





2019 Parks & Forestry Master Plan

2019 Parks and Forestry Master Plan

Prepared for the Community Services Department, City of Mississauga

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Prepared by:

Monteith+Brown planning consultants

in association with



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2019 Parks & Forestry Master Plan **Executive Summary**

Executive Summary

The City of Mississauga has achieved an admirable open space system comprised of more than 3,100 hectares of parkland and other open space. Mississauga's parks and forestry system is an integral part of the health of the City, measured both by the wellbeing of residents and the strength of ecosystems. Mississauga's parks, public spaces and open space areas support a diverse range of recreation, leisure and cultural activities. Their many attributes include vibrant urban spaces, leading edge sports facilities, beautiful gardens, multiuse trail and pathway systems, significant natural areas and heritage sites. According to the 2017 Citizen Satisfaction Survey, the City's many parks and open spaces ranked second in the top 10 most appealing elements of Mississauga.

This 2019 *Future Directions* for Parks and Forestry (referred to as the Parks and Forestry Master Plan) guides the City of Mississauga in delivering future parks and forestry services over a five year period to the year 2023, although a longer-term outlook (i.e. to the year 2038) is taken in certain instances to ensure that actions are appropriate for future generations. In addition, outdoor recreation facilities are now a component of the Parks and Forestry Master Plan (whereas they were part of Future Directions for Recreation in the past).

The City of Mississauga's Parks and Forestry Division has a vision that emphasizes the positive experiences that parks and the urban forest afford to the quality of life. The goal of the **Parks and Forestry Master Plan** is to develop an innovative and fiscally and environmentally responsible plan that will guide the future direction of parklands, open spaces, forestry services and related programs and services.

Parks and Forestry Division Vision

People choose Mississauga for its connected, vibrant outdoor public spaces, creating memorable outdoor experiences, and recognize it as a leader in the stewardship of the natural environment

Parks and Forestry Division Mission

We are a dynamic team that protects the natural environment and creates great public spaces to make healthy and happy communities



Waterfront Trail through Brueckner Rhododendron Gardens Photo Credit: City of Mississauga



The Master Plan helps to direct the Parks and Forestry Division's decisions when considering the City's growing population, changing demographics, new trends, and public needs as it relates to parks and natural areas. By addressing these important elements a framework has been developed to effectively respond to existing and anticipated pressures. The Master Plan strategically outlines a set of guiding recommendations under seven areas of focus, which support the Division's vision and mission:

- 1. Growing, Connecting and Developing Parkland
- 2. Protection and Enhancement of Natural Areas
- 3. Outdoor Recreation Opportunities
- 4. Enhancing Park Experiences
- 5. Community Engagement and Park Stewardship
- 6. Climate Change Resiliency
- 7. Cemeteries



Waterfront Trail through Lakefront Promenade Photo Credit: City of Mississauga

Growing, Connecting and Developing Parkland

Use updated evaluation criteria, acquisition factors and funding analysis developed in the City-Wide Parks Provision Strategy to identify, rank and recommend properties to secure for parks and open space purposes.

The City should develop comprehensive plans for the waterfront development sites that address both local needs for parkland in new development areas as well as opportunities for destination parks sites.

The City should develop a plan to identify specific uses for parkland along the 9th Line Corridor and look for opportunities to connect new and existing parkland to create dynamic, connected spaces that meet both passive and active recreational needs.

Complete a strategy for the Cooksville Creek corridor to examine issues including, but not limited to: management of natural areas, park use potential, parkland deficiencies in the Downtown growth corridor, trail network completion and connections to existing parks.

Develop a policy to address the provision of Privately Owned Public Space (POPS) where public parkland cannot be achieved, or to enhance the public realm.

Examine the implications of developing parkland on roof slab or underground parking structures when constraint-free parkland cannot be achieved. The study will include at a minimum location criteria, design considerations, best practices review, capital and operating costs (including implications for trees related to the life cycle of underground parking structures), ownership considerations (stratified ownership, easement) and principles by which requests can be evaluated.

7

Update the existing park/open space classifications. New categories to include Urban Parks, and subcategories of Greenlands. The City will incorporate these new categories into the Official Plan and apply the classifications to the existing inventory of parks and open spaces to inform development and redevelopment decisions and maintenance standards.



Brueckner Rhododendron Gardens Photo Credit: City of Mississauga

Protection and Enhancement of Natural Areas



Undertake a review of the Urban Forest Management Plan. The recommendations of the Urban Forest Management Plan (2014) should continue to be implemented based on identified priorities.



Work in collaboration with Planning & Building, and Transportation & Works Departments to support the update and implementation of the Natural Heritage and Urban Forest Strategy (2014).



Finalize and implement site-specific targeted invasive species work in accordance with the Draft Invasive Species Management Plan (2018).



Continue to assess the need for implementation of an aerial spray program approximately every 7–10 years to mitigate the impact of defoliating pests city-wide based on defined criteria and infestation levels. Levels are measured annually and aerial spray should be planned and budgeted for accordingly.



In collaboration with Planning & Building and Transportation & Works Departments, develop/update city design and maintenance standards for trees, shrubs and perennials in urban locations (e.g., streetscapes and planters).



Update Private and Public Tree By-laws every 5 years to ensure they reflect current best practices and urban forestry standards.

Outdoor Recreation Opportunities

Refine the field classification system to address field quality and construction and consistent maintenance standards.

- Explore the ability to convert two existing natural grass fields to artificial turf in service area 5 subject to further discussions with prospective partners, user groups and community associations. Sites to consider include (but are not limited to) Mississauga Valley, Dr. Martin Dobkin Community Park, Rathwood District park and Brickyard Park.
- Continue to explore public-private partnership opportunities for boxed soccer and, if successful, expand to other locations in the city.
- Revise the City's service level standard to one rectangular field per 3,000 population inclusive of artificial and natural turf fields to guide future facility planning exercises.
- Install field lighting and irrigation systems at three existing natural grass fields located in Service Area 5 (sites selected with the input of local field users and community associations to consider parks).

fields are receiving little to no usage during the course of the playing season, and whether selected improvements at such fields could alleviate pressures for field time that groups may be facing. Based on these discussions, the City should explore whether any adjustments are required to maintenance schedules and capital reinvestment activities for these underutilized fields, or whether such fields are better repurposed for other neighbourhood-level recreational

activities.

Support the Recreation Division in engaging

rectangular field users to discuss reasons why certain

- Investigate opportunities, including Birchwood Park, to replace ball diamonds that will be lost within Service Area 6 due to redevelopment.
- Consider amalgamating between four and eight underutilized/low quality neighbourhood diamonds and reallocate their usage to a new tournament complex that contains a minimum of four lit diamonds. Consultation with user groups is required to determine the size and type of diamonds, amenities to be provided and preferred location of a new complex.



Informal Soccer Game
Photo Credit: City of Mississauga

Install lighting at two cricket pitches (subject to due diligence that confirms ability and appropriateness of doing so based on site conditions, proximity to surrounding land uses, and confirmation of increase in field capacity). As development charges do not currently cover costs, recovery of lighting costs should be investigate through partnerships or capital contributions from cricket groups, a capital improvement surcharge on field rentals, rental premium for lit hours and/or other means.

23

Given the growing demand for casual/drop-in participation in field sports, and to promote "active living," smaller-scale cricket pitches or batting cages should continue to be considered in neighbourhood-serving parks - particularly those located in high demand areas - in order to facilitate practice and recreational cricket play and to relieve pressure on the larger cricket grounds.

24

Future major/larger scale spray pads should be provided only in instances where fitting into destination-type or waterfront park developments, and in areas of intensification. Smaller-scale spray pads should also be constructed in new parks and through park redevelopments to meet local demand.

25

Construct one new multi-use pad in Service Area 4 and two new multi-use pads in Service Area 5.

26

Undertake condition assessments for all multi-use courts for which Condition Index values have not been determined.

27

Maintain the historical service level target of one tennis court per 5,000 population. In doing so, the City would need a total of 15 new tennis courts by the year 2028 - ideally be located in growth areas such as the Ninth Line, Downtown intensification areas, Inspiration Areas, and/or areas with geographic gaps in public tennis court distribution.

28

Support the Recreation Division by monitoring existing Community Tennis Club membership and participation rates. Discuss opportunities to consolidate tennis clubs where club membership is decreasing, not demonstrating a significant need or offers a surplus capacity in that catchment area.

29

Consider amalgamating a minimum of four underutilized/low quality neighbourhood tennis courts and reallocate their usage to a new complex that contains a minimum of four lit courts- located north of Highway 403.



Baseball at Lakefront Promenade Park Photo Credit: City of Mississauga

Include pickleball lines where feasible when public tennis courts are being re-surfaced. New tennis courts should be evaluated to determine opportunities to jointly meet tennis and pickleball needs.

31

Consider opportunities to provide a dedicated outdoor pickleball facility. A location should be chosen that can accommodate between six and eight pickleball courts. Provision of amenities over and above court conversions should be jointly funded by the City and pickleball organizations that would use the complex.

32

Undertake a utilization review of outdoor fitness equipment through future Park Amenity Surveys and compile data for outdoor fitness program participation to inform future provision standards.

33

Additional sand volleyball courts should only be considered where supported by identified site-specific service needs, with candidate locations including Service Area 1 and/or Service Area 2 (Park 459 is an option), as well as in proximity to the Downtown intensification corridor.

34

Playgrounds should be provided within 800 metres of residential areas or 400metres in identified intensification zones, unimpeded by major pedestrian barriers. Of these, one all-inclusive, barrier-free play site should be constructed in Service Area 2, as well as one adventure/natural play site, designed to specifications developed by the City and in accordance with site conditions of the selected park(s).

35

The City is moving towards accessibility in all play sites. In all future new or redeveloped play sites, accessible elements should be added and may include accessible swings, equipment features, routes and cost effective, accessible safety surfacing.

36

Explore ways to integrate nature theming/natural elements into play sites to increase play value and to support environmental and climate change awareness.

37

Integrate beginner-level skateboarding amenities such as basic rails and curbs within community park development and redevelopment projects, where feasible, to provide localized opportunities for park users to hone skills on their skateboards, scooters and bikes.



Port Credit Memorial Park Playground Photo Credit: City of Mississauga



Lakefront Promenade Marina Photo Credit: Dillon Consulting

- Continue to plan for the development of additional leash-free zones using criteria in the City's Policy for Leash-Free Zones. Six new locations should be targeted to improve the city-wide distribution and increase the supply.
- Develop a leash-free zone model that can be applied to smaller parks or urban spaces in areas of intensification on a case by case basis, or requested as part of developer agreements.
- An update to the Recreational Boating Capacity and Demand Study (2015) should be undertaken to investigate the potential expansion of the Lakefront Promenade Marina and/or development of a new marina location to address the demand for boat slips. The results of the study will be subject to the outcome and impacts from the possible redevelopment of the 1 Port Street East Marina.

Refine the 2015 Mississauga Marina Business Case Study recommendations for a future marina at 1 Port Street East and ensure the feasibility of a full-service, publicly-owned marina prior to making a decision on the development approach.

Engage school boards in discussions to explore the joint development and maintenance of sport fields and hard surface courts, such as multi-use pads, basketball courts and tennis courts.

Prioritize outdoor recreational amenities for redevelopment and/or replacement using condition index criteria. Amenities should be prioritized for capital funding when their condition reaches poor condition.

Develop an Outdoor Recreation Facility Lighting Policy to provide consistency in constructing light standards and criteria to guide where lighting will be recommended.

Enhancing Park Experiences

45

Confirm priorities for the redevelopment/upgrading of existing, older parks to support: growth and intensification, changing demographics, cultural influences, opportunities for self-directed and informal activities, and climate change resiliency. Priority will be given to older parks that are adjacent to new parkland undergoing the Master Planning process, in order that a comprehensive approach is undertaken. Examples include the JJ Plaus Park/1 Port Street East redevelopment and the JC Saddington/70 Mississauga Road redevelopment.



When developing new parks and redeveloping older parks, the City should consider how to best optimize winter use of parks and the trail/pathway system in selected locations where there is sufficient community interest, appropriate infrastructure, and where it is financially viable.

47

Review and consider an extension of park hours to align with contemporary urban lifestyles, either across the park system, in selective parks, or seasonally.

48

Complete the 2018 Washroom Study to direct the criteria for and provision of washrooms in parks. Test implementation of new standards or innovations (including temporary facilities) through pilot projects.

49

Develop guidelines for the provision and location of hydration stations in parks. Test the implementation through pilot projects.

50

Develop criteria, shade options and funding strategy for the provision of a variety of types of shade structures and support for shade as a requirement for basic park development.

51

Implement the strategy to integrate consistent park signage and identity for all City of Mississauga parks based on the Park Signage Standards Manual (2016). As part of the park signage strategy, explore unique theme branding for the Credit River Valley Trail and Waterfront Trail and a destination waterfront hub for parks within the Port Credit area.

52

Improve park waste diversion rates through park user education, improved waste receptacle design, signage (i.e., branding for dog waste) and operational support.

53

Mitigate parking congestion at parks by seeking vehicle diversion strategies. Use the criteria established in the City's Parking Master Plan and Implementation Strategy to identify various parking improvement options including parking agreements, improving temporary parking during events and evaluating paid parking where appropriate.

54

Through implementation of the Cycling Master Plan Update (2018), the Waterfront Park Strategy Refresh (in progress), and the Credit River Parks Strategy (2013), the City should continue to plan for and develop a continuous and interconnected trail and pathway system, including wayfinding signage, in its parks and greenlands.



Skating at Celebration Square Photo Credit: City of Mississauga

Expand the provision of food and beverage services in City parks to enhance the park user experience with a priority on destination and waterfront parks.

56

Create an inventory of heritage assets found within parks. A use analysis study should be completed for these assets and incorporates work already completed in existing master plans.

57

Investigate opportunities and partnerships for new/redeveloped infrastructure to support kayaking, canoeing, rowing and stand-up paddle boards - with rentals, storage, and launch areas.



Complete the technical and environmental shoreline studies required to support non-motorized water sport amenities on Mississauga's waterfront.



Waterfront Trail in St. Lawrence Park Photo Credit: City of Mississauga

Community Engagement and Park Stewardship

59

Develop marketing tactics, educational materials and partnerships to heighten awareness of the importance of Mississauga's urban forest, street trees and natural areas and to encourage supportive best practices on private property.



Expand the engagement of residents and community groups in the stewardship of the urban forest and work with partners to expand efforts on public lands.



Proceed with the development of the Stewardship Plan including the establishment of a Community Services Integrated Volunteer Program.



Develop formal processes for evaluating partnership opportunities and invitations from external parties, whether they include community groups, agencies or the private sector. This would require a business plan for initiatives of a scale that exceeds that of the City's grant programs, or requires a substantial long-term operational commitment.



Investigate opportunities and the use of new partnerships (i.e. public/non-profit and public –private partnerships) to successfully support the delivery of parks services.



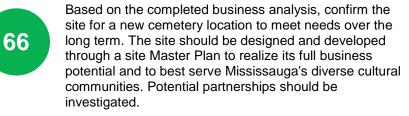
Complete a management plan for the Brueckner Rhododendron Gardens so that long-term goals, objectives, public uses and management needs can be determined in consultation with the public, potential stewardship organizations, and other stakeholders and interest groups.

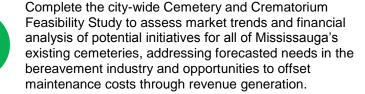
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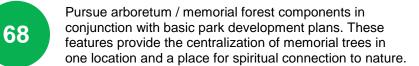
Climate Change Resiliency

The ongoing development of park design standards should include measures to address climate change resiliency in parks, open spaces and greenlands.

Cemeteries









Brueckner Rhododendron Gardens Photo Credit: City of Mississauga



Fishing in Port Credit Source: City of Mississauga



Funding the Master Plan

Not every action in the Master Plan requires funding – sometimes improvements can be accomplished through changes in approach or in policy. Most projects, however, require funding to proceed. Many projects are funded in the City's current Business Plan and Budget, with many still requiring funding sources to be identified. The City must balance service provision with affordability and will thoughtfully seek funding for projects as opportunities present themselves.

Capital initiatives are typically funded through a combination of sources. Existing and new sources are evaluated annually to determine the best approach for funding the City's projects. The following provides detail on currently available funding sources:

- Partnerships
- Federal and Provincial grants
- Development Charges
- Cash-in-Lieu of Parkland (Section 42 of the Planning Act)
- Capital Reserves
- · Debt financing

Partnerships

The City cannot fund all of its Master Plan projects alone. Partnerships with external agencies can provide welcome funding as well as other resources. The Region of Peel is a key partner in many initiatives. Other opportunities can be found in the sharing of resources, such as the co-location of different services in a single facility. This can help to reduce the costs of any one agency. Similarly, there may be partnership opportunities with Mississauga's community organizations and corporations that can benefit both parties.

Federal and Provincial Grants

The City receives funding from both Federal and Provincial levels of government. Much of this funding is targeted to specific programs by

the granting authorities, and every effort is made to use these funds for our priority projects.

Development Charges

Funds collected under the *Development Charges (DC) Act* are collected and used for funding growth-related capital costs. DCs are structured so that "growth pays for growth" but revenues collected through DCs are insufficient to fully address all of the City's growth initiatives.

Cash-in-Lieu of Parkland (Section 42 of the Planning Act)

Section 42 of the *Planning Act* enables a municipality to require land for public recreational purposes as a condition of development. The *Act* allows a municipality to collect cash-in-lieu of parkland as a condition of development in instances where a land dedication may not be appropriate. The City collects cash-in-lieu of parkland on most new land development. This revenue is used for parkland acquisition and recreational facility improvements, per the *Act*, and in accordance with approved capital plans and land acquisition strategies.

Capital Reserves

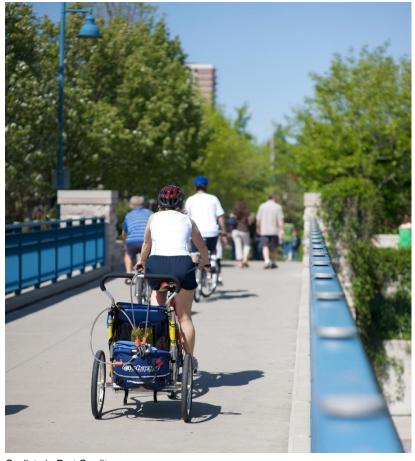
Reserves and Reserve Funds are created to assist with long-term financial stability and financial planning. The City has a long history of prudently managing its Reserves and Reserve Funds. One of the purposes for maintaining strong reserve funds is to make provisions for sustaining existing infrastructure and City building. The City has implemented a 2 per cent annual Capital Infrastructure and Debt Repayment levy (reflected on the tax bill since 2013).



Debt Financing

The issuance of debt is a critical component in financing future infrastructure for the City. There is nothing wrong with issuing debt as long as it is well managed. Debt does have an impact on the property tax; the larger the debt that a city holds, the larger the percentage of the property tax that must be allocated to service that debt. The City has a strong debt policy which defines stringent debt level limits to be adhered to.

With all of the City's competing priorities, choices must be made. The 2019-2022 Business Plan and Budget provides detail with respect to which Master Plan projects are currently proposed for funding. Projects identified in the Master Plan that do not have funding sources identified will be brought forward in future budget cycles for approval as viable funding sources become available. Each year, Council will direct which projects can be funded based on business cases and project plans through the annual Business Planning process



Cyclists in Port Credit Photo Credit: City of Mississauga

Introduction

Introduction

Mississauga residents highly value the City's beautiful and well managed parks, public spaces and open space areas. Parks and open spaces support a diverse range of recreation, leisure and cultural activities. Their many attributes include vibrant urban spaces, leading edge sports facilities, beautiful gardens, multi-use trail and pathway systems, significant natural areas and heritage sites. The natural heritage system, which includes the Lake Ontario waterfront, river and stream corridors, wetlands, prairie, meadow and woodlands comprise the City's greenlands. Collectively the parks and greenlands (and the associated urban forest) are important contributors to the city's environmental sustainability, economic growth, social and physical well-being, and quality of life. Through the efforts of the Parks and Forestry Division, a comprehensive and well-managed delivery of services will continue to protect and enhance this legacy for future generations.

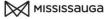
The City has engaged in strategic planning for parks and recreation services for many years through its various master plans and strategies. The Parks and Forestry Master Plan is a component of *Future Directions*, a series of integrated studies that direct parks and forestry, recreation facilities and programs, culture, fire and emergency services, and libraries. The master plans are completed every five years with a 25 year outlook and inform the Capital Budget and Development Charges process. The Master Plans have shared components of data collection, socio-demographic analysis, growth forecasts, needs analyses and community consultation.



Port Credit Memorial Park Photo Credit: City of Mississauga



Culham Trail, Mississauga Photo Credit: City of Mississauga



Purpose of the Parks and Forestry Master Plan

The purpose of this Master Plan is to guide the City of Mississauga in delivering future Parks and Forestry services over a ten year period to the year 2028, although a longer-term outlook (i.e., to the year 2041) is taken in certain instances to ensure that actions are appropriate for future generations. For the first time in the *Future Directions* series, outdoor recreation facilities are contained in the Parks and Forestry Master Plan.

The City of Mississauga's Parks and Forestry Division has a vision that emphasizes the positive experiences that parks and the urban forest afford to the quality of life. The goal of the Parks and Forestry Master Plan is to develop an innovative and fiscally and environmentally responsible plan that will guide the future direction of parklands, open spaces, forestry services and related programs and services.

As Mississauga moves forward into new phases of growth, redevelopment and intensification are changing the city's urban fabric—most notably in the Downtown, along the waterfront in Lakeview and Port Credit, as well as in major nodes in the Uptown and Central Erin Mills. Parks and greenlands continue to be critical components of city-building in high density areas where space is at a premium. New forms of public spaces offer exciting opportunities to animate and enliven urban areas. However, the City will need to adapt and change the way certain parks and outdoor recreation facilities are designed and delivered in order to provide future parks in areas of redevelopment.

Increasing use of parks for gatherings and events, an aging population, the desire for self-directed activities, changing recreation trends, and a mandate to encourage people of all ages to be physically active all continues to drive the enhancement and redevelopment of Mississauga's older parks. The effects of climate change are also creating ongoing challenges for parks and the urban forest with more severe weather events, flooding, rising temperatures, and increases in invasive species.

The key issues explored in the Parks and Forestry Master Plan reflect these challenges, recommending actions and strategies to address them. They were examined within the plan in the context of trends, key insights and examples of best practices from other jurisdictions. They were also examined through consultation with staff, Members of Council and community stakeholders. Not all recommendations from this plan are scheduled to happen immediately or in the short term but instead will be phased in their implementation.

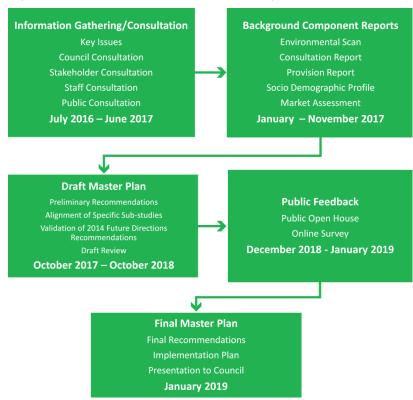
Methodology

The Parks and Forestry Master Plan's methodology considers a number of key inputs based on research, consultation and needs assessments. The study was initiated with a series of consultation activities. These sessions identified the current state of Parks and Forestry services, recent accomplishments, key challenges, and areas of focus for the 2019 *Parks and Forestry Master Plan*. The consultation period was followed by research into trends in Parks and Forestry services provision and examples of best practices from other municipalities.

The findings of the outdoor recreation facilities assessment are included in the Parks and Forestry Master Plan. This exercise benefited from the City of Mississauga's efforts to compile and track specific utilization data for various "lines of business" that have provided insights into user travel characteristics, market penetration rates and capacity fill rates. While previous master plans considered utilization and capture rates, the availability and comprehensiveness of the data has become more extensive and reliable for the 2019 *Parks and Forestry Master Plan* studies.



Figure 1: Future Directions Project Methodology



Based on direction from the City, there are a number of capital and service delivery assessments that are deemed to be the most significant priorities that the City will be working to address over the Future Directions five-year period. Areas of focus for the Parks and Forestry Master Plan include:

1. Growing, Connecting and Developing Parkland

- a. Parkland acquisition and development in growth areas
- b. Urbanization and intensification

- c. Competing interests for parkland (i.e., addressing competing interests and priorities for urban space from other types of city infrastructure)
- d. Park classifications and service areas
- e. Infrastructure replacement funding
- f. Strategy alignment

2. Protection and Enhancement of Natural Areas

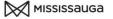
- a. Natural heritage system/urban forest
- b. Natural areas awareness
- c. Invasive species

3. Outdoor Recreation Opportunities

- a. Park sport field utilization
- b. Sport field lease plans and school field agreements
- c. Provision standards for recreation facilities (both formal and casual use)
- d. Opportunities for additional recreational services and facilities (e.g. trails, recreation infrastructure, marine facilities etc.)

4. Enhancing Park Experiences

- a. Park Improvements
- Emerging trends for park services (e.g., 24-hour use, washrooms, outdoor community centres, Wi-Fi in parks, adventure/natural play sites, community gardens, sports lighting, shade in parks, water re-fill stations, picnic tables and benches, built heritage)
- c. Technology in parks
- d. Parking standards
- e. Accessibility requirements (i.e., identifying new ways to improve and effectively implement the requirements of the Accessibility for Ontarians with Disabilities Act)



- f. Encouragement of active living and health benefits of parks
- g. Information on commemorative park names
- h. Socio-demographic impacts on parks (e.g., diversity, addressing at risk individuals, homelessness, age-friendly)

5. Community Engagement and Park Stewardship

a. Stewardship model

6. Climate Change Resiliency

a. Climate change and potential impacts to Parks and Forestry facilities, services, assets and infrastructure (e.g., flooding, extreme weather, heat, drought, invasive species)

7. Cemeteries

a. Changes to end of life needs in cemeteries



Jack Darling Park
Photo Credit: City of Mississauga

Achievements over the Last 5 Years and Planning for the Future

The Parks and Forestry Division has accomplished much since the last Master Plan was completed in 2014, developing dynamic new parks and facilities, expanding multi-use trails, continuing to protect and increase the urban forest, and introducing new technologies to improve parks and forestry operations. These initiatives are informed by the City's overarching Strategic Plan, as well as specialized studies. They include: the Natural Heritage and Urban Forest Strategy, the Urban Forest Management Plan, the Living Green Master Plan, the Credit River Parks Strategy, updates of the Cycling Master Plan and Waterfront Parks Strategy, the Recreational Boating Demand Study, and the Draft Invasive Species Management Plan. Other studies that are closely related to parks and forestry services include the Recreation Master Plan, the Culture Master Plan, the Tourism Master Plan, the Youth Plan, and the Older Adult Plan.

Recent achievements and initiatives that the Parks and Forestry Division is undertaking are identified and summarized below.

Growing, Connecting and Developing Parkland

- Completed the Port Credit Harbour West Parks Class environmental assessment, allowing for the future development of the Marina Park site
- Completed the Downtown Growth Area Parkland Provision Strategy, recommending future provision levels and park types in response to anticipated population growth
- The City Wide Parks Provision Strategy continues to identify and prioritize properties to acquire to support Councilapproved Park Planning strategies and projected population growth
- Expansion of the Provincial Greenlands is under review, based on recent changes to provincial legislation

- The former Willow Glen School property, acquired from the Peel District School Board in 2016, will be redeveloped to provide both a Community Park and residential development
- Refresh of the 2008 Waterfront Parks Strategy is underway and scheduled for completion in 2019
- The Paul Coffey Park Master Plan and Transition Plan was completed which included park development, woodlot invasive species management and facility redevelopment
- Since 2012, the City has reclaimed 7.3 acres (2.9 hectares) of land through the Encroachment program and has acquired 81.7 acres (33.1 hectares) of open space through dedication and purchase
- Opened new parks including: Garcia, McCracken and Union Community Parks. The redevelopment of Malton Village Park is complete
- Development of Danville Park, and Hancock Woodlands are complete. Lakeshore Corridor Trail, Park 317, and the Churchill Meadows Community Centre and Phase One Park (Park 459) are underway
- Final development plans for Marina Park, Lakeshore Road underpass connection, and the Rivergate easement are underway
- Ongoing implementation of the City of Mississauga Parks: Signage Standards Manual 2015

Protection and Enhancement of Natural Areas

Ongoing implementation of the Emerald Ash Borer (EAB)
 Management Plan to mitigate the impacts on City-owned
 trees, including removals, stumping, replacement plantings
 and woodlot mitigation and restoration works

- Completion and implementation of the Draft *Invasive Species Management Plan* in 2018 is planned to ensure proactive and sustainable management of the City's natural assets
- Ongoing implementation of recommendations in the Natural Heritage & Urban Forest Strategy and the Urban Forest Management Plan
- Ongoing implementation of the One Million Trees Mississauga program, in collaboration with volunteers, community groups, students, organizations and businesses, with over 260,000 trees planted to date
- Increased the urban forest from 15 per cent to 19 per cent since 2007 (per a 2014 report entitled "An Assessment of Urban Forest Canopy Mississauga, Ontario")
- The ongoing inventory of Park Trees, to be completed in 2018, will assess the health of trees in parks and establish a lifecycle maintenance program based on results
- There is ongoing expansion of natural areas through the City's woodlands and natural areas enhancement and restoration program, e.g., development and monitoring of the tallgrass prairie at Jack Darling Memorial Park
- Continuous implementation of Young Tree Structural Pruning Program to ensure trees that are recently planted are developing sustainably, and to correct any deficiencies that could potentially threaten their long-term survival
- Completion of the Aerial Spray Program
- Completed vegetation inventories at Brueckner Rhododendron Gardens and Hancock Woodlands



Outdoor Recreation Opportunities

- New outdoor facilities include new tennis courts at Churchill Meadows along with new volleyball courts at Malton Village Park, Union Park and Lakefront Promenade
- The City partnered with the Peel District School Board for the development of an artificial turf sports field and all-weather track facility at Clarkson Park, along with four shared-use lit tennis courts at Port Credit Secondary School
- The City completed a number of projects funded through the Canada Infrastructure Program 150 such as nine play site redevelopments and a spray pad at Lake Aquitaine
- Mississauga became the first city in Canada to provide a Boxed Soccer Pitch
- A new Leash-Free Zone policy was developed and implemented after Council approval of the Leash-Free Zone Review (2016)
- Hosted the Ontario Summer Games at many of the City's sports facilities including the newly constructed beach volleyball courts at Lakefront Promenade
- Plan approved for two lit artificial turf fields for Park 459
- Construction of two cricket pitches at Danville Park

Enhancing Park Experiences

- New pedestrian bridges at Lakeview Golf Course; Hindhead Park and Rhododendron Gardens
- The City completed 14 trail reconstructions; dock and trail renovation at Lake Aquitaine; Riverwood entryway and building renovations and accessibility improvements
- Updated a city-wide condition assessment of all pedestrian bridges in 2016 to prioritize life cycle replacement needs

- Annual updates to the city-wide condition assessment for all 263 play sites to maintain the inventory and compliance with Canadian Standards Association (CSA)
- Condition assessments of 505 parks is currently underway to complete the inventory of assets on a component level to inform a Capital Replacement model
- Development of guidelines is underway for new park signage standards that incorporate consistent branding for park signage in the City's parks
- Construction is underway for 8 10 sites to receive Wi-Fi through the iParks Plan, which will provide service to park users and facilitate the collection of park usage data
- Completed service level reviews and developed and implemented new portfolios to improve consistency across the City (e.g., turf maintenance, horticulture, urban parks, natural sports fields sanitation and winter maintenance, and various sport facilities such as tennis and artificial turf)
- Completion of the Facility Naming Policy and City Plaques Policy

Community Engagement and Park Stewardship

- Continuing to partner with organizations such as Local Enhancement and Appreciation of Forests (LEAF) on urban forestry outreach, programming and resident workshops
- Ongoing partnerships with the school boards on the joint development and shared use or indoor and outdoor facilities
- The City continues to work with Leash-Free Mississauga on the development and operation of new and existing leash-free zones, under a new partnership arrangement

- Continued city-wide stewardship, education, conservation, and naturalization opportunities through tree planting events, community clean-ups, and volunteer-supported initiatives
- The City has partnered on Swiftwatch a citizen monitoring program for Chimney Swifts, an endangered bird species
- There is ongoing collaboration with The Riverwood Conservancy and Ecosource to enhance stewardship programs, including new gardening and instructional areas at Hancock Woodlands
- The City partnered with the Greater Toronto Airport Authority to construct an airplane viewing lookout at Danville Park and to commemorate the Boeing Corporation's history in Malton
- There is ongoing permitted programming of parks for supervised play sites programs, yoga and fitness camps, as well as annual events and community activities in parks
- The Riverwood Conservancy offers a series of outdoor nature-based programs such as Discovery walks

Continuous Improvement

- Implemented Hat-F mobile technology for Forestry staff to enhance service to residents by providing more data for informed decision making
- LEAN principles continues to be implemented in Parks and Forestry with over 190 staff receiving white belt training
- Low impact development technology to retain stormwater on site is in place for park developments
- The continued implementation of a city-wide, centralized waste management program more effectively uses resources year-round and allows the redeployment of technical staff

Awards and Recognition

The following Parks and Forestry projects have recently been nominated for, or have received, awards.

- Lakeside Park: Award of Excellence, Urban Design Awards
- Mississauga Celebration Square: International Making Cities
 Livable Healthy Cities for All Neighbourhood Plaza Award
- Mississauga Celebration Square: nominated for the Canadian Institute of Planners "Great Places in Canada" Award
- McEwan Terrace Garden, Riverwood: Canadian Association of Landscape Architects Regional Merit Award
- Streetsville Village Square: Ontario Builders Awards
- The Credit River Parks Strategy: Regional Citation for Planning and Analysis, Canadian Society of Landscape Architects
- Natural Heritage and Urban Forestry Strategy: Nomination for The Credits – Heritage Mississauga Awards



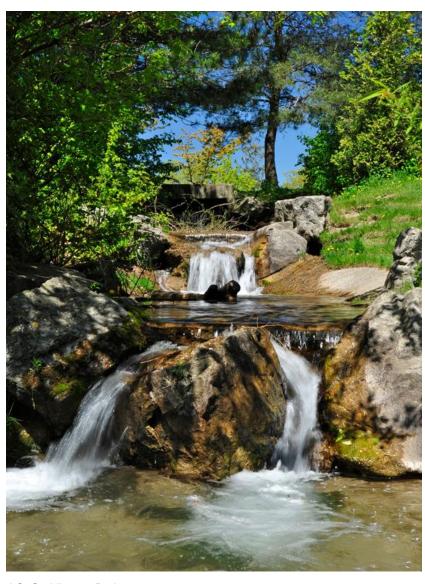
Parks and Forestry Division

Parks and Forestry Division Overview

The Parks and Forestry Division focuses on three main areas:
Services, Facilities and Programs:

Parks and
Forestry
Services
Park Planning
Park
Development
Park Operations
Forestry
Operations

Parks and Forestry Facilities 505 Parks 368 Sports Fields 11 Cemeteries 327 km of trails 3,100 hectares of parkland Parks and
Forestry
Programs
One Million
Trees
Mississauga
Aerial Spray
Program
Park Tree
Planting Program
Invasive Plant
Monitoring and
Management
Program



J.C. Saddington Park Photo Credit: City of Mississauga

Benefits of Parks and Forestry

Improving Public Health

Parks and the urban forest contribute to humanity's overall health in a number of ways including: respiratory health, physical fitness and mental health. Trees and other vegetation provide a natural air filter, removing particles like dust, ash and pollen, and absorbing carbon dioxide and releasing oxygen at the same time. One acre of trees is said to produce enough oxygen for 18 people per day. The Greater Toronto Area's urban forest removes almost 4,000 tonnes of pollution annually. An average tree ranging in size from less than 15 cm to over 75 cm in diameter can remove 0.1 to 1.8 kg of pollutants per year.

The Region of Peel used a list of overall benefits including mitigating air pollution and improving public health to help select and prioritize areas that would benefit the most from tree planting.³

Mississauga's urban forest is made up of over two million trees on public and private property. It is estimated to remove over 450 tonnes of air pollutants from the air annually, which accounts for 11 per cent of Greater Toronto's pollution removal. Mississauga's One Million Trees program was launched to help conserve and enhance the City's open spaces and forested areas and to expand the urban forest canopy. The program includes trees planted by City staff, partners, volunteers and residents on public and private property.





Information Source: *Left* – Using Trees and Vegetation to Reduce Heat Islands | *Right* – An Assessment of Urban Forestry Canopy, Mississauga



Lakeside Park, Mississauga Photo Credit: City of Mississauga

Parks also provide a location for people to be physically active. Canadians are not getting the required amount of exercise per day, leading to obesity and subsequent health issues. Having parks or trails nearby affects the amount of resident's physical activity. People

¹ United States Environmental Protection Agency. *Using Trees and Vegetation to Reduce Heat Islands*.

https://www.epa.gov/heat-islands/using-trees-and-vegetation-reduce-heat-islands

² TD Economics. *Urban Forests: The Value of Trees in the City of Toronto.* 2014. pg. 2

³ Beacon Environmental. *Priority Tree Planting Areas to Grow Peel's Urban Forest*. Region of Peel. July 2015.

⁴ City of Mississauga. *An Assessment of Urban Forestry Canopy, Mississauga, Ontario.* December 2014, pg. 5

who have parks and/or trails nearby are 25 per cent more likely to exercise at least three times a week.⁵

The lesser known health benefits of parks are the mental health benefits. Being directly exposed to nature has almost immediate effects, such as reducing stress and increasing happiness. In as little as 10 minutes, stress is noticeably reduced. Nature also has a calming and centering effect on those with psychological ailments. Children with attention deficit disorders are able to concentrate better after being exposed to nature.



Information Source: Left – Active Facts: Parks, Trails and Recreation Right – The Influence of Urban Green Environments on Stress Relief Measures: A Field Experiment

Reconnecting Our Communities

Parks provide communities with a social gathering space, a place for intentional and unintentional human interaction. They also provide space for people living in higher density developments who may not have access to a backyard or green space within their own property.

Living near a park may help people to avoid loneliness as they offer social interaction opportunities one does not get through social media.⁸ It is also important for



Information Source: Walk in a park a coping strategy for loneliness

children to be exposed to nature early on in their development as it influences their attitude towards nature in the future.

Protection of Plants and Wildlife

The benefit of creating and saving land for parks and urban forests isn't just for people living in the city; it is also for the urban wildlife habitat. This is especially important due to densification. Parks and natural areas provide a home for species that are displaced by land development.

