



## **MOUNT ST. HELENS WILDLIFE AREA 2012 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/](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 sixteen smaller “satellite” Wildlife Area Units totaling 1,748 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 (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 2010 and 2011 accomplishments, new issues, new land management strategies, and performance measures for 2012 and 2013.

### **Inside**

<b>Land Management Summary</b>	<b>1</b>
<b>Updates/Changes</b>	<b>2</b>
<b>New Issues</b>	<b>2</b>
<b>Major Stewardship Accomplishments</b>	<b>3</b>
<b>Status Report of 2010-11 Performance Measures</b>	<b>5</b>
<b>New Strategies</b>	<b>7</b>
<b>2012-13 Performance Measures</b>	<b>7</b>
<b>Citizens Advisory Group Input</b>	<b>8</b>

## Updates/Changes

Over the past two years, several events or changes occurred that will or may affect future management of the Wildlife Area. These include proposed sediment management measures by the US Army Corps of Engineers (Corps), the acquisition of one new satellite unit, addition of lands to the Altoona Unit, and approval to hire a permanent employee who will spend six months



Boulder Flat Forage Management Site

each year working on the Mt. St. Helens Wildlife Area and its satellite units.

Following our last update, we had planned to begin moving forward with developing more specific management strategies for the lands acquired from the Washington Department of Transportation. However, it soon became apparent that the Corps may propose new sediment management measures that would potentially render any plans moot. Instead we spent time that otherwise would have been devoted to planning, participating in sediment management planning efforts by the Corps. This topic, which potentially has far reaching impacts, is discussed further under “New Issues” below.

The Wildlife Area Manager has long requested additional funding support for the Mt. St. Helens Wildlife Area and its satellites, and 2011 was quite a windfall in this regard. Funding was allocated for the purchase of a new tractor, mower, and equipment trailer but most significantly, approval to hire additional help on the Wildlife Areas. During the fall and winter, the employee will work with other WDFW staff and private landowners on hunter access programs. Dean Pyzik accepted this position and began work in March 2012. Additional funding is still needed for goods and services but the recent improvements will help us manage more effectively.

## New Issues

The largest new issue we encountered is a recent proposal by the Corps to raise the spillway of the Sediment Retention Structure (SRS) 10 feet in elevation as a short-term measure to manage sediment in the watershed. We are also aware that a potential 30 foot raise could be part of their long-term sediment management strategy. The ten foot raise is currently proposed for construction in 2012. Although a ten foot raise in the spillway would not extend beyond the sediment deposition zone identified in the Corps Environmental Impact Statement, a thirty foot raise in the spillway could potentially go beyond that zone and have a major impact to the Wildlife Area and the surrounding lands. A number of resource issues could arise as a result including; permanent loss of additional spawning habitat, additional loss of forests, and a setback of vegetation recovery within the “sediment plain.” WDFW will be submitting comments and recommend that the Corps consider alternative approaches with lesser impacts.

The discovery of four weed species is an issue that will, and already has, caused us to reprioritize some of our work. Within the Hoffstadt Unit, Herb Robert and Eurasian water milfoil were

already present when WDFW assumed management responsibility. Yellow hawkweed and mouse ear hawkweed are probably recent invaders of the Mudflow Unit and have been the greatest concern. Hand pulling of Herb Robert was done in 2010 along roads and trails to prevent spreading and was later found to occur at numerous other locations. Further surveying and planning needs to occur, in order to develop a comprehensive strategy for managing this plant. Eurasian water milfoil is present in the wetland lakes that have formed at East and West Pullen Creeks due to the sediment plain deposition. Assuming that these water bodies eventually fill with sediment it may not be a long-term issue but needs further assessment. Hawkweed on the Mudflow Unit has shown the potential to completely eliminate useable forage production where they spread into patches and eliminate growth of desirable plants. We have been working with Cowlitz County and the US Forest Service on a comprehensive approach to survey for and control this plant. We also plan to begin work to control English holly on the Hoffstadt Unit in the future.

