Data Submitted (UTC 11): 2/1/2024 10:53:58 PM First name: Trygve Last name: Steen Organization: Title: Comments: NW Forest Plan Amendment input:

Please note, the following is based on my extensive experience observing forest management in the Pacific Northwest as well as teaching forest ecology and related sustainability courses at Portland State University for over 50 years.

As the Northwest Forest Plan is being considered for revision, there are a number of significant issues that need to be carefully considered, as there is substantial room for improvement of that original plan in the light of more recent scientific understandings. In addition, old-growth and mature forest protections need to be extended to other forest types, especially the east-side forests of the PNW. I urge the most protective option to be chosen in the EIS prepared for these decisions.

1) The ideas I offer below are also significantly supportive of President Biden's executive order #14072 which states, mature and old-growth forests are have a vital need for protection - - "Strengthening America's forests, which are home to cherished expanses of mature and old-growth forests on Federal lands, is critical to the health, prosperity, and resilience of our communities-particularly in light of the threat of catastrophic wildfires. . ."

2) In the Original Northwest Forest Plan area, old-growth and mature forest protections need to be substantially improved by placing all old-growth and mature (over 80 years) forested areas previously designated as matrix into old-growth reserves.

2A) See the book "The Making of the Northwest Forest Plan" written by key contributors to the Northwest Forest Plan: Chapter 12 of that book "A Path Forward" contains much wise input that should be carefully followed, and from which I will limit my quotes to the following:

"We understand the importance of mature forests much better today than when the NWFP was developed in 1994."

"It is time to cease logging of older, unmanaged Moist Forests on national forests - both mature and old growth. . . . These unharvested older forests are too valuable ecologically, socially, and spiritually to allow for their elimination through logging. . . . logging older tree remnants in younger stands undergoing harvest should cease." (K. Norman Johnson, Jerry F. Franklin, and Gordon H. Reeves)

2B) For the westside forests of the Pacific Northwest, protecting ALL old-growth and mature forested areas would bring significant benefits for CARBON SEQUESTRATION and STORAGE. It will be important to include mature trees over 80 years old in these protections, because that is the point where carbon sequestration becomes more effective. These changes are needed because of more recent advancements of scientific knowledge in relation to the processes available for carbon removal from the atmosphere. This change becomes especially imperative because of the current and increasing impacts of climate change which are already resulting in significant numbers of deaths. Given the difficulty of completely eliminating future fossil fuel use, the role of forests to sequester and store that additional carbon dioxide will be truly essential.

2C) Maximizing old-growth and mature forest protections will also play a vitally important role in addressing the current biodiversity crisis, especially for terrestrial environments.

2D) These protections of mature and old-growth forested areas will also facilitate improvements of watershed

characteristics, such that the impacts of climate change can be minimized. This involves the ability of forested watersheds to absorb and store water for more uniform release throughout the calendar year. This will become more significant with the more intense rainfall events and longer dry periods that are a consequence of climate change. This will also help mitigate the reduced snowpacks that will be the result of climate change. Improved watershed characteristics will be vitally important both for urban water supplies and for essential irrigation water needed by agriculture.

2E) Maximizing old-growth and mature forest protections, especially in RIPARIAN AREAS, will also play a vitally important role in supporting recovery of aquatic ecosystems. This will be indispensable in relation to supporting recovery of salmon populations. Given the elevated temperatures predicted for climate change, riparian area shading of all levels of streams in all watersheds will be essential, even if those areas of forest are not old enough to be mature or old-growth.

2F) Establishment of the proposed Douglas-Fir National Monument here in the Western Cascades of Oregon would also be a valuable step toward additional mature and old-growth protection. It would also involve protecting an important array of successional stages of forest ecosystems, in addition to just mature and old-growth forests.

2G) Remember also that due to mill conversions to handle the small logs being produced in managed forests of the PNW, there are almost no mills left to handle the large logs that come from mature and old-growth trees. Therefore the above important protective actions will have minimal impacts on the flow of logs from national forests, while they will have the substantial benefits detailed above - especially for carbon sequestration and storage.

I trust that managers do not need to be reminded that older and mature forests need to be protected in order to be assured of a continued source for appropriately substantial areas of old-growth forest - to make up for losses of old-growth that occur because of disturbance such as wind and fire.

