

Preparing for the Climate of Tomorrow

Aaron Fisher, Program on the Environment, University of Washington Site supervisor: Walter Hughson, Green Seattle Partnership, Thorndyke Park Faculty Advisor: Kristiina Vogt, Environmental and Forest Sciences, University of Washington

Background

- Climate change presents many unknowns for the future.
- Changes to the hydrological cycle could increase drought and harm forest restoration
- Inadequate preparation and restoration techniques could lead to devastation in our forests

Research Question

Will drought caused by climate change in the future have negative effects on forest restoration? And how can we mitigate these effects?

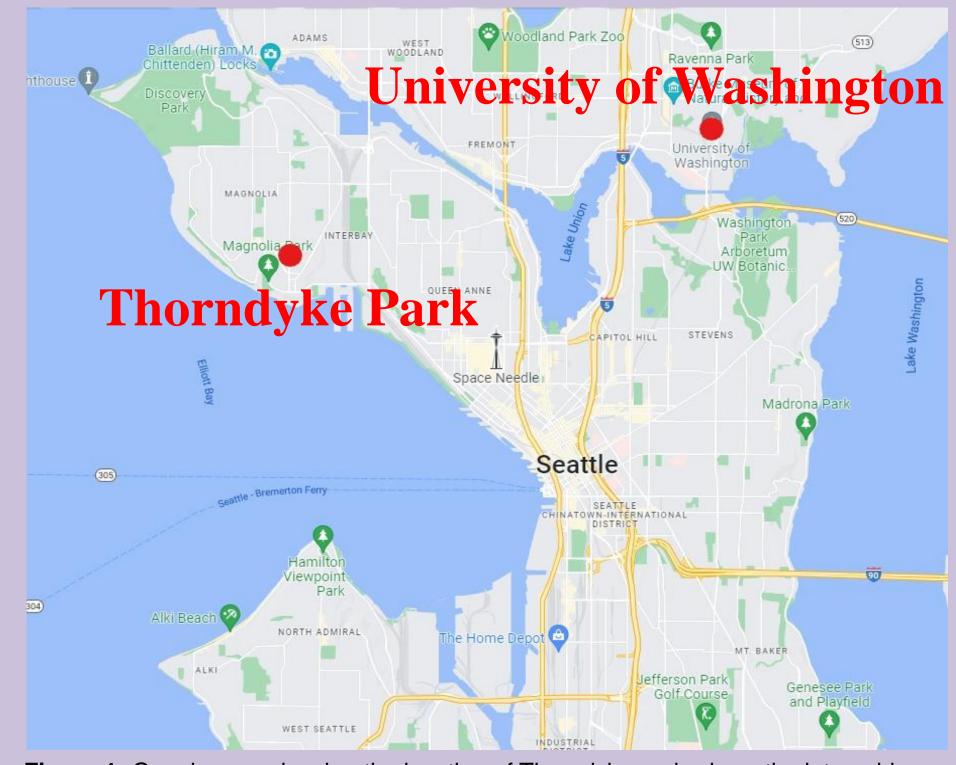


Figure 1: Google map showing the location of Thorndyke park where the internship took place.

Internship

- I interned with Green Seattle Partnership as an assistant forest steward.
- During the internship I performed forest restoration throughout the park alone while also leading groups of people as well.

Methods

- Acquired catalogue of plants my site supervisor could use.
- Identified noxious weeds using the King County Noxious Weeds List.
- Compared drought tolerance between noxious weeds and native plants.

