**Team COGS From Away (Ali Al Wafi, Aaron Hillier, & Emma Hawley-Yan, COGS)**

**Team Mission Statement:**

We aim to empower Halifax residents to initiate naturalization activities in their own yard and help increase the total area and connectivity of pollinator habitat across Halifax.

Halifax Regional Municipality (HRM) in Nova Scotia has achieved one of the highest urban greenness values of cities across Canada, even as its population has grown dramatically in recent years. Maintaining a high degree of biodiverse green spaces in urban centres can be challenging yet is increasingly important as populations grow and urban centres develop. Halifax has taken an ecological approach to managing their urban landscape, prioritizing biodiversity and enhancement of natural areas through planting of native plant species. This not only improves the ecological resilience of the city, but also beautifies the urban landscape and provides opportunities for community engagement. Several naturalization initiatives have taken place across HRM, mainly working to plant native and non-invasive adapted species of plants and trees in portions of municipal parks that were previously grass turf. While initiatives like this contribute greatly to a city's overall greenness and ecological resilience, the potential in naturalizing small land patches should not be discounted.

Small-scale naturalization plays an important role in enhancing connectivity across an urban landscape, which is especially important for pollinator species and overall ecological resilience of an ecosystem. Even relatively large patches of biodiverse natural areas across an urban landscape are not meeting their full potential contribution to a landscape's overall ecological function if all that can be found between naturalized areas are equally large extents of concrete, asphalt, buildings, and grass turf. This is where small-scale naturalization plays a role, by contributing small but biodiverse habitat patches to an urban landscape with otherwise large gaps and a lack of connectivity. This important contribution to ecological resilience in an urban landscape can be effectively implemented by residents in their own yards and provides a unique opportunity for meaningful community engagement.

By empowering Halifax residents to better understand their urban landscape and the role they can play in enhancing the ecological resilience of their community, we hope to further enhance HRM's urban landscape and ongoing naturalization efforts.

**Statement about our app characteristics:**

Our app, Green HFX, empowers Halifax residents to effectively contribute to their city's naturalization efforts and broader ecological approach to urban landscape management. Small patches of land such as residential yards have an enormous amount of potential in terms of improving landscape connectivity and, in turn, ecological resilience. But initiating naturalization efforts in one's yard can be an intimidating prospect if they aren't already well-versed in ecological concepts like naturalization, habitat connectivity, native species planting, and ecological resilience. Our easy-to-use interface puts a large amount of relevant information directly in the hands of the user, minimizing the amount of research required before someone feels equipped to start their own naturalization project at home.

The user simply enters their address and is presented with location-specific information that contextualizes their yard within the broader urban landscape and clearly explains the potential added value of a naturalization project at that location. Explanations of relevant ecological concepts, effective visualizations of the current distribution and connectivity of HRM's naturalized areas, and organized links to additional resources can all be found in our app, effectively facilitating community engagement on an issue that is already at the forefront of Halifax's agenda.

Our app also provides a template for potentially larger-scale community engagement on the issue of ecological urban landscape management and naturalization. While Green HFX focuses solely on HRM, the underlying concept could also easily be applied elsewhere, depending on the availability of open-source data in other cities.

**Link to our app:** <https://bit.ly/GreenHFX>