# Equity and Urban Greenspace Planning in Toronto's Chalkfarm Tower Community

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## Abstract

My research paper examines interrelationships among environment and climate justice, equitable access to greenspace and its benefits, and urban planning policy and practice. First, I provide broader context with a review of existing literature relating to the benefits provided by ecosystem services in urban environments. I then review different types of urban greenspace and their associated benefits, such as climate resilience, mental and physical health, and community connection. I then examine aspects of the history of environmental justice, and how it has developed as a scholarly subject and activist movement in relation to current issues of climate justice and greenspace equity, particularly in Toronto. I examine how distributional, procedural, and recognitional components of environmental justice relate to access to urban greenspace and its benefits and risks in addressing issues of greenspace equity. Using the case study of the tower community at Chalkfarm Park, in Toronto, I then examine the condition of nearby greenspace and other open space. I then discuss the potential impacts of a current infill development application, at the site, as well as relevant planning policies and guidelines.

## Foreword

In my plan of study, I identify 3 primary components of my area of concentration, the first of which is to examine dynamics of urban planning and climate resilience**.** Urban planning policies and practices impact the ability of communities to adapt to climate change as well as potential climate change mitigation strategies. For example, the City of Toronto employs various policies and guidelines relating to climate resilience, such as targets to increase tree canopy cover, and development sustainability standards. However, the wider provincial policy framework that governs the planning process determines the capacity of municipalities to implement such strategies. This research explores these issues in depth, particularly within Section 4, Planning Considerations in Addressing Inequity in Greenspace; and Section 5, Chalkfarm Case Study.

The second component of my plan of study is social equity, specifically examining inequity relating to marginalized communities' access to greenspace, identifying ways in which marginalized communities experience barriers spatial and social barriers to accessing greenspace and its benefits. This component is the central focus of my research paper, which examines these issues, in depth, particularly in Section 3, Equity and Environmental Justice; and Section 5, Chalkfarm Case Study.

The third component is urban greenspace and human health and wellbeing, examining types of urban greenspace (parks, ravines, private properties, community gardens, public right of ways) exploring how different greenspace typologies contribute to human health and wellbeing, particularly as it relates to climate change vulnerability and adaptation. These issues are discussed, in depth, in Section 1, Urban Greenspace and its Benefits; and Section 2, Urban Greenspace Typology.

## Acknowledgements

I have come to this research from a background in horticulture, landscape design, and professional experience in community planning. The MES program provided me with an opportunity to explore subjects about which I am passionate, including social justice and climate resilience.

The genesis of the Chalkfarm case study was a group project in Dr. Jenny Foster's environmental urban design course, in the fall of 2024, completed with fellow MES students Destiny Laldeo, Aaron Joseph, Sapthasavasana Killewalavan, and Samuel Switzer, which explored the socio-spatial conditions of the Jane-Wilson neighbourhood.

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## Introduction

Climate change and urbanization are often linked, and for good reason. As humanity finds itself in an epoch where the realities of anthropogenic climate change coincide with greater proportions of the world's population living in urban areas, the nexus of these dynamics lays bare the perils to earth's ecosystems and risks to humanity, especially to the most vulnerable among us. Globally, these perils are perhaps most apparent among many inhabitants of the global south, who have collectively also been the inheritors of inequities wrought by legacies of colonialism and extractivist capitalism, find themselves disproportionately impacted by climate change, and forcedly displaced due to both climate and geopolitical conditions.

In the global north, the interrelationship between climate change and inequity plays out differently. Nations the world over are seeing increases in urban populations: As of July 2025, almost 75% of Canadians lived in census metropolitan areas which are urban areas with a population greater than 100,000 (Statistics Canada, 2026). This is a trend that began in the early twentieth century and continues, relating to shifting economic, social, and political factors. In the Toronto, Canada's largest city, the population had a net increase of 688,126 between 2001 and 2025, an increase of almost 27% (Statistics Canada, n.d.). These demographic changes have occurred at the same time that the impacts of climate change are also being increasingly felt. In Toronto, "the ten warmest years on record (since 1850) have occurred since 1998. By the end of summer 2025, Toronto recorded 24 days above 30ºC, more than double the historical annual average" (City of Toronto, 2025b: 6). There has also been a rise in extreme precipitation events, with the city's most financially costly flood event occurring in June 2024. It is widely accepted that such conditions are the result of anthropogenic climate change. At the same time, the increase in the city's population (as well as speculative real estate investment and neoliberal policies and practices) has driven unprecedented development; "[e]ach year, the City receives over 450 new development applications and 1,200 resubmissions— more than any other Canadian municipality" (City of Toronto, 2025a:1). Vulnerable populations and systemically marginalized communities, such as unhoused peoples, the elderly, low-income, racialized, and disabled residents experience compounding impacts of climate vulnerability and housing precarity and/or unaffordability (City of Toronto, 2025b).

In Toronto, as in many other large cities, extreme heat and increased flood risk are two of the chief threats posed by climate change, both of which can be exacerbated by changes in landcover driven by urbanization and increased density. Urban heat island, a phenomenon that causes cities to have a higher air temperature than surrounding areas, is created as a result of more heat being absorbed and retained due to the materiality of the built form of cities. Materials

such asphalt, concrete, and traditional roofing materials absorb heat. The proximity of tall buildings can also create urban canyons which retain heat and prevent air circulation. Similarly, changes in landcover can lead to increased risk of flooding, as the same materials that absorb heat in urban environments are unable to absorb water. This lack of permeability causes increased overland flow that can overwhelm stormwater management infrastructure and cause flooding. Overland flow can also lead to increased levels of water pollution resulting from pollutants picked up by surfaces such as roadways, and from contamination from sewage infrastructure overwhelmed by stormwater.

Urban greenspace contributes to climate resilience, as it mitigates negative impacts including urban heat island and flood risk; however, these are far from the only benefits. Urban greenspace is associated with a host of ecosystem services (ecological processes that benefit humans). Vegetation, especially trees, have the capacity to reduce urban heat island through both the shade they provide and through the process of evapotranspiration. Vegetated areas are also permeable, slowing water infiltration, and reducing overland flow and subsequent flood risk. In addition, urban greenspace provides opportunities for recreation and engagement with nature, demonstrably benefiting the physical and mental health of urban residents. Greenspace is also associated with air and water purification, reduced noise pollution, improved social connection, and increased property values. However, the benefits of greenspace in urban environments are not equitable distributed. In Toronto, as in many other cities, limited or lacking tree canopy cover is often associated with socioeconomically disadvantaged neighbourhoods. These same neighbourhoods frequently experience increased development pressure which can lead to a further decrease in tree canopy. Marginalized neighbourhoods also often experience decreased access to greenspace, through various physical and social barriers. Quantity or size, however, is not the only factor to be considered in the inequitable provision of greenspace, quality -- issues related to the amenities, facilities, and maintenance -- are factors that determine the potential benefits provided by greenspace. The quantity and quality of available greenspace can create spatial barriers to equitable access, but inequity also presents as social barriers. The ways in which greenspace is designed and policed, as well as social norms predicated on dominant culture, can create social barriers that limit use depending on race, income, gender, ability, age, culture, and housing status. The development of new or improved greenspace in marginalized neighbourhoods, however, is not without risk. As previously underserviced communities see improvements to local greenspace, such would-be positive interventions have been linked to ‘green gentrification’, potentially leading to increased housing unaffordability and displacement, as well as loss of community and sense of place.

My research paper examines interrelationships among environment and climate justice, equitable access to greenspace and its benefits, and urban planning policy and practice. First, I provide broader context with a review of existing literature relating to the benefits provided by ecosystem services and biodiversity in urban environments. I then review different types of urban greenspace and their associated benefits, such as climate resilience, mental and physical health, and community connection. I then examine aspects of the history of environmental justice, and how it has developed as a scholarly subject and activist movement in relation to current issues of climate justice and greenspace equity, particularly in Toronto. I examine how distributional, procedural, and recognitional components of environmental justice relate to access to urban greenspace and its potential benefits and risks in addressing issues of greenspace equity. Using the case study of the Toronto tower community at Chalkfarm Park, I then examine the condition of nearby greenspace and other open spaces. I then discuss the potential impacts of a current infill development application, at the site, as well as relevant planning policies and guidelines.

## Methodology

My approach to this research is highly exploratory. This research is comprised of a four-part literature review, providing background and context relating to 1) urban greenspace and its benefits; 2) urban greenspace typology; 3) equity and environmental justice; and 4) planning considerations in addressing inequity in greenspace. This literature review examines how these topics are understood within academic scholarship, and where appropriate, in grey literature. The fifth and final section is presented as a case study of the Chalkfarm tower community. The case study incorporates relevant demographic information and spatial analysis of greenspace and other open spaces near the site, and references scholarly research relating specifically to the Chalkfarm tower community, as well as other Toronto tower communities. I then examine an infill application currently under review at the tower community site, referencing application materials available through the City of Toronto Application Information Centre, as well as the policy framework applicable within the Ontario Planning Act, Provincial Planning Statement, and City of Toronto Official Plan, as well as other relevant municipal planning guidelines.

The original intent of the research was to include interviews with residents of the Chalkfarm tower community, however, despite my best efforts, I was unable to recruit participants in time to complete my research. To the extent possible with available literature, I have included research specifically about Toronto's tower communities in general, and the Chalkfarm tower community, specifically. I have also collected physical data through numerous visits to the site.

My experience as a landscape designer and site plan technician was central to the spatial analysis of greenspace at the Chalkfarm tower community. However, this analysis is limited by my position as a white, non-resident researcher. As such, I do not make specific recommendations about how greenspaces in the neighbourhood should be improved, as such recommendations should be provided by the community itself. The case study section of this research is intended to illustrate an example of greenspace inequity within a specific context, creating a narrative between the existing conditions, the changes proposed in the development infill application, and the applicable policy and guideline framework.

## 1. Urban Greenspace and its Benefits

It is not difficult to appreciate that nature is beneficial. As part of earth's biosphere, humans, along with every other organism on the planet, rely on complex processes for our most basic needs, including air, water, food, and shelter. Without healthy, well-functioning ecosystems, life becomes difficult at best, and unsustainable at worst.

### Decolonizing Ways of Knowing

Human cultures throughout the world have different ways of knowing and relating to ecosystems, and there are as many such knowledge systems as there are cultures. 'Western science' has come to dominate scientific research, with other knowledge systems either being fully disregarded, or viewed as inferior ways of knowing (Cajete, 2020). Traditional ecological knowledge and Indigenous science are terms used to describe "that body of traditional environmental and cultural knowledge unique to a group of people which has served to sustain that people through generations of living within a distinct bioregion" (Cajete, 2020: 2). Cajete (2018) describes Western science as a knowledge system in which humans are separate from their environments and its non-human inhabitants. There have, however, been shifts, among policymakers and within the academy, to recognize hegemonic approaches to knowledge, which is based exclusively on modern Western scientific values, and to decolonize these systems.

Referencing the adoption of the United Nations Declaration on the Rights of Indigenous People (UNDRIP), Held (2023: 92) argues that decolonization of science is not only a moral imperative, but also a legal one, enshrined in the "right to maintain, control, protect and develop… traditional knowledge … as well as the manifestations of … [Indigenous] sciences, technologies and cultures". Addressing the lionization of European enlightenment period and its influence on Western science, Held maintains that the universalist perception of Western

science has allowed its use as a tool for colonialism, establishing itself as the only valid means of knowledge, and delegitimizing other ways of knowing. As the foundation for all social institutions, this primacy has produced -- and continues to reproduce -- the inequities of colonialism systemically, through the education system and beyond. Recognizing that Indigenous scientific knowledge is highly contextual, rooted in specific place and the relationship of Indigenous people to that space, it is not possible to provide a single definition of Indigenous science. Held contends that there are, nevertheless, common qualities among Indigenous knowledge systems, such as generational knowledge, reciprocity, and holistic understanding. Dentzau (2019: 1032) describes Indigenous knowledge as "grounded in place and an understanding of periodicity, seasonality, ecological relationships, sustenance, land ethics and sustainability", further noting that "[b]oth [Western science and Indigenous science] approaches are ways of knowing the world, however, what is considered as evidence differs between each." Western science disregards Indigenous knowledge systems that are built on millennia of intergenerational inquiry and observation, dismissing these ways of knowing as lacking in quantitative rigor (Dentzau, 2019). As Held (2023: 96) argues, "discourse about what constitutes science and knowledge is distorted by social and political power imbalances. … Modern Western science is just one manifestation of the quest to generate reliable and useful knowledge." Care must be taken, however, to ensure that Indigenous science is not regarded as a means to merely corroborate findings of Western science. As Held (2023: 91) contends, "there is a multitude of sciences, and they all have roles to play in increasing humanity's knowledge about the world."

Dentzau (2019) notes that any shift toward recognizing Indigenous knowledge as a legitimate scientific knowledge system is, nevertheless, incongruent with a Western education system that is rooted in neoliberal paradigms, and that values only economic valuation. Dentzau contends rectifying the systemic bias that excludes Indigenous science will require deliberate effort from within Western science. To that end, I would argue that it is incumbent on environmental researchers and policymakers to proactively engage with Indigenous knowledge-holders, fully recognizing the value to scientific understanding, and to counter the hegemony of Western science universalism. Furthermore, having endorsed and committed to the implementation of the Article 31 of the UNDRIP, Canadian institutions have clearly articulated obligations (United Nations, 2007: 23):

> "Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the

> manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.
>
> In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights."

The City of Toronto (2022: 49) has also stated its own commitments in its Reconciliation Action Plan:

> "The City acknowledges that Indigenous oppression and genocide is rooted in the impacts of land dispossession and displacement. The City also acknowledges that Indigenous Peoples are experts in local land stewardship and carry thousands of years of collective knowledge of how to live in right relations with the land, water, and all its inhabitants.
>
> The City of Toronto will: […] Prioritize Indigenous worldviews and relational views of land protection and Indigenous community leadership to enhance climate resiliency."

Among policymakers at all levels of government, as well as within the academy, the ecosystem services framework is commonly used to quantify the benefits provided by nature, and is rooted in Western scientific approaches. In the next section, I examine the conventional functions and definitions of ecosystem service valuation of urban greenspace, and consider ways to decolonize this framework.

## Ecosystem Services in Urban Environments

The concept of ecosystem services was first articulated in the 1980s; it would later be adapted as an accounting method to financially quantify the benefits that nature provides for humans (Urzedo & Robinson, 2023). According to Everard (2022: 1) "'[e]cosystem services', as defined in 2005 by UN-led Millennium Ecosystem Assessment, are […] the benefits people obtain from ecosystems, [which] span a diversity of ways in which the natural world supports human well-

being". Conventionally, there are four specific categories of ecosystem services which include provisioning, regulating, cultural, and supporting services (Reid et al., 2005). These categories are intended to capture the material and non-material benefits that humans derive from the environment, though there is increasing recognition that the wellbeing of non-human beings should be included, as well as recognition of the inter-reliance among all organisms. Despite the limitations of the ecosystem service framework, it is useful in quantifying many of the benefits of urban greenspace. Nevertheless, in order to decolonize the framework, the ecosystem service framework must continue to evolve and expand. It must also centre other ways of knowing, such as traditional ecological knowledge and Indigenous science. To this end, the ecosystem services framework must be reflexive and self-critical (Raheem & Schwarzmann, 2021)

One criticism of the ecosystem service framework is that it is anthropocentric and fails to recognize intrinsic value in nature, as ecosystem service valuations are often focused on economic benefits, neglecting non-material benefits. Although the ecosystem service framework does account for some non-material benefits, these valuations are separated out within the category of cultural services. The framework, as a whole, and the way in which it separates categories of benefits, traditionally centres Western worldviews (Urzedo & Robinson, 2023). This narrow scope either completely disregards different ways of knowing, such as Indigenous ontologies and epistemologies, or attempts to shoehorn them into the ecosystem service framework, under cultural services, hence decontextualizing these perspectives. As argued by Uzredo and Robinson (2023: 8), "[e]ven progressive nature valuation instruments can reinforce and exacerbate the constriction and extraction of Indigenous knowledge to make it manageable within Western thinking." These limitations of the ecosystem service framework have been the subject of academic discourse. Some scholars propose adoption of different frameworks altogether, others argue that the ecosystem service framework provides consistency necessary for communication among different disciplines, and can be expanded to be more flexible and reflexive (Raheem & Schwarzmann, 2021). Drawing conclusions about the merits of these positions is beyond the scope of this research; nevertheless, as a researcher committed to decolonization, it is incumbent on me to highlight that the ecosystem service framework is not universally accepted, and if unquestioned, poses significant potential to exclude and marginalize, reinforcing colonial patterns of disenfranchisement. For the purposes of this research, I therefore cautiously utilize the ecosystem service framework in the evaluation of urban greenspace, recognizing its particular limitations.

## Ecosystem Services

The four categories of ecosystem services include provisioning, regulating, cultural, and supporting services (Reid et al., 2005). **Provisioning services** are those related to the production of goods such as food, fibre, timber, fuel, and medicine (Reid et al., 2005). Most provisioning services, such as food for the residents of urban areas, are produced outside of cities, in agricultural and marine areas, though the City Region Food Systems Programme (United Nations, n.d.) views urban areas and the rural agricultural areas as a "functional and spatial continuum, focusing on rural-urban linkages in terms of social, functional and agroecological interactions, connecting food system activities" (Cardoso & Domingos, 2023). However, food production also occurs within urban environments. Urban agriculture can take the form of small-scale commercial production, community and private gardens, and non-profit organizations. In Toronto, there are numerous urban agriculture examples, notably Black Creek Community Farm. Located in the northwest of the city, this non-profit organization delivers various programs related to urban agriculture and food sovereignty, which describes itself as an "agricultural centre rooted in Toronto's Jane and Finch neighbourhood that engages, educates and empowers diverse communities through sustainable food" (Black Creek Community Farm, n.d.). Within Toronto, despite the perception of a lack of available land, there exist ample sites which are suitable for urban agriculture, for example, within hydro-electric corridors. Nevertheless, technetronic barriers to accessing land can prevent the expansion of urban agriculture within Toronto (Hammelman, 2019). In neighbourhoods that experience racial and cultural marginalization, these barriers don't only limit the objectives of social and food justice, but also reinforce historical systemic inequities (Hammelman, 2019). This highlights how spatial factors are not the only impediment to provisioning services within cities, and demonstrates how socio-political barriers exacerbate inequity relating to provisioning ecosystem services in urban areas.

It should be noted that ideas of what agriculture *is* are also limited by colonial world views. Prior to occupation by European settlers and their agricultural practices that involved land clearing, tilling, sewing, fertilizing, and domestication of farm animals, the numerous Indigenous communities that lived in what we know call Toronto, such as the Wendat, Haudenosaunee, and Anishnaabe, practiced land stewardship which included the use of fire to maintain black oak savannahs. As Myers, (2018: 84) explains:

> "The oak savannahs in High Park have endured for millennia only because they were cared for by Indigenous people who deliberately and consistently used

fire to keep them open and thriving. Fire allowed the many who lived in this region to cultivate acorns, walnuts, butternuts, chestnuts, beechnuts, hickory nuts, and hazel nuts. These nourishing trees and the open canopies of the savannah lands attracted white-tailed deer, turkey, raccoon, squirrels, and passenger pigeons, and bears, making these spaces good sites for hunting."

Despite the common view that provisioning is something that occurs in rural areas and is transported to urban markets, provisioning services, such as urban agriculture, can and do occur even within densely populated metropolitan areas. The physical geography of Toronto has been the site of abundant provisioning for millennia. In order to decolonize thinking around provisioning ecosystem services, it is necessary to question both where and how provisioning occurs.