Within its parks and open spaces, Mississauga has an extensive and diverse natural heritage system comprised of woodlands, wetlands, meadows, and prairies. In Mississauga, the Greenbelt is connected to the Lake Ontario waterfront through the Credit River Valley, which is an urban river valley and an important wildlife connection. The Credit

⁵ Active Living Resource Centre. *Active Facts: Parks, Trails and Recreation.* National Center for Bicycling & Walking. Bethesda, MD.

⁶ Tyrväinen, Ojala, Korpela, Lanki, Tsunetsugu, Kagawa. The Influence of urban green environments on stress relief measures: A field experiment. The Journal of Environmental Psychology, June 2014, Vol. 38, pg. 1-9

⁷ Taylor, Andrea Faber., Kuo, Frances E., *Could Exposure to Everyday Green Spaces Help Treat ADHD? Evidence from Children's Play Settings*. Applied Psychology: Health and Well Being, Volume 3, Issue 3. November 2011.

⁸ Morris, Wanda. Walk in a park a coping strategy for loneliness: Being near green space mattered in improving health outcomes, studies find. National Post. 2017.

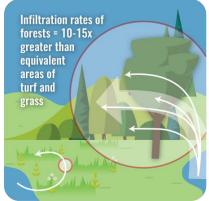
River Valley is the largest and most diverse contiguous natural area within the City of Mississauga.⁹

River and creek valleys and other natural areas provide a number of benefits to plants and wildlife, including but not limited to:

- protection and restoration of native biodiversity
- protection and restoration of environmentally important corridors and connections between natural areas
- protection of habitat for plants, birds, fish, animals and pollinator insects including species at risk

Climate Change Resiliency

There are numerous environmental benefits to having a robust park system and urban forest. Forested areas have greater capacity for infiltration and stormwater retention than turf or grass areas, which have more than impervious surfaces. Trees and natural areas have a cooling effect on surrounding urban areas. The addition of trees, even in small numbers can reduce the effect through evapotranspiration (the process where water transfers from the land to the atmosphere through on or in ground evaporation or transpiration from plants) and the creation of shade. It is said in the report from Paul Sherer that "a single large tree can produce the cooling effect of 10 room-size air conditioners operating 24 hours a day." Carbon sequestration is also a significant benefit of trees and woodlands. According to the Ontario Coalition for Green Infrastructure "the urban forest can support climate change mitigation efforts by absorbing and storing carbon dioxide, the primary greenhouse gas emitted by human activities." 11

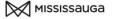




Information Source: Left & Right - The Benefits of Parks



A Natural Area in Mississauga Photo Credit: City of Mississauga



⁹ Schollen & Company Inc. et. al. Credit River Parks Strategy. Mississauga. August, 2013. pg. vi.

¹⁰ Sherer, Paul M. 2006. *The Benefits of Parks: Why America Needs More City Parks and Open Space*. The Trust for Public Land.

¹¹ Green Infrastructure – Ontario Coalition. State of the Urban Forest in the Greater Toronto Area

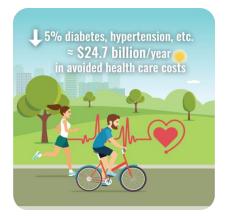
Economic Benefits

There are financial advantages associated with the previous health, social and environmental benefits, as well as other direct and indirect benefits to the economy. A 2014 Special Report by TD Economics estimates that the urban forest in Toronto, which covers 30 per cent of the city, has a value (replacement cost) of \$7 billion or \$700 per tree. The annual return was estimated to be \$81 million or \$7.95 per tree when the benefits of infiltration, air quality, energy savings, carbon sequestration (a natural or artificial process where carbon dioxide is removed from the atmosphere and held either as a solid or liquid) and carbon emission abatement (the reduction of carbon dioxide emissions when coal and oil are burned) were considered. It was estimated that for every dollar spent on maintenance, the urban forest returns between \$1.35 and \$3.30 annually in cost savings to residents. 12

Based on the Toronto study, the City of Mississauga (which has an urban forest coverage of 19 per cent) is estimated to have an annual return closer to \$5.00 per tree based on that coverage. According to *An Assessment of Urban Forestry Canopy,* Mississauga's urban forest canopy stores "approximately 14 million tonnes of carbon; a service valued at \$310 million, and each year sequesters approximately 570,000 thousand tonnes of carbon dioxide valued at \$123 million. Findings also reveal that the tree canopy also removes 454 tonnes of air pollution annually, valued at \$3.6 million."

When people are healthy they have a reduced need for medical services, therefore lessening the cost of health care. The use of parks for physical activity is estimated to reduce the burden of health issues related to inactivity (diabetes, hypertension, and so on) by five per

cent, with a corresponding \$24.7 billion annually in avoided health care costs.¹⁴





Information Source: Left - Parks and Health: Aligning Incentives to Create Innovations in Chronic Disease Prevention
Right – The State of the Urban Forest in the Greater Toronto Area

Economic benefits of parks and trees are also seen through increased property values and tax revenue, higher rents, the ability to attract affluent buyers and a financial benefit through visitor spending. The TD Economics Report estimates that, in some locations, rental rates of commercial office properties are about seven per cent higher on sites having a high quality landscape that includes trees. Mississauga real estate ads often highlight "natural" adjectives such as



Information Source: How Cities Use Parks For...Economic Development

"lakeside," "park side," and "on-the-green," which attribute perceived

¹² TD Economics. 2014. Urban Forests: The Value of Trees in the City of Toronto.

¹³ City of Mississauga. An Assessment of Urban Forestry Canopy, Mississauga, Ontario. December 2014, pg. 18

¹⁴ Barret MA, Miller D, Frumkin H. Parks and Health: Aligning Incentives to Create Innovations in Chronic Disease Prevention. Prev. Chronic Dis 2014;11:130407. Retrieved from: https://www.cdc.gov/pcd/issues/2014/13_0407.htm

increased value to properties, attracting potential home buyers to the area.

Home buyers are also attracted to parks. The closer a home is to a park or natural area, the greater the positive impact on the home's value. The National Association of Realtors conducted a survey and the findings noted that "57 per cent of voters would choose a home close to parks and open space over one that was not."



Spray pad at Lakeside Park Photo Credit: Insauga.com



Outdoor Skating at Celebration Square, City of Mississauga Photo Credit: Toronto4kids



¹⁵ City Parks Forum. 2002. How Cities Use Parks for...Economic Development. American Planning Association.

Plan Foundation

Plan Foundation

Demographics

The demographics presented in this section are largely based on Statistics Canada data as well as forecasting work undertaken by the City of Mississauga. For the purposes of comparative analysis, the Master Plan relies upon the City's six Service Areas that have been used in previous Parks and Forestry and Recreation Master Plans. Given the service area variations in population as a result of growth plans, the City will be considering different geographies for analysis in the 2023 iteration of the master plans.

Historical & Current Population

Between the 1996 and 2016 census periods, Mississauga's recorded population grew from 544,382 to 721,599 residents (unadjusted for net census undercoverage). This amounts to growth of more than 177,000 residents (or a 33 per cent increase) over that 20 year period. The city's annualized growth rate has been 0.2 per cent over the past five years (8,150 new residents in total, compared to the 2011 census recorded figure) and annualized growth of 0.8 per cent over the past 10 years (53,000 new residents since the 2006 census).

Recognizing that the census population totals reflected above do not equate to the actual population due to "undercoverage" (i.e., the term Statistics Canada uses to account for missing information and margin of error when compiling census data), Statistics Canada issues an "undercount" figure or "undercoverage rate" specific to a geographic area (usually at the Census Metropolitan Area level).

While an undercoverage rate has yet to be assigned for the most recent census period specific to the Toronto CMA—within which

Mississauga is located—the City of Mississauga's previous undercoverage rate of 4.2 per cent is applied (based on advice from the City's Planning Strategies Division). This results in a 2016 census population of 747,700 residents, including estimated net census undercoverage.

For the purposes of *Future Directions* - and to ensure consistency with forecasts employed by other City documents – the Planning Strategies Division's population forecast of 759,000 is used as the baseline year (2019) for this Master Plan.¹⁷



Streetsville Village Square, Mississauga Photo Credit: City of Mississauga



¹⁷ City of Mississauga, Planning Strategies Division. 2018 Growth Forecast. July 24, 2018.

¹⁶ Statistics Canada Census, 2001-2016.

Map 1: City of Mississauga Service Area Boundaries

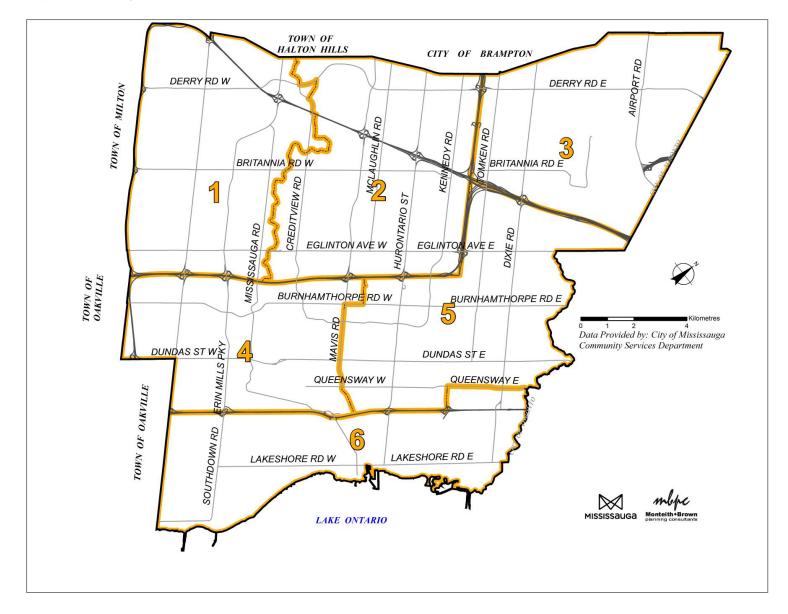


Table 1: Population Growth by Service Area, 2019-2028

Service Area	2019 Population Estimate	2028 Population Estimate	2041 Population Estimate	10 Year Growth Rate (2019-2028)
1	172,000	182,000	189,000	6% (10,000 persons)
2	151,000	158,000	168,000	5% (7,000 persons)
3	32,000	33,000	33,000	3% (1,000 persons)
4	102,000	106,000	110,000	4% (4,000 persons)
5	198,000	217,000	241,000	10% (19,000 persons)
6	104,000	116,000	137,000	12% (12,000 persons)
Total	759,000	812,000	878,000	7% (53,000 persons)

Note: figures include census undercount

Source: City of Mississauga, Planning Strategies Division, July 2018

Projected Population Growth

The current and projected distribution of the population by Service Area is identified in Table 1, noting the following trends:

- Service Area 1 has a year 2019 population estimate of 172,000 persons. It is expected to attain growth of 10,000 new residents by the year 2028 and 17,000 new residents in total by the year 2041, amounting to average annual growth rates in the range of 0.5 per cent. New population growth is largely attributable to the Central Erin Mills Major Node with Streetsville and residential lands located along the Ninth Line primarily making up the remainder.
- Service Area 2 has an estimated population of 151,000 persons and is forecasted to receive 7,000 new residents over the planning outlook. Of the 17,000 persons projected to be added in Service Area 2 by the year 2041, the Uptown Major Node is expected to accommodate much of the Service Area's share of population growth over the next two decades.

- **Service Area 3**'s population is anticipated to fluctuate between 32,000 and 33,000 persons during the planning period and until the year 2041.
- Service Area 4's population estimated at 102,000 persons

 is forecasted to add 4,000 persons by 2028 and a total of 8,000 persons by the year 2041.
- Service Area 5 contains Mississauga's largest population total, with a year 2019 estimate of 198,000 persons. This Service Area is projected to accommodate the greatest share of city-wide population growth for both the master planning and longer-term outlooks in terms of total population numbers. Although the average annual growth rate is forecast at 1 per cent over the planning horizon, the area is expected to add 19,000 new residents by the year 2028 and over 43,000 new residents by the year 2041. Virtually all growth is projected to occur in Service Area 5's Downtown nodes and corridors, in line with the City's planned focus on higher density intensification and infill developments in the area.
- Service Area 6 has an estimated 104,000 persons with forecasts adding 12,000 persons over the next 10 years and 33,000 persons by the year 2041. The Lakeview Neighbourhood is expected to accommodate most of the 10 year share of growth and beyond whereas the Port Credit East and West Neighbourhoods and Community Nodes are also expected to collectively accommodate a significant population increase by 2041.



Community Age Profile

Age structure forecasts are not presently available for the 2019 baseline year used by Future Directions, and thus the 2016 Statistics Canada Census is referenced to provide an understanding of age distribution in Mississauga. The 2016 Census recorded the median age in the City of Mississauga at 40.0 years. Based on the median age, Mississauga's population has "aged" by 3.5 years since the 2006 Census when the median age was recorded at 36.7 years. The 2011 Census reported a median age of 38.5 years. That being said, Mississauga's 2016 median age is slightly younger than the 41.3 years for Ontario as a whole.

Aging population trends in Mississauga are also evidenced by the fact that between the 2006 and 2016 census periods, there were 12,000 fewer residents under the age of 20 while the number of residents 55 years of age and older grew by over 76,000 residents. The 55+ age group represents 27 per cent of the city's population. That figure was only 20 per cent in 2006.

A trend to take note of is the fact that the number of residents in prime child-bearing age groups (20 to 34 years) has been modestly increasing over the past three census periods. It is possible that younger adults and younger family households may continue to increase in number, particularly if land developments in areas of intensification are attractive to such residents.

Table 2: City of Mississauga Age Distribution, 2006-2016

	2006	2011	2016	Δ 2011- 2016	Δ 2006- 2016
Children (0 to 9)	83,555	81,545	76,945	-4,600	-6,610
Youth (10 to 19)	98,715	101,025	93,185	-7,840	-5,530
Younger Adults (20 to 34)	134,475	140,520	145,510	4,990	11,035
Mature Adults (35 to 54)	218,365	224,710	208,250	-16,460	-10,115
Older Adults (55 to 69)	88,865	110,670	130,305	19,635	41,440
Seniors (70+)	44,575	54,970	67,410	12,440	22,835
Total	668,550	713,450	721,600	8,150	53,050

Note: Totals may not add due to Statistics Canada rounding practices.

Source: Statistics Canada Census, 2006, 2011, 2016

Table 3: Census Age Data by Service Area, 2016

			Service	Area		
Age Group	1	2	3	4	5	6
Children (0 to 9)	18,875	16,390	4,925	8,970	19,440	7,980
Youth (10 to 19)	25,120	23,055	5,030	11,415	19,070	9,290
Younger Adults (20 to 34)	32,345	33,155	8,640	18,135	39,220	14,375
Mature Adults (35 to 54)	52,105	47,335	10,460	24,400	50,480	23,950
Older Adults (55 to 69)	27,480	28,090	5,765	19,750	32,085	16,840
Seniors (70+)	11,425	11,620	3,700	10,380	20,725	10,100
Total	167,350	159,645	38,520	93,050	181,020	82,535

Notes: Census boundaries do not align with service area boundaries so numbers are not exact; data suppression and rounding of data at the census boundary level so totals do not match the 2016 census population.

Source: City of Mississauga Planning Strategies Division, 2017

Cultural Characteristics

According to the 2016 census information, 87 per cent of Mississauga's residents are Canadian citizens and over half the population (53 per cent) are immigrants to Canada. That said, nearly three out of four foreign-born residents have been living in Canada for over 10 years, meaning most are now fairly well-established. The majority of Mississauga residents (70 per cent) list English as the language most often spoken at home. 30 per cent of residents list a non-official language (i.e., other than English and French).

Nearly 10 per cent reported that one or both official languages and a non-official language were most spoken at home, doubling the figure reported in 2006. The top five unofficial languages spoken across the city in 2016 were Urdu (3.6 per cent), Mandarin (2.9 per cent), Arabic (2.6 per cent), Polish (2.4 per cent), and Punjabi (2.0 per cent).

The city's largest source of immigration has come from Asian countries, with the top five sources consisting of India (54,000+ residents), Pakistan (35,000+), the Philippines (28,000+), China (23,000+) and Poland (21,000+). Mississauga's visible minority rate actually constitutes the majority of the population at 57 per cent. Less than one per cent of the city's population identifies as Aboriginal.

Household Income

The 2016 census records Mississauga's median household income at \$83,000, lower than that of Peel Region (\$86,200), but substantially higher than the provincial and national medians (\$74,300 and \$70,300, respectively).

The census reports that nearly 15 per cent of Mississauga's population falls within its after-tax low-income measure, higher than those of Peel Region (13 per cent) and the provincial and national percentages that are in the range of 14 per cent. Also of note: more than 32,600 children and youth under the age of 18 are living in low income households, meaning that nearly one out of four children and youth (21 per cent) in Mississauga are living in low income situations.

By comparison, less than one in five children (18 per cent) live in low income households in Peel Region as a whole.

Education

Mississauga is a relatively educated community. The latest census information shows that 70 per cent of its population between 25 and 64 years of age have completed some form of post-secondary education. This is higher than that of Peel Region and Ontario (65 per cent post-secondary education rates for both). In addition, there are more university-educated residents in Mississauga; 42 per cent of residents have completed a Bachelor's level education or above compared to 36 per cent of Peel Region and 32 per cent of Ontario residents.

22 per cent of Mississauga's population between the ages of 25 and 64 years holds a high school diploma as their highest level of educational attainment (which is below the regional and provincial averages), while the remaining eight per cent of Mississauga's population does not hold a certificate, diploma or degree of any kind.



All Inclusive Barrier Free Natural Play Site at Jaycee Park Photo Credit: City of Mississauga



Background Studies

A number of documents and provincial policies affect Mississauga's growth and land uses; these were taken into account during the preparation of the 2019 *Parks and Forestry Master Plan*. The City of Mississauga has also proactively undertaken numerous studies and carried out the creation of new facilities and programs to plan for—and keep up with—needs to meet the demands of its growing and diversifying population. The Parks and Forestry Master Plan will be used, in conjunction with other documents, to guide the City of Mississauga's planning and decision-making.

To be effective, the Parks and Forestry Master Plan must align with corporate objectives and be synergistic with land use planning policies. Information contained in these documents will be used to provide baseline content for the plan, while integrating and/or reinforcing appropriate findings that support the provision of services within Parks and Forestry. Related studies that have been completed or are underway at the City are shown in Table 4.

Table 4: List of Documents Reviewed

Provincial Legislation

- Ontario Planning Act
- Provincial Policy Statement
- Greenlands Plan
- Growth Plan for the Greater Golden Horseshoe

Strategic Policy Documents

- Mississauga Strategic Plan
- Peel Region Official Plan
- Mississauga Official Plan

Parks and Forestry-Related Reports

- An Assessment of Urban Forest Canopy, Mississauga
- Credit River Parks Strategy
- Downtown Growth Area Park Provision Strategy
- Natural Areas Survey
- Natural Heritage and Urban Forest Strategy
- Park Utilization Study
- Port Credit Harbour West Parks Environmental Study
- · Recreational Boating Demand and Capacity Study
- Sport Field and Sport Court Facility Provision Strategy
- Sport Plan
- Urban Forest Management Plan
- Waterfront Parks Strategy

Other Documents

- A Study of Youth in Peel
- Dundas Connects Master Plan
- Inspiration Lakeview
- Inspiration Port Credit
- Mississauga Accessibility Design Handbook
- Mississauga Accessibility Plan and Facility Accessibility Design Standards
- Mississauga Communications Master Plan
- Mississauga Cycling Master Plan Update
- Mississauga Downtown 21 Master Plan
- Mississauga Living Green Master Plan
- Mississauga Older Adult Plan
- Mississauga Parking Master Plan and Implementation Strategy
- Mississauga Pricing Strategy
- Mississauga Youth Plan
- MyMalton Community Vision
- Re-Imagining the Mall: Realizing Healthy and Complete Communities
- Shaping Ninth Line Growth Management Analysis
- Shaping Ninth Line Urban Design Guidelines
- Vision Cooksville



Alignment with the Mississauga Strategic Plan

The City's Strategic Plan establishes the vision and broad corporate priorities that define what the City wants to be. This vision is supported by five Strategic Pillars: Move, Belong, Connect, Prosper and Green. These pillars represent fundamental objectives that drive all corporate actions and initiatives (including the preparation of policies and plans like *Future Directions*).

The Strategic Pillars reflect a common purpose: a collective desire for success in leadership, quality of life and civic pride—all of which are relevant to *Future Directions* for Parks and Forestry. In fact, all Strategic Pillars have the ability to be influenced by the local Parks and Forestry system. For example, Parks and Forestry services support:

- The "Move" Pillar by providing trails and cycling paths in parks and greenlands, which contribute to creating a multi-modal city and support active transportation
- The "Belong" Pillar by providing outdoor spaces to engage and integrate youth, older adults and newcomers to the city in meaningful, healthy and socially-based activities
- The "Connect" Pillar by providing an essential community service that is part of the spectrum of creating strong neighbourhoods
- The "Prosper" Pillar by facilitating community and economic development objectives, given that parklands can increase property values and are a characteristic that employers and employees consider when locating within a city
- The "Green" Pillar, given that parkland provides exposure to outdoor and natural settings, and are integral components of sustainable communities

Figure 2: City of Mississauga Vision and Strategic Pillars for Change



Source: City of Mississauga Strategic Plan, 2009.

Consultation Initiatives

Fundamental to the success of *Future Directions* was a strategic consultation program consisting of engagement tools that were carefully selected to be effective, accessible and efficient means of communication. Community engagement is at the core of the *Future Directions* master plan process, so the following consultation activities took place throughout the plan's preparation:

- Creating awareness of Future Directions
- Public survey
- Creation of a project website
- Stakeholder focus groups
- Members of Council and key opinion leader interviews
- Interviews with external agencies
- Parks and Forestry Division staff workshops



Each consultation tool was designed to engage different audiences and therefore involved a broad range of processes and questions. Through these discussions, a number of broad themes emerged for the Parks and Forestry Master Plan. While not intended to be exhaustive, the following list identifies themes that were raised during the consultation activities. They are listed in no particular order.

- Improvements to Existing Parks and Trails: Requests were received for replacing benches; more pathway lighting; trail improvements (surfacing); paved off-road trails; more waste receptacles; more/better quality washrooms; shade/shelters; enhanced connections between walking and biking trails; naturalization and trees.
- Enhancing the Park Experience: Consider parks for all ages and abilities including by providing: newer and more innovative, fitness-oriented play equipment; natural/adventure play sites; accessible play sites; more benches, picnic tables and seating areas; shade trees or shelters; water refill stations; walking/nature trail loops; educational/interpretive opportunities; Wi-Fi technology; beautification and gardens; more naturalization, including wildflower meadows; more winter-use facilities or better winter access in parks.
- More Opportunities for Casual Use: Requests were received for concrete ping pong tables, basketball courts, outdoor gym equipment, leash-free zones and spray pads.
- Park Classifications: A feeling among some that current classifications may not reflect the current and future variety of park options, particularly in areas of intensification.
- Land Ranking Methodology: Requires updating to align with priorities for acquisition (city-wide and in intensification areas).
- Importance of Parks: Need a better understanding and way to communicate the benefits of parks and trees to offset other competing priorities for land/resources. Also, many people

- were of the opinion that parks are as important as other civic infrastructure and an integral part of streetscapes.
- Health Benefits: With growing acknowledgement by other levels of government of the health benefits of parks and trees, it was pointed out that municipalities may be able to access health-related funding programs as they become available.
- Park Development/Redevelopment: The City requires more evidence-based tools to plan and rationalize what is needed on a park-by-park basis (e.g., proactive criteria to justify budget requests, park usage data to inform priority locations). Reliance on lifecycle facility replacement and existing provision levels may not always align with area demographics and community interests. Increasing the number of smaller parks in urban areas would also assist in access to parkland.
- Facility Provision Standards: Existing provision standards for programmed facilities should be confirmed, and benchmarking standards or rationalization of distribution for non-programmed facilities should be found (e.g., for leashfree zones, outdoor fitness equipment, accessible play sites, adventure play sites, beach volleyball, informal sports fields) and lighting of facilities (cricket, tennis).
- Commemorative Plaques and Park Naming: A policy review has been undertaken to complete a rationale for when/where commemorative naming will be used.
- Operational Service Standards: Adding parkland to the
 inventory increases operational services. The City has Service
 Standards to address different classes of parks, including field
 maintenance standards. There is pressure to extend the
 playing season of sports fields (impacting field quality) and to
 allow more casual use. There are increasing expectations
 from residents for rapid response time to maintenance issues.
 Look at creating flexible fields to accommodate more uses.

- Leash-Free Zones: This is now a City responsibility for development and maintenance. A Provision Standard would assist in forecasting of needs.
- Garbage/waste management including disposal of dog waste is an issue.
- Events and Gatherings: Use of parks for large events and gatherings is increasing and there is more demand for picnic areas than available. Turn out does not always reflect bookings, which makes pre-planning for park set-up challenging.
- Stewardship: Recommendations are needed on ways to leverage volunteerism in parks and further develop stewardship partners through a city-wide strategy. A Stewardship Strategy is underway to determine what future stewardship framework would benefit the City.
- Cemeteries: There should be a mandatory increase in the number of sites for cemeteries including properties with unfunded built heritage structures. Mississauga and the GTA are running out of space for cemeteries. Cultural interests add new expectations to cemetery service delivery and end of life celebrations.
- Natural Heritage System/Urban forest: Identify opportunities to implement the Natural Heritage & Urban Forest Strategy's goals of enhancing, maintaining and protecting biodiversity within and expanding the natural heritage system and urban forest in Mississauga.
- Natural Areas Awareness: Discuss the value of natural areas in the urban context and identify opportunities for creating and increasing awareness, such as promoting the benefits of trees and natural areas.

- Invasive species: Consider the strategic priority to mitigate
 the effects of existing and future invasive species when
 producing recommendations in other areas, i.e., Draft *Invasive*Species Management Plan (2018).
- Climate Change: Recommend approaches to strategically manage extreme weather events/changes that can potentially impact Parks and Forestry's facilities, services, assets and infrastructure, as well as the park user experience in Mississauga.
- Recreational Boating Facilities: The 2015 Recreational
 Boating Demand Study notes that the City's marinas are full
 and there is outstanding demand. The Marina Action Plan and
 the 2008 Waterfront Parks Strategy are being updated
 (Waterfront Parks Strategy Refresh 2018). There are
 opportunities to enhance the waterfront to better support
 water activities such as paddling, rowing, kayaking, and
 canoeing.
- Street Trees: There is a need to update City standards and guidelines to better address the sustainability of tree planting in urban areas (e.g., streetscapes and other hard landscapes). The standards should be communicated to the development industry, and compliance required.
- Habitat Enhancement: In addition to the expansion of woodlands and forest, there are city-wide opportunities for the creation of other types of habitat such as meadow and prairie.



Trends in Parks and Forestry

As cities grow, the role that parks and natural areas have to play for the residents and the city as a whole is evolving. Mississauga's population growth through intensification means there are fewer opportunities for large park spaces and increased demands on existing ones. The social life of urban dwellers, increasing cultural diversity, aging populations and expectations for high quality of life create new demands and expectations for the way parks are designed and used. As well, the impacts of climate change on parks and the environment, and the difficulties of sustaining trees in urban areas, present new challenges for urban forestry. These trends and influences impact capacity and maintenance costs and suggest a need for new and creative ways to acquire and develop parkland, and for managing the urban forest.

The following sections discuss the emerging and growing trends of park elements and the role that parks and natural areas will play in Mississauga as it transitions to a more urban, populous city.



Skating at Celebration Square, City of Mississauga Photo Credit: Dillon Consulting

Unprogrammed Activities/Parks as Outdoor Community Centres

The role of parks and public spaces in urban areas is changing. These spaces are smaller by necessity but are expected to provide a multitude of uses to a variety of park users. They provide space for community gathering, physical fitness, socialization and contemplation for all ages and abilities, as well as a space for pet exercise. There is increasing interest in community events, community gardens, adventure/natural play sites, outdoor fitness equipment, unprogrammed facilities, winter use of parks and leash-free zones.

Parks are social places and one element that brings people together is community gardens. Community gardens play an important role in the casual use of parks and are well supported in the City of Mississauga. They support food security and urban agriculture interests, provide opportunities for social interaction and can be used by a variety of age groups. A second trend is to provide unprogrammed facilities in parks. These elements can be considered as social catalysts, as well as physical fitness, in certain cases. Interactions can be spontaneous or planned - either way, they are attractive to many park users. Some examples include outdoor table tennis, checkers/chess tables, skateboarding, play sites, sports courts, basketball hoops, bocce, sand volleyball and boxed artificial turf soccer fields.

In terms of physical fitness, there are a few ways that parks can cater to a wide audience. The first is through adventure/natural play sites. These structures are emerging in playscapes across Canada as alternatives to traditional play site design. Adventure/natural play sites mix traditional play components with natural materials such as logs, boulders, woodchips and interesting grading. The aim is to reconnect children with nature and to provide multi-sensory, tactile and stimulating environments.

A feature that may appeal to more mature audiences is outdoor fitness equipment. These provide alternatives to traditional fitness facilities by locating human powered equipment in parks. They can either be placed in a cluster to mimic an outdoor gym or along a trail or pathway to create a workout circuit. They can be as simple as bars, benches or instructional signs for body weight, resistance and cardio workouts.

The demand for the provision of leash-free zones for dogs is also on the increase in municipalities across North America. Many people in cities, including dense urban cores, own dogs. With limited private space they are looking to public parks as places to exercise and socialize their pets. The City has developed and operates a number of leash-free zones in its parks, in partnership with Leash-Free Mississauga.

Increasing Service Standards and Expectations

Mississauga has an extensive inventory of existing parks. Many of them have elements that are nearing or have reached the end of their lifecycle, and there are additional elements that are desired by the public or are important for the comfort of park users. Aging infrastructure is a current issue. The Parks and Forestry Division's Park Asset Management Plan and Capital Prioritization Scoring Methodology are informing improvements to sports fields, play sites and other infrastructure in Mississauga's parks.

Amenities that are in demand in Mississauga and across the GTA are those that add to park user comfort. They include washrooms and hydration stations (drinking fountains or water refill stations), which are important for health needs and provide park users with the ability to stay in parks for extended periods of time. Other in-demand park elements include seating, shade and lighting. As the population ages, the need for more frequent intervals to stop and rest along park pathways has increased. Site furnishings also provide opportunities to help distinguish parks from each other using design and structure, telling the contextual story or providing whimsical ways of experiencing the space.

Provision of shade in parks is becoming important as the effects of climate change are increasingly apparent. The sun's radiation is increasingly strong and the number of hot days are said to be on the

rise. Shade trees and shelters provide park users with protection from the sun and heat, and other climatic elements.

Extended use of parks beyond daylight hours is also on the rise in some cities, including 24-hour use of parks. Lighting of parks and trails provides access to residents who may not be able to visit or use them during regular hours, as well as during the winter months when length of daylight is decreased. Night time use of parks is not without risk to users, however, and increases maintenance and surveillance obligations, particularly in non-urban locations that lack evening activity. The City of Mississauga has developed a reasonable and balanced park and trail lighting policy in consideration of these issues.

A demand for the winter use of parks is growing. People want to be able to use parks in all seasons. This would mean a higher level of service for trail and related amenity maintenance. There are ways to make it easier for seasonal users (e.g., snow removal, salting of asphalt trails). However, it is not practical to maintain all trails. Trails can be signed and used at one's own risk. Trails that are not cleared could also be used for cross-country skiing or snowshoeing.

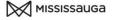
Newer parks already take accessibility into account in their design. Older parks undergoing redevelopment will need to make changes for compliance with the Accessibility for Ontarians with Disabilities Act.

Sport Field and Sport Courts

Mississauga is diversifying and its population is increasing. There is a corresponding demand for outdoor sports fields and sports courts.

Space for unprogrammed sports is increasingly in demand, as evidenced by the success of the informal, artificial turf field at Mississauga's Celebration Square and the boxed soccer field at Community Common. These types of facilities take up less space than full-size sports fields and can be used for multiple activities.

Artificial turf is increasingly being used to allow for more intense use of both programmed and unprogrammed field space. Multi-use or overlapping fields/courts also help maximize the amount of space



available for multiple sports or uses. This approach is being adopted by Mississauga and other municipalities throughout North America as a means of optimizing available space for sports fields.

Alternative Park and Field Spaces in Areas of Intensification

As Mississauga's population grows through intensified development it will become increasingly difficult to find the land base needed to support large parks, particularly those of a size to support field sports. In dense urban areas, North American municipalities are turning to alternative types of spaces to provide for the leisure and recreation needs of inner city residents. These include: use of rooftops and roof slabs (e.g., above parking garages) for green space; creating pop-up parks or installing portable (boxed) fields in corners of underutilized parking lots; and re-purposing streets, either permanently or temporarily, as shared spaces for vehicles and people. While most non-park spaces are best suited to passive use areas and small play sites, there is an emerging trend toward the use of rooftops for community sport fields and sport courts in locations where there is insufficient ground level space. These facilities can be particularly effective if planned in tandem with multi-storey indoor community recreation or cultural facilities.



Daniel's Boxed Soccer Pitch, Mississauga City Centre Photo Credit: Mississauga.com

Theming and Commemoration

As the importance of parks grows, the need to enhance the user experience in parks grows as well. Theming in parks and commemoration through place or facility names provide opportunities to highlight Mississauga's history and identity.

Theming allows certain parks to take on their own personality and tell a unique story. The story can be about Indigenous people, natural heritage features and wildlife, or cultural elements that may be or have been in the area. Some examples of elements that support theming include: trail markers, plaques, interpretive signage, public art and other educational opportunities.

Commemorative naming provides communities with the opportunity to immortalize people and history by memorializing them in a public setting through naming or renaming parks or built facilities. The downside to renaming parks and facilities is people may become attached to an existing park name. As well, benches, plaques and trees are frequently used for personal memorials. However, issues can arise when these features are vandalized or require replacement.

Mississauga has developed a policy for commemorative naming and is in the process of developing a database of existing plaques. The City is also looking to shift commemoration beyond plaques on benches and trees to dedicated places such as a memorial forest or a memorial wall.



Incorporating Technology in Parks

Technology is rapidly advancing and there are a number of advancements that are being included in, or applied to, the City of Mississauga's parks system.

Park-user-focused technology trends include Wi-Fi in parks and other interactive technologies. Provision of Wi-Fi is a growing trend. People want to stay connected to the world as they move around in the city. Municipalities throughout the world, including Mississauga, are starting to install Wi-Fi hotspots in



Example of "Treecaching" with QR codes Photo Credit: Association for Canadian Educational Resources

parks. Interactive technology can include QR codes, which are posted on signs within the park boundaries or along trails. Some examples include: trail maps and fitness videos, location based mobile gaming and other mapping features.

The second way to apply new technologies to parks is to use it for the benefit of the City through improved park data collection and using new technologies to create efficiencies in operations and maintenance. Mississauga has embarked on a number of information technology based protocols and Parks and Forestry staff use mobile devices on-site to collect park data and improve operational efficiencies. As well, maintaining updated Parks and Forestry inventories and facilities conditions assessments will help inform future decisions.

Climate Change

The effects of a changing climate bring new challenges to the design and management of parks and natural areas. The impacts include increased frequency of storm events, damaging floods, damage to lawns, trees and other vegetation from drought, and increased rates of invasive pest and plant species. In response to the effects of climate change, there are opportunities to increase the resiliency of parks and the urban forest through use of low impact development measures that promote: water infiltration (e.g., bioswales, rain gardens, permeable paving); use of native, drought tolerant plant species; and new planting technology to improve the sustainability of urban street trees.

Park Stewardship

Resident volunteerism in parks and natural areas helps with the management, operations and animation of spaces in the City of Mississauga. People want to be included in communications from Parks and Forestry, especially relating to facilities, activities and work happening in parks and natural areas in their neighbourhoods. Other ways of fostering stewardships include partnering with various groups such as public/non-profits, corporations, agencies and public/private partnerships.

The City of Mississauga already has long standing partnerships with all of the agencies managing land within city boundaries, including conservation authorities, the Region of Peel and school boards, as well as non-profit organizations such as Ecosource, Local Enhancement & Appreciation of Forests (LEAF), the Association for Canadian Educational Resources (ACER), Evergreen and the Riverwood Conservacy. The City is currently investigating park stewardship strategies to identify and leverage new approches to partnership and stewardship opportunities.

Protecting Natural Areas

As noted in the above sections, a city's urban forest is an important natural asset that delivers a range of social, environmental, health and economic benefits. There is an ongoing need for protection of the City's parks, street trees and natural areas for future generations by preventing or mitigation of damage from environmental threats and overuse by people. Management approaches include: **invasive species management (e.g.**, Emerald Ash Borer, Gypsy Moth, Cankerworm and non-native plants); **mitigating the impacts of climate change** such as drought, flooding, and ice storms; and ongoing management of natural areas for the **protection of at-risk plants and wildlife.**

Other supportive measures include transforming parts of existing parks into **natural spaces that** support more diverse habitats (including woodlands, wetlands, prairie and meadows). Once established, these areas require less maintenance, provide extended habitat for urban plants and animals, increase stormwater infiltration on-site, and can offer enhanced experiences and educational opportunities for park users.

Natural environment awareness and education on the value and benefits of the urban forest and natural areas is an important aspect of protection. A well-informed community will understand the importance of parks and forests and champion stewardship. Social media, informal outreach through daily activities and development of more formal outreach programs can all help to expand natural environment awareness. The Parks and Forestry Division has a dedicated full-time position for the marketing, promotion and communication of parks and natural areas assets.



Ice Storm Damage Photo Credit: City of Mississauga



Culham Trail is part of Mississauga's Greenlands Photo Credit: City of Mississauga

Areas of Focus and Recommendations

Areas of Focus and Recommendations

Growing, Connecting and Developing Parkland

Existing City-Wide Parkland Supply

The City of Mississauga has achieved an admirable open space system comprised of more than 3,100 hectares of parkland and other open space. According to the 2017 Citizen Satisfaction Survey, the City's many parks and open spaces ranked second in the top 10 most appealing elements of Mississauga. 'Location/close to amenities' was ranked first by survey respondents.

The City's parks and open space system includes 368 sports fields, 263 play sites, two marinas, two golf courses and 11 publicly owned cemeteries. Included are 26 waterfront parks situated along the City's 22 kilometre Lake Ontario shoreline. In addition, there are 300 publicly owned woodlands and natural areas covering 1,124 hectares. Map 2 illustrates an excellent geographic distribution of parkland over Mississauga's residential districts within the six Service Areas used in *Future Directions*.

