From: Wayne Schwandt [mailto:wayne@wlsandassociates.com]
Sent: Tuesday, September 29, 2009 4:38 PM
To: 'teanawaysubarea@co.kittitas.wa.us'

Subject:

Good afternoon...

Here are three items for placement on the website for folks to review.

Thanks

Wayne

**DOCUMENT 1** 

The Teanaway watershed is headed for a catastrophic wildfire unless solutions are found for the confounding problems of endangered species restrictions on management, paralysis of federal forest process and loss of forest products markets in the region



Private timberlands five years into the budworm infestation

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Dead timber on federal lands after repeated defoliation

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<sup>&</sup>lt;sup>1</sup> All Photos by Jeff Jones

## The Watershed

The Teanaway watershed is a 132,500 acre basin on the east slope of the Cascade Mountains in Kittitas County. It lies north of I-90 near Cle Elum. The lower valley supports feed crops and livestock grazing with rural residential and recreation properties encroaching from the lower foothills.

The mid-valley contains about 53,000 acres of commercial timberland, mostly under a single private owner, American Forest Land Company (AFLC). These holdings have been managed for selective harvesting since 1902. DNR manages a little over four sections in seven parcels within the commercial forest area and there are a handful of other owners.

The private forest lands are surrounded at higher elevations on three sides by the Wenatchee National Forest. Much of the federal land is in designated northern spotted owl conservation areas and there has been virtually no management on these lands for 20 years.

The entire watershed supports year round dispersed recreation. There are two campgrounds managed by AFLC and one by DNR. The Forest Service maintains public access on the primary road system and grooms snowmobile and cross country ski trails through the winter months.

Through the 1990s and into the current decade surveys located several northern spotted owl sites in the Teanaway's mid-elevation mixed conifer forests. Owls are attracted to these eastside forests not by the dense old growth they typically inhabit in western Washington, but by nest sites in scattered mistletoe infected trees and by the relatively abundant prey in dryer mixed conifer forests. Currently there are 19 overlapping 6,500 acre regulatory "home range" circles covering over a third of the private forest land in the valley. Monitoring indicates that many of the circles are apparently no longer occupied as barred owls invade and spotted owl detections decline.

In 2003 AFLC discovered western spruce budworm activity on their property adjacent to federal lands. The Forest Service likely detected the infestation earlier. The budworm attacks Douglas-fir and grand fir in this region, the very species that form the habitat for the spotted owl. Trees are killed over a three to five year period by continuous and repeated defoliation. Damage has now spread to over 80% of the forests in the Teanaway. The number of bugs found in monitoring traps maintained since 2005 has been very high every year, indicating a future of continuing heavy defoliation.

AFLC and other private timber owners and the DNR are prevented from harvesting the damaged timber and thinning the forests by forest practices regulation protecting spotted owl habitat, this despite the apparent absence of owls. Compounding the problem for all forest managers is the closure of nearly all processing facilities in central Washington. Douglas-fir logs must be transported125 miles and pine logs have to be hauled 225 miles, uneconomical distances. If prices are high enough, small logs can go to a nearby chip plant, but there the higher value lumber recovery is lost. No fuel wood facilities exist.

Without action, the budworm will continue to kill trees in the Teanaway valley and beyond. Eventually, and probably not very far in the future, lightening or a careless camper will start a fire that crews will not be able catch in time. Once burning through forest chocked with dead timber, typical summer weather conditions will carry the fire through the valley, potentially threatening Cle Elum to the south, recreation home developments to the west, the Alpine Lakes Wilderness to the north, or thousands of acres of National Forest along highway 97 to the east. No action is simply not an acceptable alternative.

# Spruce Budworm Infestation in the Teanaway Valley



The insects feeds on buds and foliage of new growth. The high populations in the Teanaway Valley result in loss of 100% of the new foliage each year. Top kill occurs with 3 or 4 years of defoliation.

