GREENSPACE ALLIANCE

A Climate Change Strategy for London, Ontario

Establish a Greenspace Commission

To ensure adequate protection and preservation of public greenspace, City Council should create a Greenspace Commission wherein the commissioner will have the power to access all information related to the ownership of public and private land in London and oversee greenspace planning.

- **Give the Commission a Degree of Independence**

If the new commission is to be effective in helping London's city government forge a new path for protecting, acquiring and designing city greenspace, the commissioner must have a degree of expertise and experience in greenspace planning.

The commissioner must be allowed to choose the staff who will be tasked with the preparation of the inventories of London's greenspace.

The commissioner and commission must operate at arm's length from city council, with as much independence as legally possible.

- **Give the Commission Power to Inventory All Greenspace**

The commission should not be bound by any current designation of city property. For example the fact that a piece of property might currently be designated as industrial or zoned for development should not impact the commission's decision as to whether it is to be considered greenspace that warrants protection.

The commission should have the ability to override land use decisions currently made by other offices such as Realty Services and Parks and Recreation.

- **Begin By Inventorying All Public & City-Owned Greenspace**

Greenspace that is defined as “public” and which is to be protected for the public good shall include, but not be limited to baseball fields, bike paths, dog walks, football fields, golf courses, "historic" sites, lawn bowling pitches, parks, pickle ball courts, picnic grounds, playgrounds, soccer pitches, splash pads, swimming pools, volleyball courts, tennis courts, walking paths, ESAs (environmentally sensitive areas), bodies of water (ponds, lakes, rivers) used for outdoor recreation, and other spaces as designated by the commission.

- ## Publish the Inventory of Public Spaces

Once a complete inventory of greenspace is conducted by the commission – an inventory that should be completed as quickly as possible – the inventory should be published and presented to the public.

Information about greenspace properties should include facts that will be relevant to future use of them, to include acreage, shape, drainage, cover, any studies that have been conducted in regard to salt management,[20] soil contaminants, or other pollution, the potential costs of applications, the support that is available to improve properties, etc.

- ## Let London’s Communities Decide Their Greenspace Use

The final decision – in regard to what use a property will be put in a community – should be a neighborhood effort and should involve residents of all ages.

Creative ways of getting resident input should be sought. For instance, schools might sponsor poster contests in which students are asked to draw pictures of their outdoor activities, indicate the greenspaces on which those activities are enjoyed, and then imagine even more uses for those greenspaces.

- ## Greenspace Must Be Equitable

We cannot go forward with some communities shaded by trees and others sweltering with no trees and no relief. There should be a committee representing all of London in which issues of disparities between the regions are raised. With this kind of safeguard, a proposal to sell greenspace in one region in order to spend it on facilities for another would be rejected on the basis of equity.

Committees composed of members from regional communities should also be formed to provide balanced input into future applications of available greenspace. These committees can be organized by electoral ward or groups of wards which should make it easy for local councilors to participate. Putting this in place will require patience, effective communication, and hard work but assuring equity in the distribution of greenspace should be doable.[21]

Enact a Moratorium on New Development

The residential and commercial developments that are being designed and built in London in 2022 give no consideration to the need for a tree canopy, yet urban heat events are expected to become more frequent and deadly as our planet continues to warm.

London needs new building codes that require developers to contribute to London's tree canopy instead of subtracting from it. Until these codes are in place there must be a moratorium on new development. Whether it can create new and effective codes within 60, 120, 180, or 365 days will be up to City Council to determine.

Focus Resources on Building the Forest Canopy

In comparison to the planning of greenspace, actually planting the trees that will become London's canopy will present more of a challenge. While a committee can agree to plans and designs on paper, it takes people to plant the trees that will cool[22] our city, and those people must be in favor of the plan to get on board and do the work. For residents to support building the tree canopy in their communities, the overall plan must be sound and make sense.

• Measure Tree Canopy In Each Community

Before effective action can be taken, community groups must be engaged – or new groups created – and each group will need to know the size of its current, local canopy along with its tree composition and condition. Once a community has this information it can create planting goals and go forward with the best approach for developing its tree canopy.

• Create Planting Strategies for Community Use

Plant trees expected to thrive in temperatures of 20 to 30 years from now.

Technical help in this project takes on a whole new dimension as there are challenges that even experts find formidable. When it comes to choosing the species to be planted, we are in a "best guess" situation, but the rule of thumb for planting trees to help mitigate climate change is to plant species today based upon temperature predictions for twenty to thirty years from now.

For instance, it is predicted that in 2042 the climate in London, Ontario will be similar to Washington, D.C.'s climate in 2022. This means we should be planting trees in London that are currently thriving in Washington, D.C. Yet, species selection is just one issue in canopy development.

