Example Forest Health Sections (Resource Category 1)

Forest Health Example 1

Resource assessment

Overview

The current condition of the forested property is good, although in November 2023 wind caused considerable windsnap and windthrow. A number of previously damaged trees (with split tops) were snapped, leaving new snags for wildlife. A few trees that were newly exposed to wind following recent clearing operations were uprooted. In addition, a significant number of red alder, including several large and older trees, were uprooted throughout the property. Their loss will minimize the amount of thinning required in the red alder stands. There is no fire damage, and little evidence of disease or insect infestation; however, bark damage due to deer is evident on many young red alder. There are a large number of young red alder that litter the forest floor. These trees appear to have lost the competition for sunlight and water or succumbed after having their bark stripped away by deer. As mentioned above, there are also a number of trees that appear to have had their tops damaged by wind or frost at some point in the past, and as a result have forked crowns.

Insects and diseases

No major forest health problems associated with insects or diseases were observed. One western redcedar showed signs of infestation by carpenter ants. A few Douglas-fir in stand 2 had white streaks of resin, but these appear to be normal and not associated with beetle infestation. No conks were observed on any trees. Trees that were uprooted by the wind in November 2023 showed no signs of root rot.

Environmental Factors

The property is up-sloping, west-facing, and at the top of a ridge line approximately one mile from the shores of Puget Sound. As such, the trees are subject to considerable winds and occasionally sustain damage. There are a number of mature trees with forked tops and sucker limbs throughout the property. This may be a result of high winds or a rapid onset of freezing conditions approximately 25 years ago.

Animal damage control

There is noticeable damage to the bark of young Douglas-fir and red alder trees caused by Blacktail Deer. Several dead trees exhibit complete girdling of the bark.

Invasive species

The most predominant and concerning invasive species is English Holly, which is scattered throughout the property; immediate action will be taken to eliminate these trees and prevent

regrowth. Himalayan blackberry is also widespread and will require time and persistency to eradicate. In addition, the recent clearing of a home site may lead to the germination of noxious weeds in stand 6; this area will be closely monitored and appropriate steps taken to control growth of undesired flora.

Fire

There is no fire damage to any stand. The most probable cause of wildfire would be lightning or outdoor burning that escapes control. Neither is likely, though more possible during extremely dry periods that are becoming more common due to climate change. Fire protection is provided by Treeville Fire/EMS, Station 15, located approximately one mile away. Entry for fire control efforts is limited to the single access road on the East side of the property. There is no hydrant system; as such, water for extended fire control efforts must be trucked in or replenished off site.

Management recommendations

By 2025 we will build a trail that will allow us to enjoy walks through our property and observe the health of the forest. In the interim we will continue to monitor the stands to determine the measures needed to meet our objectives.

Our top priority is the removal of holly trees and monitoring attempts by this invasive species to reestablish itself. Small seedlings will be hand-pulled, making sure to remove all of the roots. Larger plants will be cut, and the cut stems immediately treated with triclopyr and monitored for any regrowth.

Himalayan blackberry will be removed, which will require significant effort and may be done in sections over the course of the next several years. The blackberries will be mowed/cut back in the spring immediately after flowering. Regrowth will be mowed/cut again in mid-summer. Regrowth will then be sprayed with glyphosate at the end of September. The property will be continuously monitored for new plants, which will be hand-pulled when practical.

We will thin Douglas-fir in stand 2 to enhance the health of the trees and encourage growth in the understory. We will also thin red alder in stands 1 and 3 and diversify the tree population in these stands by planting bigleaf maple, black cottonwood, western paper birch, Pacific madrone, and bitter cherry.

Forest Health Example 2

Resource assessment

Overview

Stand 1 appears to be generally healthy; there is evidence of red alder on the ground. Stand 2 is largely on a rocky hillside but appears to be generally healthy. Stand 3 appears to be healthy, though it can be wet in the winter.

Insects and diseases

There is evidence of root disease in a few Douglas-firs.

Environmental factors

The property is up-sloping, on two sides, northeast and southwest. Wind currents are funneled around Smith Hill and as such, the trees are susceptible to wind damage.

Animal damage

There is some noticeable damage to the bark of a few young Douglas-fir and red alder trees caused by Black Tail Deer, Elk, and bear.

Invasive species

There are no Class A or Westside County Class B “required control” noxious weeds that we have discovered on our property. There are two Class B “not required control” noxious weeds: butterfly bushes in the sunny areas around the residence and along the drive in Stand 1; and herb Robert geranium, which is heavy in the northwest corner of Stand 1 and in some areas in Stands 2 and 3.