The City's parks and open spaces offer a diverse range of features within attractive and well-managed settings, including natural areas, sports facilities, gardens, cultural events and heritage buildings. Parkland standards and classifications that have guided new community planning in Mississauga for some time are:

A target provision minimum standard of 1.2 hectares per 1,000 residents for residential districts

 The goal of having parks be accessible for residents within 800 metres from their homes and as centrally located within a residential neighbourhood as possible

The estimated population for Mississauga in the year 2019 is 759,000. Using this population figure and the parkland total of 1,791.25 hectares, ¹⁹ (excluding other open space types) the current city-wide per capita supply is 2.36 hectares per 1,000 residents. This is above the 1.2 hectares per 1,000 residents target objective and slightly above the calculated supply standard of 2.31 hectares in 2014. It is made possible by a number of large Destination Parks, including a substantial amount of parkland on the waterfront.

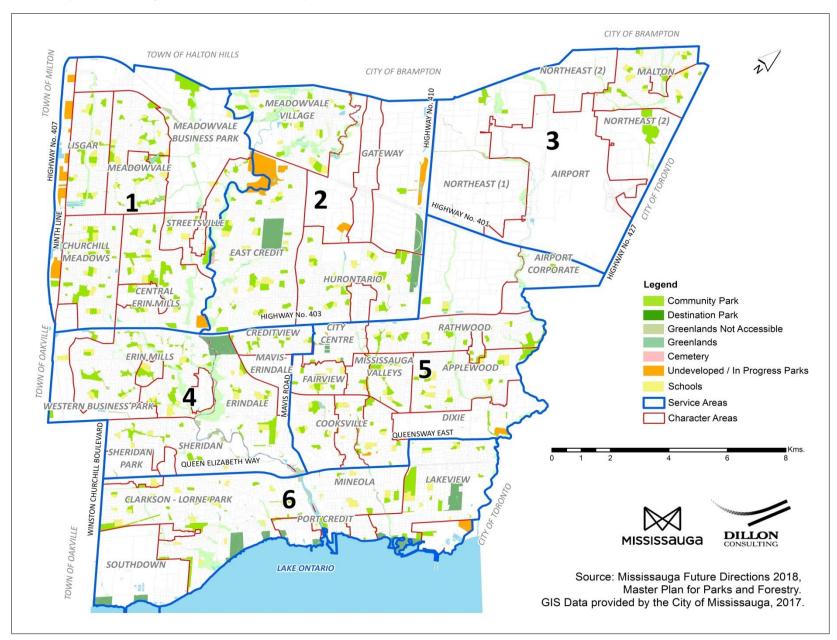
The target of 1.2 hectares per 1,000 residents was established largely to address active recreation needs. Therefore, the existing supply should not necessarily be considered sufficient for meeting all recreation needs in the future. Evaluation at both a Service Area and a local level is a better determination of whether each area of the city is well-supplied with parkland and positioned to accommodate forecasted population growth.



¹⁸ Mississauga Parks & Forestry 2017–2020 Business Plan

¹⁹ Note: Parkland total is based on 2018 existing parkland (including developed and undeveloped parks) as provided by the City of Mississauga July 31, 2018.

Map 2: City of Mississauga Current Parkland Supply



Parkland Supply by Service Area

Table 5 identifies future parkland requirements for each of the Service Areas to maintain a minimum target of 1.2 hectares per 1,000 residents. The analysis indicates that the current supply of parkland is expected to support long-term population growth across the Service Areas with the exception of Service Area 5, where population growth is anticipated to be high as a result of intensification in the Downtown.

This exercise is useful only as an assessment of parkland against the City's population-based provision target. An online public survey conducted for the 2019 *Parks and Forestry Master Plan* process indicated that 97 per cent of respondents (of 1,758 completed surveys) feel that parks are important or very important to their quality of life. A lesser number (72 per cent) felt that there is a sufficient number of parks within their neighbourhood or surrounding area. This suggests that moving forward, areas of the city that are subject to intensification will need to have the same, or better, quality of parks that are available today. Growth is anticipated to take place in several concentrated areas of the city (refer to Map 3).

Since the 1990s, service levels for parks and recreation facilities have been assessed using the six Service Areas shown on Map 3. However, intensification is changing the population distribution and characteristics of the Service Areas (in particular, Service Area 5), which were created when Mississauga was more suburban. For city planning purposes, neighbourhood-level units (or Character Areas) are used. This allows for closer monitoring of population changes and growth forecasts at a local level.

To align with city planning practices and to effectively plan for new parks in areas of intensification, the Parks and Forestry Division is considering moving toward the use of different service areas for the assessment of park provision levels (possibly on a Character Area basis). This should be evaluated prior to the next iteration of the Parks and Forestry Master Plan.

Table 5: Parkland Required to Support Forecasted Population Growth

	Service Area					
	1	2	3	4	5	6
*Existing Parkland (ha)	410.11	375.47	96.59	262.61	271.04	375.39
2019 pop.	172,000	151,000	32,000	102,000	198,000	104,000
Parkland per capita (ha/1,000 residents)	2.38	2.49	3.02	2.57	1.37	3.61
2028 pop.	182,000	158,000	33,000	106,000	217,000	116,000
Parkland to maintain 1.2 ha/1,000 residents	218.40	189.60	39.60	127.20	260.40	139.20
Additional parkland (ha)	-	-	-	-	-	-
2041 pop.	189,000	168,000	33,000	110,000	241,000	137,000
Parkland to maintain 1.2 ha/1,000 residents	226.80	201.60	39.60	132.00	289.20	164.40
Additional Parkland	-	-	-	-	18.16	-

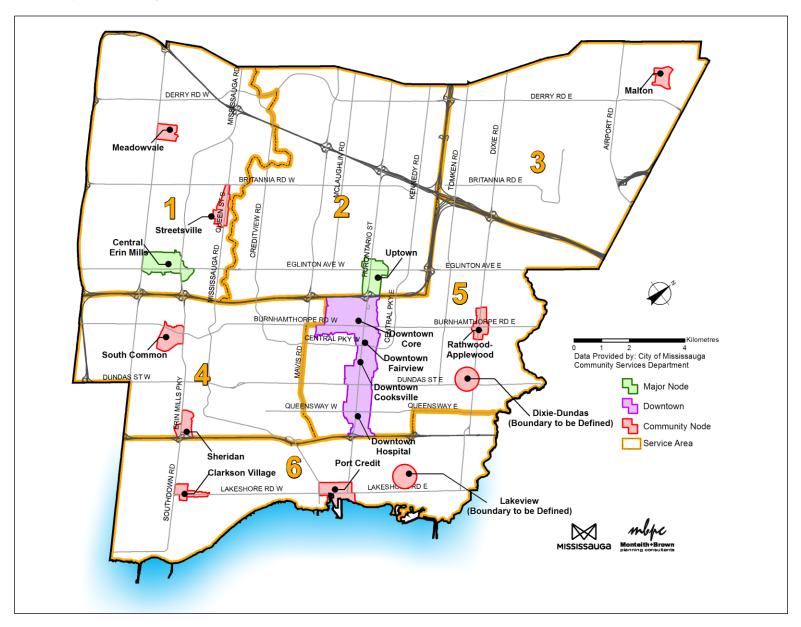
Note: Population figures include census undercount.

Source of population figures: City of Mississauga, Planning Strategies Division. 2018. Source of parkland totals: City of Mississauga Parks Planning (2018) Analysis completed by Dillon Consulting.



^{*}Existing Parkland per Service Area includes developed and undeveloped parks, provided by the City of Mississauga, July 31, 2018.

Map 3: City of Mississauga Growth Areas



Provision Level Targets

Measuring parkland per capita is a common and useful tool for monitoring how a municipality is achieving its goals in comparison to historical standards of supply and future projections. When assessed city-wide, Mississauga has achieved an overall per capita standard of approximately 2.36 hectares of parkland per 1,000 residents. However, some listed parks in the City's inventory include sites with significant natural areas that are used for trails and passive uses, but not for active recreation. An accurate assessment of the parkland supply would need to net out the areas of parkland that are not publicly accessible.

As identified in Table 5, all Service Areas within the city currently exceed the minimum target level of 1.2 hectares of parkland per 1,000 residents. However, growth is anticipated to take place through redevelopment in concentrated areas of the city. Parks are an important aspect of Official Plan objectives for these areas to be attractive, livable and walkable. In addition to quantity of parkland, the City also uses a walkability target with parks recommended to be located within 800 metres of residential areas. Therefore, irrespective of the overall parkland supply in a given area, the need for local parks should continue to be closely evaluated within each of the growth areas at the time of their planning and development. With infill development anticipated to be dense, most sites and local area plans are not expected to be able to generate a parkland dedication at the 1.2 hectares per 1,000 target. Different criteria should be used for these areas.

A parkland target of 12 per cent of the total land area in the Downtown Growth Area is recommended. This is comparable to dense urban areas identified in the Downtown Growth Area Parks Provisions Strategy (DGAPPS) such as: New York's Lower Manhattan (11.56 per cent), Downtown Ottawa (10.36 per cent) and Downtown Portland (10.26 per cent). Markham's planning for its Langstaff Gateway area

identifies 14 per cent of the total area as public Parkland, while the Vaughan Metropolitan Area identifies 15 per cent.²⁰

To guide the planning and implementation of parkland and the public realm in the Downtown Growth Areas, the City will seek to:

- include at-grade land contributions to the public realm network on all significant development proposals where sites are greater than 1,000 square metres
- ensure that, for primarily residential development, not less than 7.0 per cent and not more than 25.0 per cent of the net site area will be set aside for an appropriate park component



Meadowvale Community Centre and Park Photo Credit: Lisa Logan Photography, Canadian Architect



²⁰ Downtown Growth Area Park Provision Strategy. The Planning Partnership. 2015.

The Inspiration projects identify comparable provision targets to the DGAPPS. The 70 Mississauga Road Draft Master Plan recommends 16 per cent of the total area as public parkland and the Lakeview Inspiration Master Plan identifies six per cent, of parkland supplemented by other types of open space, and the existing nearby waterfront parks. This suggests that, when applied to a development scenario (in consideration of factors such as mixed land uses and housing densities), the DGAPPS target is achievable.

It is recommended that the City continue to maintain the current tableland parkland targets (1.2 hectares per 1,000 residents and access to parks within 800 metres) as the minimum standard for non-urban Character Areas (as defined by the Official Plan). This standard does not include non-park open spaces such as hazard lands and natural areas. For urban Character Areas with identified residential growth, a minimum target of 12 per cent of parkland should be used as the benchmark together with access to parks or public open spaces within 400-800 m distance.

For areas undergoing growth and intensification, master plans should continue to be completed that integrate land use planning, urban design, and parks and open space planning. Inspiration Port Credit, Inspiration Lakeview, the Downtown Growth Areas and Ninth Line are important examples. The parks and open space component should address the location, form, connectivity and characteristics of parks and public spaces, considering proximity to existing parks and greenlands, population forecasts and recreation needs. To effectively plan for new parks in intensification areas, parkland provision levels should also be assessed on a Character Area basis. Priority will be given to establishing trail connections for the Credit River Valley, Mississauga Waterfront and Ninth Line lands.

The City must apply all available planning tools to optimize parkland securement, development, and redevelopment, such as: use of cashin-lieu of parkland fees, density bonusing (Section 37), and alternate provision standards allowed under the Planning Act and enabled by elements of the Official Plan and Zoning Bylaws.

Parks Provision Strategy

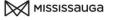
The City monitors opportunities for strategic land acquisitions to meet targets for parkland, as well as objectives for natural area protection and enhancement through its City-Wide Parks Provision Strategy. Land purchase is achieved using accrued cash-in-lieu of parkland funds that are earmarked for land acquisition. The criteria contained in the acquisition strategy was updated in 2017 to better align with growth needs (refer to Appendix B).

Recommendations

Use updated evaluation criteria, acquisition factors and funding analysis developed in the City-Wide Parks Provision Strategy to identify, rank and recommend properties to secure for parks and open space purposes.



Meadowvale Community Centre and Park Photo Credit: Lisa Logan Photography, Canadian Architect



Growth Areas

Downtown Growth Area

In 2014, the City completed the Downtown Growth Area Park Provision Strategy (DGAPPS) with objectives to identify:

- How much new parkland is required to the year 2041
- How that parkland will be acquired
- What types of park spaces can be realistically anticipated
- Where the City should focus its attention for acquisition of parkland

The Study Area was identified as the City's Downtown Growth Area, as shown on Map 3. The Downtown Growth Area is comprised of the following four Character Areas identified, from north to south, as:

- Downtown Core
- Downtown Fairview
- Downtown Cooksville
- Downtown Hospital

Recommendations within DGAPPS include that the City continue to apply its residential parkland dedication rate of 1.2 hectares per 1,000 residents on all new residential developments within the Growth Area. The DGAPPS also recommends that public parks be provided within 400 to 800 metres (a five- to 10-minute walk) for every resident within the Growth Area.

The DGAPPS analyzes existing parks and open space supply in each of the four Character Areas and concludes that there is a parkland deficit. To address the deficit, a minimum target of 12 per cent of parkland should be used.

70 Mississauga Road

The western portion of Port Credit, located on the west side of the Credit River, contains the former Imperial Oil property at 70 Mississauga Road (29 hectares), which is recognized as a strategic brownfield redevelopment site by the City. The 2015 Inspiration Port Credit study envisions an "urban neighbourhood of landscapes, meeting places, living, working, learning and drawing people to the water's edge to play" and prioritizes green space and public access to the waterfront. A destination park is recommended along the site's Lake Ontario frontage with connections to the existing JC Saddington Park.

A draft master plan prepared by West Village Partners Inc. proposes a mixed-use community with a variety of housing forms including townhouses and condominiums, retail and commercial space. The plan delivers approximately 2,500 new residential units and 16 per cent of the site area (4.64 hectares) is dedicated as parkland. ²¹

The following types of green space are proposed:

- A new regional waterfront park along the lakefront that protects public access to the shoreline and serves as an important east-west open space, connecting J.C. Saddington Park and Ben Machree Park.
- Green corridors that serve as buffers between the neighbourhoods abutting the site and as connectors to the shoreline from Lakeshore Road West.
- Small "greens" throughout the residential areas of the site comprised of courtyards, squares, private gardens and community parks.

1 Port Street East

The Inspiration Port Credit study included the development of a master plan for 1 Port Street East. This site is owned by Canada



²¹ Port Credit West Village Draft Master Plan, Urban Strategies Inc. March 2017.

Lands Company and is currently operating as the Port Credit Harbour Marina. The plans for the site envision that the lands be developed for an iconic and vibrant waterfront community with a full service marina and public open space on the water's edge.

The master plan was approved by Council on June 8, 2016. A draft Official Plan Amendment (OPA) was subsequently developed. The forecasted population ranges between approximately 1,770 and 2,265 new residents. The current OPA, as amended by the City, includes a continuous water's edge promenade (minimum width of 15 metres) linking JJ Plaus Park with the Waterfront Trail and St. Lawrence Park. It provides additional open space designations for: the full width of the pier from JJ Plaus Park to the water's edge (minimum area of 0.3 hectares exclusive of the waterfront promenade and adjacent streets); and an additional area at the foot of the pier having a minimum of 40 metres and a site area of 0.13 hectares.

Inspiration Lakeview

The Lakeview area is located in west Mississauga on Lake Ontario. It was the subject of Inspiration Lakeview Master Plan, received by Council in June 2014. Official Plan Amendment 89 was approved in support of the Master Plan. The total Lakeview Area as addressed in the Lakeview Local Area Plan²³ comprises approximately 1,147 hectares with an existing population of 22,750. Inspiration Lakeview will add an estimated projection of 15,000 to 20,000 people over the next 30 years.²⁴

Inspiration Lakeview lands is the largest undeveloped waterfront property under single ownership in the City. It roughly totals 99 hectares (245 acres) in size and consists of the former Ontario Power Generation (OPG) Lakeview Generating Station lands (64 hectares)

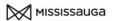
²² Charting the Future Course. 1 Port Street East Comprehensive Master Plan Final Draft, City of Mississauga. April, 2016.

and the adjacent lands which are comprised of the Lakeview business employment area (35 hectares).





Inspiration planning documents guiding intensification and redevelopment



²³ Mississauga Official Plan – Lakeview Local Area Plan. City of Mississauga. July 2016.

²⁴ Inspiration Lakeview Master Plan. Urban Strategies Inc. 2014.

Inspiration Lakeview is planned as a sustainable new community on the waterfront with residential housing, retail and commercial uses, a publicly accessible shoreline and new naturalized waterfront area extending from the OPG lands to Marie Curtis Park. This shoreline is a naturalized conservation area known as the Jim Tovey Lakeview Conservation Area. It is currently being constructed just to the east of Inspiration Lakeview which provides wildlife habitat and passive waterfront recreation opportunities. The project is a joint effort between the Region of Peel and Credit Valley Conservation.

Of the 99 hectares of site area, the Inspiration Lakeview Master Plan identifies 36.4 hectares of open space. This consists of 13 hectares of public parkland and 5.9 hectares of private open space, with the balance as right-of-way and hazard lands. The proposed parkland supply represents approximately 6 per cent of the total area and includes both waterfront parkland and local parks. The nearby parks (Lakefront Promenade, LWC, Marie Curtis Park etc.) will also provide recreation opportunities for the Lakeview community.

Recommendations

2

The City should develop comprehensive plans for the waterfront development sites that address both local needs for parkland in new development areas as well as opportunities for destination parks sites.

Ninth Line Lands

The Ninth Line Lands on Mississauga's western boundary were moved from the Town of Milton to the City of Mississauga in 2010 and represent the last remaining area of undeveloped land in the city. The boundaries of this growth area are Highway 401 to the north, Ninth Line to the east, the Highway 407/Ninth Line crossover to the south

and Highway 407 to the west. The Ninth Line Lands comprise a total of approximately 350 hectares, of which 110 hectares are considered developable. The current Ninth Line Neighbourhood land use concept is estimated to accommodate approximately 3,500 housing units, 8,500 residents and 510 jobs.²⁶

A significant amount of the proposed Ninth Line Neighbourhood is occupied by Greenlands or Public Open Space. The City currently owns 83 hectares of land within the growth area, which was acquired by the City in 2002 from the Province of Ontario. Two significant Public Open Spaces have been identified in the Ninth Line Neighbourhood plan, including a large park at the south end and a smaller open space at the north end, in association with an existing heritage house. The Ninth Line Neighbourhood plan also envisions a continuous multi-use trail running parallel to the Transitway from Highway 401 to Eglinton Avenue.²⁷

Recommendations

3

The City should develop a plan to identify specific uses for parkland along the 9th Line Corridor and look for opportunities to connect new and existing parkland to create dynamic, connected spaces that meet both passive and active recreational needs.

Hurontario/Main Street Corridor

The Hurontario/Main Street Corridor will link Urban Growth Centres in the City of Mississauga and the City of Brampton. It is envisioned as high-density, pedestrian and transit friendly development in targeted



²⁵ Inspiration Lakeview Master Plan. Urban Strategies Inc. 2014.

²⁶ Shaping Ninth Line Growth Management Analysis. Hemson Consulting Limited. May 2017.

 $^{^{27}}$ Shaping Ninth Line Urban Design Guidelines (DRAFT). City of Mississauga. June 2017.

areas along the corridor, with a light rapid transit (LRT) system as the first priority for infrastructure investment.

Cooksville Creek Parks

The Cooksville Creek watershed is an urban watershed located entirely within Mississauga. The watershed has been under urban development pressure since the 1940s when it transitioned to its current condition of residential and industrial/commercial uses (60 per cent residential, 34 per cent industrial/commercial, six per cent open space). Significant growth is projected to occur in the Downtown Cooksville area, adding further pressure on the limited Cooksville Creek greenspace to provide both flood control and parks and recreation functions.

Parks and greenspace planning within and adjacent to the Cooksville Creek Corridor would benefit from a comprehensive parks strategy to examine issues including but not limited to:

- Management of natural areas, considering issues such as flooding, stormwater management, invasive species management, habitat restoration and enhancement
- Recreational potential of, and improvements to, existing parks to meet growth needs
- Strategic land acquisitions to protect and enhance the corridor's functions and address parkland deficiencies

As the City continues to develop its parkland it will seek to incorporate policies into the Official Plan to protect the function and inventory, both existing and planned, of parks/open spaces, and a planned approach to parkland acquisition.

Recommendations



Complete a strategy for the Cooksville Creek corridor to examine issues including, but not limited to: management of natural areas, park use potential, parkland deficiencies in the Downtown growth corridor, trail network completion and connections to existing parks.

Privately Owned Public Space (POPS)

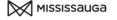
The Downtown Growth Area Park Provision Strategy identifies a number of planning tools that are available to achieve new park space in intensification areas. These include use of:

- Policies in the Official Plan and other required studies
- Parkland dedication/cash-in-lieu of land
- Development agreements
- Development charges
- Height and density bonusing
- Site plan control
- Parks on structures/strata parks
- Privately owned public open space

Privately Owned Public Space (POPS) refers to privately owned and maintained outdoor space that is universally accessible and open to the public. Using the Downtown Growth Area Parks Provision Strategy as guidance, the City should develop a policy to address acceptance of portions of privately owned properties as public open space.

This may include requiring such conditions as:

- Lands that remain in private ownership are covenanted as public space
- The park is built to municipal standards and specifications
- The park is maintained to municipal standards
- An agreement for the foregoing is in place



²⁸ Cooksville Creek Flood Evaluation Master Plan EA. Aquafor Beech Ltd. 2012

 A discounted dedication value due to the presence of encumbrances such as below ground infrastructure

There is increasing pressure for public spaces to be developed on parking garages or other roof slab construction in areas of urban intensification. This is a potential solution for achieving new parks, facilities or programmable space in areas with land constraints. However, this type of development brings encumbrances and long-term risks associated with strata ownership, maintenance and infrastructure replacement. Specific policies should be developed to address whether these types of spaces can be effectively and sustainably developed as part of the public open space system.



Square One POPS Photo Credit: City of Mississauga

Recommendations

Develop a policy to address the provision of Privately Owned Public Space (POPS) where public parkland cannot be achieved, or to enhance the public realm.

Recommendations

6

Examine the implications of developing parkland on roof slab or underground parking structures when constraint-free parkland cannot be achieved. The study will include at a minimum location criteria, design considerations, best practices review, capital and operating costs (including implications for trees related to the life cycle of underground parking structures), ownership considerations (stratified ownership, easement) and principles by which requests can be evaluated.

Parks and Open Space Classifications

Mississauga's open space network consists of two Official Plan designations: Public Open Space and Private Open Space. ²⁹ The Public Open Space designations in use for planning and inventory purposes are: Destination Parks, Community Parks, Greenlands and Cemeteries. Private Open Space is generally considered to include lands used for private cemeteries, conservation, nursery, gardening, agriculture and golf courses. These lands may contribute to non-intensive, outdoor uses, but are not always accessible to the public.

There is a need to expand the existing open space classifications to include new forms of parks and urban spaces that are occurring in areas of infill and intensification. These include the types of parks recommended in the Downtown Growth Area Park Provision Strategy (DGAPPS).³⁰ They include Urban Parks/Urban Squares as well as smaller public open space areas that provide animation, diversity and interest to an urban centre. These spaces are defined in DGAPPS as Pocket Parks, Sliver Open Spaces, Courtyards and Connecting Links, and may be provided as elements of Privately Owned Public Space.

²⁹ Mississauga Official Plan – Part 3, 11.2.4 Open Space

³⁰ Ibid, Downtown Growth Area Park Provision Strategy

These types of urban parks are suited to the denser form of urban development that is anticipated in the Downtown and other growth areas in Mississauga.

Discussion with City staff also identified that there is a need for subcategories of Greenlands to better address the recreational functionality and capacity of natural areas within the parks system. The application of Greenlands sub-classifications will require careful consideration of what is allowable as parkland dedication under the Planning Act.

Table 6 provides a summary of proposed open space classifications. The new parks and open space classifications should be refined and used to guide future parks and open space planning. Once finalized the classifications should be applied to the existing inventory of parks and greenlands to inform development and redevelopment decisions and maintenance standards.

Recommendations

7

Update the existing park/open space classifications. New categories to include Urban Parks, and subcategories of Greenlands. The City will incorporate these new categories into the Official Plan and apply the classifications to the existing inventory of parks and open spaces to inform development and redevelopment decisions and maintenance standards.

Protection and Enhancement of Natural Areas/Urban Forest

The Parks and Forestry Division is responsible for the planting and maintenance of trees on City property (streets, parks and woodlands), as well as the protection and preservation of natural areas. Implementation is achieved through tree inspections and management

practices, invasive species management, woodland restoration, and enforcement of applicable by-laws. Forestry personnel also respond to unforeseen events such as ice storms that may impact trees.

With the completion and approval of the Natural Heritage and Urban Forest Strategy (NH & UFS) and the Urban Forest Management Plan (UFMP) in 2014, the City has a comprehensive set of strategies and actions to direct Natural Heritage and Urban Forest services over the foreseeable future. The recommendations of the NH & UFS and the UFMP should continue to be implemented based on identified priorities in the plans.

Recommendations

- Undertake a review of the Urban Forest Management Plan. The recommendations of the Urban Forest Management Plan (2014) should continue to be implemented based on identified priorities.
- Work in collaboration with Planning & Building, and Transportation & Works Departments to support the update and implementation of the Natural Heritage and Urban Forest Strategy (2014).

The following sections outline specific areas of focus in natural heritage and urban forest management over the next five years.

Invasive Species Management

Invasive species pose a variety of challenges to Mississauga's urban forest. The Emerald Ash Borer (EAB) has devastated the urban forest by killing ash trees or requiring their removal, leaving noticeable gaps in the urban forest canopy across Mississauga. The Emerald Ash Borer (EAB) Active Management Plan (2012) is directing the City's

efforts to control this pest. The Parks and Forestry Division has inspected City-owned ash trees to identify which trees are infested by EAB and must be removed from City property and those that may be treated to prevent infestation. These include trees on streets, in parks and in woodlots. The Asian Long Horned Beetle is another species that has had a great impact on the urban forest around the airport. The City has completed an aerial spray program to control gypsy moth and cankerworm in 2018.

Management of non-native invasive plant species in natural areas is also an ongoing challenge. Homeowner education is important to prevent the spread of invasive plant species into natural areas. There are also opportunities for appropriately trained volunteers to participate in the removal of invasive species in selected areas.

A key recommendation from the NH & UFS was to prepare a strategy for invasive species management. This is accomplished with the Draft Invasive Species Management Plan and Implementation Strategy, scheduled for completion in 2018. The strategy identifies priority invasive species and directs efforts over the next 15 years to several priority sites. Efforts in the Draft Invasive Species Management Plan are focused on:

- Management of species with the greatest potential to impact Natural Areas and threaten human health
- Management on sites that are flagship Significant Natural Areas

The recommendations from the Draft Invasive Species Management Plan also propose that there be a continued dialogue with the City of Mississauga's partners in environmental management about: prioritizing management efforts, developing a landowner contact program, identifying safe and easily understood management techniques for the general public, and implementing invasive species control for priority areas.

The City will continue to assess the need for implementation of an aerial spray program approximately every 7–10 years to mitigate the

impact of defoliating pests city-wide based on defined criteria and infestation levels. Levels are measured annually and aerial spray should be planned and budgeted for accordingly.

Recommendations

- Finalize and implement site-specific targeted invasive species work in accordance with the Draft Invasive Species Management Plan (2018).
- Continue to assess the need for implementation of an aerial spray program approximately every 7–10 years to mitigate the impact of defoliating pests city-wide based on defined criteria and infestation levels. Levels are measured annually and aerial spray should be planned and budgeted for accordingly.

Sustainability of the Urban Forest

Urban trees, particularly those located in areas of intensification and along rapid transit corridors, are subject to compromising conditions that impact their survival and growth to maturity. Sustainability is critical for urban street trees in areas of intensification and along rapid transit corridors, which are subject to compromising conditions that impact their growth to maturity. Most of these challenges are related to design (e.g., soil volume, planting techniques), spacing, tree species and quality, protection during construction and conflicts with utilities (both above and below ground). The policy/guidelines should direct that development will locate and organize utilities to minimize their impact on the property and on surrounding properties, and in consideration of the safety and attractiveness of streets, parks and open spaces, and to improve sustainability of street trees.

Despite the challenges, urban trees are also an integral part of the public realm. The public realm is any portion of the urban environment that is publicly accessible for use and enjoyment which include: streetscapes, parks and open spaces.



Urban Forest Management Photo Credit: City of Mississauga

Greater survival rates are possible if appropriate species and locations are selected and best practices employed during the design and installation stages, followed by an appropriate maintenance regime. Parks and Forestry personnel work internally to resolve these issues. However, a documented set of standards would assist with identifying City requirements to the development industry. The design and maintenance standards should consider advanced technologies to promote sustainability and climate change resiliency and be made available to the development industry for implementation in the site plan and development approval process. The standards should be developed and implemented collaboratively with Planning & Building and Transportation & Works Departments and made available for implementation in the site plan and development approval process.

The downtown Civic precinct is an area of the city where a higher level of design and maintenance for vegetation and tree planting (e.g., streetscapes, planters) is required. The City should define a precinct and establish specific standards for this area. The boundaries should consider the Living Arts Centre, City Hall and the Central Library.

Recommendations

12

In collaboration with Planning & Building and Transportation & Works Departments, develop/update City design and maintenance standards for trees, shrubs and perennials in urban locations (e.g., streetscapes and planters).

Private/Public Tree Bylaws

Although the City is responsible for approximately 250,000 trees on its streets and in its open spaces, more than half of Mississauga's existing urban forest canopy is on private lands and outside of the City's direct control (although addressed through the Private Trees Bylaw). There is an ongoing need to monitor and evaluate the effectiveness of the City's Private and Public Tree Bylaws to meet urban forest protection and expansion objectives.

Recommendations

13

Update Private and Public Tree By-laws every 5 years to ensure they reflect current best practices and urban forestry standards.



Tree Inventory

The City has recently embarked on documenting their Park Tree Inventory. It is scheduled for completion in the summer of 2018. The update to the current City Street Tree inventory (2007) is beginning this year with an expected completion of 2020-2021. As noted in the Natural Heritage and Urban Forest Strategy, maintaining an updated street and park tree inventory is important to inform priorities, maintenance cycles, species lists and street tree replacement.

Natural Park Space

An increasing trend in the Municipal Park Provision is to transition spaces that were once manicured lawns into naturalized pockets of plantings (of trees and shrubs), prairie and meadows. These areas are not only aesthetically interesting, but they also: provide extended habitat for animals and insects (including pollinators), increase the urban forest canopy, have a greater ability to infiltrate and filter rainfall and stormwater runoff, reduce erosion, and are more cost effective and environmentally sound to maintain as they require less mowing and attention.

In association with Credit Valley Conservation, Toronto and Region Conservation Authority, not-for profit organizations and corporate and volunteer efforts, the Parks and Forestry Division has been enhancing natural areas in City parks and green spaces since the 1980s. Recent naturalization sites include: Applewood Hills Greenlands, Creditview Wetland, Erindale Park, Huron Park, Jack Darling Memorial Park, King's Park, Paul Coffey Park, Meadowood, Mullet Creek Park, Rathwood District Park and South Common Park.

The City of Mississauga Urban Forest Management Plan (2014) recommends prioritizing naturalization opportunities based on:

- Adjacency to the existing Natural Heritage System or connection between Natural Heritage System areas
- Areas identified through conservation authority subwatershed plans, as well as Credit Valley Conservation's Draft Natural

- Heritage System, Landscape Scale Analysis, the Lake Ontario Integrated Shoreline Strategy and Credit River Parks Strategy
- Dovetailing of these priorities with known urban forest expansion opportunities

Much of the City's naturalization efforts to date have focused on the expansion of the urban tree canopy. There are additional opportunities to create other types of habitat that are in short supply in the city including meadow and prairie. The Credit River Watershed and surrounding area historically contained pockets of tallgrass prairie, along with with oak savanna and related woodland ecosystems. The City has an area of prairie restoration in Jack Darling Memorial Park.

Although noted as part of the natural heritage system, meadows and prairies were not specifically targeted in the City's Natural Heritage and Urban Forest Strategy. The establishment of true tallgrass prairie is complex. However, meadow environments are easier to develop and manage. Many opportunties to create meadow exist throughout the city including large parks, constrained urban parks where tree planting may be challenged, school sites, and along utility and road corridors.



Fresh Air Fitness class at Celebration Square Photo Credit: City of Mississauga



Active sports fields, baseball diamonds Photo Credit: Monteith Brown Planning Consultants

Outdoor Recreation Opportunities

The City of Mississauga maintains an extensive infrastructure of outdoor recreation facilities within its parks system. The City and its community partners deliver a wide range of community programs and services within these facilities to local residents, but many are also used for non-programmed, spontaneous forms of usage that animate neighbourhoods and encourage residents to be healthy. The network of recreational infrastructure is a key part of the overall civic structure that collectively functions as nodes, hubs and destinations of activity.

Historically, assessments of outdoor recreation facilities were included as part of *Future Directions* for Recreation. This 2019 *Parks and Forestry Master Plan* is the first that integrates park-based recreation facilities, given the interrelated nature of the parks and recreation system. Assessments contained herein build upon planning methodologies contained in the previous iterations of *Future Directions* for Recreation, through which detailed rationale has lent support to the creation of service level standards (where applicable) and recommendations. Most outdoor recreation facility assessments have been analyzed geographically using the City's six Service Areas and this approach is maintained for the 2019 *Parks and Forestry Master Plan* given the historical precedent.

Improve the Existing Outdoor Sport Field Classification System

The pages that follow analyze the need for outdoor rectangular fields, ball diamonds and cricket pitches. These assessments reveal that there is a significant number of sports fields that are substantially underutilized for organized play, while pressures are being placed on certain (usually higher quality or strategically located) sports fields. There may be several reasons why an organization is not making use of a given field, such as:

- Design or sizing not suitable for the desired level of play
- Limited parking or insufficient level of amenity relative to preferred destinations

- Incompatibility with surrounding land uses (e.g., playout lines are too close to an adjacent residence, park is shared with a school and results in degraded field quality)
- Preference for multi-field venues to allow more convenient scheduling
- Insufficient demand, particularly at a localized neighbourhood level

Many municipalities use a field classification system for natural turf fields, denoting field quality and construction in addition to size. Full size "premier" lit, irrigated and amended root zone fields receive the highest classification (depending on terminology this could be a Category 1 field, Class A, or similar), while unimproved, natural turf "practice level" fields receive the lowest classification (Category 5, Class D, or similar). The classification system is also used to inform the maintenance regime.

The City of Mississauga should further review and improve the existing sports field classification system to help categorize the quality of the existing and future stock of sports fields. The system will classify the distinction and quality of field, as well as level of maintenance and fee structure for the fields in the City's inventory.

A sports field classification system allows municipalities to assign higher costs for their higher quality fields in order to offset maintenance costs. The system can set realistic expectations for organizations for what they are getting when they rent a field. Some municipalities show their sports field and even sport court classifications on the rental cost page. Others go as far as to note the exact maintenance standard for each field.

Recommendations

14

Refine the field classification system to address field quality and construction and consistent maintenance standards.



Active sports fields, soccer Photo Credit: City of Mississauga

Outdoor Artificial Turf Fields

The City owns six artificial turf fields, four of which are located at the Mississauga Sportzone and Iceland complexes. The remaining turf fields are at Huron Park and the Courtneypark Athletic Fields. Also included in the supply is one artificial turf field at Loyola Catholic Secondary School that is permitted by the City, as well as a turf field at Clarkson Park that is expected to open in 2018 (through a partnership with the Peel District School Board). Another two lit artificial turf fields approved for construction at Park 459 are expected to be operational for the 2021 season, with the potential of a third lit, artificial, multi-use field being planned for in future phases of the development.

Artificial turf fields are becoming increasingly prevalent in Ontario, particularly among mid- to large-size municipalities, but also in areas with growing land scarcity and/or strong participation rates in field sports. Although soccer is a major user of these fields, the multi-use nature and hardiness of artificial turf fields makes them attractive to football, rugby, field lacrosse, field hockey and Ultimate Frisbee users. These sports often have difficulty in accessing soccer fields (their seasons often run in the spring and fall when wet weather makes fields vulnerable to damage from intensive use), and they can be challenged by the quality and availability of school fields that they tend to rely heavily on.

The number of hours used across Mississauga's artificial turf fields is trending upwards after a period of decline between 2011 and 2013. In 2014, Mississauga experienced peak bookings with 8,700 hours used at the turf fields (2016 usage stood at 8,200 hours used). The most recent usage figure is over 2,000 hours greater than the six-year low that occurred in 2012.

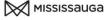
There are no generally accepted service level standards guiding the provision of artificial turf fields, with fields available across municipalities of highly varying populations. The City of Mississauga is in a strong position over the 10-year outlook with the planned additions to the supply of artificial turf fields.



Iceland Outdoor Artificial Turf Fields Photo Credit: Google Maps



Boxed Soccer Field at Community Common Photo Credit: Metro News



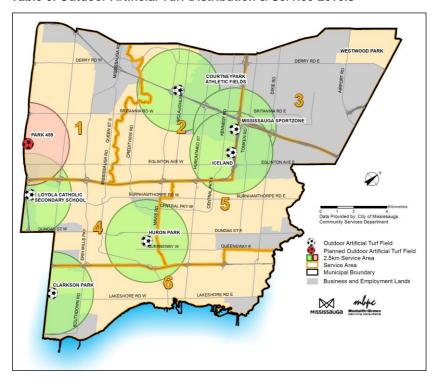


Table 6: Outdoor Artificial Turf Distribution & Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	2*	0	1:91,000
2	5	1:30,200	1:31,600
3	0	0	0
4	2	1:51,000	1:53,000
5	0	0	
6	1**	1 : 104,000	1 : 116,000
City-Wide	10*	1:94,900	1:81,200

^{*} Includes two turf fields approved for Park 459 in 2021

With the additions of three artificial fields at Clarkson Park and Park 459 in the next three years, the City's service ratio will improve from 1:95,000 at present to 1:81,200 by the year 2028, while also strengthening geographic distribution in most parts of Mississauga. Each Service Area will soon have at least one artificial field with the exception of Service Areas 3 and 5, noting that many residential areas in the latter are located in proximity to the fields at Mississauga Sportzone, Iceland, Huron Park and Clarkson Park. Furthermore, the fact that 2016 usage levels are 6 per cent lower (500 hours) than 2011 levels across the system means that capacity presumably exists within the artificial turf system to capture additional usage (i.e., demand is presently not constrained).

