RIGHT TREE IN THE RIGHT PLACE

For a Resilient Future

SOS TREES COALITION

Invest in Saskatoon's Urban Forest

Our urban forest is a defining part of our community, providing immeasurable benefits to people, animals, pollinators, and environment. As a natural asset, the urban forest is currently valued at **$520 million** and is one of the few city assets that increases in value year over year. Yet, urban forestry remains underfunded and canopy loss is happening at an increasing rate.

6 recommendations for securing the future of the urban forest emerged from our City Councillor coffee meetings:

Pests & Diseases

Maintain the annual $350K Urban Forestry Reserve Contribution to combat incoming and future pests

Tree Protection

Increase monitoring and enforcement of existing protection policies and the upcoming by-law

Urban Planning

Design new areas and implement creative planning solutions to optimize tree planting

Partnerships

Increase funds for environmental grants and expand eligibility criteria to include tree planting

Planting

Increase planting to the minimum replacement level of diameter at breast height

Communications

Better educate, engage, and involve city residents in protecting and planting trees

SOS Trees Coalition: Summary of 2023 Councillor Coffee Meetings

The Values and Benefits of an Urban Forest:

Saskatoon's urban forest is a defining part of our community, it provides immeasurable benefits – ecologically, socially, culturally, and economically. Trees connect us to nature, each other, and ourselves, as well as to other species that our urban forest supports. Trees also provide essential services such as improvements to air and water quality, cooling and shade, shelter from wind, stormwater management, plus climate adaptation and mitigation benefits*. It is one City asset that actually gains value year after year.* (*Introduction to Pathways to a Sustainable Urban Forest, Implementation Plan*. City of Saskatoon)

The environmental benefits to the city are numerous and are clearly stated in the Saskatoon Urban Forestry Plan, Saskatoon Green Infrastructure plan, and the Saskatoon Official Community Plan. Trees:

- *Reduce the heat island effect:* asphalt and pavement are very common road materials in cities, which can attract and hold a great deal of heat from the environment, thus making cities warmer by five degrees or more, than the area outside the cities ; urban forests and other vegetation can help decrease the overall urban temperature making cities more comfortable
- *Reduce energy use in buildings:* Trees and vegetation that directly shade buildings decrease demand for air conditioning.
- *Improve air quality and lower greenhouse gas emissions:* By reducing energy demand, trees and other vegetation decrease the production of associated air pollution and greenhouse gas emissions. They also remove air pollutants, detoxify smoke, produce oxygen, plus store and sequester carbon dioxide. In 2023, 1.9 million hectares of Saskatchewan forest was burned by wildfires, thus releasing an astronomical amount of sequestered carbon into the atmosphere. Replacement of trees across the entire province is critical.
- *Enhance stormwater management and water quality:* Vegetation reduces runoff and improves water quality by absorbing and filtering rainwater before it enters the river.
- *Reduce pavement maintenance:* Shade from trees can slow deterioration of street pavement, decreasing the amount of maintenance needed.
- *Improve quality of life:* Trees and other vegetation provide aesthetic value, habitat for many species, reduce urban noise, and can greatly enhance the mental health of city residents.

Our city's actions and budgets struggle to reflect the studies, plans, and rhetoric around the value of trees. Currently the operating budget does not support the asset value of our green infrastructure/trees at the same level as other services.

	Asset value	Tax supported (annual)
Transportation	$ 93,000,000	$8,250,000
Remai Modern	$110,000,000	$7,173,000
Urban Forest	$520,000,000	$4,280,000

The Loss of Service Delivery:

In 2022, 700 city trees were removed ; these trees had an average DBH (diameter at breast height) of 18.6 cm; trees having this diameter in this growing environment would indicate they are several decades old. Studies show that to replace the carbon storage capacity of these 700 trees would require planting over 1,000 5 cm DBH trees per tree removed.

Older trees with a larger DBH have the potential to store (sequester) more carbon than smaller trees. When the city doesn't consider tree size for replacements, we reduce the environmental benefits to our citizens. This would be comparable to that of replacing a city transit bus with a smart car or a scooter. It still provides transportation, just not at a level that meets expectations.

Replacing trees equal to the DBH loss would be a good first step toward slowing the loss of canopy. It would be a desirable action by the city, to replace the canopy loss by planting three to four 5 cm trees for each tree removed in past years. We encourage the City of Saskatoon as rapidly as possible, to plant as many trees as possible, because every tree makes a difference.

The city's urban forestry department is under-funded and under-resourced to meet the existing needs of our city's green infrastructure, let alone meet the needs of our future larger green infrastructure. This needs to be addressed by City Council.