There are two Class C noxious weeds: Himalayan and some evergreen blackberry is found in several areas in Stand 1. Evergreen blackberry is found in the old road cut in Stand 3 and maybe in other areas. The other invasive species noted on the property are several large English holly bushes, both male and female.

Fire

There is no fire damage evident in any stand. The most probable cause of any potential wildfire in this area would be lightning, outdoor burning, or fireworks that escape control. The property and the residence is up-sloping, which could promote fire movement easily. Normally the forest is quite wet in the winter months, but the extremely dry summer periods, such as the summer of 2017, can increase the fire danger during that time of year. Fire protection is provided by Fire District #8, located approximately 8 miles away. Entry for fire control efforts can occur on the north side of the property on Smith Road the south side along Bigtree Lane, or via the driveway into the property. There is no apparent working hydrant system. As such, water for extended fire control efforts would have to come from various faucets around the house or the metal barn. Otherwise, water must be trucked in or replenished off site.

Management recommendations

Our management practices will focus on monitoring the health of our forest and acting as we find disturbances. The most urgent need is to remove alder trees that are tall, dead, and threatening to fall in Stand 1. We will monitor long term for health, threat of disease, needed thinning, and harvesting for the health of the forest. We will monitor the area where there is evidence of root disease to see if it begins to spread to the point of being a problem. For animal damage, we have no plans to do anything other than monitor it.

The butterfly bushes will be eliminated, as they produce prolific seeds and are ultimately bad for butter. They will be removed by digging out the roots and the property will be monitored for newly seeding plants.

Herb Robert is extensive in some areas and will take an ongoing effort to remove. Mechanical means of pulling and bagging them for disposal will be the initial process and used exclusively in areas where they are not extensive. In more extensive areas, chemical spaying may be used.

Himalayan blackberry at the gate will be maintained at a moderate size for berries but in other areas they will be curtailed by mechanical means of hand pulling and digging out of roots. Evergreen blackberries will be curtailed by similar mechanical means when found. The goal is removal except for the area at the gate.

Holly trees will be cut down followed by immediate stump treatment or else they will resprout and be worse than before.

We will plant native shrubs: Douglas spirea, Indian plum, oceanspray, red flowering currant, and bunchberry where appropriate to reduce habitat for invasive species.

We will maintain healthy low vegetation around the house and will keep trees away from the house to reduce falling and wildfire potential. We have installed gravel paths around the house to have fire breaks from potential surface fuels of the forest. We still have some down trees that need to be cut and moved further away from the home.

Forest Health Example 3

Resource assessment

Overview

Overall, the stands on the property are in good health. The understory has increased in vigor in thinned areas.

Insects and diseases

In Stand 4 here are some western white pine in one of the understocked sections of this stand type which had the beginnings of white pine blister rust evident on lower branches. The infected branches were removed and disposed of and the trees pruned up to avoid further infection

Environmental factors

The property is located in the convergence zone entering into the pass hence receiving upwards of 80 inches of rainfall per year. We are also at 1000 feet in elevation and frequently get cool downdrafts off the slopes of Timber Mountain. This means snow line is often at or just above us. We also get prolonged periods of freezing conditions as we are on a north facing slope. The soils are Alderwood, a very good forest soil. Trees readily self-seed in, grow well but also have a vigorous understory with which they must compete. Overstocked small diameter trees are prone to snow break in this area. There are some small snags created from snow breakage in Stand 2.

Animal damage

No issues.

Invasive species

The stand is in good health and growing with vigor. There is concern in Stand 3 to control noxious weeds in this stand as Scotch broom and evergreen blackberries are present. Tansy ragwort has been eradicated.

Fire

Fire risk is moderate to low. We are on the east side of Timber Mountain and usually shaded early in the day which helps retain fuel moisture. We are surrounded by heavily stocked conifer forest, but are low on the slope with rolling topography. During droughty periods fire risk is moderate and at other times is low. We have assessed the Zone 1 defensible space area around our home, have a hammerhead turn-around for emergency vehicles, marked our address at our drive, and our road is clearly signed and fire truck accessible.

Management recommendations

Monitor all stands for signs of forest health issues. Inventory each spring for any invasive species - early eradication will prevent establishment.

Early spring 2024 stand 4 will be re-planted with 7-year-old grand fir and 2-2 western redcedar to 18X18-foot spacing. In the areas being planted we desire maximum height and diameter growth of the trees while allowing the undergrowth to flourish. This spacing will allow the saplings to continue to grow without need of thinning

Monitor all stands to assure there is adequate light to contribute to a healthy understory. Thin and prune as necessary.

We will follow Firewise guidelines around our home.