

To:	Chair Carleton and Members of the Climate Change Task Force
Committee Date:	June 28, 2022
Subject / Report No:	PDR-CCTF-25-22
Title:	Community Nature-based Climate Solutions Pilot
Prepared by:	Linda Swanston
Reviewed by:	Randy Scherzer
Lower Tier(s) Affected:	None
Status:	

Recommendation

1. That Report PDR-CCTF-25-22 be received, regarding the implementation of a community nature-based climate solution pilot program; and
2. That staff be directed to implement a multi-year planting plan for the Grey County Administration Building site to support *Going Green in Grey*, the County's Climate Change Action Plan with funds being utilized from the existing approved budget for 2022 and for future expenses to be considered as part of the annual budget process; and
3. That staff be directed to host a Fall 2022 community planting event to initiate engagement of volunteers in nature-based climate solutions to be funded from the existing approved budget or from grant funding received as part of the Agents of Change program.

Executive Summary

As an initial step toward implementation of the Climate Change Action Plan recommendations, staff propose moving forward with a multi-phase community site naturalization proposal for the Administration Building in Owen Sound. Naturalizing the site provides multiple benefits including:

- demonstrating leadership for nature-based climate solutions to sequester carbon identified in *Going Green in Grey*
- engaging residents in direct climate action and building their relationship to the natural environment
- building relationships with local volunteer climate action organizations
- exploring opportunities to support reconciliation through climate action

Background

County Council's recently adopted *Going Green in Grey* Climate Change Action Plan (CCAP) has a focus on nature-based solutions including 'Action 1: Afforestation, Habitat and Biodiversity Protection.' Council has set a target of 1 million trees being planted across the Grey County community by 2030 and 5 million by 2050.

In the Spring of 2021, a group of residents associated with NeighbourWoods North (NWN) reached out to Grey County to propose the naturalization of the Grey County Administration Building Property at 595 9th Ave East, Owen Sound. In the Summer of 2021 Grey County's Climate Change Initiatives Manager met with the NWN group to discuss their proposal. In Fall 2021 County staff, including the Housing Manager responsible for the Administration Building property, walked the site with NWN volunteers and Grey Sauble Conservation Authority's (GSCA) Forestry Coordinator to assess appropriate planting based on the site's orientation, gradient, soil, water conditions and utility locations. From this the NWN volunteers prepared an options paper of planting approaches that informed the planting proposal in this report. Given NWN's history of successful resident engagement in other large scale planting projects the opportunity for the Administration Building project to also engage volunteers was explored.

Proposed Naturalization Actions

Having reviewed the NWN suggestions in discussion with Housing and Maintenance staff, and GSCA, Staff are recommending an initial set of actions in 2022:

2022 Actions	Cost Estimate	Rationale
<p>Sugar Maples</p> <ul style="list-style-type: none"> - Plant 10 Sugar Maples along the 6th Street East sidewalk - Mulch under trees 	\$2000	<ul style="list-style-type: none"> - Trees are native to area and will do well in the soil on that area of the site - Will provide shade and windbreak to pedestrians walking up to Administration building
<p>Pollinator Gardens</p> <ul style="list-style-type: none"> - Establish two 12x15 foot pollinator gardens: <ul style="list-style-type: none"> o Lower level 6th street building entrance o South side of the building adjacent to the concrete pad 	\$3000	<ul style="list-style-type: none"> - Attract beneficial pollinators to Administration building site - Provide educational opportunity for staff and residents
<p>Shade Trees</p> <ul style="list-style-type: none"> - Plant 4 shade trees on South side of building at ground level towards the front of the building 	\$800	<ul style="list-style-type: none"> - Provide shade to staff area - Reduce heating and cooling demands on the administration building through shading and wind break

		- Use native species potentially, White Oak and Mountain Ash
Explore Rain Garden - Investigate planting native plants in the northwest corner of the property to manage rainwater	Existing staff capacity for research	- Manage rainwater - Provide pollinator habitat

Staff will monitor the 2022 plantings for outcomes and issues, along with impacts on maintenance. Maintenance impacts are anticipated to be minimal to moderate. There will be reduced mowing requirements due to the mulching around the newly planted trees, there will be additional watering requirements associated with the new trees over the first 1-5 years. The pollinator gardens will require an estimated one hour a week of weeding and maintenance, the potential for Administration Building staff to participate in the maintenance will be explored as part of wellness programming.

