

DNS 22-009: COLOCKUM RESTORATION THIN PHASE 1

I have reviewed the above DNS and would like to offer the following comments:

I did not fully understand the project as the map legend did not contain a key for cross-hatched. I am assuming leave clumps, but that detail should be added.

The project area is within the Naneum Pack wolf territory (WDFW 2020). Gray Wolves are listed as State Endangered. This fact is missing from the checklist. There have been periodic known wolves in the area at least 10 years, but the Naneum Pack has had difficulty staying intact. The pack officially formed in 2018. The alpha female was accidentally shot late in 2018. Radio-collared wolves occupied the territory until fall 2021 when both collared males dispersed long-distance. It is not known why both males left, but one theory is the alpha female disappeared again. Wolves have been reported in the area, but the pack status is unknown.

Studies (Mladenoff et al. 2009, Larsen and Ripple 2006) have found security (low road densities and forest cover) from humans is one of the main factors determining wolf distribution. The Colockum landscape has high road densities and is lacking cover (Figure 1). The project area is one of the few areas with good cover. Building new road and further reducing cover will be detrimental to wolf survival in the area.

The project proposes to benefit multiple wildlife species by thinning the forest to 25-45 trees per acre, but does not list the species. As the Wildlife Biologist for the area with almost 30 years with WDFW, I do not know of many species that will benefit from the project. The area used to support spotted-owls, but none have been seen since the late 1990's due the reduction in complex, multi-layered, closed canopy forest. Flammulated owls were found in the vicinity (pre-fires) in 2012. Flammulated owl status is unknown, but the literature strongly suggest the prescription will be detrimental to the species (Table 1).

If the majority of the area was closed canopy, the project would benefit wildlife by adding opening and diversity. Unfortunately, this is not the case. The majority of the area is extremely open habitat. This leads to lower diversity of species. Even before recent fires, closed canopy forest types were in short-supply. Recent fires (attachment) and thinning projects have made further reduced the number of suitable stands for closed canopy dependent species. DNR manages the land to the southwest on the Naneum state forest. The DNR mandate is to produce income for the school trust. The Naneum forest isn't ever likely to provide for closed canopy dependent species. That makes it all the more important for WDFW to provide that habitat type on department managed lands.

**Table 1: Flammulated Owl Habitat**

Area	Stems/ha	Stems/acre	Notes
New Mexico	504	204	
Oregon	589	238	
Oregon	330	134	>10cm, 480 for <10cm

Oregon	2016	816	Roosting
BC Nest	2492	1008	Nest
BC Forage	2837	1148	Forage
BC Nest	667	270	Wet year, nested low
Idaho	498	202	Payette
Idaho	494	200	NPH
<b>Mean</b>	<b>1159</b>	<b>469</b>	