**Regulating services** contribute to systems such as air and water purification, flood prevention/stormwater management, and climate regulation (Reid et al., 2005). Different types of urban greenspace and green infrastructure have varying capacities for providing these types of regulating services. All types of plant material, but trees especially, are central to climate regulation in urban areas, providing cooling through shade and evapotranspiration[1], decreasing urban heat island. Urban greenspace is crucial for stormwater management, as vegetated areas reduce overland flow and decrease risk of flooding, as well as preventing pollutants from entering water systems, while also reducing air pollution. As the impacts of climate change are increasingly felt, many cities are recognizing the need to adopt mitigating measures, such as the use of green roofs, bioswales, increased tree canopy cover and preservation of existing trees, and increased ratio of planted areas compared to hardscape. Such measures can provide greater climate resilience by reducing flooding and urban heat island, both of which are discussed in more detail below.

Decolonizing thinking around regulating services requires adopting a holistic perspective. Trees are not simply carbon dioxide removal machines. Water is not simply an input for the biological processes of plants. Considering context and interrelationships is essential for valuing regulating ecosystem services.

**Cultural services** are the non-material benefits such as space for recreation and social cohesion, beauty, and spiritual connection (Reid et al., 2005). Such benefits have been

[1] Evapotranspiration is a two-part process that involves both the water vapour that plants release through the biological process of transpiration, and water that evaporates into the atmosphere from soil and plant surfaces.

associated with improved physical health, mental health, and well-being. Cultural services also provide sense of place, providing aesthetic and/or spiritual benefits. As discussed, ecosystem services are frequently viewed through a financial lens, and not all of the benefits can (or should) be quantified in this way (Cooper et al., 2016), and may be undervalued. As Jennings et al. (2016: 2) contend, "[r]esearch indicates that the benefits from cultural services (e.g., landscape aesthetics, outdoor recreation, spiritual and cultural values) are no less important to health and well-being, [than other ecosystem services] yet their value may be frequently underestimated."

In relation to equity and decolonization and cultural ecosystem services, it is necessary to consider how dominant culture is prioritized in greenspace planning, design, maintenance, and policing. As discussed later, public parks may fail to serve the specific needs of a community by centering white European aesthetics, spatial ideals, and provision of park amenities. Equity, as it relates to cultural ecosystem services, requires reflexive inquiry about whose culture is valued, and whose is not.

**Supporting services** are those that make all ecosystem functions possible, such as nutrient cycling, pollination, decomposition, and soil formation. For example, many food provisioning services would not occur without pollinators. Without photosynthesis and resultant transpiration, processes such as hydrologic cycle would be impacted, as would air quality. These processes, and others, are largely invisible, but underpin the life-sustaining systems of the earth, including within urban environments.

While ecosystem services are divided into four categories, the benefits that ecosystems provide are synergistic, yielding many co-benefits (Zhang et al., 2022). For example, community gardens provide provisioning services in the form of nutritious fresh fruits and vegetables, but they also provide cultural services via opportunities for physical activity, stress reduction, and social connection (Elton & Cole, 2024). Depending on the species and diversity of plants, that community garden may also provide supporting services to pollinators, benefiting local biodiversity. Plants within the community gardens furthermore generally provide regulating services such as climate regulation through reduction of urban heat island and increased permeability (Zhang et al., 2022).

The ecosystem services framework is useful as a schema to articulate and provide some valuation of the benefits that nature provides. The very structure of the ecosystem service framework, however, separates and silos natural functions of the environment and frequently prioritizes economic benefits, failing to recognize other ways of knowing, such as Indigenous science and traditional ecological knowledge. Urzedo & Robinson (2023: 4) contend "that

ecosystem valuation in Indigenous contexts can be aligned with the concepts of cultural ecosystem services" and "identify how Indigenous self-governance, partnerships, collective mobilizations, knowledge brokering, and political enabling techniques offer decolonial qualities to rework nature valuation" (Urzedo & Robinson, 2023: 7).

Held (2023: 96), on the other hand, argues that the reconciling of different ways of knowing, such as Western science with Indigenous science is fraught with complexities and incompatibilities, cautioning that:

> "Regardless of what the collaboration between Western and Indigenous sciences looks like in practice, this new multiparadigmatic space must not degenerate into a free-for-all in which all sorts of knowledge systems (e.g., revelation knowledge) are vying for scientific legitimization. Western science and Indigenous sciences can engage each other because both are sciences namely, proven rational and empirical ways of knowing. In the collaboration that is decolonizing science, both ways of knowing as well as the knowledge created from their interplay will have to be validated respectfully and continually."

Recognizing such complexities and challenges, it is nevertheless imperative that research in equity and environmental planning strives to centre decoloniality as it relates to knowledge production. The ecosystem service framework is widely used in academic and policy research, within a wide range of disciplines, providing "a degree of common ground" (Raheem & Schwarzmann, 2021: 5). Completely forgoing reference to the framework would ill serve this research, however, the ecosystem service framework can be interrogated by decolonial and anti-oppressive approaches. Trisos et al. (2021: 1205-1206) suggest five interventions that can be applied specifically to the field of ecology, but also to other areas of research, which include "decolonize your mind; know your histories; decolonize access; decolonize expertise; and practise ethical ecology in inclusive teams". They note that "these actions are not offered as a checklist capable of undoing unjust systems worldwide, nor to overshadow long histories of place-based anti-colonial and anti-racist struggle, but as connection points to action for practising ecologists". While my research is not strictly within the discipline of ecology, the principles of the above interventions are applicable and provide a starting point to examine conventional definitions of ecosystem services and beyond.

Ecosystems throughout the world provide different types of multi-scalar benefits. Oceans, for example, provide food resources, regulate climate through heat absorption and distribution, act as carbon sinks, and facilitate nutrient cycling, as well as providing many other

ecosystem services. The Amazon rainforest, on a global scale, is often referred to as 'the lungs of the planet', drawing in and sequestering carbon, and producing atmospheric oxygen, while on a finer scale providing provisioning services that have provided vital provisioning and cultural services to inhabitants of the region for millennia. Canada's wetlands are among the most productive ecosystems in the world, filtering water, buffering against both flood and drought, acting as carbon sinks, and providing habitat, along with a multitude of other services (Crins, 2009). In this research, I focus on the ecosystem services provided by different types of greenspace, within urban environments. These services are also multi-scalar, from providing reduction in urban heat island across both small and large geographies, to providing space for recreation and respite from the intensity of urban living, and even provision of food. In the following section, I examine some of the specific ecosystem services provided by urban greenspace.

### Climate resilience

Climate resilience includes both our capacity to mitigate climate change through reduced $CO_2$ emissions, and to adapt to the inevitable impacts of climate change. As reminded by Bell et al., (2024:1):

> "The Intergovernmental Panel on Climate Change (IPCC) concluded unequivocally that human activity, especially the combustion of fossil fuels, is responsible for overall warming of the atmosphere, land, and oceans; that changes in weather extremes driven by climate change are already observed; and that recent extreme heat events are attributable to climate change."

The impacts of anthropogenic climate change are many. Changes in precipitation patterns that increase likelihood of flood and drought events, ocean acidification, wildfires, glacier retreat, and increase in extreme heat events have detrimental effects on agricultural production, access to water, changes to terrestrial and water ecosystems, damaging infrastructure, as well as causing direct negative impacts on human health (IPCC, 2023).

Among these impacts, **extreme heat** events pose some of the most significant impacts on human morbidity and mortality (Dube et al., 2025). Heat exhaustion and heat stroke represent significant risk, especially among more vulnerable populations, but these conditions represent only a portion of heat-related health issues. Exposure to extreme heat is also associated with increased risk of cardiovascular events, respiratory conditions -- especially

when accompanied by increased exposure to air pollution -- kidney disease, adverse pregnancy outcomes, and detrimental effects on mental health including increased anxiety, depression, suicidality, and violence (Bell et al., 2024).

As climate change leads to increased temperatures, cities are more vulnerable to extreme heat events which, as already discussed, are exacerbated by urban heat island (Rajulapati et al., 2022). Urban heat island is caused by building materials and hardscaped surfaces that absorb and retain heat; proximity of tall buildings to each other which impacts air circulation; the production of heat from human specific activity such as transportation and the mechanical systems of buildings (collectively referred to as anthropogenic heat); and, changes in landcover such as the reduction of tree canopy and other vegetated areas (Mirabi & Davies, 2022).

The extent to which populations within urban areas are vulnerable to extreme heat can be evaluated in terms of the three broadly accepted components of climate risk which include, **exposure, sensitivity, and adaptive capacit**y (Leal Filho et al., 2018; Rinner et al., 2010). Reiner et al (2010:33) describe how "the first component of heat vulnerability is the exposure to heat as an external, physical impact on individuals. The degree to which this impact affects a person is determined by their sensitivity." Adaptive capacity describes the ways in which populations and individuals are able to mitigate the impact of extreme heat events; this could be through access to mechanisms that physically cool the surrounding environment, such as air conditioning or tree canopy cover; or it can be through behavioral changes such as avoiding outdoor environments during extreme heat events (Chow et al., 2012).

The benefits provided by different types of greenspace are critical to adaptive capacity. Through evapotranspiration, vegetation cools the air temperature of surrounding areas (Leal Filho et al., 2018). The effects of the evapotranspiration process vary depending on the type of vegetation; however trees have the greatest capacity and additionally provide cooling through shade. When the proportion of vegetation in relation to hard surfaces is increased, there is also cooling provided by the absence of heat-absorbing materials, thereby increasing the adaptive capacity at the community scale (Bu et al., 2024). Though both the type of greenspace and the type of vegetation will impact effectiveness, greenspace provides multi-scalar benefits to the increased adaptive capacity to extreme heat events.

In Toronto, links have been made between heat vulnerability and socio-economically disadvantaged neighbourhoods, and this spatial representation of heat inequity is specifically identifiable in the city's tower communities (Bu et al., 2024); lack of greenspace and green infrastructure with the capacity to mitigate heat vulnerability is positively correlated with

Toronto's socio-economically disadvantaged communities. Together, these factors demonstrate "an inequitable distribution of heat risk" (V. Anderson et al., 2022). Different types of greenspace can help to mitigate exposure as a means of improving adaptive capacity toward more equitable urban climate resilience (Leal Filho et al., 2018).

As the impacts of climate change increase, many regions will experience more frequent extreme precipitation and subsequent **flooding** events. In Canada, the summer of 2024 was the most destructive season on record, due to weather events. (Canada NewsWire, 2024). Of the four primary contributing weather events, an extreme precipitation event in Toronto saw 10cm of rain fall on the city within three hours, flooding homes and business across the city, notably Union Station, with the effect of halting commuter trains and causing an estimated $940 million in insurance claims (Canada NewsWire, 2024; Mortillaro, 2024). It is widely accepted that such extreme weather events are the result of anthropogenic climate change, and that frequency and severity will increase as the climate continues to change, leaving cities like Toronto increasingly vulnerable to increased precipitation and subsequent flooding. (Guram & Bashir, 2024).

Processes of urbanization, including increased density and landcover changes, as well as decreased surface permeability which increases overland flow, exacerbate flood potential in urban areas. Greenspace reduces overland flow by allowing water to permeate, and by retaining water through the biological processes of plants in the hydrological cycle (Coutts & Hahn, 2015). Additionally, the biological processes of different plants aid in water purification through the sequestration of pollutants. Preserving and increasing greenspace are critical to climate adaptation and flood mitigation strategies in urban environments.

### Physical and Mental Health

When residents have access to appropriate greenspace, there are increased opportunities for physical activity, such as cycling, walking, running, etc. There is a substantial body of literature that demonstrates links between access to greenspace and lower rates of obesity, heart disease (Kingsley, 2019), and diabetes (James et al., 2015), as well as improved pregnancy outcomes and general reduction in mortality rates (World Health Organization, 2016). Access to greenspace has also been linked to improved mental health, including decreased rates of depression and anxiety, as well as overall reduction in stress levels (World Health Organization, 2016). James et. al (2015: 132) suggest specific pathways by which access to greenspace is beneficial to human health whereby 'greenness exposure' provides beneficial conditions including "stress reduction/cognitive restoration; increased physical activity, increased social interaction and cohesion; noise mitigation; heat and humidity regulation; air pollution filtration."

The authors also link these pathways with positive outcomes related to physical and mental health, and incidents of morbidity and mortality (James et al., 2015). The mechanisms by which access to greenspace affect human health are varied, complex, and interrelated with factors such as geography, climate, culture, and socioeconomics. Cronin-de-Chavez et al. (2019: 118) point to a World Health Organization report, stating:

> "Mechanisms which explain the effect of greenspace on health have been suggested to include: increased relaxation and restoration, improved social capital, increased physical activity, improved functioning of the immune system, buffering against the negative effects of noise and air pollution, enhanced pro-environmental behaviour and improved sleep."

Much of the literature on greenspace and human health is focused on proximity to greenspace as venue for physical activity. The '3-30-300 rule' of urban forestry, for example, suggests that in order to achieve greenspace equity, all residents' homes should be able to view at least 3 trees, all neighbourhoods should provide at least 30% tree canopy cover, and have access to public greenspace within 300 m (Konijnendijk, 2023). Such protocols provide a broad way to consider equitable access to greenspace, though they may lack consideration of specific contexts or greenspace quality.

## Social Connection

While private greenspace, such as residential yards, may provide opportunities for social connection, here I focus on the opportunities provided by public greenspace, that is, different types of open areas that are accessible by the public, whether on private or public property.

The built form in Toronto includes a large number of detached and semi-detached dwellings which typically include private yards. As of 2021, just over 60% of Torontonians lived in either low-rise or high-rise apartments (Statistics Canada, 2026), meaning that these residents must rely on outdoor amenities within their building site, and/or public greenspace such as parks and ravines. Bratman et al. (2029: 2) demonstrate that there is a significant amount of literature supporting links between nature experience and "positive social interactions, cohesion, and engagement" as well as "a sense of meaning and purpose in life."

Different types of greenspaces facilitate social interaction and cohesion, including casual interaction while using parks and on-site amenities, and more structured interactions such as neighbourhood gatherings and events (Kwon et al., 2021). Community gardens provide more

than food for participants, they foster social connection and environmental education, contributing to social connection and civic engagement (Tomatis et al., 2023). Wayfinding and interpretive signage can contribute to belonging and sense of place and respond to reconciliation by highlighting Indigenous perspectives and histories.

## Biodiversity

The role of biodiversity in urban greenspace is multifaceted. Globally, urbanization is a significant contributor to loss of biodiversity through habitat loss and fragmentation. Southern Ontario, at the nexus of the Carolinian forest and the boreal forest, has historically been the most biodiverse region in Canada; the same area is also the most densely populated part of the country (Government of Canada, n.d.). Approximately 6 to 10% of the Carolinian forest ecosystem that existed prior to colonization remains intact, the remainder having been lost to urban expansion and increased industrial and agricultural activity (Oldham, 2017; Government of Canada, n.d.). Currently, the Carolinian zone of southern Ontario is the native habitat of approximately 50% of Canada's federally listed species at risk (Government of Canada, n.d.).

Providing conditions that enhance biodiversity in urban environments has multiple co-benefits. Cities, such as Toronto, which are located within biodiverse regions, have the capacity to provide habitat for species at risk. Citing research by, Soanes et al., (2019), Kirk et al. (2021: 2) argue that "[t]he future of many threatened species will depend on actions to accommodate their needs within city boundaries."

While there are gaps in research relating to direct links between exposure to increased biodiversity in greenspace and human health (Aerts et al., 2018), the enhancement of urban biodiversity may be supportive of ecosystem services which benefit human health (Fisher et al., 2023). Biodiversity Sensitive Urban Design is a protocol which provides a framework for planning disciplines in order to achieve enhanced biodiversity outcomes in urban environments (Kirk et al., 2021). This is accomplished through five principles: "maintain and introduce habitat; facilitate dispersal of plants and animals, minimize threats and anthropogenic disturbances; facilitate natural ecological processes and improve the potential for positive human-nature interactions" (Kirk et al., 2021:2). This type of framework holds potential for enhancing urban biodiversity through community engagement.

The mechanisms by which greenspace provides benefits to residents are complex, synergistic, and context-specific within factors of geography, culture, and socioeconomics. Studies that evaluate specific ecosystem services provided by greenspace can point to potential benefits, but must also consider specific circumstances. Caution must be taken in how such

findings influence implementation, ensuring that well-meaning attempts to provide benefits do not result in reinforcing or exacerbating existing inequities.

## 2. Urban Greenspace Typology

To understand issues relating to benefits and equity in access to urban greenspace, we must consider what is meant by the term 'urban greenspace'. Definitions vary depending on the discipline and the focus of research (Taylor & Hochuli, 2017) for example, urban planning, landscape architecture, urban ecology, and health. Also referred to as 'greenness', greenspace could include outdoor open space areas such as parks, ravines, public rights-of-way, residential yards, hydro-electric corridors, and cemeteries, or indeed, any urban open space that is vegetated (Taylor & Hochuli, 2017; Jabber et al., 2022). A normalized difference vegetation index is a measure used in epidemiological research utilizing satellite imagery and census tract data to quantify proximity to greenspace (James et al., 2015). Such approaches, however, fail to provide adequate qualitative data relating to benefits of different types of greenspace, such as their specific capacities for provision of ecosystem services. For example, a park and a cemetery may have similar normalized difference vegetation index measures, but the ways in which each of these types of greenspace used results in very different ecosystem service provision, and does not assess physical or sociocultural and economic barriers to access. Beyond anthropocentric considerations of greenspace, the normalized difference vegetation index further does not recognize broader ecological functionality. Proximity alone is not adequate to understand greenspace access; there must be a nuanced consideration of interrelationships among different types of greenspace, the benefits they provide, as well as the varied needs, vulnerabilities, and expectations of different populations within urban areas.

### Public Parks

Public parks are central to urban greenspace. The City of Toronto Parkland Strategy classifies parks based on type, function, and size. Under these classifications, types of parks are either natural or planned:

> "Planned parks can be defined as lands that have been acquired, designed, and conceived for public use. Natural parks can be defined as lands that have been preserved in a natural state, such as Toronto's ravines, wetlands, and the natural portions along the city's waterfront" (City of Toronto, 2019c: 15).

There are, further three recognized categories of parks based on function (City of Toronto, 2019c:15):

1. **Passive and ecological**: Spaces that support passive recreation and enhance biodiversity and the natural environment.
2. **Sport and play**: Spaces that support organized or programmed sport and recreation, and active play.
3. **Community and civic**: Spaces that support community activities and foster community interaction.

The Parkland Strategy (2019c: 15) classifies parks system of 6 categories that relate to size, as well as to catchment area, which is the radius area around the park that it is meant to serve, and is calculated in relation to the park size:

| Size Category | Size | Catchment (access time) |
|---|---|---|
| Parkette | < 0.5 ha | 0.5 km (5 - 10 min) |
| Small Park | 0.5 – 1.5 ha | 1km (10 – 20 min) |
| Medium Park | 1.5 – 3 ha | 1.5 km (20 – 30 min) |
| Large Park | 3 – 5 ha | 3km (30+ min) |
| City Park | 5 – 8 ha | n/a |
| Legacy Park | 8+ ha | n/a |

*Figure 1: City of Toronto's Parks Classification System*

Catchment areas are not identified for City Parks and Legacy Parks as these are "typically the outcome of a unique era or major city-building initiative that resulted in a rare and significant park investment that attracts visitors from across Toronto" (City of Toronto, 2019c: 18).

