

waterfront parks strategy



FINAL REPORT
MARCH 3, 2008

(As Amended by Council March 26, 2008)

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in conjunction with:

Poulos and Chung Ltd.
Baird and Associates

The Power of Water and Place

General Committee Recommendations

The General Committee recommendation GC-0197-2008 was adopted by Mississauga City Council on March 26, 2008. The recommendation as approved by Council is as follows:

1. That the deputations made by Ms. Susan Burt, Director of Planning, Development and Business Planning, Community Services, Ms. Anne McIlroy, Brook McIlroy Inc Pace Architects, Ms. Ruth Marland, Strategic Leader, Planning and Building Department, Ms. Dorothy Tomiuk, Viva Port Credit, and Mr. Boyd Upper, Whiteoaks Lorne Park Community Association, to General Committee on March 19, 2008 with respect to the Waterfront Parks Strategy be received.
2. That the 'Waterfront Parks Strategy' document dated March 3, 2008, under separate cover, be approved to provide guidance to future waterfront parkland uses, development and programming, Future Directions for Recreation and Parks Implementation Plan, parkland acquisition, the capital budget process, and Mississauga's strategic and sustainability plans.
3. That prior to the finalization of a plan for the development of Marina Park, the proposed elimination of the boat launch ramps within Marina Park will be subject to further review of launch ramp use, demand, the accommodation of capacity elsewhere and further public consultation; and that the decision on the future of the launch ramps within Marina Park shall be approved by Council.
4. That Section 4.12, second paragraph of the Waterfront Parks Strategy report be amended to state: 'The following uses are examples of activities and facilities that would generally be discouraged from the waterfront: Arena Pad; Leash Free Areas; Baseball; Formal Soccer Fields; Softball; and Lacrosse. Where the uses already exist, the facilities can remain, however, their expansion is discouraged. Consideration for these types of uses or facilities within new park developments would be reviewed based on their individual and site specific merits.'

Acknowledgements

We are most appreciative of the all the contributions made by the many members of the public, special interest groups and approval agencies; especially the significant contributions made by the Region of Peel and the Credit Valley Conservation Authority.

Additionally, we thank the many City of Mississauga staff who invested time and energy in the Waterfront Parks Strategy, especially those who were part of the Internal Stakeholder and Steering Committees which represented the following Departments:

Community Services Department

Susan Burt; Director, Planning, Development and Business Services Division, David Marcucci; Manager, Planning and Heritage Section, Laura Piette; District Manager, South, Recreation and Parks, Lorenzo Ruffini; Manager, Development Section, Frank Buckley; Manager, Parks South District, Recreation and Parks, Andy Wickens; Manager, Parks, Recreation and Parks, David Broderick; Manager, Marina Operations, Audrey DeSouza; Administration Assistant, Development Section, Jill Goldie; Project Manager, Development Section, Janet Lack; Project Manager, Development Section, Eric Lucic; Planner, Planning and Heritage Section, Katie Mahoney; Planner, Planning and Heritage Section, Sangita Manandhar; Planner, Planning and Heritage Section, Janet Squair; Landscape Architect, Planning and Heritage Section, Carmen Zammit; Administration Assistant, Planning and Heritage Section, Ruth Marland; Project Leader, Planning and Heritage Section

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Sarah Culp; Intern Landscape Architect, Planning and Heritage Section, Colleen Ditner; Intern Planner, Planning and Heritage Section, Susan Mentis; Landscape Architect, Planning and Heritage Section, Gil Penalosa; Business Analyst, Business Planning Section

Corporate Services Department

Laurel Schut; Public Affairs Consultant, Communications Division

Planning and Building Department

Bruce Carr; Director, Strategic Planning and Business Services Division, Ron Miller; Manager, Long Range Planning, Policy Division, Mary Bracken; Environmental Planner, Policy Division, Jane Darragh; Landscape Architect, Development and Design Division

Transportation and Works Department

Mel Kayama; Transportation Plan Analyst, Transportation and Infrastructure Planning Division

Executive Summary

Introduction

The Mississauga Waterfront Parks Strategy is a comprehensive long term plan to manage the future development of the City's Waterfront Parks. The Strategy sets park development priorities, guides park design, recommends programming for each park and identifies criteria for park expansion. Key strategic goals include better integration and connectivity of Waterfront Parks, improved connections to the city at-large, the introduction of more sustainable elements into the parks and promotion of a stronger relationship between the parks and the existing natural systems.

The purpose of the Strategy is to:

1. Guide future park planning/design and land-use decisions;
2. Promote a triple bottom line approach in park design which considers environmental, social and economic sustainability;
3. Plan for future park expansions;
4. Identify key park elements which will contribute to year-round enjoyment and greater continuity;
5. Inform budgetary decisions;
6. Set park development priorities;
7. Preserve and Enhance existing natural systems; and
8. Provide recommendations for future work.

Implementation of this strategy will enhance the City's recreational, cultural and community amenities, and will help promote economic and socially sustainable park design thereby achieving Provincial, Regional and local planning objectives.

Public Consultation

The development of the Mississauga Waterfront Parks Strategy incorporated input from an extensive public and stakeholder engagement process. Public input was collected through one-on-one park user interviews, the Waterfront Parks website, mailed self-administered surveys, two public information and workshop sessions in wards 1 and 2 and a final public open house. This input was used in the development of the vision and key principles that guided the creation of this document. The series of public consultation events were as follows:

- February 21 and 23, 2006: Open House and Workshop
- June 28 and 29, 2006: Open House and Workshop
- November 29, 2007: Open House

Vision Statement

Embrace the spirit of the lake and the river at the point where land and water unites.

Identify the place where the natural and urban environments connect with locations for rest and relaxation for all.

Educate with the knowledge gained from experiencing the Waterfront Parks and demonstrate how to lead by example.

Connect the physical, natural, cultural and emotional elements of the parks to the community, the environment and to the passage of time.



The comprehensive long term Strategy supports high quality park design that seeks a balance between public recreation and the natural environment.

Guiding Principles

1. Environment first;
2. Finding a balance between the natural environment and public recreation;
3. Sustainability of the parks system relative to the needs of the environment, society, culture and economy;
4. Make the parks system a vibrant place;
5. Pursue design excellence and innovation;
6. Pursue best management practices;
7. Ensure safety, security and accessibility;
8. Create parks as good neighbours within the community;
9. Ensure an inclusive process for decisions and actions related to the waterfront park system.

Waterfront Park System

The Waterfront Park System has been divided into eight park areas moving from east to west. These park areas were determined through an analysis of the existing park uses and locations. Each park area plays an important role in the waterfront park system and serves a different need for the overall city/community. These include Gateway Parks, Waterfront Recreational Parks, Community and Historical Parks, the Urban Activity Centre and Traditional Parks /Primary Natural Areas. For each area a long term vision was developed which includes a series of short and long term programming

recommendations that will aid in the implementation of the park area vision. These recommendations are based on a survey of the entire park system and begin to balance the distribution of popular park programming across the entire system ensuring equal access to activities.

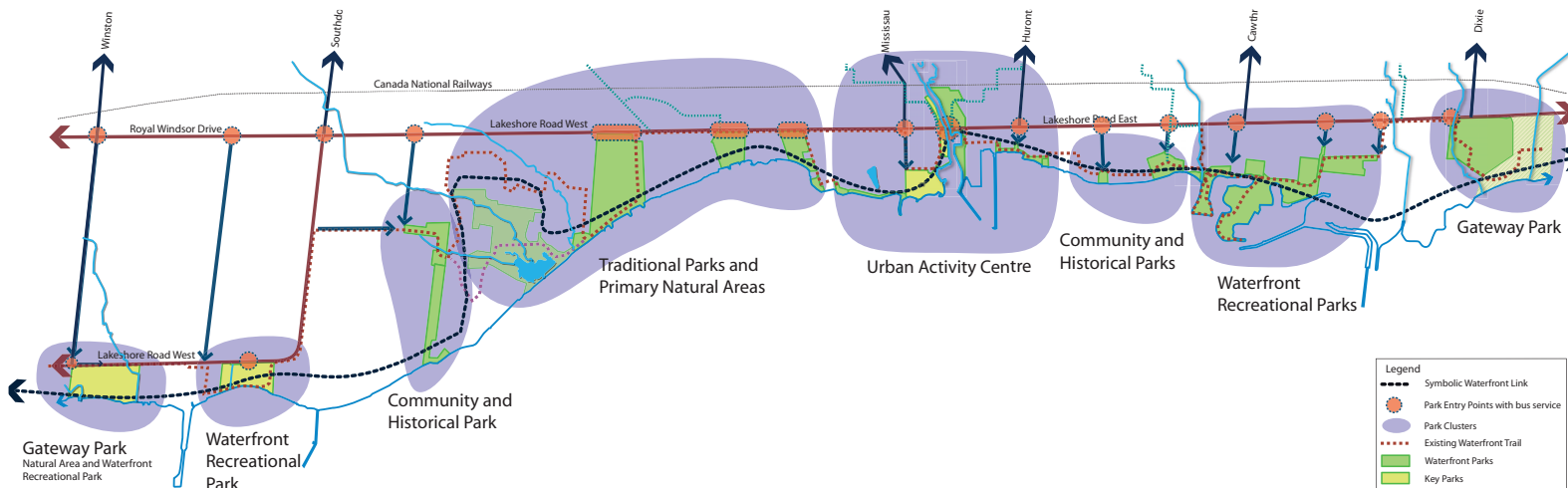
Plans for various aspects of the Waterfront Park System were identified including programming, maintenance and design recommendations to be considered for the development of the new and existing Waterfront Parks. The recommendations provide a framework by which the City can evaluate future park design proposals and prioritize park upgrades. There are two types of recommendations included:

1. Those that address the entire waterfront system including connectivity, identity, sustainability and shorelines; and
2. Those that are more waterfront park oriented, addressing elements such as signage, seasonal usage, accessibility and landscaping, etc.

The detailed park recommendations can be considered by the City on a park by park basis as upgrade opportunities are presented.

Key Strategies

1. **Park System Connectivity** – the emotional, physical and visual connections are documented and recognized as critical to the health and sustainability of the park system as well as its profile within the City.



Waterfront Park System Park Areas Diagram.

2. **Park System Identity** – the waterfront park system’s identity through both its physical characteristics and policy framework need to be prominent, consistent and flexible to accommodate each site’s individual elements and opportunities.
3. **Park System Sustainability** – the park system needs to be cognizant of the natural heritage connections and relationships that shape park programming and works accordingly. There is also an opportunity to build on existing and new partnerships to help support ongoing and new initiatives.
4. **Park System Shoreline** – the shoreline of the park system has many elements including aquatic habitats and fisheries buffers, terrestrial habitats and shoreline related hazards. In protecting and conserving the lake as a renewable resource, its shoreline has to be respected accordingly. Therefore the strategy speaks to understanding the shoreline and natural shoreline restoration opportunities.



Increasing park usage in the winter months will rely on seasonal landscaping, park maintenance, park programming and the ability to find places to find warmth.

5. **Sustainable Best Practices** – “Green” technologies are promoted such as permeable parking areas with bioswales and alternative energy services.
6. **Transportation** – Transit, pedestrian and recreational access is important to ensure parks are well connected, accessible and sustainable through the analysis of park entrance accommodation of pedestrians and cyclists, transit and vehicles. The strategy encourages alternative modes of transportation to the parks in order to decrease the reliance of the park system on vehicular parking.
7. **City Signage** – A hierarchy of signage is recommended for the Waterfront Parks system to clearly delineate signage related to direction, interpretation, naming and use.
8. **Circulation** – Street networks, the waterfront trail and park pathways all form critical elements of the waterfront system with direct connections to each park and to the balance of the City. Recognition of these elements through distinctive landscaping and trail hierarchy of size will assist in improving the public’s understanding of the park system and connections.
9. **Waterfront Activities** – In planning for upgraded, expanded and new Waterfront Parks, it is recommended that more passive land based recreational uses be approved and that over the long term, park areas dedicated to specific recreational uses such as sports fields be removed from the waterfront;
10. **Education and Seasonal Use** – The use, programming and design of the park system should include interpretation promoting respect for the environment from the perspective of natural and cultural environment history and inventory. Design should consider seasonal use of the Waterfront Parks through the provision of wind protection; warming stations, snow and ice removal and park use and events.
11. **Landscaping** – More naturalization of the park system is appropriate given the “environment first” principle of this plan and to ease resource pressures for parks management. Landscaping should be designed for sustainability; seasonality; and interpretation.

Priority Parks

The recommendations from the Waterfront Parks Strategy are applied to five priority parks that were selected for review in order to alleviate environmental, operational and recreational impacts on other well-used Waterfront Parks. Consequently, concept designs were developed for each park as a starting point for the future detail design process.

Port Credit Memorial Park West

The concept plan for Port Credit Memorial Park West is for a place to enjoy river activities and explore the area's history related to the Credit River and includes the following park uses:

- Water's edge walkway;
- Water's edge seating;
- Non-motorized boat launch facility;
- Open Lawn and stepped river bank areas for river activity viewing;
- Education and interpretation Area;
- Olympic Walk of Fame to document achievements of local athletes;
- A new Waterfront Trail connection to Marina Park at grade or below the Lakeshore bridge;
- A variety of planted areas to aid in geese management and to provide buffering from adjacent uses;
- Varying soft and hard water's edge treatment to facilitate fish habitat and the dissipation of wave action; and
- Parking along Front Street North.



Artistic rendering of the possible promontory feature at JC Saddington Park.



Artistic rendering of the possible splash pad at Lakeside Park.

Marina Park

Marina Park will be a vibrant, pedestrian friendly urban plaza providing the public with access to the river's edge and serve as an important connection between Memorial Park West and J.C. Saddington Park. The multi-use civic space and flexible open and green spaces can support a variety of community functions that reflect the cultural heritage themes of Port Credit Village. The proposed concept master plan for Marina Park includes the following park uses:

- Fishing;
- Short term vehicle access;
- Water's edge walkway;
- Water's edge seating;
- River activity viewing areas;
- Education and interpretation;
- Multi-use civic space;
- Flexible use open green space;
- Charter boat facilities;
- Locations for seasonal kiosks;
- Open air structure; and
- Future village market place.

J.C. Saddington Park

J.C. Saddington Park will continue to act as a destination park focusing on full-service, all-season family activities and events with a strong heritage interpretation component as well as the following additional park uses:

- All season park pavilion;
- Reconfigured parking areas, reduced parking areas;
- Water's edge Boardwalk to Marina Park;
- Water's edge seating;
- Lake activity viewing areas;
- Education and interpretation;
- Water Access;
- Winter Programming and facilities; and
- Non-motorized watercraft launching facilities.

Lakeside Park

Lakeside Park will be themed as a demonstration area for green technologies; a commentary landscape focusing on the contrast between industrial and waterfront landscapes and is proposed to include the following park uses:

- 2 Children's play areas with 1 splash pad;
- Comfort station with washrooms;
- Leash free area;
- Flexible open space with designated area for events;
- Multi-use trails;
- Erosion education elements;
- Water access from beach;
- Open lawn area;
- Naturalized meadow and restoration areas;
- Demonstration gardens; and
- Picnicking.

Park 389 – Not Yet named (unofficially referred to as Fusion)

The house will be themed as an early century manorhouse with a narrative landscape, powerfully linked to the natural environment and elemental experience while the concept for the surrounding park land includes:

- Event venue;
- Bird watching and nature interpretation centre;
- Picnicking;
- Walking trails;
- Educational features;
- Reuse of existing house and public access to grounds;
- Flexible open spaces;
- Naturalized areas;
- Waterfront Trail connection, and,
- Skating rink on the front lawn adjacent to Lakeshore Road.

Implementation Plan

The Waterfront Parks Strategy includes a number of implementation directions to ensure it is achievable. The following outlines some of the elements:

1. **Design Checklist** - This is a tool to test new park development or existing park redevelopment against the strategy recommendations.
2. **Waterfront Parks/Open Space Land Securement Criteria** - Outlined in the list below are the securement criteria for the waterfront parkland and open spaces. These criteria are intended to provide direction to staff and City Council as to the expansion priorities for the existing Waterfront Parks and open space networks. Established criteria enables the City to act efficiently and appropriately as park expansion opportunities arise. The criteria are as follows:
 - Improve continuous public shoreline access;
 - Expand recreational activities;
 - Provide needed support facilities;
 - Improve views and 'windows' on the Lake;
 - Protect sensitive and /or natural features;
 - Expand natural features and systems;
 - Protect and explore cultural heritage elements; and
 - Provide important east/west and north/south connections.

Methods of securing additional park lands could include public-private partnerships, land easements, access agreements, land acquisition, land conveyances and/or protection agreements. Parks are not recommended to be expanded through land expropriation.

3. **Park Maintenance and Management** - Mississauga's Waterfront Parks, by virtue of their location represent a significant city-wide resource. Given this, these parks should be managed in a manner consistent with the City's "Placemaking" initiative. This will require a management structure geared toward implementation of parks programming and events, and active community engagement. Management resources and expertise will need to be devoted to working with community groups, businesses, schools, and other stakeholders to develop activities, amenities and programs that meet community needs. Management will need to focus on community building, programming, partnerships,

alternate sources of funding, communication and promotion in addition to the more traditional role of parks maintenance.

4. **25 Year Planning Action Plan** - This strategy outlines a number of works, initiatives and enhancements to be pursued within the 25 year planning horizon to assist the City with Capital budgeting and planning; identification of future studies and approval processes.

Conclusion

As the City proceeds into the millennium, one of its goals is to ensure that the waterfront is protected and remains a phenomenally rich resource. For this reason the Mississauga Waterfront Parks Strategy provides a long term vision for Waterfront Parks located along the Lake Ontario and Credit River shoreline. This comprehensive plan outlines the framework required to ensure the enhancement, creation and maintenance of sustainable, desirable and unique waterfront recreational opportunities and public spaces in recognition of Lake Ontario as an invaluable natural and cultural resource.



Successful partnerships have already been achieved in expanding continuous shoreline access in some areas.

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1.0 Introduction and History

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Artistic rendering of possible Memorial Park West



Jack Darling Park, January 2006

1.1 Introduction

Mississauga's shoreline is a phenomenal ecological, historical, and recreational asset that benefits the residents of the city and surrounding communities. Twenty-five parks define the shoreline providing public access to the lake and diverse recreation opportunities. The Mississauga Waterfront Parks represent a significant part of the City's portfolio from a physical land, natural and cultural heritage perspective.

The City is a leader in making the waterfront open, accessible, clean, green, diverse and affordable. Mississauga's Waterfront Parks are a premier destination today and are very popular as evidenced particularly in the summer. On any warm day, the Waterfront Parks are bursting with people of all ages, abilities and cultures out walking, picnicking, swimming, playing in the splash pads, fishing, boating, sight-seeing and dog-walking.

There have been challenges for the City along the waterfront given that it is home to industry, major infrastructure, recreation, commercial, environmentally sensitive areas, historical areas and a range of housing. However, working with three Conservation Authorities, other municipal partners, industry, developers and other stakeholders, the City has achieved much success along the waterfront:

Waterfront Development: Through the development approval process, the City has negotiated for development respectful of the waterfront context in terms of design, building heights, views and access. Further, the City has negotiated for waterfront park lands such as St. Lawrence Park on the former St. Lawrence Starch refinery lands in the heart of Port Credit. This new community and waterfront park is an award winning example of successful urban waterfront development;

Waterfront Park Development: In the City's early days, the City and the Credit Valley Conservation Authority developed two large Waterfront Parks through land creation (lakefill) in the lake (JC Saddington and Lakefront Promenade) – one of these parks anchors the mouth of the Credit River ever popular for its salmon fishing, while the other forms the eastern gateway to Mississauga's waterway with a well protect harbour and lengthy beach. In more recent years the City has redeveloped existing and new parks to better serve both the immediate and larger community. Of particular note is the City's work at the mouth of the Credit River, fuelled in part through federal government funding.



St. Lawrence Park, on the former St. Lawrence Starch refinery lands in the heart of Port Credit, is an award winning example of successful urban waterfront development.



The Waterfront Parks provide locations for physical access, enriching connections to the Lake.

Waterfront Trail Development: The City now boasts a continuous Waterfront Trail from one side of the City to the other travelling along the water's edge over City and private lands, along roads, through industrial lands and the Port Credit Village and is part of the TransCanada Trail system. Of the City's 120 km (75 miles) of trails, the Waterfront Trail comprises 22 km (14 miles) or 18 % of all City trails. In October 2005, the City, in cooperation with Imperial Oil, built another 600 m (2000 ft) of the Waterfront Trail along the shoreline over Imperial Oil's former refinery site;

Protection of Natural Areas: The Rattray Marsh lies along the westerly shoreline in the City and is unique in its status as Provincially Significant Wetland, internationally recognized as an important biological area and is the only remaining shingle bar marsh between St. Catharines and Oshawa, and the last remaining waterfront marsh between Toronto and Burlington. The City actively continues its partnership with CVC and other conservation authorities to foster the protection of all natural areas along the lakefront.

Waterfront Land Securement: The City has been fortunate over the years to have had the opportunity to secure additional waterfront lands through a range of methods including outright acquisition, use agreements and easements. This has resulted in new waterfront park lands and extension of the Waterfront Trail.

Waterfront Lands Management and Programming: The City of Mississauga is distinct among other municipal Lake Ontario communities as it operates two marinas and two sets of public launch ramps; is home to a fleet of charter boats within an urban village; is famous for its role in the Great Ontario Salmon Derby; for over the last 10 years, has undertaken an annual goose management and habitat modification programs to assist in water quality protection.

Looking to the future, the City is committed to connecting green corridors including that which the waterfront provides. The City has initiated the Waterfront Parks Strategy to address short and long term opportunities, operational challenges, and service delivery mandates in the context of sustainability. There are operational pressures, which relate to the significant use of the Waterfront Parks. These pressures are evidenced by crowded facilities, competing user groups and interests, garbage and litter generation, and parking deficiencies.

The Waterfront Parks Strategy will set the stage for the continued development and conservation of the City's waterfront park system as a premier destination City wide and beyond. The concepts in this document propose exciting new ideas for Mississauga Waterfront Park development and conservation including;

- Leading edge sustainable and "green" technologies utilizing renewable energy and environment friendly designs for Lakeside Park as a demonstration project;
- Building partnership opportunities for vibrant, active, all season and complimentary uses in our Credit River Harbour parks and at "Fusion";
- Recognition of the value of conservation of the shore and land as an invaluable and unique resource. Developing the waterfront as a premier destination is not only about "development" but equally about "conservation". In fact, the "Fusion" shoreline is one of the very few remaining examples along the north shore of the Lake, of the original Great Lakes original shoreline and therefore is unique with its cobble beach;



Mississauga's Parks provide places of repose, adventure and discovery along its 20 kilometre shoreline.

- Design and landscape strategy to readily identify, visually link the surrounding City roads, neighbourhoods to the waterfront and to establish a consistent marker to announce the entry into the Waterfront Parks;
- Telling the stories of the waterfront park lands through site design, use, programming and interpretative features. Sites such as “Fusion” have much history to offer and lead the overall design in recognition of the hundreds of years of habitation.
- Also of note in the Waterfront Parks Strategy is the Park Land Expansion Strategy wherein criteria have been established to guide future land acquisition and use agreements.

1.2 Purpose of Mississauga Waterfront Parks Strategy

The City of Mississauga plans to continue its successful record of leading for tomorrow through sustainable, creative and resourceful planning, conservation and development of its lakeshore. As the City proceeds into the millennium, one of its goals is to ensure that the waterfront is protected and remains a phenomenally rich resource. For this reason the Mississauga Waterfront Parks Strategy has been developed to provide a long term vision for Waterfront Parks located along the Lake Ontario and Credit River shoreline. This comprehensive Strategy outlines the framework required to ensure the enhancement, creation and maintenance of sustainable, desirable and unique waterfront recreational opportunities and public spaces in recognition of Lake Ontario as an invaluable natural and cultural resource.

The Mississauga Waterfront Parks Strategy is a comprehensive long term plan to manage the future development of the Waterfront Parks. The Strategy will set park development priorities, guide park design, recommend programming for each park and identify possible areas for park expansion. Key strategic goals of the Strategy include better integration and connectivity of Waterfront Parks, improved connections to the city at-large, and the introduction of more sustainable elements into the parks. Another primary goal of this Strategy is to promote stronger relationships between the parks and the existing natural systems.

The goal of the Strategy is to:

1. Guide future park planning/design and land-use decisions;
2. Promote a triple bottom line approach in park design which considers environmental, social and economic sustainability;
3. Plan for future park expansions;
4. Identify key park elements which will contribute to year-round enjoyment and greater continuity
5. Inform budgetary decisions;
6. Set park development priorities;
7. Preserve and Enhance existing natural systems; and
8. Provide recommendations for future work.

Implementation of this strategy will enhance the City's recreational, cultural and community amenities, and will help promote economic and socially sustainable park design thereby achieving Provincial, Regional and local planning objectives.



Mississauga Waterfront Park System

1.3 Overview of the Mississauga Waterfront Parks Strategy

Section 1.0: Introduction and History - An overview of the context and background information used in the formulation of this Parks Strategy. This section introduces some of the key concepts and objectives covered in this document.

Section 2.0: Guiding Principles - The Guiding Principles section outlines the overall vision, and highlights long term priorities for the Mississauga Waterfront Parks Strategy.

Section 3.0: Waterfront Park System Strategies - An overview of all the design, programming and long term planning strategies that should be considered when planning for the Mississauga Waterfront Parks.

Section 4.0: Waterfront Parks System Study Area from East to West - An overview of the 25 existing park conditions are summarized and evaluated and programming recommendations are provided. Parks are also described by context (historical, physical, and cultural) and theme.

Section 5.0: Priority Park Concepts - Conceptual Master Plans for the 5 priority parks. This Chapter addresses the priority park concepts, explains how the Park System Strategies were implemented and provides visual representations of the park's conceptual design.

Section 6.0: Implementation of Overall Park Strategies - Next steps, timelines and key recommendations are outlined in Chapter 6. This Chapter is to be used as a tool for the City in developing future potential studies, planning new park development/construction, park management and preservation strategies, and park expansion opportunities.



Western Portion of the Waterfront Park System



Mouth of Credit River on Lake Ontario

1.4 Overview of the Waterfront Parks

The City's Lake Ontario waterfront consists of 22km (14 miles) of shoreline, of which, the City controls 46% in the form of parks and natural areas. There are 25 Waterfront Parks supporting a range of recreational uses and activities linked by Lakeshore Road and the Waterfront Trail which is 656.3 km long and extends southwest to Niagara-on-the-Lake and east to the Quebec border. The Mississauga Waterfront Park System is centred at the mouth of the Credit River in Port Credit and includes well distributed parks east and west to the municipal boundaries. Each park provides a unique experience of the water by offering a variety of views, environmental and shoreline conditions and access to facilities and activities. Reinforcing and enhancing this diversity is an integral component of the overall strategy and will secure the success of an integrated Waterfront Parks System. From the City's Waterfront Parks survey work conducted since 2004, we know that people will travel up to 7.4 km to visit their preferred Waterfront Parks and that people travel even greater distances to visit our parks. Most people visit our parks to walk and view the scenery. Although the most popular combination of facilities in our Waterfront Parks is playground with a splash pad and trail. During the summer, there are an estimated 60,000 visits per day to our Waterfront Parks and approximately half that during the winter.

The Waterfront Parks covered by this study are listed from East to West. For the

purpose of this study, the parks have been grouped by physical location. Please see Section 3.0 for more information on these groupings.

Five Waterfront Parks have been identified as a priority for the development of a Concept Master Plan as their development will alleviate environmental, operational and recreational impacts on other well-used Waterfront Parks. From East to West these are: Port Credit Memorial Park West; Marina Park; J.C. Saddington Park; Lakeside Park; and the as yet unnamed Fusion Property. These priority parks are identified on mapping shown in Section 3.0 of this document.

1. Arsenal Lands (Not Yet Named) - Park 358
2. Lakeview Park - Park 381
3. Douglas Kennedy Park - Park 21
4. Lakefront Promenade - Park 323
5. A.E. Crookes Park - Park 23
6. R.K. McMillan Park - Park 226
7. Adamson Estate - Park 169
8. Hiawatha Park - Park 108
9. Tall Oaks Park - Park 142
10. St. Lawrence Park - Park 435
11. J.J. Plaus Park - Park 109
12. Marina Park - Park 112
13. Port Credit Memorial Park (East and West) - Park 106
14. J.C. Saddington Park - Park 167
15. Imperial Oil Waterfront Trail Extension - Park 486
16. Ben Machree Park - Park 107
17. Rhododendron Gardens - Park 156
18. Richard's Memorial Park - Park 67
19. Jack Darling Memorial Park - Park 12
20. Rattray Marsh (Provincially Significant Wetland) - Park 126
21. Watersedge Park - Park 16
22. Meadowwood Park - Park 6
23. Bradley Museum - Park 406
24. Lakeside Park - Park 37
25. Fusion Property (Not Yet Named) - Park 389

The following pages contain a series of maps which describe the existing elements of the waterfront system.

