on the Columbia River. The Abernathy Creek project placed large woody debris in the water, reconnected and enhanced side channels, and enhanced the riparian area along the creek.

Abernathy Creek side channel enhancement

New projects are being considered at the Oneida and Cedar Creek Wildlife Areas, with additional projects being designed and implemented at Abernathy Creek and Eagle Island areas.

Status Report of 2012 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 2014.

2012 Performance Measure	Status of Performance Measure	Explanation of Progress/ 2014 Related Activity/ Comments
Complete 50 acres of intensive treatments within identified "Intensive Forage Management Areas" (IMA's) to enhance elk forage.	Grant funding allowed us to surpass the 50 acre goal. Lime and/or fertilizer were applied to approximately 160 acres in 2012 and 150 acres in 2013	Continue work in existing areas, expand to old pastures in the Hoffstadt Unit, and work new areas upstream of the old N-1 Dam as appropriate and funding allows. Collect additional samples in 2014-15 as time permits.
Work with the Wildlife Area Advisory Committee and WDFW staff to continue resource inventory, management strategy development, and initial management within funding limitations on the Hoffstadt Unit. Identify opportunities for future projects and apply for additional funds for these activities as opportunities arise.	Wildlife Area staff identified some potential forest thinning project areas, delineated the old growth forest stands, and continued to move towards completion of getting the road system up to DNR forest practice standards.	WDFW and the Advisory Group will continue to develop a management strategy, and consider the possible impacts from the proposal to raise the Sediment Retention Structure (SRS).
Continue to work with WDFW engineers, the Cowlitz Tribe, and others to complete currently funded projects to stabilize the North Fork Toutle River.	WDFW received an RCO grant to construct more riverbank stabilization structures in March of 2014.	Construction on additional structures upstream of previous work areas should begin in the summer of 2015.
Participate in project development and monitoring of the Corps sediment management pilot project and their planning for long-term sediment management in the Toutle and Cowlitz Rivers.	WDFW is working with the Corps as a Cooperating Agency, in writing a Supplemental Environmental Impact Statement.	WDFW continues to participate with the Corps in writing the SEIS, and proposing mitigation measures for the Corps sediment management actions in the area. The Draft SEIS should be sent out for public comment in late 2014.

Explore opportunities, through acquisition or other means, to provide secure year round access to the Wildlife Area from SR 504. Seek grants and develop partnerships as the opportunity arises.	WDFW contacted Weyerhaeuser about acquiring the adjoining parcel to the Mudflow Unit to secure public access to the Wildlife Area from Hwy 504. The Lands 20/20 process approved the land acquisition but there was no funding source available for the purchase of the Weyerhaeuser property.	Securing year round access to the Wildlife Area remains a priority and options will continue to be sought as opportunities arise. Weyerhaeuser has been approached about acquiring the land between SR 504 and the Wildlife Area. The project was approved through the Lands 20/20 process, but commercial forest land acquisitions are not a priority for the agency at the present time, but they are high priority for the region. Additional funding sources will need to be explored for these types of land acquisitions.
Control a minimum of 40 acres of Scotch broom and other noxious weeds.	Control work covered about 250 acres with the help of WDFW's weed crew each of the past two years.	Continue to coordinate with weed crew in 2014-15 to control Scotch broom. WDFW received a RMEF Grant in 2014 to aerial spray 75 acres. The aerial application will take place in late summer 2014.
Implement measures, including seeding and tree planting, to lessen the risk of further major losses of riparian and elk forage habitat due to river avulsions/erosion and to improve anadromous fish habitat in the Toutle River.	2.5 miles of riverbank was seeded in 2012 and 2013.	Continue seeding and planting to establish a riparian area along the riverbank to lessen the risk of erosion and habitat loss.
Begin re-vegetation trials within the sediment retention area as referenced in the 2008 plan update.	Due to time and funding limitations, as well as the uncertainties from the Corps with potential raising of the SRS Spillway, re-vegetation trials did not occur on the sediment plain.	Re-vegetation trials on the sediment plain will remain a priority if time and funds are available, and if a stabile area can be located.
In light of the completion of the Department of Transportation (DOT) land transfer, update information on the WDFW website, produce new maps and written information, including rules, for Wildlife Area users. Post materials at the most frequently used access points. Seek cooperation from other landowners where possible to provide the best locations.	This performance measure has not been completed. The Hoffstadt Unit has been added in Go Hunt, but not to the Wildlife Area page. Tentative approval has been given by Weyerhaeuser to build a kiosk by the gate on the 3100Rd.	Work will continue on accomplishing this performance measure

Explore options and the need for any permits required to remove the remaining ball field features on the Hall Rd. Unit. Remove these features assuming any approvals are obtained and any required funding is available.	The backstop and the majority if the chain-linked fence has been removed and recycled.	Staff will take down more of the ball field features as time allows.