Specific Issues and Recommendations:

1. Dutch Elm Disease (DED) & Emerald Ash Borer (EAB) Threat

Both DED and EAB have migrated across North America. They are currently in Winnipeg and knocking on Saskatoon's door. Winnipeg still can't keep up, after increasing the tree budget by $1 million annually in 2021, adding $25 million in capital funding over 5 years and securing $7.3 million from the 2 Billion Tree Program. But their urban forest strategy is careful to point out that, despite increased funding, the city's pruning, maintenance, removal and planting targets are still falling behind.

City of Winnipeg's 2023 Urban Forestry Budget was $12 million in 2021, in 2023 it is $26.3 Million. A comparable budget for Saskatoon, adjusting for a population difference, would be $8.9 Million (285,000/841,000 x 26.3). Saskatoon's 2023 Urban Forestry budget is $4.28 Million, less than half of Winnipeg's per capita.

How fast can DED or EAB impact the city budget? In studies across North America both insects can destroy a city's tree population in a decade once established. An example is Minneapolis; it took 10 years to reach 400 elm removals annually, followed within 4 years to reach 26,000 elm removals annually.

The cost of not expanding tree surveillance, removal & planting is astronomical. But can we really risk the loss of our elm's and green ashes, which have a combined city asset valued at over $250 million? The point is that we need to be proactive and not get ourselves into that situation. Instead, we need to increase our surveillance now, as this will save money in the future by not having diseases get out of control. This means that city tree pruning must be increased to a 7-year cycle, and must include all city trees, street trees, golf courses, parks, shelterbelts, and naturalized areas.

The funding of the Urban Forestry Reserve at the goal of $1,000,000 annually would be a good start to addressing the need for disease prevention, while the alternative of reducing the annual contribution places our trees and the environmental services they provide at greater risk.

Elm wood disposal should be free, for homeowners as well as arborists.

<u>SOS Trees recommends maintaining the previous level of $350,000 annually for 2024 & 2025 in the Urban Forestry Reserve Contribution.</u>

2. Tree protection

It appears that the current Tree Protection Policy is both inadequate and under-staffed for enforcement as we frequently see large city boulevard trees succumb several years after infill construction. We understand that the city is working on new protection standards but without proper permitting and sufficient staff to monitor and enforce specifications on construction sites, our oldest and most valuable trees will remain vulnerable.

Losing big trees, both public and private, negatively affects everyone in our community. The loss of shade and cooling, bird life, home/neighborhood value, and just the beauty and aesthetics of the street and back yards changes significantly. We should be doing everything possible to protect our old elms. They sequester more carbon than we can replace through new plantings.

Trees that are deemed vulnerable during and after construction should be assessed and provided with irrigation and fertilizer.

There needs to be a tax incentive for people valuing and protecting trees on their private property.

We see a lot of trees damaged by snow removal crews.

SOS Trees recommends increasing staff and/or contracts to sufficiently monitor and enforce tree protection policy, standards and forthcoming by-law.

3. Urban Planning

Newer neighborhoods were not planned with trees in mind. The boulevards have become utility corridors with no space left for trees. Also the amount of concrete and pavement in yards leaves little to no space for vegetation. We are building new neighborhoods without trees that in the future no one will want to live, shop or work in. As global warming becomes more of a threat, the increase in temperatures will result in a greater heat island effect making it difficult to live in those neighborhoods. Old large canopy trees can cast a large shade canopy which can be ten degrees or more cooler than in the open area outside the shade canopy. Tree planting sites need to be considered in the early stages of planning new neighbourhoods.

SOS Trees recommends reviewing all capital projects and re-allocating funds to increase tree planting to reflect the minimum level of “diameter at breast height” (DBH) replacement of all City trees.

4. Planting

Tree planting should be an opt-out program. We need to encourage planting street trees so that one day these new areas will also enjoy a beautiful canopied neighbourhood. The current opt-in program does not really entice people to phone in, in order to get a tree. Many don’t even know that is an option. Thus, we only see sporadic trees along the streets. Greater public education is required in this area.

Participants voiced a need to increase naturalized plantings. The city’s naturalized parks are great, however, many parks continue to be planted with lollipop single tree planting methods. Not only do they have to be mowed around (potentially damaging the tree trunk) but they do not have a sufficient area that can be mulched to hold moisture and for healthier root growth. Trees do better when planted together. A large cultivated area planted with trees and shrubs and protected with 4” of mulch will need less watering and will enhance the health of the planting. This could be a naturalized planting with understory plants, primarily utilizing native species. Many people walk in parks for the opportunity to observe birds and other wildlife, which is not the same experience in the more sanitized manicured urban parks.

Plant the right tree in the right place. Are the trees we are planting correct for the soil type they are planted into? A good example is to plant ‘wet-site’ species in areas known to have a higher water table.

During the last few years, dozens of trees have been removed and not always replaced. It is shocking when one walks around the park. Drought has been a factor. Limited watering has occurred. Reforesting parks does not seem to be a priority.