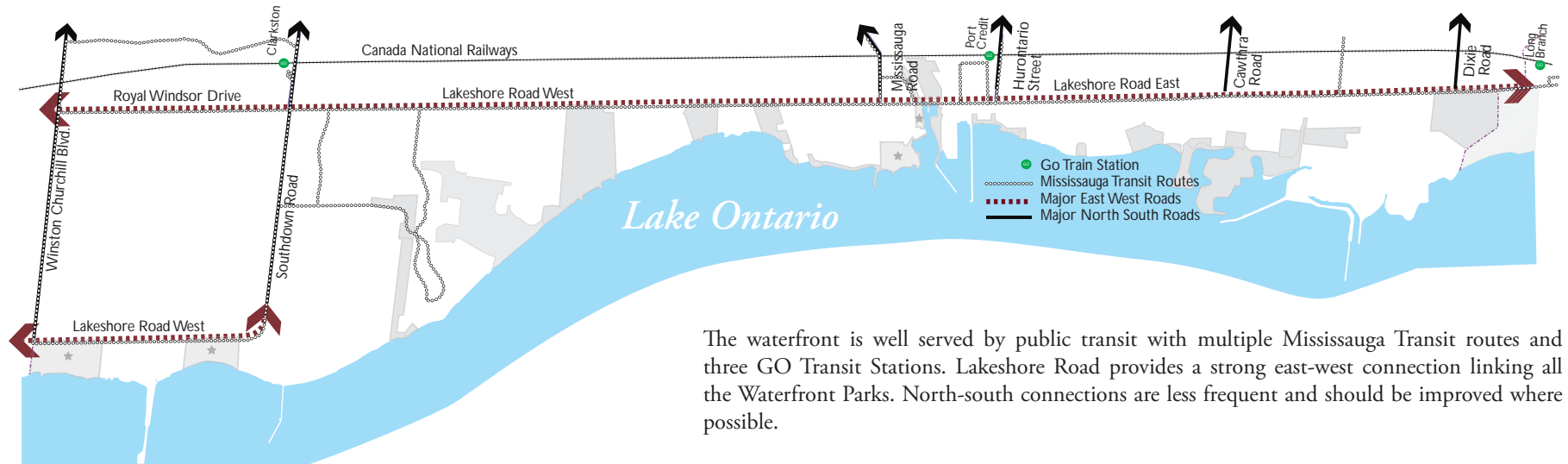


Eastern Edge of Waterfront Park System

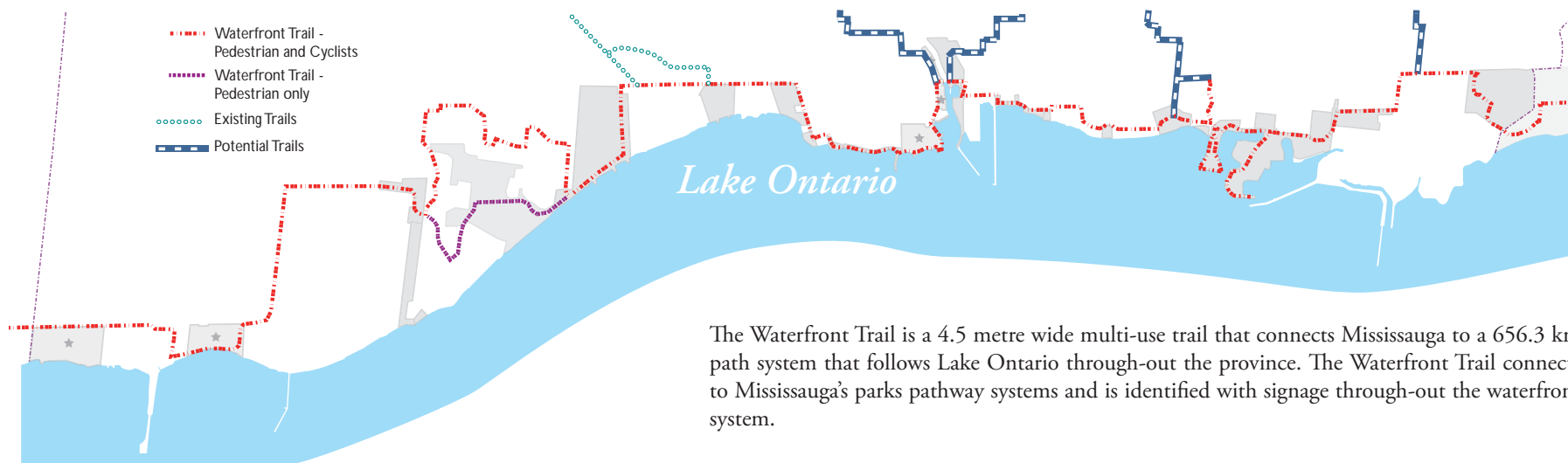
Existing Heritage Structures and Heritage Inventory Sites



Major Roads, Rail line, GO Transit Stations and Mississauga Transit



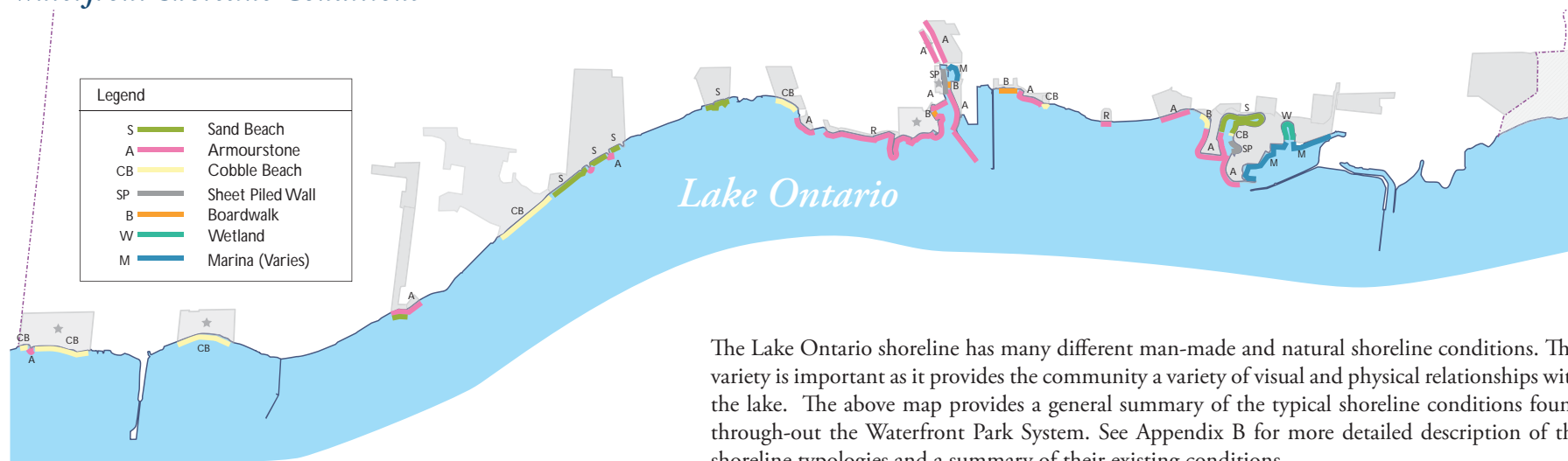
Existing Waterfront Trail and Proposed/Existing Mississauga Trails



The Waterfront Trail is a 4.5 metre wide multi-use trail that connects Mississauga to a 656.3 km path system that follows Lake Ontario through-out the province. The Waterfront Trail connects to Mississauga's parks pathway systems and is identified with signage through-out the waterfront system.

Map compiled from material provided by City of Mississauga and The Waterfront Regeneration Trust

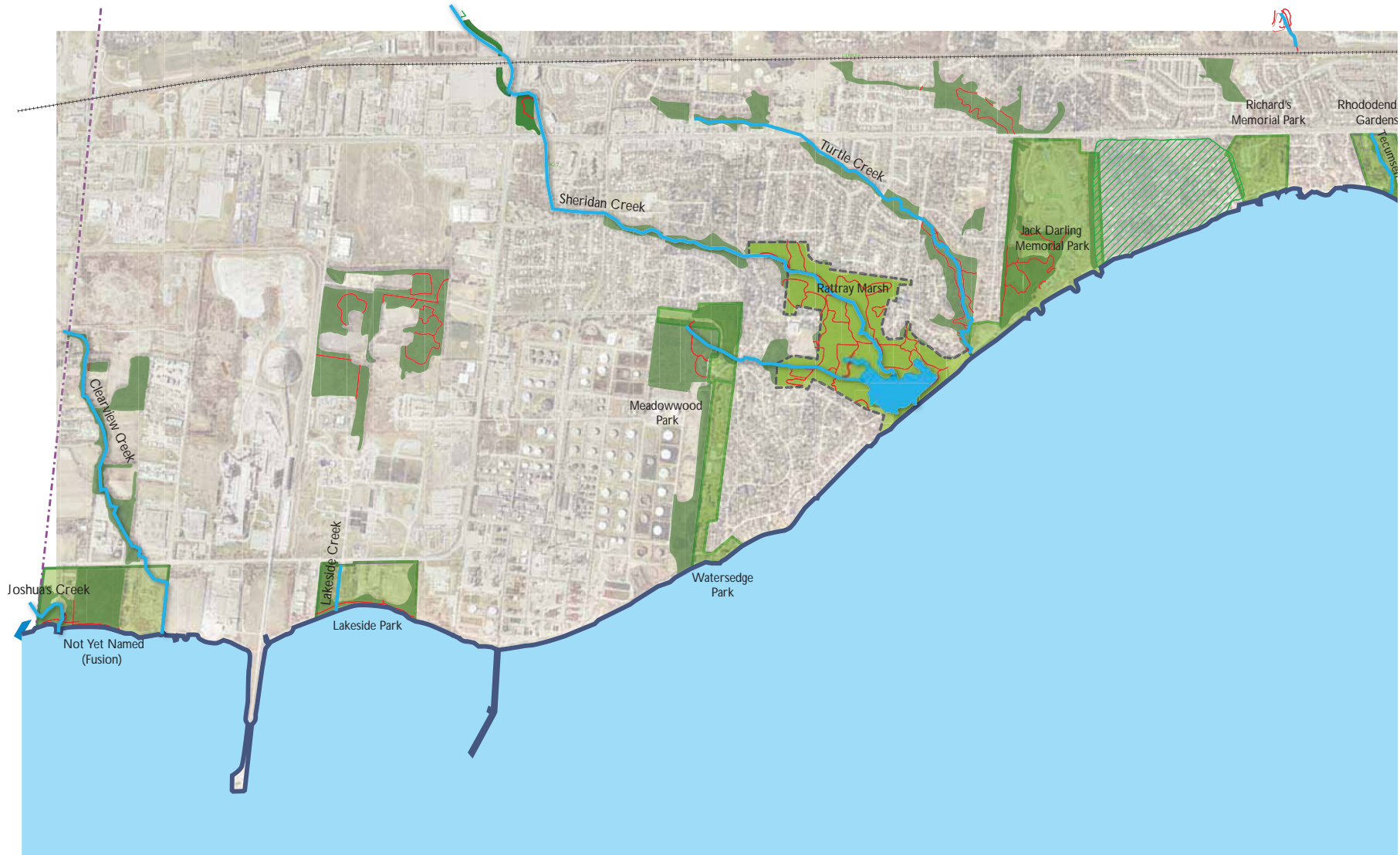
Waterfront Shoreline Conditions



The Lake Ontario shoreline has many different man-made and natural shoreline conditions. This variety is important as it provides the community a variety of visual and physical relationships with the lake. The above map provides a general summary of the typical shoreline conditions found through-out the Waterfront Park System. See Appendix B for more detailed description of the shoreline typologies and a summary of their existing conditions.

Map compiled based on the Appendix B - Coastal Engineering Overview and a visual survey of the parks

Green Corridors and Environmental Areas (this page and continued on next)



A careful consideration of the interconnected environmental networks and areas that surround and encompass the Waterfront Parks is a key recommendation of this strategy. All efforts should be made to retain existing green corridors and to create new ones. This map demonstrates the great extent of existing green corridors that should be protected and enhanced.

Map compiled based on material provided by the City of Mississauga including Natural Areas Survey





Winter activities are becoming more popular.

1.5 Overview of Previous Studies and Plans

This section outlines some of the key documents and studies reviewed in the completion of this strategy. For a complete list of resources material see Appendix B.

1.5.1 2004 Waterfront Survey

In 2004, the Community Services Department conducted a community survey in regards to the use and vision for the City's waterfront park's. In total, 2372 surveys were received.

Key Findings:

- Residents will travel up to 7.4 km (4.6 miles) to get to preferred Waterfront Parks such as Jack Darling. The median distance travelled was 7.0 km (4.3 miles). Most people travel by car (70%) or on foot (26%), and visit the parks with their families (64%) or on their own (20%). People who visit with others will travel further (up to 5.4 km / 3.4 miles) than if they visit on their own (1.7 km / 1.1 miles).
- The primary reasons people visit the parks are to use the park pathways, view the scenery, and walk their dog. These uses are generally consistent by age and gender, though women tend to visit the playgrounds and splash pads with their children more than men.
- Residents are generally satisfied with the level of maintenance in the parks. Concerns were expressed regarding garbage collection, snow removal and washroom condition. Overall satisfaction with the Waterfront Parks is very high.
- Additional special events are less strongly supported by local residents than by City residents as a whole.
- Park preference is determined by proximity, combination of amenities, views, cleanliness, and natural areas. The most popular combination of facilities is a playground with a splash pad and trail.
- 17% of users visit the parks daily year round, and almost 30% visit the waterfront daily during the summer months. Even during the winter, almost 17%

visit daily.

All survey respondents use the parks at some point during the year. During the summer, there are an estimated 60,000 visits per day, with approximately half that during the winter. The closer people live, the more frequently they visit the Waterfront Parks.

- Residents who live south of Lakeshore Road are the dominant regular park users.
- Key areas of concern for planning and design include parking and washroom availability. Specific additional site amenities are requested: water fountains, benches, additional signage, trees for shade, fencing to control access and movement within the site, and access to the lake. While satisfied with the existing facilities, respondents were consistently interested in more parks, trails, beaches, sports and children's facilities, and areas for special events. There is strong interest in increased winter programming. In light of the survey results, the following propositions should be considered:
- Waterfront park use is likely to shift to a higher proportion of local residents, rather than visitors from elsewhere in the City. Older residents are less likely to travel from other parts of the City, so as the population ages, there will likely be a decreasing willingness to travel to the waterfront on the part of the average resident.
- Waterfront users are more highly educated than the City as a whole, a trend which is likely to continue. This would suggest a greater need for education, interpretive signage, and planning and design approaches which reflect the latest thinking relative to conservation and stewardship (such as use of native plants, low impact design, innovative water management, etc.).
- While dwelling unit profile will change to a higher proportion of apartments, the current use patterns and user profile would suggest that dwelling type is unlikely to influence waterfront park use. This will be reinforced by the growing focus on local residents resulting from the changing age profile: people who live in the south

tend to live in detached homes. This result would further suggest minimal need for high density related park uses.

- The following are likely to be the key activities in the parks in the future: walking, viewing scenery, walking the dog, and passive activities such as reading, meditating, yoga or tai chi.
- Facilities which support an aging population will become more popular, such as benches, water fountains, washrooms, signage, shade areas, shelters, and accessible pathways.
- Bird watching and special events such as music concerts and art-related activities are likely to become more popular over time, and will need to be accommodated.
- Facilities for children in the waterfront will remain important as it is likely that the waterfront area will retain its dominance as a destination location for families with children. Children's facilities will need to be provided in key park locations (Jack Darling, Lakefront Promenade, and J. C. Saddington among others) into the future. It should be noted that while the proportion of young families relative to the City's population as a whole may drop in the future, real numbers will remain relatively constant. Maintenance issues will continue to be a primary concern for residents: snow clearing, garbage removal, and washroom conditions will receive attention. As the population ages, residents will tend to become more involved in prioritization and decision-making especially in terms of maintenance, planning, and design.
- Safety will be of increasing concern, suggesting increasing focus will be placed on design for crime prevention.

Through the survey the public also identified a need for the following additional recreational facilities:

- More seating;
- Additional signage, wayfinding;
- Shade trees;
- Access to the lake;
- Trail connections and use separation;
- Boardwalk along water;
- Sports facilities: beach volleyball, track, basketball;
- Children's facilities, imagination and education;
- Winter facilities: ski trails, skating, cleared trails;
- Exercise stations; and
- Leash free zones with water access.

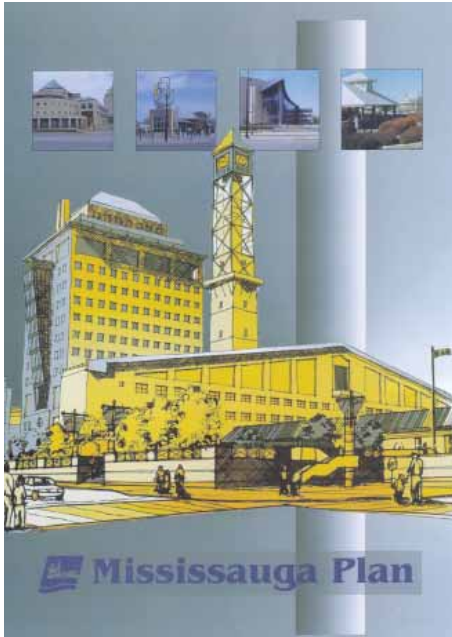
For the development of this strategy the Waterfront Survey provided key information on how the community use and see their Waterfront Parks. This survey shaped many of the park recommendations outlined in this document.



The survey revealed that more facilities for children are desired.



Facilities which support an aging population will become more popular.



Cover image: Mississauga's Official Plan

1.5.2 City of Mississauga Waterfront Plan

The 1993 Waterfront Plan examined the entirety of Mississauga's Lake Ontario Waterfront including its Waterfront Parks. The Plan provides an historical overview, summarizes existing conditions and identifies key issues.

A central objective of this plan is to make the waterfront more accessible to the public and more sustainable by creating connections to surrounding urban areas and other Waterfront Parks, expanding existing parks and protecting natural systems.

Much of the background information presented in this study is still relevant to this strategy but due to additional public input, technical innovations, additional land acquisitions and new directions in park and policy planning the 1995 design and policy recommendations have been updated and included as part of the 2006 Waterfront Parks Strategy.

1.5.3 Official Plan Waterfront Goals and Objectives

Mississauga's October 2005 Official Plan sets long-term policy goals for the Waterfront. This study has determined that existing policies are still valid, however new policies are required to address protection of natural heritage features. Greater protection for natural heritage will ensure the waterfront is ecologically sustainable and remains the community asset that it is today.

The official plan policies provided a clear starting point for the design and implementation of this strategy. Existing land-uses designations surround that parks and longterm planning strategies informed the park programming and transportation recommendation.

1.5.4 2004 Future Directions for Recreation and Parks

The 2004 Future Directions document was commissioned by the City to better understand the evolving recreational needs of residents. An important observation was that needs are changing rapidly due to an increasing and aging population and greater ethnic diversity.

The Future Directions document recommended that many additional and new types of facilities and programs be provided in Mississauga Parks. This waterfront strategy highlights which of the overall recommended amenities are appropriate for the Waterfront Parks. It is the recommendations of this Strategy that unstructured, temporary and/or passive uses including festivals, special event venues, multi-use trails, public gardens, art and heritage features, outdoor ice rinks, picnic areas, playgrounds and spray pads be favoured over highly programmed uses and facilities such as organized sports, arenas, football fields and/or baseball diamonds. It is also recommended that additional leash free areas not be added to the waterfront park system.

The 2004 Future Directions for Recreation and Parks document identifies park programming needs and surpluses for all of Mississauga. Using this document waterfront appropriate park uses were identified.

1.5.5 1995 Lake Ontario Greenway Strategy – Waterfront Regeneration Trust

The Lake Ontario Greenway Strategy was prepared by the Waterfront Regeneration Trust in 1995. It recommends integrating existing agencies with responsibilities for the Waterfront into a collaborative process. The excerpt from the Greenway Strategy below further describes the 'Greenway' and the policy goals. The Greenway Strategy provides a foundation for recommendations contained in the current document.

The study area for the strategy included the Lake Ontario waterfront from Burlington to Trenton and the associated bioregion. The goal of the Lake Ontario Greenway Strategy was to foster commitment to actions to regenerate a healthy and a sustainable waterfront that is clean, green, accessible, connected, open, useable, diverse, affordable, and attractive. The strategy objectives were (1) to protect the physical, natural and cultural attributes associated with the Lake Ontario Greenway, (2) to identify restoration needs and methods and encourage landowners, communities and agencies to undertake regeneration activities, (3) to promote greater awareness, understanding and recreational use of the waterfront, (4) to promote economic activities and



Cover image: 2004 Future Directions

employment, and (5) to foster cooperation in cost-effective public and private initiatives by reducing jurisdictional gridlock, sharing resources, and coordinating waterfront activities.

This strategy builds on the vision presentation in the Lake Ontario Greenway Strategy.

1.5.6 Green Land Securement Strategy - Credit Valley Conservation Authority

The Credit Valley Conservation Authority has undertaken a Green Land Strategy that provide the criteria for the protection and securement of Green Land Areas. The recommendations from the study influence the prioritization of park expansion areas and identifies the most environmentally sensitive areas.

1.5.7 2001 Mississauga Multi-use Recreational Trail Study

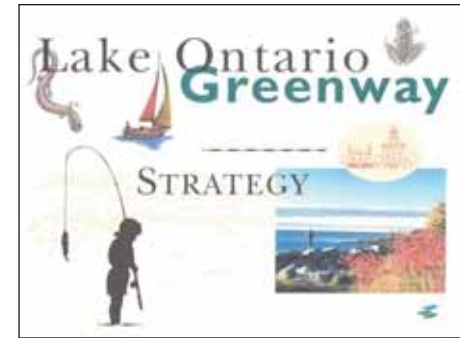
The City of Mississauga is reviewing its 2001 Multi-use Recreational Trail Study in light of recommendations from the 2004 Future Directions document. Increasing trail access is a prime consideration. The current document provides recommended typical and specific trail designs for input into the Trail Study review process. It is recommended in this strategy that all new trails be constructed to City Standards.

1.5.8 Additional Material

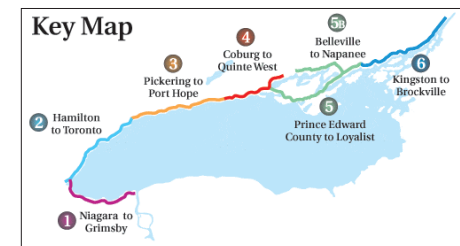
In addition to the previously mentioned studies the following material was reviewed and considered in the completion of this strategy and should be further reviewed as part of the development of the priority parks.

- 1991 Port Credit Harbour Transition Master Plan
- Port Credit Heritage Conservation District Plan
- Lake Ontario Shoreline Hazards prepared for the Credit Valley Conservation by Shoreplan, 2005
- Environmental Inventory and Analysis, 2266 and 2700 Lakeshore Road West (Fusion and Lakeside Park) by Dougan and Associates, 2003
- Lake Ontario Fisheries Management Plan

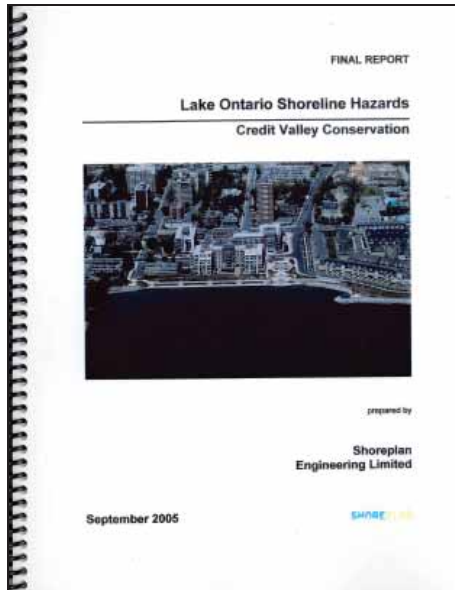
- Opportunities for Regeneration at the Mouth of the Credit River, Credit River Mouth Regeneration Planning Group, 1995
- Port Credit Memorial West Park Redevelopment
- The Waterfront Parks Washroom Study
- Previously Completed Park Master Plans
- City of Mississauga Natural Areas Survey, Update 2005
- City of Mississauga Parking Strategy (On-going) BA Consulting Group



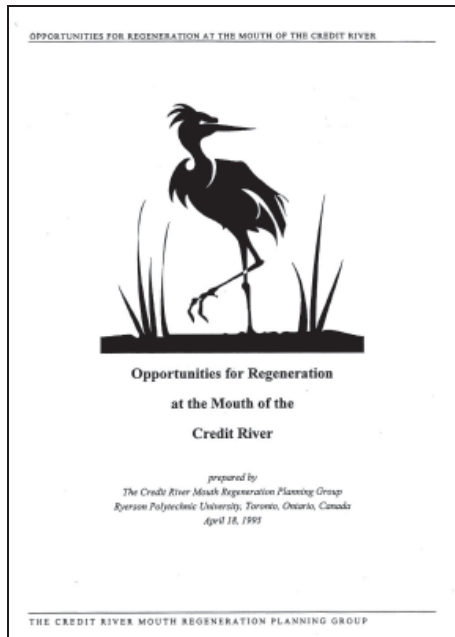
Cover image: Lake Ontario Greenway Strategy



Key Map Connecting the Waterfront Trail from Niagara to the Quebec Border



Cover image: Credit Valley Conservation Lake Ontario Shoreline Hazards, 2005



Cover image: Opportunities for Regeneration at the Mouth of the Credit River, 1995

1.6 Public and Stakeholder Consultation

The development of the Mississauga Waterfront Parks Strategy incorporated input from an extensive public and stakeholder engagement process. The series of public consultation events were as follows:

- February 21 and 23, 2006: Open House and Workshop
- June 28 and 29, 2006: Open House and Workshop
- November 29, 2007: Open House

Copies of the open houses and workshops are enclosed in Appendix B of this document.

The stakeholders identified and consulted include but are not limited to the following:

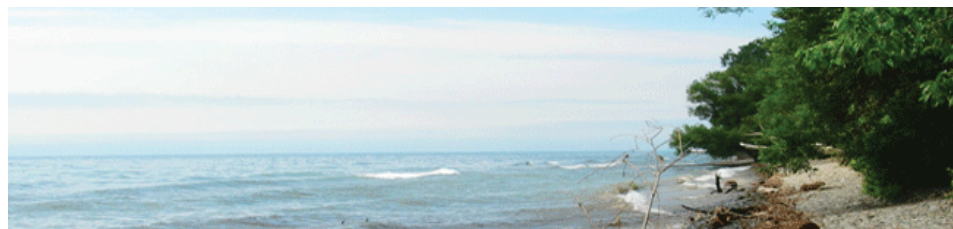
- Region of Peel
- Credit Valley Conservation Authority
- Halton Region Conservation Authority
- Toronto and Region Conservation Authority
- Ministry of Natural Resources
- Waterfront Regeneration Trust
- Petro Canada
- Don Rowing Club of Mississauga
- Charter Boat Operators
- Port Credit Harbour Marina
- Rivergate Apartments
- Mississauga Canoe Club
- Leash Free Mississauga
- Facility Accessibility Design Committee

1.7 Priority Setting

1.7.1 *Natural Areas and Linkages*

The protection and enhancement of natural areas along the Lake Ontario shoreline and the creation of linkages between such areas and other natural areas within the City of Mississauga are areas of great concern. The City of Mississauga's waterfront lands are part of an important ecological corridor within Southern Ontario. In terms of significance, this corridor may be considered to be on par with such areas as the Niagara Escarpment, the Oak Ridges Moraine, and the Credit River valley. As such, protection and restoration of what remains of the natural features and areas located along the waterfront and the development and enhancement of linkages between these areas and the broader natural heritage system should be considered a fundamental priority for any planning activities affecting this area.

The Strategy emphasizes a commitment to undertake all necessary studies required prior to detail design commencing for individual parks. As many of the required studies do not yet exist, an Adaptive Approach to Resource Management should be adopted to manage new information and its inclusion within the Strategy through a regular updating schedule. As noted in Section 6.0, the Mississauga Waterfront Parks Strategy is a 'living' document and shall be revised and updated accordingly on a five year cycle.



Natural areas along the Lake Ontario Shoreline are part of a major ecological corridor that should be restored and enhanced at every opportunity.



A balance must be sought between the protection of terrestrial and aquatic natural environments and new development activities.

1.7.2 Relevant On-going and Future Studies

The following is a list of On-going and Future Studies that will contain information regarding the condition and requirements of the natural setting that will provide valuable information as park development moves forward into detail design:

- Lake Ontario Shoreline Strategy
- Landscape Scale Analysis of the Lake Ontario Watersheds
- Urban Terrestrial Ecosystem Enhancement Model (Urban TEEM)
- Credit River Water Management Strategy Update
- Mississauga Water Quality Strategy Update
- Watershed and Subwatershed Studies
- Rattray Marsh Restoration Strategy
- Park Management Plans
- Environmental Assessments if required
- Required technical documents to be submitted in support of proposed park development.
- Comprehensive Aquatic Habitat Assessment
- Other studies identified through detailed design

This document sets essential priorities for maintaining and improving Mississauga's Waterfront Parks as part of the larger ecological context. The implementation recommendations contained in this document will ensure the parks remain an invaluable community resource while maintaining terrestrial and aquatic natural environments by achieving a balanced approach to new development activities.

2.0 Guiding Principles

Waterfront Parks Strategy Guiding Principles 2.1

Artistic rendering of possible JC Saddington Park.

2.1 Guiding Principles

2.1.1 *Vision Statement:* The Power of Water and Place

Embrace the spirit of the lake and the river at the point where land and water unites.

Identify the place where the natural and urban environments connect with locations for rest and relaxation for all.

Educate with the knowledge gained from experiencing the Waterfront Parks and demonstrate how to lead by example.

Connect the physical, natural, cultural and emotional elements of the parks to the community, the environment and to the passage of time.

1 Environment First

Protection, preservation and restoration of existing natural systems (including air, land, water, terrestrial, aquatic, animal and plant life) will be prioritized and balanced to direct and guide the planning of existing and future waterfront activities.

