Testimony before House Committee Climate, Energy, and Environment
House Bill 3016 - Relating to green infrastructure.
By Jeff Stone, Executive Director – Oregon Association of Nurseries
February 28, 2023

Chair Marsh, Vice-Chairs Levy and Levy, members of the committee, my name is Jeff Stone and I serve as the Executive Director of the Oregon Association of Nurseries. I sincerely apologize that I cannot testify before you today – I am currently in Washington, DC for our annual meetings with Oregon's Congressional Delegation and the Biden Administration. I appreciate this opportunity to support House Bill 3016 – which is a good step forward on green infrastructure.

Background on the Nursery and Greenhouse Industry
The nursery and greenhouse industry is the state's largest agricultural sector, with over $1.3 billion in sales across the nation and the globe. Nationally, Oregon ranks third in nursery production. Nearly 80% of the nursery stock grown in our state leaves our borders – with over 50% reaching markets east of the Mississippi River. The nursery industry employs more than 22,000 full time workers with an annual payroll over $327 million. We send ecologically friendly, carbon sequestering, green products out of the state, and we bring traded sector dollars back to Oregon. Nursery association members represent wholesale plant growers, Christmas tree growers, retailers, and greenhouse operators. Our members are located throughout the state, with our largest nursery growing operations found in Clackamas, Marion, Washington, Yamhill, and Multnomah Counties.

A solution that has been in front of the Legislature for some time
First, I would like to thank Rep. Khan Pham and her staff for all the hard work put into this bill do date. The bill has not been perfected yet, but the OAN has passed quite a few bills over the past 20 years and this type of collaboration between a representative, Oregon Department of Forestry, Verde NW and the Nursery and Greenhouse industry should be lauded. The groups gathered and got down to business about where the threats are to our communities and the state: improving heat island effect in our communities and downtown cores; the need to protect habitat and riparian areas; and the poor tree canopies in urban settings. We also recognized that current policy will not rectify the problems, so an explicit program that creates environmental benefits, minimizes uncertainty and creates predictability for the Oregon's best growers of trees and plants in a labor constricted industry is critical for success. The solution to many of our climate

problems is big, grows to every part of the country, and is right in our backyard: the nursery industry.

Working lands can help the built environment on climate impacts
The OAN welcomes a vigorous discussion about how the state harnesses the natural advantages we have at our disposal – farm, forestry and nursery and greenhouse operations. As you will see later in this testimony, there is a plethora of benefits from a robust planting program for trees and plants. The general approach of this bill – to examine public-private partnerships – will be beneficial to both urban and rural climate mitigation. Working lands, particularly nursery and greenhouse products, are a proven carbon sequestering green good that needs to be encouraged and rewarded. As it stands now – green infrastructure "means a measure that uses plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, landscaping or regenerative food production to provide environmental, economic or social benefits, including…climate change mitigation." We would simply remind the legislature that this bill is a good reminder that the nursery industry already achieves goals now sought in other areas.

This program will make a difference
In order to do something innovative, unlikely alliances need to be formed. That is certainly the case with Verde NW and the OAN. We agree on the problem statement that heat island effects impact communities and the built environment, that tree canopies and the deployment of green goods as carbon mitigation is a sustainable policy, and that the state must step up to the plate and create an atmosphere of trust and certainty to the traded sector that grows what the state desperately needs. This bill will do a couple of things: 1. Establishes Community Green Infrastructure Grant Program. 2. Establishes Community Green Infrastructure Fund. 3. Establishes Community Green Infrastructure Task Force. 4. Directs State Forestry Department to acquire and maintain urban tree canopy assessment tool. And 5. Works in conjunction with state agencies to ensure that pest and disease issues do not arise through the deployment of green goods grown for the program. Many details remain to be worked out. However, the OAN stands firm to work through the issues ahead to create a program that all Oregonians can be proud of.

The original environmentalists can help
The OAN and its membership believe that climate changes are happening, right here in Oregon and across the globe. We see it with new pests and diseases not previously encountered, we are active in stretching our water resources through technological innovations, and we adopt practices that actively reduce our GHG emissions. Across our nation and across the globe, Oregon's nursery products not only sequester carbon emissions when they are being grown, but they continue to do so through the life of the plant or tree at their destination. The OAN's commitment to being a partner on climate mitigation has been decades in the making. A few examples:

The Benefits of Plants and Trees
<u>Plants save energy and maintenance costs:</u>

- Shade trees and landscaping along paved streets can cut the cost of street repairs, lower the costs of maintaining nearby buildings, and make people more comfortable by moderating the effects of the weather.