New Strategies

There are two new strategies that are being proposed as part of this Management Plan Update. Both new strategies involve creating more tree cover in the Mudflow Unit to create a more diverse habitat, control invasive plants, and improve forage conditions.

The first strategy is to plant more upland areas with red alder trees to create additional forage for wintering elk. This approach will plant alders in areas that have little to no topsoil or elk forage with the expected outcome that the alders will produce leaf litter to enhance the topsoil layer, produce nitrogen in the ground for the uptake by other plants, and partially shade the ground to deter the encroachment and growth of Scotch broom.

The second strategy is to protect naturally growing conifer trees from elk browse in order to create a more diverse habitat for fish and wildlife. Over the past several years Wildlife Area staffs have had minimal success in planting conifers and achieving good survival. Typical survival rates for bareroot conifer trees have been between 10-20%. Since the naturally growing trees have been able to survive on their own, survival rates are basically 100% once they are protected from elk browsing. A typical natural growing conifer that is not protected from elk browse may be 5-10 years old and may never grow any taller than two feet. Once the trees are caged and browse is no longer a problem, they quickly recover and within a couple of years the trees are 5-6 feet tall and will soon be above the browse height of elk and provide suitable habitat for other species. The cost of caging naturally growing trees is no greater than the cost of planting bareroot trees and protecting them and the success rates are much greater for naturally growing trees.

2014-15 Performance Measures

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

1) Complete a minimum of 50 acres identified as “Intensive Forage Management Areas” (IMA’s) to enhance elk forage, including those that were rehabilitated in the past two years, utilizing some or all of the following techniques: mowing, harrowing, liming, over-seeding, and fertilizing. Expand this effort to include old pasture sites on the recently acquired lands as appropriate. Identify other sites with potential for intensive ground based management and seek funding for enhancements where needed. Continue to evaluate the benefits of these measures as well as forage production in other areas.
2) Work with the Wildlife Area Advisory Committee and WDFW staff to continue resource inventory, management strategy development, and initial management within funding

limitations in the Hoffstadt Unit. Identify opportunities for future projects and apply for additional funds for these activities as opportunities arise.

3) Continue to work with WDFW engineers, the Cowlitz Tribe, and others to complete currently funded projects to stabilize the North Fork Toutle River and to help prevent further losses of winter range habitat. Assess the need for further work and seek funding as needed and the opportunity arises.
4) To assure that fish and wildlife concerns are taken into consideration, participate in project development and monitoring of the Corps' long term sediment management in the Toutle and Cowlitz Rivers.
5) Explore opportunities, through acquisition or other means, to provide secure year round access to the Wildlife Area from SR 504. Seek grants and develop partnerships as the opportunity arises.
6) Control a minimum of 40 acres of Scotch broom and other noxious weeds.
7) Implement measures as needed and funding allows, including seeding and tree planting, to lessen the risk of further major losses of riparian and elk forage habitat due to river avulsions/erosion and to improve anadromous fish habitat in the Toutle River.
8) As time and other factors permit, begin re-vegetation trials within the sediment retention area as referenced in the 2008 plan update.
9) In light of the completion of the DOT land transfer; update information on the WDFW website; produce new maps and written information, including rules, for Wildlife Area users. Post materials at the most frequently used access points. Seek cooperation from other landowners where possible to provide the best locations.
10) Complete the removal of the ball field features on the Hall Road Unit, as time and other factors allow.

Wildlife Area Advisory Committee Input

The Mt St Helens Wildlife Area Advisory Committee meeting was held on April 2nd, 2014 at the Cowlitz County Administration Building in Kelso. In attendance were representatives from; Cowlitz Game and Anglers, Rocky Mountain Elk Foundation, U.S. Forest Service, Toutle Valley Community Association, and local community advocate.

The following comments were received:

Issue: With the potential raise of the SRS spillway and the impacts that it may have on the Wildlife Area, the manager asked the members of the WAAC, what types of mitigation they would like to see for the impacts.
Response: Members of the WAAC responded that they would like to see all of the mitigation stay in the North Fork Toutle River Valley and that mitigation measures include: the study of the impacts from the SRS on the local environment, acquisition of adjacent lands, purchase of a legal right of way across Weyerhaeuser to access the Wildlife Area, invasive species management, and habitat improvements on the Mudflow and Hoffstadt Units.

Issue: Controlling invasive aquatic weeds on the newly acquired Miller Point Unit.
Response: WDFW agreed to look into partnering with Department of Natural Resources (DNR) Aquatics to control purple loosestrife, Japanese knotweed, and yellow flag iris in Grays Bay.

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