The natural environment along Mississauga's waterfront is a significant local, City-wide, regional and provincial asset. Educational and interpretive elements must be incorporated into the parks to create awareness of the waterfront's diverse natural systems. Park landscapes will be managed to promote environmental cleanliness and a high aesthetic quality.



Mississauga Waterfront Parks Strategy logo and graphic.



A View of cobble beach at Fusion Park.



Open air structures can provide shelter and gathering areas while respecting the existing landscape.



Building and the natural environment can be combined to create magnificent settings.

2 Finding a Balance

A balanced approach that provides places for people and respects the environment will guide all park development decisions.

Public demand must be balanced with the limits of the natural environment. There will be a balance of park areas expansion and natural area preservation, providing a diverse range of opportunities and programs for residents, workers, students, visitors and the community at large while determining what is appropriate for the natural environment. The needs of all people using the Waterfront Parks must be provided for through a parks system that is accessible, affordable and diverse while balancing the long-term sustainability of the natural systems.

3 Sustainability

To achieve a truly sustainable parks system the limits of the natural environment must be balanced with the desires of the public. This also includes balancing the needs of the natural environment with those of society, culture and economics. The City will lead by example in its implementation process to ensure the long-term sustainability of the parks system.

Public and private sector investment appropriate for the waterfront will be needed to create sustainable economic benefit and community self-reliance. The focus should include partnerships that support the sustainability of the Waterfront Parks for the long term. City planning tools, capital and infrastructure subsidies and an environment first approach, supported by the City approvals process, will be a catalyst towards a park system that can be enjoyed today and preserved for tomorrow. This policy will set the precedent for future waterfront park expansion.

4 Vibrant Place

Mississauga's waterfront will be a year-round destination that provides passive and active activities built on the strength of the waterfront location.

The waterfront is a destination - a place where people purposefully visit for leisure and activities related to where land and water meet. The Waterfront Parks system will celebrate its unique identity by expressing each park's story and the place it takes in the context of the community, the City and the Region.



Flexible open spaces allow for a multitude of uses.

5 Design Excellence and Innovation

The Waterfront Parks will incorporate meaningful design of a high quality at the best value.

The waterfront's unique natural and local cultural heritage will be expressed through appropriately scaled park elements constructed from significant and durable materials. New park development will have the lowest impact possible on the surroundings and will incorporate innovative products and technologies that support sustainable environments.



Innovative use of materials can provide a unified park vision that is distinct (image from St.Lawrence Park).

6 Management

The City will develop the best management practices for the Waterfront Parks and open spaces that will recognize and respect the natural environment while providing a continuously standard of care and maintenance.

Short and long term goals will be identified and creative solutions will be sought to enhance the sustainability of the parks and open spaces. Operational issues for the financial and human resources required for the success of the parks system will be explored. Educational and awareness programs will be an integral part of the new management practice and will encourage leadership by example.



Access to the Lake and views to the water should be key considerations for all park designs.

7 Safe, Secure and Accessible

The physical environment will be designed to foster comfort and safety and will accommodate people of all abilities and ages.

The principles of Crime Prevention Through Environmental Design (CPTED) will be applied to all park designs to create safer places for waterfront visitors. Protection of people from natural hazards and protection of sensitive areas from intrusion will be reinforced through signage and education. Opportunities to extend the physical and visual access along the entire waterfront should be a priority. Seek a balance of park access that reduces the intrusion of vehicles by encouraging multi-mode transportation, public transit and wayfinding. Design park elements to reduce conflict between diverse activities, for example, walking and cycling.



Multi-use trails accommodates many modes of recreational travel.

8 Park as a Good Neighbour

Mississauga's Waterfront Parks and trails are part of a public park system that aims to provide access to the waterfront for all. Sometimes where parks co-exist with residential neighbourhoods the influx of park visitors and trail users can at times have effects on the surrounding communities. In these areas park-use expansion is to occur with sensitivity and respect for adjacent land uses.

Park edges and activities will be located and designed to respect the character, scale and use of surrounding areas. Special attention will be paid to new park development adjacent to residential areas. The effects of lighting, noise, circulation and park activities will be carefully evaluated and provisions will be made to create a respectful and complementary relationship.



Residential areas adjacent to park spaces provide benefits for both the residents and the parks

9 Inclusive Process

The principles of fairness and openness must be factored into all decisions and actions regarding the development/programming of the waterfront parks system.

The interests of the public and stakeholders must be considered. The vision is multi-dimensional and the process used to achieve the vision will involve public input and engagement. The public must be encouraged to take interest and ownership of the park system.



Community consultation is an important step in developing a waterfront park system.

3.0 Waterfront Parks System Study Area From East To West

Overview of Park Areas Within the Waterfront Park System 3.1

Area 1 - Gateway Park 3.2

Area 2 - Waterfront Recreational Parks 3.3

Area 3 - Community and Historical Park Areas 3.4

Area 4 - The Urban Waterfront Centre 3.5

Area 5 - Traditional Parks and Primary Natural Areas 3.6

Area 6 - Community and Historical Park 3.7

Area 7 - Waterfront Recreational Park 3.8

Area 8 - Gateway Park 3.9

Artistic rendering of possible Lakeside Park.

3.1 Overview of Park Areas within the Waterfront Park System

3.1.1 Introduction

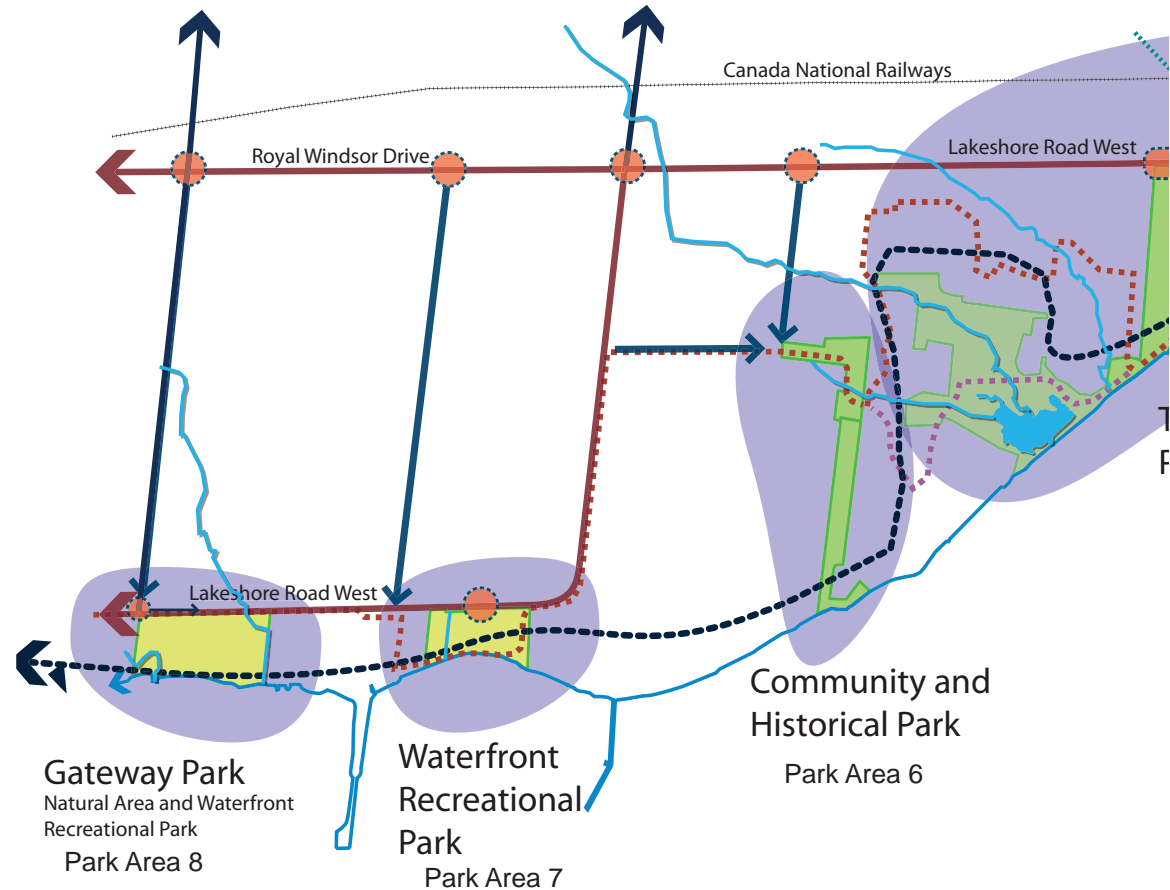
The Waterfront Park System has been divided into eight park areas moving from east to west. For each area a primary character was developed to identify the area's vision. These include Gateway Parks, Waterfront Recreational Parks, Community and Historical Parks, the Urban Activity Centre and Traditional Parks / Primary Natural Areas.

Each park area plays an important role in the waterfront park system and serves a different need for the overall city/community. The following pages contain designs and programming recommendations regarding amendments and additions to the existing and planned waterfront park. These recommendations are based on a survey of the entire park system and begin to balance the distribution of popular park programming across the entire system ensuring equal access to activities for the city to the north.

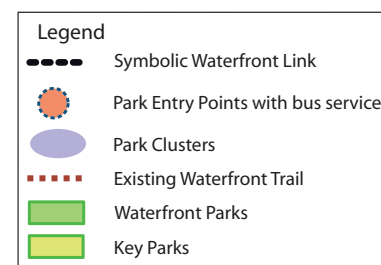
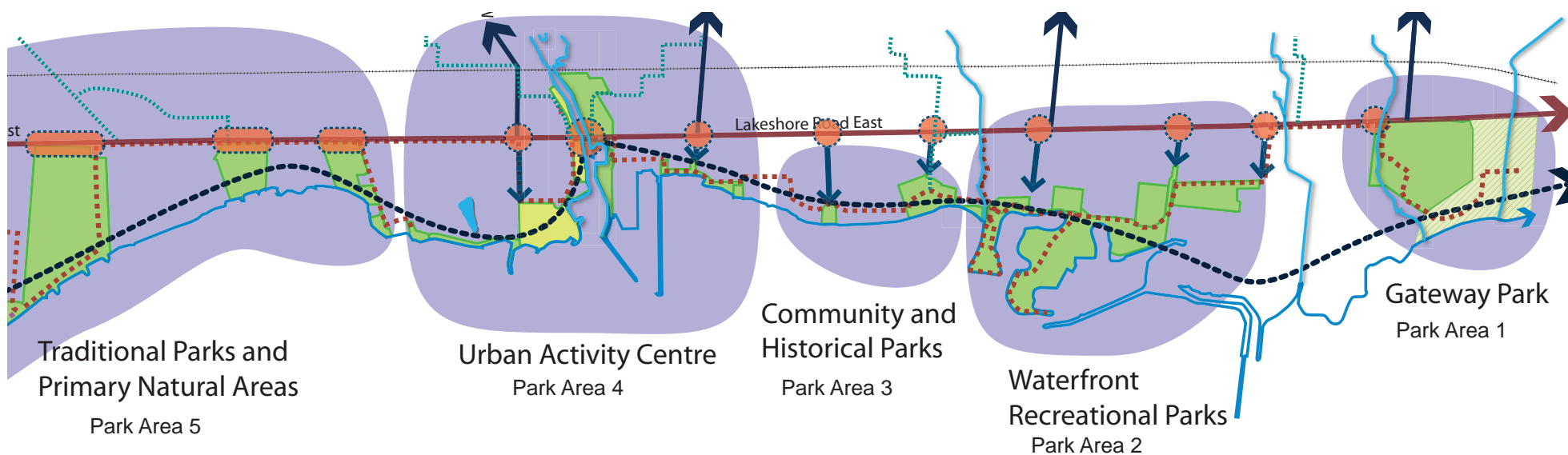
The park areas were determined through an analysis of the existing park uses and locations. For each area a long term vision was developed which includes a series of short and long term programming recommendations that will aid in the implementation the park area vision. Implementation recommendations are common to all parks and are outlined in the next section.

The overall and individual park area visions and programming recommendations are based on an analysis of the existing park programming, the overall park system requirements and existing park typologies.

The following sections outline a summary of each park area, the key findings and provides an action plan for the implementation of the park area visions.



Mississauga Waterfront System key diagram denoting the eight park areas



Primary and Secondary Park Markers for vehicular and pedestrian movement should be located at all park entry points. See section 4.8 for additional information on Signage.

3.1.2 Overall Park System Recommendations

The following chart provides a recommended Action Item list to be implemented for all parks in the Mississauga Waterfront Parks System.

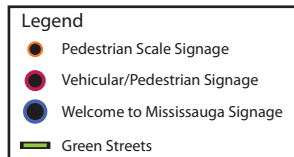
Several future studies have been identified that will provide valuable information in the development and / or management of all of the parks in the Waterfront Parks System. Please refer to Section 6.10 for the comprehensive list of future studies.

Time Lines	Action
Immediate and Short Term (0-5 years) 1. General Partnerships, Wayfinding and Identity Building	<ul style="list-style-type: none"> • Foster the identity of Mississauga as a waterfront community. • Create a visual identity for the Waterfront Parks along Lakeshore Road through unified park Welcome/Gateway Design, street treatments and a coordinated park signage program with wayfinding and educational components. • Install and develop a Welcome Sign that is in keeping with the Waterfront Park System identity that is appropriately scaled to each respective park. • Work with the conservation authorities and the Region to monitor and improve water quality and to undertake necessary shoreline restorations • Phase out the use of Waterfront Parks for organized recreational activities • Introduce waterfront park information in other City parks along major transportation routes to build the Waterfront City identity. • Undertake a City wide strategy to determine the City's role in running events, which events are waterfront appropriate and preferred event sizes and locations. • Evaluate regularly if there is a surplus of sport field facilities, non-appropriate waterfront sport fields should be phased out prior to other city locations.
2. Policy	<ul style="list-style-type: none"> • Institute a review process that monitors the status of potential park expansion lands through an open space land securement program. • Institute a review process that monitors sustainability practices in the Waterfront Parks and measures them against preset goals and objectives. • Institute park management and official plan policies that support environmentally, economically and physically sustainable park design and management.
3. Design	<ul style="list-style-type: none"> • Introduce sustainability components to park design as outlined in Section 4.0. • Introduce additional naturalized planting areas throughout the Waterfront Park System similar to those shown in the Concept Master Plans. • Connect Waterfront Parks with additional trails, tree canopies and planting.

Time Lines	Action
<p>Immediate and Short Term (0-5 years)</p> <p>4. Transportation</p>	<ul style="list-style-type: none"> • Make pedestrian and cyclist travel a priority over automobiles within the parks through minimizing traffic infiltration through the park. • Determine a process to phase in the snow clearing of priority trails in the winter month. • Promote alternatives for automobile travel to the park such as transit service (with bicycle rack) to service the parks and GO stations during peak park usage.
<p>Mid Term (5-10 years)</p>	<ul style="list-style-type: none"> • Increase service frequency and extend service hours of Lakeshore Road route during off-peak periods and weekends to service the Waterfront Parks. A dedicated Waterfront Park transit route would be considered based on transit ridership demand by Waterfront Park users (during peak park usage - June to September) • Expand where appropriate the existing trail system and cycling network especially in the north-south directions. • Minimize parking facilities to expand park spaces, promote transit and pedestrian access within parks. • Winterize existing park facilities in areas that have, or are recommended to have, year-round programming. In areas that do not have existing facilities, but year-round programming is recommended, new winterized facilities should be built. • Opportunities for open air shelters should be explored through out the waterfront park system; shelters should be similar to those proposed for the Concept Master Plans and should be located at key vantage points or between year-round shelters. Providing weather shelters through-out the park system creates visual landmarks and allows for an extended seasonal use. • Introduce additional exercise and education activity circuits along waterfront trail (for children and adults).
<p>Long Term (10 -25 years and beyond)</p>	<ul style="list-style-type: none"> • Work towards reduced parking in park areas that incorporates a diversity of transit modes and minimizes paved surfaces within the park. • Continue to promote a connected and continuous waterfront park system for the City of Mississauga. Park land expansion criteria are identified in Section 6.0 Implementation.



Context plan of Park Area 1.



**Key Park
Program
Elements
include:**



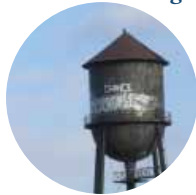
Wooded Areas



Bird Watching



Picnicking Areas

Waterfront Trail
ConnectionHeritage
Interpretation

3.2 Area 1 – Gateway Park

3.2.1 Proposed Vision and Summary of Existing Conditions, Park Use and Activity

Park Area 1 consists of the not yet named park informally known as Arsenal and is a Gateway Park Area at the eastern border of the City of Mississauga and the western border of Toronto. A Gateway Park has the role of providing essential recreation services to the larger community and welcomes visitors to the City of Mississauga. The lands allocated to accommodate this new park are located just south of Lakeshore Road, at Dixie Road, and west of Marie Curtis Park/City of Toronto. The Arsenal Lands do not extend directly to the Lake Ontario shoreline but partnership opportunities do exist that will facilitate water access and views from the park.

3.2.1.1 Park Use and Activity

Existing

The City of Mississauga has developed a conceptual master plan design for Arsenal Park and it has been presented to the public for review and comment. The programming uses recommended are typical for those found in a Waterfront City Park typology. The park design provides flexible open spaces for passive recreation or outdoor festivals and includes numerous trail connections to the adjacent Marie Curtis Park.

Waterfront Parks Strategy Recommendations

The programming for Park Area 1 and Arsenal Park is well developed to serve as a City Park as defined in the Official Plan. The mix of picnicking, passive recreational trails and open spaces make it flexible enough for potential festivals / non organized recreational sports (in the playing field and open space) and daily public uses like walking, bird watching and dog walking on leashes.

In addition to the proposed plan, we recommend that the following design strategies be considered. The role of this park as a gateway will mark arrival into the City of Mississauga and welcome visitors and residents to the waterfront park system. This strategy recommends the creation of a visually strong park edge along Lakeshore Road and the introduction of park elements including:

- Sheltered areas (kiosks, gazebo, and trellis) should be provided. Where Arsenal trails connect to Marie Curtis Park, trails should be considered along the water's edge for resting and viewing (in partnership with the City of Toronto).
- A Waterfront Trail connection across the former Lakeview Wastewater Treatment Facility and Ontario Power Generation lands.
- A combination gateway feature with Welcome Signage
- A transit stop adjacent to the park entrance. Consider providing shuttle services to and from the GO station at peak park use times.
- Parking lots should be minimally visible from park entrances. See Section 4.6 for more information on parking lot design.

- Pedestrian entrances and a Lakeshore Road edge treatment should be a design priority. The edge treatment should be of a high quality and should incorporate new park appropriate 'Welcome to the City of Mississauga' signage. This Welcome Sign should differ from typical 'welcome-to-the-city' signage as it reflects the proximity of the waterfront park system.
- All proposed park structures should be located and designed to maintain visibility and prominence of the historic water tower.
- A visual connection to Lake Ontario from within the park and from Lakeshore Road is highly recommended to reinforce the identity of a Waterfront Park.
- The possibility of a leash free area in this park should be considered to ensure all season use of the area and improved security.
- A beach clean up and dune restoration (in partnership with City of Toronto) may offer new opportunities for beach related activities, although, swimming may not be permitted.
- Additional opportunities for picnicking should be investigated to satisfy its high demand, especially closer to the shoreline where possible.
- The park design should build on the park's proximity to Lakeshore Road, the site's existing natural features and heritage elements.

3.2.2 Action Plan - Area 1, Gateway Park

Outlined below are the principle action items recommended for Area 1 – Gateway Park

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Continue to partner with the City of Toronto to integrate Marie Curtis and Arsenal Park areas, creating visual and physical access to Lake Ontario. Building on existing Joint Management Agreement for Capital Development. • Retrofit existing buildings and (currently leased) to incorporate year round park programming. If not feasible remove existing buildings and expand park area.
Mid Term (5-10 years)	<ul style="list-style-type: none"> • Partner with the Region of Peel to establish Waterfront Trail, creating a waterfront connection to the Lakefront Promenade Park.



The proposed design for the Arsenal lands uses the existing historic water tower as a central element in the plan.

Arsenal Lands/Marie Curtis Park West Conceptual Park Plan

November 9, 2006



The conceptual park plan for the Arsenal Lands shows multiple trail connections to Marie Curtis Park and the waterfront.



Context Plan of Park Area 2.



Waterfront Trail



Water Access



Festivals



Boating



Volley Ball



Picnicking



Seating



Splash Pad

**Key Park
Program
Elements
include:**

3.3 Area 2 – Waterfront Recreational Parks

3.3.1 Proposed Vision and Summary of Existing Conditions and Park Activities

Area 2 is comprised of 5 distinct parks which include Lakeview Park, Lakefront Promenade, Douglas Kennedy Park, A.E. Crookes Park and R.K. McMillan Park. Park Area 2 is located along the shore of Lake Ontario and is buffered from Lakeshore Road by a combination of residential and industrial areas. The lack of connection to Lakeshore makes it more difficult to create a visual identity for this park area. Due to its diverse shoreline, this area is a prime location for providing physical access to the lake for boating, potentially swimming and other waterfront activities. This area is therefore identified as a Waterfront Recreational Park. The diversity of shoreline conditions provide protection for the existing Private and Public Marina and can help to make this a focal attraction for the whole City. As a Waterfront Recreational Park, new park programming is recommended to strengthen this identity and expand on the existing park conditions.

It is recommended that investigations be made to expand Park Area 2 into the former Lakeview OPG Lands to the east along the waterfront. A portion of the northern park area can be used for boat storage while retaining the waterfront as parkland. This expansion would allow for the removal of some of the parking areas along the existing headland, effectively increasing the usable park area. See Section 6.0 Implementation for a summary of Park Expansion Criteria.

3.3.2 Park Use and Activity

Summary of Existing Uses

Existing uses in Park Area 2 include baseball diamonds, picnic areas, soccer fields, washrooms, concession stands and spray pads. There are also extensive trails throughout the park area connecting to the parks to the west. It is recommended that a unified approach be taken to connect these parks with tree planting, dedicated trails and green spaces. Wherever possible a park connection to Lakeshore Road should be established to create a street front identity for the park area.

New sport facilities are not being recommended on the waterfront, however A.E. Crookes, Douglas Kennedy and Lakeview Parks are expected to retain their existing sport facilities if opportunities do not arise to have them relocated.

Waterfront Park Strategy Recommendations

Area 2 has the potential, in particular, to enhance opportunities for shoreline recreation. The diverse shoreline and easy access to the water is attractive for small non-motorized boating.

- Explore opportunities to expand parkland east and north through OPG lands.
- Enhance street connections to Lakeshore Road with improved pedestrian amenities and tree planting, streets (east to west) include: Lakefront Promenade, East Avenue, Aviation Road and Beach Street, Hampton Court and Lakeside Avenue (see context plan for locations).

Programming recommendations for each park within this area are outlined below.

Lakeview Park

- Incorporate heritage interpretation elements re: history of Lakeview Generating Plant (shown in the photo to the left) and original shoreline location, if acquisition of these lands occurs.
- Increase shade opportunities through tree planting or shade structures.
- Reconstruct the parking area with 'green' paving system. Study parking efficiency to look at possibly reducing the quantity of spaces. Provide bioswales for surface run-off.
- Consider use of hydro-corridor for parking (i.e. for Lakefront Promenade East Headland).

Douglas Kennedy Park

- Increase shade opportunities through tree planting or shade structures.
- Improve the efficiency of parking area.
- Reconstruct parking area with 'green' paving system and provide bioswales for surface run-off (see Section 4.0).
- Screen neighbouring properties from sports fields with more substantial vegetative buffers and earthworks. Where possible develop multiple visual and physical connections to the lake and the Waterfront Trail.

Lakefront Promenade

- Relocate a portion of the car and trailer parking away from the eastern headland into a non-waterfront area (explore Hydro Corridor or OPG Lands as alternate areas). An example of existing parking areas on the western headlands is shown in the image on the bottom right.
- Replace a portion of headland parking with grass lawn for a dedicated outdoor concert venue, festivals and a potential sheltered skating area in the winter.
- Increase trail connections throughout the park area and create looped connections. Consider the possibility of creating a pedestrian bridge across southern tips of the east and west headland to create a trail circuit. The high quality nature of the existing park trails is shown in the centre image.
- Increase tree planting and landscape design to enhance the park image and mitigate microclimate conditions (wind, sun/shade).
- Boat storage should be minimized on the headlands. Explore the acquisition of the OPG lands for some storage of boats.
- Consider the provision of additional food and beverage kiosks close to park entry points.



The demolition of the "4 Sisters" located on the adjacent OPG may lands provide multiple opportunities for park area expansion and relocation of services.



The extensive existing trail system should be expanded to include additional looped connections



Existing parking areas at park entrances should be relocated or retrofitted with green paving systems.



Existing park signage should be coordinated and unified throughout the entire Waterfront Parks System



Naturalized planting areas should be expanded and should include more interpretive and educational elements

- Increase opportunities for active and passive uses and all ages activities including exercise stations along pathways, chess/activity tables, inlaid paving designs of local heritage (people of influence past and present) and nature (fish, fox, deer, turtles, leaves etc). Inlaid paving designs could be used for rubbing art.
- Consider possibility of allowing parallel parking along the Lakefront Promenade service road.
- Create opportunities for picnic areas of various sizes.
- Interpretation opportunities could address lakefill/man-made aspects the site.

A.E. Crookes Park

- Reconstruct parking area with 'green' paving system and provide bioswales for surface run-off.
- Increase shade opportunities through tree planting or shade structures.
- Screen neighbouring residential properties with more substantial vegetative buffer.
- Provide program elements suitable for cold season use (i.e. skating rink on field or designated kite flying areas). Look at opportunities for a winterized washroom building.

R.K. McMillan Park

- Improve the appearance of the parking area by expanding naturalized planting concept into park entrance.
- Incorporate natural and heritage interpretation around themes including the original shoreline, naturalization and lakefill and Cooksville Creek mouth.
- Consider connections to trail on east side of Cooksville Creek as north/south connection to Lakeshore Road and beyond.

3.3.3 Action Plan -Park Area 2 Waterfront Recreational Area

Outlined below are the principle action items to be undertaken for Area 2 – Waterfront Recreational Area.

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Create a strong visual identity for the Waterfront Recreational Area on Lakeshore Road. • Connect all parks in the area with trails, tree canopies and planting. • Promote area as waterfront access area the introduction of boating rentals, dedicated water sport areas and activities for all ages. • Introduce new water programs like children's boating and water sport facilities into the thumb basin. • Expand park areas through the transition of parking on the headlands into park space.
Mid Term (5-10 years)	<ul style="list-style-type: none"> • Expand park areas to connect with Lakeshore Road. • Investigate acquisition of OPG lands and Hydro Corridor. • Expand existing trail system and cycling network between the existing park areas. • Partner with adjacent lands to establish Waterfront Trail, creating a waterfront connection to the Arsenal Lands. • Investigate acquisition or modification of land use agreements for the land owned by the CVC at the mouth of Cooksville Creek, for the purpose of conservation, restoration and public park development. • Winterize existing park facilities when located in proximity to potential year round activity areas.



Views and access to the water should be increased throughout the Waterfront Recreational Parks.



The Waterfront Recreational Area has numerous high quality park structures to support an increase of park uses.



Context plan of Park Area 3.

*Cultural Heritage**Children's Play**Seasonal Planting**Seating**Bird Watching**Windows to the Lake*

3.4 Area 3 – Community and Historical Park Area

3.4.1 Proposed Vision and Summary of Existing Conditions, Park Use and Activity

Park Area 3 is made up of one community park, Hiawatha Park and one historical park, the Adamson Estate. These two parks are grouped together due to their proximity and their relationship to the surrounding residential areas. This area is identified as a Community and Historical Park Area. As a community park Hiawatha creates a window to the lake and provides the surrounding community with a means to experience the water and enjoy a small scale open space. The Adamson Estate and its early buildings provide a rich historical context that exemplifies early private waterfront residences.

3.4.2 Park Use and Activity

Summary of Existing

Hiawatha Park provides a direct view south from Lakeshore Road. The park, originally a pumping station, serves the surrounding community with a small play structure and waterfront access. This strategy recommends that more small parks, like Hiawatha Park, be created along the waterfront. In particular, the orientation of Hiawatha Park as a view terminus of the entry street creates a “window to the water” and should be considered as a precedent for new small park spaces.

Adamson Estate consists of a grouping of historical buildings including a house, barn and gate house. The Estate is currently being used by the Royal Conservatory of Music, Mississauga Campus and is a great asset to the waterfront park system. Opportunities to use the barn for public programs should be explored to expand both off-season use of the park, and to serve as a potential venue for summer education programs.

Waterfront Parks Strategy Recommendations

It is recommended that all of the existing park functions be retained and that the seasonal uses of the Adamson Estate be expanded. A summary of the Strategy recommendations for park programming and design are outline below.

Hiawatha Park

- Increase the children's play area (i.e. sand with shade structure, tricycle circuit, balance beam etc.)
- Maintain views through park to lake from Lakeshore Road.
- Additional seating is recommended at the waters edge.
- Consider opportunities for improving visual links to Lakeshore by planting additional trees in the boulevards of Hiawatha Parkway.
- Include additional activities such as exercise stations, tai chi locations, chess tables etc.

Adamson Estate

- Future estate uses should be complementary to the scale and interior functions of the house. Any additions or changes to the house should respect its heritage character and scale.