- When asphalt is exposed to the direct, intense rays of the sun, it can reach extremely high temperatures, causing it to break down more quickly and requiring more frequent repairs. One study has shown that protecting streets with a shady canopy cuts maintenance costs.
- Well-planned landscaping also protects buildings from the sun's pounding rays in summer and the biting conditions of winter. Situated properly, plants can create buffers between the buildings and the elements.
- Not only does landscaping cut costs associated with cooling in summer and heating in winter, but plants also protect the walls themselves, so wear and tear and the costs of upkeep are reduced.
- By absorbing heat and sunlight, leafy trees, shrubs and other greenery reduce the reflected heat from paved surfaces and buildings and create a more pleasant urban environment.

Trees improve air quality

- More than 80 percent of Americans live in urban areas, but the air in their communities contains a host of pollutants that can harm human health, from visible smog caused by motor vehicle exhaust to particulate pollution consisting of dust, dirt, pollen, ash and smoke.
- Fortunately, trees and other plants can purify the air, removing pollutants both seen and unseen. Trees catch airborne particulates with their leaves and bark, absorb gases and odors, contribute oxygen and reduce heat through respiration.
- A mature leafy tree generates as much oxygen in a single season as 10 people inhale in a year. Trees also release water vapor into the atmosphere through their leaves, cooling the surrounding air, which is especially important in urban areas where heat is trapped by solid surfaces.
- Just 100 trees can remove two tons of carbon dioxide from the air annually. In fact, urban trees in the contiguous United States have been found to remove nearly 800,000 tons of air pollution from the atmosphere every year.
- In addition, a recent study found that green plants remove city street pollution up to eight times more than previously thought.

Plants purify our water

- Water is life! More than a slogan, this statement speaks to the importance of clean water on our planet.
- According to the U.S. Environmental Protection Agency, stormwater runoff is the biggest problem facing the nation's water supply. When rain hits impervious surfaces, such as pavement and roofs, the runoff picks up contaminants and sweeps them into streams and lakes, causing pollution.
- Trees and other plants can offset this process by absorbing and recycling water into the atmosphere through transpiration. One large tree can capture and filter up to 36,500 gallons of water per year. On average, a mature tree can absorb 36 percent of the rainfall it comes in contact with.one.
- Trees and other plants also anchor the soil and filter out pollutants with their roots, so fewer contaminants reach waterways.

- Water-efficient gardening — choosing plants that need less water — also helps conserve water. Native and drought-tolerant plants are a good choice because, once established, they get by on what falls from the sky.

The OAN encourages the legislature to examine the other benefits that the industry provides without fanfare: Plants nourish ecosystems, houseplants reduce indoor air pollution, plants take the edge off stress in the workplace, landscaping boosts property values, plants have healing powers, plants promote safety and cut crime, green spaces encourage good health, outdoor plants benefit businesses, and plants help kids learn. To read more about the benefits of plants and trees, visit the OAN website for Plant Something Oregon: https://plantsomethingoregon.com/pmlb/

The Climate Friendly Nursery Project - The first of its kind in the nation, the Climate Friendly Nurseries Project (CFNP) partnered with nurseries to help them measure and reduce energy, resource use and greenhouse gas (GHG) emissions while achieving greater economic efficiency and profitability. The CFNP was an Oregon-only collaboration between OAN and the Oregon Environmental Council and took place from 2009-2011. Nurseries who participated in the program, as well as others in the industry, continue to employ the best practices established with the CFNP. At the conclusion of the three-year project, participating nurseries reduced their GHG emissions by an average of 20%. Best Management Practices for Climate-Friendly Nurseries, a guide developed through the project, provides best practice recommendations and case studies, and identified funding sources and technical resources to assist with the energy and resource-efficiency upgrades. The CFNP demonstrates the need to recognize work and efforts underway and a path to invest in incentive programs to lower the barriers (cost and regulatory) of entry to all nursery and greenhouse production types.

Florida's nursery planting program -The State of Florida has given the carbon debate a roadmap to use the green products in our transportation system and to combat climate pollution. A visionary program, the use of plants and trees to serve as an environmental offset for road improvements and urban investments. There are numerous tree canopy programs throughout the United States that directly combat urban heat island effect and Oregon can and should be a leader and demonstrate that collaboration between communities under duress and agriculture is possible. The progression that Oregon hopes to advance is that planting large quantities of trees and other plants along roadways has significant value as a method of sequestering carbon, reducing erosion, and creating wildlife habitat. The concept was included in the base bill of House Bill 2020 in 2019.

Give House Bill 3016 a Chance

A balanced suite of incentive-based programs that bridges urban and rural communities is within reach of the state. House Bill 3016, in coordination with other carbon programs that would secure funding, the low hanging fruit of carbon sequestration is an opportunity to seize. This public-private partnership could be a model for other states to mimic and that would be something I would be proud of. Thank you for your time and consideration.