The function and programming of planned parks is dependent largely on size, with smaller parks generally being limited to passive recreation, while larger parks have greater capacity for broader programming and facilities.

Classification systems such as that in the Parkland Strategy provide some insight into the quality of greenspace insofar as they can quantify specific ecosystem services provided by particular space. For example, Boswell Parkette, on Avenue Road between Davenport Road and Bloor Street, is approximately 135m$^2$ in size and consists of three large canopy trees, several smaller trees, plus shrubs and perennials in raised planters. There is also a small

hardscaped area that includes several park benches and is adjacent to a bus stop (City of Toronto, n.d.-i). Obviously, a parkette of this small size is limited in programming and facilities that it can provide. Based on the classifications of the Toronto Parkland Strategy, the space is meant to serve the area within 500m, as well as transit users. In terms of greenspace, parkettes provide several, though limited, benefits. For residents adjacent to Boswell Parkette, as well as transit riders waiting for the bus and other passersby, the tree canopy of the parkette contributes to thermal comfort. Although the area is objectively small, it nevertheless offers potential enhancement for biodiversity through habitat for birds, small mammals, and invertebrates, also providing aesthetic value and opportunities to casually engage with nature, both of which are forms of cultural ecosystem services. The presence of trees and other vegetation provide regulating ecosystem services, contributing to air purification and storm water management, though mostly as an aggregate of larger collective systems, in the case of street trees and planters of adjacent rights-of-way and trees on private property.

Taddle Creek Park, located at Bedford Road and Lowther Avenue, is within 500m of Boswell Parkette. This park is approximately 0.32 ha of vegetated area (trees, horticultural displays, and lawns) and hardscaped areas, as well as amenities including a playground, water fountain, and benches (City of Toronto, n.d.-k). In addition to the types of provisioning and regulating ecosystem services provided by smaller parkettes, a park of this size provides more opportunity for recreation, including a children's playground and turfgrass areas. Based on Toronto's Parkland Strategy, this type of park would serve the surrounding area within approximately 1 km.

Approximately 1.7 km from Boswell Parkette, Vermont Square Park is located west of Bathurst Street and south of Dupont Avenue. With a size of 1.5 ha, this park includes vegetated areas of tree canopy and open lawn/sports fields, and programming such as an off-leash dog area, playground, wading pool, and recreation activities, and is adjacent to a community centre (City of Toronto, n.d.-k). With these additional amenities, and larger park size, there is an increase in the quantity and quality of cultural ecosystem services provided, with greater opportunities for physical activity and social connection.

Christie Pits Park is a legacy park located approximately 2.5 km from Boswell Parkette. At 8.9 ha, the park provides facilities for a variety of sports, such as baseball, pickleball, and basketball, as well as cycling trails, an outdoor pool and rink, playground and picnic areas, an outdoor oven, treed areas, and open lawns (City of Toronto, n.d.-k). There is also a volunteer-run community garden which includes garden plots for local residents, a medicine garden run by the Ojibiikaan Indigenous Cultural Network and a large plot for the Korean Senior Citizens

Society of Toronto. The size and combined amenities of Christie Pits provide ecosystem services within all four categories to both nearby residents, and the wider city.

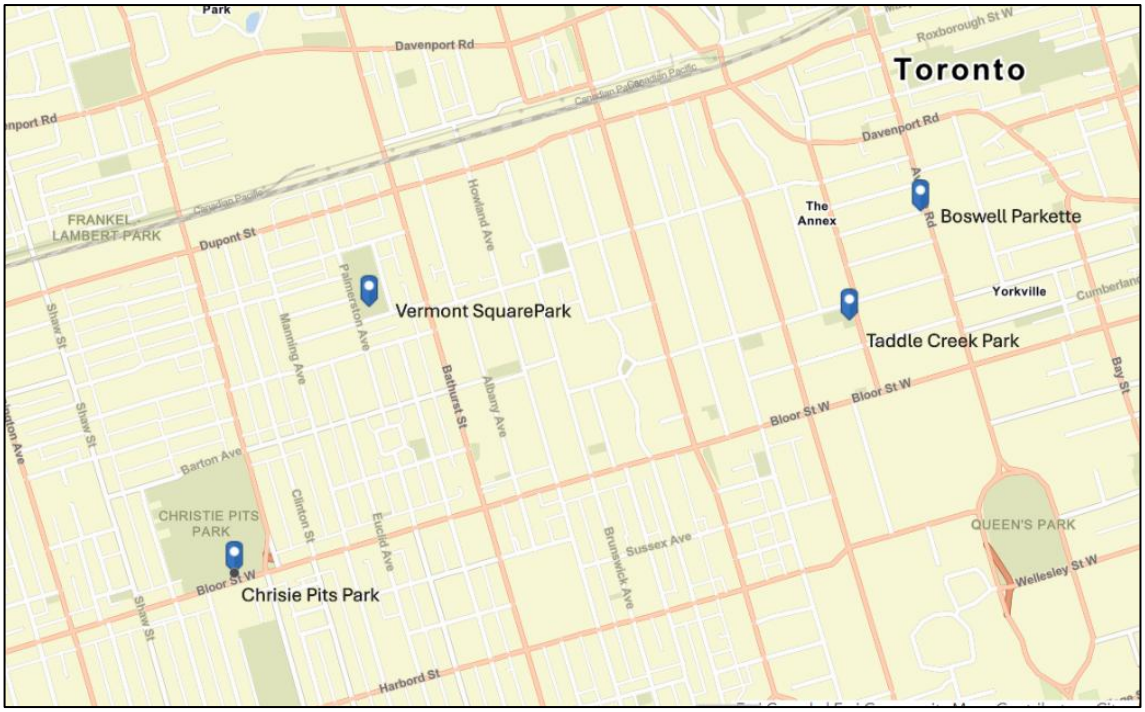



*Figure 2: Location of City Parks*

## Natural Space/Ravines

Under the City of Toronto Parkland Strategy, ravine areas are categorized as 'natural' (as opposed to planned), providing enhanced biodiversity and opportunities for passive recreation. In general terms, ravines are landforms that have been formed by running water (City of Toronto, 2017). There are three major rivers in Toronto: the Humber, the Rouge, and the Don Rivers, each with a network of tributary streams and creeks such as Black Creek, Mimico Creek, and Mud Creek (City of Toronto, 2017). Ravine areas cover approximately 11,000 ha of Toronto, representing 17% of the city's land area (City of Toronto, 2017; Davies et al., 2018). Within the City of Toronto, ravines are formally defined as:

> "A discernable land form with a minimum two-metre change in grade between the highest and lowest points of elevation that may have vegetation cover and that has or once had water flowing through, adjacent to, or standing on, for some period of the year; [and]

Contiguous buffer areas, areas of tree canopy and environmentally significant areas that contribute to the ecological function of a ravine." (Toronto Municipal Code - Chapter 658, Ravine and Natural Feature Protection, 2022).

## Boulevards & Rights-of-Way

While municipal boulevards and rights-of-way may not have the same capacity for ecosystem services provision as parks and ravines, they nevertheless provide ecosystem services within the urban environment, especially as an aggregate. Street trees provide ecosystem services relating to climate regulation. When part of an open planting that also includes shrubs and perennials, street trees are also beneficial to water regulation through increased permeability and slowed infiltration, which reduces overland flow/runoff, also reducing pollutants, which would have been picked up from hardscape surfaces and carried to water bodies and ecosystems. When roadside plantings are designed to maximize this capacity, such as with rain gardens and bioswales, these benefits are increased.

Planted boulevards, located between pedestrian routes and vehicular traffic, provide a vegetated buffer which improves pedestrian comfort and safety. Planted areas within public right-of-way may also support greenspace connectivity, in turn benefiting biodiversity. Isolated patches of greenspace generally function at a reduced capacity to support biodiversity, as isolation limits the ability of birds and arthropods to access food, shelter, and mates. When boulevard plantings include native plant material, they can serve as 'steppingstones', increasing greenspace connectivity. Such mixed plantings, and the biodiversity that they support, can in turn provide cultural ecosystem services through improvement of the public realm and increased opportunities to connect with nature.

### Urban Agriculture

While urban environments may not be an obvious location for agricultural production, there are nevertheless considerable opportunities for urban agriculture, providing provisioning, regulating, cultural, and supporting ecosystem services. Within cities, urban agriculture can take various forms, including private gardens, community gardens, small-scale commercial production, and gleaning programs.

Provisioning services will depend on the nature and scale of a specific site, however hyper-local food production can contribute to food security, though this is an area of research that is understudied (Cardoso & Domingos, 2023; Pinto et al., 2022). In addition to provisioning services, community gardens may particularly contribute to health and well-being through

increased opportunities for physical exercise, social connection, and connection with nature, subsequently benefiting physical and mental health.

## Green Roofs

The integration of vegetation into structures dates back millennia, in different parts of the world (Abass et al., 2020). The use of green roofs and green walls evolved during the 20th century, employed by prominent architects such as Frank Lloyd Wright, Alvar Alto, and Le Corbusier in the early 1920s. In Germany, during the 1980s, green roof technology developed rapidly (Shafique et al., 2018). Modern green roof construction is utilized for ecosystem service benefits such as climate regulation through reduced urban heat island effect, air purification, water regulation, as well as aesthetics and food provision, depending on the type of green roof system. There are of three primary types of green roofs (Abass et al., 2020):

1. Extensive Green Roof: Growing media up to 10cm with plant material consisting of low-growing and drought tolerant species such as *Sedum spp*.
2. Semi-Intensive Green Roof: Growing media up to 3cm with plant material that includes perennials/grasses.
3. Intensive Green Roof: Growing media greater than 31cm with plant material that includes perennials/grasses, shrubs, and trees.

The primary ecosystem services provided by green roofs relate to climate and water regulation. Green roofs help to regulate climate through cooling via evaporation, and through the reduction of albedo compared to traditional roofing materials which retain heat and increase urban heat island effect. There is also evidence that green roofs provide increased insulative properties, reducing building heating and cooling requirements; this has the potential to decrease carbon emissions through decreased energy consumption, and decreased anthropogenic heat from human activity such as HVAC systems (Ibsen et al., 2023). The aggregate effect of green roofs in cities demonstrates considerable potential for reducing urban heat island as roof surface areas, in urban environments, typically account for 20-25% of all surfaces (Abass et al., 2020).

Green roofs provide benefits to water regulation by reducing overland flow/runoff. The extent to which green roofs can absorb water and decrease strain on stormwater management infrastructure -- as well as flooding potential -- is dependent on the type of green roof, i.e. plant material and soil depth, as well as the existing saturation point at the outset of a precipitation

events. Intensive green roofs, which include tree and shrub planting, will have the greatest capacity for water retention, while extensive green roofs, which use minimal soil or soilless substrates, will have less capacity.

### Private Residential Property

As of 2018, in Toronto, approximately 55% of the city's tree canopy was located on private property. The net land area of residential zones in Toronto neighbourhoods is 21,145 ha, representing 33.3% of the city's total land area (City of Toronto, 2021a). These data show that a significant amount of the city's tree canopy and open space occur on private residential property, highlighting significant potential contribution to ecosystem services. While the Toronto Municipal Code (City of Toronto Municipal Code 10.5.50 Yards, n.d.) dictates the percentage of individual yards that must be planted with soft landscaping, whether such areas are planted in turfgrass, mixed ornamental plantings, or edible gardens will greatly impact the ecosystem service provided by individual sites. Toronto's trees are subject to tree protection bylaws, including trees on private property with a diameter at breast height greater than 30cm. However, despite regulations relating to landcover and trees on private property, homeowners may disregard bylaws, potentially impacting collective ecosystem services provided. Thus, the realization of benefits depends greatly on the individual approach of landowners. Selection of plant material, hardscape construction, and landscape maintenance practices all have profound effects on the quantity and quality of ecosystem services, as an aggregate.

While the private yards of detached and semi-detached homes represent a large area within Toronto, private residential property greenspace also includes open space around multi-residential properties. Of particular note are the open areas within 'tower in the park' communities, "of which nearly 1,200 were built across the [Toronto] metropolitan area in about 20 years, most of them in suburbs and clustered in groups" (Valzania, 2022: 230). Built primarily between the 1950s and 1970s, tower in the park sites intentionally included large areas of greenspace. Toronto's tower in the park sites frequently represent a nexus of greenspace, marginalization, and development pressure, which is examined in detail in the case study section.

Open space areas adjacent to multi-residential properties are important sites for greenspace, providing outdoor amenity space for residents, as well as impacting public realm. Many sites throughout Toronto also incorporate 'privately owned public space' (POPS). As such, the open space on multi-use residential sites represent are significant in their potential to contribute to all types of ecosystem services.

### Other Greenspace

Within cities, privately owned, large greenspace space may not provide recreational use as would parks and ravines, however, these spaces still contribute to various ecosystem services. For example, within Toronto, there are approximately 116 km of power lines channelled within 13 hydro-electricity corridors. These lands are largely owned by Infrastructure Ontario, licensing use to Hydro One. A number of initiatives to utilize the lands under hydro towers has resulted in a network of greenspace that provides cycling and walking trails, sports fields, naturalized planting areas to benefit pollinators, and for urban agriculture[2].

Other types of commercially owned greenspace, such as cemeteries, are accessible to the public, and typically provide regulating services associated with vegetation/tree canopy. However, their use precludes most forms of recreational activity, limiting their capacity for cultural services. Golf courses also provide regulating services; however, any cultural services they provide are limited to a small portion of socioeconomically advantaged residents.

## 3. Equity and Environmental Justice

Issues of equity in access to greenspace and its benefits relate to sociocultural and socioeconomic factors including income, race, culture, age, gender, sexuality, and ability. The study of greenspace equity has increased, in recent years, largely centered within environmental and climate equity. These areas of study have developed as part of

[2] In 2012, the Scarborough Centre Butterfly trail project was initiated to transform a 3.25km stretch of the hydro-electric corridor on the city's east end into a meadow of native plants intended to support pollinators and birds. Based on the success of the project, a private donor provided funding to launch the Meadow Way project, in 2018. With a long-term goal to create a 16km long area providing habitat restoration and opportunities for recreation and ecological education, at present, approximately 10km of multipurpose trails have been created, linking various parks, ravines, and neighbourhoods in the area. The hydro-electric corridor extends across the city, with some portions including paved multipurpose trails. A number of initiatives and studies have been undertaken with the aim of linking these trails, potentially providing means of active transportation, recreation, and ecological restoration (Toronto City Planning et al., 2019).

Portions of hydro-electric corridors have also been the site for urban agriculture initiatives intended to address issues relating to both food sovereignty and reconciliation. Following five years of planning, securing funding, and obtaining permits, Flemo Farm was launched in 2021, as a collaboration among various City of Toronto divisions, not-for-profit organizations, and charitable foundations. Primarily serving residents of Flemington Park, community farmers including ten community members and one Indigenous grower produce fruit and vegetables which they sell locally. Another portion of the site is overseen by volunteers who produce food for emergency food networks within Flemington Park. Malvern Urban Farm, in Scarborough, also launched in 2021 as part of the same initiative, and similarly, helps provide land and other resources to local farmers who produce fruit and vegetables for the local community. Both of these exemplify how open space in hydro-electric corridors can provide enhanced ecosystem services in the form of food justice, community connection, and reconciliation (Naidu, 2025; Flemo Farm, 2016; Malvren Family Resource Centre - Urban Agriculture and Food Programs, n.d.; Flemo Farm, n.d.)

environmental justice, an area of research and social activism often recognized to have originated in the 1980s, in predominantly Black communities exposed to toxic landfill and other contamination in the United States. In such communities, local activists organized and protested, and their work and research informed policy on environmental governance, giving rise to a new social movement and helping define the key terms of environmental racism and environmental justice[3] (Gosine & Teelucksingh, 2008).

Canada has its own history of environmental racism. Beginning in the 1700s, Black loyalists from the United States, Jamaica, and British colonies settled in the north end of Halifax, Nova Scotia, creating a community that came to be known as Africville (Allen, 2003). The Black loyalists that settled in Nova Scotia were promised land by the British Empire; however, they received less desirable land than their white United Empire Loyalist counterparts. Beginning in the 1850s, hazardous facilities were located within and around the community, including a dump for 'night soil'[4], a prison, a tar factory, two slaughterhouses, railway tracks, and an infectious disease hospital, among others (Rutland, 2018). Over the following decades, and into the early twentieth century, other Halifax neighbourhoods benefited from paved streets, lighting, and water and sanitary systems, all of which were systematically withheld from Africville by local government bodies, as were permits allowing residents to improve homes within Africville. All of these factors, along with the location of a new dump in the 1950s led to unsafe living conditions in the community. In the 1960s, with no acknowledgement or recognition of how local policy had contributed to these conditions, Halifax city officials expropriated the land and forcibly displaced the residents of Africville, moving them to housing projects in the northern part of the city and surrounding areas (Nelson, 2000).

Indigenous communities, in Canada, have historically and experienced and continue to experience devastating repercussions of environmental racism. Asubpeeschoseewagong

[3] In 1982, the community of Afton, in North Carolina, was selected as a waste site for PCB contaminated soil that had been illegally dumped on along highways in the state in the 1970s. Following an investigation into the illegal dumping, and charges against the company responsible, the State collected the contaminated soil and selected a site near Afton, a small, predominantly Black community, as the location for a toxic landfill for the contaminated soil. In response, the community organized and protested against the waste site, arguing that the location had been selected because the population was poor and Black; they were, however, not able to stop the dumping of toxins in their community. After nearly 20 years of community activism, in 2001, criminal charges were laid against the trucking company that illegally dumped the toxins, and the community succeeded in having the toxic waste removed, and the site was remediated, in 2003. The community activists of Afton worked with academics, such as Robert D. Bullard, and together, their work and research informed US policy on environmental governance, giving rise to a new social movement and helping define the key terms of environmental racism and environmental justice. (Gosine & Teelucksingh, 2008).

[4] Night soil is an historically used euphemism for human excrement.

Anishinabek, known also as Grassy Narrows First Nation, is a community within the traditional territory of the Ojibwe, located in northeastern Ontario. The community is within Treaty 3 territory, which is approximately 55,000 km$^2$, in size, and includes 28 First Nations communities. The reserve is approximately 4,145 hectares, though the Asubpeeschoseewagong traditional territory is approximately 8,000 km$^2$. As of 2024, the community had a population of approximately 1,000 people (Law, 2024). From the early 1960s and until at least 1970, the Dryden Pulp and Paper Company dumped between 9 and 11 tonnes of inorganic mercury (I-Hg), into the English-Wabigoon river system (Lee et al., 2025; Mosa & Duffin, 2017; Suzuki & Hanington, 2024; Law, 2024). Once in the aquatic system, I-Hg transformed into methylmercury, which bioaccumulates, resulting in freshwater fish in the area showing some of the highest mercury concentrations ever reported. As a staple of the traditional diet of the people of Asubpeeschoseewagong, the consumption of contaminated fish has led to severe impacts on morbidity and mortality in the community, associated with form of neurotoxicity known as Minimata disease[5].

The events described in Africville and Grassy Narrows represent examples of environmental racism which have informed both activism and scholarship relating to environmental justice. In 1991, at the First National People of Color Sumit, in the United States, 17 Principles of Environmental Justice were drafted and approved. With the publication of *Dumping on Dixie: Race, Class and Environmental Quality*, Robert D. Bullard (1990) helped to define the environmental justice movement through academic work and civil rights movement inspired activism, leading to the 1991 summit, and informing policies. From these origins in environmental justice, activism and scholarship relating to subjects such as climate justice and environmental equity have emerged. Earlier examples of environmental justice related primarily to the inequitable and unjust distribution of environmental threats, whereas environmental equity also examines (in)equitable access to the environmental benefits, thereby concerned with distribution of environmental 'goods' as well as 'bads' (Castán Broto & Westman, 2025).