## **Major Stewardship Accomplishments**

### **Riverbank Stabilization Projects**

Two major projects were completed that adds more stabilization structures and riparian plantings along the Toutle River in the Mudflow Unit. One of these projects was completed by WDFW engineering crews. Structures were installed along ½ mile of bank line downstream of the 2009 completed work to control bank erosion and protect the riparian and forage areas along the North Fork Toutle River. Overall the project concept is performing well and doing its job of protecting planted areas and



allowing trees and shrubs to reestablish, however a few of the structures have failed or were severely damaged during high water events. Even though some of the structures failed they still did provide protection and help lessen the erosion of the riverbank. In addition, over 5,000 riparian plants were installed along about three miles of the river. The plants are established and growing well. The Cowlitz Tribe also completed a project that is designed primarily to prevent the Toutle River from avulsing into Hoffstadt Creek and causing potential degradation of important salmon spawning and rearing habitat. These structures have yet to be tested by the forces of the river. The structures upstream have resulted in a much more stable river channel that is less prone to shifting course. The Corps also completed their Grade Building Structures Pilot Project within the sediment plain on the Hoffstadt Unit. Despite some early issues which were corrected, this project also was successful in its goal of collecting and preventing sediment from moving further downstream. Another potential benefit of these structures from a habitat perspective is that they can limit meandering of the river and creating sites with longer term stability where vegetation can establish or be planted. These types of structures and other alternatives are being considered by the Corps as part of the long-term sediment management of the area.

WDFW engineering crews completed another phase of constructing wood structures along the mudflow edge to help prevent future erosion and provide the opportunity to establish a forested riparian zone along the bank on the North Fork Toutle River. This phase of construction was located between the two previous construction sites. Volunteers were instrumental in planting over 10,000 trees and shrubs along the northern bank of the river in the past two years. The overall survival of the plants was very good.

### **Forage Enhancements**

Over the past two years our forage enhancement work on the Mudflow Unit has been in more of a maintenance mode, but the sites that were enhanced previously continue to increase in overall forage production. Overall, a total of approximately 150 acres have received one or more of the following treatments each year: liming, fertilizing or harrowing. In the coming two years, we plan to expand some of this work to the old fields near Pullen and Alder Creeks in the Hoffstadt Unit. Volunteers had cleaned up and mowed the pastures near Pullen Creek for several years prior to WDFW ownership in this area which has helped to maintain and improve elk forage conditions in the area. New forage enhancement may also occur in the western portion of the Mudflow Unit in an area where we have begun to remove a large infestation of scotch broom.

### **Noxious Weed Control**

Scotch broom control continues to be a high priority on the Mudflow Unit. Over 200 acres were treated by hand herbicide application in both 2010-11. In addition, a contractor was hired in 2011 to control approximately 60 acres by air, which included some of the more remote large stands. 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 clean of scotch broom. Hawkweed control has also been integrated into this work as the areas where we have found are primarily in the easternmost parts of the site.

### **Land Acquisitions**

Eagle Island and an adjoining mainland parcel totaling 279 acres was acquired from Clark County and added to the complex as a new satellite unit. The island itself is located in the North Fork of the Lewis River and was acquired for the primary purpose of maintaining and enhancing habitat for juvenile Chinook salmon. WDFW had partnered with Clark County previously on the grants necessary for purchase from a private owner. For administrative reasons the County was the initial title holder and the property was later transferred to WDFW for long-term management. Habitat enhancement activities envisioned include control of scotch broom, knotweed and other weeds; riparian forest restoration; and in-stream habitat improvements. The Cowlitz Tribe actually completed the first project last summer to improve habitat in a side channel on the south side of the river. The project included one large logjam and several other smaller habitat wood structures. We are currently working with the Tribe on two other projects on the island and the Regional Fisheries Enhancement Group is engaged in a separate project to design another project to manage flows in the two channels on either side of the island.

WDFW wildlife program staff were successful in securing funding to acquire additional properties in Grays Bay, which will be added to the Altoona Unit. In 2011 one parcel was

acquired with this funding. This property includes 55.81 acres at the mouth of Deep River and a boat launch facility which will remain open for public use. Acquisition of other parcels through this funding source is expected to occur in 2012-13. Improvements to the boat launch and parking are planned and funded through a separate grant. Most of the land acquired to date is behind flood control levees but future purchases would be primarily intertidal marsh, which is important to both wintering waterfowl and juvenile salmon. The site also supports recreation by providing access for fishing, boating and waterfowl hunting. Future management is expected to consist primarily of controlling noxious weeds, but restoration of intertidal areas is also being considered in cooperation with neighboring landowners. Additional land acquisition beyond the scope of the current funding would be required before intertidal restoration could occur.

