Community tree plant events help to improve our urban forest and engage citizens.

Natural Environment

Community Greening

" We cannot separate sustainable urban forests from the people who live in and around them…Urban forests require active, consistent, continuing management. "

Journal of Arboriculture, January 1997

9.0 Natural Environment
Community Greening

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GOAL:

To protect, maintain and improve the biodiversity, ecosystems and the well-being of the green infrastructure of Thunder Bay.

WHY IT MATTERS:

The urban forest and other ecological components of the City, termed here as "Green Infrastructure," are a major asset for Thunder Bay and a key component of the City's commitment to sustainability.

The management of Thunder Bay's green infrastructure involves the sustained planning, planting, protection, maintenance and care of trees, forests, green space, and related resources in and around our communities. Green infrastructure on public and private lands beautifies our community, increases civic pride, and enhances our sense of well-being.

Urban trees exist in a difficult environment; lack of growing space above and below ground, contaminated and compacted soils, de-icing salt, and the physical damage caused by construction, lawn mowers, people and cars all challenge our green infrastructure. Suburban development and large scale, unregulated tree cutting on private land threaten the biodiversity and ecology of our rural forests. Climate change has resulted in drought conditions within the Lake Superior watershed, and our forests are increasingly threatened by forest fires and pest infestations.

HIGHLIGHTS:

The City's first Urban Forest Management Plan was adopted by Council in January of 2013.

The City's first Sustainable Stormwater Demonstration site was developed at Beverly and High Street in 2013.

Good for your wallet
Healthy trees reduce energy costs (summer shade and winter windbreak) and add significant value to your property

Good for the planet
Trees reduce air pollution, absorb carbon dioxide, reduce soil erosion and stormwater runoff and provide habitat.

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Increasingly, green infrastructure is seen as an integral part of a city because of the wide range of benefits it provides to both humans and wildlife. Not only are trees being noticed for their ecological and environmental services to society, but a large body of research has exposed the social, cultural, and economic benefits they provide. Green infrastructure is an essential tool in the fight against climate change, air and water pollution, crime, and a plethora of other urban challenges. A city's urban forest can be strategically used to provide a cleaner environment while increasing the health, wellbeing, and economic prosperity of a city.

Green infrastructure positively affects a city's walkability, downtown economic vitality, property values, energy savings, stormwater mitigation, and traffic calming. The annual value of benefits from Thunder Bay's street trees is over $1.5 million, and for every dollar the City spends managing its 20,000 street trees, it recoups $2 in services. The protection of municipal rural natural areas through preservation and management provides carbon sequestration, resilience in a changing climate, and protects ecosystem services.

> "One generation plants the trees, another gets the shade"
>
> -Old Chinese Proverb

One hundred year old eastern cottonwood (Populus deltoides) trees stand as much as 40 m above Waverly Park.

Photo by Jay Dampier

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OBJECTIVES and RECOMMENDED ACTIONS

A. By 2020 city tree and shrub canopy cover has increased to 30% (from 25% in 2012) within urban limits.

ACTIONS FOR CORPORATION

a. Update the Engineering Standards to reflect the Parks Division Standards and Specifications, and the goals of the Urban Design Guidelines and the Urban Forest Management Plan (UFMP)

b. Implement UFMP beginning with the following three priority areas:

    i. Tree Risk Assessment Program

    ii. Priority pruning and planting programs

    iii. Young tree training program

c. Implement the Image Route Private Tree Planting Program

d. Create shade tree guidelines to encourage a minimum canopy cover percentage for commercial and multi-unit residential properties

e. Support staff training and certification in both arboriculture and horticulture

ACTIONS FOR COMMUNITY

a. Develop/identify means to increase private tree planting (e.g. LEAF Toronto)

b. Participate in City strategic planning and project development

B. By 2020, the City of Thunder Bay has a more integrated approach to community planning (i.e. policies/procedures consistent with Official Plan (OP), UFMP, Urban Design Guidelines (UDG)).