[5] "Minamata disease, as originally documented in Japanese adults exposed to high levels of MeHg from Minamata Bay, is associated with visual field constriction, ataxia and dysarthria, hearing loss and disequilibrium, tremor, cognitive impairment and psychiatric features [32]. Congenital mercury poisoning resembles cerebral palsy, with symptoms such as intellectual disability, dysarthria, ataxia, gait disorders, involuntary movements, pathological reflex, strabismus, and hypersalivation. Functional losses accelerate with age [88]. Studies carried out between 1975 and 2011 in Grassy Narrows reported a high prevalence of persons with signs and symptoms consistent with Hg poisoning, with many matching the diagnostic criteria for Minamata disease [27,71]." (Lee et al., 2025:2).

As previously discussed, benefits relating to ecosystem services provided by different types of greenspace are essential to the health and wellbeing of residents in urban areas; however, systemic inequities rooted in neoliberal and colonial policies and practice have resulted in demonstrable inequities relating to greenspace and its benefits. In Toronto, Evergreen Brickworks, a 16.5-acre public park owned by both the City of Toronto and the Toronto and Region Conservation Authority (TRCA), is widely perceived as a positive example of the remediation of a brownfield site into public greenspace. Between 1889 and 1989, the site was the location of a quarry and brick factory which produced the bricks construction of "an unmeasured yet substantial proportion of Toronto's built environment" (Foster, 2005: 339). Rosedale and Moore Park, neighbourhoods adjacent to the site, are among the wealthiest communities in the city, and feature many century homes, on large parcels, which abut natural ravines. In 1984, the Brickworks site was put on the market for sale at a price of $4 million. Although the site had been identified as 'an important public acquisition for the ecological health of the Don River and valley" (Foster, 2005:340), the cost was deemed excessive, by the Ontario provincial government, and the site was subsequently sold to real estate company, Torvalley Developments, at which time they commenced using the quarry site for the disposal of off-site construction materials. Torvalley Developments then submitted an application to rezone the site from conservation to residential use. The development proposed mixed use including single detached homes and condominium apartments, as well as office, and retail uses, but the development was opposed by 'Friends of the Valley', on behalf of a local ratepayers association. In 1989, East York Council and Friends of the Valley successfully appealed to the Minister of Culture and Tourism for a stop order. The TRCA eventually expropriated the site at a cost of approximately $21 million[6], i.e. over five times the cost of the previously rejected sale price for the site (Foster, 2005).

A master plan was commissioned in 1990 which went through numerous cost-related revisions, and remediation of the site began in 1995 (Foster, 2005). Ultimately, the plan that was implemented centred aesthetics and recreation over ecological restoration, and in the words of Foster (2005: 342)., it is "an anthropocentric facility with disputable ecological benefits". Implementation of the site remediation was also problematic. High school students considered 'at risk' were brought to the site, from disadvantaged neighbourhoods of the city, to perform unpaid physical labour as mandatory community service credit for graduation. Some of these students later noted that they had been previously unaware of the site, and would not be able to

[6] This amount would equal approximately $48,000,000 in 2020 (Bank of Canada Inflation Calculator).

locate or travel to it as park users. The creation of Evergreen Brickworks is therefore fraught with issues of inequity, class politics, and questionable ecological benefits (Foster, 2005).

At present, Evergreen Brickworks is poorly serviced by public transit, limiting accessibility to Toronto residents without vehicles. The factory site is now operated by Evergreen, a not-for-profit organization that offers the site for rental for private functions, and a weekly farmers' market. The surrounding site consists of trails which connect to the Belt Line trail system. The lack of wayfinding signage, however, limits access to the trails to anyone without knowledge of the site.

The development of Evergreen Brickworks, as a purported ecological remediation, is an example of wealthy neighbourhood leveraging its class power to divert public funds to its own benefit. Through this process, the ecological functionality of the brownfield redevelopment as a park was furthermore undermined. Moreover, affluent residents increased their social capital, as champions of environmental stewardship, while unpaid physical labour was provided, at least in part, by marginalized youth (Foster, 2005). Greenspace inequity is frequently framed as a lack of access to greenspace and its benefits by socioeconomically disadvantaged communities, which is significant and must be addressed. In addressing greenspace inequity, however, the privilege and influence afforded to affluent communities, with social and cultural as well as economic capital must not be disregarded, a process which Foster (2005: 333) describes as "hegemonic patterns through ecological restoration and land conservation, where the particular interests of an elite sector of society are generalized and promoted as beneficial to society as a whole". Such communities are already among the greatest beneficiaries of urban greenspace and its benefits, not only through ecological services, but also increased property values. "It seems most often that the impulse to venerate the principled and altruistic leadership of those who support conservation efforts overrides questions about the social effects of particular green spaces" (Foster, 2005: 334).

The drivers that privilege provision of large-scale, high-status greenspace for an affluent, predominantly white neighbourhood (City of Toronto, 2021b) also lead to inequity, for marginalized communities, resulting in both physical and social barriers to accessing quality greenspace. These drivers can be linked to the legacies of colonialism, extractivist capitalism, neoliberalism, which recreate and reinforce inequities relating to race, gender, income, citizenship, and other factors. As Gosine and Teelucksing (2008) contend, the 'racialization of space' (Lipsitz, 2007) plays out differently in Canada than it does in the United States. In the United States, the alignment of capital power and racialization have led to conditions that segregate racial groups, such as the inner-city ghettoization of racialized communities and the

preponderance of white residents in suburban areas. For Gosine and Teelucksing (2008: 49-50):

> "[i]nstitutional racism, a systematic component of many bureaucratic processes (including access to capital and financial markets) hinders the mobility of some racial groups over others. Spatial isolation of undesirable racialized groups is a means for powerful groups to protect themselves from potential threats to their social order."

In Canada, Gosine and Teelucksing (2008: 50) argue, the segregation of low-income, racialized residents is less obvious, "hidden under layers of ideology and discourse". The 'racialization of space becomes apparent, in Canadian cities, in the allocation of resources. Environmental justice can be seen, in this way, not merely as the absence of environmental threats, but also in the inequitable access to environmental benefits, such as greenspace, i.e. "who gets what and by what means" (Gosine & Teelucksing, 2008: 51).

Lack of provision of greenspace -- both in terms of quantity and quality -- as well as various social barriers, frequently disadvantage marginalized groups. As Cronin-de-Chavez et al. (2019:119) contend, "[l]ow income and/or multi-ethnic groups experience multiple barriers which can stop them from using urban greenspaces". Among physical barriers to greenspace access, the authors cite issues including overcrowded playgrounds, lack of programming and activities for different ages, lack of facilities such as washrooms, inadequate maintenance leading to unsafe/unsanitary conditions, and steps or steep grades. Examples of social barriers include lack of knowledge of where to access greenspace, language barriers, and fear of violence (Cronin-de-Chavez et al., 2019).

In Toronto, both spatial and social barriers contribute to inequitable greenspace access in marginalized communities. Hassen (2025: 1) remarks "[d]uring the COVID-19 pandemic, public urban greenspaces were sought as places of respite. However, deep inequities surfaced regarding who had access to safe high-quality greenspaces." Applying a framework of distributional, recognitional, procedural, and restorative principles of environmental justice principles, Hassen also applies critical race theory to a participatory photovoice study which analyzes perceptions of greenspace of racialized residents in two Toronto neighbourhoods, St. Jamestown and Jane-Finch, both of which are described as racialized neighbourhoods. Issues relating to distributional justice, which Hassen (2025: 4) describes as the spatial and temporal equitable allocation of resources identified in the study, include proximity, size, amenities, maintenance, and aesthetics. Procedural justice refers to the degree to which decision-making processes related to greenspace are meaningfully engaged with residents. Issues of procedural

injustice include experiences of exclusion and/or tokenism in municipal consultation processes, failure to provide amenities that serve the specific community, and interventions that contribute to green gentrification. Recognitional justice refers to social access to greenspace. Hassen (2025: 7) describes this as "encompassing the interplay between the physical conditions of urban neighbourhoods and greenspace with the socio-cultural and historical relationships urban residents have developed." Highlighting that it is essential that racialized and other groups must not be treated as a monolith, and that there is no single way in which such groups prefer to access greenspace, recognitional justice nevertheless demands recognition of the ways in which spatial vernaculars can reinforce the exclusion of racialized communities and lead to greenspace use being coded as being intended for white users. Referencing Ford & Arihihenbuwa (2010), Hassen (2025: 8) states that "[f]alse narratives around racialized people's use of greenspaces and this social construction of knowledge have contributed to perpetuating greenspaces as spaces that focus on the needs and experiences of white people." Hassen contends that restorative justice recognizes how systemic inequities, predicated on colonial practices and racist ideologies, continue to recreate conditions which perpetuate racist ideologies within urban greenspace. As Anguelovski et al., (2022: 4) contend "recent scholarship argues that urban greening is increasingly representative of the socio-spatial practices of White supremacism and settler colonialism, including land grabbing, frontier-driven value capture, landscape conversion, and exclusion of non-White land practices." In relation to the planning and design of greenspace, the resultant "legacy is divisive spaces that often hold invisible signs of exclusion for racialized people" (Hassen, 2025: 9). Hassen also points to the specific need to address inequities relating to greenspace located on stolen Indigenous land, arguing that authentic engagement with Truth and Reconciliation processes must occur. Hassen's (2025) work points to a critical need to address multifaceted aspects of environmental justice in access to urban greenspace in Toronto.

In Toronto, the relationship between climate vulnerability, social inequity, and greenspace is recognized at all levels of government. Health Canada recognizes the relationship between climate vulnerability and access to greenspace in a heat impact analysis conducted in Halifax in 2016 which "recommended that the Centre Plan develop criteria to prioritize investments in parks, playgrounds, and other green spaces to reduce the UHI [urban heat island] effect, and that a health-equity analysis inform those investments" (Health Canada, 2020:15). The Government of Ontario (2023: 329) recognizes that "the disparities of climate change impacts that exist in cities today disproportionately affect Indigenous Peoples, people of colour, and low-income residents, particularly those with disabilities, youth, and older adults,

who lack access to green space." At the municipal level, the City of Toronto (2019a: 23) states, "[b]oth historic and growing social and economic inequalities, and continued systemic and institutional inequity, exacerbate underlying drivers of vulnerability to climate change." These positions are echoed by Anderson et al. (2022: 13) observation that, "[t]here is a correlation between the lack of green infrastructure and urban heat in Toronto, Ontario, Canada. While the warmest areas of the city have few trees, shrubs, or green space, these are also areas that have been previously identified by the City of Toronto as having both high levels of heat vulnerability and the lowest median after-tax household income." Arizala et al. (2022: 32) concur: "[n]eighbourhoods with a high percentage of racialized residents face historic and ongoing marginalization… [and] multiple systemic barriers that have resulted in deep and unethical inequities. Inclusive and welcoming greenspaces includes equitable access to high-quality greenspace."

Inequitable access to greenspace and its benefits occurs among various socio-cultural parameters. Although there are gaps in academic literature discussing barriers to greenspace access for LGBTQ2S+ persons, there are, nevertheless, demonstrated barriers relating to dominant socio-cultural expectations of heteronormative behavior, threats of homophobic violence, and policing. According to Davis & Edge (2022: 3), "[w]hile parks are framed as 'wild' urban spaces, they are in fact highly managed and politically motivated." The authors point to 2016's six-week undercover 'Project Marie' sting operation, by City of Toronto Police, in which plainclothes police officers approached men in Marie Curtis Park, and solicited sexual encounters. Citing Davis and Edge (2022: 4) at length:

> "By the end of the operation, the police had filed 89 charges against 72 people with only one criminal charge laid, with most consisting of bylaw infractions, like trespassing [12]. Toronto-based queer media outlet Xtra argued that the significant time and resource investments made for such minor infractions was indicative of "underlying homophobic motivations" as opposed to public safety. They suggested that having plainclothes officers approach men and solicit them for sex in the park was entrapment. […] The Toronto Police never issued an apology for the raid."

Davis and Edge (2022) note that the language in Toronto Municipal Code 608-3, which governs conduct in parks is vague and open to interpretation, by law-enforcement, in ways that could be utilized to single out and control non-heteronormative behavior, stating:

> "Toronto's Municipal Code for parks details conduct regulations that overtly implicate sexuality, morality and the use of public greenspace. […] A politician key informant explained how the regulation of sexuality in greenspace is part of a broader, deeply entrenched "anti-sex outlook", that disproportionately targets 2SLGBTQ+ communities over heterosexual counterparts when interpreting anti-sex values expressed in the municipal code."

This example demonstrates that greenspace -- parks in particular -- are not neutral, apolitical spaces that are universally accessible and inherently virtuous. Many Canadian parks were created with purported interests in conservation, but were in actuality predicated on explicit purposes of exclusion. Banff National Park -- the first national park in Canada -- was created in 1885, resulting in the exclusion of Indigenous people from the park (Binnema & Niemi, 2006). Indigenous people were similarly excluded from provincial and municipal parks, such as Algonquin Park, in Ontario, and Stanley Park, in Vancouver (Jago, 2023). The exclusion of Indigenous people was done under the pretense of preserving pristine wilderness, but this concept itself, serves the perpetuation of the notion of *terra nullius*, through the Doctrine of Discovery justified the colonization of lands that were deemed 'no one's land', as they were not occupied by Christians, and therefore acquirable by colonizing nations (Binnema & Niemi, 2006).

Here, I provide examples of how greenspace inequity manifests for several marginalized groups, primarily relating to income, race and ethnicity, and LGBTQS+ persons. Other ways in which greenspace inequity manifests relate to factors including gender, disability, age, citizenship, education, and culture. The factors that create greenspace inequity are heterogeneous and multifarious. As such, interventions to address greenspace inequity must be grounded in specific contexts, not applied through standardized procedures.

## 4. Planning Considerations in Addressing Inequity in Greenspace

As discussed, urban greenspace provides benefits that are fundamental to human health and wellbeing, however, these benefits are not equitably distributed. Socioeconomic marginalization relating to race, gender, ability, age, and sexuality create and reinforce barriers in accessing high-quality greenspace. Such factors have been and continue to be shaped, for better or worse, by planning theory, policy, and practice. Addressing greenspace inequity is itself not without risk: green gentrification can lead to displacement and deepening marginalization of already vulnerable communities. While the value of urban greening may

seem self-evident, some scholars raise concerns that practices of 'sustainable development' purportedly intended to improve livability -- including allocation and improvements to urban greenspace -- have been coopted to benefit market interests and to the detriment of marginalized residents, potentially fostering conditions for green gentrification.

Bunce (2019: 3) defines green gentrification referring to "Hackworth's succinct and widely applied definition of gentrification as the 'production of urban space for progressively more affluent users.'" She argues that gentrification is co-produced through sustainability planning policy and implementation, pointing to examples such as climate mitigation and greenspace development, while also identifying neoliberal policies as an underlying drivers. Anguelovski et. al (2020; 2022) suggest that in order to address greenspace inequity and avoid unintended consequences such as displacement, urban greening strategies must include approaches such as emancipatory green justice. Such strategies seek to recognize and address root causes of inequity and the ways in which it is reproduced.

Urban greenspace and its benefits are frequently linked to sustainable development. In planning policy and theory, sustainable development includes densification, as proposed in 'compact cities' and 'smart growth'. These strategies are championed as ways to mitigate urban sprawl, offering increased sustainability through protection of peri-urban greenspace, decreased commute distances for residents, and decreased resource use (Bunce, 2019). Sustainability is often central to the marketing of these types of developments, with 'green' building approaches which may include alternative construction materials, improved energy efficiency, green infrastructure such as green roofs, and allocation for greenspace. The authenticity of sustainability measures, however, can be contentious, as in Bunce's (2019) examination of the renewal of Toronto's Regent Park neighbourhood. Toronto Community Housing (TCH) first constructed public housing in Regent Park, in the years following World War II, as part of a slum clearance of Cabbagetown (Dunn, 2012). The site, in central Toronto, was one of the largest public housing projects in the country, with 2,087 units housing approximately 7,500 residents. The design of Regent Park followed garden city principles, with low-rise buildings, in open greenspace, connected by foot paths, separated from surrounding areas (Dunn, 2012). The community has historically been comprised of a significant population of recent immigrants, with over thirty languages spoken in one of the most culturally and racially diverse neighbourhoods in Toronto, one which also was the subject of stigmatization owing to perceptions about violence, poverty, and race. Following decades of poor property maintenance, which has been characterized as demolition by neglect (Kipfer & Petrunia, 2009), the City of Toronto initiated a redevelopment plan with community-based organization and private sector developers that

included replacement for the existing community housing within a mixed-income, mixed-use, increased density development that also included market-rate condominiums. Referring to Daniels' (2016) marketing materials, Bunce (2019: 34) describes how the redevelopment of Regent Park was presented:

> "Regent Park leads the way in sustainable development. From lush green roofs that keep Toronto cool in summer, to gardening plots that allow people to grow their own organic food, to forward-thinking electric car recharging stations, Regent Park is setting the benchmark for the city. And, with the brand new 6-acre Park and its greenhouse, gardens, Farmers' Market, community oven and so much more, this vibrant neighbourhood is making others green with envy."

Bunce (2019) argues that the purported ecological sustainability of the Regent Park redevelopment, including greenspace amenities, ultimately served to gentrify the historically marginalized and stigmatized neighborhood. Bunce (2019: 39) writes:

> This 'eco-friendly' image of Regent Park, a neighbourhood that has been publicly stigmatized as an area of impoverishment and criminal activity (James, 2010), connects with [Martine] August's analysis that redevelopment through a social mix approach in Regent Park suggests a broader strategy of 'vilify, then gentrify.'"

While Regent Park is widely considered a success of urban renewal, the process of gentrification and the role of sustainable development, including improvements to greenspace, must not be disregarded. As put by Anguelovski et. al (2022: 2), "if left uncoupled with ambitious affordable housing or inclusionary zoning goals, less affluent Black and Brown residents are forced to choose between greening investments and its linked potential of displacement versus continued lack of access to green amenities."

Recognizing the potential risks of addressing greenspace inequity, such as green gentrification and physical and social displacement, failing to address inequities comes at too high a cost to the health and wellbeing of marginalized communities. In 2021, British Columbia experienced a heat dome event that killed 740 residents (Gamage, 2024; McLean et al., 2024), and was the deadliest weather event in Canadian history. As the World Weather Attribution (2021) states: "an event such as the Pacific Northwest 2021 heatwave is still rare or extremely

rare in today's climate, yet would be virtually impossible without human-caused climate change. As warming continues, it will become a lot less rare." Studies analyzing the 2021 heat dome and associated mortality indicate the there is a confluence of factors contributing to increased vulnerability to heat-related death, including chronic disease, income, age, gender, social isolation (McLean et al., 2024; Henderson et al., 2022) which are also linked to factors relating to the built environment, including population density and access to greenspace. While increased risk of mortality cannot be attributed to a single socioeconomic or spatial factor, improving access to high-quality greenspace is recognized as a necessary intervention. MacLean et. al (2024) and Henderson et. al (2022) both point to the importance of increasing urban tree canopy and greenspace to mitigate the impacts of extreme heat events. "Increasing local greenspace in neighborhoods with limited air conditioning may help to save lives during extreme hot weather" (Henderson et. al, 2022: 7).