- Re-use of the barn for extended spring and fall activities could promote extended uses for the Royal Conservatory of Music Mississauga Campus.
- Park awareness should be increased with a rotating sculpture garden on the western portion of the estate that is complementary to the current 'art in the park' activities. All art commissions or displays should compliment the heritage character of the Estate.
- Expand heritage information about the Adamson Family and Estate. Investigate integrated creative display around the estate including small display signs of family history, outdoor extension of the conservatory (music garden, string quartets and croquet). The site is currently permitted for wedding photos, this use should be retained but additional license locations should be made available at Fusion Park.
- Investigate and replant original tree and other plant species subject to an internal review of the original estate plan.
- Look at opportunities for improving links to Lakeshore Road by enhancing tree planting in the boulevards of Enola Avenue.
- Outdoor evening concerts are not recommended for this park area. Daytime, non-amplified concerts should be permitted.
- The use and tenancy of the Derry House should be complementary to those of the Adamson Estate; access to the grounds should be maintained for the public.



Hiawatha Park is a small community park that provides public open space, a children's play area and informal access to the water's edge.

3.4.3 Action Plan - Park Area 3, Community and Historical Park Area

Outlined below are the principle action items recommended for Area 3 – Community and Historical Park Area.

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Create a visual identity for the Adamson Estate on Lakeshore • Provide a permanent and visible waterfront trail markings as outlined in Section 4.8 Signage. • Replace existing play structure in Hiawatha with a more integrated play area. • Renovate the existing barn at the Adamson Estate to accommodate additional indoor park programming- investigate adaptive re-use.
Mid Term (5-10 years)	<ul style="list-style-type: none"> • City to support expansion of indoor and outdoor art programming for the Adamson Estate through partnerships.



Adamson Estate and its early buildings provides a rich historical context that exemplifies early private waterfront estates.

3.5 Area 4 – The Urban Waterfront Centre

3.5.1 Proposed Vision and Summary of Existing Conditions and Park Activities

The Urban Waterfront Centre is located in downtown Port Credit at the mouth of the Credit River and is bisected by Lakeshore Road. Within this area there are 7 parks including Tall Oaks Park, St. Lawrence Park, J.J. Plaus Park, Port Credit Memorial Park (east and west), Marina Park, J.C. Saddington Park and the Imperial Oil Waterfront Trail Extension. Each of these parks play an important function in the Waterfront Parks System. Whether providing a festival ground for summer event or a pleasant park oasis in the busy downtown, the parks in the urban waterfront centre form the core of the Waterfront Parks System. The parks collectively form a continuous open space along that waters edge that makes the lake and the river accessible and open to the community. The vision for these parks is built on the urban and active commercial nature of the Port Credit Village which will ensure that the parks are within close proximity to residents and will evolve as year round destinations.

3.5.2 Park Use and Activity

Summary of Existing

Currently, parks in the Urban Waterfront Centre are well used by the public. The many waterfront uses within the mouth of the Credit River create the potential for conflicts between non complementary activities; pedestrians, cyclists, vehicles, motor boating, boat launching, charter boats, fishing, canoeing and kayaking all occupy the same general area. The concentration of parks along the water's edge provide for large festival areas that are also integrated into the Village Retail Core. Festivals, like the South Side Shuffle and the Waterfront Festival, are regular summer events. Due to the diversity of existing park programming and the multitude of potential activities, this area is often densely populated with residents and tourists. New programming for this area should build on the existing urban context, respecting the historical context of the area and better coordinating existing uses. The City should investigate the potential for public-private partnerships to enhance the existing parks system.

Waterfront Park Strategy Recommendations

These parks already have a clear role as urban area parks for the Port Credit area. Park users include local and community residents but also draw visitors from outside the City.

- Relocate parking areas and explore local sites that can potentially begin as surface parking areas and eventually evolve into structured parking in association with other forms of development along Lakeshore Road.
- A dedicated location is recommended for fishing at the mouth of the Credit River.



Context plan of Park Area 4.



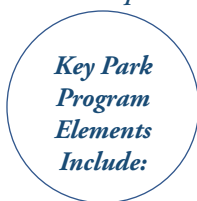
Flexible Spaces



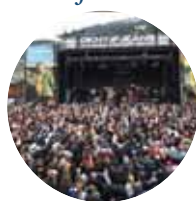
Seating



Waterfront Trail



Winter Sports



Concerts



Water Activities



Boating



Water Access

A detailed summary of the park programming and design recommendations are outlined below by park. For information on the Priority Parks – J.C. Saddington Park, Marina Park and Port Credit Memorial Park West see Section 5.0.

Tall Oaks Park

- Provide seating areas for lake viewing.
- Provide interpretation elements, opportunities: oak trees, native history, and the original Gray Family homestead location to the north of the park.

St. Lawrence Park

- Park and programming should be referred to as an example of what can be achieved as areas of the waterfront redevelop. This park provides waterfront amenity for the community but also provides visual access to the lake from new residential developments.

J.J. Plaus Park

- Provide opportunities for educational and interpretive features.
- New programming should not be provided unless it expands seasonal use of the site.
- Investigate opportunities to expand the park area.

Imperial Oil Waterfront Trail Extension

- Improve the entrance to the trail at J.C. Saddington and Ben Machree Park with signage, tree planting and landscaping.
- Try to negotiate access for large boat docking on the peninsula of the western end of the Imperial Oil Trail.
- New interpretive opportunities for Heritage Plaque that reflects on original land-use and the area's development over time.

3.5.3 Action Plan - Park Area 4, Urban Waterfront Area

Outlined below are the principle action items recommended for Area 4 – The Urban Waterfront Centre.

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Introduce interpretive heritage elements in Tall Oaks Park
Mid Term (5-10 years)	<ul style="list-style-type: none"> • Create uniform entrances at either end of the Imperial Oil Trail • Investigate opportunities for large boat docking particularly on the west side of the Imperial Oil Pier, adjacent to JC Saddington Park.



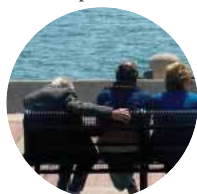
St. Lawrence Park (top) and J.J. Plaus Park (bottom) both maintain an continuous waterfront trail.



The Imperial Oil Waterfront Trail Extension provides an important waterfront connection between J.C. Saddington and Ben Machree Park, new partnership opportunities for trail connections should be explored elsewhere on the waterfront.



Context plan of Park Area 5.



Lake Viewing



Water Access



Seating



Flexible Spaces



Splash Pad



Key Park Program Elements Include:



Accessible Shoreline



Winter Trails



Waterfront Trail



Ornamental Gardens



Volley Ball



Winter Activities

3.6 Area 5 – Traditional Parks and Primary Natural Areas

3.6.1 Proposed Vision and Summary of Existing Conditions, Park Use and Activity

Park Area 5 is made up of Traditional Parks and a Primary Natural Area. As the most popular park destinations on the Waterfront, these parks are often full beyond capacity. Park Area 5 is comprised of three beautiful Waterfront Parks; Rhododendron Gardens, Richard's Memorial, Jack Darling Memorial Park and one provincially significant natural area, Rattray Marsh. Each park is framed to the north by Lakeshore Road West and to the south by Lake Ontario. The eastern and western park boundaries are connected to the surrounding well established residential areas.

The Credit Valley Conservation Authorities' Rattray Marsh is located to the west of Jack Darling Memorial Park and is almost entirely located within the adjacent residential area with the south side of the Marsh connecting to Lake Ontario. The Park and the Marsh are substantial in size and are well frequented by the public. During peak park use times, the popularity of Jack Darling Memorial Park causes traffic difficulties within the surrounding residential areas as park visitor look for additional parking locations.

3.6.2 Park Use and Activity

Summary of Existing

Recent public surveys suggest that Jack Darling is the most popular park on the Waterfront due in part to the existing park programming which includes leash free zones, picnic areas, play sites, a spray pad, tennis courts, a toboggan hill, washrooms and beach access ramps (for pedestrians only).

Rhododendron Gardens is a large garden park with a substantial rhododendron and azalea collection. This park has a unique waterfront condition as a portion of the park's shoreline faces almost directly south. The view to the other Waterfront Parks to the west of the Gardens presents an opportunity to introduce an education element that describes Rhododendron Gardens and its relationship to the Waterfront Parks System.

Richard's Memorial Park incorporates many of the same park uses that are found in Jack Darling Park including picnic areas, shelters and multiple play sites. This park is also a popular summer weekend destination.

Waterfront Park Strategy Recommendations

These established parks have a diverse program of park uses. The existing park uses are proposed to remain with a few additional elements throughout the park areas to extend their seasonal uses or expand on their educational and interpretive opportunities.

Potential street parking overflow issues between park users and the surrounding residential areas are a concern due to the popularity of this park area. Steps should be taken to minimize the impact the number of vehicle trips through the surrounding area. By extending some uses to other areas of the Waterfront Parks System, the excessive use of Jack Darling Park should be alleviated.

- Entrance areas are to be redesigned so that the park entrances are more inviting to pedestrians, transit riders and personal vehicles - see Section 4.0.
- Where possible, provide additional, sheltered lake and park viewing locations for wildlife and weather watching.
- Areas with under-utilized parking are to be converted to green parking surfaces.

A detailed summary of the park programming and design recommendations are outlined below by park.

Rhododendron Gardens

- Additional educational components are to be included, i.e. a plant find/identification program. The park should be further developed as an additional location for wedding photo permitting to the Adamson Estate.
- New trail connections through-out the entire park area are to be expanded and improved to include a looped pedestrian circuit. Its location should be determined through a master plan process.
- The Cathcart Property to be developed and incorporated into the Gardens.
- Upgrade the existing plant collection, incorporate new art pieces, education gardens and improve the quality of existing amenities.

Richard's Memorial

- Improve park entrances and pedestrian connections.
- Provide locations for wildlife and weather watching.

Jack Darling Memorial Park

- Provide locations for kiosks for warm food and beverages at locations adjacent to park entrances to expand the seasonal use of the park.
- Trail connections throughout the entire park area are to be expanded and improved to include looped pedestrian circuits.

Rattray Marsh - A Provincially Significant Wetland

- Work with CVC to introduce additional educational components i.e. a plant identification programs.
- Improve entrances and pedestrian connections.
- Increase number of viewing platforms for wildlife and weather watching.

3.6.2 Action Plan - Park Area 5, Traditional Parks and Primary Natural Areas

Outlined below are the principle action items recommended for Area 5.

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Create a strong visual identity with streetscaping and strong park entrance for these parks on Lakeshore Road West.
Mid Term (5-10 years)	<ul style="list-style-type: none"> • Partner with CVC to expand educational components within the Rattray Marsh. • All under used parking areas should be reconstructed with a multi-use green surface.



The view from Rhododendron Gardens westwards to the other Waterfront Parks presents an opportunity to introduce a visual education element that describes Rhododendron Gardens and its relationship to the Waterfront Parks System.



Jack Darling Park has an extensive trail system and open access to the water.



Richard's Memorial Park is the smallest of the three parks in this area but has many of the same popular park uses found at Jack Darling Park.



Context plan of Park Area 6.

**Key Park
Program
Elements
Include:**



*Access to Water's
Edge*



*Cultural
Heritage*



Water Activities



Lake Viewing



Seating

3.7 Area 6 – Community and Historical Park

3.7.1 Proposed Vision and Summary of Existing Conditions, Park Use and Activity

Park Area 6 is made up of two parks, Watersedge and Meadowwood. Previous waterfront studies have recommended that these two parks be linked. The unique linear condition of Meadowwood Park provides a buffer between the Petro Canada Lands to the west and the residential neighbourhood to the east. Meadowwood Park has limited access to the water with approximately 100 metres of shoreline. By combining the two parks through land acquisition or easement a more substantial park shoreline can be created.

3.6.2 Park Use and Activity

Summary of Existing

Meadowwood Park is home to the Bradley Museum and includes the Log Cabin previously located in Marina Park, making the park a heritage destination. Other uses found in the park area include sport facilities, play areas and flexible open spaces. It is recommended that this park area continue to build on its historic programming.

Waterfront Park Strategy Recommendations

If feasible, vehicle access and parking should be relocated away from the water. A summary of the park programming and design recommendations are outlined below by park.

Watersedge Park

- Provide additional sheltered areas for seating and formalized, individual picnic areas.
- A potential future connection to Lakeside Park through the Petro Canada Lands is desirable, but in the short term green streets should be created along the waterfront trail to reinforce the connections between parks.

Meadowwood Park

- Parking should be relocated in discrete and 'greened' areas with natural drainage elements.
- Existing sport facilities (tennis and outdoor rink) be retained and potentially expanded with a multi purpose pad.
- Improve trail connections to the surrounding neighbourhood and provide internal looped trail.
- Provide opportunities for winter activities such as skating.

3.7.2 Action Plan - Park Area 6, Community and Historical Park

Outlined below are the key action items recommended for Area 6–Community and Historical Park.

Time Lines	Action
Immediate and Short Term (0-5 years)	<ul style="list-style-type: none"> • Install Vehicular/Pedestrian Major Orientation Signage at Southdown Road and Orr Road. Green the street from Southdown to the park entrance. • New trail connections through-out the entire park area are to be expanded and improved to include a looped pedestrian circuit.
Mid Term (5-10 years)	<ul style="list-style-type: none"> • Develop continuous park shoreline from Meadowwood to Watersedge Park through the relocation of parking areas and landscaping of the streetscape. • Amend existing zoning to show parks as connected • Explore opportunities for shoreline connection from Fusion to Lakeside to Meadowwood Park.



Meadowwood Park is a well established linear park that buffers residential areas from the Petro Canada Lands to the west.



Watersedge Park gives the surrounding community easy public access to the lake.



Context plan of Park Area 7.

*Demonstration Garden**Concerts + Festivals**Splash Pads**Water Activities**Key Park
Program
Elements
Includes:**Natural Heritage**Flexible Open Space**Winter Activities**Water Views and Access*

3.8 Area 7 – Waterfront Recreational Park

Area 7 includes Lakeside Park and is flanked on Lakeshore Road West to the north and Lake Ontario to the south. The east and west borders are both industrial uses including Petro Canada and St. Lawrence Cement. This park location provides an excellent opportunity to create a new Mississauga City Waterfront Park. The park location, size and proximity are ideal for providing destination waterfront recreation activities and to alleviate the demand on park activities at Jack Darling and possibly J.C. Saddington Park such as festivals, children's programming, and picnicking. The existing off leash dog walking facility is recommended to be retained but will be reduced in size. The facility ensures essential eyes on the park, making it a safe and secure environment. An expansion and redesign of the existing Lakeside Park is proposed to accommodate these and other uses.



There is an existing clay tile beach at Lakeside that can be incorporated into an education program on erosion.



The waterfront trail winds through Lakeside Park and connects Lakeside to the entire Waterfront Parks System.

Key programming recommendations for this park include a splash pad, large event venue and new picnicking areas. All new park uses proposed for Lakeside are to be constructed using an environmentally sustainable approach that is demonstrative and educational. This park has the opportunity to become a showcase area for the City of Mississauga's commitment to the environment and sustainable park practices. For the detailed recommendations on this park area see the Priority Park Design outlined in Section 5.0.

3.9 Area 8 – Gateway Park

Known as the Fusion Property, this area is located at the border of the Town of Oakville and the Joshua Creek. The park is made up of many different types of landscape including naturalized open spaces, forest, formal gardens, and lakefront. The main house, built in historic style, is the centre piece of the property and provides the catalyst for the park vision and its combination of potential uses. Even though the park is currently not open to the public, the gently sloping and mature landscape conditions and the potential for existing buildings to support year round activities would make this Gateway Park unlike any others found on the waterfront.



The historic manor house and the period landscape provides an ideal backdrop for public events and festivals.

Key programming recommendations include a skating pond, festival venue, hard and soft surface trails, interpretive elements, children's educational activities, bird watching stations and walking paths, wedding venues and a reuse of the existing main house. The property's existing heritage style is to become a focus of the park design on the western side. It is recommended that the main building retain a public ground floor with the second floor supporting office or educational use if required. The forest in the central portion of the site will remain as a natural habitat with trails. The eastern portion of the park will accommodate a realigned natural creek and wildlife viewing areas. A new boardwalk is proposed in the vicinity of the lake edge. For the detailed recommendations on this park area see the Priority Park Design outlined in Section 5.0.



Context plan of Park Area 3.



Picnicking



Seasonal Activities



Multi-Use Trails



Lake Views



Heritage Features



Wedding Venue



Open Lawn Sports



Forested Areas



4.0 Waterfront Park System Strategies

System Design Strategies

- Connectivity 4.1
- Identity 4.2
- Sustainability 4.3
- Shorelines 4.4
- Transportation 4.5

Park Design Strategies

- Parking 4.6
- Natural and Cultural Heritage 4.7
- Signage 4.8
- Environmental Design 4.9
- Circulation 4.10
- Water Access 4.11
- Waterfront Activities 4.12
- Education 4.13
- Seasonal Use 4.14
- Landscaping 4.15
- Buildings and Structures 4.16
- Park Design Amenities 4.17
- Service Infrastructure 4.18
- Accessibility 4.19

Artistic rendering of possible Lakeside Park parking area.

4.0 Waterfront Park Strategies

The following pages provide an overview of the programming, maintenance and design recommendation to be considered for the development of the new and existing Waterfront Parks. The recommendations provide a framework by which the City can evaluate future park design proposals and prioritize park upgrades.

There are two types of recommendations included in these strategies. The Section begins with strategies that address the entire waterfront system including connectivity, identity, sustainability and shorelines. As the Section progresses the recommendations become progressively more waterfront park oriented, addressing elements such as signage, seasonal usage, buildings and structure, etc. The detailed park recommendations can be considered by the City on a park by park basis as upgrade opportunities are presented.

4.1 Connectivity

4.1.1 Emotional

Establishing an emotional attachment for Mississauga residents with their Waterfront Parks would enhance the sense of place for the entire City. This can be accomplished in several ways. Expression of history provides context and meaning to a space, profoundly affecting perception. Providing space for community gatherings and events encourages interaction among different groups and participation in civic celebrations. Providing opportunities for viewing the lake, and witnessing weather phenomena and seasons at the lakeshore strengthens perceptions of the geographic setting of the community, and increases awareness of environmental consequences of actions.

4.1.2 Physical and Visual

It is important to recognize that physical and visual connectivity happens in two distinct formats within a waterfront park system: connections made on land and connections made by water.



Emotional connectivity, providing space for community gatherings.



Physical connectivity can be made on land and on water.



Natural connectivity, encouraging park visitors to understand the natural world around them.

4.1.2.1 Land and Water

The physical connections made on land include links to surrounding neighbourhoods, to the City, to the adjacent cities of Oakville and Toronto, the Region, and within the park itself. Land connections will be made through leveraging existing street patterns as well as existing and proposed trails. Roads will be designed for use by cars, bicycles, in-line skates, skateboards, scooters, walking and any other mode of transportation. Trails will be designed to accommodate a variety of trail users.

The lake provides on-water connections to other lakefront amenities and communities through boating activities and lake viewing.

A goal of the Waterfront Parks Strategy is to provide as much connectivity along the waterfront and along the watershed to the north, by land or water, as close the water's edge as possible. This goal must be balanced with the environmental constraints which include this strategy's goal to protect existing land and aquatic habitats as well as the existing conservation authorities and Ministry of the Environment protection policies. This goal must also be balanced with the Strategy's goal of seeking restoration and enhancement opportunities and providing ecological connections between existing and future natural areas.

4.1.2.2 Land Ownership

Not all of the Mississauga Waterfront Parks are owned exclusively by the City of Mississauga. Land ownership is complex along the shoreline. Several parks have ownership situations that may include restrictions to land use and development based on land ownership agreements. As part of these agreements, the City has the responsibility to manage and operate the properties as part of the larger parks and open space system throughout the City. However, in all cases, the land ownership agreements have clauses that require owner approval of all park infrastructure development. These clauses also state the purpose for which the land is leased to the City.

The Strategy supports the commitment to consult all relevant landowners when considering development within a park that is not owned by the City of

Mississauga. This commitment would imply that the priorities of the affected landowner must be addressed and details related to park development may be subject to change as a result of such consultation. Other relevant land owners of park land along the shoreline include, but are not limited to: The Region of Peel, Credit Valley Conservation Authorities, Imperial Oil, Petro Canada and other private corporations.

4.1.2.3 *Land Ownership Opportunities*

There are opportunities for the City of Mississauga to work together with other park land owners to achieve mutual land acquisition goals on the waterfront. Amendments to existing ownership agreements, partnerships, land exchanges, acquisition and the establishment of right of ways or leases are all ways in which the City could maintain or achieve expanded connectivity along the waterfront. More details regarding Land Ownership and Acquisition opportunities are located in Section 6.0 Implementation of this document.

4.1.3 *Natural*

Protection, preservation, connection and restoration of existing natural systems (including air, land and water, and terrestrial and aquatic animals and plants) will promote the re-establishment of ecosystems and natural travel corridors. Incorporating and presenting natural elements in their native state will assist in fostering respect for the environment and encourage park visitors to play a role in preserving nature. Establishing new green connections between the existing park land and greenspaces will help to establish sustainable green corridors with strong and interactive ecosystems.

4.2 *Identity*

4.2.1 *Waterfront Park System Identity*

The Waterfront Parks Strategy aims to establish a unified identity for the waterfront park system. The intent is to provide consistency in design while at the same time allowing for individual designers' creativity. Common features will create cohesion among the Waterfront Parks, but will be limited to specific elements allowing for flexibility for the introduction of other features and in recognition of the park specific characteristics.



The needs of all people using the Waterfront Parks must be provided for by a system that is accessible, affordable and diverse.



Create community self reliance through public and private partnerships.



Newly completed Imperial Oil trail extension demonstrates positive partnership for continuous shoreline access.

4.2.2 *Types of Waterfront Parks*

Currently in the Official Plan all Mississauga parks fall under the designations of City and Community Parks. Waterfront Parks present very different operational and programming issues due to frequency of use and shoreline upkeep. For this reason the Waterfront Parks Strategy recommends that Waterfront Parks be recognized as special sites, and be accommodated in the Mississauga Plan by way of 'Special Site' policies or by the creation of a new Official Plan designation. In the near future, the City will be undertaking a review of the Mississauga Plan in relation to Waterfront Parks land use policies and designations in order to better address the specific needs of the waterfront park system. This review will allow more effective targeting of policies and allocation of scarce resources, recognizing the special nature of Waterfront conditions.

See Section 3.0 for more on the classification of existing and proposed Waterfront Parks. Further waterfront park classifications should be used in the Park Management Plan to identify a hierarchy of park maintenance activities such as winter and shoreline maintenance.

4.3 *Sustainability*

4.3.1 *The Environment and Park Development*

New park development will have the least impact possible on surrounding communities and natural systems, and will demonstrate innovative products and technologies such as LEED building standards, and solar and wind power generation where deemed appropriate. Designs for lighting fixtures, parking, buildings and conveyance of storm and wastewater will be based on best emerging practices. Park amenities will meet the needs of diverse park users by remaining accessible and affordable. New opportunities for continuous waterfront access and enhancement of natural areas will be explored wherever possible. New park development should support the current and future potential urban forest by protecting and enhancing mature tree canopy wherever possible.

4.3.2 *Community Self-reliance*

The focus must be on public and private partnerships to support sustainability of the Waterfront Parks for the long term. Partnerships could involve sponsorship

opportunities, natural area clean-ups, concession or retail provisions or land easements. Commercial opportunities are not necessarily appropriate for all park areas and should be considered based on the recommendation of this strategy. Partnerships with public and private not for profit organizations are preferred over private for profit organizations. All partnerships must demonstrate benefits to the community, the sustainability of the parks and/or improvements to the natural environment.

4.4 Shorelines

4.4.1 *Continuity*

As expressed in the Official Plan, all efforts to achieve continuous physical public access along the waterfront will be explored. This will be done through the Waterfront Parks/Open Space Land Securement Strategy which will identify criteria for the municipal acquisition of waterfront properties. Section 6.0 of this report includes land securement criteria. Continuity of the shoreline will be a benefit to the public as well as animals and plant life that rely on uninterrupted ecosystems and natural corridors. A future report will be required to determine the City's direction on protecting and restoring its shoreline. Any future report will require full input from the conservation authorities, the Ministry of the Environment and Ministry of Natural Resources.

4.4.2 *Access to the Lake*

As outlined in the Coastal Engineering report associated with this document in Appendix A, there are many diverse shoreline typologies across the Mississauga waterfront. Some shoreline sections provide stable access up to the water's edge while some will only provide visual access. Creating windows to the lake through Waterfront Parks is a recommendation of this strategy.

The Waterfront Parks Strategy reviews the shoreline conditions in all of the Waterfront Parks and recommends the type of access that is appropriate for each. Refer to the Baird Report in Appendix A and Section 5.0 for park shoreline and access recommendations.

4.4.3 *Aquatic Habitat and Fisheries Buffers*

Healthy fish populations require healthy habitats. The



Fisheries buffers are intended to preserve the integrity of contributing land based habitat.



Waterfront corridors should be considered in the broader context as part of a fragmented natural heritage system that can provide opportunities to create linkages between other significant natural areas.

Fisheries Act defines fish habitat as “spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes”. The habitat requirements for healthy fish communities become complex when we consider various species and their life stages. Due to urban expansion within the watersheds, urban runoff is of increasing concern particularly for organic pollution, thermal warming, lower oxygen and toxic compounds leaking or being deliberately dumped into storm sewers. Rarely does urban runoff result in visible fish kills, but the effects are reflected in fish flesh samples, disease, parasites, reduced lifespans and reproduction.

An aquatic habitat assessment should be performed to assess the impacts of proposed development on near-shore aquatic habitats. Among other things, this assessment would identify sensitive areas requiring preservation and examine both protection methods and habitat restoration/enhancement opportunities. It is also recommended that the comprehensive study examine the cumulative impacts to fish habitat along the shoreline resulting from proposed land use changes and recommend minimum criteria to follow at the detail design stage to provide a net benefit in regards to fish habitat.

This assessment should begin with such sources as Environment Canada’s Environmental Sensitivity Atlas for Lake Ontario’s Canadian Shoreline. The Ministry of Natural Resources (MNR) should also be consulted with respect to managing near-shore fish habitats consistent with the Lake Ontario Fisheries Management Plan and the Credit River Fisheries Management Plan.

Protection of contributing habitat impacts such as buffer zones, recharge areas and wetlands is critical. Buffer widths have been set to enhance the protection of these features. Vegetative buffers provide many ecological functions including: temperature regulation through shading; woody cover; natural food production (leaf litter and invertebrates); nutrient and sediment control; reduce pollution; erosion control; flood retention; and wildlife habitat/corridors. If natural buffers are not maintained this may result in a harmful alteration of fish habitat. Buffer widths will be applied where there is permanent

or seasonal fish habitat on-site. This buffer zone must be maintained in a natural state. If buffer guidelines cannot be maintained, the proponent must demonstrate “no net loss” of the functional contributions to fish.

The Credit Valley Conservation Authority requires a Fisheries Buffer to protect permanent or seasonal fish habitat in Lake Ontario, the Credit River and any other watercourses draining into Lake Ontario.

The fisheries buffer is to be 15m from watercourses draining into Lake Ontario and 30m from Lake Ontario itself. The buffer is to be measured from the creek bank on either side of the watercourse and from the high water mark for Lake Ontario.

4.4.4 *Terrestrial Habitat*

As prescribed by the Wildlife Habitat Guidelines prepared by MNR, all natural areas within 5km of the shoreline should be considered for protection and enhancement for their significant wildlife habitat value. In consideration of this MNR document, the Strategy recommends protection and enhancement of natural areas along the Lake Ontario shoreline and the creation of functional linkages between such areas and other natural areas within the City of Mississauga.

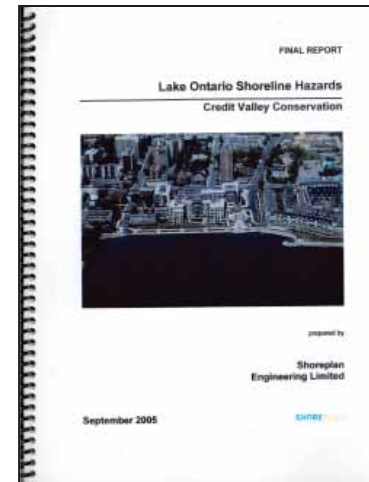
Given this importance, the Strategy supports a landscape approach to parks planning by recommending a assessment of the significance of the various natural areas located along the Lake Ontario shoreline and watercourses prior to making long-term decisions about where to direct management and/or development activities. In addition to identifying existing and proposed core areas and corridors for protection and enhancement the Strategy considers the waterfront corridor in its broader context as part of a fragmented natural heritage system and identifies enhancement opportunities to create functional linkages between it and other significant natural areas throughout the system.

4.4.5 *Shoreline Related Hazards*

Lands adjacent to or in proximity to the shorelines of the Great Lakes could be affected by flooding, wave uprush,



The limits of shoreline hazards are measurable and are managed and enforced by the local conservation authorities.



Report Cover: CVC Lake Ontario Shoreline Hazards Report, Shoreplan, 2005



Naturalized shorelines, such as the pebble beach at Fusion, are better equipped to cope with the natural forces of the Lake.



Opportunities to utilize natural shoreline protection techniques should be considered where existing hardened shoreline protection requires replacement.

erosion, dynamic beaches and slope hazards. The limits of these hazards are measurable and are managed and enforced by the local conservation authorities. The Credit Valley Conservation Authority (CVC), Toronto and Region Conservation Authority (TRCA) and the Halton Region Conservation Authority (HRCA) restricts development where alterations to a floodplain, watercourse, wetland or shoreline are proposed.