Despite the addition of the three new fields, reasonable geographic distribution and the current utilization profile, there is merit in exploring additional artificial fields where:

- A cost-sharing and/or joint-use agreement is negotiated with a third party, such as a secondary or post-secondary institution
- The City wishes to attain program/scheduling consistencies and efficiencies throughout the season by having a field capable of accommodating heavy use without needing to rest it, and to minimize disruptions due to inclement weather
- Lifecycle renewal of an existing natural grass field is required and an upgrade to artificial turf is supported through business planning
- Fields are located in areas of intensification and attracting high levels of usage
- Participation growth in field sports other than soccer—such as football, field hockey, and field lacrosse—is such that a multiuse field configuration is required to address these needs in the peak summer months

Service Area 5 is an excellent example of where artificial turf field supplies need to be bolstered despite capacity that exists in the supply today. The Natural Grass Rectangular Field assessments

^{**} Includes one turf field under construction at Clarkson Park

presented in the pages that follow highlight considerable service level pressures that are, and will continue to be, placed on Service Area 5 for rectangular fields. Unfortunately, improving rectangular field service levels through new field construction in Service Area 5 is challenging due to land scarcity, which makes it cost-prohibitive to add net new fields to the supply. With 25,000 additional persons forecasted to live in Service Area 5 over the next 10 years, existing fields can be expected to face added pressures depending on the household age mix that is ultimately attracted to the Downtown. Apart from a costly strategy of purchasing new land for sport fields, the primary means to increase field capacities is to carry out improvements to existing fields (such as installing field lighting and irrigation/drainage systems, and conversion of grass fields to artificial turf, all of which are intended to minimize field "resting" periods).

With no artificial turf fields presently in Service Area 5, a minimum of two natural grass fields should be converted to artificial turf. Good candidates for conversion include rectangular fields at Mississauga Valley Park and Dr. Martin Dobkin Park, given the parks are well-suited to handle the added level of intensity and there is a possibility that the school boards may have an interest in collaborating to provide turf (they have schools onsite). This would result in all Service Areas having at least one artificial turf field, with the exception of Malton (Service Area 3).

Building on the notion of leveraging partnerships with school boards and other third parties, new artificial turf field construction should be explored where partnerships can be negotiated through new land and/or facility developments. The joint-development model identified through *Future Directions* and the 2017 Recreational Indoor Facility Infrastructure Strategy for a future community centre in Cooksville is an example of such an opportunity (albeit this is presently forecasted for development beyond the 10-year outlook). It is not only and opportunity for Service Area 5, but all areas of the city where joint development and usage of fields could be pursued (e.g., Inspiration areas).

There is also merit in continuing to explore smaller artificial turf field templates conducive to pick-up play or smaller format games (such as three-on-three). The successful boxed soccer pilot project at Community Common was attractive for unstructured usage, as well as for addressing latent demand for play outside of the organized club structure. The boxed pitch recently negotiated with the Daniels Corporation forms an excellent model moving forward to maximize use of land and cost-sharing principles. Additional smaller format artificial turf fields could therefore be well-suited to areas of intensification to withstand volume of use and indirectly bolsters provision levels, particularly where pressures are greater such as in Service Area 5. Creative partnerships to place fields on top of roof structures as a means simply to accommodate opportunities where land is scarce could also be well suited.

Based on observed usage and measured success, at least one additional pop-up field—either in a boxed or open field template—should be considered within the next five years, preferably in an area of higher density and where sufficient open space is available (in order to gauge interest in pickup play). Given that certain sport field users have stated that fees at existing artificial fields are cost-prohibitive to increasing their bookings, smaller format artificial turf also provides an opportunity to discern whether user groups will capitalize on greater cost flexibility if/when using non-regulation pitches for practices and training.

Recommendations

15

Explore the ability to convert two existing natural grass fields to artificial turf in Service Area 5 subject to further discussions with prospective partners, user groups and community associations. Sites to consider include (but are not limited to) Mississauga Valley, Dr. Martin Dobkin Community Park, Rathwood District Park and Brickyard Park.



Recommendations

16

Continue to explore public-private partnership opportunities for boxed soccer and, if successful, expand to other locations in the city.

Natural Grass Rectangular Fields

The City of Mississauga provides 211 rectangular fields within its parks system, including five with a multi-purpose design equipped with football uprights. Consistent with previous planning approaches and supported by utilization data, lit fields are considered to be the equivalent of 1.5 unlit fields due to extended hours of play available in the evening. The City-owned effective rectangular field supply is thus considered to be 216.5 unlit equivalents.

Nearly 53,000 hours were used across the City's natural grass rectangular fields (soccer and football) in 2016, including fields permitted at schools. Between 2011 and 2016, usage has fluctuated between a high of 55,000 hours (2011) to a low of 46,000 hours (2012). In Mississauga, there are approximately 11,800 players registered with major groups. This continues a decreasing trend noted in the 2014 Future Directions where the 14,250 minor soccer players was also lower relative to 2012 registrations. With Mississauga groups reporting 3,600 fewer players compared to 2012 registrations, this amounts to a 24 per cent reduction in the number of players, which, on a percentage basis, is a rate of decline considerably greater than that experienced by the Peel-Halton Soccer Association (-10 per cent) and provincial registrations as a whole (-four per cent) over the same period of time. The City's observational study conducted in 2017 found that 37 per cent of observed time at soccer fields was being used for casual, unstructured activities, suggesting that fields are being used a fair degree beyond organized soccer programs.

The City is in a strong position to deliver on rectangular field needs with its bolstered level of service relative to years past, the recent implementation of the Sport Field Allocation Policy that improves scheduling efficiencies and the planned addition of artificial turf at Park 459 to add 6.0 unlit equivalent fields to the supply by the year 2021. Based on the fact that 2016 usage levels are nine per cent lower (4,500 hours) than 2013 levels across the system, as well as the fact that affiliate group registrations are in a continued trend of decline, it is presumable that capacity exists within the rectangular field system to accommodate additional usage (i.e., demand is presently not constrained). This is further evident with such a considerable portion (38 per cent) of the field supply being infrequently used.

Accordingly, it is recommended that the City's historical standard of 1:2,800 be adjusted to one soccer field per 3,000 population to better reflect the capacity that exists in the system. A revised standard also accounts for factors like aging population trends and challenges that the City will face in acquiring large parcels of land required for rectangular fields, as most areas of Mississauga are now built-up.



Sports field complex at Churchill Meadows Common Park Photo Credit: Google Maps

Table 7: Rectangular Field Service Levels

Service Area	Natural Turf Supply	2019 Provision Level	2028 Provision Level
1	67	1 : 2,600	1:2,700
2	50.5	1:3,000	1:3,100
3	13.5	1 : 2,400	1:2,400
4	31.5	1:3,200	1:3,400
5	33.5	1 : 6,000	1 : 6,500
6	20.5	1 : 5,100	1 : 5,659
City-Wide	216.5	1:3,500	1 : 3,800

Service Area	Artificial & Natural Turf Supply	2019 Provision Level	2028 Provision Level
1	73*	1:2,600	1:2,500
2	65.5	1:2,300	1 : 2,400
3	13.5	1:2,400	1:2,400
4	37.5	1:2,700	1:2,900
5	33.5	1:6,000	1 : 6,500
6	23.5	1:4,400	1 : 5,000
City-Wide	246.5*	1:3,200	1:3,300

^{*} Reflects 2021 supply when two artificial turf fields are added to Park 459 Notes: Unlit equivalent supply shown, excluding permitted school fields as they account for less than four per cent of all hours booked. Provision Level rounded to nearest 100 persons.



Active sports fields, soccer Photo Credit: City of Mississauga

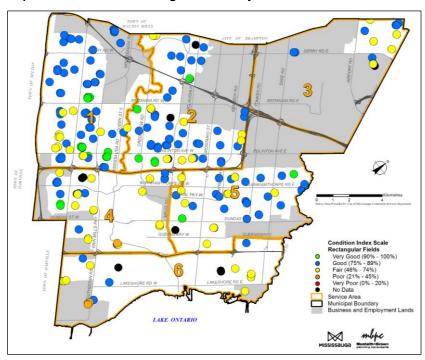
The renewal of existing natural grass rectangular fields—and encouraging greater usage to take place within them—stands out as a more pressing priority compared to new field construction. A review of the Condition Index values assigned to the supply of existing grass fields, illustrated spatially through Map 4 reveals:

- 24 fields (11 per cent) are rated in Very Good condition
- 129 fields (60 per cent) are rated in Good condition
- 60 fields (28 per cent) are rated in Fair condition
- Three fields (one per cent) are rated in Poor condition³¹



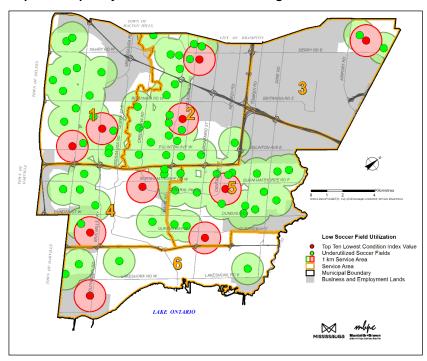
³¹ City of Mississauga. Overall Condition Index Dataset spreadsheet provided May 2017. Condition Index Values categorized as Very Good (CI = 90 per cent to 100 per cent), Good (CI = 75 per cent to 89 per cent), Fair (CI = 46 per cent to 74 per cent), Poor (CI = 21 per cent to 45 per cent), and Poor (CI = 0 per cent to 20 per cent).

Map 4: Natural Grass Rectangular Fields by Condition Index Value



The 83 rectangular fields receiving little to no permitted usage during the playing season are shown through Map 4 in relation to those with the 10 lowest condition index values. Most infrequently used fields with overlapping catchment area are contained in Service Areas 1, 2 and 5. Given that nearly one out of every four rectangular fields receives less than 35 hours of permitted usage in a season, this could be resulting in a sizeable inefficiency - not only in terms of operational and maintenance costs, but also in terms of use of the land itself if there are other recreational pressures that would better be addressed.

Map 5: Infrequently Used Natural Grass Rectangular Fields



Note: map only shows fields receiving less than 35 hours of use annually

The City should therefore undertake specific consultations with rectangular field users to determine why certain fields are not being used to their capacity and whether selected improvements at such fields would result in better use of these facilities. The intent of these discussions is to maximize the usage potential of the rectangular field system and allow the City to make sound financial investments relating to capital renewal (along with ongoing operations and maintenance activities throughout the entire field system). For example, if a field is underutilized and groups are not able or willing to make use of it, then the resources assigned to that field are better reallocated to another field that is under greater pressure (or reallocated to another recreational use altogether).

A better understanding is required as to why the quantum of underutilized fields is what it is. It is acknowledged that a degree of underutilization is acceptable in a rectangular field system in order to allow for "field rotations" that enable grass to regenerate, non-use due to weather conditions (e.g., rain storms), and good distribution of facilities. With respect to the latter, however, the mapping of underutilized fields illustrates the extent of service duplication.

Recommendations

- Revise the City's service level standard to one rectangular field per 3,000 population inclusive of artificial and natural turf fields to guide future facility planning exercises.
- Install field lighting and irrigation systems at three existing natural grass fields located in Service Area 5 (sites selected with the input of local field users and community associations to consider their compatibility within existing parks).
- Support the Recreation Division in engaging rectangular field users to discuss reasons why certain fields are receiving little to no usage during the course of the playing season, and whether selected improvements at such fields could alleviate pressures for field time that groups may be facing. Based on these discussions, the City should explore whether any adjustments are required to maintenance schedules and capital reinvestment activities for these underutilized fields, or whether such fields are better repurposed for other neighbourhood-level recreational activities.

Ball Diamonds

The City of Mississauga provides a total of 129 ball diamonds within its parks system, consisting of baseball diamonds, softball and multipurpose diamonds, and a universal diamond. Consistent with previous planning approaches and supported by utilization data, the 42 lit diamonds are considered to be the equivalent of 2.0 unlit diamonds due to extended hours of play available in the evening. The effective supply of municipal diamonds is thus considered to be 171.0 unlit equivalents.

Between 2011 and 2013, hours used at the City's ball diamonds decreased from 61,800 hours to 53,000 hours. In 2014, usage jumped back over the 60,000-hour mark, but has again been slowly decreasing with 57,200 hours used in 2016. Nevertheless, usage at the City-wide and Service Area level shows that hours used are generally consistent in the 57,000 to 62,000 range, apart from the low point in 2013. The City's observational study conducted in 2017 witnessed 48 per cent of time at ball diamonds being used for casual, unstructured activities, suggesting that residents are using diamonds a fair degree beyond organized ball programs.

There are 3,659 players registered with Mississauga's major ball groups, continuing a decreasing trend recorded in the 2014 *Future Directions*. Based on current registrations, there are 400 fewer players compared to 2013, equating to a 10 per cent decline among local affiliates. It is unknown whether affiliate registrations reflect overall ball participation trends in Mississauga (i.e., factoring non-affiliate groups whose players are not captured in the City database). The three year declining registration in Mississauga is in contrast to provincial trends. In Ontario, baseball has been making a resurgence in the past three years after a substantial period of decline in the early 2000s.

The City of Mississauga has historically applied a provision standard of one ball diamond per 5,000 population, a level of service that the City is presently exceeding. In fact, the current supply of diamonds meets the provision standard over *Future Directions*' 10-year outlook with all but one Service Areas falling within the 1:5,000 ratio (Service Area 5 is the lone outlier).



Table 8: Ball Diamond Service Levels

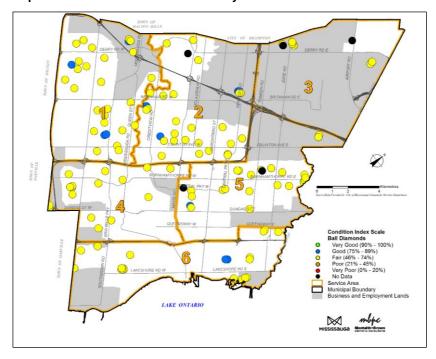
Service Area	Supply	2019 Provision Level	2028 Provision Level
1	36	1:4,800	1 : 5,100
2	38	1:4,000	1:4,200
3	12	1 : 2,700	1 : 2,800
4	30	1:3,400	1:3,500
5	32	1 : 6,200	1 : 6,800
6	23	1 : 4,500	1 : 5,000
City-Wide	171	1:4,400	1:4,800

Notes: Unlit equivalent supply shown, excluding permitted school diamonds. Provision Level rounded to nearest 100 persons.

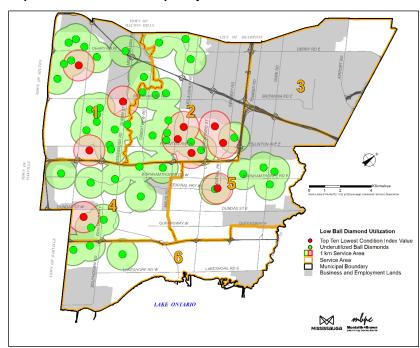
Revitalization of existing diamonds is advanced as the primary means of increasing ball diamond capacity, particularly given that 92 per cent of the City's diamonds are rated as "Fair" under the parameters of the City's Condition Index and the remainder are rated as being "Good." (Map 6). Only four diamonds, however, have Condition Index values below 50 per cent, meaning that the lifecycle state of the diamonds is generally good (although this does not necessarily imply the desired design quality or level of amenity being sought by groups).

Through the stakeholder survey and workshops, ball groups also seem to emphasize quality over quantity. Although there were some groups that stated a need for additional diamonds, more commonly expressed sentiments were for providing more multi-diamond venues, providing more lit diamonds and integrating more amenities—namely washrooms, parking and benches—within ball parks. Certain groups also reported challenges in being able to access the "right type" of diamonds based on size and design specifications pertaining to softball and hardball for children, youth and adult play. As noted in the utilization analysis, over half of the ball diamond supply is used very little by organized users.

Map 6: Distribution of Ball Diamonds by Condition Index Value



When exploring the opinions of ball groups regarding the need for additional diamonds of the "right type," the desired quality, and that are co-located together, attention is first turned to facility quality in relation to usage. Map 7 shows that diamonds receiving less than 35 hours of use in an entire season are largely concentrated between the Britannia Road and Highway 403 corridor in Service Areas 1 and 2. There is also a concentration of ball diamonds getting little use occurring in the Lisgar neighbourhood in Mississauga's northwest. When correlating diamonds with the 10 lowest Condition Index scores against the low utilization diamonds, the Hurontario neighbourhood in the southeast quadrant of Service Area 2 stands out in particular.



Map 7: Distribution of Infrequently Used Diamonds

Note: map only shows diamonds receiving less than 35 hours of use annually

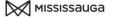
In terms of multi-diamond venue provision, every Service Area—with the exception of Service Area 5—has at least one ball complex containing three or more diamonds. Considering the low utilization among many diamonds, along with the fact that all but a few diamonds are rated in a Fair condition and will thus require some form of renewal towards the end and beyond the 10-year outlook, there is merit in consolidating the diamond supply. Consolidation whereby the same number of diamonds is retained, but at fewer parks, lends support for the creation of at least one additional multi-diamond complex. This would bring about certain benefits, including:

 addressing the stated needs of ball organizations, including the ability to deliver amenities such as lighting, washrooms, seating, parking, and so on within a purpose-built ball park

- strengthening tournament and sport tourism opportunities in Mississauga
- attaining cost-efficiencies in operations (i.e., having to maintain fewer sites in favour of centralizing maintenance efforts in more multi-diamond complexes)
- providing opportunities to repurpose relocated ball diamonds to needs that are better suited to surrounding neighbourhoods, particularly in mature communities where use of the ball diamonds may be affected by an older age profile or where supporting amenities such as parking are non-existent or limited

The challenge with creating a quality ball diamond complex will undoubtedly be securing the land required. Optimally, a future complex should have a minimum of four diamonds arranged in a "pinwheel" configuration to maximize use of land. Also, all diamonds should be lit (noting four lit diamonds would mean that eight unlit neighbourhood diamonds would be relocated there, when factoring unlit equivalent capacity). Additional consultations should be arranged with ball user groups to determine diamond sizes, potential locations, possible capital contributions towards the complex and whether the complex is intended for hardball, softball or both.

Additionally, the City could employ a strategy to replace underutilized diamonds in favour of lighting others in the inventory. Given unlit equivalent parameters, every existing diamond where field lighting is installed would offset the removal of one diamond elsewhere. Over the 10-year outlook, the City should investigate opportunities, including Birchwood Park, to replace any ball diamonds that will be lost due to redevelopment. Doing so results in no net change to the unlit equivalent diamond supply and positions the City to accommodate demands for adult play. Given the considerable overlapping catchments of infrequently used diamonds north of the Highway 403 corridor, the City should investigate which diamonds are best suited for relocation to a complex and removal in favour of lighting diamonds elsewhere.





"Cloverleaf" or "Pinwheel" diamond configuration Photo Credit: Monteith Brown Planning Consultants

Recommendations

- Investigate opportunities, including Birchwood Park, to replace ball diamonds that will be lost within Service Area 6 due to redevelopment.
- Consider amalgamating between four and eight underutilized/low quality neighbourhood diamonds and reallocate their usage to a new tournament complex that contains a minimum of four lit diamonds. Consultations with user groups is required to determine the size and type of diamonds, amenities to be provided and preferred location of a new complex.

Cricket Pitches

The City of Mississauga provides seven unlit cricket pitches—three dedicated full pitches and four multi-use pitches shared with soccer. The City is presently constructing two international regulation cricket grounds at Danville Park that will contain 10 turf wickets and are expected to be ready during the 2018 season. Initial concepts for Park 459's future phases have also shown room exists for an overlay.

Cricket is experiencing considerable growth in Canada—particularly in the GTA—which is being driven by the nation's diverse cultural demographics, especially from South Asian and Caribbean countries where the sport is popular. Nearly 3,400 hours were booked across Mississauga's cricket pitches in 2016—almost 1,000 more hours than recorded in 2011. The vast majority of usage occurs on the weekend; 75 per cent of all hours take place on Fridays, Saturdays and Sundays. This is largely due to the time requirement associated with games, which can span a minimum of three hours, limiting the ability of groups to use pitches on weekdays during the spring and late fall seasons (especially as all pitches are unlit). Unsurprisingly, the three dedicated pitches at Iceland, Courtneypark and Paul Coffey Park receive the greatest share of usage.

Mississauga's historical service level standard is one cricket field per 100,000 residents. While the City is slightly below that threshold at the moment, the planned addition of the two new international cricket fields in 2018 will bring the City back in line with its service standard over the 10 and 25 year outlooks. The strong service levels are attributable to cricket pitches in Service Areas 2 and 3, which offset deficiencies from a lack of pitches in Service Area 4 and 5. Lighting of certain cricket pitches will further extend the time periods when cricket can be played (i.e., into the evening during weekdays and weekends, thus expanding the equivalent supply of cricket pitches to accommodate participation increases over time).

DERRY RD W

DERRY RD W

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DERRY RD E

PAUL COFFEY
PARK

APPLETIC FIELDS

DANVILLE PARK

APPLETIC FIELDS

DANVILLE PARK

APPLETIC FIELDS

DANVILLE PARK

SANDE FORD FARM
PARK

BURNAM HUGGE RB W

DUNDAS STW

DUNDAS STW

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Map 8: Cricket Pitch Distribution and Service Levels

Table 9: Cricket Pitch Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	1	1:172,000	1 : 182,000
2	6*	1:37,700	1 : 26,300
3	1	1:32,000	1:33,000
4	0	0	0
5	0	0	0
6	1	1 : 104,000	1 : 116,000
City-Wide	7	1:108,400	1:90,200

^{*} Includes two cricket grounds planned at Danville Park, scheduled to open in 2018 Note: Provision Level rounded to nearest 100 persons.



Iceland Sports Field, Mississauga Ramblers Cricket Club Photo Credit: Mississauga Ramblers Cricket Club

The City-wide provision level results in a greater emphasis being placed on improvement of existing cricket pitches. Through discussions with cricket users, the City should investigate improving amenities at strategic cricket pitches, with the most significant amenity being the installation of lighting at appropriate venues. Good candidates are the future Danville Park pitches, Courtneypark, Paul Coffey and Iceland. This could help alleviate the demand for weekend League T-20 matches (three- to four-hour booking). Workshop discussions also stated that comfort amenities such as washrooms and shade structures would be appropriate for players and spectators, given the multi-hour length of the games.

Future new cricket pitches could also be contemplated following the completion of the Danville grounds and lighting/amenity upgrades to existing pitches. In light of cricket's local popularity, the potential exists for additional demands to be placed on the system though the City will first need to understand the impact of Danville Park and lighting prior to making a determination whether to build new pitches. In the event that new pitches are deemed to be required, Park 459 is the most logical option given that its future phased plans demonstrate that an overlay is possible and the fact that Service Area 1's service level is well below the 1:100,000 target despite having a large target market for the sport (based on its multi-cultural makeup).

Because of growing casual/drop-in participation in field sports, future neighbourhood and community-serving park designs and redevelopments should consider smaller-scale pitches or batting cages for cricket, particularly in areas with high South Asian and West Indian populations. Doing so could facilitate practice and recreational cricket play and potentially relieve a degree of pressure on the larger cricket grounds. Batting cages would also be complementary to the City's higher quality cricket grounds.

Recommendations

- Install lighting at two cricket pitches (subject to due diligence that confirms ability and appropriateness of doing so based on site conditions, proximity to surrounding land uses, and confirmation of increase in field capacity). As development charges do not currently cover costs, recovery of lighting costs should be investigated through partnerships or capital contributions from cricket groups, a capital improvement surcharge on field rentals, rental premium for lit hours and/or other means.
- Given the growing demand for casual/drop-in participation in field sports, and to promote "active living," smaller-scale cricket pitches or batting cages should continue to be considered in neighbourhood-serving parks particularly those located in high demand areas in order to facilitate practice and recreational cricket play and to relieve pressure on the larger cricket grounds.

Outdoor Aquatics Infrastructure - Outdoor Pools

The City of Mississauga operates seven outdoor swimming pools, all of which are rectangular tanks with six lanes; certain pools also incorporate spray features as ancillary amenities.

From a quality perspective, Mississauga's outdoor pools are in excellent condition with nearly \$30 million having been reinvested in them since 2011. The Don McLean Westacres pool was the most recent reconstruction project in 2014, while the other six outdoor pools were beneficiaries of \$12 million in federal stimulus through the 2011 Recreational Infrastructure Canada program. Based on registered program and drop-in swim growth, renewal of the outdoor pools appears to have attracted greater interest from residents seeking outdoor aquatic opportunities, while reconciling most—if not all—issues associated with lifecycle.

Drop-in visits at the City's outdoor pools has increased substantially in recent years. Over 32,200 drop-in swims took place in 2016, representing a 41 per cent increase (+8,000 visits). Program registration growth has been more stable. The 2,500 total lesson registrants recorded in 2016 represent a growth of 18 per cent (+400 registrants) compared to 2013, however, lesson fill rates stand at 58 per cent.

Whereas most municipalities invested in outdoor pools between the 1960s and 1980s, the increasing shift towards building indoor aquatic centres substantially decreased outdoor pool construction projects across Ontario. Pursuit of spray pad and other outdoor water play facilities further contributed to a move away from outdoor pools. Municipalities that had constructed outdoor pools thirty to forty years prior were now facing major lifecycle issues and contemplating whether to reinvest in their outdoor pools versus moving to more cost-effective spray pads that tend to have much lower operating costs.

The quality of Mississauga's outdoor pool system now exceeds the quality found in most communities in the province. Net new additions to the outdoor pool supply are not necessary due to the level of recent reinvestment, nor are they supported by program demands (given that

there are fewer than 3,000 outdoor lesson and water exercise registrations taking place across Mississauga, despite an ability of the pools to collectively accommodate nearly twice as many registrations). Limited and declining rental hours also do not lend a case through which to expand the supply.

Furthermore, the City's outdoor pool supply, in tandem with over two dozen spray pads, yields considerable coverage and provides most areas of Mississauga with access to some form of outdoor aquatic experience (Map 9).



Lions Club of Credit Valley Outdoor Pool Photo Credit: City of Mississauga

Map 9: Outdoor Pool and Spray Pad Distribution

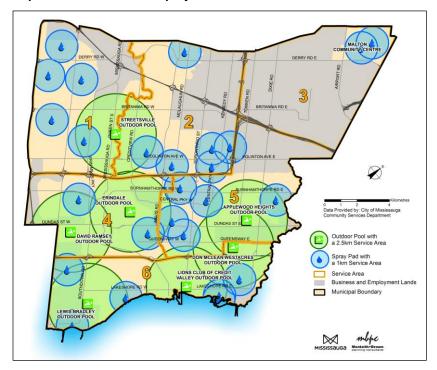


Table 10: Spray Pad Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	5	1:34,400	1 : 36,400
2	6	1 : 25,200	1 : 26,300
3	2	1 : 6,400	1 : 16,500
4	2	1:20,400	1 : 53,000
5	5	1:39,600	1 : 43,400
6	6	1:20,800	1:19,300
City-Wide	26	1:29,200	1 : 31,200

Note: table reflects only reflects spray pad supplies and service levels (outdoor pools excluded).

Outdoor Aquatics Infrastructure - Spray Pads

Mississauga provides spray pads in 26 parks (Map 9), resulting in a service level of one per 29,200. This is a slight improvement compared to the service level recorded for the 2014 *Future Directions* (as a result of one new spray pad being added to the supply since then), and also remains above the City's historical service standard of one spray pad per 35,000 population. In fact, all but Service Area 5 exceed the historical service level standard. Therefore, the City remains well supplied in terms of provision by population and has improved its geographic coverage across Mississauga over the years, suggesting the current supply is adequate for the next 10 years based on historical provision practices. That said, there are certain gaps noted in Service Areas 2, 4 and 5 though these are offset to a degree by Mississauga's revitalized outdoor pool system.

On a go-forward basis, any spray pads designed as "major" or "destination" type facilities should be considered on the basis of distribution as well as in areas of intensification. For example, intensification nodes without reasonable proximity to a spray pad may be served through integrating water play designs into decorative elements in hardscaped parks (e.g., Celebration Square, though likely to a smaller scale), or working with the land development industry to integrate water features as part of their projects.

On the other hand, Parks and Forestry staff are increasingly receiving requests for spray pads to serve more localized, neighbourhood-level needs. Certain municipalities such as Milton have augmented their comprehensive play site with a selected number of "cooling stations" located within neighbourhood-serving parks. These cooling stations consist of a few basic water spray/misting features. Parks and Forestry staff indicate an openness to considering smaller scale spray pad features at a localized level in recognition of the volume of requests from residents, but also because of opportunities to provide relief for growing frequency of extreme heat events (resulting from changing climatic conditions) occurring in southern Ontario.

Before integrating smaller scale spray pads or other cooling features as a basic level of park design/redevelopment, the City needs to carry

out a functional assessment of the capital, operating and lifecycle costs of extending basic spray features at a neighbourhood level, given the financial implications could be substantial. Understanding the true costs of infrastructure servicing, facility construction and renewal, and utilities is required at a minimum so that park budgets can sustainably accommodate an extension of this level of service.

Recommendations

24

Future major/larger scale spray pads should be provided only in instances where fitting into destination-type or waterfront park developments, and in areas of intensification. Smaller-scale spray pads should be constructed in new parks and through park redevelopments to meet local demand.



Celebration Square, Mississauga Photo Credit: City of Mississauga

Basketball and Multi-Use Pads

The City of Mississauga provides full court multi-purpose pads and half-court basketball pads with hoops. Basketball hoops are factored as being the equivalent of 0.5 full courts (to be consistent with historical approaches to *Future Directions*). Multi-purpose pads and basketball hoops are distributed across 108 park locations in Mississauga, equalling a supply of 71.5 full court equivalents.

The City does not actively permit or program multi-use courts and thus no quantitative data is available. The City's observational exercise, however, revealed that courts across the city were in use an average of 29 per cent of times when random visits were undertaken. Service Areas 1 and 2 had the strongest observed use of courts at 50 per cent and 39 per cent of times visited respectively, while Service Areas 3 and 6 had the lowest observed use (both were below 16 per cent). The observational exercise also revealed that, on a city-wide basis, basketball courts were most likely to be used by males (91 per cent of all observed users) and by those between the ages of five and 24 (88 per cent of all observed users).

Peel Region has helped to produce national and international calibre basketball players, some of whom grew up playing on the City's outdoor courts and in its gymnasiums. The local popularity of basketball is fueled by factors such as its affordability and access to free outdoor courts, growth in the City's immigrant population from countries with a high interest in basketball, a large Toronto Raptors fan base in the G.T.A., and a strengthened national program (as evidenced by growing numbers of Canadians playing in the NBA and WNBA). Although the City does not directly program its multi-purpose courts and hoops, basketball programs are offered within a number of municipal gymnasiums.

Map 10: Basketball Courts/Hoops Distribution

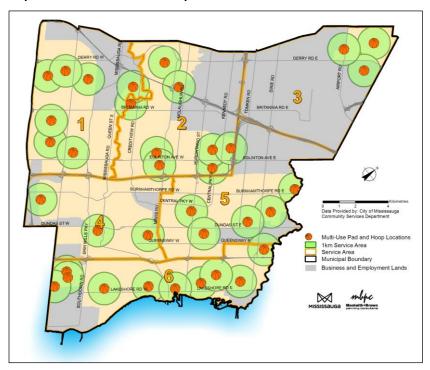
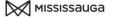


Table 11: Basketball Courts/Hoops Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	15	1 : 11,500	1 : 12,100
2	12.5	1 : 12,100	1 : 12,600
3	9.5	1:3,400	1:3,500
4	5.5	1 : 18,500	1 : 19,300
5	8	1 : 24,700	1 : 27,100
6	21	1:5,000	1 : 5,500
City-Wide	71.5	1:10,600	1 : 11,400

Notes: Full court equivalent supply shown. Provision Level rounded to nearest 100 persons.



Provision levels are and will continue to noticeably lag in Service Areas 4 and 5 barring any additions to the supply. A geographic gap is also noted in Service Area 4 where no courts are available northeast of the Dundas Street and Mississauga Road corridors. This will be a concern in both Service Areas moving forward, as the number of children and youth 19 years and under is expected to grow in both of these areas (most notably in Service Area 5) and could compound pressures being placed on their court supply. On a city-wide basis, basketball courts are optimally provided in a manner that achieves strong geographic coverage given their primary users (children and youth) often rely on non-motorized forms of travel to reach their destinations.

The preferred strategy moving forward is to construct a minimum of one new multi-use pad in Service Area 4 - preferably in the aforementioned geographic gap - along with a minimum of two new multi-use pads in Service Area 5 (to be located in proximity to the Hurontario Street and Tomken Road corridors). Doing so would improve provision levels in Service Areas 4 and 5 to 1:16,300 and 1:21,700, respectively, by the year 2028. The City-wide provision level would then result in a 1:10,900 ratio, thereby retaining a similar level of service compared to present day.

There is also merit in engaging the school boards to discuss joint-provision strategies. Consultations with school representatives suggested the boards viewed partnering on hard surface courts as a future opportunity, using a 'non-traditional' model, especially in areas of intensification (note: such courts would be over and above those recommended above and would result in an improved provision level in currently under-served areas such as Service Areas 4 and 5).

In tandem with new construction, the City should renew all seven courts that are in poor construction, plus an additional four courts rated in Fair condition but that have a condition index that suggests they have less than 50 per cent of their useful life remaining.

Recommendations

25 Construct one new multi-use pad in Service Area 4 and two new multi-use pads in Service Area 5.

26 Undertake condition assessments for all multi-use courts for which Condition Index values have not been determined.



Basketball net Photo Credit: Monteith Brown Planning Consultants

Tennis Courts

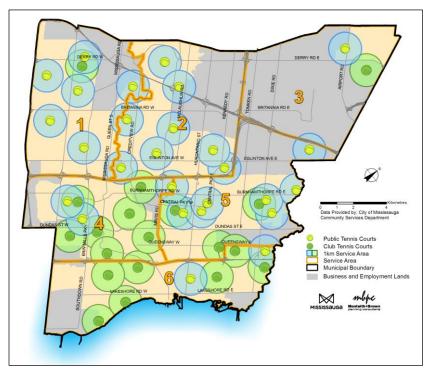
The City of Mississauga provides 146 tennis courts for use by the general public and community tennis clubs. The supply is split approximately evenly between public tennis courts (76) and community tennis courts (70). The City's service level by population ranks sixth among benchmarked municipalities.

There was a total of 5,155 members affiliated with community tennis clubs operating in Mississauga in 2016, representing a five per cent decrease (nearly 270 members) from the prior season. Of this total, 92 per cent are Mississauga residents.

The City does not actively permit or program its public tennis courts and thus no quantitative data is available. The City's observational exercise, however, revealed that courts across the City were in use 40 per cent of times on average when random visits were undertaken, making them the most used facilities that were documented. Service Areas 1 and 2 had the strongest observed use of courts at 51 per cent and 53 per cent of times visited respectively, while Service Area 3 had the lowest observed use (three per cent). The observational exercise revealed that, on a city-wide basis, tennis courts were most likely to be used by males (70 per cent of all observed users) and by those above the age of 25 (61 per cent of all observed users).

The City has bolstered its supply of tennis courts by 10 courts since the 2014 *Future Directions* was completed and in doing so, has kept pace with its historical service level target of 1:5,000 population. The current supply will keep this service level within the targeted range, albeit slightly below at 1:5,500 by the year 2028. Geographic distribution appears reasonable, particularly when considering that many tennis court users have a greater ability to drive to parks (compared to basketball court users for example). In striving to maintain its 1:5,000 service level target, the City would need a total of 15 new tennis courts by the year 2028 - ideally located in growth areas such as the Ninth Line, Downtown intensification areas, Inspiration Areas and/or areas with geographic gaps in public tennis court distribution.

Map 11: Distribution of Tennis Courts



There are a number of factors to consider prior to consolidating and/or relocating club courts. Industry rule of thumb dictates that one club tennis court can support between 75 and 100 frequent tennis players; with 5,100+ members in local tennis clubs, the City is servicing needs at the upper end of the spectrum at a rate of 1 court per 74 members. While this may not infer surplus capacity for the system as a whole, the City is faced with a wide ratio of players per courts—anywhere from 1:32 players to 1:203 players between the clubs (with only the Erin Mills Tennis Club servicing its members in the optimal range of 1:75-100 players). This means certain clubs are under a greater degree of pressure than others. For instance, there are seven tennis clubs whose membership levels are below 150 members, the minimum number of players required to support two club courts.

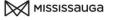


Table 12: Tennis Court Service Levels

		Provision Level – ALL COURTS	
Service Area	Supply	2019	2028
1	28	1 : 6,100	1 : 6,500
2	20	1 : 7,500	1 : 7,900
3	6	1 : 5,300	1 : 5,500
4	30	1:3,400	1:3,500
5	32	1 : 6,200	1 : 6,800
6	30	1:3,500	1:3,900
City-Wide	146	1 : 5,199	1 : 5,600

		Provision Level – Club Courts	
Service Area	Supply	2019	2028
1	4	1 : 43,000	1 : 45,500
2	0	0	0
3	4	1:8,000	1:8,200
4	26	1:3,900	1:4,100
5	12	1 : 16,500	1 : 18,100
6	24	1 : 4,300	1 : 4,800
City-Wide	70	1:10,800	1 : 11,600

		Provision Level – Public Courts	
Service Area	Supply	2019	2028
1	24	1 : 7,200	1:7,600
2	20	1 : 7,500	1:7,900
3	2	1 : 16,000	1 : 16,500
4	4	1 : 25,500	1 : 26,500
5	20	1:9,900	1:10,800
6	6	1 : 17,300	1 : 19,300
City-Wide	76	1:10,000	1:10,700

Note: Provision Levels rounded to nearest 100 persons.

Although city-wide coverage of courts as a whole is strong, the distribution of club courts is heavily skewed to the south, while public

courts are skewed to the north. Also of note: Service Area 2 is the only service area that presently does not have any club courts. Investigating ways to reconcile the imbalance of club and public court distribution across the city is a priority initiative, including conversion of certain club courts to public courts and vice versa. For example, there may be opportunity to consolidate some of the smaller community tennis clubs in the south and repurpose some courts to public use, while community tennis clubs could be added in the north (Courtneypark is a potential location to convert the existing public courts for club use).

A minimum of two courts at a given park is required to support club-based play, although parks containing one to two courts primarily service a neighbourhood-level catchment regardless of whether they are public or club courts. Access to two courts for a club, however, limits how large a club can grow and the scale of programs it can deliver. Seven of Mississauga's tennis clubs have access to just two courts within their respective locations.