There is a multiplicity of factors contributing to increased climate vulnerability, specifically in increased heat vulnerability within urban environments. Some of these factors, such as greenspace allocation and the built form of urban environments, fall squarely within the purview of urban planning and urban design. Other factors, such as access to healthcare and air conditioning, fall well outside. However, even factors clearly within the domain of planners and urban designers are subject to economic and political forces that may limit the ability of planning professionals to affect positive climate and environmental justice interventions. In Ontario, municipal planning is directed by the Province, under policies such as the Planning Act and the Provincial Planning Statement[7]. Since 2018, legislative changes enacted by the Conservative Doug Ford government have constrained the ability of municipalities to implement planning policies intended to address climate mitigation and adaptation, as well as climate and environmental equity. The impacts of recent legislative changes are discussed in more detail in the next section.

Notwithstanding the constraints of policy frameworks, the City of Toronto and the Ontario Professional Planners Institute (OPPI) both formally recognize responsibilities relating to climate change, equity, and reconciliation. In 2022, the City of Toronto published its Reconciliation Action Plan. The plan recognizes systemic inequities caused by colonialism and commits to specific actions across a number of City Divisions, including Planning. In May 2022, the City also implemented its Equity Lens Tool for City staff to "identify and address barriers experienced

[7] The previous provincial planning policy framework, which included the Provincial Policy Statement (2020) and the Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019) were replaced by the Provincial Planning Statement (2024) (Ontario Provincial Government, 2024).

by Indigenous, Black and equity-deserving groups" (City of Toronto, 2022b: 2). The City of Toronto has also stated broad climate mitigation and adaptation targets across Divisions, including Council adopting TransformTO NetZero Strategy: 2026-2030 Action Plan, in December 2025. In 2019, The OPPI published the Report of Indigenous Planning Perspectives Task Force with the stated intent to of "moving the profession and non-Indigenous OPPI members forward in understanding Indigenous perspectives in planning and the TRC's [Truth and Reconciliation Commission] Calls to Action" (Ontario Professional Planners, 2019: 5). In 2025, the OPPI published the Climate Change Adaptation Practice Guide, recognizing that "[p]lanners play a critical role in shaping communities that can withstand the impacts of climate change across Canada, as extreme weather events, flooding, heatwaves, and other climate-related threats are projected to intensify (Ontario Professional Planners Institute et al., 2025: 6).

The ICLEI network offers recommendations to municipalities toward addressing equitable climate adaptation and decolonization. ICLEI (2022: 2) calls on municipal governments to "[u]nderstand and address primary barriers preventing municipalities from centering equity and engagement in climate change adaptation." The report further states:

> "Before taking action, it is essential to recognize and build an understanding of the history and continued role of local governments in denying equity. Local governments, as well as the professions that support them, such as Planning, Architecture, and Engineering, have long denied the rights, needs, and experiences of equity-seeking groups. The removal of Black and racialized communities across Canada (for example, Africville in Halifax and Hogan's Alley in Vancouver) under the guise of "slum clearance" and "urban renewal" are examples of this approach" (ICLEI Canada, 2022: 5).

Through case study, the next section will examine issues relating to equitable access to greenspace and its benefits in the Chalkfarm tower community in Toronto.

## 5. Chalkfarm Park Case Study



*Figure 3: Chalkfarm Tower Community*

Chalkfarm Park is a City of Toronto park, located in the northwest, near Jane Street and Wilson Avenue, and is adjacent to Black Creek ravine system, a tributary of the Humber River. This area has been home for Indigenous Peoples, including the Huron-Wendat, Haudenosaunee, and Mississaugas of the Credit, for at least 11,000 years. *Oaks on the Green* is a tower community, which is located next to Chalkfarm Park which I refer to, in this research, as the Chalkfarm tower community. The site consists of four apartment rental towers which are privately owned and operated by a corporate landlord. Aerial photographs, from City of Toronto Archives, indicate that construction for the first of the four towers began in 1973, and all four towers were constructed by 1976 (City of Toronto, n.d.-g). The layout of the site is consistent with the 'towers in the park' model of vertical communities surrounded by open greenspace, based on theories of Swiss architect and urban designer, Le Corbusier. This model was popular, in the Greater Toronto Area, during the 1950s through 1970s, exemplified throughout sites such as Jane-Finch, Flemington Park, and St. James Town, among approximately 1,200 tower sites across Toronto (City of Toronto, 2013). The Chalkfarm site is approximately 5 ha, in size, and consists of four rental apartment towers, each between 23 and 28 storeys, with a total of just over 1,200 rental units. (Bousfields Inc, 2016). 180 Chalkfarm Drive includes a City of Toronto Community Centre on the site[8]. Parks in Action (2023b) presents a case study at the Oaks on the Green, describing it as, "a typical representation of tower apartment neighbourhoods built for large amount of population, and these buildings now house some of Toronto's poorest communities."

[8] The community centre, which offers some sport and fitness programs, as well as youth-specific programming, is a free centre. Free centres were originally established in 1999 as a way to increase access to programs in neighbourhoods with high levels of low income by eliminating program fees.




*Figure 4: Location of Chalkfarm Tower Community in Toronto*

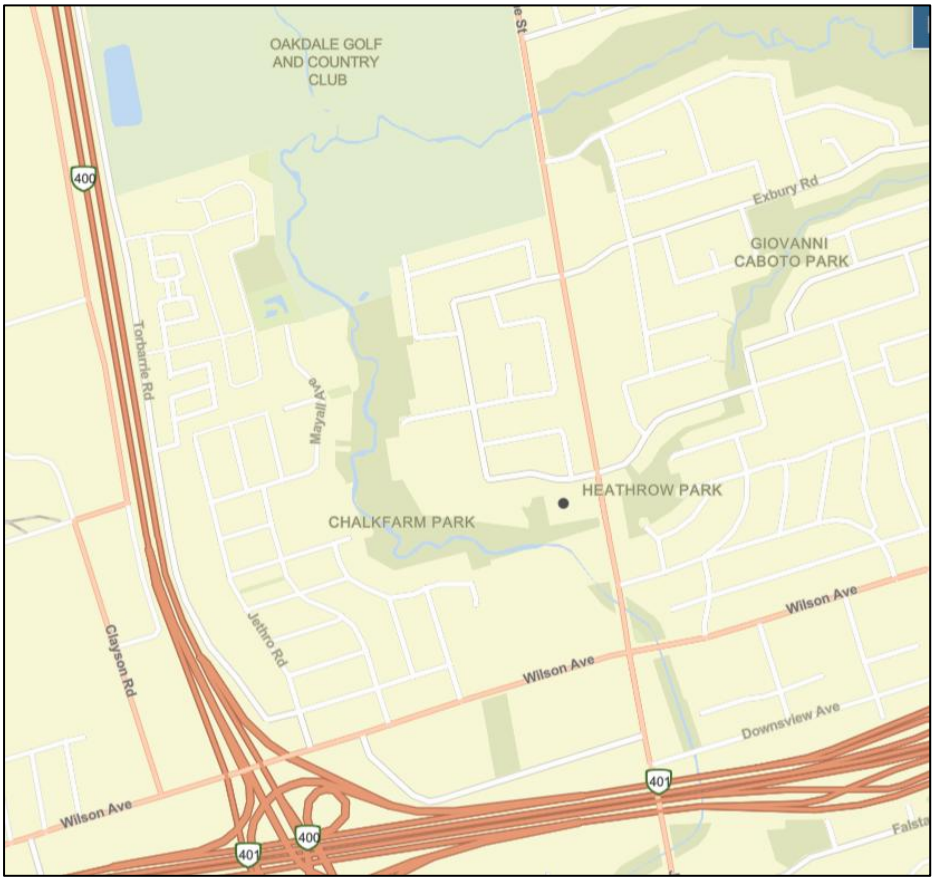



*Figure 5: Map of Jane-Wilson Area*

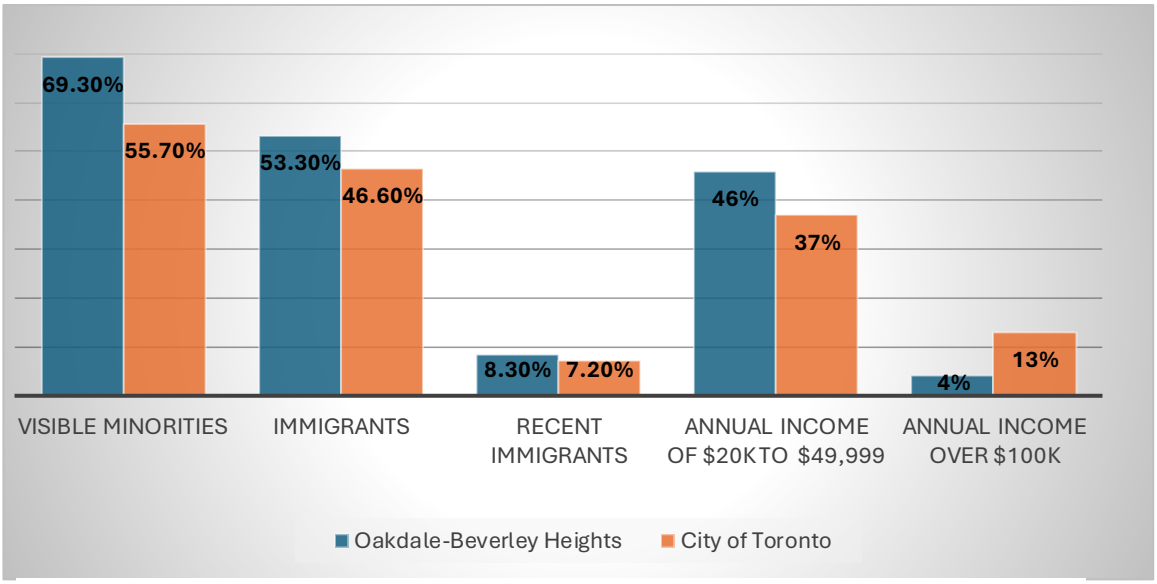



*Figure 6: Demographics of Oakdale-Beverley Heights compared to City of Toronto*

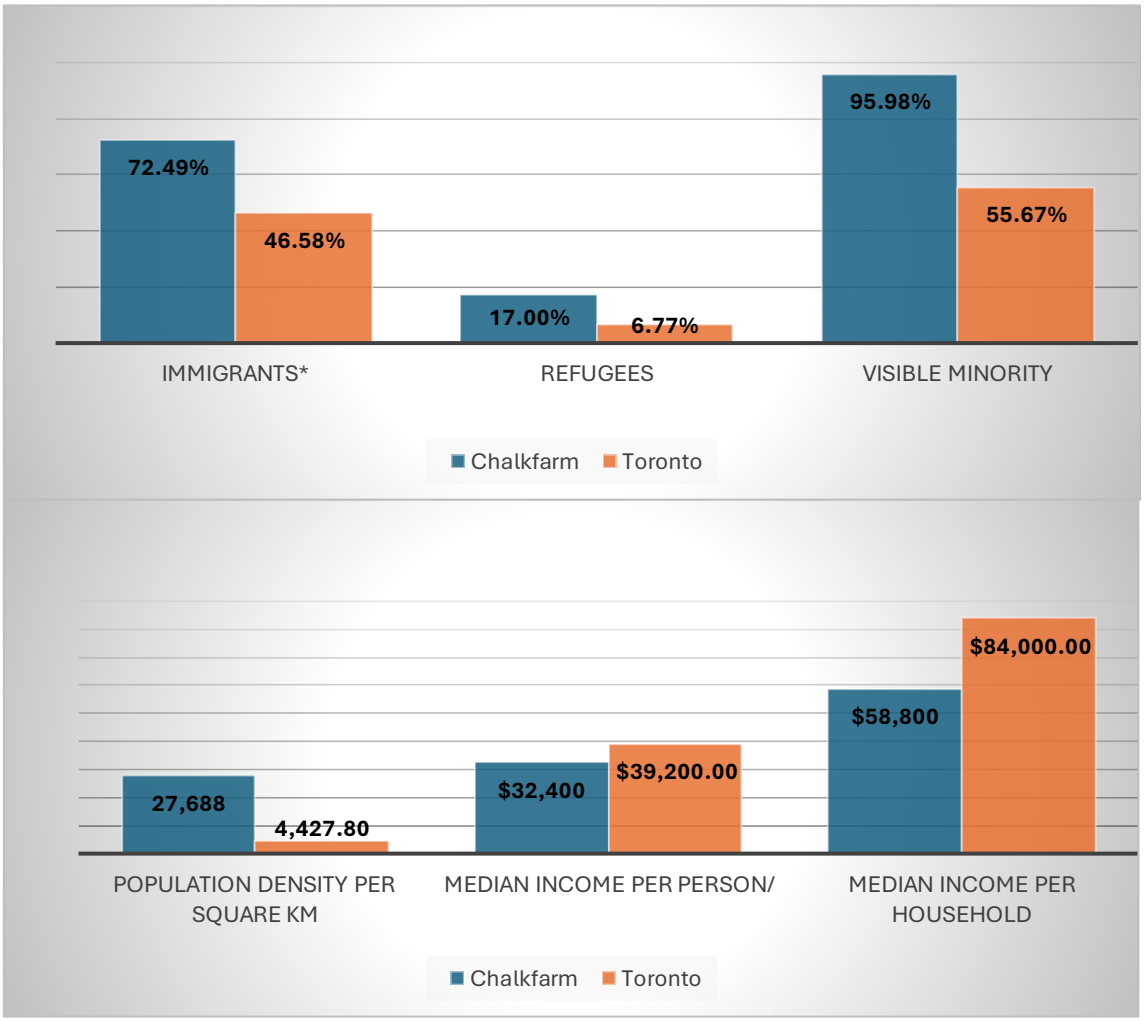



*Figure 7: Demographics of Chalkfarm Tower Community Compared to Toronto*

The Chalkfarm tower community is part of the Oakdale-Beverley Heights Neighbourhood (City of Toronto, n.d. b). According to 2021 Statistics Canada census information, the neighborhood shows a larger visible minority and immigrant population and a lower income than the City of Toronto itself. Populations of immigrants, refugees, and visible minorities that are significantly higher than Toronto as a whole. Within the Chalkfarm tower community itself, there is a striking difference in income and population density compared to Toronto, as a whole.

The preceding demographic information demonstrates that the Chalkfarm tower community is a predominantly racialized community, most of whom are immigrants, and a significant number of whom are refugees. It also shows significantly lower than average incomes and extremely high population density compared to Toronto as a whole.

According to Lewis & Panou (2026), a significant proportion of the residents of the Chalkfarm tower community are recent immigrants from Africa, Asia, and the Caribbean, with Nigerian immigrants representing a particularly significant proportion of the community. Lewis and Panou (2026) argue that exploitation is central to the spatial condition and lived experience of residents of the Chalkfarm tower community, noting that all four towers on the site are among the city's top ten most evicted addresses, additionally noting a 176% increase in eviction rates when the property was acquired by Greenwin Corporation, in 2015. The authors point to how this financialized property owner uses disinvestment, threats of eviction, punitive billing practices, and ambient fear to "weaponize time, affect, and bureaucratic opacity to manage and extract from structurally vulnerable tenants" (Lewis & Panou, 2026: 2). While chain migration plays a role in settlement patterns at the Chalkfarm tower community Lewis and Panou (2026: 6) argue that "this demographic clustering reflects the intersection of immigration policy, housing market discrimination, and urban spatial sorting — mechanisms that restrict racialized newcomers' mobility and relegate them to marginal, disinvested zones." They reference what Keeanga-Yamahtta Taylor (2019) "calls predatory inclusion: a process by which marginalized groups gain access to housing, not in spite of their vulnerability, but because of it—on terms that exploit, surveil, and constrain" (Lewis & Panou, 2026: 8).

The findings of Lewis and Panou illustrate how the community experiences financially exploitive rental conditions. Tenants of the Chalkfarm tower community, themselves, have also reported rat and bed bug infestations, dangerous elevators, poor maintenance of units and property, and abusive language from management and security staff. (Chang, 2022; CBC News, 2022; Wilson, 2025)

## Assessment of Greenspace Within and Near the Chalkfarm Tower Community

In its case study of Oaks on the Green, Parks in Action (Parks in Action, 2023 b) states that:

> "despite the proximity to greenspace, a lack of programming and connection to the green space for tower residents results in underutilized open areas that do not adequately serve surrounding communities or perform ecological functions. Combined with the aging infrastructure of the buildings themselves and the high social need of many of their residents, these towers contain key resilience risks".




*Figure 7: Map of Greenspace Near Chalkfarm Tower Community*

### City Parks

There are two city parks in close proximity to the site, Chalkfarm Park, and Heathrow Park, Chalkfarm Park is approximately 11ha in size, and is situated along the west and south property lines of the Chalkfarm tower community. The park is 'L' shaped and landcover consists of mainly open areas of turfgrass with some immature trees. An asphalt pedestrian and cycle path, approximately 1 kilometer long, runs from the north side of the park connecting to the west side of Jane Street where a sign and horticultural display are located. There are two benches and two sets of waste receptacles located along the southern section of the asphalt path, portions of which are in a poor state of repair. The north end of the park includes a playground, and outdoor



*Figure 9: Image of North Portion of Chalkfarm Park*



*Figure 10: Image of South Portion of Chalkfarm Park*

exercise equipment, and six benches. Slightly south of these are a tennis court, splash, and two picnic tables. The open area of Chalkfarm Park is approximately 3 hectares in size and consists of open turfgrass areas with immature trees. The remaining area of the park is primarily within the forested ravine area of Black Creek, a natural area, as described by the City of Toronto Parkland Strategy. There appears to be a lack of maintenance evidenced by significant quantities of litter within the natural area of the park. There is a pedestrian bridge which crosses Black Creek and links Chalkfarm Park to the parking lot on the north side of Sheridan Mall. Where Black Creek approached Jane Street, at the southeast, the creek is channelized. There is no wayfinding or interpretive signage anywhere within the park. There is, however, signage at regular intervals along the asphalt path which references Toronto Municipal Code relating prohibited activity under Parks bylaw[9] *(Figure 16).*

Part of the eastern portion of Chalkfarm Park abuts property belonging to the Toronto District Catholic School Board, the site of the former St. Gerard Majella Catholic School[10]. Visually, this area reads as part of the park, as it is also open space with lawn, however 'No Trespassing' signs are present at the open boundary to the school property *(Figure 17).*

Heathrow Park is located on the east side of Jane Street and Chalkfarm Drive. The park is 2.2 hectares and features a playground, splashpad, and open space with mature trees. The park connects to the Heathrow Park Trail and Giovanni Caboto Park Trail.

[9] "PARKS BY-LAWS: No fireworks allowed; no amplified music / speakers allowed; no fires or portable BBQs; no alcoholic beverages permitted in the park; create a nuisance by loitering; indulge in boisterous / violent / illegal conduct; interfere with use and enjoyment of others."

[10] The school site was closed in 2015, and the student population was merged with the nearby St. Andre Catholic School. The closed school site was temporarily used by the Toronto Ultimate Frisbee Club, and is currently for sale by the Toronto District Catholic School Board (*St. Andre Catholic School*, n.d.)

**On-site greenspace**

The entire site, at the Chalkfarm tower community, is enclosed by a 2-meter-high metal fence which separates the site from the park. There are vehicular openings on Chalkfarm Drive, and a single pedestrian opening, at the south side of the site, which connects to the asphalt pathway in Chalkfarm Park, and the pedestrian bridge which links to Sheridan Mall. The tower site itself is comprised mainly of open turfgrass, and surface parking. It also includes a basketball court, a swimming pool, and areas of concrete and asphalt paving that do not appear to have explicit intended use. There are numerous mature trees within the site and several horticultural beds.