**Abernathy Creek Estuary Restoration**

Implementation and construction will start this summer in the Abernathy Creek Wildlife Area to enhance and create estuarine fish habitat along the lower section of the creek. This project will benefit a great diversity of fish and wildlife species that use the Lower Columbia River Estuary, with the primary goal to improve habitat for rearing juveniles and spawning adult anadromous salmonids originating from both Abernathy Creek and upriver Columbia River populations. The overall footprint of the Abernathy Restoration Project is about 29 acres within the tidal zone of the Wildlife Area.

**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>
<p>Complete 50 acres of intensive treatments within identified "Intensive Forage Management Areas" (IMA's) to enhance elk forage utilizing some or all of the following techniques: mowing, harrowing, liming, over-seeding and fertilizing. Identify other sites with potential for intensive ground based management. Continue to evaluate the benefits of these measures as well as forage production in other areas.</p>	<p>Grant funding allowed us to surpass the 50 acre goal. Lime and/or fertilizer were applied to approximately 145 acres to maintain existing winter range forage areas over the past two years</p> <p>Results from clip plots collected in 2009 showed an increase of over 50% in forage production between the treated non-treated areas.</p>	<p>Continue work in existing areas and expand to old pastures in the recently acquired lands as appropriate and funding allows.</p> <p>Collect additional samples in 2012-13 as time permits.</p>

<p>Work with the Citizen Advisory Group and WDFW staff to continue resource inventory, management strategy development, and initial management within funding limitations on the lands recently transferred to WDFW from the Washington Department of Transportation. Identify opportunities for future projects and apply for additional funds for these activities as opportunities arise.</p>	<p>RMAP has been completed for the property, and the WDFW forester has surveyed some of the timber stands in the unit.</p>	<p>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).</p>
<p>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.</p>	<p>Construction work was completed on two section of riverbank on the mudflow edge in 2010 by WDFW engineers and the Cowlitz Tribe</p>	<p>Additional funding is being sought for construction on other sections of the riverbank upstream of the previous years work</p>
<p>To assure that fish and wildlife concerns are taken into consideration, 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.</p>	<p>Cross valley and Island forming structures were built on the sediment plain and have worked in trapping more sediment behind them. Cross valley structure is at capacity and is no longer trapping much sediment behind it.</p> <p>WDFW continues to participate in sediment management planning with the Corps.</p>	<p>WDFW continues to participate with the Corps in the Toutle Ecosystem and Restoration Project.</p>
<p>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.</p>	<p>Weyerhaeuser has been approached about acquiring the land between SR 504 and the wildlife area. Lands 20/20 process was approved to try to acquire the property, but to pursue funding sources other than RCO grants.</p>	<p>Securing year round access to the Wildlife Area remains a priority and options will continue to be sought as opportunities arise</p>
<p>Control a minimum of 40 acres of Scotch broom and other noxious weeds.</p>	<p>Control work covered about 250 acres with the help of WDFW's weed crew each of the past two years. Another 40 acres was controlled by an aerial spray application by a private contractor.</p>	<p>Coordinate with weed crew and continue in 2012-13.</p>

Implement measures as needed and as 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 leading toward long-term improvement of anadromous fish habitat in the Toutle River.	2.5 miles of riverbank was seeded in 2010 and 2011. Over 10,000 trees have also been planted in the past two years to help in establishing a riparian and forage area along the riverbank.	Continue seeding and planting to establish a riparian area along the riverbank to lessen the risk of erosion and habitat loss.
As time and other factors permit, begin re-vegetation trials within the sediment retention area as referenced in the 2008 plan update.	Due to time and funding limitations 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.
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.	This performance measure has not been completed. 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
As time and other factors allow, 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 chain-linked fence still need to be taken down and removed from the site	Natural Resource Technician will take down more of the ball field features as time allows.

### **New Strategies**

No new strategies are proposed as part of this management plan update. However, we expect as the lands included in the 2009 acquisition are evaluated and discussions continue in the coming year that a number of new activities will be included in the next update.

### **2012-13 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 of intensive treatments within identified “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 CAG and WDFW staff to continue resource inventory, management strategy development, and initial management within funding limitations on the lands (Hoffstadt Unit) transferred to WDFW from the Washington Department of Transportation. 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 sediment management pilot project and their planning for 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 leading toward long-term improvement of anadromous fish habitat in the Toutle River.
- 8) As time and other factors permit, begin revegetation 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) As time and other factors allow, 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.

### **Citizens Advisory Group Input**

The Advisory Group meeting was held on May 31<sup>st</sup>, 2012 at the Cowlitz County Administration Building in Kelso. In attendance were representatives from; Back Country Horseman, Cowlitz Game and Anglers, Rocky Mountain Elk Foundation, U.S. Forest Service, Toutle Valley Community Association, local community advocate and a retired Weyerhaeuser forester.

