Ecology

Goal: Trees, landscapes and other natural assets provide vital ecosystem services to help UBC's neighbourhoods adapt to a changing climate. UBC's ongoing engagement with Musqueam to enhance Musqueam values on campus and climate adaptive planting support a network of resilient, connected green public spaces, courtyards, and corridors integrated with neighbourhood buildings and provide welcoming and restorative places for the community to come together and build connections.

Targets

- Targets related to neighbourhood climate action, to support mitigation and adaptation, will be defined through technical work over the next one to two years, including the Integrated Rainwater Management Plan, Biodiversity Strategy, and amended and future Neighbourhood Plans.
    - Targets will help define some of the UBC neighbourhood contributions to the overall campus target set in the draft updated Land Use Plan that commits to campus-wide net gain in tree canopy cover by 2050.

Actions

Next 1 - 2 years

- Work with academic partners to develop baseline data related to ecosystem services supporting climate action (*e.g. shade, urban heat island effect mitigation*).
- Support nature-based solutions to climate action under future climate conditions at the neighbourhood scale through updates to UBC's amended and future Neighbourhood Plans (*e.g. planting and soils guidelines, tree retention and planting locations, flood regulation*).
- Identify opportunities to increase biodiversity and ecosystem services at the site scale through future REAP updates.
- Continue supporting the UNA on sustainable landscape practices (*e.g. operations, equipment, climate resilient replanting guidelines*).
- Include future climate projections and localized climate impacts to natural systems in scoping for the Biodiversity Strategy.

Next 3 - 5 years and beyond

- Set performance targets relating to neighbourhood shade coverage.
- Develop demonstration projects showcasing different approaches to climate resilient plantings incorporating Musqueam and other Indigenous knowledge.
- Begin upgrades to rainwater infrastructure, focusing on adaptive, green infrastructure that responds to seasonal variability and future climate conditions.
- Expand and enhance ecosystem services (*e.g. shade, flood regulation, carbon sequestration*).

These strategies will support residents in:

- Planting climate resilient plants that thrive in our changing climate (*e.g. hotter temperatures, less summer rain, increased spring and fall rain*).
- Participating in a community garden program.