The Credit Valley Conservation Authority Lake Ontario Shoreline Hazards Report, prepared by Shoreplan in 2005, identifies the shoreline hazards within the jurisdiction of the CVC, which encompasses most of the Mississauga waterfront. It should be noted that the hazard lines identified in this report were based on generalized and conservative setbacks. A detailed examination of the shoreline on a site by site basis will further refine the locations of the hazard lines.

The Strategy recognizes the following shoreline related hazards and recommends that all regulations related to development near or within the hazards limits be adhered to:

- Flood Hazard Limit
- Erosion Hazard Limit
- Dynamic Beach Hazard
- Regional Storm Floodplain

4.4.6 Natural Shoreline Restoration

Through the development and management of the Waterfront Parks, the City of Mississauga has an opportunity to promote shoreline stabilization techniques that mimic natural shoreline conditions and maintain natural shoreline processes.

The Strategy recommends that wherever relevant studies have identified requirements for hardened shoreline replacement, that opportunities to mimic natural shorelines be explored. Additionally, wherever shoreline stabilization works are identified as being required, it is recommended that acceptable natural shoreline stabilization techniques be used as an alternative. The hardening of shorelines should be avoided where no life or property is at risk and that existing hardened shorelines should be naturalized wherever possible.

The Opportunities for Regeneration at the Mouth of the Credit River report, prepared by the CVC in 1995, contains relevant information with respect to the appropriate utilization of softened shoreline. The concepts presented in this report are relevant to all of Mississauga's shoreline.

4.5 Transportation

Transit, pedestrian and recreational access to the parks is an important component of this strategy. The following section provides the principle transportation recommendations that will help ensure parks are well connected, accessible and sustainable.

4.5.1 Connectivity

The road system south of the Queen Elizabeth Way and the CN Rail tracks is well connected to the waterfront. With major north-south arterial roads connecting to Lakeshore Road approximately every 1 to 2 kilometres, typically with corresponding highway exits, there are many routes drivers may take to access the parks. Better signage for the Waterfront Parks along major traffic routes and inside inland city parks will help to direct users to the waterfront.

The CN Rail corridor and the QEW create significant barriers for direct access to the Waterfront Parks. To overcome these barriers new on and off road north-south trail connections should be created where possible.

The majority of the Waterfront Parks are located adjacent to or within a five minute walk of Lakeshore Road. This effectively makes Lakeshore Road the spine of the parks system. Key intersections leading to the Waterfront Parks are identified on the adjacent map. These intersections should have a high quality distinctive design giving priority to pedestrians, cyclists and other recreational users as they make their way toward park areas.

As the major east west road connection linking the parks and as a portion of the Waterfront Trail, Lakeshore Road should, in the long term, be considered for a dedicated cycling route to improve safety and add to the identity of the road as a park connector.



4.5.2 Access

The accessibility of each park should be evaluated and improved to include a pedestrian and cyclist entrance, bus stop lay-by, crosswalk (where appropriate) and a safe automobile entrance. Dedicated entry and exit points for cars should be considered to avoid long curb cuts and large driveway widths. A more detailed analysis of the accessibility of each priority park is provided in Section 6.0.

4.5.3 Walkability

To create a walkable waterfront, walking routes should be well defined as park pathways or Waterfront Trail through materiality and signage. It is essential to consider that a typical walking trail user will not experience the waterfront from end to end, but concentrate use in segments ranging from 1.0 to 10 km. These distances translate to walking times from about 10 to 100 minutes. Clearly indicating these route distances in a easy to understand way would make the waterfront trails more inviting, safe, and



useful to athletic users who are marking distance. The map on page 58-59 provides several examples of a 5 minute walking radii.

4.5.4 Transit Improvement Opportunities

Transit should continue improving its service to the Waterfront Parks. In the immediate term, the existing transit service along Lakeshore Road is expected to play an important role in providing transit connections to Port Credit to accommodate the park users, given that parking spaces are limited. In the medium to long term, expansion of transit service should be considered to provide transit connections to new park developments, Fusion and Lakeside Parks.

Currently, Mississauga Transit Route 23 provides service along Lakeshore Road, connecting the Clarkson, Port Credit and Long Branch GO stations during weekdays and weekends with reasonable levels of service. In the immediate term, a good marketing strategy and continuous improvements

in transit service would be required to promote transit usage accessing the Waterfront Parks. Implementation of a dedicated Waterfront Parks transit route and further enhancements of the weekend service during peak park use times would be considered based upon increase in transit ridership demand by Waterfront Park users.

It is readily understood that JC Saddington, Marina and Memorial Parks cannot provide adequate off street parking for park users (especially when large planned events are held). Transit should play an important role in alleviating potential traffic and parking conflicts in the waterfront neighbourhoods.

New additional weekend service may be considered to provide comparable transit service to Fusion and Lakeside Parks linking the major transit terminals and the Lakeshore Road service based upon ridership demand by park users. This service would support both park access and potential retailing activities due to the redevelopment of the area. Existing routes servicing Waterfront

Parks and future transit considerations are shown on pages 58-59. Also shown on the map are five minute walking radii around recommended transit stop areas. To promote transit use, transit stops will be located within a 5 minute walk of all park entrances where feasible.

4.5.5 Bicycles

Cycling routes are an attractive means of accessing and linking the Waterfront Parks. New north-south connections to be made to the Waterfront Trail are recommended since it is the major linear spine connecting all of the parks.

The feasibility of incorporating an exclusive bikeway along Lakeshore Road is recommended to be studied. The study should also investigate existing and future travel demands in the Lakeshore Road corridor to find opportunities to rationalize existing traffic and parking lanes. One possibility that should be investigated is a high occupancy vehicle lane and dedicated bike lane.

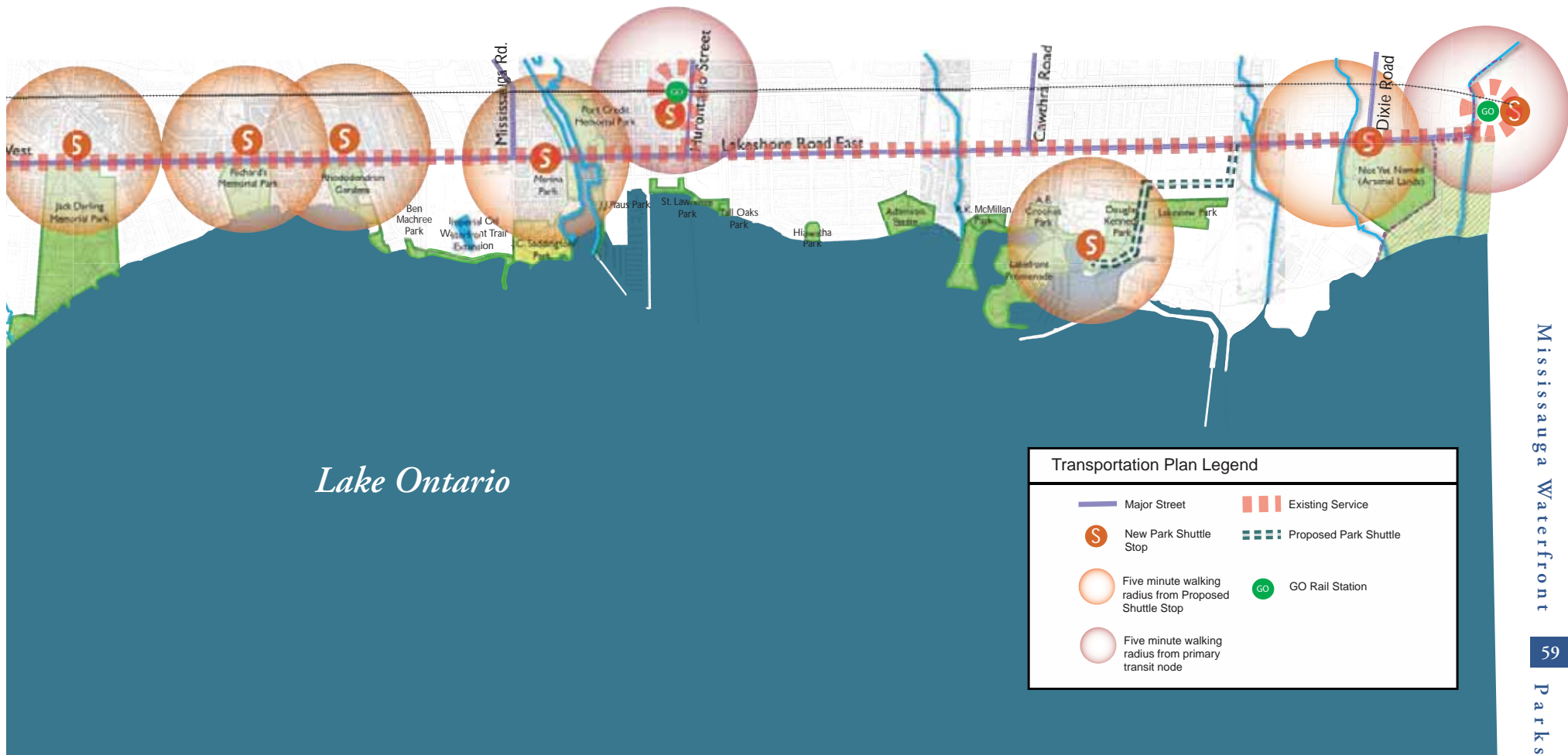
4.5.6 Internal Park Roads and Parking Layouts

Use of internal park roads to accommodate automobile access is recommended to be minimized, especially during peak park-use months. During the off-season more liberal automobile access may be considered to promote year-round use and access to the lake. Pick-up and drop off loops are recommended with limited vehicular access throughout the Waterfront Parks to ensure full accessibility.

It is recommended that parking be located nearest to major roads and park area devoted to parking should be minimized to conserve open space for recreational use. The configuration of new parking lots should not subdivide parks or create expansive asphalt entrance-ways. Drop off points in proximity to key destinations should be provided in lieu of small dedicated parking lots - see the Concept Plans in Section 5.0 for demonstration of this idea. If possible, overflow surface parking lots should be configured as 'green' lots for educational and sustainability purposes.



Proposed Waterfront Transit Plan



Transportation Plan Legend			
	Major Street		Existing Service
	New Park Shuttle Stop		Proposed Park Shuttle
	Five minute walking radius from Proposed Shuttle Stop		GO Rail Station
	Five minute walking radius from primary transit node		

4.6 Parking

4.6.1 Motor Vehicle Parking

4.6.1.1 Philosophy – The Future of Parking

The use of land with high public value for parking along the shoreline has been a key concern in discussions throughout development of this Waterfront Parks Strategy. It is recommended that existing and proposed parking facilities be minimized functionally and aesthetically, as much as possible, to mitigate the encroachment of cars onto lands with recreational and cultural uses. This strategy offers a progressive view of reduced automobile use providing instead for other modes of park access including transit, cycling and walking.

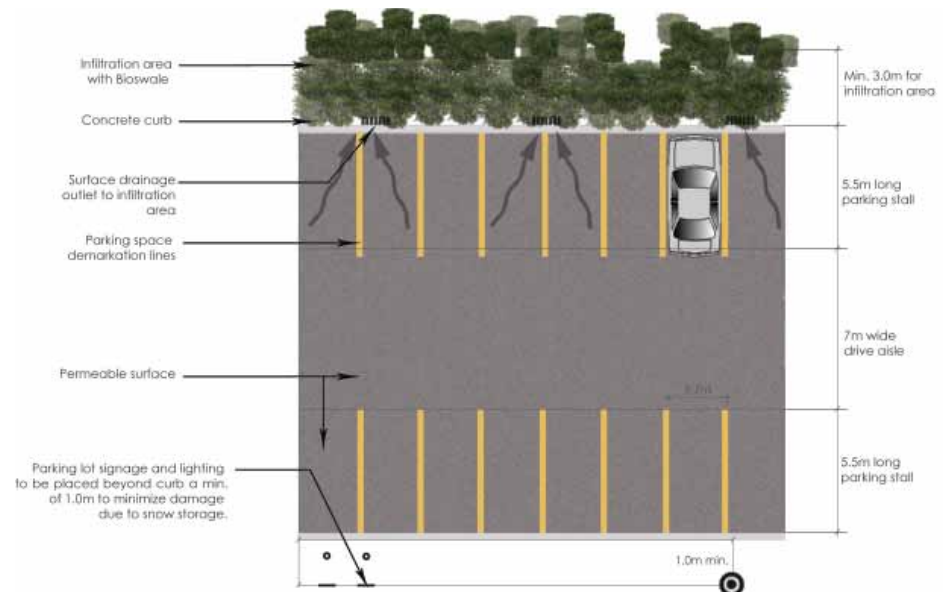
4.6.1.2 New and Redeveloped Parking Areas

The location of new or redeveloped parking areas are recommended to be near automobile entrances to parks and as close to the park edge as possible so as not to take up interior land and land close to water. The aesthetic character and function of existing parking areas are to be improved by providing infiltration areas for stormwater runoff, reconstructing roadbeds with permeable pavement and introducing trees and vegetation to enhance appearances and reduce urban heat island effects. This should be implemented where possible in all parking areas.

New or redeveloped parking areas should be constructed with a configurations that reduces the overall quantity of pavement. This includes reduced width access drives and parking stalls and drive aisles which meet but do not exceed minimum standards. The guidelines recommend a typical parking stall size of 2.6m in width by 5.2m in length, a designated parking stall size of 4.6m in width by 5.2m in length and a parallel parking stall size of 2.6m in width by 6.7m in length. Drive aisle width of 7m is recommended. Water infiltration areas, which will be required for new and redeveloped parking areas, should be a minimum width of 3.0m. Walkways should be located throughout the parking areas connecting to the park areas. To have green parking lots a tree should be placed every 10 parking spaces.



Rendering of what typical parking areas could look like.



New and redeveloped parking areas should be constructed with the most efficient configuration.



Parking areas should be de-emphasized.



New and redeveloped parking areas should have 'green paving' solutions.

Parking areas should incorporate a transit loop of sufficient size to accommodate City buses. The loop should be configured such that it may remain if the parking area is eliminated. The park designs for both Lakeside and Fusion Park demonstrate how these internal transit loops could function. Paid parking areas throughout the park system will encourage transit ridership and will provide a key source of income for maintaining and upgrading of the parks and parking lots.

4.6.1.3 Designated Parking

All new surface parking areas should incorporate an adequate number of stalls for accessibility challenged individuals and identify designated motorcycle or other alternate-mode vehicle parking spaces. As per LEED design standards, parking preference could be given to highly fuel-efficient vehicles and registered carpoolers. Short term parking stalls should also be reserved closest to picnic areas for drop-offs. Clearly marked and highly visible bike parking areas should also be provided in areas close to park activities.

4.6.1.4 Flexible Capacity

Overflow parking areas should be designed into parks that include programming elements for large gatherings. Overflow parking areas should be visibly distinct from conventional parking lots and demarcated in some way, for example through the use of bollards. During special events, staff or volunteers should be on hand to manage overflow parking. Surfaces should be paved with reinforced turf.

4.6.1.5 Paving Materials

Parking area surfaces should be selected to reinforce the natural and aesthetic quality of the park system. Although clearly separating pedestrian and vehicular areas is desirable, parking lot surfaces should blend well with surrounding open spaces. To reduce stormwater run-off and permit water to infiltrate the ground, semi-permeable or fully permeable paving materials should be considered for all, or at least a portion of parking areas.

4.6.2 Associated Parking Area Elements

4.6.2.1 Waiting Areas

Waiting areas should be provided in conjunction with parking areas and transit loops. They should be well lit and provide opportunities for seating and shelter from the sun and wind. Directional and informational signage should be included. A safety and security location should be provided in each waiting area, this could be a security kiosk or an emergency beacon like the one shown in the adjacent image.

4.6.2.2 Signage

All parking areas should be clearly identified, appear on the comprehensive park system map and be designed as per CPTED standards. Special parking spaces (for example VIP parking, accessible parking or motorcycle parking) should be indicated by either a change in the paving material or by the use of a sign. All signage should be legible, creatively and tastefully designed, and be consistent with a park wide signage concept. (Refer to section 4.8 Signage)

4.6.2.3 Planting

Parking lots should be screened with gardens, trees and other plants including shrubs to minimize visual impact and reduce urban heat island effects. For safety reasons clear sight lines should be maintained to the park. Healthy existing trees near or within parking areas should be preserved. All opportunities to plant evergreen plant material and ground cover along the perimeter of parking areas or within internal islands should be pursued. Internal planting islands should be considered for all surface parking areas but should be designed in fewer, larger configurations of high canopy trees to ease snow removal, provide proper soil volume and maintain clear sight lines. The minimum width of internal island should be 3.5m.

Runoff water from parking lots should be captured in infiltration areas or bio-swales. New and redeveloped surface parking areas should be designed to drain into vegetated or grassy swales. Swales filter runoff and slowly release water into the ground, or the existing storm water system.



Parking areas should contain emergency beacons.



Stormwater runoff should be captured in infiltration areas.



Parking area lighting should be tastefully designed.

4.6.2.4 *Lighting and Security*

Lighting standards for the City's Park is recommended to be a subject to further study but the following paragraphs provide potential criteria for consideration.

The appropriateness for lighting in parks should be examined on a park by park basis and should respond to the program uses recommended for each park. All lighting should be implemented as per CPTED Standards for safety, security and accessibility. Lighting should be selected which minimizes light pollution and produces colour accurate white lighting (such as metal halide). Tall standards should, where appropriate, be replaced with pedestrian-scaled standards and low bollards. Lighting should be adequate to provide good visibility in night-time conditions. All parking areas should contain at least one emergency telephone or beacon. Alternatively-sourced energy (such as solar) should be considered for all park lighting.

The distribution of outdoor lighting should be controlled according to outdoor lighting design recommendations of the Royal Astronomical Society of Canada to minimize light pollution and maintain a dark night sky. Well-designed lighting networks that incorporate full cut-off fixtures are also more energy-efficient.

4.6.2.5 *Aisles and Internal Pedestrian Network*

Pedestrian access in parking areas should be accommodated by well designated pedestrian scaled walkways. A change in paving materials and appropriate lighting, signage and vertical posts for identification in winter months should be designed as part of all such walkways. This crosswalk detail should be consistent throughout the park system where pedestrians and vehicles intersect.

4.7 Natural and Cultural Heritage

Commemorating natural and cultural heritage is a key component of the Mississauga Waterfront Parks Strategy. The original condition of the waterfront and evolution of the City's urban development beginning at the lake should be communicated clearly. Wherever appropriate, interpretive signage and installations should inform and educate park users, helping to reinforcing sense of place. See the map on page 8 for the key properties identified in the City cultural and natural heritage landscape inventory.

4.8 Signage

4.8.1 Signage Design

All new signage proposed for the waterfront park system should be consistent with a cohesive design language that is legible to people of all ages and abilities. Although a design direction is provided in the Strategy, it is recommended that the City undertake a signage study specific to the waterfront park system with the purpose of creating a comprehensive family of park signage. Designs should be attractive, functional, accessible, durable and minimize signage 'clutter'. Signage design elements such as colours, fonts, letter size and case and international symbols should conform to the guidelines outlined in the Mississauga Accessibility Design Handbook. Waterfront park signage should be perceived as being different from Waterfront Trail signage.

The Strategy recommends that a consistent palette of materials be selected for sign design, allowing the actual sign configuration to vary according to the sign's specific location. The design direction suggested indicates the use of elemental materials such as stone, metal and concrete. The aim is to keep materials as natural and as maintenance free as possible.

For new and proposed signage, this document makes a distinction between City Signage and Park Signage. The two categories are described on the following pages.



Commemorating the waterfront's natural and cultural heritage reinforces the sense of place and time.



Unpainted metals



Natural concrete



Stone

4.8.2 City Signage

The Strategy proposes a City signage initiative to improve the awareness of Waterfront Parks system for passing motorists/travellers. Two types of City signs are proposed:

Welcome Signage

Welcome Signage is large scale signage that is located at gateway locations at the City's eastern and western boundaries. The eastern gateway sign should be located at the Arsenal lands and the western gateway sign at the Fusion property.

The Welcome Signage incorporates:

- "Welcome to the City of Mississauga" message
- Waterfront plan/map
- General information about the waterfront park system
- High quality landscaping

Roadway Signage

The Strategy proposes that roadway signage be included in the City signage initiative. The goal of the waterfront park system Roadway Signage is to improve the awareness of the Waterfront Parks system for passing motorists/travellers. It is recommended that major inland east/west and north/south routes be equipped with directional information that guides motorists/travellers to the Waterfront Parks system. Roadway signage should be scaled for vehicular use, easily recognizable, strategically located and be distinguishable from other roadway signage, much like the Tourism Oriented Directional Signs that have been designed for the province of Ontario.

Roadway Signage should be considered along the major east/west routes: Queen Elizabeth Way, Lakeshore Road and potentially the 401 and the north/south routes: Dixie Road, Cawthra Road, Hurontario Street, Mississauga Road, Southdown Road and Winston Churchill Boulevard.



Example of City Welcome Signage for waterfront park system.



Ontario Tourist Oriented Directional Signage.

City Signage	<h2>Welcome Signage</h2> <ul style="list-style-type: none">• Large Scale• Located at Gateway locations at the Mississauga City border• Includes City standard map board for the waterfront parks• Provides “drive by” information on the waterfront parks system	<h2>Roadway Signage</h2> <ul style="list-style-type: none">• Vehicular Scale• Located on major transportation routes• Provides directional information for reaching the waterfront park system• Should be consistent in design and be instantly recognizable	<h1>Mississauga Parks Sign Organization</h1>	
Park Signage	<h2>Major Orientation</h2> <div><h3>Primary Park Marker</h3><ul style="list-style-type: none">• Vehicular Scale• Located at vehicle entrances to the park• Visible from traffic route• Identifies park name and street address• Complete with lighting and landscaping</div> <div><h3>Secondary Park Marker</h3><ul style="list-style-type: none">• Pedestrian Scale• Located where pedestrian circulation enters/exits park• Located at north/south street connections at Lakeshore Road• Provides map of park and location in park system• Identifies park activities available• Identifies permit/rental end event information• Includes some comfort features such as seating, lighting, emergency beacon, telephone or audio information</div>		<h2>Minor Orientation</h2> <ul style="list-style-type: none">• Pedestrian scale• Located within park• Provides directional information for park features• Provides identification of features• Consistent in materials and design• Uses internationally acceptable symbols	<h2>Interpretive Signage</h2> <ul style="list-style-type: none">• Pedestrian Scale• Located adjacent to pedestrian circulation• Unique, design responds to information and location• Provides information using graphic, audio and or tactile elements

4.8.3 Park Signage

Park Signage, as proposed by the Strategy, is divided into three categories: Major Orientation, Minor Orientation and Interpretive Signage. Park Signage relates to a specific park and/or location. The following is a description of the three categories:

Major Orientation Signage

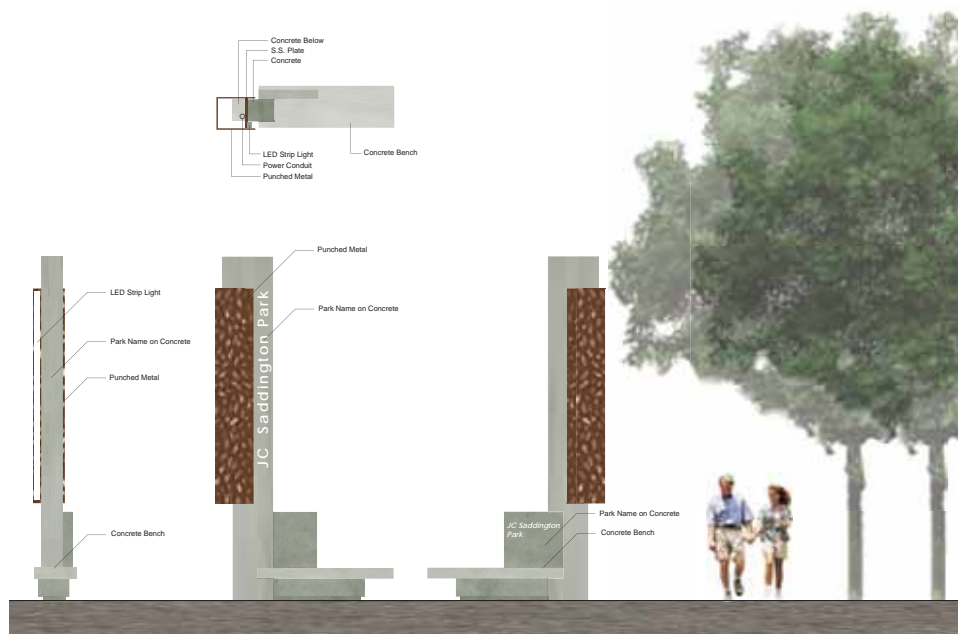
Major Orientation Signage describes the use of “Park Markers” to greet visitors to each park. The strategy conceptualizes a series of ‘Park Marker’ designs with variations appropriate for vehicular and pedestrian scale locations. The marker concepts are intended to orient visitors and identify park amenities and travel routes, enhance connectivity and consistency among parks on the Mississauga Waterfront and communicate their distinctive nature. The markers are further illustrated in Section 5.0 Key Parks Design. There are two levels of park markers proposed:

Primary Park Marker:

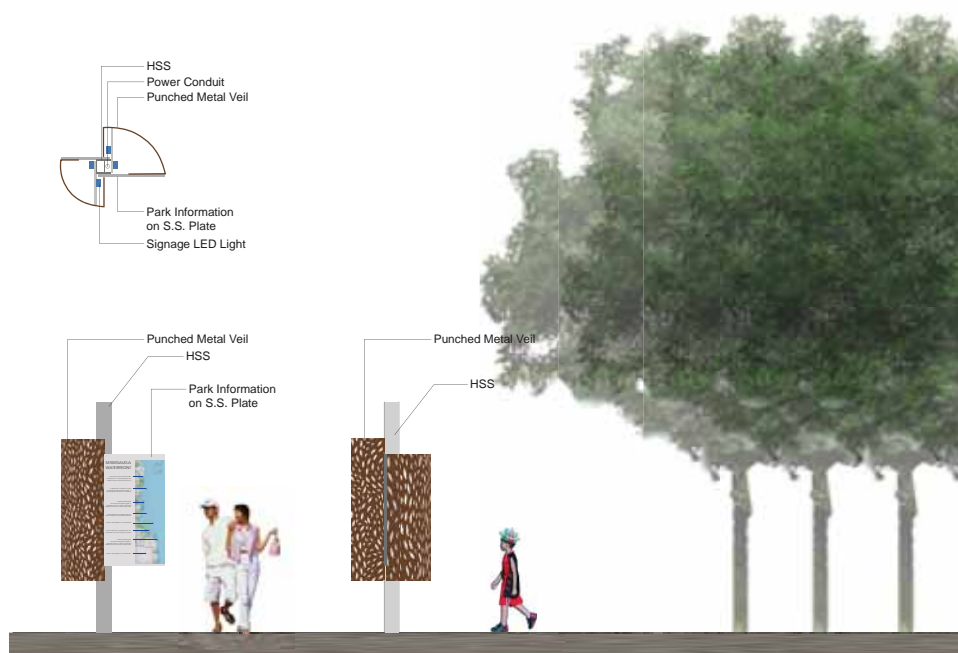
Primary Park Markers are vehicular in scale and are located at the main vehicle entrance to a park. The Primary Park Marker is visible from the nearest traffic route and identifies the park name and street address. Primary Park Markers should be complete with lighting and landscaping.

Secondary Park Marker:

Secondary Park Markers are pedestrian in scale and are located where pedestrians and cyclists enter/exit the park. They are also proposed to be located at north/south street connections at Lakeshore Road (refer to section 4.10.1.1 for proposed locations). Secondary Park Markers provide map of park and location of park in the waterfront system, identifies park activities available, identifies permit/rental end event information, includes some comfort features such as seating, lighting, emergency beacon, telephone or audio information. Park visitors will benefit from knowing where they are relative to the Waterfront Parks system and what elements are contained in the park they are visiting.



Major Orientation: Primary Park Marker conceptual design.



Major Orientation: Secondary Park Marker conceptual design.

Minor Orientation Signage

Minor Orientation Signage, as proposed, is pedestrian in scale and meant to be viewed from short distances. This type of sign provides directional information for park features and activities using simple, easily understood symbols and arrows. This type of signage should also be used to denote distances and mark trails and loops.

It is recommended that the symbols be engraved on a square post, and painted with a high contrast colour. The post should be of a high quality, durable material such as stone (granite, limestone or sandstone) or concrete. The material of the post and the method of applying the symbol should be consistent throughout the park.

Interpretive Signage

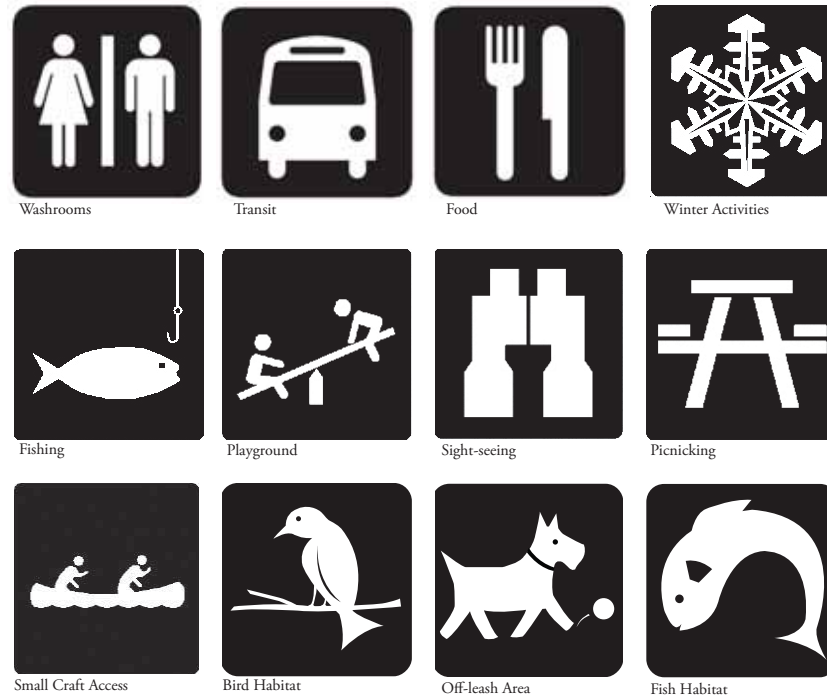
Interpretive Signage will play a major role in the telling of Mississauga's waterfront story. All aspects of the waterfront including natural systems, cultural and historic facts and contemporary concepts can be a subject of this type of sign. Interpretive Signage can be unique to each park and should respond to the nature of information presented. The design of the sign should be legible to people of all ages and abilities and should take advantage of technology, for example, by using audio display to "tell the story" or by having visitors use their cell phones to call a pre-recorded message conveying special information.

