Sagebrush Flat Wildlife Area

2019- 2020 Management Plan Update

This document is intended to highlight accomplishments as they relate to goals and objectives identified within the Sagebrush Flat Wildlife Area Management Plan. The plan addresses the status of wildlife species and their habitats, ongoing restoration efforts, and public recreation opportunities on the Sagebrush Flat Wildlife Area. Every 10 years, WDFW develops a process for revising management plans for each wildlife area to identify new management priorities and actions. Updates will be published at two-year intervals to describe accomplishments that occur between plan revisions.

Management Highlights

Noxious Weed Management (*Goal #1, Objective 1*)

Staff members kept busy in 2019 chasing after an increasing suite of noxious weeds. Weed species treated include Dalmatian toadflax, diffuse knapweed, Russian knapweed, Russian thistle, cereal rye, annual bursage, kochia, rush skeletonweed, and a variety of other annual weed species. Staff members inspected upwards of 1,500 acres and treated approximately 260 acres. Treatment methods included chemical and mechanical, as well as biocontrol release. Treatment

sites were previously restored agricultural fields, disturbed sites, firebreaks, and individual weed patches.

Release site of Mecinus janthinus, the primary bicontrol for Dalmatain toadflax

Weed control work in 2020, however, was severely constrained by work restrictions and a stay-at-home proclamation from Governor Inslee in reaction to the Covid-19 pandemic. The stay-at-home orders began in early April and weren't lifted until mid-June. As a result, staff members could not be in the field during the prime window to treat weed with herbicides. Another consequence of the work restrictions was that our supplier of biological controls, Washington State University (WSU) Extension, could not collect biocontrols, as such work requires people to be out of doors. Every year prior to 2020, we relied on WSU Extension to provide control agents for Dalmatian toadflax, diffuse knapweed, and Russian knapweed for dispersal on the wildlife area. The combination of these circumstances set back our weed program by multiple years.

Mecinus janthinus hard at work

Once staff members were allowed to return to work, we implemented mowing treatments on roads, restoration fields, and within tree/shrub plantings. Treatment of the roads is a priority due to their function as a disturbance and dispersal vector for weeds. In late fall 2020, staff members treated regrowth of the invasive tree Russian olive (classified as a Class C weed by the Washington State Noxious Weed Control Board) on the Bridgeport Unit. This has been done every two or three years since 2006 when several acres of Russian olive trees were removed and stumps were treated with glyphosate. Though the number of live stems has declined over time, staff members will continue to patrol these areas for years to come.

Habitat Restoration and Enhancement Projects *(Goals #1, Objectives 1, 2, 3, 4, 5, and 8)*
Staff members planted 1,500 shrubs and trees in mesic draws on the Bridgeport Unit. Species included Woods' rose, serviceberry, chokecherry, Rocky Mountain juniper, and aspen. The intent is to add species and structural diversity in areas once occupied by Russian olive. Continuing annual maintenance of our 14 plantings of shrubs and trees, staff members made repairs as needed to deer fencing and, where present, irrigation systems. These sites, established over the last 19 years, initially focused on areas where spring developments were in place, or could be created, to provide reliable irrigation. Species planted include Woods' rose, chokecherry, serviceberry, snowberry, black hawthorn, mock orange, oceanspray, and water birch. Two locations, planted with Woods' rose only, are irrigated via water delivered by truck on a weekly basis. As planned, this would be necessary for the first two to three years to ensure

plant establishment, after which irrigation would cease, and all irrigation components would be removed.

Over the years, water birch trees have been the primary focus of our planting efforts. This is because 1) the buds and catkins (seeds) of water birch trees are a critical winter forage for Columbian sharp-tailed grouse when snow depths limit the availability of other forage, and 2) there is little natural recruitment owing to the severely eroded stream channel of West Foster Creek, plus browsing pressure from the local deer population. The water birch plantings we've established compensate for those factors by increasing the number, distribution, and availability of this forage species. Beginning in winter 2018, staff members began an annual effort to set camera traps in these plantings to assess whether grouse were using them. The value of these plantings for sharp-tailed grouse was verified within days of camera placement. This work demonstrated that grouse were using the sites though they were just several years old. Not only were they using the upper limbs as we expected, but they readily and enthusiastically selected buds and catkins from limbs that were closest to the ground. It's not too difficult to imagine that the overhead cover afforded by the trees provides some measure of protection from avian predators when the birds are on the ground and makes the lower limbs an attractive addition tp the upper branches. While it is not clear that these plantings will lead to an increase in the population of sharp-tailed grouse, this does show that these plantings will be used by sharp-tails and can disperse them over a larger area. It's also nice to get positive reinforcement occasionally for all the hard work.

