Concerning impacts of tree removal on local ecosystems:

Concerns Specific to Honey Grove:

- Disturbance of Coastal Coho nesting grounds
- Unsightliness of logging activities (soil erosion, cut trees, disturbed understory ecosystem)
- Impact to road surface quality with increased logging activities
- Noise pollution
- Air pollution (dust from vehicle activities in the summer)
- Increased traffic on Honey Grove (risks to children, livestock and pets)
- Appearance of industrial agriculture to tourists; downgraded overall experience
- Loss of recreation opportunities for children, families and adults
- Loss of mushrooming/ foraging options
- Reduced options for exercise and outdoor recreation
- Potentially higher rates of exposure to herbicides and pollutants in drinking water
- More roads, less forest
- Unsightly new road developments (black plastic mesh under large road rocks, deeply cut hillsides, culverts instead of streams, muck in pooled areas next to culverts)

Soil:

- Logging equipment compacts and erodes topsoil
- Compacted soil has reduced water infiltration rates causing topsoil to dry out and heat up more quickly and decreasing groundwater recharge rates
- Soil biodiversity (microbes, fungi, invertebrates) decreases when disturbed, slowing the rate of soil regeneration and decomposition
- Disturbed soil is more readily colonized by invasive species such as himalayan blackberry, english ivy, reed-canary grass, etc.
- Rates of soil erosion surpass rates of regeneration causing topsoil depletion
- Soil can switch from a carbon sink to a carbon source when disturbed
- Elevated risks of large scale land-slides

Water:

- Fewer trees means less protection of water sources from extreme temperature fluctuations

- Above ground vegetation stores water more readily protecting water bodies from sudden flash flood events
- Warmer water temperatures due to missing tree cover cause elevated stress levels in aquatic organisms
- Warmer water holds less dissolved oxygen and can be lethal to cold water fish such as salmon and aquatic macroinvertebrates
- Increased soil erosion rates lead to higher water turbidity and decreased water quality.
- Silt deposition in freshwater ecosystems can smother salmon redds
- Without abundant tree cover soil dries out more quickly and water levels are depleted
- Lower water levels threaten important water resources for agricultural purposes
- Nitrates are higher in water bodies adjacent to recently logged forests
- Nutrients like nitrates and phosphates leach more readily into water bodies without substantial vegetation buffer zones
- Increased nutrients and elevated temperatures contribute to algal blooms and potentially harmful algal blooms.
- Narrow riparian buffer zones frequently blow down in high wind and ice events thus exposing waterways to added stress from increased sunlight
- New roads increased the number of streams that are funneled through culverts creating barriers to wildlife and unnatural ecosystems

Biodiversity:

- Habitat disturbance promotes invasive species, disrupts food webs and can reduce specialist and endangered species populations
- Habitat loss increases edge effects which has negative impacts on sensitive species, species with large or specific territory requirements and allows more generalist species to encroach on specialist populations
- Habitat corridors are unavailable increasing population isolation and reducing genetic variation
- Reduced genetic variation makes species more vulnerable to pests, disease outbreaks, interspecies competition and climate change
- When keystone species such as salmon are impacted the effect can ripple across the food web and lead to overall biodiversity loss
- Natural selection has been at work already for many decades/ centuries to select for the most fit species. Artificial selection of trees may not select for individuals and species that will be more resilient in a rapidly warming climate
- Noise pollution increases cortisol levels in organisms and alters behavior, ability to find mates, etc.
- A general disrespect for organisms other than humans and the fact that the forest is their home
- Bird nests are disturbed

Climate:

- Pacific Northwest forests have some of the highest rates of carbon sequestration in the world.
- Letting trees grow is far cheaper than investing in expensive technologies
- Older forests will serve as refugia for species at risk from climate change
- Forests are buffered from climate extremes