Observations from the QMS tour:

As I'm writing this, it's October 21, it's the middle of the night and 62 degrees outside. I don't think that's normal.

**Global warming is accelerating.** Ocean levels are rising, glaciers are melting, and California is on fire. Short term carbon retention in our forests is imperative, and yet the FS continues to log as if climate change were not an issue, and continues to trivialize the effects of cutting down forests on carbon retention.

Climate change is the most pressing issue regarding forest management on public lands. Anything we can do to conserve the carbon retention capability of our forests should be prioritized. Retaining more than 40% canopy in LSR thinning should allow stands to attain the same level of carbon sequestration earlier than more aggressive prescriptions. Irregardless of other factors, and no matter what kind of rationale one presents, for each tree we kill, the ongoing process of sequestration is also cut off.

**Forest Service employees are not considering a suitable range of alternatives.**

As the District approaches the unit-by-unit meeting for QMS, it appears that insufficient alternatives for prescription are being discussed. On the tour there was much talk by the silviculturist about 40% canopy retention in LSR's and regen in matrix, a brief reference to skips and gaps, but virtually no discussion about the possibility of alternative prescriptions. One would think that, with 8000 acres of young, previously clearcut plantations to thin, a variety of prescriptions to attain old growth characteristics, and enhance habitat for spotted owls and other older forest dependent species, would be available for discussion within the Forest Service. Perhaps this follows the longstanding practice of agencies to limit the range of alternatives from the beginning, restrict the public's awareness of possible alternatives, and by doing so restrict the public's input into the management of our public forests. This approach may make sense from the logistical standpoint of minimizing the workload, but violates the intent, if not the letter, of NEPA.

“**Thinning LSR's to enhance old growth characteristics” is a contradiction in terms.**

You can't create old growth. Natural mortality in plantations will contribute more CWD, create snags, and create more structure suitable for nesting than biomass removal. The FS might consider designating untreated “control” units within the LSR, and monitor those areas to see how quickly they develop the kind of structure suitable for cavity nesters, especially in locations with high winds or heavy snow loads that can damage growing trees.

LSR thinning projects carried out by commercial logging outfits rarely meet expectations, or conform to objectives presented in documentation. Please examine the attached images from the Salem BLM's North Fork Overlook LSR project, which resulted in mini-clearcuts, unauthorized roadbuilding, the illegal removal of numerous “save” trees, the felling of valuable wildlife snags, and collateral damage to documented red tree vole nest trees by misdirected falling.

For an example of commercial logging abuse in your own jurisdiction, look at the pile of waste logs and mud pit at the top of QMS unit 166.

**The FS is offering contradictory rationales for thinning in Matrix.** The idea of “creating structural diversity”, especially within unit boundaries, obscures the real issues when it's obvious the primary objective is volume. If the FS seriously intends to manage matrix for multiple objectives, then more analysis of habitat for species with limited mobility is essential, especially when populations are documented in the matrix. Ruminants and birds can always seek out more favorable habitat, but red tree voles and flying squirrels, primary prey species for spotted owls, have limited territories, and limited capability for dispersal. If the FS really intends to satisfy the ESA, a greater effort to ensure the recovery of the owl through protecting habitat for prey species is essential.

**Habitat corridors are essential for species dispersal and genetic exchange.**

Following is the paragraph from “Synthesis of Science to Inform Land Management Within the Northwest Forest Plan Area” I referenced on the tour:

***Habitat Corridors Between Reserves Can Hedge Against Climate Change Impacts***

*Much has been learned over the past decade about a wide variety of species and their occurrence, distribution, and rarity. Still, many species groups remain poorly studied. What we have learned about their ecology reaffirms the importance of maintaining late-successional and old-growth forest reserves and conserving aquatic systems and riparian buffers in providing habitat for many such species. The importance of retaining old-forest components and substrates in the managed forest matrix to serve as connections among the reserves is increasingly clear. These connections can be provided by slowing harvests of late-successional and old-growth forests in the federal matrix lands, maintaining the current critical habitat designation for northern spotted owls to protect all remaining owl habitat, and retaining old-forest structures in early-seral vegetation within the forest matrix. The ways in which young stands in the forest matrix are managed will have a significant bearing on the future of old-forest ecosystems, and their species and biodiversity, throughout the NWFP area.*

**Red tree vole habitat is severely fragmented across the species' range.** According to a recent study by leading scientists Forsman and Swingle, the average size of a red tree vole habitat block is just two percent of what it was one hundred years ago. Most red tree vole populations today exist in small isolated patches of older forest, and have limited opportunities for genetic exchange and dispersal.