Utilizing the application of mycorrhizal inoculum when planting trees has proven to increase survival. Dutch Growers provides extended warranty on their trees when purchased and planted along with mycorrhizae. Could this be an important investment to help assure sustainability of our trees?

Planting & maintaining Food Forests are good for community building and improves food security. We recognize that they do have higher maintenance requirements. The city is currently running two food forest pilots, which we hope the city will take the lessons from them and expand the program across the city.

SOS Trees recommends reviewing capital projects and re-allocating funds to increase tree planting to the minimum level of diameter at breast height (DBH) replacement for all City trees lost.

5. Partners and Grants

There could be an increase in funds available through the city environmental grants. Local organizations are one of the best investments dollar for dollar, utilizing volunteers and passionate people. This is also a way to get communities involved. Longer term funding would help organizations with longer term planning and applications for matching funds from other sources. Community organizations work for free! Organizations such as SOS Trees, CAPE SK, Saskatoon Climate Hub, Wild About Saskatoon, Saskatoon Nature Society and the Meewasin Valley Authority can all play a role in education. Partnerships could be better established between community organizations and the city to help address high priorities with low city capacity (e.g., tree planting, pest/disease monitoring, public education). People come to Saskatoon to see and enjoy the Meewasin Trail; having a city with a large well maintained urban forest will encourage more tourism, bringing more money to the city.

SOS Trees recommends increasing funds available for environmental grants and include tree planting in the eligibility criteria.

6. Communications and Education

There is a lack of response or feedback to individuals who report concerns to the City. Sometimes there is a lack of information offered to the resident.

There is a great need for public awareness and education. Some awareness needs include: Elm wood identification and disposal, Dutch Elm Disease and Emerald Ash Borer awareness, the need to water, the connection with our health and well being, and the monetary value of trees as a city asset.

Yellow signs that were at one time posted on trees near construction sites need to once again be used as they provided valuable individualized tree information.

Increase Saskatoon city staff participation in Arbor Week .

Why do we allow plastic grass, and the paving of entire front yards? Do homeowners not have a responsibility to make their property permeable to reduce the community flooding and discharge of untreated run off into the river while increasing water retention in the soil?
As we tear up our streets for sewer and water replacement as well as design new neighborhoods in our semi arid climate, why not include a gray water and untreated river water system for park watering? New parks should have underground water storage tanks for irrigation from rain water and/or gray water. There needs to be more conversations about these types of sustainable solutions.

An annual State of Saskatoon's Urban Forest report needs to be published on the city webpage. An example is Regina's report

Meeting participants voiced concern for spending and some suggested to put roadway and other hardscape projects on hold. The city may need to shelve big ticket items (new arena, library, festival site) and get back to maintaining and protecting the city that exists now and make it more sustainable for the future.

7.Mental & Physical Health and Our Green Infrastructure

According to the Health Promotion and Chronic Disease Prevention Journal / Public Health Agency of Canada, mental health disorders, including depression and anxiety are the primary cause of workplace disability in Canada in 2022 ; projected factors causing these disorders include the impacts of global warming, and high-density housing (both related to the lack of a green infrastructure)

- Our green infrastructure has a huge impact on our mental health. Residents buy a home in a new neighbourhood, and one of the first things they do is plant trees and shrubs - mentally we need to be surrounded by a green infrastructure. If there are no trees in the neighbourhood, it will be less likely to attract residents
- Over 500 published studies relating exposure to / use of green infrastructure and physical and mental health ; parks, walking paths, playgrounds with trees and other plants will be used by residents and will lead to improved physical and mental health
- American Psychological Association recommends walking in green spaces to manage stress
- Build a forest with paths, and people will use it ; Meewasin Valley trail is an excellent example, with over 2.3 million uses last year
- A green park with playgrounds, trails, a permanent wetland ecosystem, trees & shade, benches, community garden will greatly enhance community social cohesion ; green infrastructures unite communities
- Japanese practice of forest therapy (Shinrin-yoku) is now common therapy practice used world wide ; Canadian Association of Physicians for the Environment has a

Saskatoon office - physicians connect human health and the environment ; University of Saskatchewan - Centre for Integrative Medicine is active in researching environmental issues which impact human health ; also therapeutic / healing gardens

A very common comment from sessions was that during covid, people were able to safely socialize outside, maintain a healthy lifestyle, and maintain their sanity while walking along the Meewasin trail or through other parks. This had a huge impact on the mental health of countless residents.

Thank You

A big Thank You to the 100 community members and Councillors who participated in the 2023 councillor coffees. SOS Trees Coalition looks forward to working with the City and others to protect and expand the urban forest for future generations. In the meantime we welcome the opportunity to discuss concrete ways to address the urban forest and climate mitigation possibilities with you and answer any questions you may have.