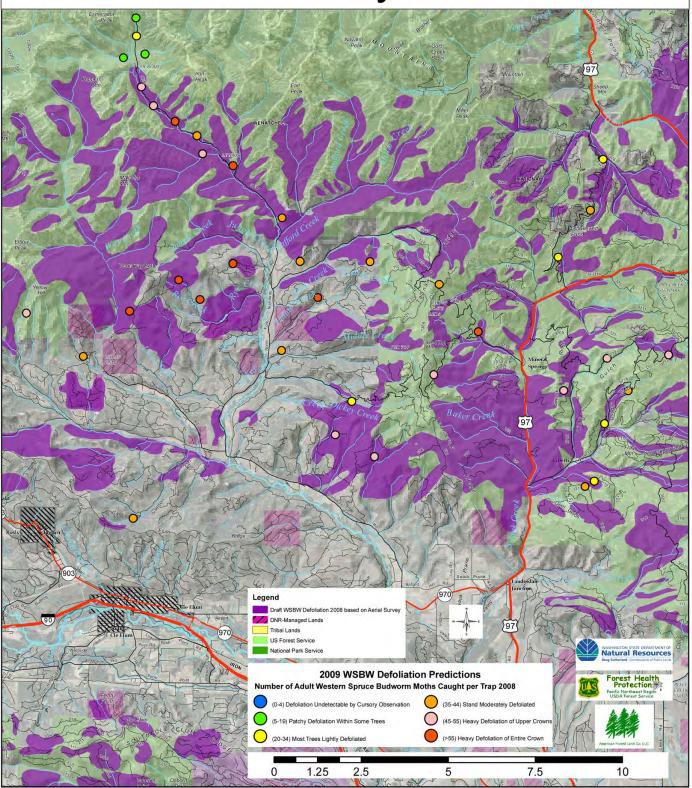
Vast areas of the Valley have been under attack for 6 years.



Areas of the National Forest are already experiencing near total mortality. Without treatment the infestation will last 13 to 20 years.

Large scale aerial application of biological agents can slow the damage, but ultimately to prevent catastrophic fire, fuel need to be removed, the number of trees competing for water and nutrients needs to be reduced and species adapted to the dryer climates need to replace many of the Doug-fir and grand fir in the Valley.

# Western Spruce Budworm Activity in the Teanaway Area 2008



# The Value of Managing At-Risk Forest on Federal Land

In 2006 DNR published a paper<sup>2</sup> in which they summarized research work done by the University of Washington College of Forest Resources<sup>3</sup>. This research looked at representative forest health conditions on two National Forests in the Inland Northwest and calculated the short- and long-term financial returns of treating forests at risk of catastrophic fire. Here is how DNR summarized the results:

"The University evaluated both market and non-market values, assessing the implications of investment that both reduce wildfire risk and improve forest health. The researchers found that there were substantial savings to the tax payers and the public associated with projects that reduce fuels. They found that (on average) high-risk stands showed a net benefit of almost \$2,000 per acre and medium risk stands showed about half that value. This means benefits exceeded cost by nearly \$1,000 to \$2,000 per acre. This is how much additional could be spent to improve forest health before costs of treatment exceeded the benefits of the treatment. The authors note that 'while values assigned to the benefits from fuels reductions...can rightly be considered coarse estimates, they have been shown to be legitimately defensible and intentionally conservative.'"

## The study quantified:

Value of forest products removed
Reduced future fire fighting cost
The value of reducing facilities losses
The value of reduced fatalities
The value of lost timber amenities
The community value of fire risk reduction
Carbon credits
Regeneration and rehabilitation costs
Water quantity and quality

The greatest returns come from estimates of the value of harvested forest products, reduced fire fighting costs and preventing standing timber from burning assuming that if were not harvested it would have an amenity value at least equal to its stumpage value.



Budworm populations remain high



Riparian forests are equally affected

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<sup>&</sup>lt;sup>2</sup> Halsey, Jack and Karen Ripley. 2006. Forest Health and Wildfires - A net Cost Approach to a True Wildfire Protection Program. Washington Department of Natural Resources. Olympia, WA

<sup>&</sup>lt;sup>3</sup> Mason, C. L. et al. 2003. Investigation of Alternative Strategies for Design, Layout and Administration of Fuel Removal Projects. Rural Technology Initiative. University of Washington, College of Forest Resources. Seattle, WA