Bark’s mission is to transform Mt. Hood National Forest into a place where natural processes prevail, where wildlife thrives and where local communities have a social, cultural, and economic investment in its restoration and preservation.

Since 1999, Bark has organized people from communities around Mt. Hood National Forest to keep watch over the ecological conditions of the forest and the actions of the federal agency tasked with managing these public lands, the Forest Service.
As an organization founded by white people in the settler-colonial lineage, Bark is a part of the legacy of land theft and the erasure of native authority over the lands now referred to as the “public lands of Mt. Hood National Forest”. As an organization, we have established influential relationships with the Forest Service, part of the same Federal government which facilitated the violent land theft, colonization, and displacement of indigenous people. Non-native Barkers have access and privilege to this land because of this violent legacy. We are working to transform our organization, to take responsibility for this legacy and these unearned privileges. We are learning to practice acknowledgment, respect, and support for the Molalas, Kalapuyans, Chinookan Clackamas, Chinookan Wascos, Northern Paiute peoples, and Sahaptin-speaking peoples who live here and who have always lived here -- and the many other native nations who have always been part of and cared for this land that we now occupy.
Agenda

1. NEPA overview
2. Comment writing
3. Background of timber sale
4. Terms and types of logging
5. Areas of concern
What is NEPA?

- Public participation in planning process
- Disclosure of the action, alternatives, environmental effects, and mitigation
- Consideration of environmental impacts

DOES NOT:

- Decide which alternative to choose
- Prevent environmental impacts from happening
- Prohibit any actions
Why participate in a NEPA process?

1) To **change** the project
2) To **preserve** the ability to sue
3) To **gather** information about the project
4) As a focus-point for **organizing** the public

The type of comments you write depends on the answer to the question above. So – **What is your reason?**
NEPA Process Timeline

Scoping
Submit your comments

30 days

Preliminary Environmental Assessment (PA/EA)
Submit your comments

30 days

Draft Decision / Proposed Action
Submit your formal objection

45 days

Objection / Resolution
Agency must publish Objection Response Letter and hold a meeting (upon request) with Objectors to resolve objections, or explain why not
What to Look for in the Project Documents:

Keep in mind: The Forest Service is following the Forest Management Plan’s “management directives”, Congressionally determined “timber targets”, and political pressures.

● If you have substantive issues with the project’s stated “Purpose and Need”, clearly state your issue, and provide supporting argument.
● The agency should use "best available science" and give a preference to science that is peer-reviewed over that which is not.
● Did the agency correctly describe the existing environment (baseline)?
● Are there direct or indirect effects that the agency did not address?
● Are there cumulative effects that the agency did not consider or that the agency underestimated?
● Are there statements that are legally or factually inaccurate or incomplete?
The wonderful world of Vegetation Management

- Thin with gaps
- Control
- Heavy thin
- Light thin
- Variable-density thin
Three main types of logging proposed:

- Variable Density Thinning (VDT)
- Sapling Thin (AKA Pre-Commercial Thin)
- Regeneration Harvest (Clearcut)
Variable-Density Thinning
Sapling thinning
Regeneration Harvest
## Vegetation Proposed Actions

<table>
<thead>
<tr>
<th>Purpose &amp; Need</th>
<th>Proposed Action</th>
<th>Mud Creek Acres</th>
<th>Horse Shoe Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve forest health, growth and diversity while providing forest products</td>
<td>Variable-density thinning with skips and gaps in Matrix</td>
<td>952</td>
<td>626</td>
</tr>
<tr>
<td>Improve diversity and move stands toward Late-Successional characteristics</td>
<td>Variable-density thinning with skips in Riparian Reserves</td>
<td>119</td>
<td>175</td>
</tr>
<tr>
<td>Improve forest health, growth and diversity while providing forest products</td>
<td>Regeneration harvest in Matrix, site preparation and planting</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Improve forest health, growth and long-term productivity</td>
<td>Sapling thinning and brushing</td>
<td>126</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C1 Timber Emphasis</th>
<th>280</th>
<th>489</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide lumber, wood fiber, and other forest products on a fully regulated basis, based on the capability and suitability of the land. A secondary goal is to enhance other resource uses and values that are compatible with timber production.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What do all these terms mean?

- **Thin from below**: VDT, taking out lower crown.
- **Gap**: small clearcuts within units. Up to 2 acres in size, no more than 5% of unit.
- **Group selection**: 2-acre gaps covering as much as 25% of unit.
- **Heavy thin with gaps**: Retaining 25 to 70 trees per acre. “In as much as 10% of the area outside of skips and gaps within the Matrix land allocation, heavy thins would occur.
- **Skip**: area left unlogged. ¼ acre in size, no more than 5% of unit.
How much can 5% hold?