Factor in the effect of impervious surfaces, evaporation and air movement.

Like all cities, when seen from above, London presents a quilt-like patchwork of areas. The amount of tree canopy varies from patch to patch and area to area.

To arrive at the best canopy design for a particular area, planners will need to factor in the effect of impervious surfaces, evaporation, air movement, and other characteristics of the area.

Models of 40% canopy communities need to be created so developers will have guidance in how to design their projects. Some communities have created tree canopy guidelines and designs, [23] [24] and reviewing them will be helpful in creating guidelines for London. It may be noted that these models will still be guesses and that developers should be encouraged to guess on the side of adding more trees rather than fewer.

• Provide Communities with Resources & Incentives

Provide Greening/Canopy Consultants

According to Reforest London, forty percent of all the land in London, Ontario is currently owned and controlled by individual, residential land owners.[25]

While more of these land owners are becoming concerned about climate change and want to do something about it, they may not know where to start, especially when it comes to what to plant on their property or neighborhood plot.

It is suggested, therefore, that the city create or hire a team of greening/canopy consultants who will go out to property owners and/or community groups, by appointment, to look at properties and recommend trees, bushes, and/or planting designs.

Each consultant should carry lists of recommended trees and bushes, along with planting instructions. In some cases, a consultant may be able to sketch out a quick and basic design.

Provide Planting Resources

Reforest London is a non-profit in London, Ontario that operates on a grant and private donations. It provides trees free of charge to residents when trees are available.

Although Reforest London does wonderful work and has a noble vision, this non-profit resource provider cannot green London alone. The City of London must provide even more resources and incentives for planting trees.

Resources and incentives can be many and varied, and tested to see what works best. They can include creating a tool library of shovels and gardening implements, providing reduced cost trees and bushes, organizing volunteer planting teams, and/or giving tax credits for planting and maintaining trees.

Whatever will work to get people involved and planting should be up for consideration. It is highly recommended that Reforest London be contacted for input.

Sponsor and Encourage a Planting Day throughout the City

London's Clean and Green is a successful program. The city should sponsor a Planting Day along the same lines. Communities can order trees through the city, planting teams can be organized, and the entire city can participate in adding to London's tree canopy on a single day. While one day of planting trees is not the solution to developing an adequate tree canopy, the campaign would begin to draw attention to the need to plant trees everywhere we can throughout the planting season.

- ## Use a 4-pronged approach to Canopy Development

1. **Create a new model for community and suburban design that maximizes canopy development.**

2. **Accelerate canopy development in those areas with the least canopy.**

3. **Identify older residential areas in which houses are further apart and, while there may not be a substantial canopy, there is room to plant.**

4. **Rehabilitate urban forest sectors.**

The challenge of canopy development is not just a matter of starting to build communities based on a new greenspace model. We must use all available space in residential areas for tree-planting AND rehabilitate urban forest sectors which, currently, range in condition from very promising spaces that can be filled in relatively easily, to unmitigated disasters.

The science shows that if the whole canopy averages 40% then all parts benefit from cooling to some extent. Accelerating canopy development in areas with few trees will not only begin to protect Londoners in those areas from scorching heat, but those trees will contribute to London's overall canopy cover.

Growing the canopy in more heavily treed parts of the city cannot be neglected. It will involve planting trees in scattered empty spots as well as replacing trees that die or

become diseased. The focus in these areas should be on how best to maintain the existing canopy.

Some areas in older parts of the city may lack trees, but have lots of space in which to plant them. The focus in these areas should be to identify areas that can be planted and then get trees in the ground as fast as possible.

In newer housing developments in London - those built within the last fifty years - there is a considerable range as to the extent of canopy. Right now, it would be unusual to find any modern suburban development that has anywhere close to a 40% canopy. The current 25% seems a reasonable estimate.

Seventy years ago, aesthetics suggested that trees made housing subdivisions more attractive and that properties would increase in value on tree-lined streets.[26]

While creating tree canopy was not part of those original subdivision designs, these older communities have space for expanding the canopy. Their lots are larger, there is proportionately less house on each lot, the space from the road to a resident's lawn is often more generous, and there is, typically, more room between houses.

While creating a 40% canopy will take planning, time, and money wherever it is done, it will be easier in these neighborhoods and they will look better for it. Sadly, London's main problem today is that too many neighborhoods are high density and lack this kind of planting potential.

London's Urban Forest Challenge

Older regions of London, Ontario have a significant tree canopy, but new housing since the 1950's has been built ever more compactly, with less and less room for tree canopy.

Current suburban development – even more compact and lacking space to fill in adequate canopy later – is occurring in a wide ring around London's core. At this point, the largest bulge in the ring is in the north of the city where new developments are accelerating. The main goal of developers is to squeeze as many units as possible on a parcel of land with no serious concern for greenspace or canopy.