ACTIONS FOR CORPORATION

a. Enhance the City's Official Plan (OP) to include more specific green infrastructure policies; to plan land-use with green infrastructure at its core to maximize benefits; and to reference the UFMP

b. Consider trees as assets and as infrastructure

c. Coordinate cross-departmental decision-making so that green infrastructure is included at the start of the decision making process

d. Create, and acquire sustained funding for development of the implementation plan to pro-actively manage the urban forest, as stated in the UFMP

e. Create stronger Site Plan Control regulations and enforcement to reflect green infrastructure policies

ACTIONS FOR COMMUNITY

a. Track innovative policies and initiatives

b. Work with City Administration to incorporate new ideas into work plans, budgets, and future OP revisions

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C. **By 2020, Thunder Bay's citizens are actively engaged in Community Greening through new private-public partnerships, educational events, tree programs and social media.**

ACTIONS FOR CORPORATION

a. Increase the community's understanding of community greening through various media and marketing initiatives (e.g., social media, ad campaigns, mobile app development)

b. Develop incentive programs for the public to plant and maintain trees on private property (e.g. Image Routes, high priority areas)

c. Install multiple demonstration sites to showcase green infrastructure services (LID/urban orchard)

d. Continue promotion of Notable Tree Program, Citizen Pruner Program, Commemorative Tree and Bench Program, Tree Stewardship Program and other City urban forest programs

ACTIONS FOR COMMUNITY

a. Provide expertise workshops for citizens and businesses (e.g. speakers' series, guided/educational hikes in the urban forest, media involvement)

b. Provide and expand public training on how trees can be pruned appropriately (e.g. Citizen Pruner Program)

c. Establish annual Greening Awards (through Clean, Green and Beautiful) to recognize landowners, citizens and businesses that have incorporated new green infrastructure components of their property

d. Cultivate new partnerships and/or businesses (e.g. large-scale composting)

e. Work with the EarthCare Education working group to enhance outreach opportunities

f. Educate local landscapers and "living green infrastructure" suppliers about proper tree form, species, and soil requirements

g. Involve media in sharing success stories and best practices

D. **By 2020, Thunder Bay's natural areas and urban forests are comprised of a healthy and diverse mixture of flora and fauna that are resilient to the effects of climate change.**

ACTIONS FOR CORPORATION

a. Keep abreast of and plant a variety of locally appropriate plant species

b. Develop an invasive species strategy

c. Encourage new local tree suppliers/ propagators of locally appropriate tree species

d. Secure funding for the creation of a community mapping exercise (Official Plan-Environmental Policy Study) to document important local areas of biodiversity/ significant natural heritage features etc.

e. Establish and implement a system to rate biodiversity of private and public lands within the City of Thunder Bay that recognizes the role of healthy ecosystems in climate adaptation. (i.e. a Biodiversity Index)

ACTIONS FOR COMMUNITY

a. Work with local providers to increase appropriate 'living green infrastructure' species availability

b. Plan workshops and events that aim to educate the public on the value of biodiversity and ecosystems at the neighbourhood scale

c. Identify projects that aim to increase biodiversity by protecting, maintaining, or rehabilitating public and private lands

d. Perform site visits to determine if neighbourhood habitat/biodiversity is healthy

> "You can gauge a country's wealth, real wealth, by its tree cover"
>
> –Dr Richard St Barbe Baker

E. By 2020, trees planted by the City have adequate soil volume and quality to ensure the living green infrastructure's full lifecycle, and associated ecosystem services, are achieved.

ACTIONS FOR CORPORATION

a. Adopt Parks Standards and Specifications into the Engineering Standards

b. Increase soil volumes and standards associated with green infrastructure to keep pace with other municipalities

c. Educate public, private sector and the Corporation about soil and its importance

d. Use new and emerging technologies (e.g. Silva Cells)

e. Encourage amendments to the Roads Divisions' Salt Management Plan that would reduce the use of salt on City streets

ACTIONS FOR COMMUNITY

a. Educate the community about the value of soil

b. Raise awareness of economic opportunities to create quality urban soil to meet City specifications

c. Develop partnership with Lakehead University's soil students in creating economic opportunities for private soil sector (e.g. municipal composting)

F. By 2020, the City's urban forest section has developed official research partnerships with academic institutions such as Lakehead University and Confederation College, to create greater synergy between academia and industry and provide new research opportunities for students.

ACTIONS FOR CORPORATION

a. Create a committee of like-minded faculty (not limited to Thunder Bay) and City professionals that meet intermittently to collaborate and create new research opportunities

b. Develop an extension page to the City's website that lists potential City research projects and archives past research projects

ACTIONS FOR COMMUNITY

a. Encourage faculty representation from Lakehead University and Confederation College on the Community Greening Working Group and on research committee

WHAT YOU CAN DO:

• Plant more trees and shrubs (using non-invasive plants)

• Maintain your living green infrastructure (water, prune, mulch, fertilize when necessary, inspect for damage or disease)

• Participate in Arbor Day held annually in the spring

• Request a boulevard tree through the City

• Participate in the City's Citizen Pruner Program