The implication that corridors should be established only in riparians is convenient for harvest operations but questionable for species persistence. The restriction of red tree vole populations within individual watersheds limits opportunities for genetic exchange, which may be essential for adapting to future conditions. Red tree vole nest trees are often located across and on top of ridges, and, despite their inclination for travel through the canopy, have been radiocollared crossing logging roads. Cross ridge corridors, even those that intersect with a road, could aid affected species in adapting to climate change and habitat shrinkage.

Another paragraph in the Science Synthesis:

*Some science findings suggest that using an ecological functional basis for species and biodiversity management, rather than using simple proxies of indicator species, is more likely to succeed for meeting overall conservation objectives, particularly if complemented with application of ecological forestry methods.*

If using an “ecological functional basis” for management requires keeping older forest ecosystems intact, then we're all for it, but it should be kept in mind that two aged stands with legacy trees, like unit 166, can offer the same nesting opportunities for voles, owls, flying squirrels, and other cavity dwellers as pure old growth.

**Although Survey and Manage protects documented red tree vole populations, overall habitat for the vole and other older forest dependent species has been constantly shrinking ever since the inception of the NWFP.**

Vole surveyors simply cannot climb every tree in a harvest unit. If no vole nests are detected, suitable red tree vole habitat often gets logged, even though voles may in fact be present, or reinhabit a stand, by dispersing from adjacent forest.

If, by “ecological forestry methods” ,the authors in the Synthesis are referring to Franklin and Johnson's “ecoforestry” variable retention management ideas, there is no scientifically credible basis for that approach. “Ecoforestry” has been misused, misapplied, distorted, abused, and become the grounds for at least one successful lawsuit. Even Franklin and Johnson themselves publicly condemned the misapplication of “ecoforestry” by the BLM in the Rainbow Ridge project, in an editorial published in the Corvallis Gazette Times.

**Things heard on the tour:**

1)”Young trees store carbon more than older forests.”

Not true. Science has shown that older forests not only store more carbon, they absorb carbon more effectively than plantations, and can retain that carbon for hundreds of years.

2)” Wood products store carbon as well as forests.” Not true. Much of the carbon in a tree is in the limbs and foliage, and after logging is emitted through slash burning or decay. Processing wood products releases approximately 53%, and with the fossil fuel emissions from logging and transporting, the net carbon retention in lumber is about 15%. *T*he average life of a wood frame structure is less than 100 years. The 15% carbon retained in that structure will be released during and after demolition, while by contrast, the same trees, if left living, will not only retain the carbon they have but continue to absorb more, and may continue absorbing carbon for hundreds of years. Even after a wildfire, a burnt tree can retain up to 85% of its carbon.

3) “Logging reduces the intensity of wildfires.” Not always true. Following is an excerpt from a BLM fuels specialist in a report for the BLM's Thurston Hills project near Springfield:

*The fuels specialist reported that the change from a “m*ature” *to an “early successional” stand structural stage would change the associated stand-level hazard from low to moderate/high. The stands would go from a timber model to a slash fuel model with higher predicted flame length, fire duration, and intensity and decreased ability to control a fire, with the greatest risk of a fire start during the first 5 years following harvest. Over the next 10 to 40 years, stands would transition through stages associated with high stand-level hazard rating and go from a slash fuel to a brush fuel type, which are more volatile and susceptible to high fire-caused mortality rates. These potential fires would have high flame lengths, rates of spread, and intensity and would be difficult to initially attack and control.*

4) "40% canopy retention is a “light thin” ????????