*Figure 11: Image of Fence Surrounding Chalkfarm Tower Community*



*Figure 12: Image of Pedestrian Gate*

**Public Right-of-Way and Other Open Space**

The Chalkfarm tower community is located approximately 500 m northwest of the intersection of Jane Street and Wilson Avenue, both of which include 6 lanes of traffic. Sidewalks along both of these major streets are approximately 2m wide, with little or no pedestrian buffer separation. There are several immature street trees on the northeast side of the intersection. The only other




*Figure 13: Image Looking South Toward Jane-Wilson Intersection*




*Figure 14: Image Looking East Toward Jane-Wilson Intersection*

street trees present near the intersection appear to be volunteer Siberian elms that have grown through the pavement. The southwest portion of the intersection abuts a gas station which, according to satellite imagery, has been out of operation since at least 2009 and is surrounded by fencing (City of Toronto, n.d.-i). There are bus stops located at the southwest and northeast corners of the intersection. These areas consist of narrow sidewalks with no buffer from traffic,




*Figure 15: Map of Area South of Chalkfarm Tower Community*

no street trees, and no shade structures, which are nonetheless heavily used, resulting in crowded conditions that would be uncomfortable, particularly during an extreme heat event.

The north parking lot of Sheridan Mall is used as a pedestrian access from the tower community to the mall, where grocery and other retail stores are located. There is no pedestrian/vehicular separation within the parking lot. At regular intervals, signage is posted which states that all activities are being surveilled *(Figure 18).*

The lack of park amenities and maintenance, the physical restriction created by the presence of the fence, the prevalence of signage throughout the area which states prohibited use and warns of surveillance, and the lack of wayfinding signage, the park does little to invite residents, especially compared to the Toronto Parkland Strategy's (2019: 11) description of a high-quality park:

"Parks need to be designed to both attract a wide range of users, and to entice people to stay and linger by providing a range of activities and seating options, reinforcing views, supporting vegetation and tree growth, and providing inclusive spaces that contribute to comfort and social interaction."




*Figure 16: Image of Sign in Chalkfarm Park*




*Figure 17: Image of Sign at Former School Site*




*Figure 18: Image of Sign in Sheridan Mall Parking Lot*

While the different types of signage described are posted by different agencies, on different properties, they exist within a continuum of open space, which read together, could contribute to a perception of exclusion, amplified by the fact that there is no wayfinding or welcoming signage, or any kind of placemaking meant to encourage use, within the park or the ravine system. One of the few amenities provided is a linear path that directs movement through the park with virtually no places to linger or recreate. The conditions described here do not reflect the guiding principles stated in the Toronto Parkland Strategy (2019: 8). They fall short, in particular of the principles to "[i]mprove the function of existing parks to promote community cohesion, ecological sustainability, and health and wellbeing through active living, access to nature, and the provision of spaces for rest, relaxation, and leisure" and to "[i]nclude everyone by removing barriers so that parks and other open spaces are inclusive and inviting places that are equitably accessible for people of all ages, cultures, genders, abilities, and incomes."

The absence of signage, in the form of wayfinding and interpretive information does

not encourage exploration and use of the ravine area. Visible trailheads, wayfinding signage, and appropriate maintenance would promote access to the ravine system for the local community, providing opportunities for residents to engage with nature, and with their community (City of Toronto, 2017). On a city-wide scale the Parks and Trails Wayfinding Strategy has a stated goal of "developing consistent, accessible and predictable signage and information system for all of Toronto's parks, including ravine areas" (City of Toronto, 2017: 30). Following a pilot project in the Lower Don River, which commenced in 2017, the City has since extended the program, including work within the Black Creek Ravine System. Engagement sessions were held in neighbourhoods abutting Black Creek, including Jane-Finch, and an interactive map was used to collect comments from residents. Online materials (City of Toronto, n.d-f) indicate that wayfinding signage is to be included in Chalkfarm Park, as well as Heathrow Park and the Heathrow Park Trail. Within Chalkfarm Park, however, this signage is to be located along the existing asphalt path that runs through the open lawn portion of the park, and does not connect or relate to the ravine itself. Neither does it appear that there are any plans to include interpretation signage relating to the natural ecosystem or Indigenous placemaking.

## Policy Support for Greenspace for Chalkfarm Tower Community, Potential for Improvement, and Missed Opportunities

> "Parks need to be designed to both attract a wide range of users, and to entice people to stay and linger by providing a range of activities and seating options, reinforcing views, supporting vegetation and tree growth, and providing inclusive spaces that contribute to comfort and social interaction" (City of Toronto, 2019c: 11).

The Ontario Planning Act concerns matters of Provincial Interest. Under Part 1, Section 2, planning authorities "shall have regard to, among other matters, matters of provincial interest" which are relevant to greenspace as it relates to this case study of the Chalkfarm tower community, including "the protection of ecological systems"; safe and healthy communities; provision of "social, cultural and recreational facilities" and; climate change adaptation Government of Ontario, 2026).

The promotion of green infrastructure and need for climate resilient communities is also recognized in Section 2.9 of the Provincial Planning Statement (Government of Ontario, 2024), and Section 3.9 Public Spaces, Recreation, Parks, Trails and Open Spaces, specifically states that:

> "Healthy, active, and inclusive communities should be promoted by: […]planning […] facilities to be safe, meet the needs of persons of all ages and abilities, […] foster social interaction and facilitate […] and community connectivity; planning and providing for the needs of persons of all ages and abilities in the distribution of a full range of publicly-accessible built and natural settings for recreation, including facilities, parklands, public spaces, open space areas, trails and linkages" (Government of Ontario, 2024: 20)

The importance of improving greenspace is recognized in the City of Toronto's (n.d.-e) Official Plan, Chapter 2, which encourages the improvement of outdoor amenities within the properties of apartment buildings, specifically relating to renovations to improve such sites to "improve indoor and outdoor facilities for social, educational and recreational activities; (City of Toronto, n.d.-e: 48).

The importance of greenspace for the promotion of social cohesion is recognized in the City of Toronto Parkland Strategy's guiding principles. Indeed, the Parkland Strategy (2019c:39) includes multiple references to the role of parks in promoting social interaction, noting that "[i]mprovements to existing parks is particularly important in low income communities where parks play a vital role in supporting quality of life and/or where access to private greenspace is limited." Such objectives are also supported by the 2024 Provincial Planning Statement (Government of Ontario: 5):

> "Planning authorities should support the achievement of complete communities by […] accommodating an appropriate range and mix of land uses [… including] recreation, parks and open space […] improving social equity and overall quality of life for people of all ages, abilities, and incomes, including equity-deserving groups."

The assessment of the city parks near the Chalkfarm tower community reveals inadequate amenities, especially for a large park abutting a high population density community. Chalkfarm Park lacks mature trees, and neither park includes amenities such as adequate numbers of picnic tables and benches. Despite ample space within the parks, and high population density, neither park provides washrooms, community gardens, picnic shelters, barbeques, fire pits, or community ovens, amenities which do exist in other city parks, for example Christy Pits, described previously. Such amenities would provide opportunities for social connection, vital for both physical and psychological wellbeing, in "that accessible

neighborhood greenspace can promote social cohesion and social relationships" (Jennings et al., 2016: 5). The density of residents per square km, and the fact that none of the over 3000 tower residents have private greenspace of their own should foster urgency in prioritizing improvements to the amenities available at Chalkfarm Park.

As discussed, there is a significant amount of physical space available at Chalkfarm Park and Heathrow Park, at 11 ha and 2.2 ha respectively, but few amenities provided within that space, notably an absence of washrooms. Walking from the towers to the children's playground located at the north end of Chalkfarm Park takes approximately 10 minutes for an adult with no mobility issues. The absence of washrooms represents a potential barrier of use for residents, particularly those with small children and/or mobility issues, who would need to walk 2 km round trip, back to their residence, to access washroom facilities. The absence of tree canopy along the path may make for prohibitively uncomfortable or unsafe conditions on extremely hot days.

There is a children's playground located at Heathrow Park, also with no washroom facility. Depending on which of the four towers a resident lives in, needing to return to their residence to use a washroom means between 750 m to 1.3 kms round trip. Hassen's research relating to equity and the quality of greenspace in other marginalized Toronto tower communities specifically identifies washroom facilities as essential, especially for park users who are seniors, have mobility issues, or are accompanying small children. In a 2023 national survey of park users, year-round access to washrooms was identified as the top priority (Park People, 2023).

There is a large body of literature which demonstrates the benefits of community gardens, such as improved food security, social connection, and physical and mental wellbeing. Both Chalkfarm Park and Heathrow Park consist of large areas of open turfgrass which could accommodate community garden plots to serve the residents of the tower community. The development of community gardens is supported by the Provincial Planning Statement 4.3.6(1) in support of urban-agriculture and "[g]ardens for growing food" are specifically encouraged in Chapter 2 of the Official Plan relating to apartment neighbourhoods.

The site of the tower community private property itself includes significant amounts of open space that could also accommodate community garden plots for residents. Compellingly, satellite imagery and newspaper articles indicate that a community garden was previously present on the site, at least as early as 2005 until 2015. The community garden was operated by Doorsteps Neighbourhood Services, which also provided other programs and amenity improvements, within the site, noted as beneficial to the community (Sunshine, 2011). However,

satellite imagery indicates that between 2015 and 2016 -- the same time period in which the site was acquired by Greenwin -- the community garden plots were demolished and replaced with turfgrass. In 2017, Doorsteps Neighbourhood Services ceased operations due to financial issues (Gibson, 2017).



*Figure 19: 2014 Satellite Image Showing Community Gardens*



*Figure 20: 2015 Satellite Image Showing Fence and Beginning Removal of Community Gardens*



*Figure 21: 2016 Satellite Image Showing Complete Removal of Community Gardens*



*Figure 22: 2025 Satellite Image.*

Satellite imagery also indicates that the fencing which currently encloses the property was constructed at the same time that the community garden was demolished. Prior to this, the site was fully open to the park, with several hardscaped paths adjoining to the asphalt path in Chalkfarm Park. Now, the only pedestrian opening through the fence is on the south side. Externally, it adjoins with the linear asphalt path, in Chalkfarm Park, while within the site, there is no hardscaped path, only one worn in the grass *(Figure 22)*. This path leads to a pedestrian bridge which crosses Black Creek, and provides pedestrian access to Sheridan Mall, through its north parking lot. In terms of park access, the fencing around the property limits the access that residents have to the park and adjacent ravine, and increases the distance that they need to travel to surrounding areas such as Sheridan Mall, other nearby retail areas, or bus stops at Jane and Wilson. Satellite imagery also indicates that there was playground equipment within the site since at least 2005, which was subsequently removed between 2022 and 2023, and has not been replaced.

At present, a rezoning application has been approved for an infill site within the property of the Chalkfarm tower site, and a site plan application is under review[11]. The owner of the existing rental towers, Greenboard Holdings Inc., initially applied, in 2016, to permit an infill development on the east side of the site, between Jane Street and the tower at 200 Chalkfarm Drive (*Figure 23*). The proposed development includes a 36-storey tower, on an 8 to 12 storey podium, with residential apartments and retail. After the City failed to render a decision within the prescribed timeframe, the applicant appealed to the Ontario Municipal Board (OMB)[12]. The subsequent Ontario Land Tribunal (OLT) Decision, issued in 2022, laid out provisions for an increase in height and density in exchange for the provision of community benefits for improvements to the existing rental towers and surrounding area. Among the requirements in the Section 37 Agreement (Ontario Land Tribunal, 2022: 8) were an indexed cash contribution of $1,000,000 “allocated towards local community benefits and improvements in the vicinity of the lands”, as well as access to at-grade amenities of the new building for existing tower residents. The agreement also required that the owners maintain the units in the existing towers

[11] City of Toronto development review process may include several phases of applications, including rezoning, official plan amendment, site plan control, subdivision, and condominium. Community benefits are typically secured during the rezoning and official plan amendment phase.

[12] In 2018, the previous Ontario Liberal Government replaced the Ontario Municipal Board (OMB) with the Local Planning Appeal Tribunal (LPAT). In 2021, the Ford Conservative Government merged the LPAT and other Ontario land-use tribunals under the Ontario Land Tribunal (OLT) (Pinkerton, 2024).

as rental units for at least 20 years, and a commitment to "provide elevator improvements with a monetary value of $125,000 for each of the existing buildings" (Ontario Land Tribunal, 2022: 8).

Chapter 2 of the Official Plan encourages apartment building owners to "improve pedestrian access to the buildings from public sidewalks and through the site" (City of Toronto, n.d.-e:48). Chapter 2 also recognizes infill on existing apartment neighbourhood sites as appropriate under specific conditions which include improvements to outdoor amenity space and open space "providing a good quality of life for both new and existing residents" (City of Toronto, n.d.-e:46). In Chapter 3.1.3 of the Official Plan (City of Toronto, n.d.-d: 13), is concerned with site organization, stating "outdoor shared amenity spaces provided as part of multi-unit residential developments should be high quality, well designed, and consider the needs of residents of all ages and abilities over time and throughout the year." The existing site conditions and changes proposed in landscape plans submitted under the site plan application, quite bluntly, do not include any such improvements. Indeed, it appears that little, by means of improvement to the open space, has been provided for the current residents of the community beyond being permitted use of two outdoor amenities within the newly developed area. These consist of one 95 $m^2$ of seating within a hardscaped area, next to the building's pick-up/drop-off area, and another 255 $m^2$ hardscaped areas with seating and planters, next to Jane Street, shown in yellow in *Figure 23* (Ontario Land Tribunal, 2022). The submitted plans do not include any improvements to the outdoor areas surrounding the original towers, such as paved pedestrian surfaces between buildings or connecting to the pedestrian gate on the south side of the of the site. Nor does it provide amenities such as a community garden, playground, seating and outdoor dining areas, or any other type of outdoor amenity. No new tree planting is required, despite the removal of 33 mature trees on the infill site (City of Toronto, 2023), and a requirement by Urban Forestry to replace trees removed at a ratio of 1:1 trees planted for every one tree removed (City of Toronto, n.d.-c). Furthermore, the Tree Equity Score Indicator for the four towers shows an average of only 12.75 % tree cover among the four towers, but potential to reach 69.5% given available planting space[13]. The wider Oakdale-Beverly Heights area is identified as a high priority area for improving tree equity, with a current canopy cover of only 18%. It is impotent to note, however, that Oakdale-Beverly heights is a large area with much variation in landcover; without the presence of the ravine system surrounding Black Creek, at

[13] The Tree Equity Score Analyzer generates potential tree canopy by subtracting impermeable surface area and existing built/planted areas from the total area of the site, the remainder of which indicates areas where new trees could be planted (City of Toronto, n.d.-j).

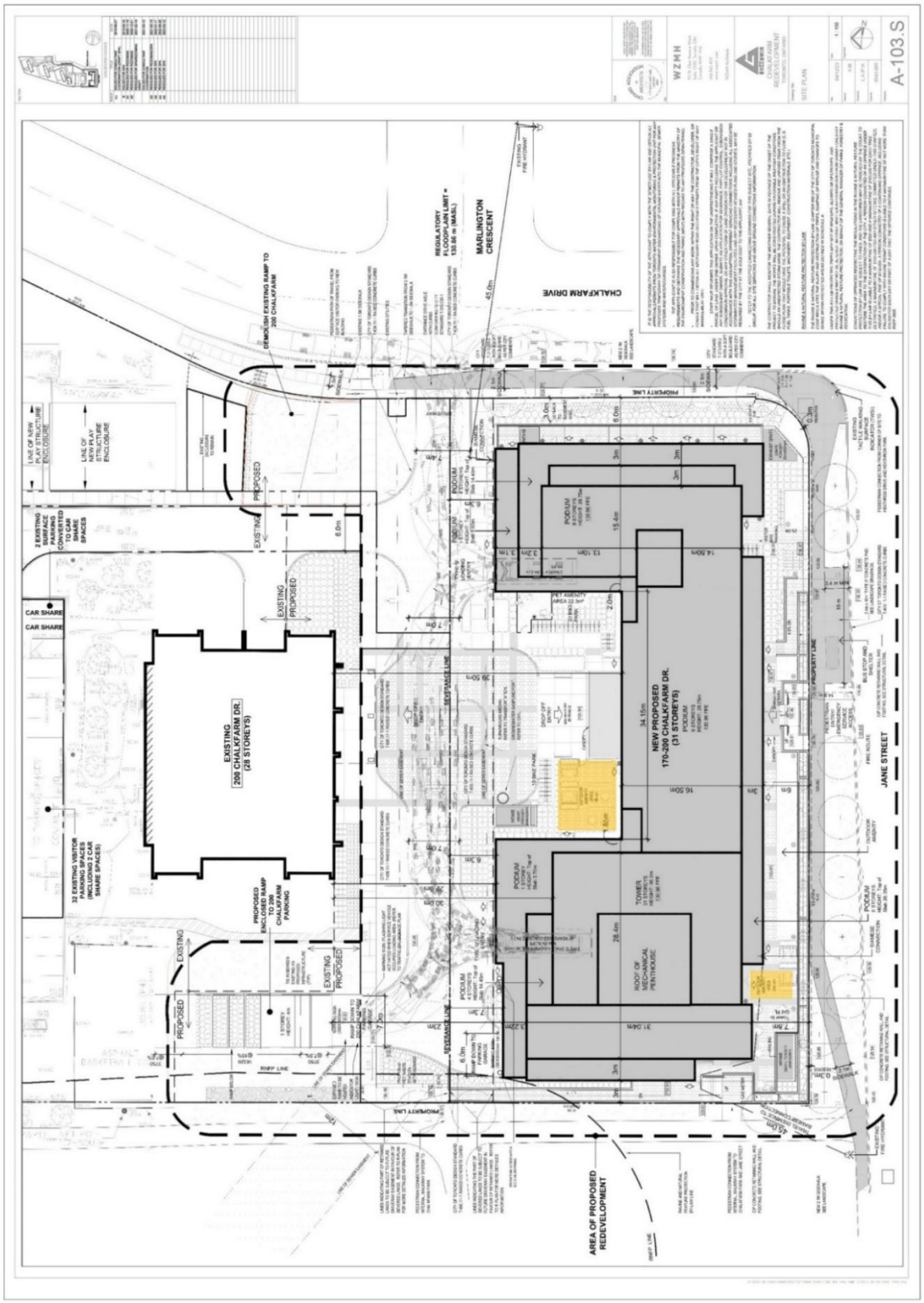



*Figure 23: Site Plan from Infill Application (Yellow areas indicate outdoor amenity areas).*

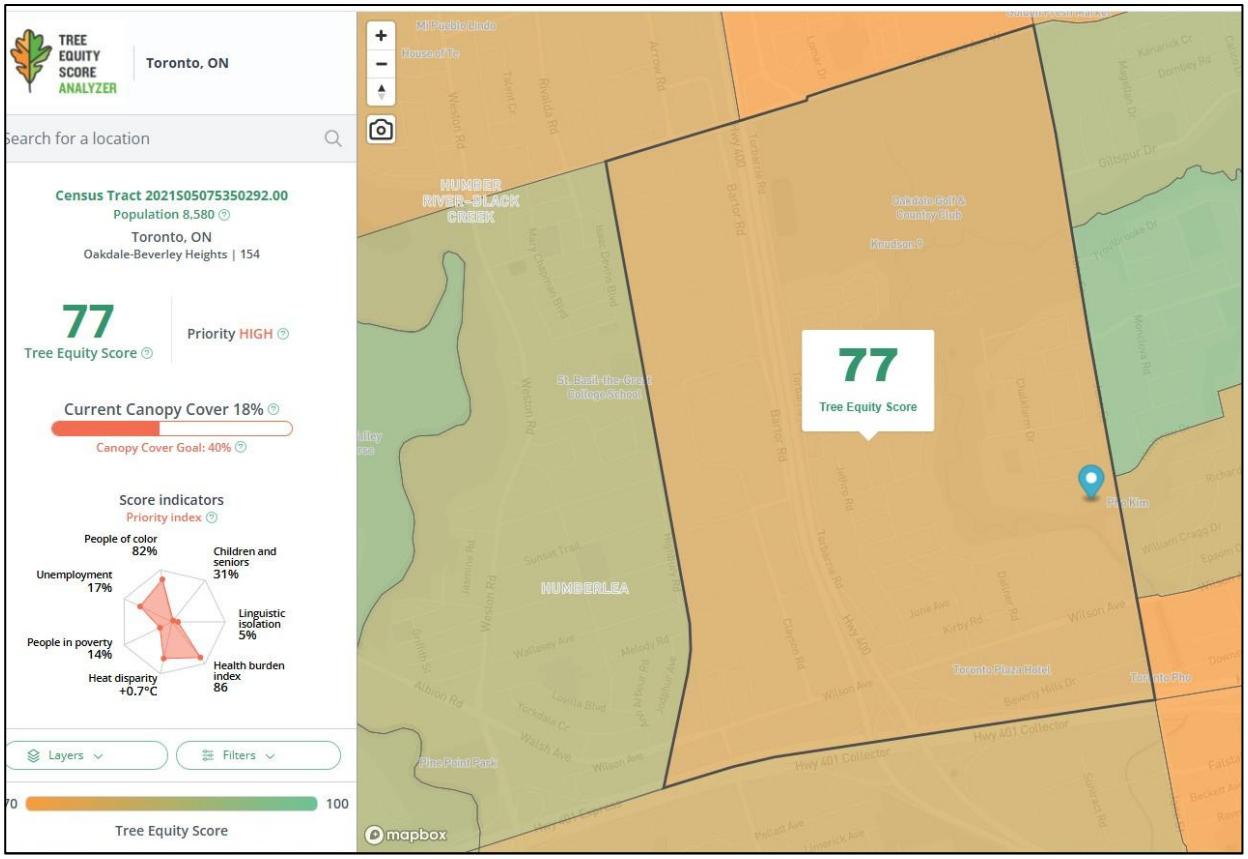



*Figure 24: Oakdale-Beverley Heights Tree Equity Score*

over 90%, or the Oakdale Golf and Country Club with a canopy cover over 50%, the amount of tree canopy in this area would be considerably lower. Given these policies and guidelines, it is notable that additional tree planting was not required as part of the infill development application for the site.