The monitoring of the 2022 plantings will inform if any revisions are needed to the proposed go-forward planting program (map of phased plantings provided in Attachment 1):

2023

- Establish bioretention rain garden in northwest corner of the property.

Future years

- Create native woodlot on south side of the property planting 30-40 native trees from the South corner of the building down to the 9th Avenue East Sidewalk

A 3D visualization of the planting projects once mature is available online here: <https://arcg.is/1r9zuO>

Community Engagement

Naturalization of the Administration building property is an excellent opportunity to pilot engaging Grey County residents in nature-based climate solutions that support “Theme 8 – Outreach & Engagement” of *Going Green in Grey*. Co-hosting a community planting event with Neighbourwoods North in Fall 2022 will begin building awareness of Grey County’s climate action plan and will engage residents in taking direct climate action. NWN will help with community engagement by mobilizing volunteers for a planting event in the Fall by connecting with their own membership, local Climate Action Teams and the Master Gardeners of Grey Bruce. Based on the outcomes of the Administration Building planting event other Grey County sites could subsequently be naturalized with the help of resident and staff volunteers.

Engaging volunteers in the planting project begins to implement Action 19 of *Going Green in Grey*, ‘Establish a Climate Action Engagement Program’. With support of the Agents of Change program funded by ICLEI Canada, staff are currently exploring how to develop a community climate volunteer program grounded in Indigenous knowledge to accelerate nature-based climate solutions, advance reconciliation, and deliver benefit to local Indigenous communities. Conversations are ongoing with M’WIKwedong Indigenous Friendship Centre about how best to

work with Indigenous community to develop a nature-based climate volunteer program focused on 'right relationship' with the land and each other.

As part of the Agents of Change program, to support efforts to include equity considerations in climate action ICLEI will fund the Manager of Climate Change Initiatives participation in the Livable Cities Forum in Victoria BC October 3-5, 2022. Projects such as the Administration Building community plantings will provide an opportunity to pilot different approaches to honour Indigenous Knowledge and community in County naturalization projects and engagement efforts.

Climate Action Impacts

Grey County's commitment to nature-based climate solutions aligns with the Canadian Government commitment to plant two billion trees by 2030 [2 Billion Trees Program](#).

Tree planting and naturalization on County-owned properties where appropriate has the potential to deliver both climate mitigation and adaptation benefits. Carbon sequestration rates are dependent on tree species and tree age. The Federal Government estimates a minimum average sequestration of 6kg CO₂e per year per newly planted tree in their tree planting program. Accelerating tree planting across Grey County has the potential to sequester 378,000 tonnes of CO₂e between now and 2050 if we reach our planting targets, along will delivering significant habitat and biodiversity benefits. By naturalizing county properties, on site water management will also be improved reducing risk of flooding and soil erosion. Trees moderate microclimate, regulating extreme temperatures, improving the experience so staff and residents on the property, and reducing energy demand when adjacent to buildings.

Legal and Legislated Requirements

There are not legal requirements associated with this project.

Financial and Resource Implications

Cost for the 2022 proposed plantings will be covered by the existing climate action implementation funds included in the approved 2022 budget. Future year costs will be brought forward through the annual budget process.

The Federal government will invest \$3.16 billion in the [2 Billion Trees Program](#) and a new round of funding will be launched in Fall 2022 to support tree planting across Canada.

Relevant Consultation

Internal: Housing

External: GSCA, NWN

Appendices and Attachments

Attachment A: [Administration Building Planting Map](#)