3) Rigorous Old-growth protections and management also need to be extended to the dry east-side forests of the Pacific Northwest (even though this forest type has limited representation in the NWFP planning area) Protection of mature and especially old-growth "east-side" forests has historically been accomplished by meeting the criteria set forth in the excellent report by the "Eastside Forests Scientific Society Panel" published in 1993. Unfortunately, those principles have been reversed in recent years. Those principles need to be carefully refined and essentially reinstated. I quote those key Study Panel principles in the following subsections: (Please note the extended explanations in that report could also be appropriately added to the following text and applied for the NWFP revision.)

Note, at the present time, the old-growth forests of the east-side have been especially impacted by logging. The small amounts of those old-growth forests that are left are worthy of special levels of protection and active management - by thinning the understory to appropriately reduce the risk of catastrophic wildfire (while leaving the over-story mature and old-growth forest fully intact). Understory thinning must not become a rationalization for logging old-growth trees to pay for that required restoration work. This kind of effort is essential for restoration of these forests to their historic fire resistant state which was the result of the influence of fire frequencies of less than 20 years. Given the extensive areas that require restoration, this work will need to be strategically distributed across the landscape until it can be completed. Please remember this understory thinning is an ethical obligation that has become necessary because of the historic, ecologically inappropriate fire suppression actions done in the management of these forests.

"Eastside Forests Scientific Society Panel" report published in 1993 presented the principles that follow in the next list:

3A) "Do not log late-successional/old-growth forests in eastern Oregon and Washington."

3B) "Cut no trees of any species older than 150 years or with a diameter at breast height (DBH) of 20 inches or greater."

3C) "Do not log or build new roads in aquatic diversity management areas (ADMAs)."

3D) "Do not construct new roads or log within current (1) roadless regions larger than 1000 acres or (2) roadless regions that are biologically significant but smaller than 1000 acres."

3E) "Establish protected corridors along streams, rivers, lakes, and wetlands. Restrict timber harvest, road construction, grazing, and cutting of fuelwood within these corridors."

3F) "Prohibit logging of dominant or co-dominant ponderosa pine from Eastside forests."

3G) "Prohibit timber harvest in areas prone to landslides or erosion unless it can be conclusively demonstrated by peer-reviewed scientific study that no associated soil degradation or sediment input to streams results from that harvest."

3H) "Prevent livestock grazing in riparian areas except under strictly defined conditions that protect those riparian areas from degradation."

3I) "Do not log on fragile soils until it is conclusively demonstrated by peer-reviewed scientific study that soil integrity is protected and that forest regeneration after logging is assured."

3J) "Establish a panel with the appropriate disciplinary breadth to develop long-term management guidelines that will protect Eastside forests from drought, fire, insects, and pathogens." (as well as FIRE)

3K) "Establish a second panel, to produce a coordinated strategy for restoring the regional landscape and its component ecosystems. Emphasize protecting the health and integrity of regional biotic elements as well as the processes on which they depend."

4) Please note, the above east-side related concepts can also be applied in principle to the moist westside forests of the historic NWFP as well.

5) Finally, I remind the reader of an excellent section of President Biden's executive order #14072 which is relevant to this NWFP plan revision process: "Sec. 4 . Deploying Nature-Based Solutions to Tackle Climate Change and Enhance Resilience. Just as forest conservation, restoration, and adaptation generate broad benefits related to climate change and other areas, other nature-based solutions can advance multiple benefits. These solutions include actions that protect coasts and critical marine ecosystems, reduce flooding, moderate extreme heat, replenish groundwater sources, capture and store carbon dioxide, conserve biodiversity, and improve the productivity of agricultural and forest lands to produce food and fiber. To ensure that agencies pursue nature-based solutions, to the extent consistent with applicable law and supported by science, the following actions shall be taken: - - - "

6) In summary and to be completely clear, there needs to be no exception that permits logging, commercial exchange, transfer of ownership, or financial incentive to log mature and old-growth trees on the National Forests included within the Northwest Forest Plan. There can be no exception allowing for logging that would undermine the climate, biodiversity protections, and watershed protections that would result from full protection of ALL mature and old-growth forest stands on National forests - - in the context of this NWFP revision.

6) Thank you for your attention to the above vitally important reasons for increased protections for mature and old-growth forested ecosystems. I deeply appreciate your care in relation to the above ideas. Clearly, substantial actions need to be accomplished as quickly as possible.