Results

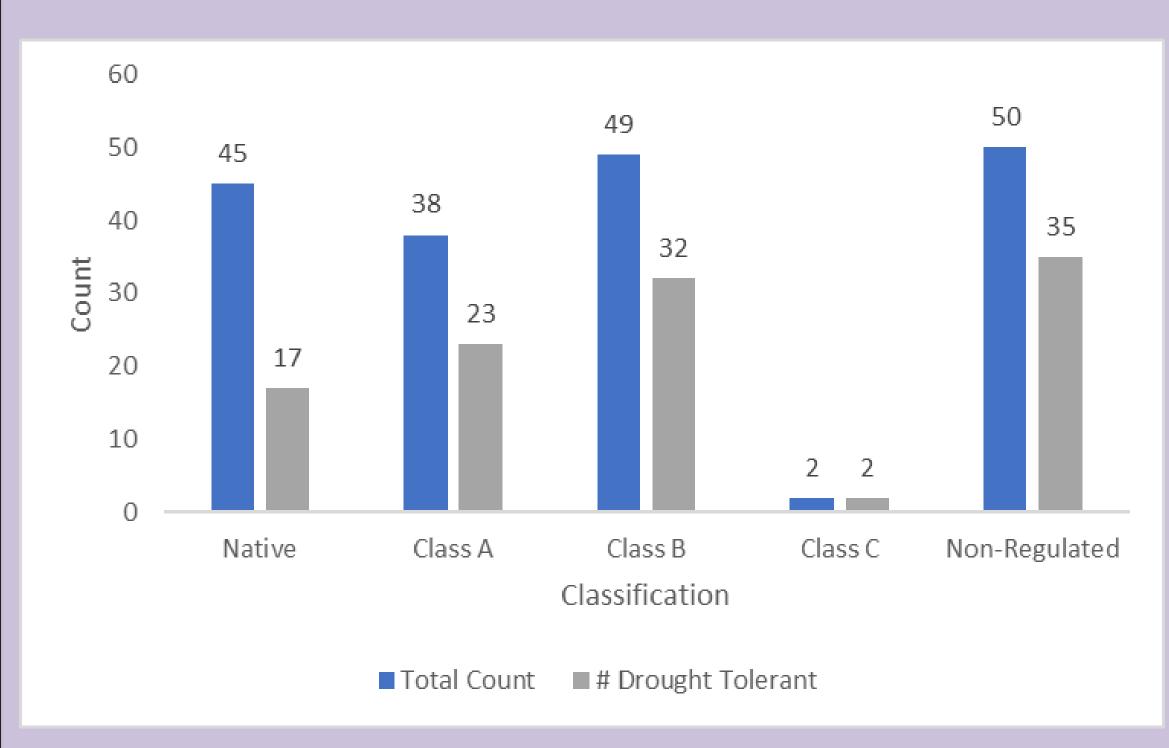


Figure 2: Bar chart showing the King County classification of plants with their total count compared to the number of plants that were drought tolerant in each category.

- 38% of native plants are drought tolerant.
- 66% of noxious weeds are drought tolerant.
- 45 native plants that are allowed to be planted.
- 139 non-native noxious weeds that are considered problems in King County.

Significance

- Clear difference in drought tolerance between native plants and noxious weeds.
- Native plant's struggle could be magnified because of high drought tolerance in noxious weeds.

Implications

- Restoration practices need to change.
- Keep inventory of plants in order to make better plants choices.
- Create new framework to help people make more informed and rational decisions.

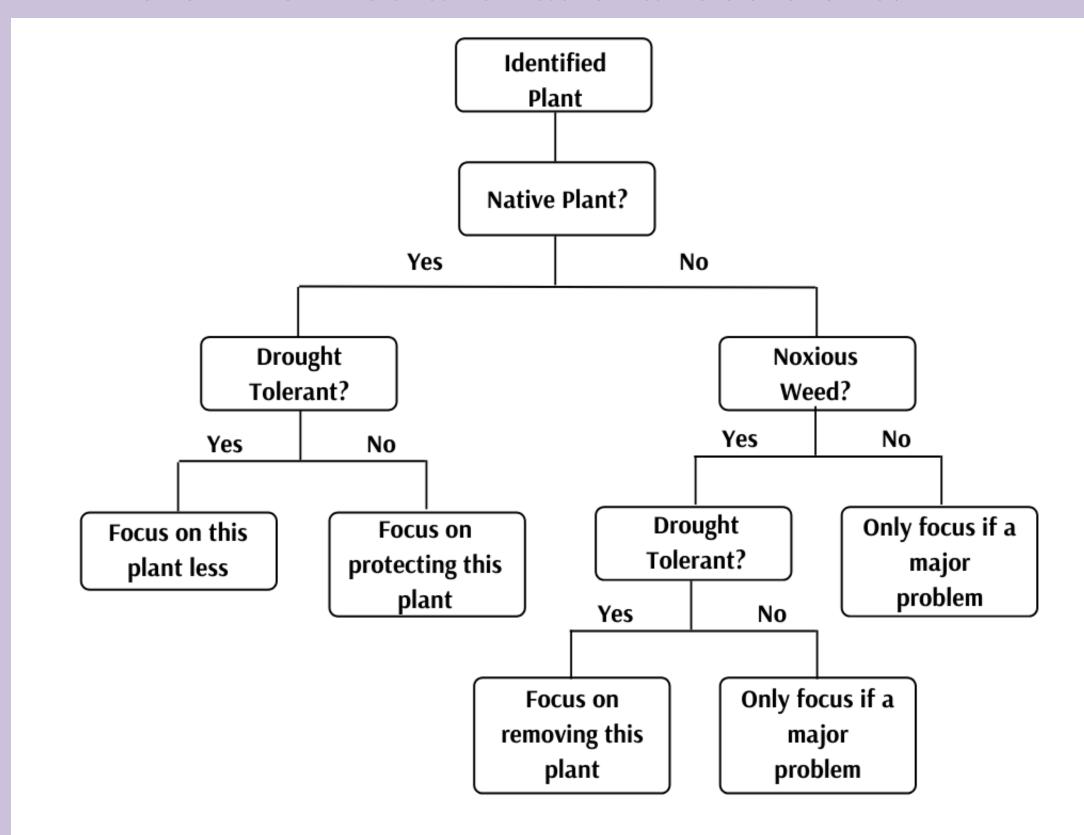


Figure 3: Flowchart showing potential framework for dealing with forest restoration in the future when considering drought as a major factor.

Acknowledgements

I would like to thank my faculty advisor Kristiina Vogt, Site supervisor Walter Hughson, and Green Seattle Partnership for their support