The following comments were received:

**Issue:** Members of the CAG mentioned that Cowlitz County Parks and Recreation is currently planning trail projects in the area that would connect Harry Gardner County Park to Silver Lake, and made the suggestion that WDFW should be involved in this process and work on developing a plan to incorporate the Gardner, Hall Road and Canal Road satellite units in the trail route.

**Response:** WDFW agreed to participate in the trail planning process and considers a trail route along or through its properties beneficial to the public and meeting the goals in the Wildlife Area plan to have wildlife viewing access at these units.

**Issue:** A member of the CAG proposed that an area be set aside on the Wildlife Area to allow camping, since there are no other areas on the adjacent public or private lands, from Kid Valley to Johnson Ridge that allows camping.

**Response:** WDFW has had a “No Camping” rule on the Wildlife Area due to the potential conflicts between user groups, the restricted access to the Wildlife Area, and because of the negative impacts it would have to the wildlife and habitat surrounding a camping area. This topic has been brought to the attention of the CAG before and the majority of its members have agreed that camping should not be allowed on the Mt. St. Helens Wildlife Area.

**Issue:** A member mentioned that access to the Wildlife Area from State Route 504 needs to remain a “high priority”.

**Response:** WDFW agrees that acquiring the property adjacent to the Wildlife Area should remain a top priority, and is exploring options through grants, capital projects and partnerships to acquire the land and provide year-round access to the Wildlife Area.

**Issue:** The Corps raising the spillway on the Sediment Retention Structure to trap and control downstream movement of sediment coming from the debris avalanche on Mt. St. Helens.

**Response:** Members of the CAG agreed that the raising of the spillway would have negative impacts to the Wildlife Area, the surrounding lands, and fish and wildlife inhabiting the area. The raise would further delay any recovery of vegetation on the sediment plain, reducing the carrying capacity of elk and other wildlife in the area. The increase sediment would fill in wetlands and crucial spawning habitat for coho salmon and steelhead, which are both ESA-listed species.

**Issue:** The Corps had concerns that the update does not mention the easement that they have on the sediment plain above the SRS, and that the update does not mention the Corps’ mission to reduce flood risk mission.

**Response:** WDFW certainly recognized the easement associated with deposition of sediment associated with the existing SRS and that sediment would continue to accumulate over time. The WDFW (state) role associated with the area includes maintenance of the sediment plain and management for improved habitat. This role was recognized in the 1980's and we continue to be committed to improving conditions for native species in the area. WDFW also recognizes the importance of flood risk reduction which is the Corps’ primary responsibility but differs in opinion as to the resource impacts associated with recent federal proposals. WDFW is concerned that the Corps’ recent EA illustrates sediment deposition impacts outside of the Federal Easement due to the existing structure and additional impacts outside the easement due to the spillway being raised.

**Issue:** The Corps stated that the proposed 10 foot spillway raise would not result in the permanent loss of spawning habitat or additional forest habitat and that if there

was no additional construction on the SRS, debris from the Mt. St. Helens eruption would still be deposited on the sediment plain.

**Response:** WDFW recognizes that the existing SRS will/would continue to cause further resource impact beyond those that have occurred to date. The rate of deposition, having slowed recently, has allowed vegetative recovery to begin. However, the proposed spillway raise will cause additional impacts that we assume will extend at least ten feet higher in elevation throughout the sediment plain over a period of decades, cause additional losses, and set back habitat recovery for a period of time that currently cannot be predicted. Raising the spillway has the same impacts as building a new ten foot high dam and to say that there are no impacts is not reasonable.

**Issue:** Controlling the spread of invasive hawkweeds on the Wildlife Area.

**Response:** WDFW agreed to continue control and monitoring efforts of invasive hawkweed species on the wildlife area with Cowlitz County Weed Management and the U.S. Forest Service.

**Issue:** Burning of scotch broom was mentioned as a technique to control the infestations of the plant on the Wildlife Area.

**Response:** WDFW will pursue this technique to see if it is feasible and effective in controlling scotch broom in the large, dense stands on the Wildlife Area. Department of Natural Resources will be contacted if burning is feasible, to obtain the proper permits and to possibly use this control measure as a training exercise for their fire crews. Weyerhaeuser would also be notified and asked for comment and concerns if this technique is used on the Wildlife Area.

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