Volunteers and staff members plant trees and shrubs on the Bridgeport Unit

Sharp-tailed grouse foraging in planted water birch site

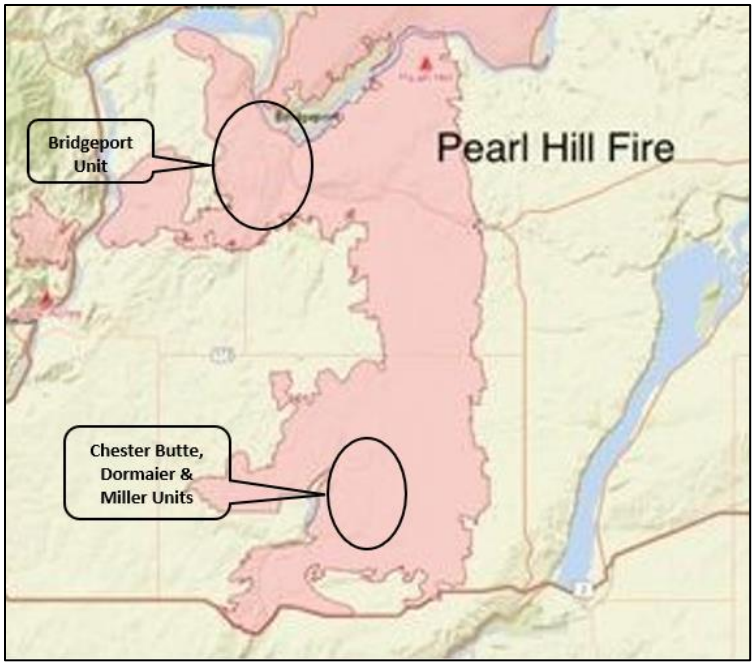
New Issues

Pearl Hill Fire

Labor Day, Sept. 7, 2020, is known as the "worst Labor Day ever." In the early morning hours of Sept. 7, the Cold Springs Canyon Fire, which had started in neighboring Okanogan County the

night before, jumped the Columbia River into Doulgas County. By midnight, the Pearl Hill Fire had burned a north to south swath 30 miles long and 23 miles wide, encompassing 224,000-acres through the middle of the county. The fire burned several units of the Sagebrush Flat Wildlife Area, including Bridgeport (94%), Chester Butte, Dormaier, and Miller (all 100%). Losses were extensive: 21 years of riparian enhancements described above, thousands of acres of mature sagebrush and bitterbrush, mature stands of water birch, aspen, poplar, and ponderosa pines, 5.5 miles of irrigation lines across seven sites, two solar arrays, 2.5 miles of deer fence, 40 miles of boundary fence, and hundreds of signs. At the Miller, Dormaier and Chester Butte units, the agency's pygmy rabbit recovery program was dealt a serious blow when dozens of the endangered Columbia Basin pygmy rabbit were killed in their temporary enclosures.

And then…. it was gone. Pearl Hill Fire, September 7, 2020



Pearl Hill Fire perimeter and general location of units burned

In late September and early October, windstorms stripped inches of soil from the land, leaving the roots and crowns of grasses exposed. At times, visibility was less than a few hundred feet. The resulting environment was challenging to work in and often likened to that of Mordor.

Landscape following windstorms. Prior to the storms, the blacken tops were level with the ground.

Staff members collected the melted remains of plastic deer fence and irrigation pipe, as well as damaged solar arrays, rebuilt road entry gates, and began reconstruction of deer fence.

Anticipating that the fire affected area would receive a federal disaster declaration, data collection began to document the full extent of damage to infrastructure. Lucky staff members had to tally the total number of wood posts, steel posts, signs, irrigation components, and bird boxes destroyed or otherwise damaged, plus the total mileage of fence damaged and number of wires on fence. A survey of existing water birch stands found regrowth at the base of many trees. Subsequently, woven wire field fence was placed around as many trees as possible to protect them from deer browsing. Left unprotected, such browsing would inhibit or prevent the trees from regenerating.

Finally, potential locations for grass seeding and erosion mitigation work were identified and prioritized. The Bridgeport Unit quickly became the focus for this work because numerous drainages on the unit led into town and one state highway, and there was potential that snow melt the following spring could damage public and private property. In November, 10 sites judged to have significant kill of the grass understory were drill seeded with a bespoke mix of native grasses. Total acreage was approximately 220. In 10 drainages, straw bales and wattles were used to make small check dams. This was followed by hand seeding another separate bespoke mix of grasses. The hope here was that these measures would diminish the volume and velocity of spring runoff.

Post fire seeding the Bridgeport Unit. Where to start wasn't the question so much as where to stop.

Work continued until early December when temperatures dropped and stayed below freezing. The scope of work identified far exceeded what could possibly be accomplished given the available time, funds, and equipment. Left unaddressed were more locations on the Bridgeport Unit, as well as acreage at the Chester Butte, Dormaier, and Miller units. The expectation is that habitat recovery and infrastructure recovery will continue for several more years.