At the nearest major intersection, both Jane Street and Wilson Avenue are classified as major arterial streets (Stevanovic-Briatico, 2018). The City of Toronto Streetscape User Manual is a guideline used by City planning professionals, acting as a reference tool to guide streetscape design that supports the pedestrian realm and provides direction around elements such as trees, paving, and street furniture (City of Toronto, 2019d). Recognizing that the public realm typically represents a constrained area with various competing priorities, such as public utilities and street trees, the guideline includes provision of four sidewalk zones: the edge zone, planting and furniture zone, pedestrian clearway, and frontage and marketing zone. The pedestrian clearway is an “unobstructed continuous linear path of sidewalk that accommodates pedestrian movement” (City of Toronto, 2019: 11) and should be a minimum of 2.1 m wide. Planting and furniture zones are ideally located between the pedestrian clearway and edge

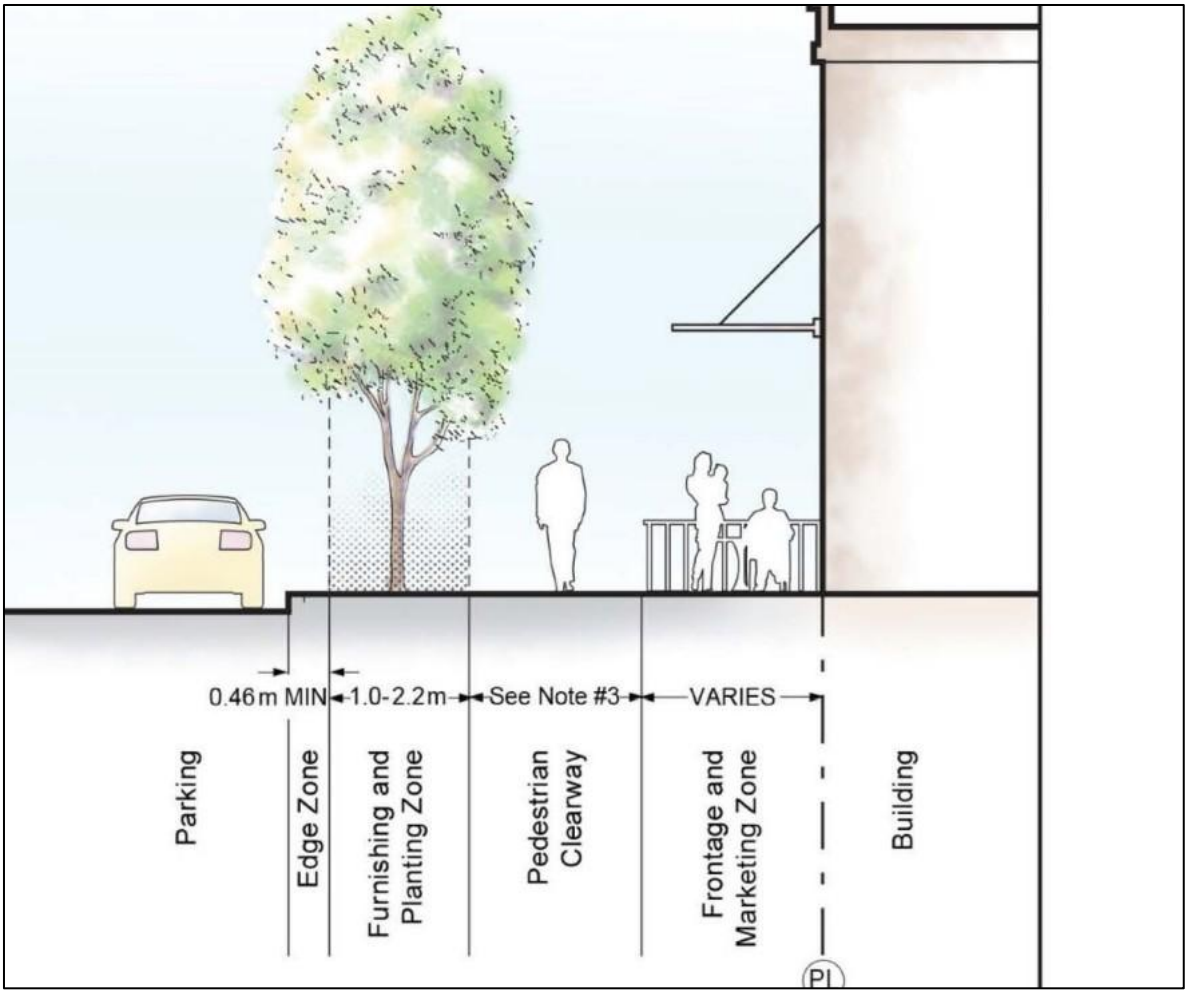



*Figure 25: City of Toronto Streetscape User Manual: Right-of-Way Zones*

zone, providing a buffer for pedestrians from traffic. The importance of trees in the public right-of-way is recognized as a means of providing shade and comfort to pedestrians, improving air quality, mitigating urban heat island effect, and achieving the City's goal to increase tree canopy cover to 40% by 2050. The public right-of-way near the Chalkfarm tower community has tree canopy cover that ranges from zero to 12%. Transit stops are also a crucial consideration in streetscape design: the City of Toronto (n.d.-h: 107) recognizes that "high-volume stops will require accommodating many waiting passengers as well as people boarding and disembarking through wider sidewalks," which should no doubt be a consideration, particularly given that Jane Street is classified as a higher order transit corridor. Comparing the City's standards for streetscape design to the existing conditions on Jane Street from Chalkfarm Drive south to Wilson, and that of Wilson Street itself, the opportunity for substantive material improvements are clear.

From a planning policy perspective, such improvements are supported by Ontario Planning Act, the Provincial Planning Statement (Ontario Provincial Government, 2024), and the City of Toronto Official Plan (City of Toronto, n.d.-e; City of Toronto, n.d.-d) [14]. Conveyances to accommodate road widenings and increase public right-of-way are frequently required as part of the approval process for rezoning. Such processes are intended to provide adequate space, in the public realm, for the types of streetscape designs described in the Streetscape User Manual. However, at the intersection of Jane Street and Wilson Avenue, there is already adequate municipally owned land to accommodate improvements to the eastbound transit stop by relocating the stop from the west to the east side of Jane Street, as a far side stop. While factors such as easements or underground utilities may be concerns, the physical area of this municipally owned land could accommodate tree planting that would contribute to the safety and comfort of transit users, serving both the City's wider goals of increased tree canopy, and addressing hyper local tree inequity as demonstrated by the immediate area's tree equity score indicator.

Hassen (2025: 3) demonstrates the experience of greenspace inequity in other marginalized tower communities in Toronto, St. Jamestown and the near Jane-Finch communities at Black Creek and Glenfield-Jane Heights, with racialized resident participants identifying "several key themes, including exclusion, maintenance inequities, safety, access and accessibility, belonging and social connection, and gentrification and complex use of space." Lack of amenities such as washrooms and sports facilities, as well as poor maintenance / neglected parks were cited; "participants specifically drew the links between the lack of urban greenspace upkeep and amenities with the fact that their neighbourhoods are home to racialized and newcomer communities" (Hassen, 2025: 5). Resident participants also identified that amenities that were available did not reflect the needs of the community. While Hassen (2025: 6) cautions against essentializing racialized groups, she argues that "amenities in urban greenspaces are an indicator of whose needs are being met in these neighbourhoods." For example, residents in one community made use of a bocce court as a make-shift cricket pitch; this amenity was not being used as it was intended, for bocce, and rather than repurposing or replacing it with a cricket pitch, it was simply removed by the City. Hassen argues that this demonstrates the centering of the white, dominant culture values and ideologies embedded in the ways that parks are spatially designed and socially coded. Specific activities are acceptable and normalized in greenspace, which are not necessarily reflective of the community such

[14] Section 3 Part 9 of the Provincial Planning Statement, 2024. Chapter 2.2.3.7, Chapter 2.2.5, Chapter 2.4.15, Chapter 3.1.1, 3.1.2, 3.1.6, of the Official Plan.

spaces are meant to serve. However, it is not only the use, but users of greenspace that may be deemed unacceptable for specific activities. Referencing Low et al., (2005), Hassen (2025: 8) notes that "[h]istorically, parks were private spaces reserved for the rich and upper-middle class and so people of colour and lower-income people 'may read the landscape as exclusive – something for others.'"

The additional density through the proposed infill at Chalkfarm Drive is part of a planning framework that directs such development to tower in the park sites, wherein the site is described as 'underutilized'. The tower in the park model included large areas of surrounding greenspace as an intentional and crucial element in urban design strategy that "were deliberately planned as a driver of community well-being" (Valzania, 2022: 230). Nevertheless, the tower in the park model, as a component of modernist spatial planning, has been heavily critiqued by anti-modernists, notably including scholar activist Jane Jacobs[15]. While debating the merits of mid 20th century modernist planning principles is beyond the scope of this research, it is noteworthy that settlement patterns in these communities did not necessarily align with their intended purpose. In the early 1970s, high-rise tower in the park developments "were usually perceived as a temporary option for Canadian families in transition toward homeownership. However, soaring housing costs were leading many residents to occupy these buildings longer than initially expected" (Valzania, 2022:231). The previously described settlement pattens of the Chalkfarm tower community illustrate how despite deeply problematic predatory rental practices of some corporate landlords, the housing stock itself and its relative affordability are essential (Lewis & Panou, 2026).

As demonstrated, the current condition of the onsite greenspace at Chalkfarm provides little in terms of amenities for residents, indeed, amenities which previously existed have been removed. This lack of opportunities for residents to use the on-site greenspace fosters a perception of being 'underutilized'. As Valzania (2022: 232) illustrates, referencing and interview with a resident of Don Valley North:

> "[towers' open spaces] don't really have any program or activity to get people involved. I thought about it many times. I wish we could plant there, but [landlords] have only a business mindset. Their concern is not your well-being or how you get involved. There's nothing in apartments to connect people, to have a garden, to plan something together.

[15] This opposition was taken up by local politicians, such as former mayor, John Sewell, who drew "a connection between the social problems of Lawrence Heights, a social housing neighbourhood, and the fact that dwellings are 'overwhelmed by grass'" and lamented "the 'communal feel,' 'surfeit of open spaces,' and 'reliance on pedestrian walkways' of Flemingdon Park" (Valzania, 2022:231).

> There's just a swimming pool, green fields, … but rental apartment businesses are not open to help people benefit more from [green spaces]."

The lack of amenities within on-site greenspace first fails residents as a barrier to use of greenspace and realization of associated benefits. Without opportunities for use by residents, the perception of these sites as 'underutilized' is then used to support planning rationales that then claim to now provide benefits to residents via the removal of greenspace, failing existing residents anew with loss of physical greenspace to infill development, resulting in increased density and no new provision of usable greenspace.

There are examples, in Toronto, of how planning can address some issues relating to greenspace equity, at least as it relates to new development. The Jane and Finch neighbourhood is located approximately 4 km north of the tower community at Chalkfarm Drive, and includes one of the tower communities included in Hassen's (2025) research. Historically a racialized neighbourhood burdened by socio-economic inequity, Jane-Finch has also been stigmatized by public perceptions of poverty and violence. In the face of such challenges, the community has nevertheless forged its own identity and priorities, including through the direction of community leaders such as Winston Larose[16] and Wanda McNevin[17]. Currently, Jane-Finch is predicted to undergo significant changes resulting from the construction of Finch light-rail transit[18]. While there are potential benefits to increased access to high-order transit, this also comes risks of development pressure, gentrification, and displacement. In light of this, the Jane Finch Initiative Planning Study and Jane Finch Community Development Plan worked with community members to develop strategies to improve the wellbeing of residents of Jane-Finch. These plans include strategies that relate to climate, greenspace, and equity, as well as reconciliation, among others. The plan includes specific references relating to food justice and support for community food gardens and urban agriculture, including within city parks, as well as provisions for initiatives related to climate resilience and community-led approaches climate adaptation. It further includes numerous strategies relating to greenspace and equity, such as

[16] Winston LaRose was born in Guyana and moved to Toronto in the 1960s. His leadership as the executive director of the Jane Finch Concerned Citizens Organization, advocacy for the community, and many local initiatives earned Mr. LaRose the moniker, 'Mr. Jane and Finch'; in 2019, Mr. Larose was featured in a documentary of the same name (S. Anderson, 2022).

[17] Wanda MacNevin is a life-long resident and activist in the Jane-Finch Community, and author of *By Us! For Us! Activism In Jane-Finch, A Working Class Community*, a book about the history of activism in the Jane-Finch Community (City of Toronto, n.d.-b).

[18] Construction of the Finch West Light Rail Transit began in 2019 and commenced operating in 2026.

providing barrier-free access, using an all-ages approach in the enhancement of public realm and parks, consulting with communities around improvements to existing parks, increased access to washrooms, and an equity approach to increasing tree canopy (City of Toronto, 2024b; City of Toronto, 2024c). Through these measures, the Jane Finch Community Development Plan provides mechanisms for enhancement and removal of barriers to greenspace, promotion of community gardens, and climate resilience, specifically as these issues relate to equity, particularly for Black and Indigenous residents, including opportunities for Indigenous placemaking and reconciliation. In addition, the plan provides strategies to mitigate displacement of vulnerable communities due to development. The Jane-Finch Community Development Plan specifically addresses supporting tenants' rights through education and advocacy, as a strategy to mitigate displacement.

The Jane-Finch Urban Design Guidelines, part of the Secondary Plan (OPA 633 Secondary Plan- Jane-Finch, 2025), provide specific direction for open space in the Jane-Finch study area. Like the park and tower community at Chalkfarm, the Black Creek ravine system is a defining part of the geography at Jane-Finch. The Jane-Finch Urban Design Guidelines include provision for increased access to ravine systems through wayfinding, expansion of the Community Stewardship Program[19], and employing landscape design to create connection between the ravine and residents, particularly within parks that are adjacent to ravines (City of Toronto, 2024). Reconciliation and Indigenous placemaking are specifically included in the guideline; these strategies call for consultation with Indigenous communities toward creating Indigenous community food and medicine gardens, sites for ceremony and cultural events, and wayfinding that includes Indigenous language (City of Toronto, 2024). The guidelines also include provisions for climate responsive design, including increased tree canopy; especially along major streets and transit stops, and preservation of existing tree canopy and enforcement of replanting requirements. It also includes provision for washroom access in parks, and enhancements that improve streetscape ecological function. Community gardens are also specifically referenced. The Jane-Finch community has a number of existing community garden sites, and the guidelines call for their protection, as well as the prioritization of Indigenous traditional food sources and medicines, as specified in the Reconciliation Action Plan.

In terms of streetscaping, the Jane-Finch Urban Design Guidelines include numerous provisions. Jane Street, specifically, has a recommended right-of-way width of 40 m, allowing for cycle tracks separated from traffic lanes by 2.8 m landscape buffers, in each direction. It also

[19] The Community Stewardship Program is a City of Toronto program in which volunteers learn about and assist in ecological stewardship within the city's ravine system (City of Toronto, n.d.-b).

includes a 3 m minimum pedestrian clearway; and additional rows of tree planting on the other side of the sidewalk. The southern boundary of the Jane-Finch Secondary Plan area is approximately 1.5 km north of Chalkfarm Drive. While the stretch of Jane Street from this point to Jane and Wilson is outside the boundary of the Secondary Plan, this type of 'green spine' streetscaping would provide significantly more pedestrian comfort and safety than the current conditions, and provide better connectivity from the Chalkfarm tower community to the Finch West light-rail transit line.

The Chalkfarm tower community case study illustrates the social and spatial reality of greenspace inequity. The open space near the towers, including city park, streetscaping, and site itself is poor quality in terms of amenities and programming, wayfinding, pedestrian comfort and safety, thermal comfort, and accessibility, compared to the standards laid out in various municipal strategies and guidelines such as the Parkland Strategy, Ravine Guidelines, and Streetscape User Manual. In addition to these spatial barriers to greenspace access, there are also social barriers in the form of signage and the coding of spatial design. Despite the considerable availability of physical greenspace in proximity to the towers, the poor quality of this greenspace represents demonstrable inequitable access to greenspace and its benefits. Policies and guidelines exist, at various levels, that support improvement of park amenities near the site. Furthermore, there is ample physical space available to support an array of improvements to the park. However, given budgetary constraints, it seems unlikely that the City could allocate the funds that would be necessary for either the capital or operational expenditures required to bring Chalkfarm Park up to its own definition of "[w]hat makes a high quality park (City of Toronto, 2019c: 11). In terms of planning mechanisms, improvements to the existing greenspace are only likely to occur alongside significant new development within the Jane-Wilson area. Were such circumstances imminent, the Jane-Finch Secondary Plan stands as an example of how to plan for improved conditions for existing residents in marginalized neighbourhoods and attempt to mitigate potential risks such as gentrification and displacement.