Interpretive Signage should be constructed out of durable materials that are easily maintained and replaced if necessary.

See the Concept Plans in Section 5.0 for a demonstration of how park signage should be organized.



Example of Minor Orientation Sign with engraved symbol. Symbols should contrast with post material/colour.



Example park-related symbols for use in Minor Orientation Signage



Interpretive Signage should not only “tell a story” but should also be interactive. This heritage interpretive area in St. Lawrence Park is an good example of a feature that incorporates written and graphic material as well as interactive elements that will appeal to a diversity of visitors.



Interpretive and educational signage.

4.9 Environmental Design

Clean ground, water and air are the most important characteristics for a waterfront park. The long term health and vitality of the Credit Valley watershed, Lake Ontario and their adjacent natural areas should not be undervalued.

A central theme of this Strategy is the importance of employing responsible environmental design techniques and methods to shape the look, feel and maintenance of the Waterfront Parks. The following paragraphs provide a summary of environmental design and outline key strategies to ensure the long term viability of the parks and water systems. The Strategy also recommends an active improvement program to enhance the parks existing natural features, educate the public on issues of sustainability and expand green areas to establish key green corridors through out the Waterfront.

4.9.1 Definition of Sustainable (Park) Development

In 1987 the World Conference on Environment and Development defined sustainable development as “(park) development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). Since then sustainability has been understood as the need for all development to take place in an environmentally, socially, culturally, and economically responsible fashion – over the long term rather than the short term.

4.9.2 Relevance

As a lakefront city, Mississauga has a responsibility to employ a sustainable approach for park development in and around Lake Ontario. The lake serves as the larger communities primary drinking water supply, a thriving recreational area on and adjacent to the water, and has significant natural areas whose ecosystems depend on the lake and its long term viability. For these reasons this Strategy deems it essential to respect its unique natural setting and steward it for future generations. The principles and objectives of sustainable development relate to any city, however proximity to the lake and

other natural features should make sustainable park development a top priority for Mississauga's waterfront park system. Significant opportunities exist to improve sustainability of Mississauga's waterfront park system. Some of these opportunities are discussed below.

4.9.3 *Implementation*

The principles discussed below are only some of the opportunities for a healthier, greener and more energy efficient park system. Their implementation would be a significant step for the City to demonstrate leadership. Sustainable design often means up-front capital investments that achieve full payback in under five years through operational savings. Lifecycle costing, or the calculation of a project's capital and operational cost over its useful life, demonstrates substantial net benefits can be realized in the long-term, for instance reduced exposure to volatility of energy prices.

4.9.4 *Public Realm Principles*

The City should encourage sustainable design of buildings in proximity to park areas, and should directly invest in sustainable features in Waterfront Parks, including in the design of streets, paths and parking areas. Key opportunities include minimizing impervious hard surfaces, choosing reused and local materials in construction, favouring local plant species, minimizing the use of pesticides, reducing light pollution and protecting and enhancing natural areas.

The public realm is also adversely affected by urban heat gain attributed to asphalt surfaces and conventional roofs. Sustainable alternatives such as green roofs substantially reduce the heat island effect providing a more habitable environment for people as well as plant and animal life.

4.9.5 *Sustainable Master Plan Principles*

All park master plans should address environmental sustainability principles. Stormwater management, heat island mitigation, reduction of light pollution, remediation of contaminated sites, naturalizing landscapes, reconnecting natural corridors, protection of some animal habitats, promotion of non-motorized travel and building orientation and design which takes advantage of natural site attributes. A range of appropriate

measures should be considered to measure achievement of sustainability measures such as operation cost tracking, waste output measurements and parkland regeneration programs.

4.9.6 *Costs and Incentive Programs*

The initial cost of sustainable components is generally greater than conventional components. However when savings related to energy consumption, maintenance and other factors are calculated over the useful life of the project, sustainable components tend to be financially advantageous. An example of this would be the installation of alternate energy technologies for lighting and servicing. Although more expensive to install the long-term savings of generating energy compared to purchasing it will become a great savings to the City in the long-term.

4.10 *Circulation*

4.10.1 *Street Networks*

4.10.1.1 *North-South Streets*

This strategy recommends 'greening' key north and south streets and providing Secondary Park Markers at intersections along Lakeshore Road to promote the connection to the Waterfront Parks. 'Greening' is defined as installing trees to promote a 'park-like' quality along the street, and improving or providing sidewalks and trails linking Lakeshore Road to the Waterfront Parks. Improved wayfinding signage will also be a key element in reinforcing links to the waterfront areas. Improvements to the street boulevards must be coordinated with the Transportation and Works Departments.

To create appropriate park entrances to the City's Waterfront Parks from Lakeshore Road, key streets should be considered for greening:

Winston Churchill Boulevard (South of Royal Windsor)
Southdown Road
Clarkson Road South
Mississauga Road (South of Lakeshore)
St. Lawrence Drive
Hiawatha Parkway (secondary)
Enola Avenue
Aviation Road
Lakefront Promenade



Greening key north/south streets and Lakeshore Road can promote park-like quality along City streets.



Planting in medians improve the aesthetics of a roadway.

The right of way widths of each individual road will have to be examined to determine feasibility. The greening of these streets will increase the urban forest and set a standard for streetscape beautification throughout the City.

Key high traffic streets, north and south of Lakeshore Drive such as Hurontario Street, Mississauga Road, Southdown Road, Dixie Road and Winston Churchill Boulevard, are recommended for streetscaping improvements to further identify their connection to the waterfront. These improvements could include enhanced planted median treatments, increased street tree canopies, banner signage on light standards and clustered high contrast planting within the boulevards.

4.10.1.2 Lakeshore Road

Apart from the shoreline itself, Lakeshore Road provides the major east-west corridor accessing the Waterfront Parks system. To enhance the connectivity between Lakeshore Road and the Waterfront Parks, the Strategy recommends greening Lakeshore Road. Local Business Improvement Associations should be involved in this process.

4.10.2 Internal Park Circulation

4.10.2.1 Circulation Design

Internal park circulation should strive to provide diverse experiences for park visitors. Diversity can be explored through differing views and vistas, a variety of surface materials and dimensions. This will reinforce a hierarchy of circulation within the park.

It is recommended that a series of standard trail types be developed, each with a consistent design approach that can function in part as a wayfinding system. For example, the Looped and Connector Trail and the Nature Trail should all have standard dimensions and materials assigned. All internal park circulation should refer to the City of Mississauga standard details for trail construction.

Internal park circulation should be designed with sensible connections that lead users from one destination to another. This is particularly important where internal

circulation paths meet road connections. Looped trails with known distances should also be incorporated to provide a physical fitness component to the internal circulation system.

Internal park circulation should be well equipped for trail users and include amenities such as seating, lighting and orientation signage. All park circulation should adhere to the guidelines set out in the Mississauga Accessibility Design Handbook to provide trails that can be utilized by people of all abilities. Internal circulation routes should also provide interpretation elements.

This Strategy recommends increasing park usage during winter. Providing access to the parks in winter means keeping some parking areas and selected trails free of ice and snow. It is recommended that the Waterfront Trail, multi-use recreational trails and selected connector trails be maintained and cleared of snow and ice. Trail designs will be required to accommodate snow removal equipment by having appropriate width and loading capabilities.

The principles of Crime Prevention Through Environmental Design (CPTED) will be applied to all park circulation designs to create a safe environment for park visitors. Roads and paths will be designed to reduce conflict by separating wheeled and pedestrian access.

Internal circulation should have the following characteristics:

- Be properly sited and graded to drain properly;
- Be adequately lighted where appropriate;
- Be properly signed ; and
- Be designed to support the heaviest vehicle loading anticipated.

4.10.2.2 Waterfront Trail

The Waterfront Trail is a publicly funded trail system that connects a system of publicly and privately owned parks, pathways, natural areas and activity centres along the Lake Ontario Waterfront. It is part of the Trans Canada Trail. Consistent approaches to design allow trail users to identify any section of the trail as the Waterfront Trail.



Park circulation should provide a variety of experiences as shown in the above three images.



To reduce potential conflicts, the wheeled access and pedestrian access portions of the trail should be separated.

Refer to the Design Signage and Maintenance Guidelines for the Waterfront Trail, prepared for the Waterfront Regeneration Trust, for the design and construction for expanded portions of the Waterfront Trail.

4.10.2.3 Multi-Use Recreational Trails

Multi-use Recreational Trails will incorporate a combination of wheeled and pedestrian access. The wheeled access portion of the trail should be wide enough to accommodate wheelchairs and bicycles travelling in both directions and be constructed of a smooth, barrier free surface such as asphalt. Travel lanes should be demarcated with a painted line or paver. The pedestrian portion of the trail should be a minimum of 2.0m wide and be constructed of good quality, well compacted crushed granular material like limestone screenings. In high use areas, the pedestrian portion of the trail should be concrete and /or unit paving for durability and accessibility. Ideally, to reduce conflict, the wheeled access portion and pedestrian access portion of the trail should be physically separated.

4.10.2.4 Looped and Connector Trails

Looped and Connector Trails link park elements such as parking areas and multi-use trails. Looped and Connector trails will have a minimum width of 2.4m, typically be paved with concrete, and include orientation signage.

4.10.2.5 Nature Trails

Nature Trails are informal trails with loose alignments based on “desire” lines. They should be at maximum 2.0m wide and may be constructed of granular material or wood chips. Nature trails may not necessarily be universally accessible. They must be well equipped with signage to assist orientation, protect trail users from physical danger and be designed to protect sensitive environments.

4.10.2.6 Boardwalks

In keeping with the image of the waterfront and for the protection of sensitive environments, some portions of a trail may be constructed as a boardwalk. Boardwalks should be strategically located due to the cost and moderate longevity of the construction. For example, this strategy proposes locating a boardwalk along a

portion of the Fusion Park shoreline in the vicinity of the existing wood land and the sensitive beach areas. It would have the dual purpose of providing strong visual lake access while protecting the delicate shore condition with limited physical access.

4.10.2.7 Emergency and Servicing Vehicles, Picnic Access

Limited vehicle access within the parks should be accommodated for emergency, service and maintenance vehicles and also for private vehicles accessing picnic areas. In all cases, vehicular access should be de-emphasized and designed as efficiently as possible.

In some locations vehicle access is required. Conventional 2-way traffic driveways should be a maximum of 7.0m wide constructed with curbs or curb-stops along their linear length to discourage unlawful parking. Within the park lands the wheeled portion of the Multi-Use Trail can be shared with vehicles. Trails that will be shared with vehicles should be a minimum width of 3.5m and should include an adjacent 1.5m wide reinforced turf strip on each side to accommodate stopped vehicles.

Emergency service roads within parks should be of sufficient weight bearing capability to support service and emergency vehicles. However opportunities to pave roads with materials other than asphalt, denoting that these roads are not active circulation routes within the park area, should be investigated. In areas where roads can not provide direct access, a reinforced grass surface is recommended to allow full vehicular access in the case of an emergency.

4.10.2.8 Steps, Stairs and Ramps

New park development should aim for complete accessibility through the use of gentle slopes and occasional ramps instead of stairs wherever possible.

4.11 Water Access

The public consultation process indicated improved access to the lake was highly desirable throughout the waterfront park system. Wherever access to the



Nature trails and informal trails can be used in sensitive environments.



Boardwalks may be appropriate in some locations to protect sensitive environments.



Steps should always be accompanied with accessible access.



The Strategy proposes maintaining and improving access for non-motorized water craft.

lake is proposed the environmental impacts must be considered and if possible offset through investment in ecological enhancements to the parks. These investments may include shoreline improvements, fish habitat compensation areas or new naturalized planting areas.

4.11.1 General Recommendations

It is proposed that new direct water access areas be concentrated in Park Area 2 (Lakefront Promenade - refer to Section 3.3), and at Lakeview Park (Park Area 7). The variety of water edge conditions, water depths and wind/wave protection allows for a mix of pedestrian and watercraft access points.

4.11.2.1 Boating (motorized and non motorized)

Access to the water for boating is an essential component of a connected waterfront system. Currently there are two harbours along the waterfront. One is located at the mouth of the Credit River and the other is at Lakefront Promenade. Retaining both harbours is recommended since they are well used and provide a popular boating and recreation destination for the larger community.

Throughout the waterfront system, opportunities for non-motorized boat launching (such as canoes and kayaks) have been investigated. Easy access to the water's edge in multiple locations through out the waterfront will help facilitate the accessibility of the waterfront park system via water transportation.

The mooring for keel boats in the mouth of the Credit River is not an economically sustainable practice due to the required dredging of the mouth of the river. It is a long term recommendation of this study that all keel boats be serviced and moored at Lakeside Promenade as an alternate location.

4.11.2.2 *Swimming and Wading*

Swimming and wading locations are available across the waterfront system without lifeguard services. It is recommended that additional opportunities be investigated at Lakefront Promenade but that the water quality be monitored. The configuration of the shoreline in that area could provide for numerous locations for swimming and wading or potentially a new beach.

4.11.2.3. *Fishing*

Fishing on Lake Ontario and the Credit River are long established community activities. It is important that dedicated locations for fishing be provided, especially at the mouth of the Credit River. Locations for a dedicated fishing platform have been identified within the concept plan for Marina Park. The specific design and implementation of fishing platforms will be addressed in the detail design stage of park development. It is recommended that existing charter boat services remain in along the waterfront.

4.11.2.3. *Water Access*

Use of the waterfront for fishing, boating, swimming and wading may conflict at times. This study recommends that no one use be given priority, but that they are coordinated through scheduling and event planning. Any user conflicts which arise should be addressed through signage.

4.12 Waterfront Activities / Facilities

In the planning for upgraded, expanded and new Waterfront Parks, it is recommended that the following uses be considered as appropriate:

- Walking and cycling pathways and trails;
- Passive recreational open spaces;
- Fishing;
- Bird watching;
- Picnic areas;
- Waterfront viewing platforms;
- Skating;
- Dog walking (leash free only to be retained where



Water activities.

- existing);
- Children's play areas;
- Spray pad;
- Boat rentals / launching;
- Stargazing;
- Events;
- Art;
- Commemorative;
- Bike rentals;
- Café / vendors;
- Winterized washrooms;
- Educational programming and events;
- Special events (concerts / art);
- Toboggan hill;
- Skateboard and BMX Bike Facility
- Wading pool;
- Marina Facilities;
- Volleyball;
- Informal active recreation areas;
- Wind, sun and weather shelters;
- Museums.

The following uses are examples of activities and facilities that would generally be discouraged from the waterfront: Arena Pad; Leash Free Areas; Baseball; Formal Soccer Fields; Softball; and Lacrosse. Where the uses already exist, the facilities can remain, however, their expansion is discouraged. Consideration for these types of uses or facilities within new park developments would be reviewed based on their individual and site specific merits.

4.13 Education

Educational programming and interpretive opportunities for the waterfront park system should be integrated into the master plan and detailed design of new and existing parks. The following sections provide examples of the types of educational programming that should be considered.

4.13.1 *Respect for the Environment*

Environmental sustainability is a guiding principle for this waterfront strategy. Educating the public about sustainability measures in the Waterfront Parks is an effective way to promote stewardship of the environment and individual responsibility. This study recommends that park sustainability measures be implemented in a transparent manner to expose people to available technologies and lead by example.

4.13.2 *Interpretive Elements*

Innovative interpretive elements should be located throughout the waterfront park system. Interpretive elements should tell the story of the waterfront park system including its heritage, recreational, community development, environmental and wildlife aspects.

Interpretive elements should be constructed with permanent materials and should include alternative means of conveying information. Some examples of innovative designs include embossing and inseting text into pavement or concrete, public art installations, and incorporating interpretive features into benches, planters or low walls. It is also recommended that sound recordings be used along the entire waterfront to give directions, tell stories and educate the public about sustainability. An audio interpretive and educational program can make use of cell phones to improve the accessibility of the park system. These systems also require minimal maintenance in comparison with built interpretive elements.

Potential Themes: Various interpretation areas should be provided based on themes of migratory birds, wildlife interpretation, shoreline interpretation,

history and heritage and reforestation. Refer to Section 4.8.3 Park Signage for more detailed information.

4.13.3 *Opportunities for Educational Programming*

Creating awareness of the potential role of the parks for educational programming should be a City and Region wide priority. School groups and community programs should make use of the Waterfront Parks as open air classrooms for teaching about natural systems and sustainability. Educational programming associated with schools will intensify use of the parks during off-peak times and seasons.



Interpretive elements can be used to tell the story of the Mississauga waterfront.

4.13.4 Public Private Partnerships

The City should investigate public private partnerships with local businesses and industries to create new public education interpretive elements. An example of a public private partnership program would be the introduction of interpretive elements but also park facilities that describe the role and functions of local industry visible from the parks.

4.14 Seasonal Use

4.14.1 Wind protection

Providing protection from the wind helps create enjoyable recreational spaces that are usable year round. Wind protection can occur in many forms. Utilizing landforms in conjunction with well structured plant material is an affordable method of constructing wind protection, however it requires time to produce the desired effect. A more immediate form of wind protection comes from the use of structures or shelters. These are more costly. Using a combination of natural and built forms for wind protection is usually the best solution.

4.14.2 Warming Stations

The introduction of warming stations can greatly increase the length of visits to the park during cold weather. Warming stations are places that are heated in some way, protected from the wind and allow access to small groups of park visitors at a time. Warming stations could be temporary structures like the warming huts used during Winterlude in the City of Ottawa, or permanent structures such as fire pits or heated buildings.

For safety and security reasons warming stations need to be located in areas with good supervision. Where open fire or heating elements are used, protective structures or timers should be used to improve safety and limit length of use. All warming stations should be vetted by the Fire Department.

4.14.3 Snow and Ice Removal

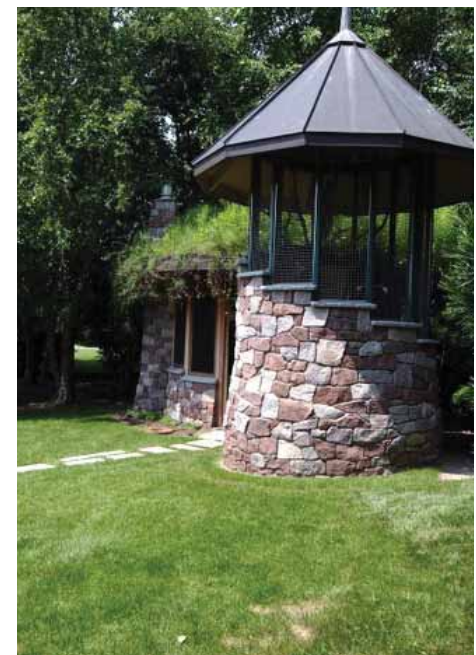
Providing access to the park system in winter months means that access routes must be free of hazards such as ice and snow. It may be unreasonable for all park to be maintained during the winter months. It is recommended



The addition of well structured plant material around the base of existing trees in JC Saddington Park will help provide protection from the wind.



Selected circulation routes should be cleared of snow and ice for use in the winter months.



Seasonal park activities should be considered for all park areas - the above image shows a naturalized warming hut.



Naturalization reduces maintenance.

that selected circulation routes be cleared. Signage should indicate which circulation routes are cleared and which are not.

For the circulation routes that will be cleared in the winter, pavement design should accommodate snow removal equipment. Selected locations for snow storage that have provisions for absorption of salt and other deicing chemicals from snow melt should be identified.

4.14.4 Park Uses and Events

Providing programs to attract visitors in the winter is a key element in creating year-round use in a park system. Hosting festivals and events such as New Year's Eve parties, Holiday Tree Lighting, Winterfests and sporting events will give the community a reason to be in the park during winter.

4.15 Landscaping

4.15.1 Naturalization

There is growing acceptance of the aesthetics of naturalized planting areas. By increasing the lands designated for naturalization, maintenance costs can be reduced. The creation of naturalized landscapes can be part of a volunteer and educational planting program. Planted areas should be protected from public use until they are well-established. Existing naturalized areas can be left to develop with minimal intervention. Naturalization areas should be signed so that park users know what is going on (similar to the “let it be” signs in Lakefront Promenade).

New plant material used for naturalization should be indigenous species to ensure that the new park landscapes adhere to the sustainable implementation practices recommended in this document.

4.15.2 Sustainable Landscaping

Innovations in sustainable landscape design are ongoing and should be reviewed and researched by the designer prior to the design of any park master plan. The following are basic guidelines for implementing a sustainable landscape plan:

- Native plant materials should be used wherever possible to reflect the waterfront location and have respect for the existing ecosystems.
- Existing significant trees, tree stands and vegetation should be protected and incorporated into site design and landscaping. Provisions should be made to protect such trees from construction if development occurs in close proximity.
- Landscape design should incorporate a wide range of strategies to minimize water consumption, e.g. drought resistant species, use of mulches and compost, alternatives to lawn and rainwater or graywater collection systems where possible.
- The width of all planting beds should be at least 3.5 metres wide to enable plant material to be massed to create a healthy and sustainable landscape and reduce irrigation dependency.



Trees are essential in creating a sustainable landscape, they provide summer shade and winter daylighting and contribute to a healthy urban ecosystem.



Ornamental planting clusters can be located at park entrances for visual interest.



Landscaping should be simple and massed to reduce maintenance.



Landscaping should be interesting and appealing in all seasons.

- Management of stormwater by means of landscaping or other permeable surfaces should be provided to allow runoff absorption into the soil.

4.15.3 Ornamental Planting Areas

When appropriate, planting should incorporate variations in trees, shrubs and groundcovers in large masses that suit the scale and character of the spaces in which they are found. All plant material shall be native and non-invasive. Ornamental planting should respect the park design and would be most appropriate in high traffic areas such as park entrances or gateways.

4.15.4 Seasonality

All landscaping should be designed to be appealing in all seasons. This includes mixing coniferous and deciduous trees and the introduction of grasses and shrubs that retain their shape in winter months. Where possible plants that provide a variety of colours year-round should be considered.

4.15.5 Interpretive Planting

Using plant material to demonstrate an idea or concept is an interactive way to engage park users. Themes include sensory gardens, butterfly or bird gardens and native gardens.

4.15.6 Tree Planting

New tree planting should vary in species, age and size so as to ensure that the parks retain continuous tree coverage throughout the life cycles of the trees. Use of non-native, invasive species such as Norway Maples should not be permitted.

4.15.7 Lawn Areas

Lawn areas require continuous maintenance and should be carefully located and appropriately sized. Open areas should not be located directly adjacent to the lake or river as they are inviting to geese and other wildlife. Buffers such as tall grasses, large rocks, tree canopies or a combination thereof should be used to divide open lawn areas from the shoreline.

4.15.8 *Grade Changes*

Where grade changes occur within the parks an accessible route should be provided where possible. Where steep grade changes occur multi-use solution should be considered. An example of this could be a low retaining wall which can double as seating areas. Where seating areas are not needed it is preferred that a natural method of grade change be utilized. Slopes should be reinforced as required with indigenous planting for slope stabilization.

4.15.9 *Maintenance*

General park landscaping should be designed to be easy to maintain and require minimal seasonal upkeep. By minimizing general maintenance there is an opportunity to direct more resources to naturalization and ornamental planting areas as described in Section 4.15.1 and 4.15.2 and 4.15.3. These areas should be identified though the detailed design process.

4.16 *Buildings and Structures*

4.16.1 *Green Buildings and Site Design*

Buildings consume about 38% of total Canadian secondary energy use, produce about 30% of total Canadian greenhouse gas emissions and use 40% of raw materials globally. Where appropriate opportunities to minimize waste and emissions should be pursued.

- New buildings should seek Leadership in Energy and Environmental Design (LEED) certification or equivalent. LEED certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting higher performance standards in environmental responsibility and energy efficiency.
- Building construction and operation methods should aim at reducing dependence on non-renewable resources by using appropriate recycled materials and by promoting adaptive reuse of existing structures.
- Indoor environmental quality should be achieved through design techniques including daylighting and the use of low-emission finishes formulated to low or zero volatile organic compounds (VOC) standards.



Native planting and low level lighting should be used adjacent to surrounding neighbourhoods.



Green roofs are attractive, reduce building energy requirements, cool surfaces and absorb stormwater.



Visible alternate energy sources can become symbols for the commitment to sustainability.



New shade and weather shelters should be beautiful, inspirational and locally designed and constructed.

- Building energy consumption and site systems (HVAC, hot water, lighting) should be reduced through the use of appropriate mechanical and sustainable technology (natural cooling, heat recovery, passive solar design, etc.).
- Renewable energy systems should be considered to power on-site lighting and to supplement building power requirements, solar panels are one example.
- Innovative wastewater treatment, water reduction and sustainable irrigation strategies are encouraged, including the use of water efficient or greywater plumbing fixtures.
- Natural ventilation systems should be considered as an alternative means to air conditioning through the promotion of passive convection cooling and ventilation. Passive systems can minimize or eliminate mechanical system usage for heating, cooling and ventilating buildings during prolonged periods of the year.
- Efficient lighting equipment should be used and unnecessary lighting of occupied space should be eliminated by using occupancy sensors and photocells as energy efficient occupant controls.
- Vegetated roofs should be developed to mitigate stormwater runoff, improve building insulation and reduce ambient heat gain. Roof design should also incorporate daylighting to reduce dependence on internal artificial lighting (see below).
- The annual energy consumption of existing buildings should be measured and displayed for educational purposes. Upgrading should be undertaken to existing buildings so that energy and thermal performance is comparable to new buildings.

4.16.2 Seasonal Structures

Seasonal structures should also follow the sustainable construction methodology outlined above. The location, styles and use of seasonal structures should be designed in response to site specific analysis and an analysis of the surrounding programming requirements. In areas where year-round activities can be accommodated, seasonal structures should be considered. If a year round structure is not appropriate, opportunities to provide wind and weather buffers, like canvas, should be incorporated into the design of temporary structures.

4.16.3 Year-Round Structures

Creating a year-round park system is a goal of this Waterfront Park Strategy. To facilitate winter park activity, it is essential that there are accessible structures that provide the necessary conveniences such as heated washrooms. In areas where prolonged outdoor winter activities are proposed such as cross country skiing, skating, and tobogganing, a multi-use indoor warming area should be considered. Each warming area should have high visibility to the outdoors and allow for the monitoring of children's activities.

4.16.4 Shade and Open Air Structures

Shade and open air structures should follow the sustainable construction methodology outlined in Section 4.16.1. The location, style and use of shade structures should respond to site specific analysis. Demonstration designs for site specific structures are described in Section 5.0. Throughout the design process opportunities to provide wind and weather buffers should be examined.

4.17 Park Design Amenities

4.17.1 Benches and Seating

Benches or seating elements should be permanently attached to the ground, located adjacent to circulation routes, along walkways, at building entrances and at waiting areas. Benches should be located and designed as per the Accessibility Design Handbook. Benches should be mounted on a solid surface of different material from circulation route to assist in maintenance and be detectable to those who are visually impaired. Seating should be located in sensible locations and quantities, its design should respond to site conditions and its construction should utilize natural, durable and local materials. Innovative seating elements are recommended such as stone blocks, boulders and planter walls. Examples are depicted in the adjacent images. The existing commemorative bench programs should be expanded across the entire Waterfront Parks system.



Example of typical benches in wood.



Example of typical benches in metal, both these examples show a 1m wide hardscaped area directly adjacent to the benches for stroller, guide dog or mobility device.



Example of multi-use benches and seating.



Example of stone benches with planting.



This example of a large format picnic area in J.C. Saddington Park had tables located on a hard surface to ensure that the area is fully accessible .



Examples of picnic area with integrated open-air structure.

4.17.2 Picnic Areas, BBQ's

4.17.2.1 Large formal picnic areas

Large formal picnic areas should be located on firm surfacing like concrete pad or combination of concrete and granular paving. Tables should be mounted to the surface of the paving with gaps in the seating to provide spaces for visitors that have mobility equipment. Seating should be organized in clusters for ease of permitting and should include a number of accessible picnic tables. Picnic areas should be designed to accommodate diverse group sizes, fit well into the park landscape and to facilitate the administration of the City's picnic area permit policy. A variety of picnic settings should be provided with some potentially under permanent shade, some under tree canopy and some in open air. All large picnic areas should be located in close proximity to restrooms, and should be fully accessible by a formal circulation route.

4.17.2.2 Individual picnic areas

Individual picnic areas should be provided for smaller groups, in the form of single picnic tables with or without paving underneath. They should be distributed throughout the park areas. Tables should be secured in place and constructed of non-flammable materials. A number of tables should be fully accessible and located in close proximity to an accessible route.

