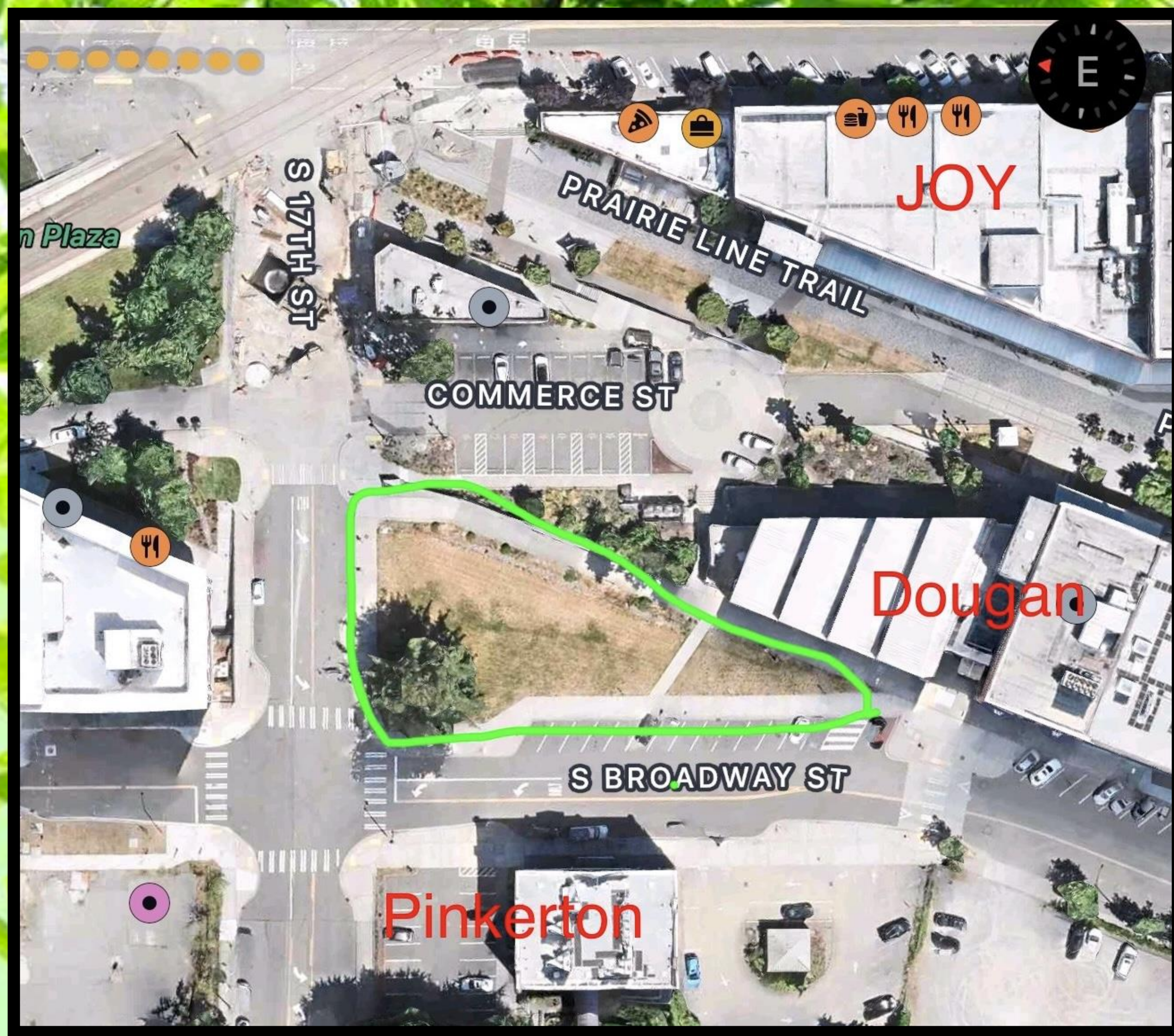


UWT NATIVE GARDEN

BY: Michael Dorner, Ryan Wicklund, Andrew Shams

Proposed Site:



Project Description:

- We are working to create a native garden/micro-forest to address the urgent issue of declining biodiversity in urban environments, impacting ecosystems and human well-being. This micro native garden is a pivotal step in developing a sustainable urban forest management program in Tacoma. These projects highlight the importance of acknowledging Indigenous perspectives, promoting biodiversity in the face of sparse tree canopies, and incorporating Indigenous practices for biodiversity conservation. Focused on addressing environmental disparities, particularly in downtown Tacoma, the micro-forest serves as a collaborative effort involving the Puyallup Tribe, Urban Forestry Program, Tacoma Tree Foundation, the Husky Sustainable Fund (HSF), and UWT. It is our goal that a native garden will emphasize the need for collaborative approaches to preserve biodiversity and enhance urban quality of life.

Project Implementation:

- Stakeholder engagement is underway, involving identifying, contacting, and scheduling meetings.
- Site planning by early April 2024 includes detailed plans with Indigenous principles, biodiversity, and accessibility considerations.
- Garden design and preparation will take place (April-May 2024), followed by implementation and planting (May 2024-late May 2024), involving volunteer events, educational programs, and collaboration with the Puyallup Tribe, emphasizing community involvement and Indigenous practices.
- Inclusion of signage around the garden for educational information about species and traditional usages.
- A “grand opening” event to spread awareness about the new garden will happen after completion.
- Maintenance will decrease as the garden establishes itself as a native ecosystem.
- To ensure maintenance is done, we will integrate maintenance into students' natural, physical or environmental science courses.



Fast Facts:

- Urban residents are 22% more likely to develop psychological distress than rural residents (Dhingra S, et al. 2009)
- Accessible green space can reduce rates of Psychological distress in urban communities by 40-54% (Pope, et al. 2018)
- Indigenous culture has considered biodiversity greatly important long before current science has (Charnley et al. 2007)
- 91% of students believe it is important that we respect and incorporate Puyallup Tribal knowledge and culture at UWT
- Areas with monocultures (only one species of plant) can result in a population decline of 30-100% of pollinator populations within various species, showing the importance of preserving biodiversity (Threlfall et al. 2017)

Assessments:

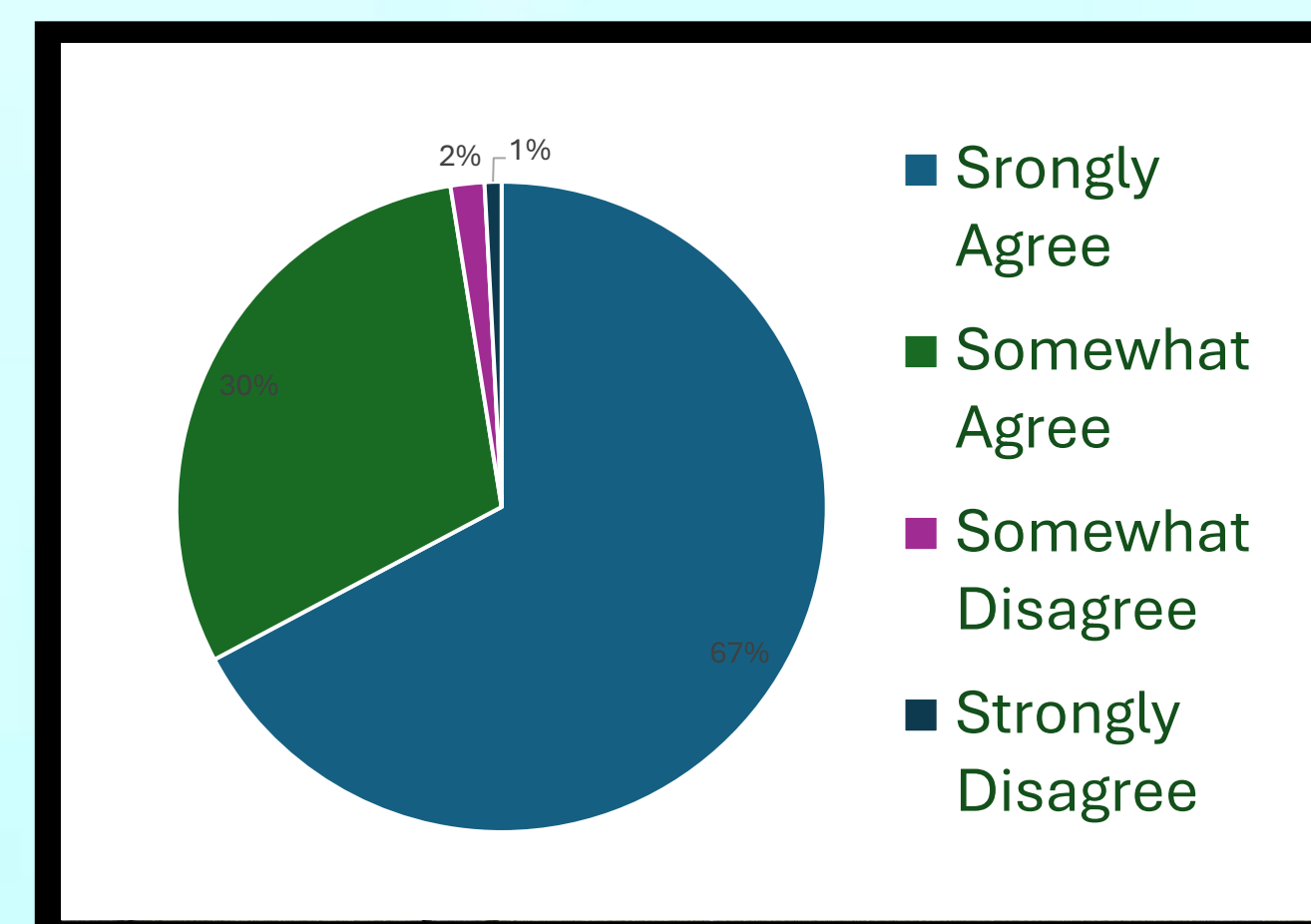
- Initial biodiversity surveys. This will allow us to document existing species.
- An ecosystem services evaluation. This will be done by comparing a new native garden space to a space with only grass to see how effective ecosystem services are.
- Social equity impact assessment. This would be done by incorporating their knowledge, perspectives and practices into project design.
- Economic benefits assessment. This would be done by comparing economic benefits of a native garden vs more 'conventional' landscaping.
- Stakeholder engagement survey. This will evaluate stakeholder engagement levels; it will allow us to see the effectiveness of communication and collaboration efforts.

Items	Cost
Seeds	\$200
Seating	\$1000
Soil additives	TBD (\$800)
Food	\$250
Total	\$2250

Pushing UWT Forward:

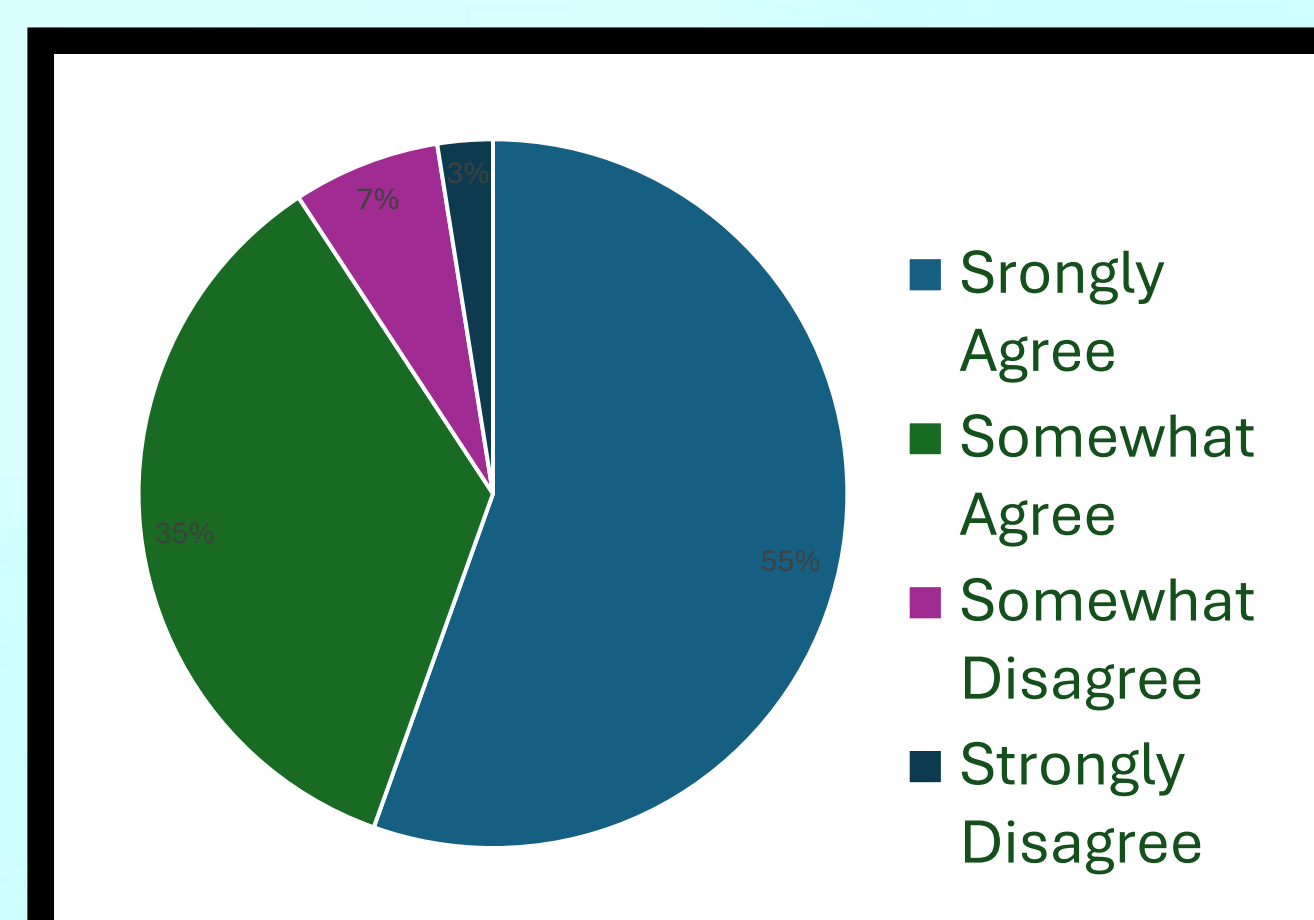
- Adding a true native plant ecosystem into student course work will largely increase student and faculty sustainability engagement (SAP Point 1)
- On campus access to less prominent local plants creates a wide range of possible research projects (SAP Point 3)
- A reduction in maintenance and resources needed maintain native plants compared to lawn will result in lower overall energy usage (SAP Point 8)
- A multilayered micro-forest will naturally offset large amounts of CO2 emissions yearly (SAP Point 10)

- 97% of students said being in green spaces improved their mental health, with 67% saying they felt it improved their mental health strongly



Project Personnel:

- Project lead/staff: Andrew Shams, Ryan Wicklund and Michael Dorner alongside the Giving Garden
- Budget oversight: Husky Sustainability Fund (HSF)
- Project advisory group: Dr. Ruben Casas, Tessa Coleman, Kacilla Bean (sustainability manager for Puyallup Tribe) and (possibly) Connie McCloud (cultural specialist for Puyallup Tribe)



- 91% said they felt UWT had a responsibility to increase biodiversity as an urban serving university, with 55% saying they felt strongly about UWT's responsibility.

Project Benefits:

- A native garden addresses environmental concerns, combating declines in biodiversity to enhance ecosystem stability and services.
- Incorporating Indigenous knowledge promotes social equity by acknowledging their historical caretaking of the land and fostering equitable planning and long-term stewardship.
- A native garden will also act as a place where all can congregate, adding to equity.
- Economically, restoring native species reduces maintenance costs by enhancing ecosystem regulation services.

Potential Challenges:

- Planting before summer.
- Watering plan to ensure initial survival.
- Ensure urban, generalist species do not over-indulge in the garden.