As the current infill development application demonstrates, despite policies and guidelines that are supportive of improvements for the existing residents of the tower community, if constructed, the infill development would actually provide minimal benefits, in terms of greenspace, or may even be detrimental. This is evidenced by the reduction in greenspace and tree canopy, and the questionable benefit of access to the two small at-grade amenity areas *(Figure 23)*. The Section 37 Agreement does provide for one million dollars of capital toward community improvements, but there is currently no indication for how those funds will be allocated, and the amount itself is likely insufficient to yield significant material

improvement, compared to the demonstrated need for improvements to the park. For example, while it does not provide an exact model for comparison, recent park amenity improvements at, which included a non-winterized washroom facility, new multi-use trails, additional picnic tables and bench seating, as well as other amenities, cost $4.8 million (Dunn, 2022).

Reliance on new development, such as apartment infill, for community benefits poses several issues. In the current economic climate, actual construction has slowed significantly. While developers continue to submit development applications for rezoning and official plan amendment, few of these are proceeding to approval processes related to site plan control, building permits and, ultimately, actual construction. Between 2014 and 2018, the City approved 16.67% more units than were constructed: 105,908 residential units were approved, 90,002 were constructed. (City of Toronto, 2019b). Even prior to current economic and geopolitical instability, during the peak of construction, the City of Toronto approved considerably more applications as were actually being constructed. Between 2020 and 2024, the City approved 234,699 units under rezoning/official plan amendment, compared to 121,711 receiving site plan approval, and 89,440 actually being constructed (City of Toronto, 2024a). Such trends suggest that applications may be submitted as a means to increase property values through speculation, not necessarily with the intention to construct new homes. This means that even areas where increased density is not only anticipated, but required for new development, such as the Jane-Finch Secondary Plan, absent actual new construction, none of the associated benefits intended for the community are likely to occur.

Essentially, this means that unless market conditions are favorable to the *pro forma* of private developers, significant improvements to parks, streetscaping, public spaces, and other community facilities, without other means of funding, are less likely to be implemented. Indeed, even where new development does occur, reductions to development charges, changes to community benefits, reduced review timelines, and other recent legislative changes have contributed to conditions where developers are not only required to provide less, but may feel encouraged to submit applications that are rapacious and inappropriate, as in the case of 155 St. Dennis[20], trusting that if refused, they have a good chance of winning an appeal, given the Ontario Land Tribunal's 96% ruling in favour of developers (Pinkerton, 2024).

[20] In 2023, the City of Toronto refused an application to construct 4-tower development located partially within the within the ravine wall, at 155 St. Dennis Drive, the current site of the Flemingdon Golf Club. The refusal was "based on a comprehensive review of the Provincial Planning Statement and the City's Official Plan with respect to the appropriate locations for growth, conservation of the city's natural heritage and public safety in relation to natural hazards"(Warren, 2025). Reasoning for the refusal included the site's designation as hazardous, as well as safety concerns related to emergency access. In 2025, the developer appealed to the OLT, who ruled in favour of the appellant (Ontario Oland Tribunal, 2025).

These conditions describe private sector development that is concerned not with providing housing so much as extracting maximum financial gains by maximizing density approvals quickly and cost efficiently. The removal of municipalities' capacity to comprehensively review applications, as well as reduced requirements to pay for community benefits and infrastructure would certainly 'streamline' approvals processes for developers and benefit their *pro forma*, and a litany of legislative changes since 2018 have affected just such conditions.

Of Ontario Bill 60, purportedly designed to accelerate infrastructure and housing, the City of Toronto stated: "The changes in Bill 60 can be expected to disproportionately affect equity-deserving populations due to greater economic vulnerabilities and systemic discrimination, leading to inequality in rental housing and perpetuating poverty and negative health outcomes" (City of Toronto, 2025c: 4). As of 2022, changes under Bill 23 mean that municipalities are no longer able to comment on building interiors (such as the requirement for units with two or more bedrooms) or on building exteriors other that related to sustainability[21]. Affordable housing requirements are also capped at 5% of total units within a development, and the affordability period is limited to 25 years. Bill 23 also limits the inclusionary zoning that municipalities can ask for and removes municipalities' ability to require studies relating to wind and shadow, among many other changes (Bill 23: More Homes Built Faster Act, 2022).

As discussed previously, green roofs provide multiple ecosystem services including climate resilience in the form reduction in urban heat island and improved stormwater management. In 2009, the City of Toronto became the first municipality to adopt requirements for the provision of green roofs in North America[22]. However, the bylaw was repealed, in 2025, by the Ontario Provincial Government, under order-in-council, with no public consultation, transitional period, nor parliamentary debate on the matter.

Bill 98 received royal assent on June 3, 2026, removing municipalities' authority to require specific green building standards, such the Toronto Green Standard. As of writing, other proposed though changes are not yet in effect, requiring municipalities to accept encumbered land for parkland contribution, automatically deem technical materials provided by prescribed professions as complete and not subject to review or commenting, among other changes.

[21]Bill 98 received royal assent on June 3, 2026 removing the authority of municipalities for mandatory sustainability standards, including the Toronto Green Standard, which had been in place since 2010.

[22] Widely lauded as an effective and innovative program, the green roof bylaw and associated eco-incentive program and Toronto Green Standards provided measurable benefits to ecosystem services such as reduction in urban heat island and as a means of stormwater management.

Since 2018, these and other legislative changes have been justified by political and public narratives that the current housing affordability crisis is the result of insufficient supply, that municipal planning approval processes allegedly delay construction of new homes, and that municipal development processes unduly add to housing costs. However, such rationales fail to acknowledge the role of land value, construction costs, borrowing costs, geopolitical uncertainty, and the financialization of housing driven by investment and speculation. In addition to changes to planning legislation, other legislative changes have removed rent control for units put on the market after 2018, and weakened tenant's rights leaving renters more vulnerable to renoviction.

Framed as enhancing efficiency to provide more housing: the very names of bills such as Bill 5, Protect Ontario by Unleashing Our Economy Act, Bill 17, Fighting Delays, Building Faster and Smarter Act, and Bill 46, Protect Ontario by Cutting Red Tape Act (all from 2025) indicate certainty that market-driven solutions facilitated by reducing or eliminating government oversite will deliver material benefits to society, and are the hallmarks of neoliberal philosophies of marketization and deregulation. Political insistence, and subsequent public acceptance, that market forces will yield solutions to the housing affordability crisis -- or climate change, inequity or any other aspect of the poly-crisis[23] humanity faces -- are indeed the result of decades of neoliberal policy and practice which have positioned market-driven solutions as the only acceptable logic (Valzania, 2022; Modlinska, 2021). Relating this to urban densification, as put by Valzania (2022: 228):

> "Compact city agendas have been reasonably accused of turning densification into a strategy for the profit of the few, instead of being used as a tool (among several) to achieve broader common objectives, such as housing affordability social inclusion, reduced carbon emissions, or the protection of natural resources."

In the case of the Chalkfarm tower community, such 'market solutions' have resulted in an infill development proposal that offers little if any material benefit to the greenspace available current residents, and certainly does nothing to address the exploitive rental practices to which residents are vulnerable. Referencing Gilmore (2022), Lewis and Panau (2026: 4) argue "vulnerability is produced through state policy rather than inherent identity, this reflection

[23] (Lawrence et al., 2024) offer a contemporary definition of "a 'global polycrisis' as the causal entanglement of crises in multiple global systems in ways that significantly degrade humanity's prospects". The authors identify various systems involved in the polycrisis, including environmental (climate as well as other ecological systems), human energy, human security, economic, and information systems.

foregrounds how racial capitalism not only produces geographies of exclusion but also shapes what kinds of knowledge are legible and who is positioned to participate in their production".

The mechanisms that previously allowed municipalities to include requirements for community benefits, parkland provision, and green building standards have all been eroded or removed completely. Municipalities are further constrained by budget shortfalls and austerity measures that have led to conditions where, on a wide scale, infrastructure and public realm are in a poor state of repair. Extremely limited public funds are available for both capital and operational expenses, meaning that funding to improve underserviced parks, such as Chalkfarm, or improve streetscaping and public realm, are unlikely. The City of Toronto recognizes that capital improvements rely heavily on new development for funding: "[m]ost new parks and recreation facilities are made possible through growth-related funding, which means that growing areas receive most new or expanded facilities" (City of Toronto 2019c: 87). Without wider substantive changes in how municipal works are financed, the inequitable access to high-quality greenspace at sites like the Chalkfarm tower community will likely remain unaddressed for a long lime.

## Conclusion

The objective of my research paper is to analyze interrelationships of urban greenspace benefits and access, socioeconomic inequity, and the role of urban planning policy and implementation, in Toronto. Recognizing that the ways in which nature is valued are complex and highly contextual, the first section examines greenspace benefits such as climate resilience, physical and mental health, and social connection. I then examine how different greenspace typologies provide these benefits, including parks, ravines, public boulevards, urban agriculture and other publicly accessible open space such as hydro-electric corridors. I then briefly review the history of environmental justice, as a social movement and in the academy, as the origin of contemporary research in greenspace equity, linking these issues directly to Toronto, particularly within tower communities. Finally, I evaluate how these issues relate to urban planning.

The case study illustrates how the interrelated factors of greenspace benefits, equity, and planning unfold in Toronto's Chalkfarm tower community. This case study reveals a marginalized community, vulnerable to exploitive rental practices, and which despite provision of a large area, the poor quality of that greenspace results in inequitable conditions. The poor quality of this greenspace is evidenced through the lack of park amenities and wayfinding, poor

maintenance, uncomfortable pedestrian conditions, and physical and social barriers. I then turn to the current infill application at the site. Through assessing the related rezoning and site plan application materials, I illustrate that despite stated support for climate resilience and equitable access to greenspace, within a broad policy and guideline context, the current residents of the Chalkfarm tower community are unlikely to see substantial material improvements to their nearby greenspace, and may in fact see a worsening of conditions through loss of mature trees and greenspace area. Finally, I examine how recent provincial legislative changes are the most recent examples of neoliberal policies which inhibit ability of municipal planners to respond to greenspace inequity.

My research exemplifies ways in which greenspace inequity manifests within a specific community; however the conditions that perpetuate these inequities occur within neoliberal world order, from which the example of the Chalkfarm community cannot be separated. Inequitable access to high-quality greenspace is but one example of the systemic injustice elucidated by the spatial and sociodemographic conditions of the Chalkfarm tower community. As Lewis and Panou (2026: 5) point out “the demographic composition of the Chalkfarm community is not incidental but is rather produced through the spatial logics of racial capitalism and state-sanctioned neglect”. The greenspace inequity demonstrated at this site is not simply a failure to implement equitable planning at a local level, rather it is the downstream result of neoliberal disinvestment, financialization, deregulation, and neocolonial privileging of dominant cultural values. As such, addressing urban greenspace inequity requires addressing drivers in the form of neoliberalism and the legacy of settler colonialism.

## Decoloniality and Planning

Under any policy framework, professional planners in the public sector must work within that framework or risk breaching their professional code of conduct. The way in which planners work, in Ontario, is prescribed by the Ontario Planning Act, and the rapid and copious legislative changes, since 2018, have drastically altered the practice of planning in the province. Municipal planners working in development review, urban design, parks planning, and urban forestry face a continually shifting and often untested legislative context, and review timelines that restrict capacity for thorough and thoughtful review and in-depth participatory planning practices. Given these conditions, some municipal planners may feel severely constrained in their ability to

facilitate good planning outcomes[24]. Despite these constraints, however, individual planners committed to equity still retain some (albeit limited) capacity to centre issues of equity in their work. Given that the root of various forms of equity can be linked to coloniality, I suggest that in order to move toward more equity as a society requires that individuals commit, both personally and professionally, to decolonization across all aspects of society. Though Trisos et al. (2021) present recommendations for the decolonization of ecological study and practice, some recommendations for decoloniality can be borrowed and adapted to apply to decolonizing planners' minds, and understanding the coloniality of planning history and expertise.

I suggest that in order for planners to decolonize their minds, it must be understood and accepted that planning is an inherently colonial practice. The Ontario Professional Planners Institute (2019) states that "[a]s a Western-based practice, the legacy of professional planning has sustained the colonial mindset and intentions. […] For progress to be made, the planning profession must face its own truth — that there is a colonial legacy and bias in the practice." Planners committed to equity must educate themselves about coloniality within the profession and raise these perspectives through the course of their work, as they are able. Planners working within fields of environment and ecology can also work to dismantle Western knowledge system hegemony by including other ways of knowing, such as Indigenous science and traditional ecological knowledge, as discussed in the first section.

Accepting that the planning profession is built on colonial constructs, planners must strive to educate themselves about how planning has contributed to inequity, for example, the events surrounding Africville and the creation of Evergreen Brickworks, described in the first section. As put by Trisos et. al (2021: 1207), "[i]t is vital to recognize that systemic inequalities (of race, access and opportunity) have defined the fields we know today, but that this is not an historic inevitability and can be changed." Specifically considering Indigenous perspectives in colonialism and planning, individual planners committed to equity must familiarize themselves with protocols such as the Truth and Reconciliation Commission of Canada's 94 Calls to Action, and the City of Toronto Reconciliation Action Plan, and consider how these protocols relate to their work as planners, again raising issues through the course of their work, as they are able.

While professional planners spend their educational and professional careers building practiced expertise, residents of communities that are impacted by planning decisions are the experts of their own lived experience. In the case of parks amenities, planners need to engage

[24] The Ontario Professional Planners Institute (OPPI) recognizes the profession's responsibility to serve the public interest. "The public interest is about making decisions that serve the long-term well-being of communities: socially, economically, environmentally, and culturally" (OPPI, n.d.).

with specific communities and be responsive to their specific needs, rather than prescribing designs and programming that may centre only white Western needs and values. Additionally, residents may hold perspectives that may not be readily apparent to those with privileged Western world views. For example, while the intention of community consultation meetings may be for planners to gain understanding of concerns of community members, not all residents have the same level of trust for government and may therefore be uncomfortable attending community meetings and/or sharing their views. Recognizing that the current policy framework constrains review timelines and therefore public engagement, however possible, planners should consider the capacities of some populations to participate in such processes, and where required, facilitate other ways to engage for equitable participation.

For public sector planners, these ways of centering equity issues may face policy constraints of their practice. Planning professionals in academia are not subject to the same constraints, and may therefore be more able to address issues of not only greenspace but all forms of inequity in planning. Understanding that education institutions, such as universities that teach future planners and academics conducting research, are also subject to neoliberal constructs through capitalist funding models and entangled pedagogy, academics in the planning field can still adopt an axiological positionality that centres equity, decoloniality, and anti-oppressive research (Potts & Brown, 2015).

The social and spatial conditions of the Chalkfarm tower community offer a specific example of how marginalized people are disproportionately vulnerable to detrimental environmental, economic, and social impacts as components of the polycrisis. Kelecha (2025: 2) "links the polycrisis to capitalism's deep contradictions". Referencing Nancy Fraser (2023), Kelecha (2025: 2) points out "that we are now facing a general crisis of capitalist society – a 'tangle of multiple crises … These multiple failures, Fraser argues, are proliferating in tandem, defying efforts to isolate and solve issues one by one." Though this research specifically addresses manifestations and potential solutions to the polycrisis as experienced in the global south, Kelecha (2025: 10) argues that as a drivers of inequity, neoliberalism and coloniality must be addressed as root causes. "[T]he polycrisis is woven into the fabric of a global political economy shaped by decades of neoliberal policies … Any viable response, therefore, must entail a decisive break with the neoliberal status quo."

As urban planning is situated within these broader neoliberal systems, without policy-led changes to planning, meaningful, wide-scale, positive changes in the field of greenspace equity, as component of the polycrisis, are unlikely. Kelecha (2025 :5) points out that "[i]f the polycrisis is systemic, then system-level governance reforms are indispensable". In order to facilitate such

changes, municipalities must have latitude to implement policies that can directly address issues such as environmental justice, equity, and climate resilience, facilitated by wider political and social movement toward equitable and sustainable governance reform. One alternative to current neoliberal systems, which has emerged from various fields of social activism and academic study, is degrowth. Sustainable degrowth, specifically, is defined as "an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level, in the short and long term" (Xue:2022: 4). This model of degrowth does not prescribe a return to pre-industrial lifestyle, nor does it prohibit all forms of growth, recognizing, for example the need for material improvements to living conditions of equity deserving groups, and expansion of renewable energy sources (Schneider et al., 2010). Rather, sustainable degrowth calls for reducing consumption in order to live within ecological limits and deliver social equity. Such changes would necessitate broad-scale social and economic transitions away from capitalist valuations of GDP, toward systems which prioritize ecological and social well-being (Xue, 2022). As Xue (2022: 405) contends, degrowth cannot only be directly linked to urban planning, but its inclusion is necessary, arguing that "failure to recognise the causal powers of urban/urban regional spatial patterns and planning can weaken the transformative strength of degrowth-inspired social actions and even lead to contradictions between policy proposals and degrowth values". Degrowth is a complex, nuanced, and multifaceted movement and field of research, and as such should not be over-simplified as an instruction manual for a solution to all wicked problems. Degrowth does, however, offer compelling considerations for how we might imagine alternatives to current unsustainable conditions wrought by neoliberalism and coloniality.

In several South American nations, including Ecuador and Bolivia, the reimagining of these unsustainable conditions has taken the form of *buen vivir*, a Spanish term[25] that attempts to articulate complex and highly contextual Indigenous philosophies and worldviews which are entirely separate ways of knowing than Western social and economic logics of colonization and capital accumulation (Acosta & Abarca, 2018). As put by Acosta and Abarca (2018: 133-134) *buen vivir* "breaks the anthropocentric logic of the dominant capitalist civilisation and of the different forms of socialism that have actually been implemented *buen vivir* can and should be considered a socio-bio-centric vision."

Whether or not degrowth, *buen vivir*, or other movements and fields of research themselves are capable of facilitating the types of changes necessary to address issues related

[25] Indigenous terms which express some concepts of *Buen Vivir* include *sumak kawsay* (Kichwa) and *suma qamaña* (Aymara) among others (Acosta & Abarca, 2018).

to ecological sustainability and social equity, I raise them as a means of foregrounding the ecological and social unsustainability of current systems. Relating this to urban greenspace equity, it is clear that current policy frameworks, informed by neoliberal subordination of all else to economic growth, provide few mechanisms to address greenspace inequity through planning processes. As demonstrated in the case study, the improvement of existing greenspace is largely reliant on private sector development, and even then, is restricted in its capacity, and may leave existing residents vulnerable to displacement and gentrification. While individual planners within the public sector may work to centre greenspace equity within the constraints of their practice, meaningful change can only occur when all levels of government, the planning profession, academic, and all other institutions recognize that social and spatial inequities exist, and identify drivers such as legacies of colonialism and racial capitalism. These same institutions must also examine how Western white supremacist values manifest both socially and spatially. For example, recognizing that public parks are not inherently benign spaces with equal access for all, and that park amenities, maintenance, and policing of activities serve to privilege and exclude different groups.

The ways in which parks are understood must also be scrutinized, owning that the initial conceptualization of parks lent itself to the exclusion and erasure of Indigenous people from the land. Indigenous placemaking in all public spaces represents one way to address truth and reconciliation. Addressing greenspace and other forms of inequity relating to planning will require the implementation of planning policies that serve just and ecologically sustainable community building for all. Such changes will only be possible within the context of broader social and political transformation that prioritizes ecological and human well-being over the market economy. Absent such transformation, environmental degradation and social injustice will likely perpetuate, of which equitable access to urban greenspace is but one example.

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