**Urban Ecological Restoration in the North**

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The main goal of the ecological restoration approach is to facilitate the recovery of disturbed ecosystems into resilient and diverse systems. There is a need to develop ecological restoration capacities that are tailored to respond to the specificities of northern environments. Working in partnership with the City of Whitehorse we are examining the use of bioengineering techniques and native plants to increase slope stabilization and revegetation on the clay cliffs and the City’s pathways margins.

At the clay cliffs we are using a bioengineering technique known as modified brush layers.  The brush layers are a series of benches built into the cliff with local materials including *Salix spp.* and *Populus balsamifera*. We have also seeded the top of each bench and pathway margins with local native plants. In addition, locally harvested Biological Soil Crusts (BSC) have been applied at the sites.

After one growing season, we found that: (i) *Salix alexensis* live stakes had a higher survival rate than other species; (ii) among the native species seeded, *Elymus trachycaulus* had the best germination and establishment; and (iii) biological soil crust establishment was very marginal. Monitoring to be conducted in summer 2015 to determine the survival rates over the winter.