Tennis clubs with the six lowest membership figures per court are all located south of Dundas Street, with the lone exception being the Malton Tennis Club. Of particular interest are the Deer Run, Fairview, Lyndwood, Oakridge and Shoreline tennis clubs as they have shown a decline of membership during the past four years. The proximity of club courts with declining membership, specifically Service Areas 4 and 5, and the proximity to public courts needs to be reviewed.

As such, the City's Recreation Division should encourage tennis clubs—including but not limited to those clubs discussed above—to explore options for amalgamation in order to better match supply to demand. There is a very real likelihood that tennis clubs are competing for a finite base of players and this heavy market saturation and competition is affecting the ability of clubs to grow sustainably over time. It is emphasized that no net change to the actual number of club courts is being recommended, but rather consolidating the number of locations where club courts are provided. There may be a situation, however, whereby a portion of the club court supply is reallocated to a new community tennis club located north of the Highway 403 corridor

and/or converted to a dedicated pickleball venue (as will be discussed in the following pages).

There may be a risk of losing certain members that joined on the basis of being able to walk to their club. However, there is a strong chance for a net gain of players, given that the same resources are being directed to fewer locations results in greater investment potential per club complex. As it stands, greater than one out of every three club courts is rated in "Fair" condition, meaning considerable capital reinvestment looms ahead; thus, the City and its tennis clubs may be able to achieve a better "bang for their buck" by reinvesting in a consolidated supply. By funding a greater level of amenity through efficiency gains, a net gain in members is possible as research suggests frequent tennis players are drawn to clubs with better court conditions and better availability. Additionally, clubs with larger memberships often contain players with a more diverse range of skill sets, enabling players to compete against others of a similar skill level (which is important to many players).

Experience in other communities suggests that formation of tennis clubs historically tended to be along social lines. Therefore, the City should take a lead role in bringing clubs together and facilitating discussions regarding common interests and objectives, growing memberships to a point where a more robust degree of programming can be offered, and servicing needs beyond the neighbourhood level as a means to increase operational sustainability, volunteer levels and longevity of the clubs.

As a point of departure, clubs with two courts should be a primary focus of consolidation (either with each other or integrated into larger clubs). Any vacated club courts should be retained for public use in order to sustain geographic distribution and the overall service level throughout the planning period (as well as to improve the supply of publicly accessible tennis courts in the south end of the city). Until the tennis clubs themselves are engaged in such discussions, it would not be appropriate to recommend specifically which courts should be subject to consolidation activities.

Recommendations

- Maintain the historical service level target of one tennis court per 5,000 population. In doing so, the City would need a total of 15 new tennis courts by the year 2028 ideally be located in growth areas such as the Ninth Line, Downtown intensification areas, Inspiration Areas, and/or areas with geographic gaps in public tennis court distribution.
- Support the Recreation Division by monitoring existing Community Tennis Club membership and participation rates. Discuss opportunities to consolidate tennis clubs where club membership is decreasing, not demonstrating a significant need or offers a surplus capacity in that catchment area.
- Consider amalgamating a minimum of four underutilized/low quality neighbourhood tennis courts and reallocate their usage to a new complex that contains a minimum of four lit courts- located north of Highway 403.



Pickleball Courts

The City does not provide any dedicated pickleball courts within its parks. However, the City undertook a pilot project in 2016 at Mississauga Valley where two tennis courts were lined for pickleball to make it a multi-use court; they subsequently lined the remaining two courts in 2017. Additionally, the Sheridan Tennis Club recently lined two of its tennis courts to allow pickleball. Apart from the City of Hamilton, none of the benchmarked municipalities provide dedicated pickleball courts, though certain communities accommodate pickleball on multi-use tennis courts (as is the case in Mississauga).

Pickleball is an emerging sport, similar in nature to tennis, but played with a slower ball, smaller racquets and outdoor courts. This effect results in reduced pressures on body joints and suits the ability of many older adults to have an enjoyable experience. Pickleball has become one of the fastest growing sports in the GTA and throughout Canada, with Pickleball Canada estimating 75 per cent growth in the number of participants over the past three years (from 60,000 to 105,000 players). The number of pickleball courts has increased three-fold from 2,000 to 6,000. What once was a casual, energetic activity, Pickleball has grown in popularity as many older adults (including baby boomers) and seniors seek active leisure opportunities.

The Mississauga Valley's outdoor pickleball pilot project has been well received by local pickleball enthusiasts and has resulted in plans for the City to extend multi-use lining to additional courts there. At this time, the majority of pickleball demand has been observed for indoor play, although there is a growing trend towards provision of outdoor opportunities and the Pickleball Mississauga Association has expressed its interest in having a dedicated pickleball venue in Mississauga. The 2017 observational exercise found pickleball courts in use just two per cent of the time when random visits were undertaken; a total of 56 people were observed (the vast majority of whom were over 40 years of age).



Pickleball Courts, Mississauga. Photo Credit: City of Mississauga

Given the reported success of the Mississauga Valley pilot project, there is justification to expand the pilot project to another area(s) of the city. A multi-use court template is preferred until the City is able to quantify outdoor pickleball demand more precisely. Although a number of tennis clubs interviewed do not see a role for themselves in providing pickleball, many clubs in Ontario are accommodating the sport to bolster their membership levels (and to retain members that find tennis has become too difficult to play). Future discussions with local community tennis clubs - possibly in conjunction with consultations with these groups as has been recommended through *Future Directions* - is warranted to determine if their memberships are seeking pickleball opportunities and whether clubs can integrate pickleball programs into their service offerings.

Extension of the multi-use pickleball/tennis court pilot should be undertaken in Service Areas 4 and/or 6, given the concentration of older adults living there. Continued monitoring of pickleball activity at these locations should be undertaken to determine whether investment in dedicated outdoor pickleball courts is warranted within the 10 year planning horizon.

Assuming strong utilization levels in the pilot projects, there is opportunity to convert at least one vacated tennis club court location to pickleball (stemming from a recommended consolidation of southend tennis club locations whereby club-based tennis is transitioned to form larger clubs). As noted in the tennis assessment, parks having only two club courts are the recommended candidates for relocation; a two-court complex ultimately selected for relocation should also subsequently be considered for conversion to dedicated pickleball courts. Between six and eight dedicated pickleball courts can usually be accommodated over two former tennis courts. A joint funding plan between the City and a third party is recommended in the event requests are brought forward for capital investments beyond court conversions, notably built structures such as washrooms, club house and storage sheds.

The Pickleball Mississauga Association has expressed an interest in a centrally located pickleball venue. At this time, however, it is not appropriate to recommend specifically which tennis courts should be permanently converted to dedicated pickleball courts. As recommended in the tennis assessments, the City will need to engage community tennis clubs to discuss consolidation opportunities in terms of the number of parks providing club-based play. Pickleball users should also be consulted, either separately or as part of joint discussions with tennis clubs. Only after the City and tennis clubs identify any parks no longer suitable for club-play should a subsequent investigation be initiated to determine a park suited for a dedicated pickleball complex, considering factors such as the need for parking and other required amenities.

Recommendations

- Include pickleball lines where feasible when public tennis courts are being re-surfaced. New tennis courts should be evaluated to determine opportunities to jointly meet tennis and pickleball needs.
- Consider opportunities to provide a dedicated outdoor pickleball facility. A location should be chosen that can accommodate between six and eight pickleball courts. Provision of amenities over and above court conversions should be jointly funded by the City and pickleball organizations that would use the complex.

Outdoor Fitness Equipment

The City of Mississauga is ahead of the curve when it comes to the provision of outdoor fitness infrastructure and programming. Its Fresh Air Fitness program is a free structured activity within selected parks (e.g., Celebration Square) that is oriented to active living and wellness in the form of an outdoor group fitness class. In 2010, the City invested in its first outdoor fitness circuit at Lake Aquitaine Park using equipment geared primarily towards stretching; it has since expanded the provision of outdoor fitness equipment in the past two years to other locations throughout Mississauga.

There are now 11 parks in total that have some form of outdoor fitness equipment. The Fresh Air Fitness project now consists of circuits, clustered equipment (which is the majority of all installations), measured/mapped path loops and park benches that are supported by instructional signage and website support. Through the Canada 150 Community Infrastructure Program, the City is tying expansion of Fresh Air Fitness projects with playground redevelopments to a further 18 sites across Mississauga with the aforementioned paths, equipment and/or signage components.



Map 12: Outdoor Fitness Equipment Distribution

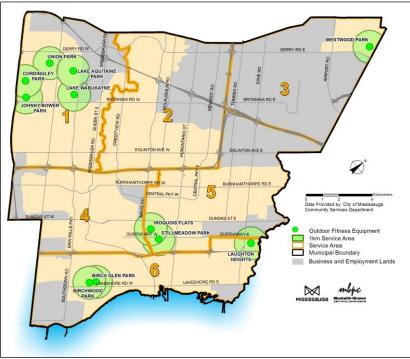


Table 13: Outdoor Fitness Equipment Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	5	1:6,000	1 : 6,300
2	0	0	0
3	1	1 : 51,000	1 : 53,000
4	0	0	0
5	2	1 : 52,000	1 : 58,000
6	3	1 : 31,600	1:27,000
City-Wide	11	1:69,000	1 : 73,800

Notes: Provision Level rounded to nearest 100 person; does not include planned sites.

Outdoor fitness facilities are part of a growing trend in North American park designs, as municipalities explore ways in which to engage people in physical activity. Outdoor fitness loops have existed for some time (sometimes referred to as "vita parcours," dating back to European origins), with a growing number of Canadian municipalities integrating outdoor exercise equipment that is designed to withstand extreme temperature and inclement weather conditions into their parks.

Provision of outdoor fitness equipment is congruent with municipal philosophies centred on physical activity. In many instances, integration of equipment in parks results in exercise opportunities that are attractive since they are in a natural, aesthetically pleasing setting and they are generally free to use (which engages individuals that do not have a fitness club membership). There is evidence that outdoor fitness experiences are growing in popularity, particularly as they pertain to long distance endurance; many residents pursue personal goals for full/half marathon or biathlon/triathlon activities. In addition to Mississauga, research and site visits to parks across Ontario reveals that Toronto, Newmarket, Oshawa, Petawawa, Middlesex Centre are but a few examples of municipalities providing outdoor fitness equipment. By all indications, it appears that residents in those communities are making use of those facilities.

Outdoor fitness classes appear to be popular in Mississauga as well. Weekly estimates of participation in Fresh Air Fitness programs ranges from 200 to 1,000 people (weather is a factor), though estimated average attendance is 600 participants per week across the summer's 12-13 week run time. By all accounts, participants appear pleased with the quality of the classes. They seem to attract a number of families and newcomers who, in turn, get exposure to civic services.

As a new service embraced by a select few municipalities in the province, there are no service standards to guide facility provisioning. It is also difficult to quantify localized demand for outdoor fitness equipment because:

- Outdoor fitness training was not explicitly heard through the Future Directions community engagements (though many people may not have heard about these facilities which impacts the conversation).
- As a largely non-programmed, self-directed facility, utilization data specific to Mississauga's outdoor fitness equipment is not formally collected, though there is an opportunity to monitor such use through future Park Amenity Surveys (observational exercises) undertaken by the City in the future.
- Existing levels of service vary widely between each of the six Service Areas, resulting in an inability to create a City-wide standard.

The City has received infrastructure funding to develop outdoor fitness areas in over half a dozen parks, including installations of more resilient surfacing. The City has aligned these investments with parks that require play site renewal and has plans to add over a dozen new sites for Fresh Air Fitness. Given that the City has approved funding to develop multiple new outdoor fitness areas (which will presumably result in fitness equipment being available in all Service Areas) and assuming the City carries through with its expansion of Fresh Air Fitness programming, outdoor fitness opportunities are well positioned over the next 10 years. The focus should therefore be to monitor the popularity and use of these facilities and programs, as noted above, in order to provide baseline data to inform assessments carried out for the next *Future Directions* cycle.

Recommendations

32

Undertake a utilization review of outdoor fitness equipment through future Park Amenity Surveys and compile data for outdoor fitness program participation to inform future provision standards.



Outdoor Fitness at Lake Aquitaine Park, Mississauga Photo Credit: Mississauga News



Sand Volleyball Courts

The City of Mississauga provides eight sand volleyball courts across four parks. Of the total, four courts are co-located together at the Lakefront Promenade with the remaining courts distributed across Huron Park, Malton Village and Mississauga Valley.

Sand volleyball is most frequently associated as a beach activity, but strategically located courts can also be successful in a park setting. Municipalities and private sector court operators often provide sand courts in waterfront parks and beaches—as is the case with Mississauga's Lakefront Promenade—which attracts users to waterfront areas, but can also generate revenues from sand volleyball tournaments and regular league play. Provision of courts in community or destination parks, particularly those surrounded by higher concentrations of younger adult populations, is another way to diversify the activities taking place in a park.

The City permits use of sand courts at Huron Park and Lakefront Promenade where approximately 200 hours of permitted usage took place in 2016, growing from the 130 hours used in 2014. Over this time, three-quarters of permitted usage has come from commercial or non-residents groups, along with some private rentals by Mississauga residents (five per cent of total bookings) and more limited usage by school boards and City departments. It is noted, however, that the Lakefront Promenade courts were not available during 2016 due to the Ontario Summer Games and thus the community only had access to Huron Park courts that year. The 2017 observational exercise found volleyball courts in use 11 per cent of the time when random visits were undertaken, through which a total of 361 people were observed (the majority of whom were between 15 and 39 years of age). Of the observed times in use, 61 per cent was for casual forms of volleyball and 24 per cent was non-volleyball use, whereas just 12 per cent came from organized users.

Map 13: Sand Volleyball Court Distribution

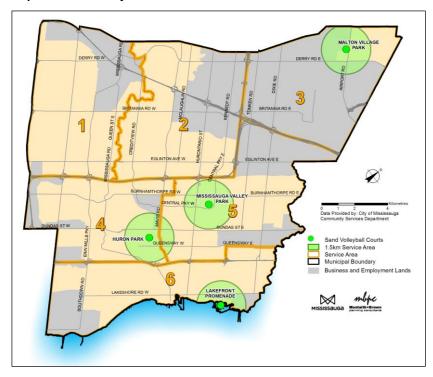


Table 14: Sand Volleyball Court Service Levels

Service Area	Supply	2019 Provision Level	2028 Provision Level
1	0	0	0
2	0	0	0
3	1	1:32,000	1:33,000
4	2	1:51,000	1 : 53,000
5	1	1:198,000	1:217,000
6	4	1:26,000	1:29,000
City-Wide	8	1:94,900	1:101,500

Notes: Provision Level rounded to nearest 100 persons.

With fewer than 200 hours of permitted use occurring annually - the majority of which is used by commercial and non-resident organizations—and modest amount of drop-in usage of sand courts shown through the City's observational exercise, there is little justification to recommend additional volleyball courts in Mississauga.

That said, sand volleyball courts represent a low capital and operational investment relative to many outdoor recreation facilities and the City could target provision of courts in a strategic manner that addresses geographic distribution or where there is a younger age profile. Northwest Mississauga is one such area with a younger age profile and a current absence of sand courts; Park 459 is a logical candidate site as it could be a multi-seasonal volleyball venue in conjunction with the triple gymnasium planned there. As well, the park has a general focus on outdoor recreation and fitness and parking is available. The Downtown core is another potential location as its higher density housing mix (e.g., condominiums, apartments) tends to be attractive to younger buyers/renters. The post-secondary student market there (Sheridan College) may also be drawn to use sand courts for fun, socialization and physical activity.

Recommendations

33

Additional sand volleyball courts should only be considered where supported by identified site-specific service needs, with candidate locations including Service Area 1 and/or Service Area 2 (Park 459 is an option), as well as in proximity to the Downtown intensification corridor.

Play Sites

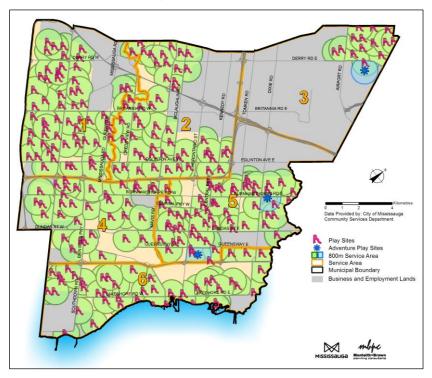
The City of Mississauga provides a total of 263 play sites, out of which five are designed as all-inclusive, barrier-free play sites, and with many others providing accessible elements.

The City has created three categories of play sites for our inventory:

- All-inclusive Barrier-free Play Sites: this is the "premium standard" in terms of accessible play sites. They include unique play equipment designs, rubber surfacing, parking and proximity to accessible washrooms where feasible. Mississauga currently has five located at Port Credit Memorial Park, Zonta Meadows, Jaycee Park, Paul Coffey and O'Connor Park. An additional all-inclusive, barrier-free play site will be built at River Grove, thereby providing one in each Service Area. The locations of these facilities were chosen due to the options to easily incorporate the facilities into communities and to provide service to a large catchment area. Proximity to parking, community centres, and access to various transportation options were considerations.
- Accessible Community Play Sites: The City is moving towards increased playground accessibility. In response to the Integrated Accessibility Standards Regulation, the City's Playground Redevelopment Program may include accessible swings, accessible equipment features, accessible routes and engineered wood fibre (mulch) safety surfacing in all future new or playground redevelopments. To date, the City has over 100 accessible community play sites.
- Community Play Sites: all other play sites.

In keeping with the City's historical approach, a geographic service level is used to assess where new play sites should be provided. The City should target play sites within an 800 metre radius of residential areas or 400 metres in identified intensification zones, unobstructed by major pedestrian barriers such as arterial or collector roads, highways, rivers, rail lines, and so on.

Map 14: Distribution of Play Sites



All-inclusive barrier-free play sites are the premium standard in terms of accessible play sites and include unique play equipment designs, rubber surfacing, parking and proximity to accessible washrooms, where feasible. Only Service Area 2 is without an accessible play site; therefore, one such structure should be constructed there. The City is moving towards increased playground accessibility in as many locations as possible. In all future new or redevelopmented play sites, inclusive elements will be added and may include accessible swings, accessible equipment features, accessible routes and engineered wood fibre (mulch) safety surfacing. Doing so reinforces the City's best practices for inclusive play opportunities as it evolves its design of play structures to stimulate the physical and cognitive abilities of children by incorporating accessible elements (in addition to traditional slides, monkey bars and swing sets).

A current trend across Canada is the installation of adventure or natural play sites as alternatives to traditional play site design.

Traditional play structures (e.g., ropes, slides) are complemented with natural materials such as logs, boulders, woodchips and the use of creative grading. It is the aim of such play sites to reconnect children with nature and to provide multi-sensory, tactile and stimulating environments.



Hancock Woodland Adventure / Natural Play Site, Mississauga Photo Credit: City of Mississauga

The City currently provides three adventure play sites at Jaycee Park, Hancock Woodlands and Paul Coffey Park. Adventure play sites are relatively new levels of service, and thus there are no generally accepted provisioning standards that can be used to compare Mississauga. Municipalities are instead strategically proceeding with such play sites where:

 Interest in a natural play site is expressed through public visioning for park development and redevelopment projects

- There is alignment with a broader thematic design for the park (e.g., a natural or environmentally-focused theme)
- Where natural or topographic elements exist and there may be a desire to "blend" the play site into the surroundings

Based on these and other criteria that may emerge, the City should continue with pilot projects for natural play sites prior to evaluating expansion of the level of service based on cost versus level of use.

Recommendations

- Playgrounds should be provided within 800 metres of residential areas or 400metres in identified intensification zones, unimpeded by major pedestrian barriers. Of these, one all-inclusive, barrier-free play site should be constructed in Service Area 2, as well as one adventure/natural play site, designed to specifications developed by the City and in accordance with site conditions of the selected park(s).
- The City is moving towards accessibility in all play sites. In all future new or redeveloped play sites, accessible elements should be added and may include accessible swings, equipment features, routes and cost effective, accessible safety surfacing.
- Explore ways to integrate nature theming/natural elements into play sites to increase play value and to support environmental and climate change awareness.

Multi-Use Ramps, BMX Parks & Mountain Biking Parks

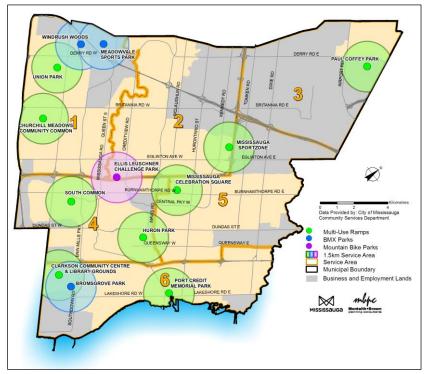
There are a total of nine multi-use ramps (skateboard parks) in Mississauga. Multi-use ramps respond to the interests of skateboarders, as well as BMX cyclists and inline skaters. By providing an authorized venue for these activities, skateboard parks can help to provide safe and positive areas to engage youth in physical activity, reducing damage to municipal infrastructure and private property where skateboarders may have otherwise frequented.

The resulting service level of one per 84,000 is an improvement over the 1:94,500 ratio recorded in 2014, due to the addition of a new multiuse ramp in the city's northwest (created in response to a burgeoning population of children and teens in that area). The service level at both the current time and at the end of the master planning period will remain above the City's historical target of providing one multi-use ramp per 100,000 population. Combined with strong geographic distribution resulting from the fact that there is at least one multi-use ramp in each Service Area, no major multi-use ramps are required over the next 10 years.



Iceland Skate Park, Mississauga Photo Credit: Chase March

Map 15: Distribution of Multi-Use Ramps & Bike Parks



Moving forward, *Future Directions* continues to support the provision of smaller-scale, beginner-level satellite skateboarding amenities at the neighbourhood level through use of only a few basic elements (e.g., simple rails and curbs integrated within park design). Doing so will reduce a degree of pressure on the larger multi-use ramps by allowing beginners to hone their skills on a skateboard, scooter or bike while supplementing geographic coverage offered through the multi-use ramp supply.

The City provides three dirt jump parks for BMX, along with the Ellis Leuschner Challenge Park for mountain biking. As non-programmed facilities, the City does not collect utilization data for its dirt jump and challenge parks. Nor are there set standards given their specialized

nature. Future Directions in 2009 and 2014 both recommended a multi-use biking venue with a proposed designated mountain bike course to gauge interest in the activity, though this has not been pursued. Combined with the fact that no feedback pertaining to bike parks was received through the community engagement process, the current supply is anticipated to suffice over the current planning period. The City would re-evaluate the development of such a facility only in the event it receives requests to do so.

Recommendations

37

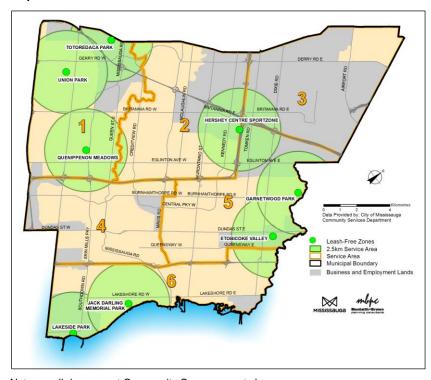
Integrate beginner-level skateboarding amenities such as basic rails and curbs within community park development and redevelopment projects, where feasible, to provide localized opportunities for park users to hone skills on their skateboards, scooters and bikes.

Leash Free Zones

The City works with Leash-Free Mississauga to oversee and operate leash-free zones. The City is responsible for the development and core operational costs (e.g., grass-cutting). Leash-Free Mississauga provides funding of non-core operational or capital costs (e.g., portolet rentals) and upgrades to the facility beyond the City's standard. Although it is not mandatory to use the leash-free zones, Leash-Free Mississauga charges a fee for membership to defray operational costs.

There are eight existing leash-free zones in parks across the city, plus a small exercise area at Community Common. Distribution ranges from one to three leash-free zones within each of the City's service areas, with the exception of Service Areas 3 and 4, which currently have none. When a 2.5-kilometre service radius (comparable to other drive-to recreation facilities) is applied, there are a number of gaps in coverage city-wide (Refer to Map 16).

Map 16: Distribution of Leash Free Zones



Note: small dog area at Community Commons not shown

Through *Future Directions*, the City requested the investigation of a service standard for leash-free zones. A 2016 Corporate report specific to Leash-Free Zones estimates that there are 75,000 dogs and owners in Mississauga. ³² Assuming this reasonably reflects actual numbers, 30 per cent of all Mississauga households—based on the 2016 census private dwelling count—have at least one dog. This rate of dog ownership would be higher than a 2013 Ipsos study that revealed 23 per cent of Canadian households own a dog. ³³

Notwithstanding the lack of formal provision standards, some indicators for future provision levels can be derived from examining trends, the existing standard of supply in Mississauga and benchmarking against other municipalities.

The service level in Mississauga is one leash-free zone for every 84,000 residents. Benchmarked against other GTA municipalities, this is lower than some of the smaller municipalities (Halton Hills, Oakville, Milton and Burlington) whose service levels range from 1:30,600 to 1:61,100. It is comparable to Hamilton's 1:89,500 whereas Toronto has a provision level of 1:41,500 (2016 figures). Using an approach of maintaining provision at the current 1:84,000 level, the City's forecasted population growth of 878,400 by 2041 would generate a need for 1.5 (one to two) new leash-free zones.

The 2016 Corporate report on Leash-Free Zones recommends adding six new Leash-Free Zones to improve the geographic distribution and increase the provision level.³⁴ Park locations currently under consideration for new leash-free zones are:

- Danville Park (one for small dogs and one for big dogs)
- Camilla Park
- Paul Coffey Park
- Springbank Meadow
- Potential location within Ninth Line lands

A scan of GTA municipalities indicates that typically there are no measurable provision standards for the development of leash-free zones in parks. Most municipalities provide them on a case-by-case basis, in partnership with volunteer organizations. Business planning exercises often guide provision of leash-free zones, considering broad factors including geographic distribution, resident requests, and the availability of suitable locations.

³² Ibid, City of Mississauga Corporate Report dated May 31, 2016.

³³ Ipsos Public Affairs. May 2013. Pet Ownership is the "Cat's Meow" in Canada.

³⁴ City of Mississauga, Parks, Business Planning. Leash-Free Zones: Review and Recommendations. February 26, 2016.

If developed, these six additional locations would increase the supply of leash-free zones to 14 and improve the city-wide coverage. Using the 2041 population forecast of 878,400, and assuming no additional leash-free zones are developed, this will increase the City's service level to 1:62,742. This is more comparable to other municipalities in the Greater Toronto Area. However, application of a populationbased standard on its own does not account for dog ownership in the city (it includes residents that do not own a pet), nor does it take into consideration whether or not the City's existing leash-free zones are being used to capacity. Conversely, it does not consider actual demand, geographic distribution, impacts of intensification and other social factors. Therefore, moving forward, the use of a per capita standard in the manner of other recreational facilities to determine the provision of leash-free zones is not recommended. Instead a business case approach should continue to be applied with the following considerations:

- Equitable geographic distribution and a reasonable travel time (leash-free zones are typically considered "drive-to" destinations)
- Where public demand for a leash-free zone in the park is substantial enough to warrant provision
- Where it is demonstrated that a LFZ is being used at capacity, identifying park s within the Service Area for a new LFZ should be considered (capacity could be measured in terms of the number of users relative to the park size, the degree of degradation to the park due to volume of use, and so on)
- Continued partnering with a willing community organization, such as Leash-Free Mississauga, with the ability and resources to assist in the operation of leash-free zones

As well, the City's Policy for Leash-Free Zones (LFZ) (draft at the time of this report) recommends a number of site-specific criteria that should continue to be considered in site searches.

The majority of the City's leash-free zones are located peripherally to the Downtown core. With an increasing number of higher density developments in the Downtown and other intensification areas of the city, substantial pressures could be generated for leash-free zones.

Research from the Trust for Public Land suggests that leash-free parks are growing faster than any other type of park in America's largest cities, with the number of leash-free parks growing 20 per cent in the past five years. Urban communities that provide leash-free zones have found such parks are used extensively, particularly by those living in medium to higher density developments with small or no backyards. People also benefit greatly from leash-free zones, as they are a place to gather with individuals sharing similar interests and often where newcomers to a community can meet others (or where people who are otherwise living in isolation can meet others). With pet ownership rates rising among the older adult and seniors population (generally thought to be occurring for companionship associated with empty nesters and widowers), leash-free zones can play an important role for older adults to create or maintain interaction with others and minimize risk of social isolation.

The City should consider developing a model for small leash-free zones that can be incorporated into urban parks. These types of facilities on private lands might also be requested from the development community.

Recommendations

38

Continue to plan for the development of additional leash-free zones using criteria in the City's Policy for Leash-Free Zones. Six new locations should be targeted to improve the city-wide distribution and increase the supply.

Recommendations

39

Develop a leash-free zone model that can be applied to smaller parks or urban spaces in areas of intensification on a case by case basis.

Outdoor Ice Rinks

Celebration Square is the City's premier outdoor skating destination that has a mechanical refrigeration system. There are two other artificial ice surfaces located in Service Areas 4 and 5.

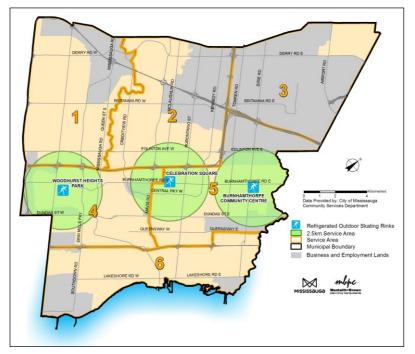
Additionally, there are 78 natural ice rinks located in various parks this past year. The natural ice rinks are based on a volunteer program where residents apply to the City to manage a neighbourhood rink and the City provides the material (i.e., boards) to set up the rink. This is further detailed through the Natural Ice Rink Program Policy. The amount of natural ice rinks change every year. The 78 rinks represents those parks in the inventory that offer opportunities to establish a rink not the amount operating in one single season (for example, there are 31 rinks for the ongoing 2017/18 season).

Outdoor "natural" ice skating opportunities are becoming increasingly difficult to provide due to global climate change. Uncertain and warming weather conditions have impacted provision of outdoor ice, with many municipalities (who are choosing to provide outdoor skating opportunities) looking at artificial refrigeration or synthetic ice surfaces. These surfaces are able to operate for a longer season, but come at a high cost to build and operate compared to natural ice. Consultations revealed a moderate degree of interest in providing additional outdoor rinks on the basis of enabling more winter-time recreational opportunities.

Each Service Area has multiple ice rinks, resulting in strong geographic distribution and a service level of one outdoor rink per 9,700 persons - an improvement over the 1:10,500 ratio recorded in 2014. As a non-programmed facility, utilization data is not collected for

drop-in skating rinks and there are no set service level standards for outdoor skating rinks. The City's provision is satisfactory based on the additions to its supply, the distribution it has achieved and the fact that Mississauga provides more outdoor skating opportunities than most of its regional counterparts. Accordingly, no new community-level outdoor rinks are recommended. The City, however, may explore new outdoor ice as part of a major economic development or civic enhancement initiative, such as its ongoing Waterfront Strategy. Rink development(s) should be rationalized through the requisite concept design and business planning exercises that support the civic enhancement through which outdoor ice would form a part of.

Map 17: Distribution of Refrigerated Outdoor Ice Skating Rinks



Note: natural and volunteer maintained rinks not shown.

With no provisional level required, no capital recommendations have been made for outdoor skating rinks.

Recreational Boating Facilities

Mississauga has three marinas and one private yacht club. Two marinas are City-owned: Lakefront Promenade Marina, located at the east end of the Mississauga waterfront along Lake Ontario; and Credit Village Marina, located in Port Credit along the Credit River. The Port Credit Harbour Marina, located in Port Credit, is owned by the Canada Lands Company. The Port Credit Yacht Club is a private club located just west of Lakefront Promenade Marina. Across the facilities there are 1,198 boat slips with the following breakdown:

- Lakefront Promenade Marina: 176 seasonal
- Credit Village Marina (excluding Marina Park): 15 seasonal,
 49 transient
- Port Credit Harbour Marina: 575 seasonal
- Port Credit Yacht Club: 383 seasonal 35

Development of marinas and recreational boating facilities in Mississauga is guided by the Recreational Boating Demand and Capacity Study (2015), which assessed the existing capacity of facilities in the region and forecasted market demand to 2035, in five year increments. It is recommended that the Study be refreshed on a five-year cycle to allow for an updating of boater demand at existing facilities (based on monitoring of slip renewals and wait lists), as well as an updating of regional trends and market forecasts.

The Recreational Boating Demand and Capacity Study noted that the marinas are full with outstanding demand, forecasting a trend toward larger boats in the future. Port Credit Harbour Marina is one of few deep water harbours on the north shore of Lake Ontario. The 1 Port Street East redevelopment proposes re-working the marina to meet some of the future demand and to address functional issues. As well, there may be a future need to either consider the expansion of the Lakefront Promenade Marina and/or to find a new marina location.

Capital dock assessments have been completed for the Credit Village and Lakefront Promenade marinas.

Recommendations

40

An update to the Recreational Boating Capacity and Demand Study (2015) should be undertaken to investigate the potential expansion of the Lakefront Promenade Marina and/or development of a new marina location to address the demand for boat slips. The results of the study will be subject to the outcome and impacts from the possible redevelopment of the 1 Port Street East Marina.

Refine the 2015 Mississauga Marina Business Case Study recommendations for a future marina at 1 Port Street East and ensure the feasibility of a full-service, publicly-owned marina prior to making a decision on the development approach.



Lakefront Promenade Park, Mississauga Photo Credit: City of Mississauga

 $^{^{\}rm 35}$ Recreational Boating Demand and Capacity Study. Shoreplan. 2015

Other Capital Requirements

The City of Mississauga may be pressed for additional outdoor recreation facilities within its parks system that are not currently of sufficient demand to warrant a specific recommendation in *Future Directions*. The City may explore "one-off" facilities or amenities through facility and park design on an opportunity-basis where site considerations make sense or where there is a desire to try something new. Such demands may arise for existing activities/facilities or for those that evolve according to future trends and preferences. Examples include (but are not necessarily recommended through *Future Directions* given an absence of quantifiable business planning inputs) capitalizing on visual points of interest in parks or other public spaces through viewing areas for scenic vistas or airplane travel routes near the airport, trekking within utility easements (e.g., hydro corridors), freestyle ski terrain and tobogganing hills, and emerging extreme sports.

The City must be prepared to appropriately respond to future requests. When requests are brought forward for investment in non-traditional, emerging and/or non-core municipal services, the City should evaluate the need for these pursuits on a case-by-case basis, developing a business rationale for investments in specialty services. This should involve an examination into (but not be limited to):

- Local/regional/provincial trends pertaining to usage and popularity of the activity/facility
- Examples of delivery models in other municipalities
- Local demand for the activity/facility
- The ability of existing municipal facilities to accommodate the new service
- The feasibility for the City to reasonably provide the service/facility as a core service and in a cost-effective manner

- Funding sources that are available, including implications on the tax base
- The willingness and ability of the requesting organization to provide the service if provided with appropriate municipal supports

There are also facilities and services that the City has historically provided but whose usage may (or already has substantively) diminish(ed) due to factors such as declining rates of participation (both locally and provincially), deteriorating facility conditions, competition with the private sector, or evolutions to a community-based delivery model. Examples of such activities in a number of municipalities (i.e., not necessarily Mississauga) include lawn bowling and curling clubs, bocce, certain indoor racquet sports, horseshoe pits, and so on, where participation trends have not always kept pace with other types of sports. Using a similar set of criteria listed in the bullets above, the City should evaluate any of its core facility or service areas where lower rates of participation and use call into question the operational and fiscal sustainability of delivering the service.

Through the master planning process, both City staff and certain stakeholders have also referenced facility lighting practices in terms of design and policy consideration. Whether for sports fields or sport courts, lighting facilities comes with a capital and operating cost to the City and requires consideration of factors such as compatibility with adjacent uses, hours of operation, and the degree of cost recovery. The City should develop a policy on outdoor recreation facility lighting that encompasses where such amenities should be provided and the appropriate conditions that must be met prior to doing so, as well as how to fund capital and operating costs of the service. A benchmark scan of municipal practices across Ontario would aid in this process.



Recommendations

- Engage school boards in discussions to explore the joint development and maintenance of sport fields and hard surface courts, such as multi-use pads, basketball courts and tennis courts.
- Prioritize outdoor recreational amenities for redevelopment and/or replacement using condition index criteria. Amenities should be prioritized for capital funding when their condition reaches poor condition.
- Develop an Outdoor Recreation Facility Lighting
 Policy to provide consistency in constructing light
 standards and criteria to guide where lighting will be
 recommended.



Paul Coffey Play Site Photo Credit: City of Mississauga



Harold E. Kennedy Park Photo Credit: City of Mississauga

Enhancing Park Experiences

Recreation trends and the reported experience in Mississauga over the past decade suggest that parks and open spaces in the future will be more frequently and intensely used by all ages. There is continued public interest in having access to no-fee, self-directed activities in parks such as spray pads, play facilities, outdoor fitness equipment, informal sports fields, and place-based learning opportunities.

As part of the online survey conducted for *Future Directions*, 62 per cent of respondents indicated that the parks, trails, natural areas and/or public green spaces in the Mississauga require upgrades or capital improvements. The most often requested improvements noted during the survey process and from the community included:

- Better maintenance
- More benches, picnic tables, seating areas
- Washrooms
- Drinking fountains and water refill stations
- Shade trees or shelters, including sports field spectator areas
- Walking/nature trail loops
- Exercise opportunities
- Educational/interpretive opportunities
- Wi-Fi technology
- Beautification and gardens
- More naturalization, including wildflower meadows
- More winter-use facilities or better winter access in parks
- Waterfront access

As the city urbanizes, there is also an interest in 24-hour use of parks and the City is currently developing a policy to address the potential extension of park hours on a city-wide basis, or in selective parks. If implemented, this should be accompanied by a stringent enforcement of the Parks Bylaw as it relates to allowable uses and conduct. Should extended park hours be considered, the City should review its lighting policy particularly within intensified urban areas where there may be a desire to use parks or public spaces in the evening hours. Conversely, areas or fringe parks can be considered for "lights out." When determining areas to provide lighting, consideration should be given to

the balancing of user safety, CPTED principles, impacts to wildlife and adjacent land uses, and operational costs.

Strategies to address Wi-Fi and other smart technology in parks—including webcams, live streaming and virtual reality tours—are also underway at the City, with several priority parks identified for implementation of Wi-Fi in 2017. A strategy to address winter use of parks and pathways, as recommended in the 2014 *Future Directions*, has yet to be initiated.