4.17.2.3 BBQ's and Grills

BBQ's should be surrounded by hard paving and should be configured so that grill can be accessed from two sides and be mounted at an appropriate height. Paving around grill areas should be an easily detectable surface.

4.17.2.4 Associated Amenities

Some of the required amenities for the use, care and maintenance of picnic areas as are follows:

- Water service for hosing off the tables, grills and paving underneath;
- Picnic Tables;
- BBQ's on a site-by-site basis;
- Hand washing locations; and
- Electrical outlets at pole bases for electrical hook-up (some areas only).

The location and number of amenities should be determined in the detail design phase of park planning.

4.17.3 Litter and Recycling

All litter and recycling receptacles should be configured as side opening containers for convenience of maintenance. Receptacles should be located in conjunction with seating areas, pedestrian entrances, parking areas, picnic areas, washrooms, at key destinations and at regular intervals along circulation routes. Recycling and litter receptacles should be grouped together or integrated in a single litter container. Litter containers should be wildlife proof. Litter and recycling containers should be emptied frequently to avoid excessive bee and wasp attraction. In locations where excessive litter is anticipated the MACK system of waste disposal could be used, it is already being tested in certain parks on the waterfront.

4.17.4 Bicycle Storage

Bike racks should be discreetly placed in highly active areas throughout the waterfront park system. All bike racks should be consistent in appearance, preferably from a single manufacturer. Bike racks are to be of a good quality, single locking ring and post design. The number and configuration of bike racks at any location should be evaluated on case-by-case basis. Bicycle storage areas should be available at:

- Pedestrian entrances;
- Parking areas;
- Play areas;
- Washrooms, comfort buildings;
- Food and beverage facilities; and
- Performance and other assembly areas.

4.17.5 Drinking Fountains and other Water Services

Drinking fountains should be placed discreetly throughout the waterfront. Drinking fountains are to be high quality and require low levels of maintenance. Where possible, drinking fountains should be associated with a building. All drinking fountains are to be of the same colour, material and design, and preferably from the same manufacturer. All drinking fountains are to be universally accessible. Drinking fountains can be freestanding or wall mounted. Water service for hand washing and surface cleaning should be provided near picnic areas.



Bicycle storage.



Litter and recycling.



Potential bollard styles for the park system.

4.17.6 Bollards and Barriers

Removable bollards and barriers should be used to limit and direct vehicular traffic throughout the Waterfront Parks. Examples of recommended bollard styles are shown in the image to the left.

4.17.7 Telephones and Emergency beacons

Emergency telephones should be provided throughout the waterfront and located in accessible areas with clear visibility to the surrounding areas. Telephones can be freestanding or wall mounted. If the telephones are wall mounted, they should be recessed and equipped with a cane detectable barrier as per the Accessibility Design Handbook. At least one telephone per given area should be a 'text telephone'.

4.17.8 Banners, Flags, and Posters

A banner program should be developed to create a sense of identity for the waterfront park system. Banners may identify local cultural, historical, arts, recreational or seasonal events and be designed with a distinct colour and pattern for the Mississauga Waterfront. Banners should be accommodated on proposed light poles. New banners should be integrated with other banner programs in the City and can be used to identify the programming for Waterfront Parks on key north-south streets such as Cawthra Road, Hurontario Street, Dixie Road and Winston Churchill Boulevard.

4.17.9 *Lighting*

Lighting should be functional and beautiful, and incorporate sustainable features. Lighting equipment should be selected which provides appropriate level of illumination, produces desirable effects and moods through the use of colour, may be powered by alternative energy sources, is easily maintained and can be readily replaced. Lit areas should be chosen strategically – not all areas need to be lit. CPTED principles should guide the lighting design in each park.

Opportunities should be examined for the integration of functional art installations that also provide required light levels. Light standards should be designed to accommodate the banner program outlined in 4.17.8.



Lighting should be functional, beautiful and sustainable.



Public art should be diverse in subject and durable to allow for interaction with park visitors.



4.17.10 Public Art

Public art pieces should respond to varying preferences and tastes. A public art implementation plan should be developed to guide the choice of locations and themes. Art should be durable, publicly accessible and include temporary and/or movable pieces. Each public art piece should incorporate descriptive information through text or sound recording. The selection of pieces should follow City proposed art policy.

4.17.11 Off Leash Area Amenities

No new off leash areas are recommended as a part of this study. Existing leash free areas are recommended to be retained in their specific locations, but the size and configuration of the current areas might be revised to better suit the park design. All leash free areas must be contained with a fence or other barrier. Openings in barriers should not permit small dogs to pass through. Shade and wind protection can be provided with tree planting. Litter and waste collection should be frequent to reduce odours. Leash free Areas should be maintained by the users. Maintenance staff should monitor the ground cover condition and notify leash free groups if additional maintenance is required.

4.18 Service Infrastructure

Infrastructure and maintenance requirements should be minimized through the use of sustainable site design and servicing standards such as the use of renewable energy sources, efficient water and waste water fixtures, and stormwater and wastewater collection and reuse.



Leash free area at Lakeside Park will be retained with a new configuration.

4.19 Accessibility

The Centre for Universal Design defines the term universal as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”. The Strategy supports the concept of Universal design to address the accessibility of the Waterfront Parks.

Barrier free design and assistance technology provide a level of accessibility for people with disabilities but they also often result in ‘separated’ solutions, for example, a ramp that leads to a different entry to a building than a main stairway. As life expectancy rises and improves for those with significant injuries, illnesses and challenges, there becomes a growing interest in universal design. Universal design strives to be a broad-spectrum solution that helps everyone, not just people with disabilities.

The City of Mississauga has created an excellent document called the Mississauga Accessibility Design Handbook, that outlines the guidelines for a barrier free community. All park development endeavours should conform to the guidelines in this document as a fundamental basis for design.



Accessibility should be knitted into every aspect of park development without being a ‘separate’ solution.

Mississauga Accessibility Design Handbook



MISSISSAUGA
Leading today for tomorrow

The Mississauga Accessibility Design Handbook is an excellent resource that should be implemented throughout all levels of park design.

5.0 Priority Park Design

- Overview of Priority Parks 5.1
- Port Credit Memorial Park West 5.2
- Marina Park 5.3
- J.C. Saddington Park 5.4
- Lakeside Park 5.5
- Not Yet Named (Fusion Park) 5.6

Artist rendering of possible JC Saddington Park.



The priority parks will provide more locations for high demand park uses and will help achieve a balance for park uses.



The Region of Peel operates a pumping station on lands owned by the City at Marina Park.



Both the CVC and MNR own portions of JC Saddington Park.

5.1 Overview of Priority Parks

A key component of this Strategy is to apply the programming and design recommendations outlined in the previous sections and demonstrate how these strategies can be implemented through the conceptual design of five Waterfront Parks. The five parks have been selected by the City as a priority for development as their completion will alleviate environmental, operational and recreational impacts on other well-used Waterfront Parks. From east to west the identified parks are Port Credit Memorial Park West, Marina Park, J.C. Saddington Park, Lakeside Park and the not yet named park commonly known as Fusion.

This Section of the Strategy outlines the relevant stakeholders, relevant studies, development constraints and design elements recommended for all five parks and then reviews the proposed concept master plans for each. Please note that the future detail design phase of the priority park development (not covered in this document) must also carefully examine the relevant stakeholders, relevant studies and development constraints prior to the commencement of the detailed design, which will be undertaken by the City of Mississauga at a later date.

The concept plans and designs presented in this section are intended to be a starting point for the detail design process and are simply a representation of “what could be”.

5.1.1 Relevant Stakeholders

5.1.1.1 Land Owners

As was noted in section 4.1.2.2 Land Ownership, ownership along the waterfront is complex and involves several different owners maintaining diverse types of ownership agreements and land use restrictions. The land owners were consulted as part of stakeholder engagement for the development of conceptual designs. However, it should be noted that further consultation with the land owners should occur prior to the finalization of detail design to confirm what restrictions and approvals are required prior to the commencement of development. The priority parks ownership is described as below:

- Port Credit Memorial Park West is owned by the City of Mississauga.
- Marina Park is owned by the City of Mississauga.
- JC Saddington is owned jointly by the Credit Valley Conservation Authority and the Ministry of Natural Resources (MNR). The CVC leases the land from MNR, then in turn sub-leases to the City of Mississauga.
- Lakeside Park is owned by the City of Mississauga and Credit Valley Conservation Authority (CVC). The CVC leases their portion of the land back to the City.
- Not Yet Named (Fusion) is owned entirely by the City of Mississauga.

5.1.1.2 Other Stakeholders

In addition to actual land owners, there are also stakeholders who have protected interests concerning, for example, the Lake Ontario shoreline, fish habitat, natural and/or sensitive areas and watercourses. Many of these agencies were consulted as part of stakeholder engagement for the development of Strategy objectives and conceptual designs. However; it should be noted that further consultation with these interested agencies and initial consultation with others identified during the detail design phase should occur prior to the finalization of detail design.

The following agencies were consulted and/or notified during the development of the Mississauga Waterfront Parks Strategy:

- Region of Peel
- Credit Valley Conservation Authority
- Halton Region Conservation Authority
- Toronto and Region Conservation Authority
- Ontario Ministry of Natural Resources
- Waterfront Regeneration Trust
- Dufferin Peel Catholic District School Board
- Environment Canada - Small Craft Harbours
- Department of Fisheries and Oceans Canada - Small Craft harbours Branch
- Mississauga Hydro
- Peel Board of Education
- Port Credit Post Office
- Public Works Department - Municipal Grants Division Department of Finance

The following agencies should be further consulted prior to the commencement of priority park detail design. This list includes but is not limited to:

- Region of Peel
- Department of Fisheries and Oceans
- Credit Valley Conservation Authority
- Halton Region Conservation Authority
- Ontario Ministry of the Environment
- Ontario Ministry of Natural Resources
- Environment Canada
- Transportation Canada

5.1.2 Relevant Studies

The existing studies listed in section 1.5 are valuable documents that speak to the greater context of waterfront development along Mississauga's shoreline. However; there are documents that look specifically at issues that are of particular interest to the concept development of the priority parks. They are as follows:

- Port Credit Harbour Transition Master Plan, 1991
- Port Credit Heritage Conservation District Plan
- Lake Ontario Shoreline Hazards, 2005
- Environmental Inventory and Analysis, 2266 and 2700 Lakeshore Road West, 2003
- Lake Ontario Fisheries Master Plan
- Opportunities for Regeneration at the Mouth of the Credit River, 1995
- City of Mississauga Natural Areas Surveys, Update 2005
- City of Mississauga Waterfront Parks Strategy Coastal Engineering Review, Baird Associates, March 2006 (Refer to Appendix B of this document)

Many identified future and on-going studies will further inform the development of the detail design phase. Please refer to sections 1.7.2 and 6.10 for a comprehensive list of these studies.



There are stakeholders who have jurisdiction over changes to the shoreline.



Shoreline related hazard limits and setbacks are designed to provide protection for the public and the environment.



Common design elements have been successfully implemented in some of the Waterfront Parks.



Park signage should provide a variety of information in an easy to understand ways.

5.1.3 Development Constraints

New park development will be constrained in locations within or adjacent the City's identified natural areas, natural features and other environmentally significant areas. The local conservation authorities can provide technical support with respect to the identification of these areas and the assessment of potential impacts of nearby development.

The Lake Ontario Shoreline Hazards Report completed by Shoreplan in 2005 contains valuable information regarding shoreline related hazards such as flood, erosion and dynamic beach. Further to these hazard limits, a 'Regulated Area' has been identified at a 15m landward off-set from the most requisite hazard limit to provide a buffer beyond the calculated hazard limits to accommodate for inaccuracies. A thorough understanding of the location and restrictions related to shoreline related hazards must occur for the commencement of detail design to proceed in a responsible manner.

For the priority parks, the shoreline related hazards and buffers described below are regulated through the Credit Valley Conservation Authority and the Halton Region Conservation Authority.

5.1.3.1 Flood Hazard Limit

Flood hazard limits are calculated as the 100 year instantaneous water level plus a wave uprush allowance. Due to wave up-rush and other factors, however, the flood-related hazard varies across the Lake's Ontario Shoreline. As such, the value given in the Shoreplan report should be used to identify the flood-related hazard rather than the 100-year flood line. This hazard will be defined as the Flood Hazard Limit.

5.1.3.2 Erosion Hazard Limit

The erosion-related hazard area should source the information provided in the Shoreplan Report and should be illustrated accordingly on all development plans. The Erosion Hazard Limit incorporates both the erosion allowance and the slope stability allowance. Therefore, it is not necessary to show the stable top of slope line on proposed plans. This hazard should be labelled the Erosion Hazard Limit.

5.1.3.3 Dynamic Beach

Shorelines with a significant beach deposit, such as the like found at Lakeside and Fusion, have been classified as dynamic beaches. As they are contained by the toe of a bluff formation, the limit of the dynamic beach is basically a 10m offset from the toe of the bluff. This calculation is explained in more detail in the Shoreplan report. In this particular case, the more requisite hazard limit set for the flood hazards will represent an adequate area which will encompass the limits of the dynamic beach.

5.1.3.4 Stable Top of Bank

Stable Top of Bank refers to the physical location where the banks along the lake shoreline, river shoreline and creek edges are considered stable. The location of stable top of bank has been generalized (refer to the Shoreplan report) for the purposes of the conceptual design of each priority park. A site specific investigation with members of the relevant conservation authorities will provide a more accurate location.

5.1.3.5 Regional Storm Floodplain

The Regional Storm Floodplain has been identified on the conceptual designs where there is a creek or river present. Development within these floodplains will be regulated by the relevant conservation authorities.

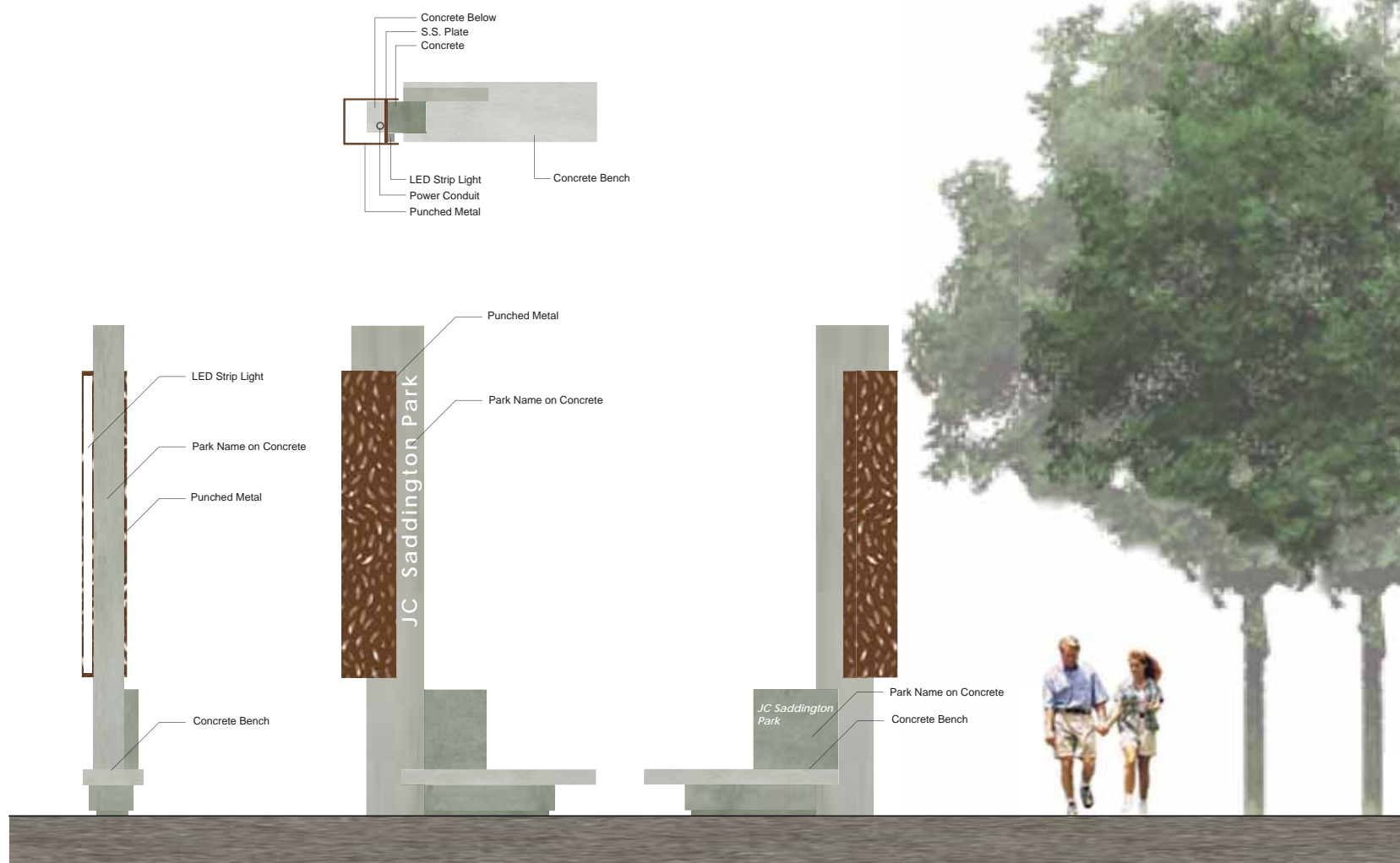
5.1.3.6 Fisheries Buffers

The local conservation authorities apply a Fisheries Buffer which will be regulated in all of the priority parks. It is applicable where development occurs adjacent to shoreline that contains habitat for permanent or seasonal fish in Lake Ontario, the Credit River and any other watercourses draining into Lake Ontario. This will include development adjacent to Joshua Creek,

potentially Clearview Creek, Lakeside Creek and the Credit River. The fisheries buffer is to be 15m from watercourses draining into Lake Ontario and 30m from Lake Ontario itself. The buffer is to be measured from the creek bank on either side of the watercourse and from the high water mark for Lake Ontario.

5.1.4 Common Design Elements

As with any comprehensive park system, achieving a consistency of design that characterizes that particular system will support the individuality of the system as a whole. Common design will be achieved by repeating certain design elements in each park contained within the system. Common design elements include, but are not limited to, trail design



Demonstration Design for Primary Park Marker: recommended to be located at key vehicular points of entry throughout the Waterfront Parks



Picnic facilities in Jack Darling Park are in high demand.



The leash free area in Lakeside Park will need to remain to balance the demand for the same type of facility in Jack Darling Park.

and materials, site furnishings, signage and design of parking areas. Establishing a set of common design criteria for the entire park system will provide direction for improvements and potentially provide a palette of furnishings such as benches, litter containers and signage that can be purchased in large quantities to achieve cost efficiencies. Common design elements have been successfully implemented in St. Lawrence Park, Port Credit Memorial Park and JJ Plaus Park, demonstrating how a common design palette can visually tie the park system together.

*Primary and Secondary Park Markers (shown as * on Concept Plans)*

A series of park markers, signage and lighting features provide a unique identity for the Mississauga waterfront and the Port Credit Parks. Park markers are proposed to be located at key vehicular and pedestrian access points into each priority park. Both primary and secondary park markers shall conform to the guidelines set out in the Mississauga Accessibility Design handbook. The primary park marker locations are identified on the concept plans with a *.

Park Markers are located at key points of orientation throughout the park providing a map and directory as well as information announcing special events. The concept design of these elements draws upon local cultural and visual references associated with Mississauga and Lake Ontario. The motifs can be interpreted in a variety of ways – all of which refer to the natural setting of the waterfront. The pattern suggests leaves in the wind, boats in the water, or birds in flight. The pattern is used as a metal veil with the pattern punched through the metal (Aluminum or Cortens Steel) that wraps either a concrete or metal column and is applied to all of the gateway, signage and lighting features. The veil is semi-transparent and allows light to penetrate through it.



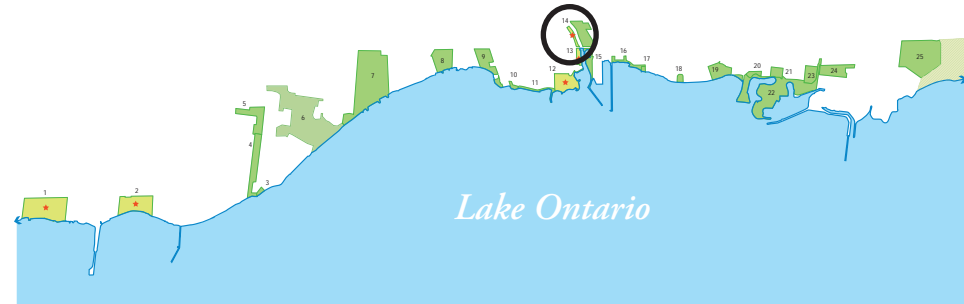
Demonstration Design for Secondary Park Marker: To be located at key pedestrian entry points in Waterfront Parks.

5.1.5 *Park Specific Design Elements*

Each park within the system is unique in its physical appearance, location and function within the larger context of the waterfront. As such, there should be opportunities to express this uniqueness through the development of park specific design elements. These elements differ from common design elements as they will respond to each park's individuality and can be considered 'custom' elements. Interpretive areas, theme gardens and park structures are examples of park specific design elements. All of the key parks demonstrate the application of park specific design elements.

5.1.6 *Park Use and Activity - Achieving a Balance*

The programming for each of the key parks has been determined through the public consultation process and thoroughly evaluating existing park uses, physical site opportunities, location and future directions. Redevelopment of the key parks will provide additional capacity for park uses which are currently under pressure in the waterfront park system. This will help achieve a balance between amenities demanded and currently offered. An example is the provision of generous picnic areas and maintaining a leash free area in Lakeside Park to help alleviate the demand for these facilities in Jack Darling Park.



Waterfront Parks key map highlighting Port Credit Memorial Park West.



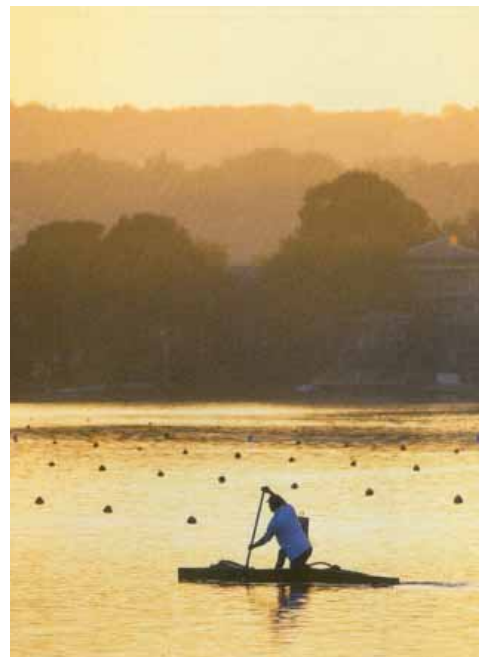
Port Credit Memorial Park West, April 2006



Potential configuration for river's edge seating.



Boating on Credit River: A regatta



Boating on Credit River: Active enjoyment

5.2 Port Credit Memorial Park West Priority Park

5.2.1 Site Opportunities and Constraints

Location and Significance

Port Credit Memorial Park West is a relatively passive park, located north east of the intersection of Front Street and Lakeshore Road. The north end of the park contains facilities for the Mississauga Rowing and Canoe Clubs. Portions of the site adjacent to the buildings are used for boat storage and kayaking, canoeing and rowing functions; a use that will continue to occur in the future. The following is a brief summary of the Memorial Park West's opportunities and constraints:

Opportunities and Constraints:

- History of rowing, regattas and boating activities on the Credit River provides focus for activity and interpretive opportunities.
- River edge improvements can provide locations for fish habitat and education elements. Site has been identified in the Opportunities for Regeneration at the Mouth of the Credit River, 1995 report.
- New shoreline treatment should absorb wake and be accessible to non-motorized water-craft such as canoes and kayaks.
- Topography well suited to viewing the river.
- New park development on the east side.
- There are healthy mature trees on the site that should be preserved.
- The entire river edge requires improvements, new design can provide for needed park facilities such as water's edge seating and pedestrian access.

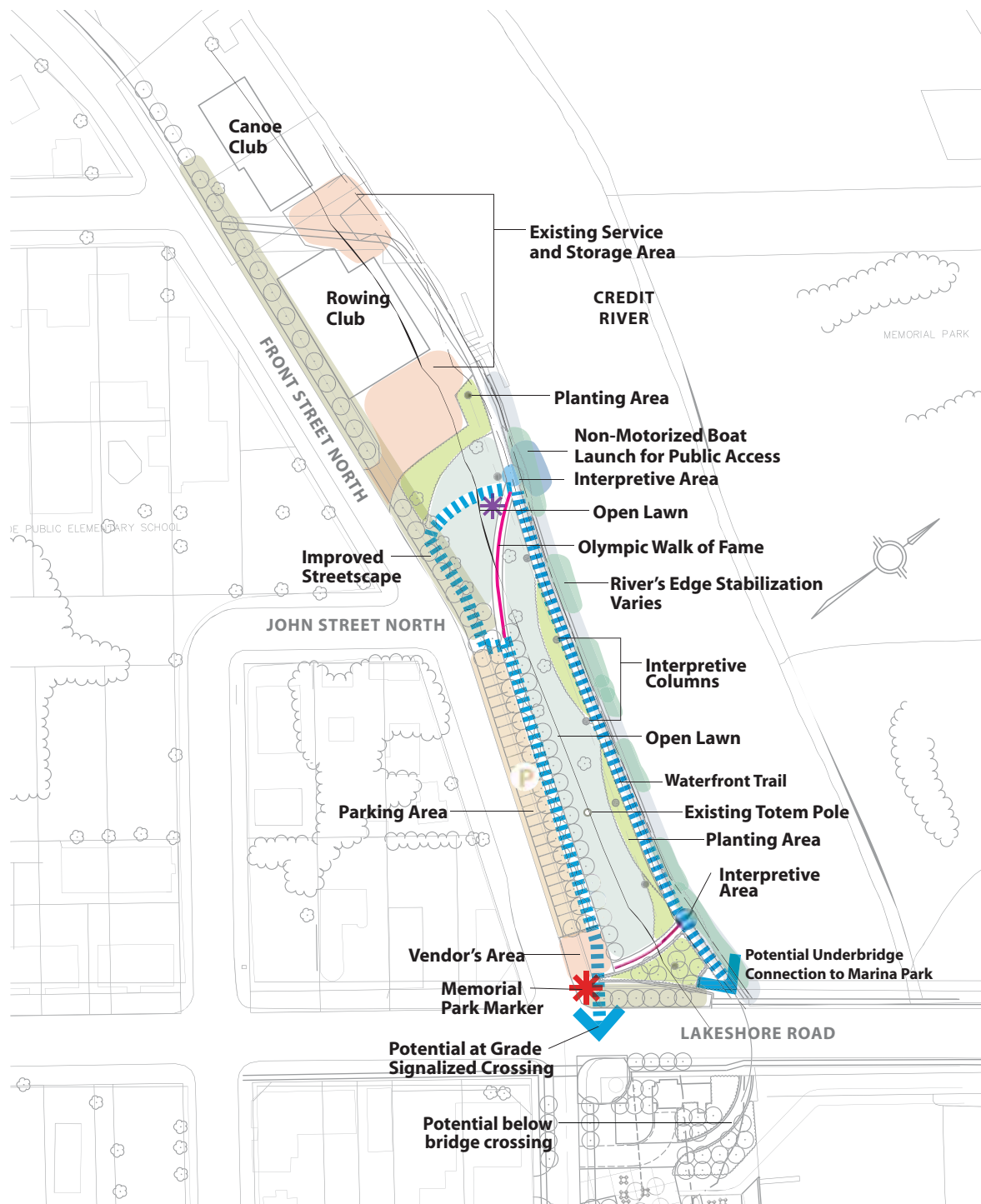
- The existing parking off Front Street can remain with minor improvements.
- The park is close to the off site retail/commercial area of Port Credit Village.
- Other themes available for interpretation: original shoreline, first settlement areas for the aboriginal community, The Government Inn, river flora/fauna.
- Potential land acquisition to the north (Royal Canadian Legion property and Canoe Club) would enhance the park's connectivity to trails to the north and provide additional frontage on the Credit River.
- Site is narrow and should be better connected to Marina Park. An at grade crossing of Lakeshore Road should be examined but is potentially not feasible due to the sight-line issues created by the vertical curve of the Credit River Bridge. An under-bridge connection to Marina Park may be possible but will require further study.
- The park does not have an obvious presence at Lakeshore Road nor a visual connection to Marina Park to the south.
- Geese have previously overrun the park. The park concept plan incorporates the recommendations of the goose management plan along with other recommended physical modifications to deter geese from entering the site. Refer to Section 6.0 Implementation for additional information on wildlife management.
- A new park management program should include provisions for the upkeep of this park.
- The Regional Official Plan designates the Credit River Valley System as a Core Area of the Greenlands System in Peel. With this designation, development in this park will be regulated through the Credit Valley Conservation Authority.
- The Ontario Ministry of the Environment has established criteria for parkland development on or near closed landfill sites. Port Credit Memorial Park, site #7069 and JC Saddington Park, site #7070 are both closed landfill sites. As Memorial Park West is within 500m of these sites, a landfill impact study may be required.
- Beech Street pumping station, which manages the sanitary sewer network in the immediate area, is at capacity. Service requirements for new development will need to be evaluated in terms of its impact on the existing facility.
- Opportunities to include a small watercraft launching facility for public use.



