Southern Nevada Arborist Group- SNAG March 29, 2025

To: Nevada State Legislature – AB96

Re: heat mitigation that GRASS UNDER TREES be classified by SNWA under the guidelines of AB356-the mandatory non-functional turf removal bill passed in 2021.

The Southern Nevada Arborist Group has a mission-

Our Mission

The Southern Nevada Arborist Group is a collection of tree care professionals and dedicated tree friends striving to provide improved tree care and promote the appreciation of trees in the Southern Nevada Region by sharing knowledge and experiences.

To our Esteemed State Lawmakers:

There is keen public interest in keeping grass for beauty, cooling, and emotional well-being etc. The urban tree canopy provides multiple benefits. Unfortunately, there are many challenges in maintaining that tree canopy post turf conversion. Considering the Desert Research Institute study regarding reduced water use by grass under trees, you may not recognize the OPPORTUNITY this provides to achieve the goal of reduced water use AND the preservation of tree canopy.

Research indicates that maintaining a grass turf environment under trees can reduce the overall watering demand and save water compared to watering open space grass. The benefit is that maintaining a more bio-active environment under the trees supports a diverse community of beneficial life forms such as birds, reptiles, insects, beneficial fungi and bacteria, all of which provide natural controls against invasive species that can wreak havoc on trees stressed by turf conversion and reduced irrigation. With the goal of water conservation, the cooling effect of tree canopy becomes paramount.

Experience has shown that in turf to rock only conversions, even with efforts to compensate with drip irrigation, trees become stressed and attract invasive pests that lead to tree deaths and loss of canopy. Further, efforts to protect them with pesticides introduce hazardous chemicals into the equation with other downside risks associated. Therefore, protecting healthy trees that have been established in turf areas creates an environment with beneficial species that act as natural controls against these invasive pests. Thus, we get water conservation plus preservation of tree canopy without the downside of toxic agents or loss of property value.

We STRONGLY encourage the support of legislation to provide an exception for grass under trees as a separate classification in the drafting of guidelines regarding turf removal.

Sincerely,

Joe Noriega, President of SNAG

ISA Board Certified Master Arborist WE 9982B

Trees and grass plants don't usually coexist in nature as they tend to compete for various elements. However, when used as understory plants, grasses can provide a benefit to the tree(s) growing in it.

Lawn grass helps to stabilize the soil around tree roots, reducing erosion and maintaining soil structure. The grass, and resulting thatch buildup, also acts as a natural ground cover, protecting the soil from *temperature* ***fluctuations and helping to retain moisture, which can be beneficial to a tree's root system. Additionally, as grass clippings decompose, they add organic matter to the soil, improve soil structure, and increase fertility through "Nutrient Cycling". A healthy lawn can also support beneficial organisms, such as earthworms and microbes, which contribute to overall soil health and, in turn, promote healthier tree growth.***

Russ Thompson

Certified Arborist WE 2105A

Preservation of Existing Tree Canopy

Over the last two decades, arborists have witnessed an unprecedented decline of urban trees not only due to the stress induced by extreme shifts in climate, but also the unintended consequence of turf removal projects and suboptimal water management.

What if we reimagined our approach to community trees - working together to keep our urban forests healthy and resilient? What if we became stronger advocates ensuring that trees have the resources required to endure longer, hotter summers? Why not value the preservation of our urban tree canopy just as highly as water conservation?

To better protect our existing trees, let's explore the following:

- **Recognize and preserve healthy mature trees** as "urban tree veterans" and exempting them from mandatory turf removal requirements. This is especially important for species like ash and mulberry, which struggle to transition well from turf-based landscapes to non-turf environments.
- **Provide water credits to consumers with large trees,** recognizing their significant cooling benefits for the community. Consider scaling the credits based on the size of the tree canopy – the larger the tree, the greater the credit.
- **Establish procedures to protect and maintain mature trees**, ensuring they receive adequate irrigation and care to remain sustainable, particularly in neighborhoods where tree canopy loss is accelerating.
- **Leverage technology to improve water management** by using moisture sensors, smart controllers, sub-surface irrigation, and local weather monitors. Trees respond to environmental conditions, not a calendar – scientific water management should guide irrigation practices rather than rigid scheduling mandates. Let's fund the available technology to conserve water yet sustain trees.
- **Investing in research and alternative landscape solutions** to reduce dependence on high-water-use grass while maintaining cooler landscapes that support tree health. The introduction of more arid-adapted turf and groundcover species will allow trees to thrive without the heat stress associated with rock mulch.

Water conservation and tree preservation must go hand in hand. Working together, lets ensure that our policies reflect the critical role of trees in sustaining healthy, livable communities. The Southern Nevada Arborist Group is prepared to help achieve these goals.

Dennis Swartzell

ISA Board Certified Master Arborist ***WE 309B***