A number of the requests for park improvements exceed the City's current standard for park development. Notwithstanding, there is an overall need to consider the ideal park experience that the City should be providing for its users, one which reflects Mississauga's identity as an urban city. Parks should be considerate of all ages and abilities and provide amenities that will encourage use and enjoyment. The City is developing policies to address many of the interests and pressures raised through the consultation process. However, with over 500 existing parks, it is challenging for the City to prioritize where budget dollars are best placed.



Garnetwood Park, Mississauga Photo Credit: City of Mississauga

To inform its 10-year capital budget process, the Parks and Forestry Division has embarked on a multi-year phased Park Asset Management Plan which includes a conditions assessment of park amenities (e.g., sports fields/courts, play facilities), street trees, and linear assets (e.g., retaining walls, shoreline treatments, docks, fencing), and other park amenities (e.g., benches and signage). Capital projects are also informed by the Capital Prioritization Scoring Methodology, which considers other factors including asset replacement, growth related recreation requirements and communities in need.

These are critical tools which should continue to be refined and updated to inform asset replacement and park redevelopment. However, the process would benefit from a focused look at priority sites for wholesale park redevelopment or upgrading over a 10-year period. Such a study can be conducted by using existing collected data and considering the recommendations of other related studies, such as: Waterfront Parks Strategy, Credit River Parks Strategy, the Downtown Growth Area Parkland Provision Strategy, and Cooksville Creek Parks Strategy (once completed). The study can also be tested through public consultation.

Priority should be given to existing, older parks that will support growth and intensification and those that are adjacent to new parkland undergoing the Master Planning process. Examples include JJ Plaus Park/1 Port St E redevelopment and the J.C. Saddington/70 Mississauga Road redevelopment.

The City will continue to update guidelines and standards for park facilities, which include sustainability measures as well as landscape and urban design elements. The guidelines and standards will be used when developing and redeveloping parks, routine facility repair and replacement within parks, and for budgetary purposes.

Recommendations

- Confirm priorities for the redevelopment/upgrading of existing, older parks to support: growth and intensification, changing demographics, cultural influences, opportunities for self-directed and informal activities, and climate change resiliency. Priority will be given to older parks that are adjacent to new parkland undergoing the Master Planning process, in order that a comprehensive approach is undertaken. Examples include the JJ Plaus Park/1 Port Street East redevelopment and the JC Saddington/70 Mississauga Road redevelopment.
- When developing new parks and redeveloping older parks, the City should consider how to best optimize winter use of parks and the trail/pathway system in selected locations where there is sufficient community interest, appropriate infrastructure, and where it is financially viable.
- Review and consider an extension of park hours to align with contemporary urban lifestyles, either across the park system, in selective parks, or seasonally.

Community Gathering Space

There is a trend toward the use of parks as social spaces (or "outdoor community centres"), as evidenced in Mississauga through: the well-attended City-run and community events and outdoor fitness activities, increased bookings of picnic shelters and casual use of large parks. Small parks are being used for family and community social gatherings. An area of study for the City is the identification of appropriate locations in parks to support community and neighbourhood activities, as well as City or regional serving events. This type of evaluation can be undertaken through either the park development or redevelopment process.

This suggests that there is a need for flexible and multi-purpose outdoor community gathering areas in public parks, particularly in high-density residential areas where personal, private space is limited. Such spaces could host one-off events, as well as ongoing community events and activities (e.g., cultural festivals, open-air markets, movie nights, music events). When not programmed with activities, such a space could be used for casual congregation and socializing. Amenities such as moveable tables and chairs, planters, reading areas, chess tables and sunshades in parks would provide opportunities for informal socialization.

Washrooms

The need for washrooms in public places is universal, and they are one of the most requested improvements for parks in Mississauga. Demand is expected to increase as the population ages. Seniors, pregnant women and young children are groups who benefit from increased access to washrooms in parks. As well, specific health issues, such as Crohn's disease, colitis, irritable bowel syndrome, and some forms of cancer may preclude residents of all ages from going out in public if there are no washrooms readily available.

In response, municipalities and health-related organizations are considering ways to increase public access to washrooms. Chrohn's and Colitis Canada has initiated a nation-wide GoHere program. This innovative initiative is a partnership with businesses to increase

washroom access for people who live with medical conditions. The GoHere Washroom Locator App helps people find the closest available washroom, anywhere in Canada, with accompanying signs and decals identifying participating businesses. Municipalities are encouraged to participate, and the City of Mississauga was one of the first cities to initiate the GoHere Washroom Finder App in 2016.

Since 2004 the provision of washrooms in Mississauga's parks is directed by a Washroom Study that clarifies the City's level of service with respect to permanent washrooms, evaluates different types of washroom facilities and identifies suitable locations within the existing park system. The latter is based on a series of criteria that were developed to evaluate park eligibility, including a relative weighting that was reflective of the park's functions, availability of servicing, level of use, frequency and duration of attendance, and season of use.

With the implementation of two remaining sites, the City has completed the recommendations of the 2004 Washroom Study and is currently updating it to identify new locations to install washrooms. The cost of building standalone washroom buildings in parks can be prohibitive. The 2018 Washroom Study is examining alternative types of facilities to address residents' needs—including accessibility needs and cultural influences, as well as cost-effective design solutions to reduce capital or operating costs. These solutions may include universal washrooms, pay per use, portable toilets, waterless vault evaporator systems and the use of lower cost energy solutions such as solar power or LED lighting.

Recommendations

48

Complete the 2018 Washroom Study to direct the criteria for and provision of washrooms in parks. Test implementation of new standards or innovations (including temporary facilities) through pilot projects.



Hydration Stations

Although carrying a personal water bottle is becoming common, having access to hydration stations (e.g., drinking fountains or water bottle re-fill stations) increases opportunities for hydration and allows people to use parks and trails for longer periods of time.

Hydration stations are typically installed in parks with water and sanitary servicing where large numbers of people congregate. They require frequent cleaning and maintenance to reduce health risks, are prone to vandalism and increase park maintenance costs.

Notwithstanding, drinking fountains and water bottle refill stations are increasingly being provided in parks and public spaces across North America to discourage use of disposable bottles, and to encourage a healthy lifestyle. There are a variety of fixtures available, including some dedicated to water bottle refilling and some with several faucets at different heights to suit a range of users. Examples of these fixtures exist in Erindale Park and Garnetwood Park.

Recommendations

49

Develop guidelines for the provision and location of hydration stations in parks. Test the implementation through pilot projects.

Shade in Parks

Shade or the provision of shade shelters is one of the top requested items for improvements to City parks according to both surveys and direct requests to the City. There are several approaches for providing shade in parks. The first is the provision of more planted shade trees in parks. The City of Mississauga has been making significant progress toward increasing its tree canopy.

There is an opportunity for the City of Mississauga to evaluate its parks based on heat vulnerability by doing an air photo interpretation

as well as field level analysis to see which parks would benefit from the provision of shade. Trees are an excellent and sustainable source of shade and natural cooling in parks and the opportunity should be taken to provide as many trees as possible. There are also ways to gain instant shade through the construction of shade structures which are also an option to provide shade in parks. Areas where users may seek shade include spectator areas of sports fields, play sites, seating areas and picnic areas. Mississauga's Canopy Cover Reassessment could be used to inform this exercise.

Shade structures can take the form of permanent pavilions (of varying sizes) or "sailcloth" type shelters that are installed seasonally. The latter are being designed for use at sports facilities and play sites where shade is lacking, either as a permanent solution or as an interim measure while shade trees are maturing. A scan of municipalities in the Greater Toronto Area did not reveal any per capita standards for shade structures; however, the City of Brampton has adopted a policy for shade structures in parks. It includes the provision of shade structures at a ratio of one for every two new neighbourhood parks, location criteria and an application process for residents to request shade structures in existing parks.



Shade Structure at Port Credit Memorial Park, Mississauga Photo Credit: City of Mississauga

Recommendations

50

Develop criteria, shade options and funding strategy for the provision of a variety of types of shade structures and support for shade as a requirement for basic park development.

Information Technology in Parks

Through its Internet Technology service area, the City of Mississauga has been working to improve its use of technology in the delivery of services to meet the needs of the city, citizens and businesses. There are more than 95 locations across the city with access to free public use Wi-Fi network through Wireless Mississauga. As well, a number of the City's services are now being provided on a self-serve basis via the Internet. In response to trends and operational demands, Community Services has a number of initiatives underway using internet technology to streamline operations and enhance services to Mississauga residents. For Parks and Forestry these include:

- Forestry interactive mapping
- Hat-F mobile technology for Forestry staff
- HAT-P and PIBE (Parks Information Business Enhancements) allowing for additional mobile access and usage
- Park Asset Management Plan
- Contractor Mobile Work Order System
- GPS sensors on Parks and Forestry vehicles
- Marina software
- Automated grass crews (Pilot)
- iParks (Park utilization technologies)
- iParks (Wi-Fi)

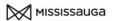




Solar Powered Charging Stations in Bryant Park, New York. Photo Credit: Bryant Park Blog

As part of a plan to encourage new users to the parks and trail system and to maximize their experience, the City's iParks Plan will provide Wi-Fi to select parks within the city. These are identified in the iParks Initiative Business Case, as: Mississauga Sports Zone, Jack Darling Memorial Park, Riverwood, Danville Park, Park 459, Erindale Park, Paul Coffey Park, Huron Park and Mississauga Valley Park. The accompanying park utilization aspect of the iParks Plan will use traffic counters and wireless technology to collect park usage data and user information. This will be used to optimize maintenance levels, prioritize budget requests and to plan future parks/park renewals. Future information technology initiatives on the horizon for the Parks and Forestry Division during the five-year term of the plan include:

- Solar charging stations in parks (ability to charge smartphones and tablets)
- Smart technology in parks (trails/digital screens/Wi-Fi stations)
- Live park webcams streamed to website (e.g., mouth of Credit River)
- Virtual reality tours (provide historic views of interesting park sites and features)



 Leveraging new technology to enhance current tracking and monitoring of parkland usage to better predict lifecycle replacement and maintenance needs of City assets

To date, this type of assessment has been piloted through the use of automated counting technologies and field surveys conducted by students. Continued development of park utilization assessment tools will demonstrate that the City's parks are well used and valued and determine peak periods of use. It will inform park redevelopment priorities by identifying those parks that are potentially being used beyond their carrying capacity, or those amenities that are not well used as they are no longer serving the needs of residents. Enhanced systems analysis of the City's parks provides confidence not only to residents related to the tax expenditure and services delivery, but could also be used to target current and prospective corporate sponsors.

Accessibility/Inclusive Design

The City's Multi-Year Accessibility Plan (2012-2017) and annual reports demonstrate the City's commitment to accessibility. Mississauga's 2015 Facility Accessibility Design Standards outlines standards for all new and renovated City-owned, leased or operated facilities to comply with the Integrated Accessibility Standards Regulation (Ontario Regulation 191/11). These include requirements for making outdoor recreation facilities accessible in accordance with the Design of Public Spaces Standard. The Ontario Building Code also plays an integral role in incorporating accessibility features into the built environment not captured under the Design of Public Spaces Standard Regulation. The City has aligned with the Province's goal to become fully accessible by 2025.

The City's play site redevelopment program incorporates accessible play features as part of the playground replacement program for community parks. The Mississauga 2016 Report on the Accessibility Plan identifies a number of recent, notable achievements toward improving accessibility in its outdoor spaces. These include:

- Five park projects resulted in accessibility improvements (Huron Park, Ridgeway Community Courts, Huron Park Picnic Shelter, Lake Aquitaine spray pad, Paul Coffey Park)
- Eight parks received accessible outdoor fitness equipment with accessible instructions, including access to instructions using QR codes
- Nine existing trails received paving and reconstruction, and three new trails were constructed
- Eighteen play sites received improvements to accessibility

The City should continue to integrate accessibility standards through development/redevelopment of park assets and facilities in accordance with best practices and the Integrated Accessibility Standards Regulation (Ontario Regulation 191/11), as well as in consultation with the Accessibility Advisory Committee. In doing so, the City should encourage the use of best practices and the development of innovative design.



All-inclusive, Barrier Free Play Site at Jaycee Park Photo Credit: City of Mississauga

In the design of all new parks (and the rejuvenation of older parks), the City should consider use by all-ages and abilities, design for safety using Crime Prevention Through Environmental Design (CPTED) principles, and facilities and amenities that support social interaction and unstructured recreation and leisure activities. These may include, as appropriate: child and youth-oriented play sites (including traditional and natural play sites); outdoor fitness equipment; informal playing fields; gardens; shaded seating (e.g., trees or shade structures); picnic/barbecue facilities; Wi-Fi; checker/chess tables; outdoor table tennis; community gardens; leash-free zones; event or performance space (e.g., bandshells); pathways and walking trails; wildlife viewing areas; and interpretation/education areas.

Signage and Wayfinding

More or better signage (wayfinding and park identity) were noted by 22 per cent of the online survey respondents as needed improvements to enhance Mississauga's parks and trails. The City has been working towards consistent park signage through its Park Signage Standards Manual (2016). Implementation of signage in the City's parks will be phased through a multi-year program.

Building on this work, more could be accomplished toward the development of wayfinding signage, including the potential establishment of themes for unique areas such as the waterfront or Credit River parks and trails. As well, criteria need to be developed for the use and location of digital signage in parks.

Recommendations

51

Implement the strategy to integrate consistent park signage and identity for all City of Mississauga parks based on the Park Signage Standards Manual (2016). As part of the park signage strategy, explore unique theme branding for the Credit River Valley Trail and Waterfront Trail and a destination waterfront hub for parks within the Port Credit area.

Commemorative Park Naming

City property and facilities are named or dedicated by Council, based on specific criteria and in consideration of any public comment. The City's Facility Naming Policy, which establishes the process and criteria for facility naming, renaming or dedication (commemoration of a portion of a facility), is being updated in 2017. Changes to the policy include a new section specific to heritage properties developed in consultation with the Heritage Advisory Committee. For the purposes of the policy, "facilities" refers to all City property and facilities (including parkland and open space, trails, sports facilities, and structures that are owned, leased, licensed or occupied/operated by the City). The policy provides opportunity for the public to suggest names to honour an individual or event/place through a submissions process. The installation of commemorative plaques and unveiling ceremonies is directed by the related City Plaques Policy (in draft format) and the Official City Openings/Event Policy.



Plaque at Jack Darling Memorial Park Photo Credit: City of Mississauga

Criteria for commemorative naming includes preference for names which:

- Have a direct relationship with the facility, i.e., reflect the geographical location of the facility
- Recognize the historical significance of the area, i.e., reflect the history of the area
- Honour the original inhabitants of the facility by using the family name or the name used by the original inhabitants to describe the facility
- Reflect unique characteristics of the site, such as ecological or scenic qualities
- Are in keeping with a specific theme
- Recognize the donation or sponsorship contribution of an individual or organization to the particular facility when an agreement is not in place
- Honour (a minimum of one year posthumously) an individual who has made significant positive contributions to their local community, the City of Mississauga, the Province of Ontario or Canada

Waste Management

Waste and litter removal in parks is a significant cost to the Parks and Forestry Division. To respond to these pressures, front line staff participated in the Lean Parks Waste Management project in 2014, which resulted in over 50 recommendations to improve how waste was picked up and disposed of. Recommendations included a centralized approach to waste management, optimized routes, improved shift scheduling and partnering with the Region of Peel to dispose of waste at the Region's Integrated Waste Management Facility at no charge.

Moving forward, opportunities exist to improve park waste diversion rates through park user education, improved waste receptacle design, signage (i.e., branding for dog waste) and operational support.

Recommendations

52

Improve park waste diversion rates through park user education, improved waste receptacle design, signage (i.e., branding for dog waste) and operational support.

Special Events

Special events are opportunities to enliven parks and public spaces, celebrate Mississauga's diverse culture and attract visitation to the city. The City's parks are increasingly in demand as places to host outdoor events that extend from community run events to concerts, festivals, and sports competitions. Event parks need to consider compatibility with adjacent land uses and have suitable infrastructure including: access to parking and transit, electrical connections, water and sewer connections, public washrooms and shade.



Light Up the Square, Celebration Square, Mississauga Photo Credit: InSauga.com

The City should complete an analysis to understand appropriate locations for, and necessary infrastructure requirements and upgrades to support, the hosting of large scale festivals and sporting competitions in City parks. Requirements may include, but are not limited to: spectator services such as seating, washrooms and shade structures; high quality playing fields; and the provision of food services. This work recognizes the importance of increasing tourism in Mississauga and supports Culture's Outdoor Live Music Venue Study (completion January 2018), as well as recommendations found in The Sports Plan (2013), Sport Tourism Strategy (2013), Culture Plan (2009) (2018), and Tourism Master Plan (2017).

Increasing Alternative Modes of Access to Parks

With increasing use of parks for special events and group gatherings, there is high demand for on-site parking, particularly on the waterfront, and in Destination Parks. In most sports oriented parks, on-site parking is provided and therefore the demand is usually not problematic. However strategies are needed at other highly used park sites to mitigate parking congestion and to employ vehicle diversion strategies. Opportunities under discussion include pay for parking at selected parks.

The City's Parking Master Plan and Implementation Strategy will outline the criteria for when paid parking should be considered in parks including implementation considerations. The Plan will not formally recommend a list of parks where paid parking should be implemented, instead Park Planning will use the identified criteria and identify the list of parks where paid parking will be considered. The Plan's identified criteria will at a minimum determine: when and where paid parking is appropriate, a fee structure, implementation and communication strategy, reinvestment of revenues and relationship with Municipal Parking operations and enforcement.

As well, in a multi-modal city, alternate means of accessing parks and municipal facilities should be encouraged and provided for. This may include improving on-road cycling facilities and multi-use trails, as outlined in the Cycling Master Plan, and improving transit access.

"Developing a Transit-oriented City" is a fundamental pillar of the City's Strategic Plan and attention should be paid to establishing strategic transit route connections to the City's key parks and recreation facilities. Regularly scheduled, affordable and well-promoted transit service to key park destinations would open up access to a range of users who might currently be precluded or deterred from using parks as a result of physical or financial limitations, and could further help to reduce car dependency amongst the general populace. Other opportunities include hop-on/hop-off ticketing or use of shuttles during special events or times of peak use.

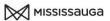
Recommendations

53

Mitigate parking congestion at parks by seeking vehicle diversion strategies. Use the criteria established in the City's Parking Master Plan and Implementation Strategy to identify various parking improvement options including parking agreements, improving temporary parking during events and evaluating paid parking where appropriate.

Trails and Pathways

Mississauga has a growing network of trails and pathways in its parks and open spaces and they continue to be highly used and sought after facilities. Trails (29 per cent) and walkways (21 per cent) were among the top mentioned "Best Features of Parks/Naturalized Areas Visited Most Often" in the telephone survey conducted for *Future Directions*. Walking/jogging/running (66 per cent) was the most mentioned activity, followed by recreational cycling (20 per cent). The need for enhanced connections between walking and biking trails was noted by respondents in the online survey. The survey also identified a number of improvements that would enhance the use and enjoyment of trails and pathways including: more benches and rest areas, washrooms, walkway lighting, water filling stations and signage (wayfinding or park identity signage).



Relative to other facilities, trails and pathways represent one of the best values for dollars invested as they appeal to a range of users and offer high returns in personal enjoyment and health benefits at a relatively low cost per person. The City is currently completing an update of the Cycling Master Plan that includes multi-use trails and pathways. There are recommendations for trails and pathways contained across other studies as well. The completion of the Credit Valley Trail (an east-west trail along the Lake Ontario shoreline) and a route connecting the Ninth Line parklands are priorities for the City.

Recommendations

54

Through implementation of the Cycling Master Plan Update (2018), the Waterfront Park Strategy Refresh (in progress), and the Credit River Parks Strategy (2013), the City should continue to plan for and develop a continuous and interconnected trail and pathway system, including wayfinding signage, in its parks and greenlands.



Meadowvale Conservation Area Photo Credit: City of Mississauga

Food and Beverage Services

The desire to have access to food and beverage services in selected parks was noted during community stakeholder consultations. The waterfront in particular is a location of demand. However, visitation to sports-oriented parks, garden parks and other destination parks would also be enhanced with access to food and beverages. There are a number of opportunities for the City to introduce food and beverage services into parks through private operators. These include: mobile food vendors (e.g., ice cream trucks, food trucks, food stands) who pay through permits, teahouses or concessions in leased park buildings or structures, and standalone restaurants.

For permanent buildings, unless the site is well used year-round, there can be challenges with sustaining private operators in such facilities. Potential locations would need to be examined carefully and backed through a business analysis.



Food Trucks at Mississauga Celebration Square Photo Credit: City of Mississauga

Recommendations

55

Expand the provision of food and beverage services in City parks to enhance the park user experience with a priority on destination and waterfront parks.

Heritage Assets in Parks

Heritage buildings and structures in parks are inherited assets and the Parks and Forestry Division, in collaboration with Facilities and Property Management Division, is responsible for the maintenance and upkeep of these structures. Historic buildings in parks can offer unique opportunities for interpretation and education about a site, and can serve as activity generators. However, they can have significant capital and operational cost implications. These challenges are often addressed on a case-by-case basis, with adaptive re-use determined in collaboration with a community organization or through an expression of interest. Invariably, the buildings are leased rather than retained for municipal uses while the site may still be open to public uses.

Examples in Mississauga include the Leslie Log House in Hewick Meadows Park, which is maintained and operated by the Streetsville Historical Society (who also occupies it for offices); Riverwood, which is now managed and operated in association with the Riverwood Conservancy; and the Adamson Estate residence which is currently leased to a private school. A recent example is the plan for the Small Arms Building in Not Yet Named Park P-358 (the Arsenal Lands), which is within the future park area but will be programmed for an external use.



Leslie Log House Photo Credit: City of Mississauga

A holistic approach to the management of heritage resources in parks would be to undertake a site master plan to determine optimal uses for both buildings and the site—whether public, private or both. A master plan also provides for the preparation of guidelines to direct adaptive re-use of the buildings and site development in a manner that is consistent with heritage conservation objectives. A master plan can also recommend building demolition if no appropriate adaptive reuse exists.

The City should identify key priority park sites with heritage assets and undertake master plans to identify long-term sustainable uses for the buildings and sites. Alternately, an optimal use study (or studies) could be completed for one or more of the City's portfolio of heritage buildings for sites where master plans are not needed or already exist.

Sites that would benefit from a master plan include the Adamson Estate, Harding Waterfront Estate, and Not Yet Named Park P-358 (the Arsenal Lands) which is adjacent to the recently acquired Small Arms Building. These are identified as priority sites for master plans in the 2018 Waterfront Parks Strategy Refresh.



Recommendations

56

Create an inventory of heritage assets found within parks. A use analysis study should be completed for these assets and incorporates work already completed in existing master plans.

Waterfront Parks

The City of Mississauga's 26 existing waterfront parks have excellent facilities and have been regularly updated and improved consistent with the 2008 Waterfront Parks Strategy. The most significant changes for the current 2017 Waterfront Parks Strategy refresh involve the parkland associated with redevelopment initiatives at 70 Mississauga Road and 1 Port Street East, Inspiration Lakeview, the Lakeview Waterfront Connection and Not Yet Named Park P-358 (the Arsenal Lands.)

Other aspects of the waterfront parks that are being addressed through the Waterfront Parks Strategy Refresh and other studies include opportunities for new or redeveloped infrastructure to support: kayaking, canoeing and stand-up paddle boards; climate change resiliency; improvements to cycling facilities; wayfinding and signage improvements; and expansion of the Waterfront Trail.

In addition to its marinas, the city is the home of four boating clubs (Mississauga Bladewarriors Dragon Boat Team, Mississauga Sailing Club, The Don Rowing Club, and the Mississauga Canoe Club.) There are opportunities within the waterfront parks for new or redeveloped infrastructure to non-motorized sports with the potential for rentals, storage and hand launch areas, such as kayaking, canoeing, rowing and stand-up paddle boards. There has also been some interest expressed in the establishment of a two kilometre long flatwater paddling course along Mississauga's waterfront to support both recreational and competitive users. The City is currently investigating the feasibility of this type of facility.



Harding Waterfront Estate Photo Credit: City of Mississauga



Cooksville Creek Photo Credit: Credit Reserve Association

The following are key high-level recommendations from the Waterfront Parks Strategy Refresh, subject to completion of the study process. Many are applicable on a city-wide basis and these are captured in the Parks and Forestry Master Plan. Recommendations with new capital budget implications are highlighted as recommendations of the Master Plan.

Park Master/Management Plans

- Undertake Master Plans for parks with key heritage assets, e.g., J.C. Saddington Park (pumphouse buildings) and Adamson Estate (barn).
- Work with Toronto Region Conservation to identify a program for Not Yet Named Park P-358 (the Arsenal Lands) and to prepare a Master Plan that will direct park development.
- Prepare a Master Plan for JJ Plaus Park (including the Credit Village Marina).
- Undertake a Master Plan for Harding Waterfront Estate for the non-event portion of the site. This would include a Management Plan for the woodlot considering opportunities for trails and public access.
- Undertake a Master Plan for Richard's Memorial Park to show the interface between the future renovated pumping station, the potential daylighting of Lornewood Creek, upgrades to the picnic shelter and washrooms, natural heritage enhancements and the addition of park pathways and beach access.

Non-motorized Water Sports

- Investigate opportunities for new/redeveloped infrastructure to support kayaking, canoeing, rowing and stand-up paddle boards—with rentals, storage and launch areas.
- Complete the technical and environmental shoreline studies required to support non-motorized water sport amenities on Mississauga's waterfront.

Multi-Modal System

- Complete improvements to the pedestrian and cycling network along the waterfront recommended in the Cycling Master Plan update, Transportation Demand Management Strategy and the Pedestrian Strategy. Improvements may include: twinning of the waterfront trail in selected locations, bike lanes, proposed secondary and off-road routes into the Waterfront Parks, bike parking and repair stations, and directional signage.
- Investigate the potential for a weekend "park hopper" bus and/or partnership with Mississauga Transit for the waterfront parks in the summer during peak park use times.

Climate Change Resiliency

Monitor shoreline conditions and naturalize as appropriate
while balancing the need to mitigate and adapt to: climate
change, requirements for public access, ensuring public
safety, the desire for recreation and (in accordance with the
2015 Lake Ontario Integrated Shoreline Study) the desire to
improve the resiliency of the shoreline.

Arts and Culture

- Coordinate the implementation of public art with the Public Art Master Plan (2016–2020). The waterfront is one of five zones for future and temporary zones for future public art projects.
- Identify potential locations in parks or along the Waterfront
 Trail for locations for Public Art and Interpretation according to
 the curatorial themes for the Waterfront: First Nations,
 Aviation, Industrial, Naval and Military Heritage,
 Contemporary Explorations and Water and the Environment.
- Include public art in the preliminary designs and budgets for new Destination Parks and existing Heritage properties according to the Public Art Master Plan (2016–2020).



Park Amenities

 Consider opportunities for Wi-Fi hot spots in strategic and appropriate priority parks and destination parks along the Waterfront for public use, in addition to the already identified Jack Darling Memorial Park.

Recommendations

58

Investigate opportunities and partnerships for new/redeveloped infrastructure to support kayaking, canoeing, rowing and stand-up paddle boards—with rentals, storage, and launch areas.

Complete the technical and environmental shoreline studies required to support non-motorized water sport amenities on Mississauga's waterfront.

Community Engagement and Park Stewardship

Community Engagement

The City engages its residents in consultation on its strategic planning studies as well as on the development or redevelopment of parks through its Placemaking activities. The City undertakes a range of activities to solicit opinions and is cognizant of the need to be inclusive and creative to encourage community participation. It is also recognized that there is a need to supplement traditional community meetings, which often receive low attendance, with other forms of public engagement. These may include: translation of materials into multiple languages, site walks, user intercept surveys, "pop-up" open houses or traveling displays located at different municipal facilities, interactive web-based mapping and surveys, and use of social media to advertise events and to solicit feedback.

Engaging the public through a range of activities expands the City's reach to the maximum number of potential participants. Consideration should be given to a range of public engagement activities, including the use of information technology and social media, to reach out to the maximum number of potential participants. The City may already be using some or all of these techniques at various times and the potential increase in public engagement costs would need to be weighed against the type and value of the project involved.

Natural Areas Awareness and Stewardship

The Parks and Forestry Division manages and maintains over 300 woodland areas and enhances natural areas in City parks and green spaces with the support of volunteers. The City's Natural Areas Survey (NAS) identifies and inventories woodlands, wetlands, creek and stream corridors on an ongoing basis, recommending strategies and guidelines for their future protection. Tens of thousands of trees, shrubs, wildflowers and grasses are planted annually through the City's planting and naturalization programs. To date, more than 260,000 trees have been planted toward the City's goal of One Million Trees planted in Mississauga by 2032.

In support of these initiatives, and to heighten awareness of environmental issues, it will continue to be important to educate people in Mississauga on the value of natural areas in the urban context. When residents are educated and care about the natural heritage system, it can foster a sense of ownership. The Parks and Forestry Division is responsible for community engagement, education and awareness related to forestry and natural area management, and has a dedicated marketing coordinator. Strategies include leveraging social media, using daily planning and activities to reach out to the community, and expanding outreach and stewardship programs with various stakeholders. Current efforts are focused on planting and naturalization on public lands, heightening awareness of the benefits to all of the City's urban forest, street trees, and natural areas, and on educating the younger generation.



The City should continue to investigate and implement opportunities for improved marketing and publicizing of parks and forestry resources with programs, events and activities that take place in parks, woodlands and natural areas. This should include consideration of improvements to portals on the City's website and integration of information technology. Based on practices in other municipalities, these could include: publication of tree inventories and urban forest health reports; city-wide web-based mapping of naturalization areas and other enhancement projects; informational and instructional videos; and expanding opportunities for on-site education (e.g., interpretive signage, walks and talks, tree identification tags).

The City currently has some information available to residents on these topics, although it is spread across the Urban Forestry and One Million Trees websites in a variety of formats (i.e., web-based material, downloadable PDFs and links to partner web-sites). A focused communication strategy with the consolidation of simple, easy-to-read and readily accessible materials is recommended to advance this objective. Both web-based and print material may be needed to reach a full audience.

As well, it is recommended that public education and awareness efforts be extended to a comprehensive communication strategy to encourage stewardship and best practices on private property. The campaign should contain information on such topics as: the value and benefits (social, health, environmental and economic) of trees and natural areas; impacts of urban development and climate change; and interpretation of policies related to private tree protection and encroachment on natural areas. In collaboration with the City's partners in environmental stewardship, it should provide suggestions to residents and other landowners for supportive best practices on private property (e.g., "backyard" habitat, native and drought-tolerant plant species, low-impact development measures, tree maintenance, invasive species management, water management, and so on).





Mississauga Tree Planting Photo Credits: City of Mississauga



Recommendations

59

Develop marketing tactics, educational materials and partnerships to heighten awareness of the importance of Mississauga's urban forest, street trees and natural areas and to encourage supportive best practices on private property.

60

Expand the engagement of residents and community groups in the stewardship of the urban forest and work with partners to expand efforts on public lands.

Partnerships

Partnerships are an effective way to facilitate community infrastructure development or improve the efficiency and effectiveness of delivering services and programs, allowing funding organizations to achieve greater results with limited funds. The benefits of partnerships that accrue to both the City and the community are well recognized in Mississauga and there are a number of partnerships that have developed around common goals and interests, including arts and culture, recreation facilities and programs, and environmental protection and stewardship. The City recognizes a need to move forward with a multi-layered partnership approach to the development and management of its parks and natural areas.

There are a number of types of partnerships that are suited to municipal park, recreation and forestry initiatives. These are described below.

Agency partnerships: Agency partnerships (which in Mississauga includes the Region of Peel, the school boards and the conservation authorities) typically extend to the development and programming of parks and facilities and the protection and stewardship of parks and natural assets.

Public/non-profit partnerships: These partnerships involve a range of assistance from community-based partner organizations who can also help to encourage and maintain resident interest in parks and natural areas. Their contributions can include park improvements, tree planting, natural area management, education and awareness, and delivery of programs.

Corporate sponsors: These are strategic partnerships between municipalities and prominent corporations to provide additional levels of service or infrastructure.

Public-private partnerships: These types of partnerships are typically associated with major facility and site development beyond the standard of service that a municipality alone would provide or can afford.

Provincial/Federal government partnerships: Higher levels of government may offer funding partnerships to municipalities.

The following sections describe opportunities for the City to strengthen partnerships in the delivery of its parks and forestry services.

Strengthening Agency Partnerships

The City of Mississauga currently partners with its government agency partners on a wide range of initiatives and projects of mutual benefit and interest. Most notably, partners include Toronto Region Conservation, Credit Valley Conservation, Halton Region Conservation, the Region of Peel, the Peel District School Board and the Dufferin-Peel District Catholic School Board. These are well established relationships with roles and responsibilities varying across the agencies depending on the initiative. Collaborations range from providing input as a stakeholder to being a financial partner in project delivery. These City and agency partnerships are highly successful, valued and have served residents well at both local and regional levels for many years.

While the Region of Peel does not have a mandate for parks and recreation, the Integrated Planning Division oversees many areas that are potentially relevant to the delivery of parks and forestry services,



such as: Greenlands securement, natural systems planning, growth plan and greenbelt conformity, climate change, food security and agriculture. There are areas of mutual interest with the City of Mississauga, including: urban agriculture, community gardens, urban forest strategies, active living, and climate change adaptation and mitigation.

Peel Region Public Health is taking an increased advocacy role in the development of policies, programs and design of the built environment to support healthy, active living. Regional research on these topics can lend insights into new directions for lower tier municipalities. There is an opportunity to leverage partnerships and programs that exist at the regional level into municipal parks and recreation initiatives.

The City should continue to work with the Region of Peel and Peel Region Public Health as advocates in providing evidence-based data to inform parks and recreation related decisions, and to take advantage of beneficial partnerships, programs and initiatives as opportunities arise.

Mississauga's long-standing partnerships with the school boards on joint facility development and use will remain important, especially as land becomes scarce. Traditional school and park layouts will be challenging in areas of intensification and models more appropriate to vertical communities will need to be considered. As well, high-rise developments are being designed for and attracting families. This may create opportunities for partnerships between the private sector, municipalities and school boards to create mutually beneficial spaces that are geared towards the needs of families. The existing partnerships with the school boards could also be enhanced to allow for student participation in parks and greenlands stewardship. This is particularly relevant on sites where schools are co-located with parks or adjacent to natural areas. The school boards should also be encouraged to develop work plans within the curriculum that incorporate outdoor education components and build awareness of ecology, stewardship and the natural and cultural heritage of Mississauga.



Conservation Youth Corps
Photo Credit: Credit Valley Conservation

Supporting Community Partnerships/Volunteerism

The delivery of programs and other services through volunteer efforts is dependent on the long-term viability of the organizations providing them. For partnerships to be meaningful and sustainable, investments are required in time and resources by both parties. When looking at effective community partnership models, the City should first consider how to best support its most successful partners who deliver key parks and forestry services that align to the City's goals and complement its resources—in particular, those that provide in-kind services that have a real financial value to the City, such as reducing operating costs. Long-term partnerships with community organizations may mean a commitment to sustained annual funding by the City to serve as seed money to organizations that can demonstrate a sound business model and plans. It has been previously stated by the City of Mississauga's community partners that the economic uncertainties and financial limitations that cause municipalities to seek out partnerships also affect the membership, donations and grant programs that support non-profit organizations.





Hillside Park Community Garden, Partnership with Ecosource Photo Credit: Mississauga News

Through the Living Green Master Plan (LGMP), the City has created an Environmental Grants Program to support and showcase community-based environmental initiatives, which, to date, focuses on community gardens. To include and encourage organizations that partner in the delivery of other parks and forestry related services, the City should consider focusing a portion of the Environmental Grants Program on parks related initiatives, i.e., as a Parks and Environment Grants Program.

Community partnerships include tapping into the support of volunteers. However, to be of the most value, volunteer efforts should be coordinated and focused on specific areas of need. Residents, community organizations and corporate sponsors need to be aware of opportunities to volunteer. Processes, such as safety training or police checks, need to be streamlined. A volunteer program with standardized recruitment processes would increase efficiency, attract a strong and sustainable volunteer base in Mississauga, realize untapped potential volunteers within the community and make it

easier for potential volunteers to get involved. This should be augmented by a recognition program that consistently and appropriately acknowledges the efforts of volunteers and donors.

Recommendations

61

Proceed with the development of the Stewardship Plan including the establishment of a Community Services Integrated Volunteer Program.

Evaluating Unsolicited Partnership Opportunities

From time to time, the City receives unsolicited proposals for the development of specialized outdoor recreation facilities. A consistent mechanism and process for evaluating these opportunities and invitations from external parties is needed, whether they are from community groups, agencies or the private sector.

This would require formalization of a program and a process requiring organizations to submit a business plan for initiatives of a scale that exceeds that of the City's grant programs, or requires a substantial long-term operational commitment.

Recommendations

62

Develop formal processes for evaluating partnership opportunities and invitations from external parties, whether they include community groups, agencies or the private sector. This would require a business plan for initiatives of a scale that exceeds that of the City's grant programs, or requires a substantial long-term operational commitment.

New Partnerships

There is a trend in North American cities toward the establishment of sophisticated not-for-profit entities including city-wide park foundations, as well as "friends of" groups and conservancies who can serve as an over-arching organization to other community organizations. They may also have a mandate to participate in park development projects and stewardship initiatives. Examples include the Calgary Parks Foundation and the Toronto Parks People. These types of organizations do not develop overnight and a supportive municipal culture is needed to allow for one to evolve. Some of the previously mentioned tools related to supporting community organizations may help in the migration to this model if the City wishes and if there is interest by the non-profit sector. However, further investigation is needed to determine the potential factors for success in these models and to evaluate if this is the right direction for the City of Mississauga.

There are a number of corporate partners and sponsors involved in the stewardship of the City's parks and natural areas. Many corporations now have responsibility pillars to the environment and to the local community and have established funding to support community initiatives. Currently, corporations seek out the City for sponsorship and donation opportunities. However, through the Sponsorship and Corporate Development Unit, the City could be proactive in seeking opportunities to develop long-term, on-going relationships with interested corporate sponsors.

In some North American cities undergoing renewal or intensification, business or neighbourhood improvement districts have been established to develop parks and other City improvements. This approach may be used to develop policies, forge public-private partnerships and apply special tax levies in areas that will receive significant benefit (e.g., increases in real estate value) from public infrastructure investment. The applicability and trend toward this in Canada should be followed and some investigation undertaken of its potential in Mississauga.