#### Literature Cited:

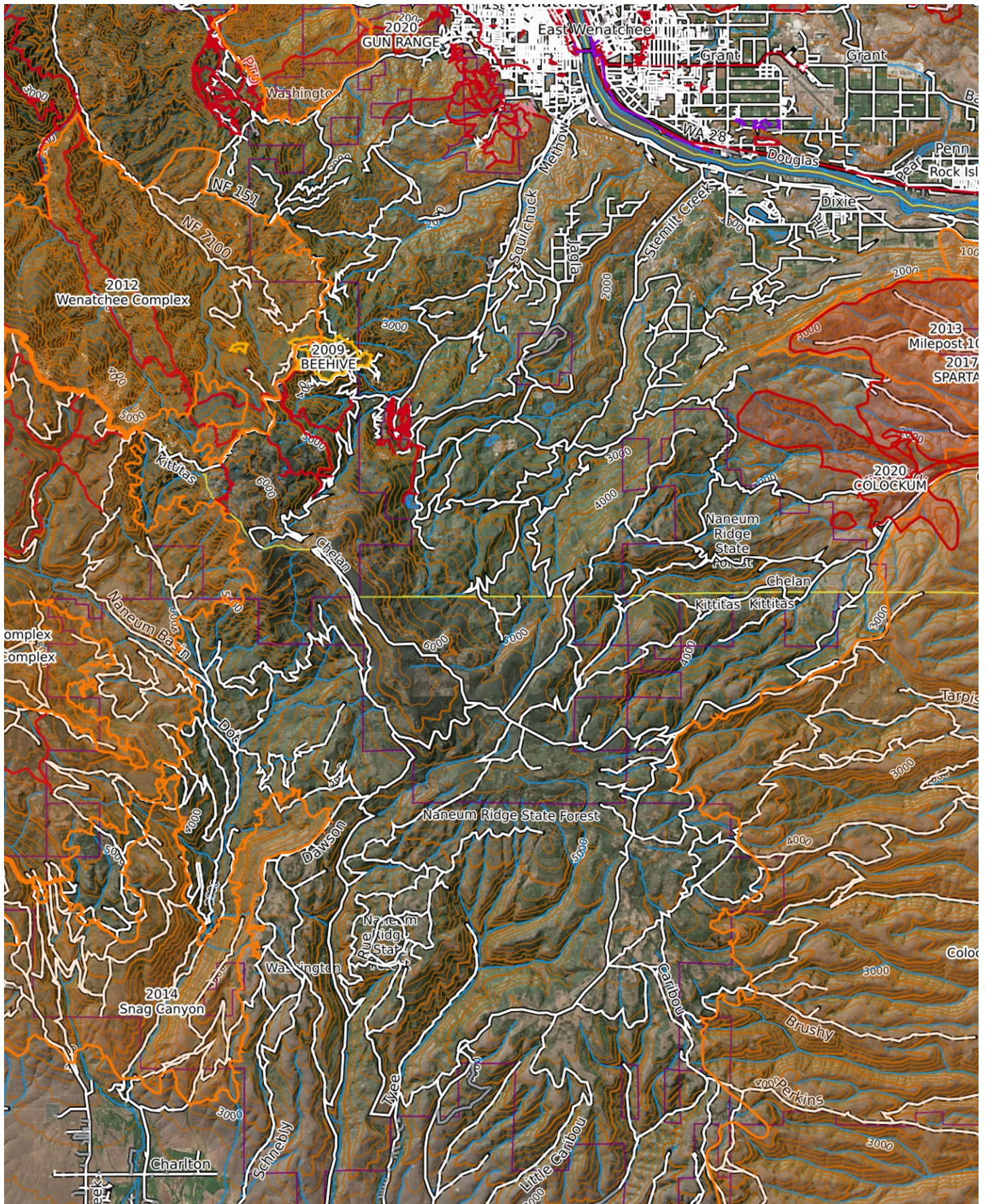
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Larsen, Tad & Ripple, William. 2006. Modeling Gray Wolf (*Canis lupus*) Habitat in the Pacific Northwest, U.S.A. J. Conserv. Plan. 2.

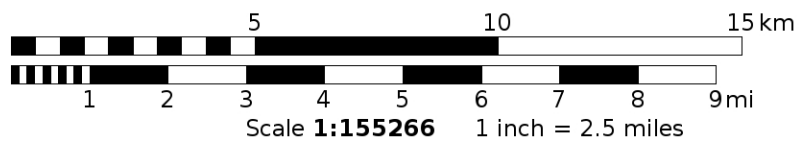
Mladenoff D.J., Clayton M.K., Pratt S.D., Sickley T.A., Wydeven A.P. 2009. Change in Occupied Wolf Habitat in the Northern Great Lakes Region. In: Wydeven A.P., Van Deelen T.R., Heske E.J. (eds) Recovery of Gray Wolves in the Great Lakes Region of the United States. Springer, New York, NY

From Jeff Bernatowicz





Mercator Projection  
 WGS84  
 UTM Zone 10T  

MN  
 14.9°