Good Afternoon Commissioner and Chair Andre Baugh and Commission Members,

My name is Meenakshi Rao, and I'm a PhD candidate in Environmental Science and Management at Portland State University. I'm here on behalf Dr. Vivek Shandas, who is a faculty member in the Toulan School of Urban Studies and Planning, and a Commissioner on the City's Urban Forestry Commission. Together, we study the role of trees in removing air pollutants and other environmental stressors. He has prepared a statement for me to read today.

Dear Chair Baugh, and Planning and Sustainability Commissioners,

I would like to start with a question that evokes one of America's famous planners, Janet Jackson, who asked, "What have Portland's urban forests done for us lately?" In our research, we have (and continue) to address this question through qualitative and quantitative studies. Based on our work, I would like to draw attention to three concerns regarding the current deliberations around Title 11.

First, the current code and proposals include a mitigation fee structure for the removal of trees. These numbers seem arbitrary at best, and lack defensible science that allows us to understand whether the fee accounts for the benefits our urban forest provides. Our estimate is that Portland's urban forest provides upwards of \$24M per year in just public health benefits, which we believe is a highly conservative number.

Second, the City's (and county's) own Climate Action Plan recognizes the role of trees in reducing climate-induced stressors, including urban heat islands, stormwater and air pollutants. Large form trees in the city can reduce temperatures upwards of 15°F, which can be a matter of life and death to those most vulnerable in our city. In the winter months, the same trees intercept and infiltrate rainwater thereby reducing the likelihood of flooding and CSOs.

Finally, the loss of the urban forest, which we anticipate to accelerate as a result of the current and proposed mitigation strategy, suggests a need to **develop a process for revising the code**. With Title 11, crafting a meaningful process for enabling its implementation and revision is arguably as important as its promulgation. **Having greater time for notification of tree removal** is one part of the process that needs to be modified to include a longer lead-time.

In summary, just like the ineffective cut of a dull knife, or a broken point of an arrow, the tree code needs sharpening. The current code and both proposals, suggest that the urban forest is trivial because they undervalue its role in preserving and improving the quality of life for the citizens of the city. We have extraordinary access to data and analytics, and a highly engaged Urban Forestry Commission to improve the valuation of the forest, and the processes for changing it.

Thank you for this opportunity to testify.

Vivek Shandas, PhD

Associate Professor or Urban Studies and Planning Research Director, Institute for Sustainability Solution Portland State University