Recommendations

63

Investigate opportunities and the use of new partnerships (i.e. public/non-profit and public –private partnerships) to successfully support the delivery of parks services.

Site Specific Partnerships

There are a number of opportunities in Mississauga for the establishment or continuation of partnerships in the development, management and use of specific sites.

The Britannia Farm site on Hurontario Street, which is owned and managed by the Peel District School Board, offers a unique partnership opportunity for the City and the Board. The Britannia Farm Master Plan Refresh (2016) proposes a continuation of the site for educational purposes, merging agriculture, heritage interpretation and outdoor environmental themes, with the potential for some public access. Through the implementation of the Master Plan, the City has interests in securing public access to the existing trail system, as well as in developing an extension of the Cooksville Creek trail to connect with the city-wide network. Future partnership opportunities may also exist to make use of the property during evenings, weekends and summer months for uses such as community gardens, evening fitness classes, summer day camps or other programmed activities.

Brueckner Rhododendron Gardens (BRG), located on Mississauga's waterfront, has an extensive collection of rhododendrons that are a unique asset for the City. Maintenance of the gardens is supported by the Brueckner Rhododendron Gardens Stewardship Committee (BRGSC). It is recommended that the City complete a management plan for the Brueckner Rhododendron Gardens to examine long-term goals, objectives, public uses, management needs and a sustainable stewardship plan.

Hancock Woodlands has its origins as a horticultural nursery and also has natural environment areas. The park was acquired in 2010 and recently rejuvenated in partnership with The Riverwood Conservancy and Ecosource Canada, following the preparation of a master plan.

The Zonta Club of Mississauga, City of Mississauga and the Province of Ontario through partnership and fundraising efforts revitalized the park and there is a continued partnership effort on the maintenance of the gardens as well.

The Queen Elizabeth II Rose Garden and Kariya Park are garden sites in the City Centre that are maintained by the City.

The City is considering whether a different and integrated approach is warranted for the long-term stewardship of these specialized garden park sites, as well as for the Credit River Parks which are closely associated with Riverwood. The determination of an appropriate stewardship model is subject to further research and in-depth discussions with various park stewardship organizations. Partnering with non-profit organizations can provide access to grant funding and sponsorships that municipalities alone cannot access. As previously noted, if there is to be an increased reliance on volunteer organizations for the maintenance of these valued resources, the City should be prepared to identify and commit to a level of support that will cultivate and sustain long-term partnerships.

Recommendations

64

Complete a management plan for the Brueckner Rhododendron Gardens so that long-term goals, objectives, public uses and management needs can be determined in consultation with the public, potential stewardship organizations, and other stakeholders and interest groups.



Brueckner Rhododendron Gardens Photo Credit: Dillon Consulting

Climate Change Resiliency

Climate change is a top-of-mind subject and management of the affects must be tackled on a number of fronts. For Parks and Forestry services, this includes approaches to strategically managing the potential for (and adverse affects from) intense and frequent weather events that impact parks, trails and natural areas. Recent notable ocurrences in the Greater Toronto Area include ice and wind storms, as well as intense rain events that have resulted in higher lake levels and increased stormwater runoff.

The City's Corporate Climate Risk Assessment Report identified a number of risks that can be expected due to climate change. These include: hotter summers and warmer winters, more annual precipitation, more intense rainfall events and more freeze-thaw cycles. Evidence of these risks are embodied in the persistently high lake levels see on Lake Ontario in 2017 which have damaged shorelines, obsucred water hazards, impacted park usage and affected normal harbour operations. Marina Park, St. Lawrence Park,

and Lakefront Promenade were all affected by the high lake levels. Mitigation of these risks requires significant measures including shoreline and infrastructure improvements at waterfront parks. The Climate Risk Assessment Report further identifies 320 specific risks for Parks and Forestry services, related to:

- Flooding
- Damage to, or loss of assets
- Impacts to water quality
- An increase in plant pests and diseases
- Impacts to turf and vegetation from droughts and extended seasons
- Higher operational demands due to extended seasons

A number of the identified risks and threats related to health, sustainability and resiliency of the City's urban forest are anticipated and addressed in other guiding documents, including: the Natural Heritage and Urban Forest Strategy and the Draft Invasive Species Management Plan (2018). The ongoing implementation of recommendations from these plans should take an adaptive management approach to monitoring the impacts of and adapting strategies to mitigate increased threats as a result of climate change.

The Peel Region Climate Change Strategy outlines a number of actions that can help mitigate and adapt to climate change including:

- addressing water, natural heritage and land management issues through integrated watershed management
- preserving and expanding the urban forest through tree planting and naturalization, which will counter the effects of greenhouse gases
- maintaining and restoring natural habitats, trees and naturalized spaces
- support for local food production initiatives³⁶

Specific to parks, the ongoing development of parks and facility design guidelines should include measures to address climate change risk and resiliency. These may include, but not be limited to: increasing permeability of surfaces; increasing vegetation around stormwater areas and adjacent areas that have low permeability, such as roads and parking lots; hardy species lists; targets for tree canopy/soft landscape areas and naturalization. Implementation may be tested as one or more demonstration areas or pilot projects.

Recommendations

65

The ongoing development of park design standards should include measures to address climate change resiliency in parks, open spaces and greenlands.

Cemeteries

Cemeteries are repositories of history and cultural record. Residents of many large cities use their cemeteries as part of the parks system, particularly those that are well designed or historic. Cemeteries are also being used for other events, such as self-guided or paid walking tours, weddings and summer concerts. Toronto's Mount Pleasant Cemetery is widely used by local residents for walking and cycling. Proximity to the cemetery has also become a draw for condo developers and buyers due to the promise that it will remain a green space for the foreseeable future.

Cultural influences add new expectations to cemetery service delivery in Mississauga and throughout the GTA, continuing to drive demand for burials, cremations and places to scatter ashes. The bereavement industry has responded by providing crematoriums, columbaria, smaller burial plots, scattering gardens and options for green or natural burials. As a result, new cemeteries are designed and existing ones revitalized with more landscaping and heightened visual aesthetics to facilitate visitation.



³⁶ Peel Region. 2011. Peel Climate Change Strategy – A Strategic Plan for Climate Change for the Geographic Region of Peel.

Mississauga currently maintains 10 cemeteries, active (accepting burials and cremations) and closed and including properties with built heritage structures. The City currently has five active cemeteries. Three of these cemeteries have space for additional interments, but capacity is limited. Following completion of a Business Analysis, the City is confirming a new cemetery site, which will be designed and developed through a site Master Plan to realize its full business potential and to best serve Mississauga's diverse cultural communities.

The City of Mississauga is also completing a Cemetery and Crematorium Feasibility Analysis to assess market trends and financial analysis for all of the existing City-owned cemeteries. The study is examining forecasted needs in the bereavement industry and opportunities to offset maintenance costs through revenue generation.

The development of an arboretum/memorial forest is a recommendation of Mississauga's Urban Forest Management Plan (2014). The report identifies it as a unique opportunity to provide a centralized place of natural respite and reflection for the memorial of loved ones, with opportunities to educate and engage the community on the benefits and care of native trees and shrubs that can grow in Mississauga. The recommendation has been followed through with the preparation of the Mississauga Arboretum and Memorial Forest Master Plan (2017). The City may want to seek the support of its agency and community partners in environmental stewardship to develop and maintain such a facility.

Recommendations

- Based on the completed business analysis, confirm the site for a new cemetery location to meet needs over the long term. The site should be designed and developed through a site Master Plan to realize its full business potential and to best serve Mississauga's diverse cultural communities. Potential partnerships should be investigated.
- Complete the city-wide Cemetery and Crematorium Feasibility Study to assess market trends and financial analysis of potential initiatives for all of Mississauga's existing cemeteries, addressing forecasted needs in the bereavement industry and opportunities to offset maintenance costs through revenue generation.
- Pursue arboretum / memorial forest components in conjunction with basic park development plans. These features provide the centralization of memorial trees in one location and a place for spiritual connection to nature.

Funding the Master Plan

Funding the Master Plan

Not every action in the Master Plan requires funding – sometimes improvements can be accomplished through changes in approach or in policy. Most projects, however, require funding to proceed. Many projects are funded in the City's current Business Plan and Budget, with many still requiring funding sources to be identified. The City must balance service provision with affordability and will thoughtfully seek funding for projects as opportunities present themselves.

Capital initiatives are typically funded through a combination of sources. Existing and new sources are evaluated annually to determine the best approach for funding the City's projects. The following provides detail on currently available funding sources:

- Partnerships
- Federal and Provincial grants
- Development Charges
- Cash-in-Lieu of Parkland (Section 42 of the Planning Act)
- Capital Reserves
- Debt financing

Partnerships

The City cannot fund all of its Master Plan projects alone. Partnerships with external agencies can provide welcome funding as well as other resources. The Region of Peel is a key partner in many initiatives. Other opportunities can be found in the sharing of resources, such as the co-location of different services in a single facility. This can help to reduce the costs of any one agency. Similarly, there may be partnership opportunities with Mississauga's community organizations and corporations that can benefit both parties.

Federal and Provincial Grants

The City receives funding from both Federal and Provincial levels of government. Much of this funding is targeted to specific programs by the granting authorities, and every effort is made to use these funds for our priority projects.

Development Charges

Funds collected under the *Development Charges (DC) Act* are collected and used for funding growth-related capital costs. DCs are structured so that "growth pays for growth" but revenues collected through DCs are insufficient to fully address all of the City's growth initiatives.

Cash-in-Lieu of Parkland (Section 42 of the Planning Act)

Section 42 of the *Planning Act* enables a municipality to require land for public recreational purposes as a condition of development. The *Act* allows a municipality to collect cash-in-lieu of parkland as a condition of development in instances where a land dedication may not be appropriate. The City collects cash-in-lieu of parkland on most new land development. This revenue is used for parkland acquisition and recreational facility improvements, per the *Act*, and in accordance with approved capital plans and land acquisition strategies.

Capital Reserves

Reserves and Reserve Funds are created to assist with long-term financial stability and financial planning. The City has a long history of prudently managing its Reserves and Reserve Funds. One of the purposes for maintaining strong reserve funds is to make provisions for sustaining existing infrastructure and City building. The City has implemented a 2 per cent annual Capital Infrastructure and Debt Repayment levy (reflected on the tax bill since 2013).

Debt Financing

The issuance of debt is a critical component in financing future infrastructure for the City. There is nothing wrong with issuing debt as long as it is well managed. Debt does have an impact on the property tax; the larger the debt that a city holds, the larger the percentage of the property tax that must be allocated to service that debt. The City has a strong debt policy which defines stringent debt level limits to be adhered to.

With all of the City's competing priorities, choices must be made. The 2019-2022 Business Plan and Budget provides detail with respect to which Master Plan projects are currently proposed for funding. Projects identified in the Master Plan that do not have funding sources identified will be brought forward in future budget cycles for approval as viable funding sources become available. Each year, Council will direct which projects can be funded based on business cases and project plans through the annual Business Planning process.



Mississauga Celebration Square Photo Credit: City of Mississauga



Appendices

Appendix 1: Community Engagement Summary

Overview of Consultation Initiatives

Fundamental to the success of *Future Directions* is an effective and strategic consultation program. Engagement tools were carefully selected to be effective, accessible, and efficient means of communication. This Appendix summarizes the findings of community engagement activities undertaken specifically for the *Future Directions* for Parks and Forestry.

Future Directions provided an exciting opportunity for residents, stakeholders and City staff to help shape the vision of Mississauga's Parks and Forestry system. Community engagement is at the core of the Future Directions planning process with the following consultation activities taking place throughout its preparation:

- Creating awareness of Future Directions
- Public Survey
- Stakeholder Focus Groups

Please note that the information summarized herein should not be construed as recommendations, nor has public input been altered, even in instances where comments may not reflect the City's actual policies, practices, or level of provision. Of note, targeted consultations with stakeholders was also completed separately through the City's Sport Field and Sport Court Facility Provision Strategy, of which themes are considered as part of 2019 *Parks and Forestry Master Plan*. Consultations were also undertaken with City Council and City staff through interviews and workshops to inform the Master Plan.





Future Directions Project Information Postcard

Project Portal & Awareness Efforts

An online project portal was established under the City's "Your Say" platform, accessible via https://yoursay.mississauga.ca/yourfuture, and is now being used to:

- Communicate the purpose of *Future Directions* and address Frequently Asked Questions (FAQs)
- Advertise meetings and events
- Allow residents to submit questions and written comments via a feedback form
- Provide a direct web-link to the public survey
- Show project timelines and progress
- Provide public reports relating to *Future Directions*

City staff also created a postcard for distribution at community centres, libraries, the Civic Centre and various consultation events. The postcard communicated information about *Future Directions* as well as sample questions intended to spur thoughts regarding community services within Mississauga.

An email address (yourfuture@mississauga.ca) was created for residents to direct questions and comments to the attention of City staff and the Consulting Team, while phoned-in comments and questions were directed through the City's 311 call centre. At the time of writing, a total of six written submissions had been received for topics regarding the need for:

- · Keeping garbage cans in parks year-round
- More collaboration with school boards to construct outdoor recreation facilities
- Requests for more free activities and facilities including concrete ping pong tables in parks, paved off-road trails, outdoor fitness equipment, more park benches, and more high quality outdoor basketball courts
- A focus on park-elements other than sports by designing parks for all ages and integrating wildflower gardens



Future Directions Website Home Page

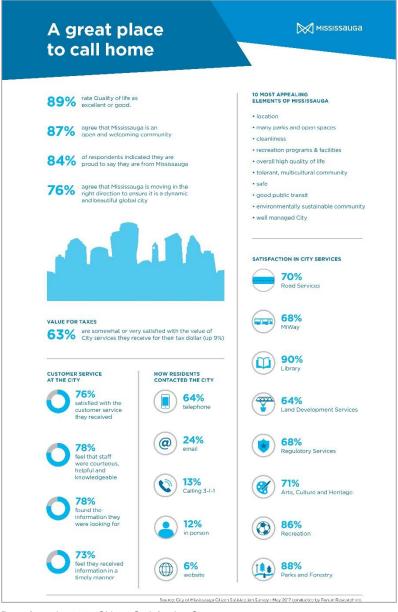
2017 Citizen Satisfaction Survey

The City of Mississauga regularly conducts a citizen satisfaction survey. The survey covers a broad range of services (i.e., it is conducted independently of the *Future Directions* process) and helps the City to better understand residents' opinions on a range of topics related to Mississauga's overall quality of life. As it is regularly undertaken, the survey allows the City to monitor and review trends over time to understand how citizen needs and perceptions are changing. According to the survey, the top five most appealing elements of Mississauga are:

- 1. Location
- 2. Many parks and open spaces
- 3. Cleanliness
- Recreation programs and facilities
- Overall high quality of life

Citizen Satisfaction Survey findings related specifically to the City's Parks and Forestry services included:

- Most residents are satisfied with Parks and Forestry services in Mississauga (88 per cent). Moreover, there has been a significant increase in the proportion of people that are satisfied since 2015 of nine per cent.
- Maintenance and upkeep of parks and open spaces saw the largest increase over 2015 results with 83 per cent indicating they were satisfied (up 45 per cent). Conversely, Washroom facilities remained the area where residents were least satisfied at 57 per cent, down three per cent from 2015.
- All categories in Parks and Forestry services have high levels
 of satisfaction, and all categories have experienced similar
 responses or modest declines compared to 2015. Washroom
 facilities has the lowest proportion of residents, indicating high
 levels of satisfaction (57 per cent), while having "outdoor
 places where people can be active all year round" was the
 only category with a significant decline (-8 per cent).



Page from the 2017 Citizen Satisfaction Survey

Public Survey

A public survey was made available to the general public between June 15 and July 7, 2017 to inform the 2019 *Parks and Forestry Master Plan* service areas of Recreation, Parks and Forestry, and Library Services. A total of 1,758 surveys were completed.

Importance of Parks and Natural Areas

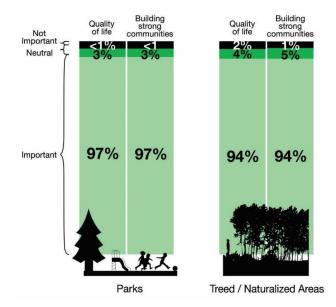
97 per cent of respondents stated that parks were important or very important to their quality of life while only 0.5 per cent stated that parks were not important at all or somewhat important (the remaining 2.5 per cent stated they were neutral on the topic). A slightly lower, yet demonstrably large proportion of the survey sample placed importance on trees, forests, creeks and other natural areas at 94 per cent, while 1.5 per cent stated that these things were unimportant to their quality of life.

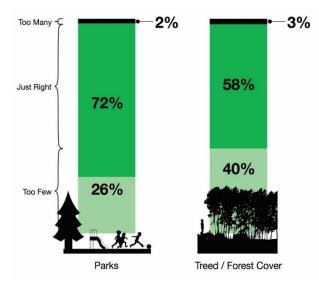
Respondents then rated how important of a role parks play in building strong communities within Mississauga, through which 97 per cent stated that parks play an important or very important role. With respect to naturalized areas, 94 per cent viewed these assets as important to building strong communities at. Less than one per cent of respondents viewed parks and naturalized areas as being unimportant elements of community building and fewer than 2.5 per cent were neutral on the subject.

Satisfaction with the Supply

Respondents rated the number of parks within their neighbourhood and surrounding area, with nearly three out of every four respondents indicating that the number of parks is "just right." Conversely, 26 per cent suggested there were too few parks and only two per cent believe that there are too many parks in the vicinity of their homes.

When asked to rate the amount of tree/forest cover in their neighbourhood and surrounding area, 58 per cent stated it was just right, while 40 per cent responded that the coverage was insufficient and the remaining three per cent stated that there was too much tree/forest cover.





Public Survey Results

Participation & Barriers to Parks Activities

Two out of every three respondents are able to participate in parks, recreation and library-related activities as often as they would like. The most common barriers noted specifically for the sample's participation in parks-related activities consisted of: not being aware of what facilities and programs are available (13 per cent), lack of time (12 per cent), programs not offered at a convenient time (seven per cent) and parks not being located close enough to home.



are available





12% I do not have enough time

7%
Programs are not available at a convenient time

Public Survey Results: Barriers to Participating in Park-based Activities

To shed light on how to improve awareness of community services, respondents were asked what they think are the best methods to inform residents about parks, recreation and library services. The most popular method was through email (69 per cent), followed by the City of Mississauga and Mississauga Library websites (64 per cent), Active Mississauga Online Program Guide (63 per cent), Media and news releases (46 per cent), City of Mississauga Social Media (35 per cent) and Other (13 per cent). Other mentions included message boards at facilities, flyers, newspaper, by mail, community newsletters and brochures, among others.

Over half of the survey sample (54 per cent) regularly and consistently use parks, recreation facilities or libraries located within Mississauga, while 46 per cent indicate that they regularly make use of these services in other communities. Common reasons cited for travelling to parks outside Mississauga include those parks being closer to places of work or school (11 per cent), followed by the facility/program not being offered in Mississauga (nine per cent) and the fact that the park is closer to other activities or shopping (eight per cent). Other reasons cited included: the quality of facility or program is superior in the other community; parks were used for tournaments, special events or for travel teams; and having some sort of "connection" to the other community (all of which individually accounted for seven per cent of the sample).







Closer to work or school

9% Facility / Program not offered in Mississauga

Closer to other activities or shopping

Public Survey Results: Reasons for Leaving Mississauga to Participate in Park-based Activities

Park Usage

Of all survey respondents, 95 per cent have used a park located within the City of Mississauga during the past twelve months, whereas only five per cent had not. Understandably, a lower percentage report visiting a forest, woodlot or other naturalized area in the City, given that these can be perceived as not accessible or difficult terrain to navigate. However, they were still visited by 68 per cent of respondents, while Conservation Areas were used by 60 per cent of respondents.



Public Survey Results: Visits to Parks and Open Spaces

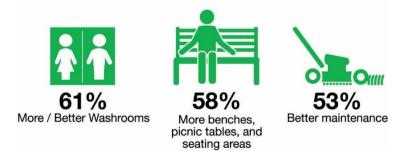
Park Improvements

Respondents were asked if their household believed that the parks, trails, natural areas and/or public green spaces that they use in the City of Mississauga required upgrades or capital improvements. Out of responding households, 61 per cent stated "Yes" and 39 per cent stated "No."

Of the respondents that desired upgrades or greater investment (838 respondents in total), the most frequent requests for improvements or upgrades pertained to a need for more or better washrooms (61 per cent), followed by more benches, picnic tables and seating areas (58 per cent) and better maintenance (53 per cent). Other notable mentions included more trees and shade shelters (47 per cent), more winter-use facilities or better winter access in parks (46 per cent),

more activities for children and youth (42 per cent) and greater integration of Wi-Fi within parks (37 per cent).

Respondents were asked if they had any ideas for improvements to parks beyond those listed through survey questions. Some comments that were mentioned included: ensuring that parks and trails remain accessible, supplying cleaner washrooms, supplying proper garbage disposal in natural areas and no littering signs, ensuring dogs are kept on leash in parks, enhanced connections between walking and biking trails, more outdoor public spaces with seating and shelter and more naturalized areas, among others.



Public Survey Results: Ideas to Improve Parks and Open Spaces

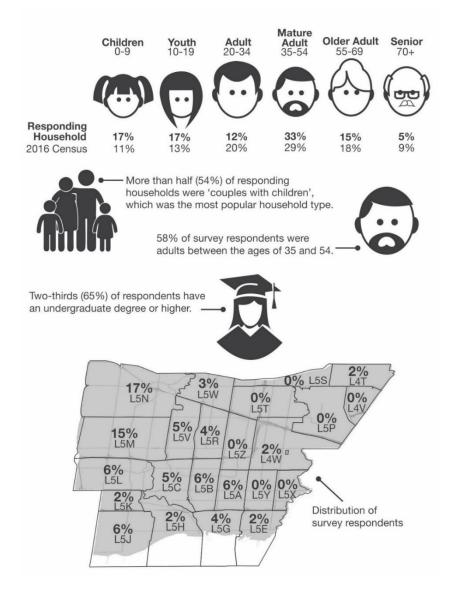
Survey Demographics

To gather information about respondents and their households, a number of questions relating to household demographics were asked with key findings presented as follows.

- Females were more likely to complete the survey than males, with 72 per cent of all responses coming from females and 28 per cent from males.
- Respondents between 35 and 54 years of age accounted for 58 per cent of all surveys while 54 per cent lived in households with couples and children, thereby suggesting families had strong representation in the survey. By comparison, respondents between 20 and 34 accounted for

24 per cent of the sample, while residents 55 years and above accounted for 27 per cent. In terms of household structure, couples living together constituted 17 per cent of responses and adults living alone another nine per cent.

- The survey had strong representation from residents having some form of post-secondary education as 38 per cent of the sample reported an undergraduate degree as their highest level of education, 27 per cent possessed a post-graduate degree and another 27 per cent had college diploma.
- Residents living in Mississauga longer than 20 years comprised 46 per cent of the sample, while those living in Mississauga between 11 and 20 years represented another 26 per cent (indicating the survey was completed by wellestablished residents). New residents to the city living in Mississauga less than five years accounted for 12 per cent of all responses.
- Respondents speaking English most regularly in their households accounted for 92 per cent of the survey, followed by French (six per cent), Mandarin (four per cent) and other dialects.
- Nearly one out of every three surveys were submitted by households located northwest of the Highway 403 and the Credit River. Households mostly residing north of the QEW, but between the Credit River and Mavis Road accounted for 23 per cent of responses, while 14 per cent of responses came from households predominantly living south of the QEW.



Public Survey Results: Survey Sample Characteristics



Stakeholder Focus Groups

Two separate focus groups were held with representatives of local community and environmental focused associations on June 14, 2017 at Mississauga Valley Community Centre and June 15, 2017 at Iceland. The following is a synopsis of key themes discussed during each session.

Focus Group	Representatives
Ratepayers, Business Improvement Area and Community Associations	 Credit Reserve Association
	 Diversity and Inclusion Advisory Committee
	(two)
	 Leash Free Mississauga
	 Living Arts Centre
	 Port Credit Community Foundation
	 Town of Port Credit Association
	 Sheridan College
	 Community members at large (two)
Environmental	 Association for Canadian Educational
Organizations	Resources
	 Credit River Alliance
	 Credit River Anglers Association
	 Riverwood Conservancy
	 Sierra Club of Peel
	- TD Bank
	 Community members at large (one)
	, , ,

Ratepayer, Business Improvement Area and Community Associations Focus Group

Representatives from seven local community associations and two community members participated in a discussion regarding future needs. The diverse nature of these groups resulted in a broad range of topics being covered, with key points of discussion noted below.

What Mississauga is Doing Well

- City safe cycling committee; connectivity of trails and bike routes
- Parks and greenspaces, open passive greenspace
- Programs: major park areas, events, nature programs
- Lake Aquitaine Park outdoor fitness equipment (for both youth and older adults)
- Smaller parks, recent parks and redeveloped (e.g., Port Credit), City builds great new parks
- Erindale Park: natural area, river setting
- Riverwood and Visual Arts Mississauga
- Neighbourhoods have good park distribution
- Newer parks have walking circuits
- Addressing AODA requirements

Issues/Challenges and Opportunities for Improvement

- Educational Opportunities: There are opportunities to enhance the park experience by adding interpretive and educational components such as signage, web-based information, and cultural/artistic elements about European and First Nations heritage, cultural diversity and natural areas.
- City Greening and Beautification: There are opportunities to supplement the One Million Trees program with other types of naturalization and habitat enhancement, e.g., meadows, as well as greening/beautification in boulevards, parking lots, highways, and horticultural gardens in parks.
- All-Ages Parks: Need to consider facilities for all ages in neighbourhood park development and redevelopment, including: providing basic necessities that will encourage yearround use and enjoyment of parks (washrooms, shade through trees and shelters, benches/seating areas, trail loops, opportunities for movies or music events, more interesting and

diverse play structures), and passive open space (for kite flying and kicking a ball around).

- Public Transit: Need dependable, affordable public transit
 that connects to key parks and community facilities in order to
 encourage people to use transit and to get out and enjoy
 parks and recreation facilities. This is particularly important for
 seniors.
- Parks in Redevelopment Areas: Parks need to be properly
 defined in redevelopment areas and not allowed to be leftover
 open space. Where larger parks are not feasible, there is a
 need to offset with more, smaller, interesting urban parks for
 sitting and respite.
- Urban Agriculture: There are opportunities to integrate urban agriculture and community garden components in parks, utility greenspace and on rooftops.
- Integration of Parks with Other Services: Parks are an integral part of Mississauga's identity. There are opportunities to better integrate with other civic infrastructure and to promote programs, facilities and events through web-based and other marketing efforts. Libraries are a good example of successful outreach and communication of programs. Parks can be linked to tourism and business development opportunities, e.g., have revenue generating components such as food services or teahouses in larger parks.
- Leash-free Areas: Will need more of these as the City expands upwards. Dogs are popular even in high-rises. The areas need to be large enough for dogs to run free and to throw a ball. If there were more opportunities to see dogs at play, it would help to educate residents who are less comfortable with dogs.
- Community Engagement: There is a need to improve how the City engages local residents in park planning and deciding what facilities should be included in park improvements. More

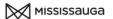
- involvement at a local level could lead to better utilization of parks as well as long-term interest in stewardship, fundraising, and so on.
- Partnerships: Existing partnerships with community organizations are good. However, the process of volunteering is onerous for both volunteers and organizations due to regulations (health and safety, police screening, and so on). There is a need to seek out opportunities for corporate involvement and school partnerships at all levels—including universities, colleges, and high schools—and leverage student community hours for volunteerism. There could be a sharing of information between community organizations with more experienced volunteers assisting start-ups (volunteer mentoring).

Environmental Organizations Focus Group

Representatives from seven organizations with an environmental focus attended the session. Key points of discussion are listed below.

What Mississauga is Doing Well

- Street tree planting and maintenance
- One Million Trees Mississauga
- Expansion of Forestry department (forestry technology has advanced, inventories are being done)
- The trail system particularly in the Credit River Valley (Credit River Parks Strategy is carefully done, scientifically based and sensitive to the watershed)
- Community gardens well supported in Mississauga and draw in all ages
- Peel Environmental youth alliance engaging people in forward looking environmental issues and Youth, hands on, involved
- Key parks acquisitions and new park initiatives (Riverwood, Hancock Property, Lakeview Park, Not Yet Named Park P-358 (the Arsenal Lands)



Issues/Challenges and Opportunities for Improvement

- Credit River Anglers are concerned about the number of trees planted on the West Bank/river mouth, which limits access for fisherman, boaters. They are looking to protect the boat launches and parking lot for boaters. Businesses will suffer because of the loss of fishing opportunities.
- There are a lot of neglected small woodlots. They appear run down, there are a lot of dead trees and they are full of invasive species.
- Need to see street tree replacement happen faster. For example, stagger replacements so that streetscapes do not appear clear cut.
- Losing biodiversity in urban areas: need to get rid of the invasive species. People don't realize the importance of this, removal and replacement with native species.
- Re-naturalize and strengthen the linkages between green spaces (acquire or work with land owners.) Need to promote widespread education on things like invasive species like Phragmites. Everyone needs to be involved to look after the community.
- City needs a strategy for engaging volunteers. Need to encourage residents and corporations to become involved through education.
- Need better community education and explanations for why things are done (e.g., the purpose and function of stormwater management ponds).
- Would like to see the City be more open to community involvement in some activities. Citizen science volunteers could be given more responsibility for baseline monitoring/assessments of trees). The community could take responsibility for actively looking after green space. Could designate specific neighbourhood parks for participation.

- Increasing biodiversity of SWM ponds, maintenance, and removal of invasive species could be improved.
- Put environment and parks first. The City of Mississauga website's top 10 best new stories rarely has environmental/park news. Mostly about City events and community events.
- Take little more seriously what the City owns, i.e., progressive maintenance vs. letting things fall into worse repair.
- There is a lack of signature gateways OR beautification to show you've entered into Mississauga. May need MTO cooperation for highways. Perhaps sponsored by companies to foster stewardship with communities.
- Off-leash dogs are a problem chasing deer.
- People need education on the science behind environmental issues: e.g., the urban canopy and best species, plant sustainably, reducing urban heat sinks. Need outreach to the population about how important this is.
- Recognition of the importance of the watershed and linkages, looking at the whole system for what can be done to enhance, protect, and restore and how residents can contribute (driveway runoff, reduce litter, and so on).
- Need to have an overview of the watershed as a whole and the quality of it. Data should be centralized and overarching instead of being fragmented. Would be helpful in determining planting opportunities. Policies haven't been publicized or clarified for residents to be able to do things.
- Archaeological sites aren't included in this study and they should be. If more people knew about the sites they could protect them (it was noted that legislation prevents archaeological sites from being disclosed publicly).

 Society does not always understand and quantify the value of natural spaces. TD has a publication—Value for Urban Forests. There needs to better recognition of importance of green spaces. Cost of built environment versus natural environment as capital investment. Trent University has competed a study on the happiness index for more time spent in natural areas. Need to measure the benefits.

External Agency Interviews

Interviews were scheduled with three external agencies on June 14, 2017. Involved were local school boards, conservation authorities and the Region of Peel. Discussions with First Nations representatives were separately conducted on May 18 and June 12, 2017. The following summarizes major points of discussion for each session.

Focus Group	Representatives
Region of Peel	 Integrated Planning Division
	 Peel Public Health, Built Environment
	Team
	 Development Services
School Boards	 Dufferin Peel Catholic District School
	Board
	 Peel District School Board
Conservation	 Conservation Halton
Authorities	 Credit Valley Conservation
	 Toronto Region Conservation Authority
First Nations	 Huron Wendt First Nations
	 Mississaugas of the Credit First Nations

Region of Peel Interview

 The Region's Integrated Planning Division oversees many areas that are potentially relevant to *Future Directions* for Parks and Forestry such as Greenlands securement, urban forest strategy, growth plan and Greenlands conformity, climate change, agriculture and aggregate extraction.

- The Region provides a supportive role and takes regional initiatives to roll into local planning and implementation, providing an opportunity to leverage partnerships that exist at the regional level and continue to evolve them. Regional research can similarly lend insights into new directions for its lower tier municipalities and other partners. While the Region does not have a mandate for parks and recreation, there are peripheral interests, including topics such as: encompassing climate change adaptation and mitigation, the emergence of urban agriculture and how it can be supported through municipal parks systems, and the fact that municipalities can leverage the Region's experience in having community gardens in parks.
- Greenland securement has a cumulative funding program presently with a balance of \$750K, given that a substantive reserve has been built up. The Region averages two to four project completions per year and always has several initiatives in the pipeline, but note challenges in securement within urbanized communities. The Region is renewing Greenland securement agreements including those in the City of Mississauga.
- Natural systems planning is another area of mutual interest between the upper and lower tier municipalities, a topic that bodes well with climate change and role of parks system in supporting adaptation and mitigation strategies. Compliance with the Greenlands and Urban River Valley policies will also be important moving forward.
- Of note, the Region has established an Office of Climate Change and Energy Management that is responsible for managing the Corporate Climate Change Steering Committee, as well as the Community Climate Change Steering Committee. Peel has a Climate Change Strategy as well.

- The Integrated Planning Division is looking to create a Peel Region map to show a bigger picture of parks system in relation to broader region.
- There are limited resources available for urban forestry in the absence of a formalized program at the regional level, but the Region is increasingly prompting public works to consider urban forestry. The Region formed working groups with Conservation Authorities and municipalities to pool resources and annually implement projects such as a tree planting prioritization tool, tree canopy assessments, and so on. They note that the tree canopy stands at 34 per cent region wide and 18 per cent in Mississauga, but the Region does not set a target given how challenging it is to achieve one.
- Public Health has a consultative role and can support
 utilitarian physical activity and the food environment (an
 example for the latter is encouraging access to water refill and
 providing guidance about what is sold in parks and facilities).
 Public health nurses work closely with schools and hear there
 is an opportunity to connect collaboratively with recreation
 centres.
- Participants indicated that they would like to see the City take
 a broader approach to park designs to be more universal for
 all age groups. In particular, they would like to look at areas
 with high concentration of seniors and, based on
 observations, it would seem seniors require greater access to
 washrooms, benches and areas for social interaction. Public
 Health is starting to look at the design of parks in relation to
 long-term care facilities, dementia and so on.
- The Region's Development Services Staff work in the field of Parks and Forestry centres on implementation and technical review through site plan applications and protection/preservation plans. They hope to find ways to streamline development approvals with the City. The Region has policies specific to Greenlands including what should be protected, the types of studies that are required and so on.

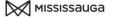
- For recent applications, the Region is finding that certain site alterations are being proposed to mitigate the removal of woodlots, but unfortunately there is no clear evidence that such measures in fact offset complete or partial loss of woodlot.
- Comes down to coordination issues between the three groups (region, CA, city) so things get passed by—ROPA 27 updated natural heritage policies and what is "Regional Core Greenland."
- The City has very strong Greenland provisions, but the Region historically permitted active recreation in Greenlands. The Region has since changed this policy after mapping how many sports fields existed in proximity to or within the Greenlands system.
- Staff suggest that the City could consider measuring "natural capital" and natural assets using the methodology developed through the Natural Assets Initiative, which monitors stormwater management value to natural cover. Peel Region is one of five jurisdictions in Canada that is monitoring this.
- Participants are supportive of proactive dialogue taking place throughout design and implementation stages of various initiatives undertaken by themselves or the City.

School Boards Interview

 Traditional school models and layouts will not be able to be delivered in areas of intensification, but rather schools and the City will need to look at models such as those in Toronto centred on vertical communities. Representatives have read that developers are gearing more of their developments to families, which may create opportunities for partnerships between the private sector, municipalities and school boards to create mutually beneficial spaces that are geared to the needs of families.

- The Peel District School Board (PDSB) is bursting at the seams and cannot find sufficient space in areas where schools are needed the most, the downtown/city centre being the most underserviced which is likely a result of immigration from non-Catholic countries. It would like to build a new school in the city centre as soon as possible because they are bussing students out of the downtown at present. They note that the Ashgrove site is being held, and also note that there is a site available in Churchill Meadows, but have no plan to build a school there. They have requested schools in Inspiration Lakeview, Imperial Oil, Shaping Ninth Line, Rogers' developments and are willing to partner based on a non-traditional model.
- Conversely, the Dufferin-Peel Catholic District School Board (DPCDSB) is attracting new students, which may be also related to immigration patterns. That school board has surplus capacity in the city centre and does not have plans to build any new schools in Mississauga. DPCDSB is presently undertaking a Long-Term Facilities Master Plan (targeting approval in the coming months) that will make recommendations on school needs and strategies to address surplus capacity. Already confirmed are school closures at St. Dunston and St. Gertrude that are scheduled this year. Following the closures, their Board of Trustees will need to declare the schools as surplus prior to them being available for sale to the public board, the City, or another prospective landowner.
- Joint use agreements with DPCDSB seem to be working with respect to pools and sports fields and thus continue to be highly supportive of partnerships with the City. Thoughts are that partnerships could be extended to office and administrative spaces, given that certain schools in older areas have empty classrooms that could be repurposed for municipal use where needed. DPCDSB is also willing to explore additional partnerships to convert existing natural grass sports fields to artificial turf. They cite positive

- partnerships at St. Aloysius, St. Marcellinus (field, library and swim program), St. Joan of Arc (joint community program rooms), and Loyola (artificial turf field). Both boards discussed whether facility provision partnerships could be extended beyond sports fields to include outdoor basketball and tennis courts.
- There is also opportunity to explore integration of parks and recreational programming into the school curriculum by way of joint use and joint operating agreements. There is one school that runs a regional sports program through Huron Park Recreation Centre's arenas and sports fields. This successful program is used by 200 children, of which 80 are in hockey programs.
- Both boards have a formalized partnership policy identifying criteria, license agreement and recovery fee. They feel there is room to improve negotiated agreements because parties are often operating on different timetables and need better agreements. They wonder if partners even want to be in schools given all the conflicting uses and activities.
- Schools conduct community partnership meetings once a year for planning purposes, but unfortunately do not tend to get a lot of municipal representation. They are discussing internally how to get word out and communicate what boards are doing. They acknowledge that the primary barriers to partnerships and joint developments relate to funding and timing, neither of which are under their direct control. The Ministry of Education demands that students have to be in neighbourhoods before a school can be built, which means schools have to build as soon as funding is provided, and therefore, it is difficult to plan in advance and align timing with a municipal development project. The PDSB also notes that another issue in sharing school space is that it cannot always rely on space being available in existing schools as they may have capacity in a given year, but in the next year they need to reclaim the space back from a partner because of unanticipated student growth.