In such developments – in which rooftops and roads occupy over 80% of the space available – there is no possibility of growing even a 15% canopy; so roofs, walls, and pavement absorb and radiate heat which affects not just those residents but the rest of the city.

In addition, as the interiors of these houses heat up – because they are not shaded – and residents are forced to use air conditioning, their AC units expel hot air which further increases the temperature of the outside air.[27] [28] This results in what is known as a "heat

island."[29] When heat islands are radiating heat within the patchwork of the canopy, they make the tree canopy less effective.

It may, therefore, be necessary to reduce overheating of these neighborhoods by building gardens on – or over – roofs instead of trying to figure out how to squeeze in more trees.[30] [31]

We Need New Urban Forest Community Models

City councils everywhere – and not just in London – need to rethink what neighborhoods with sufficient canopy must look like. Developing new concepts for housing that includes adequate canopy is a necessity for all urban areas and must be a high priority.[32]

Currently, homes placed on generous lots where canopy has room to grow is restricted to higher income buyers. It has – and will continue to be argued – that housing with this profile is too expensive for most buyers. Yet, in order to approach a 40% canopy anytime in the future, affordable housing must look very different.

Developing and enforcing these – as yet – uncreated models needs to happen, and soon.

The Cost of Developing a City's Tree Canopy

Toronto, aiming for an ambitious 40% canopy by 2050 will develop canopy over the next 28 years on a current annual urban forest budget of 68.7 million dollars. In contrast, London's budget is a modest 5.2 million dollars. Yet, London has two thirds the area of Toronto.

While two million more people are contributing to the cost of planting Toronto's trees, Torontonians contribute twice the amount that Londoners pay per capita. Building an adequate tree canopy as fast as possible will cost money. It will likely require an increase in taxes. Yet, looking at climate projections, it does not appear that we have any other choice.

If London is to grow a 40% tree canopy – which is the minimum that will be needed to protect its residents from deadly heat events in twenty years – reforestation must be put on steroids. Here are some suggestions for how to do it:

- More city and county-owned public lands must be earmarked for protection as greenspace, with as many of those as possible slated for development as either greenspace or urban forest.

- Private business and homeowners must receive incentives to get involved.

When the canopy is viewed from above, public and private all look the same. It all contributes to the canopy. Those spaces that are a complete drain on the cooling effects of the canopy must be remedied, in some way.

Whether a densely packed development can contribute to the canopy with the addition of rooftop gardens needs to be researched by an independent person or committee that has no ties or interest in the development being assessed.

Whether derelict buildings can to be razed and replaced with trees needs to be explored, again, by persons with no financial interest in the outcome.

- Everyone must be required to get on board.

  Just like everyone who drives a car is required to take a driving test and have insurance for the common good, everyone who owns property will have to abide by the same rules. Those who resist incentives and ignore new codes will need the opposite end of the stick: fines or fees for not adhering to green zoning regulations. Those fees can then be used to buy more private property as it comes up for sale, and green it.

- Offer a carbon-offsetting credit for planting and growing trees.

  Just as Ontarians have to pay a carbon tax for burning gas, serious thought must be given to creating an offsetting carbon credit for planting and growing trees. It only seems fair that, if you're charging Ontarians for putting carbon in the air, you should be paying them for taking carbon out. [33] [34] [35]

Although some of these suggestions may seem extreme in terms of potentially requiring owners of private property to make alterations, there can be no "free pass" in regard to greening private property. We will live or die together, depending upon our actions now. No one will be spared if we do not grow our tree canopy so that it cools our city and removes carbon dioxide from the atmosphere.

The Mission of the Commission

The cooling of cities can be viewed as a battle between canopy cooling and pavement heating. The work of London's Greenspace Commission will be to win the battle, by making recommendations on how to accelerate the growth of greenspace and tree canopy while slowing the proliferation of bricks, pavement, and asphalt parking lots as London's population grows.

When created, the immediate work of the commission should be to focus on the preservation of existing greenspace and canopy. Yet, the mission of the commission must be to acquire more greenspace and increase London's tree canopy for the future.

In light of London's need for more and not less greenspace, city council's vote to sell River Road Golf Course in order to repair buildings and pavement was ill-advised. It works against the long-term greening plan which London desperately needs. The commission should, therefore, have override power in regard to the sale of public greenspace.

The commission will also conduct greenspace research and recommend proposals for greenspace projects in which properties are acquired, impervious surfaces demolished, and canopy/greenspace created.

City government itself should aim to decrease its own need for city buildings and impervious surfaces such as parking lots. The Greenspace Commission can lead the way by operating as close as possible to a zero carbon footprint and zero pavement standard.

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