N6. Locations of rare botanical species found in the project area would be protected with skips as described below. A botany skip would be a protection buffer with a radius of 85 feet. Skips are areas of no treatment within or adjacent to an area where trees are harvested. The range of skips in thinning units is described as up to 5% in the Matrix. Some skips may be placed randomly, but there are also many reasons to locate skips based on stand features. Skips are prioritized here based on their relative importance. Wet areas, seeps and survey and manage sites in stands over age 80 are the highest priority. Skips would have a moderate priority for certain features such as patches of snags, patches of legacy trees, and survey and manage sites in thinning units under age 80. Sites of non-listed species and other factors would be the lowest priority for the placement of skips. Moderate and low priority features may not end up in a skip based on the quantity of skips and other factors such as logging feasibility. Often, where a special feature is close to a unit edge, the unit boundary is adjusted to provide the desired protection.
<table>
<thead>
<tr>
<th>Topic</th>
<th>No Action</th>
<th>Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity of vertical and horizontal structure by variable-density thinning (s. 3.1) Acres treated</td>
<td>Stands would remain relatively uniformly dense and overcrowded.</td>
<td>Variable-density thinning with skips, gaps, and heavy thinning would create greater structural diversity compared to no action on 1,872 acres.</td>
</tr>
<tr>
<td>Change in other plants</td>
<td>Ground vegetation would remain unchanged. Shade would gradually increase.</td>
<td>More sunlight to forest floor would increase abundance of plants, including forage species.</td>
</tr>
<tr>
<td>Change in vertical canopy layers</td>
<td>Would primarily remain single story stands with small gaps created by natural disturbances.</td>
<td>Gaps and heavy thins would naturally regenerate and begin to grow young trees resulting in a two storied stand. Up to 5% gaps and up to 10% heavy thins.</td>
</tr>
<tr>
<td>Change in horizontal structure</td>
<td>Trees would remain uniformly dense.</td>
<td>A mix of gaps, skips, heavy thins, and variable-density thinning would result in diverse structure. Up to 5% gaps, up to 10% heavy thins, skips would be 5% plus riparian buffers.</td>
</tr>
</tbody>
</table>

-From Response to Scoping Comments

The Biologist has identified needs to accelerate development of key habitat features while protecting legacy trees. If left untreated, most dense stands would have a phase of self-thinning. However, these stands have other objectives including the production of wood products. The Forest has consulted with the U.S. Fish and Wildlife Service and they concurred that the project would not likely adversely affect spotted owls.

-From Response to Scoping Comments
But the botanist further notes…

“3.2.1 – Effects of No Action

No action would positively affect rare botanical species documented in the proposed project area by not introducing ground or habitat disturbance. No action would have mixed effects (positive and negative) on native plant communities. With no action in stem-exclusion stands (stage 2), understory vegetation would develop slowly over time (decades) to understory reinitiation (stage 3) and eventually to old growth (stage 4). With no action in older stands (e.g., understory reinitiation or stands intermediate between stages 2 and 4), any changes in understory composition and diversity would evolve slowly over time instead of a management-induced rapid shift occurring with clonal sub-shrubs and ferns expanding and dominating. No action would result in a much lower risk of invasive plants being introduced or spread in the project area and vicinity.

...Commercial thinning will simplify and homogenize forest structure (vertical and horizontal complexity) for a decade to several decades because of the loss of large snags and, if present, downed logs on the forest floor as the thinned stands develop from stem exclusion to understory reinitiation to old growth.”
Comment-writing Resources

- “I request an alternative”
- Use: facts from ground, agency docs, scientific studies, law, other comments
- Bark’s comment-writing resources:
  https://www.bark-out.org/content/zigzag-timber-sale-public-comment-writing-resources
- Story map:
  https://usfs.maps.arcgis.com/apps/MapJournal/index.html?appid=4f3944a7616d4f4db83943691018ca64
The abundance and diversity of fungi are likely to decrease for a decade or two, following thinning. Some fungi will recover relatively quickly (within 10 years) while shifts in the relative abundance of some fungal communities can persist for much longer (> 20 years).

Many studies have focused on restoration of tree composition and structure following thinning, with the expectation that other components of biodiversity (e.g., shrubs and forbs, bryophytes, lichens, fungi) will follow (Lindh & Muir 2004). Thinning, however, alters the community structure, diversity, and composition of ectomycorrhizal fungi (the most common mycorrhizae) in forest stands (Waters et al. 1994, Colgan et al. 1999, Kannabetter & Kroeger 2001, Smith et al. 2002, Luoma et al. 2004, Trappe et al. 2009).
Snags?

Snag charts in Wildlife p. 80

“Based on the FVS snag recruitment model the proposed Zigzag Integrated Resource project thinning treatments would result in a lower total number of snags within the harvest units versus the No-Action Alternative. Thinning in young stands does promote the development of larger diameter green trees faster over time than in un-thinned stands (Davis 2007, Garman 2003). The reduction of trees during treatment would result in less available trees to naturally die and become snags. In addition, the reduced competition from the thinning reduces density-dependent mortality in the residual trees, allowing them to be healthier and live longer before succumbing to competition, insects, or disease to become a snag.” (p.83) goes on to discuss snag creation methods