- A number of schools indicate that they have underutilized parking lots, since the elimination of Grade 13/OAC a number of years ago. However, zoning by-law requirements for parking in school zones are out of date (Brampton and Caledon were specifically mentioned) and therefore municipalities should consider parking reductions through future Zoning Bylaw updates or a review of parking standards.
- PDSB mentions that it does not pay Cash-in-Lieu (CIL)
 monies in Caledon or Brampton, and indicates that it does not
 feel it is fair that the City of Mississauga charges CIL. They
 believe sports fields on school properties add to municipal
 green space and the sports field inventory.
- Both boards discussed the need to find ways to encourage more students to walk to school rather than being driven in order to improve health factors among children. They recognize, however, that this is a cultural mindset that needs to be shifted (but could be difficult given the number of households with two working parents, the commuter lifestyle, and perceived concerns about community safety impeding a willingness to allow children to walk to school).

Conservation Authorities Interview

The three Conservation Authorities with jurisdiction in Mississauga are Credit Valley Conservation (largest landholdings), Toronto Region Conservation and Halton Region Conservation. All have a good, productive relationship with the City and collaborate on both City and CA led projects, and CA strategic plans. Notes from the interview are summarized as follows.

 TRCA is currently completing an update of its Terrestrial Natural Heritage Study which is examining a watershed-wide strategy for restoration and will include identifying key linkages and site-specific restoration opportunities. The CA is also identifying a regional network of trails and greenspaces. The city's target to achieve local parks within a five-minute

- walk could be expanded to a target for access to regional greenspace.
- Credit Valley Conservation (CVC), Toronto and Region Conservation Authority (TRCA) and the Region of Peel are working with the City on the Lakeview project (lake fill, shoreline and wetland restoration) to implement the Credit Parks Strategy.
- CVC is most closely aligned to the City due to the extent of area within its jurisdiction and shared strategies. CVC is working with Mississauga to implement the Credit River Parks Strategy. Completion of the connections which would facilitate the Credit River Trail is a top priority.
- TRCA collaborated with the City on the Burnhamthorpe neighbourhood SNAP project. Would like to see more opportunities for neighbourhood-focused retrofits.
- Halton Region Conservation interfaces with Mississauga on the Ninth Line Corridor lands, which include parks, open space lands and restoration. Halton Region Conservation Authority (HRCA) also operates Kelso CA/Glen Eden Ski area which is regional serving.
- Strategies for shoreline management could be strengthened.
 There has been a lot of work done through strategies and studies and it is a complicated area of jurisdiction between CAs, Fisheries and Oceans Canada (DFO), and Mississauga. With the recent issues of high water levels, there needs to be a focus on shoreline management (also needs better coordination or a formal partnership model).

Interests and opportunities shared by all the CAs include:

 Habitat restoration initiatives for forest, meadow, and valley and stream regeneration. The City of Mississauga helps to fund on City-owned land. Looking to facilitate community engagement in partnership with the City. Need to consider regional targets and diversify ecosystem projects. Expanding the forest canopy has been the primary focus, but should look at other types of habitat such as wetlands, meadow preservation. There are opportunities to use hydro corridors (and even the 403 corridor) as important ecological linkages. Climate change response, e.g., flood control measures, green infrastructure, low impact development (LID) measures.

- Strategic land acquisition to facilitate key linkages, connections and habitat restoration.
- Engagement and celebration of Indigenous Peoples. Not only what role they play in consultation, but consider in use of parks, design and celebration, and so on.
- Natural asset quantification and valuation. Green infrastructure has not been part of asset management in the past but certain municipalities considering it now so that they have long term sustainable funding.
- New policies are coming for onsite water retention that will apply to all land uses—will change ways projects are planned and their costs but will also help the City with flood and erosion control.
- Need to start from a place where we recognize all elements of the parks and natural systems work together as part of a common system. In the past we tried to create boundaries between natural system and built form, but now taking a more integrative approach.
- Visitor impact management and balancing of recreation and environmental objectives. Need large sites that can handle both. Master planning for sites should consider a zoning approach, such as in the Credit River Parks Strategy or the Niagara Escarpment Parks and Open Space System (NEPOSS). Maintenance costs, including monitoring, need to be built into capital plans, e.g., tie it to park classification, e.g., cost per acre to help with planning.

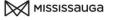
 Incorporating the health component into Future Directions (FD)—having greenspace integrated beside schools, hospitals, low income areas while striving for better interconnectivity.

First Nations Interviews

City of Mississauga Staff conducted interviews with First Nations representatives (noting Consulting Team staff was not in attendance as per the City's preference).

Huron Wendat First Nations

- The Huron Wendat interest in Southern Ontario is very broad.
 Their interest is primarily in heritage sites and archeological sites where there is a high potential for Huron Wendat archeological findings —the First Nations has mapped out sites where Huron Wendat officially were gathered and some are within the Mississauga city area.
- They strongly recommend that the City have an archeological master plan and a management plan on how to deal with archeological resources. York Region has an archeological plan that they felt was a good example to measure Mississauga against.
- They want to see protection of Huron Wendat sites, meaning whatever projects or development occurs on potential Huron Wendat sites, they want to be consulted early on the process. Specifically for archeological assessments, they insist on being consulted at Stage 2 versus Stage 3 and to also have a Huron Wendat monitor on site when doing the assessment. They have an issue with Stage 3 requirements to consult the "local First Nations group" because they do not want or feel that any other group represents their interests, nor should they be speaking on behalf of the Huron Wendat.



- They want to see better education and celebration of the Huron Wendat peoples and their history through trail projects, markers, plaques and so on that can be created in consultation with the Band Council.
- The First Nations should be showcased through history and heritage but they should be consulted prior. They have a history document of the Huron Wendat First Nation on their website that is a great resource.

Mississaugas of the Credit First Nations

Acknowledgement:

- Mississaugas of the Credit First Nations (MCFN) need to be recognized as treaty people and the obligations that the group has.
- Land and treaty acknowledgment is very important (i.e., in documents, at beginning of meetings)
- MCFN has territory statements that can be used. Need to recognize the lands and the territory statements, and acknowledge all the people on the lands even if they are now extinct.
- Everybody needs to see themselves reflected in the spaces that surround them, not just Indigenous people but other populations who are marginalized; MCFN is helping to advocate for these voices
- They would like to explore more opportunities for acknowledgement. As examples, the City of Toronto will be permanently raising a MCFN flag in front of City Hall while the Oakville Communities Foundation has a dedicated mural and there is also a bursary named after a former MCFN chief.
- How can City of Mississauga acknowledge the MCFN?
 Examples include: visual reminders in public spaces, street name changes (regular reminders), and libraries should have

the resources that are appropriate and related to First Nations. Specifically: Central Library should have MCFN and First Nations resources related to Canada 150/MCFN public art sculpture being installed in Celebration Square.

Education and information sharing:

- Reconciliation should be linked back to nature and environment, through plaques, trail markers, placemaking, wayfinding, education opportunities, tour guides and front line staff that are trained with Indigenous history and understandings of the people and so on.
- Educating people who give tours (MCFN is developing a "train the trainer" type program)
- Need to educate people who are in front line positions or points of contact with the public so that they are informed about the history and the peoples, and they can share that information.
- Make sure all City staff receive indigenous cultural competency training.
- Trail markers should be specific to the Indigenous groups.
- Need to share the history of the MCFN through diverse platforms and avenues (i.e., information about history of the nations on website, in print form, at libraries and community centres, on websites, and so on).
- Camps and programs should focus on Indigenous history.
- Re: libraries: MCFN is interested in connecting with Libraries more; can they come in and give talks at the libraries? Can there be an area dedicated to history and learning?
- MCFN wants a better relationship with schools.

Engagement and processes:

- Ensure that processes are strengthened and followed, for example engage and consult with MCFN and other Indigenous groups and connect with a designated First Nations member who can follow up and engage their membership.
- MCFN wants to be more involved in education and awareness efforts and have a more visible presence within Mississauga and with the City of Mississauga.
- MCFN welcomes more requests for event participation for either the Chief or for Members of Council (two-way participation).
- We need to have an Indigenous Advisory Board/Truth and Reconciliation Advisory Board (this is happening in other municipalities but not in Mississauga).
- MCFN would like to meet with the Mayor and have better relationship with the City of Mississauga. They would like to invite City Council to meet with the MCFN to have opportunities for cross-learning.
- Opportunities to engage around the North American and Indigenous Games.



Appendix 2: Parkland Securement Evaluation Criteria for Future Directions

	Rationale Category	Strategic Pillar	Rationale Detail	Possible Score
		Green	protects and enhances naturally significant features (Lake Ontario shoreline, NAS, Credit River)	20
	Supports a Healthy Community and Environment		adjacent to naturally significant features (Lake Ontario shoreline, NAS, Credit River) and has natural restoration and/ or tree planting potential	10
1			does not protect or enhance a naturally significant feature and has insignificant natural restoration but has natural restoration and/or tree planting potential	5
			does not protect or enhance a naturally significant feature and has insignificant natural restoration and or tree planting potential	0
		Connect	protects for a continuous linkage within a City Wide system	20
	Expands and/or Connects Trail Systems within or to	Move	protects for a continuous linkage within a Community open space trail system	15
2	Parks and/or to other Centres of Activities (e.g.	Green	provides multiple new trail opportunities within the property	10
	schools, commercial, transportation routes)		provides for a single trail within the property	5
			does not connect existing parks, centres of activities or provide for trail development	0

	Rationale Category	Strategic Pillar	Rationale Detail	Possible Score
	Park Design / Development Potential	Connect	has significant design potential	15
3	(complementary to neighbouring land uses, street frontage, visibility,	Green	has medium design potential	10
3	increases size of existing parkland, cultural significance, no		has some design potential	5
	encumbrances)		has insignificant design potential and /or design potential is outweighed by development challenges	0
	Supports Population Growth and Sustainable Community Design	Connect	function land is required to address Growth Area, Major Node and Community Node parkland deficits and walking distance requirements to playground	35
	(based on walking distance requirement and/or population provision standard)		accessible tableland is required to address existing parkland deficit and walking distance requirement to playground	30
4			is required to address existing parkland deficit or walking distance requirement to playground	25
			is required to address anticipated future parkland deficit and walking distance requirement to playground	20
			is required to address anticipated future parkland deficit or walking distance requirement to playground	15
			is not required to address an existing or anticipated parkland deficit and/or walking distance requirement to playground	0
		Connect	Provides opportunity for major outdoor recreational, program, or operational facility	10
5	Provides for Recreational, Program, and Operational Facilities		Provides opportunity for minor outdoor recreational, program, or operational facility	5
			Does not provide opportunity for any outdoor recreational or program facility	0



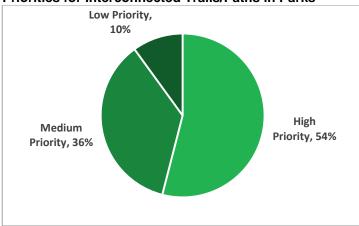
Appendix 3: Public Feedback Report

In December 2018, the City undertook a series of consultations with the community to test the Draft Future Directions prior to its finalization. The City hosted public information centres that presented key themes from each Future Directions Master Plan, as well as promoted a community survey that garnered 932 responses in total. The themes from consultations conducted during the Draft Master Plan stage are presented in this Appendix.

A Continuous and Interconnected Trail and Pathway System within Parks

Through the consultations, participating residents support the City's current and future efforts to use its parks and open spaces as part of improving interconnectivity within the local trail and pathway system. Among survey respondents, 54 per cent rated community centre enhancements as a high priority compared to 10 per cent that rated it as a low priority. This reinforces input received through initial consultations that centred upon the City's trails' system and aligning Future Directions with other City master plans/studies that pertain to trails and active transportation.

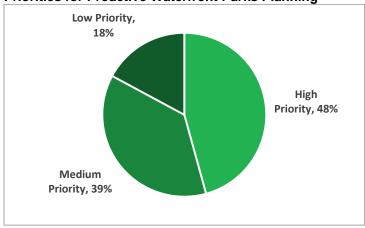
Priorities for Interconnected Trails/Paths in Parks



Proactive Parks' Planning for Waterfront Developments

The priority placed upon proactively preparing plans to address local and city-wide needs for parkland through waterfront developments were largely distributed between high and medium priorities (48 per cent and 39 per cent, respectively).

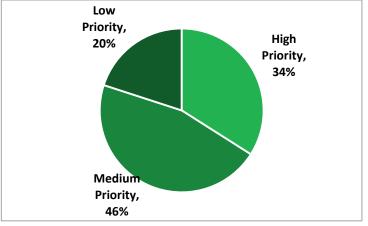
Priorities for Proactive Waterfront Parks Planning



Maximizing Use of Underutilized Sports Fields

Survey respondents were less likely to prioritize the conversion or upgrade of underutilized sports fields to uses that would support a higher level of usage (e.g. artificial turf, lighting, tournament facilities, or a different park/recreational use altogether). 20 per cent rated such an action as a low priority. Respondents did suggest that maximizing uses of these spaces was important given 34 per cent stated this should be a high priority and (46 per cent rated this as a medium priority.

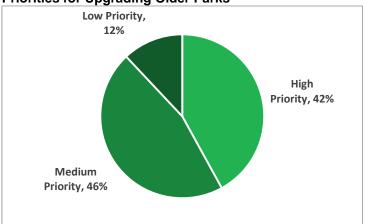
Priorities for Converting/Upgrading Underused Sports Fields



Upgrading Existing Parks to Respond to Change

Survey respondents see a benefit in upgrading existing, older parks as a way to support growth and intensification, changing community demographics, cultural influences, and current ways in which parks are being used.42 per cent viewed this as a high priority while 12 per cent rated this as a low priority, the latter of whom are potentially satisfied with the parks that they presently have access to.

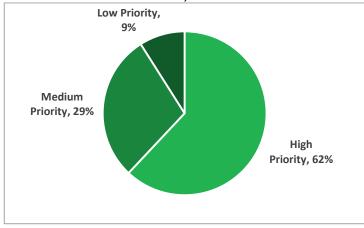
Priorities for Upgrading Older Parks



Making Parks More Comfortable

Survey respondents highly prioritized the inclusion of shade shelters, water stations and washrooms when developing park design standards for Mississauga. 62 per cent of responses placed a high priority on these comfort features while another 29 per cent rated comfort elements as a medium priority.

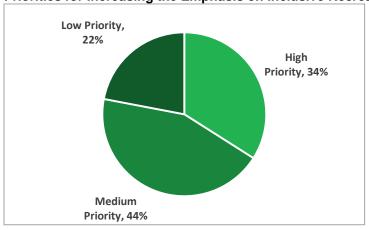
Priorities for Shade Shelters, Water Stations and Washrooms



Providing Inclusive Services

Approximately 78 per cent of survey responses placed a high or medium priority on having the city increasing its emphasis on creating inclusive recreation programs and services (including those occurring within parks). In this way, residents have opportunities to participate regardless of their cultural or social backgrounds, physical ability, and socio-economic circumstance.

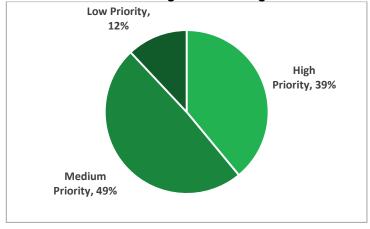
Priorities for Increasing the Emphasis on Inclusive Recreation



Collaborating with Others

Respondents see a value in having the City continue to collaborate with other agencies and service partners to increase the overall capacity to provide parks, forestry, and recreation opportunities. 39 per cent state that such a spirit of collaboration should be a high priority for the City while another 49 per cent rated this as a medium priority.

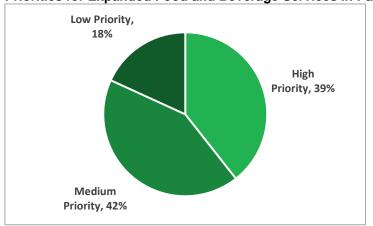
Priorities for Collaborating with Other Agencies/Providers



Expanding Food and Beverage Services in Parks

Although 53 per cent of survey responses placed a medium or high priority on expanding food and beverage services in parks, this action received a substantial share of low priority ratings relative to others at 47 per cent.

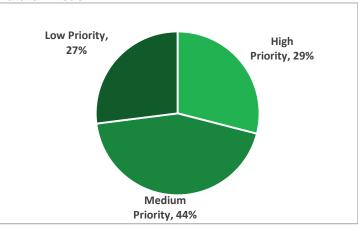
Priorities for Expanded Food and Beverage Services in Parks



Improving Awareness of Services

There was a similar split between high and low priorities when it comes to developing marketing tactics, educational materials and partnerships for the purposes of encouraging community involvement and heighten awareness of services of Mississauga's recreation services, parks and natural areas. 29 per cent rated this action as a high priority while 27 per cent rated it as a low priority.

Priorities to Heighten Awareness of Recreation, Parks and Natural Areas



Appendix 4: Parks & Forestry Implementation Guide

This Implementation Guide is a planning tool to be used in conjunction with the capital recommendations contained within the 2019 Parks & Forestry Master Plan. City Staff will review this Implementation Guide annually to monitor progress on each item and ensure that the recommendations are being incorporated into workplans.

Key elements of the Implementation Guide include:

Implementation Trigger(s)

Refers to the factors that should be considered prior to initiating the recommendation.

Timeframe

Refers to the timing for implementation of a recommendation. For the purpose of this guide, four time frames are used: short term (1-4 years); medium term (5-9 years); long term (10+ years); and ongoing. Timing is often synonymous with priority. Recommendations are listed under each area of focus in order of suggested start.

Section(s) Most Responsible

Identifies those business units within the Community Services Department that have a major role in implementing each recommendation. The lead business unit is identified in bold.

Capital Costs and Additional Operating Costs

Recommendations with capital costs will be subjected to the annual corporate business planning and budget processes. Some of these recommendations are already in the 2019-2028 ten year capital budget and forecast. Recommendations that are anticipated to have an operating impact will also be reviewed through the annual corporate business planning and budget process.



Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
Grow	ing, Connecting and Developing Parkla	nd				
1	Use updated evaluation criteria, acquisition factors and funding analysis developed in the City-Wide Parks Provision Strategy to identify, rank and recommend properties to secure for parks and open space purposes.	Completion of the City-wide Parks Provision Strategy.	Short Term	Park Planning	N/A	No
2	The City should develop comprehensive plans for the waterfront development sites that address both local needs for parkland in new development areas as well as opportunities for destination parks sites.	 Receipt of parkland conveyed through the development processes associated with each of the major waterfront developments. 	Medium Term	Park Planning / Park Development	Subject to annual budget process	Yes
3	The City should develop a plan to identify specific uses for parkland along the Nine Line Corridor and look for opportunities to connect new and existing parkland to create dynamic, connected spaces that meet both passive and active recreational needs.	 Receipt of parkland through the land acquisition process. Receipt of parkland conveyed through the development process. 	Short Term Medium Term	Park Planning	Subject to annual budget process	Yes
4	Complete a strategy for the Cooksville Creek corridor to examine issues including, but not limited to: management of natural areas, park use potential, parkland deficiencies in the Downtown growth corridor, trail network completion and connections to existing parks.	Completion of Cooksville Parkland Securement Strategy.	Medium Term	Park Planning	Subject to annual budget process	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
5	Develop a policy to address the provision of Privately Owned Public Space (POPS) where public parkland cannot be achieved, or to enhance the public realm.	Update to the Mississauga Official Plan.	Short Term	Park Planning	N/A	No
6	Examine the implications of developing parkland on roof slab or underground parking structures when constraint-free parkland cannot be achieved. The study will include at a minimum location criteria, design considerations, best practices review, capital and operating costs (including implications for trees related to the life cycle of underground parking structures), ownership considerations (stratified ownership, easement) and principles by which requests can be evaluated.	Adoption of Future Directions Master Plan for Parks and Forestry.	Short Term	Park Planning/Park Development	Subject to annual budget process	TBD
7	Update the existing park/open space classifications. New categories to include Urban Parks, and sub-categories of Greenlands. The City will incorporate these new categories into the Official Plan and apply the classifications to the existing inventory of parks and open spaces to inform development and redevelopment decisions and maintenance standards.	Update to the Mississauga Official Plan.	Short Term	Park Planning	N/A	TBD

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
Prote	ction and Enhancement of Natural Area	s				
8	Undertake a review of the Urban Forest Management Plan. The recommendations of the Urban Forest Management Plan (2014) should continue to be implemented based on identified priorities.	The UFMP is reviewed every five years.	Short Term	Forestry	Subject to annual budget process	TBD
9	Work in collaboration with Planning & Building, and Transportation & Works Departments to support the update and implementation of the Natural Heritage and Urban Forest Strategy (2014).	The NH&UFS is reviewed every five years.	Short Term	Park Planning / Forestry	Subject to annual budget process	TBD
10	Finalize and implement site-specific targeted invasive species work in accordance with the Draft Invasive Species Management Plan (2018).	• In process.	Ongoing	Forestry	Subject to annual budget process	Yes
11	Continue to assess the need for implementation of an aerial spray program approximately every 7–10 years to mitigate the impact of defoliating pests city-wide based on defined criteria and infestation levels. Levels are measured annually and aerial spray should be planned and budgeted for accordingly.	 Monitoring of pests is ongoing; when the 'acceptable level' of pests is crossed, Forestry will table a report to Council seeking approval to implement the aerial spray program. 	Ongoing	Forestry	Subject to annual budget process	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
12	In collaboration with Planning & Building and Transportation & Works Departments, develop/update city design and maintenance standards for trees, shrubs and perennials in urban locations (e.g., streetscapes and planters).	• In process	Short Term	Forestry/Park Planning	N/A	Yes
13	Update Private and Public Tree By-laws every 5 years to ensure they reflect current best practices and urban forestry standards.	 In process The tree by-laws are reviewed every five years. 	Short Term	Forestry	N/A	No
Outdo	oor Recreation Opportunities					
14	Refine the field classification system to address field quality and construction and consistent maintenance standards.	 Adoption of Future Directions Master Plan for Parks and Forestry. 	Short Term	Park Development Park Operations	N/A	TBD
15	Explore the ability to convert two existing natural grass fields to artificial turf in service area 5 subject to further discussions with prospective partners, user groups and community associations. Sites to consider include (but are not limited to) Mississauga Valley, Dr. Martin Dobkin Community Park, Rathwood District park and Brickyard Park.	 Completion of field assessments. Decrease in field utilization and/or rentals 	Medium Term	Park Planning/Park Development	Subject to annual budget process	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
16	Continue to explore public-private partnership opportunities for boxed soccer and, if successful, expand to other locations in the city.	 Explore opportunities as they present themselves. 	Ongoing	Park Planning	N/A	No
17	Revise the City's service level standard to one rectangular field per 3,000 population - inclusive of artificial and natural turf fields - to guide future facility planning exercises.	Effective immediately.	Short Term	Park Planning	N/A	No
18	Install field lighting and irrigation systems at three existing natural grass fields located in Service Area 5 (sites selected with the input of local field users and community associations to consider parks).	Approval through budget	Medium to Long Term	Park Development	Subject to annual budget process	Yes
19	Support the Recreation Division in engaging rectangular field users to discuss reasons why certain fields are receiving little to no usage during the course of the playing season, and whether selected improvements at such fields could alleviate pressures for field time that groups may be facing. Based on these discussions, the City should explore whether any adjustments are required to maintenance schedules and capital reinvestment activities for these underutilized fields, or whether such fields are better repurposed for other neighbourhood-level recreational activities.	Recreation Division work plan and engagement strategy	Short Term	Park Planning	N/A	No

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
20	Investigate opportunities, including Birchwood Park, to replace ball diamonds that will be lost within Service Area 6 due to redevelopment.	• In process	Ongoing	Park Planning	Subject to annual budget process	Yes
21	Consider amalgamating between four and eight underutilized/low quality neighbourhood diamonds and reallocate their usage to a new tournament complex that contains a minimum of four lit diamonds. Consultation with user groups is required to determine the size and type of diamonds, amenities to be provided and preferred location of a new complex.	 Adoption of Future Directions Master Plan for Parks and Forestry. Explore opportunities as they present themselves. 	Ongoing	Park Planning & Park Development Recreation	Subject to annual budget process	Yes
22	Install lighting at two cricket pitches (subject to due diligence that confirms ability and appropriateness of doing so based on site conditions, proximity to surrounding land uses, and confirmation of increase in field capacity). As development charges do not currently cover costs, recovery of lighting costs should be investigated through partnerships or capital contributions from cricket groups, a capital improvement surcharge on field rentals, rental premium for lit hours and/or other means.	• In process.	Long Term	Park Development	Funded as per 2019-2028 Capital Plan	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
23	Given the growing demand for casual/drop-in participation in field sports, and to promote "active living," smaller-scale cricket pitches or batting cages should continue to be considered in neighbourhood-serving parks - particularly those located in high demand areas - in order to facilitate practice and recreational cricket play and to relieve pressure on the larger cricket grounds.	 Receipt of funding from Cricket Group Budget Approval Funding currently contemplated for Courtney Park Park or sports field redevelopment 	Medium Term	Park Development	Subject to annual budget process	Yes
24	Future major/larger scale spray pads should be provided only in instances where fitting into destination-type or waterfront park developments, and in areas of intensification. Smaller-scale spray pads should also be constructed in new parks and through park redevelopments to meet local demand.	Park redevelopment.	Ongoing	Park Development	Subject to annual budget process	Yes
25	Construct one new multi-use pad in Service Area 4 and two new multi-use pads in Service Area 5.	• In process	Short Term	Park Development	Funded as per 2019-2028 Capital Plan	Yes
26	Undertake condition assessments for all multi- use courts for which Condition Index values have not been determined.	• In process	Ongoing	Park Development	N/A	No

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
27	Maintain the historical service level target of one tennis court per 5,000 population. In doing so, the City would need a total of 15 new tennis courts by the year 2028 - ideally be located in growth areas such as the Ninth Line, Downtown intensification areas, Inspiration Areas, and/or areas with geographic gaps in public tennis court distribution.	Effective immediately. Implement on a case-by-case basis through park redevelopment 11 courts currently budgeted; locations TBD	Long Term	Park Planning / Park Development	Subject to annual budget process	Yes
28	Support the Recreation Division by monitoring existing Community Tennis Club membership and participation rates. Discuss opportunities to consolidate community groups and clubhouse locations where club membership falls below 75 players per court.	• In process	Ongoing	Recreation / Park Planning	N/A	No
29	Consider amalgamating a minimum of four underutilized/low quality neighbourhood tennis courts and reallocate their usage to a new complex that contains a minimum of four lit courts- located north of Highway 403.	In process	Long Term	Park Development	Subject to annual budget process	Yes
30	Include pickleball lines where feasible when public tennis courts are being re-surfaced. New tennis courts should be evaluated to determine opportunities to jointly meet tennis and pickleball needs.	Consideration shall be given to implementation on a case by case basis	Ongoing	Park Development	Subject to annual budget process	No



Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
31	Consider opportunities to provide a dedicated outdoor pickleball facility. A location should be chosen that can accommodate between six and eight pickleball courts. Provision of amenities over and above court conversions should be jointly funded by the City and pickleball organizations that would use the complex.	 Receipt of funding from Pickleball Group Consideration shall be given to implementation on a case by case basis as parks are redeveloped. 	Medium Term	Park Planning / Park Development	Subject to annual budget process	Yes
32	Undertake a utilization review of outdoor fitness equipment through future Park Amenity Surveys and compile data for outdoor fitness program participation to inform future provision standards.	Adoption of Future Directions Master Plan for Parks and Forestry.	Short Term	Park Planning / Park Development	N/A	Yes
33	Additional sand volleyball courts should only be considered where supported by identified site-specific service needs, with candidate locations including Service Area 1 and/or Service Area 2 (Park 459 is an option), as well as in proximity to the Downtown intensification corridor.	Consideration shall be given to implementation on a case by case basis as parks are redeveloped.	Ongoing	Park Planning / Park Development	Subject to annual budget process	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
34	Playgrounds should be provided within 800 metres of residential areas or 400metres in identified intensification zones, unimpeded by major pedestrian barriers. Of these, one allinclusive, barrier-free play site should be constructed in Service Area 2, as well as one adventure/natural play site, designed to specifications developed by the City and in accordance with site conditions of the selected park(s).	 Geographic gap in distribution identified Mississauga Official Plan Review Consideration shall be given to implementation on a case by case basis as parks are redeveloped. 	Ongoing	Park Planning / Park Development	Subject to annual budget process	Yes
35	The City is moving towards accessibility in all play sites. In all future new or redeveloped play sites, accessible elements should be added and may include accessible swings, equipment features, routes and cost effective, accessible safety surfacing.	Consideration shall be given to implementation on a case by case basis as parks are redeveloped	Ongoing	Park Development	Subject to annual budget process	Yes
36	Explore ways to integrate nature theming/natural elements into play sites to increase play value and to support environmental and climate change awareness.	Consideration shall be given to implementation on a case by case basis as parks are redeveloped	Ongoing	Park Development	Subject to annual budget process	Yes
37	Integrate beginner-level skateboarding amenities such as basic rails and curbs within community park development and redevelopment projects, where feasible, to provide localized opportunities for park users to hone skills on their skateboards, scooters and bikes.	Consideration shall be given to implementation on a case by case basis as parks are redeveloped	Ongoing	Park Development	Subject to annual budget process	Yes



Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
38	Continue to plan for the development of additional leash-free zones using criteria in the city's policy for leash-free zones. Six new locations should be targeted to improve the city-wide	 In process Consideration shall be given to implementation on a case by case basis as parks are redeveloped 	Medium Term	Park Development	Subject to annual budget process	Yes
39	Develop a leash-free zone model that can be applied to smaller parks or urban spaces in areas of intensification on a case by case basis, or requested as part of developer agreements.	Complete	Short Term	Park Development	Subject to annual budget process	Yes
40	An update to the Recreational Boating Capacity and Demand Study (2015) should be undertaken to investigate the potential expansion of the Lakefront Promenade Marina and/or development of a new marina location to address the demand for boat slips. The results of the study will be subject to the outcome and impacts from the possible redevelopment of the 1 Port Street East Marina.	 Budget Approval Development approvals process for the 1 Port Street East property. 	Short Term	Park Planning	Subject to annual budget process	No
41	Refine the 2015 Mississauga Marina Business Case Study recommendations for a future marina at 1 Port Street East and ensure the feasibility of a full-service, publicly-owned marina prior to making a decision on the development approach.	• In process	Short Term	Park Planning	N/A	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
42	Engage school boards in discussions to explore the joint development and maintenance of sport fields and hard surface courts, such as multi- use pads, basketball courts and tennis courts.	• In process	Ongoing	Park Planning	Subject to annual budget process	Yes
43	Prioritize outdoor recreational amenities for re- development and/or replacement using condition index criteria. Amenities should be prioritized for capital funding when their condition reaches poor condition.	In process; business as usual	Ongoing	Park Development	Included in capital budget	No
44	Develop an Outdoor Recreation Facility Lighting Policy to provide consistency in constructing light standards and criteria to guide where lighting will be recommended.	Adoption of the Future Directions Master Plan	Short Term	Park Planning	N/A	No

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
Enhai	ncing Park Experiences					
45	Confirm priorities for the redevelopment/upgrading of existing, older parks to support: growth and intensification, changing demographics, cultural influences, opportunities for self-directed and informal activities, and climate change resiliency. Priority will be given to older parks that are adjacent to new parkland undergoing the Master Planning process, in order that a comprehensive approach is undertaken. Examples include the JJ Plaus Park/1 Port Street East redevelopment and the JC Saddington/70 Mississauga Road redevelopment.	 Consideration shall be given to implementation on a case by case basis as parks are redeveloped. Budget Approval Receipt of parkland through dedication 	Ongoing	Park Planning / Park Development	Funded as per 2019-2028 Capital Plan	Yes
46	When developing new parks and redeveloping older parks, the City should consider how to best optimize winter use of parks and the trail/pathway system in selected locations where there is sufficient community interest, appropriate infrastructure, and where it is financially viable.	Consideration shall be given to implementation on a case by case basis as parks are redeveloped.	Ongoing	Park Development / Park Operations	N/A	Yes
47	Review and consider an extension of park hours to align with contemporary urban lifestyles, either across the park system, in selective parks, or seasonally.	Review of Parks By- law	Short Term	Park Operations / Park Planning	N/A	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
48	Complete the 2018 Washroom Study to direct the criteria for and provision of washrooms in parks. Test implementation of new standards or innovations (including temporary facilities) through pilot projects.	Adoption of the Future Directions Master Plan	Short Term	Park Planning / Park Development	Subject to annual budget process	Yes
49	Develop guidelines for the provision and location of hydration stations in parks. Test the implementation through pilot projects.	Adoption of the Future Directions Master Plan	Short Term	Park Planning / Park Development	N/A	TBD
50	Develop criteria, shade options and funding strategy for the provision of a variety of types of shade structures and support for shade as a requirement for basic park development.	 Approval of capital budget and approval of DC update \$250K per year currently allocated to new shade structures for the next 10 years 	Ongoing	Park Planning / Park Development	Funded as per 2019-2028 Capital Plan	Yes
51	Implement the strategy to integrate consistent park signage and identity for all City of Mississauga parks based on the Park Signage Standards Manual (2016). As part of the park signage strategy, explore unique theme branding for the Credit River Valley Trail and Waterfront Trail and a destination waterfront hub for parks within the Port Credit area.	Completion of inventory and development of standardized signage.	Long Term	Park Planning / Park Development	Funded as per 2019-2028 Capital Plan	No
52	Improve park waste diversion rates through park user education, improved waste receptacle design, signage (i.e., branding for dog waste) and operational support.	• In process	Ongoing	Park Operations	Funded as per 2019-2028 Capital Plan	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
53	Mitigate parking congestion at parks by seeking vehicle diversion strategies. Use the criteria established in the City's Parking Master Plan and Implementation Strategy to identify various parking improvement options including parking agreements, improving temporary parking during events and evaluating paid parking where appropriate.	Adoption of the Future Directions Master Plan	Ongoing	Park Planning/ Park Development	N/A	None
54	Through implementation of the Cycling Master plan update (2018), the Waterfront Parks Strategy refresh (in progress), and the Credit River Parks Strategy (2013), the City should continue to plan for and develop a continuous and interconnected trail and pathway system, including wayfinding signage, in its parks and Natural Heritage System.	 Consideration shall be given to implementation on a case by case basis as parks are redeveloped. Budget Approval Receipt of parkland through dedication 	Ongoing	Park Planning / Park Development	Subject to annual budget process	Yes
55	Expand the provision of food and beverage services in City parks to enhance the park user experience with a priority on destination and waterfront parks.	Completion of successful pilot project	Medium Term	Park Operations	N/A	Yes
56	Create an inventory of heritage assets found within parks. A use analysis study should be completed for these assets and incorporates work already completed in existing master plans.	 Adoption of the Future Directions Master Plan. 	Short Term	Park Planning / Culture Division	Subject to annual budget process	No

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
57	Investigate opportunities and partnerships for new/redeveloped infrastructure to support kayaking, canoeing, rowing and stand-up paddle boards - with rentals, storage, and launch areas.	 Adoption of the Future Directions Master Plan. Partnerships to be investigated in conjunction with Recommendation #62 on a case-by- case basis 	Ongoing	Park Planning	N/A	No
58	Complete the technical and environmental shoreline studies required to support non-motorized water sport amenities on Mississauga's waterfront.	 Adoption of the Future Directions Master Plan. Completion of the Waterfront Parks Strategy 	Short Term	Park Planning	Subject to annual budget process	Yes
Comn	nunity Engagement and Park Stewardsl	nip				
59	Develop marketing tactics, educational materials and partnerships to heighten awareness of the importance of Mississauga's urban forest, street trees and natural areas and to encourage supportive best practices on private property.	• In process	Ongoing	Park Operations (Marketing Coordinator)	N/A	Yes
60	Expand the engagement of residents and community groups in the stewardship of the urban forest and work with partners to expand efforts on public lands.	• In process	Short Term	Forestry / Park Operations	Subject to annual budget process	Yes



Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
61	Proceed with the development of the Stewardship Plan including the establishment of a Community Services Integrated Volunteer Program.	• In process	Short Term	Park Planning	Subject to annual budget process	Yes
62	Develop formal processes for evaluating partnership opportunities and invitations from external parties, whether they include community groups, agencies or the private sector. This would require a business plan for initiatives of a scale that exceeds that of the City's grant programs, or requires a substantial long-term operational commitment.	Adoption of the Future Directions Master Plan.	Medium Term	Park Planning	N/A	No
63	Investigate opportunities and the use of new partnerships (i.e. public/non-profit and public – private partnerships) to successfully support the delivery of parks services.	Implement on case- by-case opportunity driven basis.	Ongoing	Park Planning	N/A	No
64	Complete a management plan for the Brueckner Rhododendron Gardens so that long-term goals, objectives, public uses and management needs can be determined in consultation with the public, potential stewardship organizations, and other stakeholders and interest groups.	Work to commence in 2019	Short Term	Forestry / Park Operations	N/A	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
Clima	te Chance Resiliency					
65	The ongoing development of park design standards should include measures to address climate change resiliency in parks, open spaces and greenlands.	 Any time a design standard is updated consideration should be given to this recommendation. 	Ongoing	Park Development	N/A	No
Ceme	teries					
66	Based on the completed business analysis, confirm the site for a new cemetery location to meet needs over the long term. The site should be designed and developed through a site Master Plan to realize its full business potential and to best serve Mississauga's diverse cultural communities. Potential partnerships should be investigated.	Implementation shall be undertaken upon identification of a suitable site for a new cemetery	Medium Term	Park Planning / Park Operations / Business Planning	Subject to annual budget process	Yes
67	Complete the city-wide Cemetery and Crematorium Feasibility Study to assess market trends and financial analysis of potential initiatives for all of Mississauga's existing cemeteries, addressing forecasted needs in the bereavement industry and opportunities to offset maintenance costs through revenue generation.	• In process	Short Term	Park Operations / Business Planning	N/A	Yes

Rec.#	Recommendation	Implementation Trigger(s)	Timeframe	Section(s) Most Responsible	Estimated Capital Costs	Additional Operating Costs
68	Pursue arboretum / memorial forest components in conjunction with basic park development plans. These features provide the centralization of memorial trees in one location and a place for spiritual connection to nature.	 Consideration shall be given to implementation on a case by case basis as parks are redeveloped. 	Long Term	Park Development / Park Operations	Subject to annual budget process	Yes





