Testimony before the Public Infrastructure and Conservation Committee

Good morning, Committee Members, my name is Carol McMahon, and I am a resident of Lynnwood. Thank you for the opportunity to speak today. I would like to talk a little about our legacy forests: what they are, what are their measurable characteristics, and why they matter.

The Center for Responsible Forestry estimates there are about 27,000 acres of mature or legacy forests in Snohomish County. 6,000 acres are in the lowlands and are subject to logging in the near future by the Dept. of Natural Resources. My immediate objective is to support you, our county, in protecting forests. I want to help you find pathways to both protect forests and replace revenues going to rural communities or junior taxing districts or find replacement lands. We need you as allies. Please join other jurisdictions like The Port of Allyn Commissioners, Thurston County Commissioners, Jefferson County Commissioners, and most recently Whatcom County Commissioners, in asking the Dept. of Natural Resources to preserve all mature forests in Snohomish County.

What is a Mature or Legacy Forest?
"Legacy forest" is a term accepted and used by DNR to describe naturally regenerated structurally complex mature second growth forests that were last logged prior to 1945.

DNR acknowledges the ecological significance of "legacy trees" and "legacy stands" to describe old trees and stands that add to structural complexity. Yet there is no acknowledgement of the value of this concept on the forest scale.

Other terms used that also apply are: "older" "mature" "structurally complex" "naturally regenerated" etc. The term "legacy" itself is not important.

Measurable Characteristics
Stand age data is just one of the starting points for modeling legacy forests. The Center for Responsible Forestry looks at lidar tree height data, and then performs on-the-ground data collection measuring structural complexity, canopy roughness, biodiversity, and natural regeneration. Carbon density is also analyzed. Research shows that carbon density increases as structural complexity develops.

Pre-1945 was not chosen arbitrarily and is not the only criterion for determining a legacy forest. That year was chosen for modelling based on historical records showing that post WW2 lands were managed in a way that combined the industrial logging practices of clearcutting (with the widespread use of chainsaws and modern machinery), spraying herbicides, and replanting as tree plantations. Tree plantations now dominate the landscape because of this shift. The chances of structural complexity and maturity returning to a naturally regenerated landscape pre-1945 are high and are nearly impossible in a plantation dominated by 1 species.

Why Mature Forests Matter
Mature forests are rare, remnant patches of lowland forests. They regenerated naturally after being logged in the late 1800s and early 1900's and many are 100 years old. They are critical in preserving the genetic, biological, and ecological legacies of the lowland forests that once dominated Western Washington. They are among the most carbon-dense in the world, making them invaluable tools for fighting climate change.

Mature Forests:
- protect salmon populations by cooling streams and enhancing instream flow in the summer,
- provide larger blocks of interior forest habitat for sensitive species,
- more fire resistant than plantation forests,
- capable of absorbing and storing more carbon than plantations both above and below ground,
- combat erosion, mass wasting and landslides due to winter flooding,
- provide reservoirs of genetic and biological diversity, and
- improve one's mental and physical health, provide for traditional harvesting, low impact recreation, scenic beauty, and spiritual renewal.

Dr. Jerry Franklin, Professor of Ecosystem Analysis at the College of Forest Resources, University of Washington, says mature forests "serve extraordinary functions in terms of the atmosphere, in terms of the hydrologic cycle, in terms of wildlife habitat. The carbon stocks here are just far in excess of those you would find in a tropical rainforest. And if you were to cut them you would end up releasing the vast majority of that carbon into the atmosphere. So, the best thing you can do is to leave them intact."

Thank you for your commitment to balancing clean air and water, wildlife habitat, and recreation with economic opportunities in Snohomish County. We are aware of the many challenges you face as you seek to manage county needs, and we urge you to take a flexible, forward-thinking approach as you balance the many competing interests at issue.

Respectfully submitted,

Carol McMahon

Resident, Snohomish County