Notes:

1. The concept plans are intended to provide guidance for the detail design phase. Information appearing on the concept plans may be subject to change or further refinement based on conclusions and recommendations from on-going and future studies.
2. Information appearing on the concept plans may be subject to change or further refinement based on further consultation with land owner(s) and relevant jurisdictional agencies as the park development proceeds into the detail design phase.
3. The natural hazard lines and limits appearing on the concept plans were obtained from the 'Lake Ontario Shoreline Hazards CVC Report prepared by Shoreplan, September 2005. Regional storm flood plain, fisheries buffers and top of bank lines were interpolated from information provided by the CVC. The locations of the lines, limits and buffers are required to be confirmed on site with the relevant conservation authorities, prior to commencement of detail design.

- Fisheries Buffer
- - - Regional Storm Flood Plain
- . . . Top of Creek Bank (estimated)



Notes:

1. The concept plans are intended to provide guidance for the detail design phase. Information appearing on the concept plans may be subject to change or further refinement based on conclusions and recommendations from on-going and future studies.

2. Information appearing on the concept plans may be subject to change or further refinement based on further consultation with land owner(s) and relevant jurisdictional agencies as the park development proceeds into the detail design phase.

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- |||| Water Front Trail 3.5 M
- ✱ Primary Park Marker
- ✱ Secondary Park Marker
- Connector Trail 2.4 M



Artistic rendering of possible Memorial Park West.

5.2.2 Design Concept

Port Credit Memorial Park West will be developed as a place to enjoy river activities and explore the area's history related to the Credit River.

5.2.3 Park Recommendations

5.2.3.1 Park Activities and Use

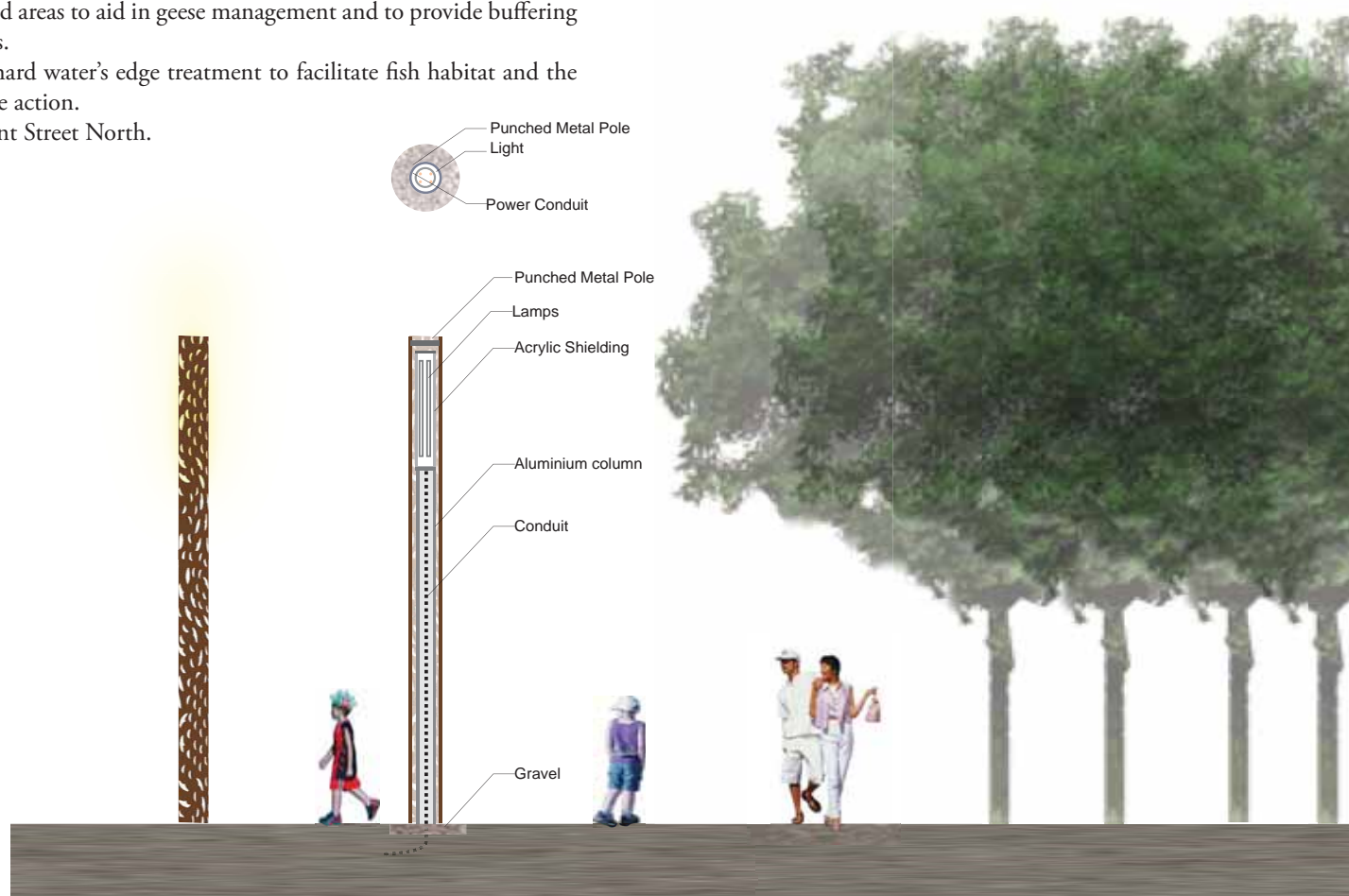
The proposed concept master plan for Port Credit Memorial Park includes the following park uses:

- Water's edge walkway.
- Water's edge seating.
- Open Lawn and stepped river bank areas for river activity viewing.
- Public use, non-motorized boat launch
- Education and interpretation Area.
- Olympic Walk of Fame to document achievements of local athletes.
- A new Waterfront Trail connection to Marina Park at grade or below the Lakeshore bridge.
- A variety of planted areas to aid in geese management and to provide buffering from adjacent uses.
- Varying soft and hard water's edge treatment to facilitate fish habitat and the dissipation of wave action.
- Parking along Front Street North.

5.2.3.2 Park Elements

Marker Element and Structures

To promote the presence of Port Credit Memorial Park West, a park marker element is proposed at the corner of Lakeshore Road and Front Street North within a small entry plaza. The intent of the park marker is to announce the entrance to the park and to tie the park visually to Marina Park to the south, which will contain a similar feature. Also within the park are a series of interpretive columns that will mark the River's edge at 25m intervals. Columns are placed along the rivers edge trail in Memorial Park West. The design and placement as tall vertical elements act as sentinels to the open waters of the river. Lighting will illuminate the columns and the laser cut metal column will create a transparency and reduce the sense of mass to the structure. The proposed column features are a separate item from the existing totem pole, which will be restored and retained on the site.



Demonstration Design - Concept for Memorial Park West Interpretive Column Features

Parking

The proposed concept master plan includes retaining the existing parking area as currently located adjacent to the street. Improvements to the aesthetics including a green paving system are indicated to de-emphasize the presence of automobiles within the park. The parking area will also be buffered from the park by a strip of low maintenance planting. Approximately 26 parking spaces are retained.

Circulation

Multi Use Recreation Trail: Joins the proposed under bridge connection to Marina Park to the south, continues north along the River's edge to a point where it will meet with the sidewalk along Front Street.

Connector Trails: Connect park entrance feature and parking to Multi Use Recreation Trail.

Streetscape: The boulevard along Front Street is improved with upgraded sidewalk paving and street trees.

Viewing Areas

Provide various experiences for seating: Smooth stones at water's edge, larger armoustone blocks, and grassy slopes designed towards watching activities on the river and to deter geese.

Entry Feature and Vendor's Area

Area designed to enhance and extend the park's presence on Lakeshore Road including a park marker, retaining wall, upgraded paving and street tree planting if possible. Vendor's area provides upgraded paving area for permitted vendors.

Interpretive Elements

Potential to use rowing, kayaking and canoeing as interpretive themes for the park. For example to celebrate Mississauga's Olympic athletes generated through Don Rowing Club and Mississauga Canoe Club. Other opportunities include: telling the story of the totem pole as representations of the area's first settlers, the Government Inn and Credit River fish species.

Open Lawn Area

A gently sloped open lawn area is proposed throughout the length of the park. The Open Lawn is intended for viewing activities on the Credit River and to provide open space for event tents during regattas.

Terraced Planting Area

Separates the functional areas of the Rowing Club and Canoe Club from the main body of the park, and helps to mitigate to the steep grade. Planting should be arranged to allow access from the rowing club area to the public non-motorized boat launch. Terraces are to consist of armoustone retaining walls and low maintenance planting.

Planting

Planting to be simple, massed, preserve clear views to the river, low maintenance and help keep geese away.

Non-Motorized Public Boat Launch

A non-motorized boat launch for public use is proposed near the intersection of the Olympic Walk of Fame and the Waterfront Trail. The public ramp should be well defined as a separate facility from the existing ramp adjacent to the rowing club.



Interpretive elements could articulate recommended park activities or highlight key heritage information about Port Credit



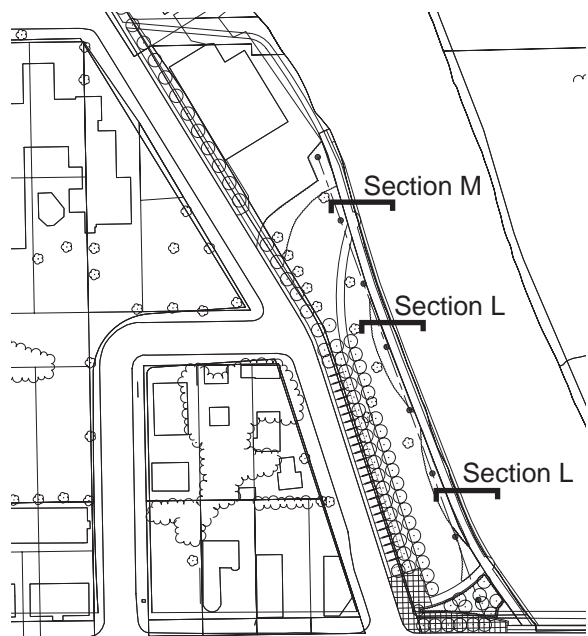
Open lawn area will be retained for viewing river activities.

5.2.3.3 Shoreline

The shoreline is to be part of the river viewing experience. Two shoreline sections are proposed as indicated in the following sections.

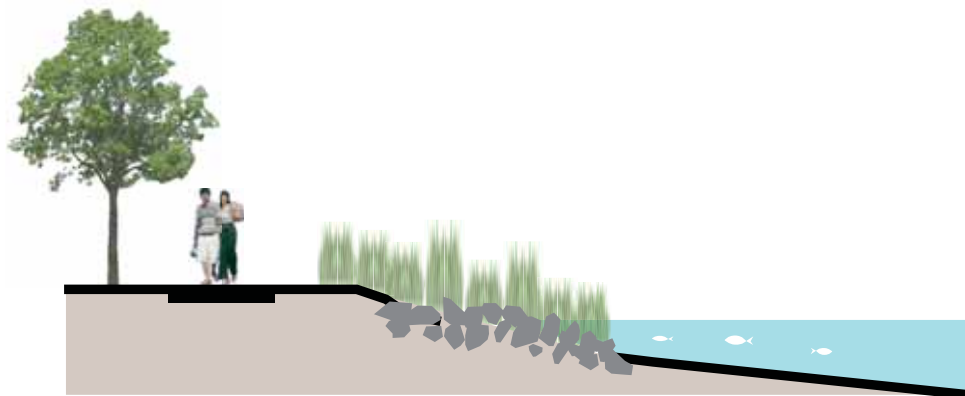


The existing shore protection for Port Credit Memorial Park West is a potential erosion hazard, repair is required.



Key diagram

Section L. Memorial Park West - Typical Section

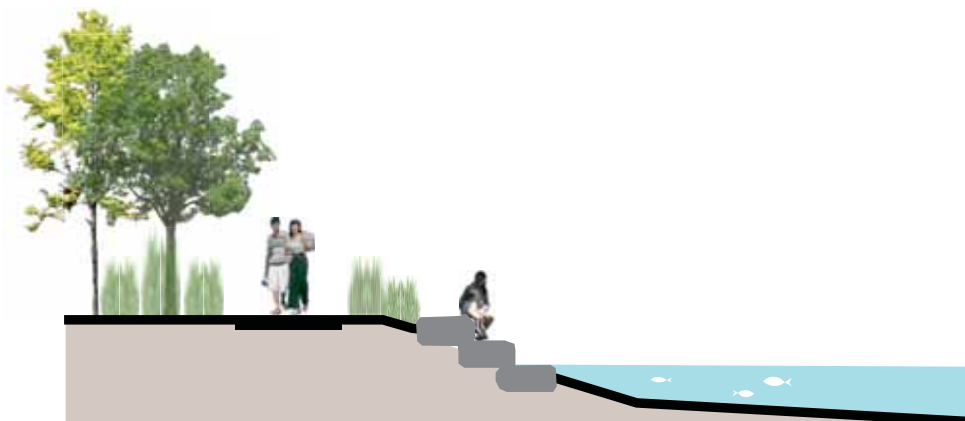


The river bank has been protected using a number of methods including concrete slabs, rip rap and gabion baskets. The gabion baskets were recently installed. Shore protection along the other sections of shoreline are in a state of disrepair. (Baird + Associates, March 2006)

Recommendations for Section L – Memorial Park West

- Develop shoreline protection detail that incorporates vegetated slope
- Shoreline protection to promote fish habitat and to contribute to waterfowl management

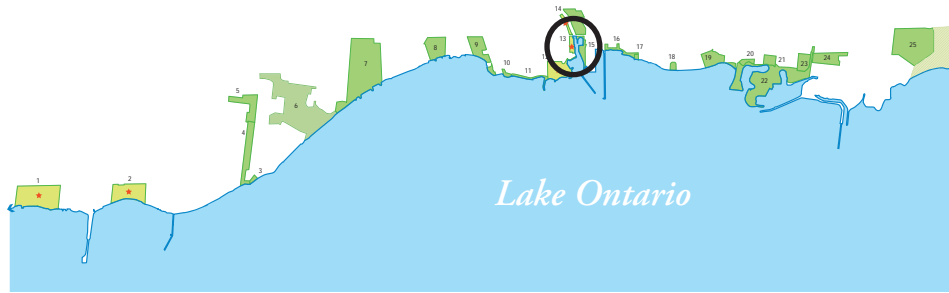
Section M. Memorial Park West - Stacked Armourstone Seating Areas



Existing conditions are similar to those found in Section L.

Recommendations for Section M – Memorial Park West

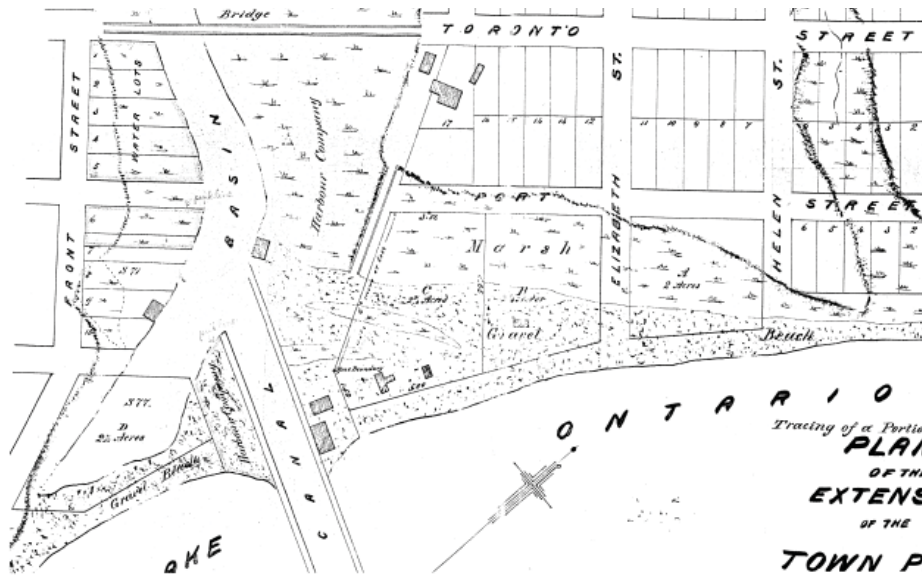
- Engineer and install stacked armourstone shoreline protection suitable to be used as a sitting surface
- Shoreline protection to promote fish habitat



Waterfront Parks key map highlighting Marina Park.



Marina Park, April 2006



Heritage Mapping, ca. 1856

5.3 Marina Park

5.3.1 Site Opportunities and Constraints

Location and Significance

The site is a prime riverfront property within the heart of historic Port Credit Village. The long history of human use on the site (native history, warehouses, swimming, recreational boating, public riverfront access) should inspire interpretation elements. The Park's shoreline has undergone significant changes in response to the evolution of the Port Credit harbour. Marina Park provides a rich source of heritage interpretation.

Opportunities and Constraints:

- Region of Peel Pump house on the north end of the site will continue to be operational and require access to facilities. The facilities currently cut off visual and physical access to Port Credit Memorial Park to the north.
- Light house feature is a major landmark to locate park.
- Views along Port Street and Bay Street to Credit River, reinforcing the original street pattern, historic layout of site.
- Potential location for festival stalls or open air market to revisit use of park as historic marketplace.
- The associated parking and maneuvering area for the existing boat launches takes up a significant amount of the park area. Vehicle circulation and maneuvering to access the ramps could potentially conflict with pedestrian activities along the shoreline. Should it be possible to relocate the boat launch facilities, for example, to Lakefront Promenade, the remaining area could be redeveloped for a pedestrian oriented park space. Elimination of the boat launch ramps will be subject to a review of the launch ramp demand and the possibility of alternate locations. This issue will need to be addressed, and approved by Council, prior to the finalization of the detailed design of the park.
- There may be an opportunity to incorporate small scale commercial building(s) should economic / market studies and community support indicate that it is feasible. Scale and aesthetic should support the district's general character: maximum 2 storey height, well articulated architecture, active uses on all sides, inconspicuous parking and servicing. The possibility of this type of structure will also be subject to the shoreline related hazards as outlined in the Lake Ontario Shoreline Hazards report.
- Wide dimensions of Front Street North can potentially provide space for formal parallel street parking.
- The long history of human use on the site (native history warehouses, stone hooking, swimming, recreational boating, public riverfront access) should inspire interpretation elements.

- Archeological assessment may reveal new and/or significant information that can be part of an interpretation program.
- Existing boat charter facilities are an important tourism draw for the area, the existing parking and servicing facilities that service that use are not a highest and best use for the park. Other opportunities for parking and servicing should be considered.
- Fishing is an important activity that takes place in this park and should be provided with a dedicated location to try and limit potential conflicts with boaters.
- A connection could be created to Memorial Park West and J.C. Saddington Park along the shoreline
- Views to the river needs to be preserved.
- Almost the entire site is within the Flood Hazard Limit and may be limited in regards to the addition of structures. Further study will be required to determine the feasibility of permanent structures on the site.
- The Regional Official Plan designates the Credit River Valley System as a Core Area of the Greenlands System in Peel. With this designation, development in this park will be regulated through the Credit Valley Conservation Authority.
- The Ontario Ministry of the Environment has established criteria for parkland development on or near closed landfill sites. Port Credit Memorial Park East, site #7069 and JC Saddington Park, site #7070 are both closed landfill sites. As Marina Park is within 500m of these sites, a landfill impact study may be required.
- Beech Street pumping station, which manages the sanitary sewer network in the immediate area, is at capacity. Service requirements for new development will need to be evaluated in terms of its impact on the existing facility.

5.3.2 Design Concept

Marina Park will be a vibrant, pedestrian friendly gathering place providing the public with access to the river's edge and serve as an important connection between Memorial Park West and J.C. Saddington Park. The multi-use civic space and flexible open and green spaces can support a variety of community functions that reflect the cultural heritage themes of Port Credit Village. To release the land for development of a pedestrian oriented public space, a significant amount of parking needs to be removed. Parking requirements will require resolution prior to the detailed design of the park. It is anticipated that the Mississauga Parking Strategy (on-going) will provide recommendations on the provisions of parking in Port Credit.



High quality paving materials are recommended



Indoor- outdoor spaces create vibrant urban park areas.



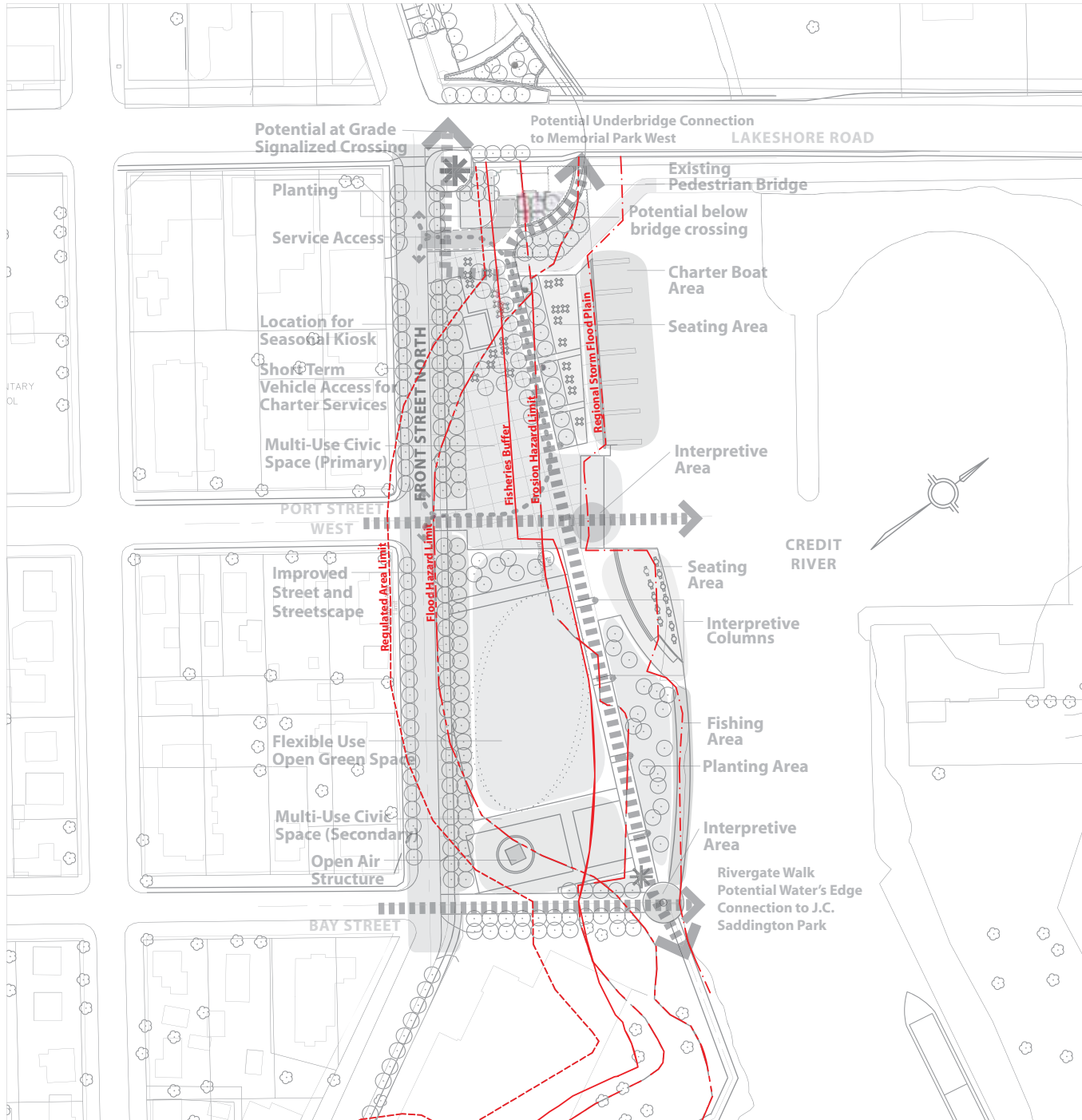
Existing park seen from Lakeshore



Proposed Boardwalk



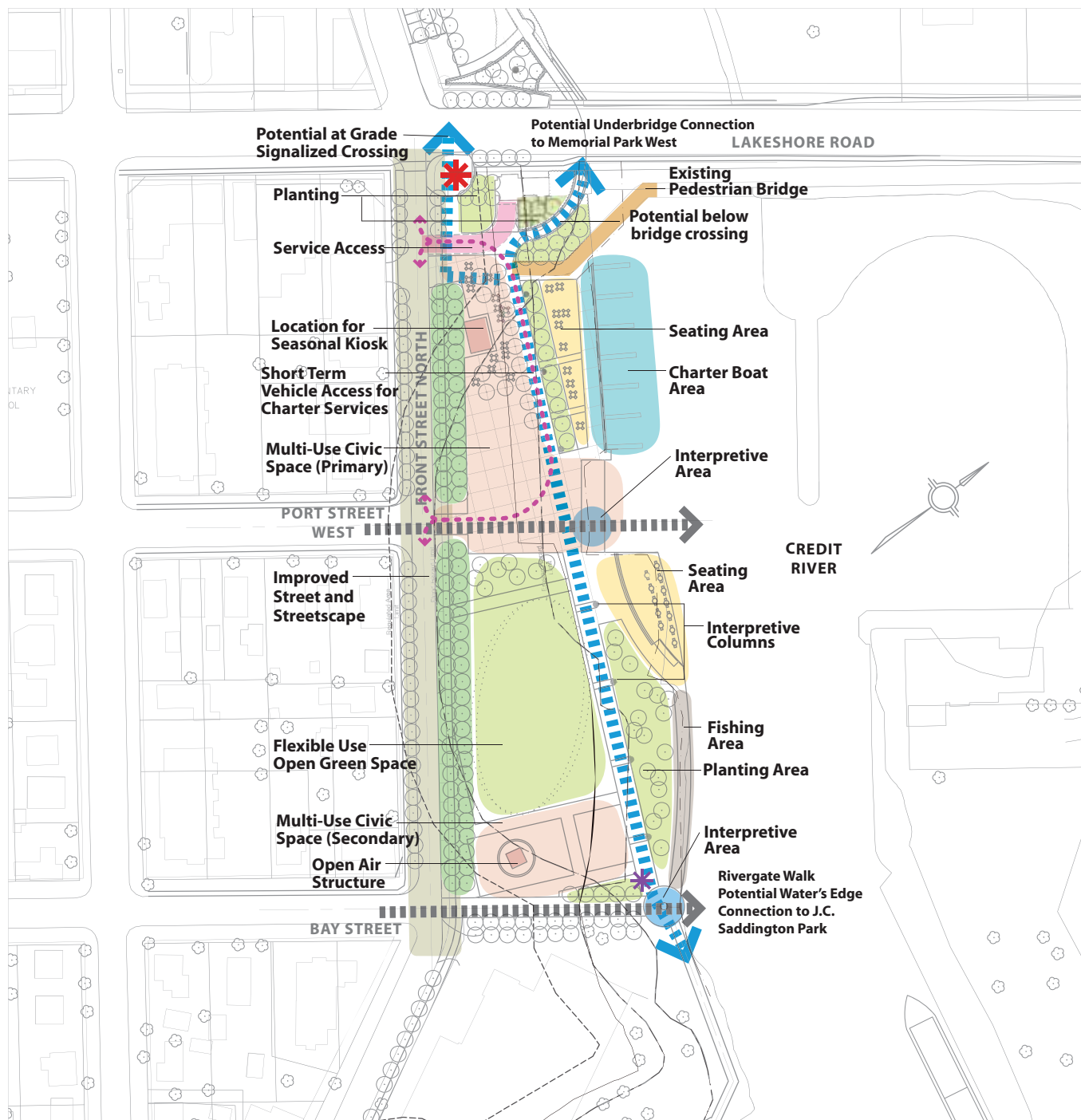
Potential Farmer's Market



Notes:

1. The concept plans are intended to provide guidance for the detail design phase. Information appearing on the concept plans may be subject to change or further refinement based on conclusions and recommendations from on-going and future studies.
2. Information appearing on the concept plans may be subject to change or further refinement based on further consultation with land owner(s) and relevant jurisdictional agencies as the park development proceeds into the detail design phase.
3. The natural hazard lines and limits appearing on the concept plans were obtained from the 'Lake Ontario Shoreline Hazards CVC Report prepared by Shoreplan, September 2005. Regional storm flood plain, fisheries buffers and top of bank lines were interpolated from information provided by the CVC. The locations of the lines, limits and buffers are required to be confirmed on site with the relevant conservation authorities, prior to commencement of detail design.

- Regulated Area Limit
- Flood Hazard Limit
- Erosion Hazard Limit
- Fisheries Buffer
- Regional Storm Flood Plain



Notes:

1. The concept plans are intended to provide guidance for the detail design phase. Information appearing on the concept plans may be subject to change or further refinement based on conclusions and recommendations from on-going and future studies.
2. Information appearing on the concept plans may be subject to change or further refinement based on further consultation with land owner(s) and relevant jurisdictional agencies as the park development proceeds into the detail design phase.
3. The natural hazard lines and limits appearing on the concept plans were obtained from the 'Lake Ontario Shoreline Hazards CVC Report prepared by Shoreplan, September 2005. Regional storm flood plain, fisheries buffers and top of bank lines were interpolated from information provided by the CVC. The locations of the lines, limits and buffers are required to be confirmed on site with the relevant conservation authorities, prior to commencement of detail design.

 **Water Front Trail 3.5 M**

 **Primary Park Marker**

 **Secondary Park Marker**

5.3.3 Park Recommendations

5.3.3.1 Park Activities and Uses

The proposed concept master plan for Marina Park includes the following park uses:

- Fishing
- Short term vehicle access
- Water's edge walkway
- Water's edge seating
- River activity viewing areas
- Education and interpretation
- Multi-use civic space
- Flexible use open green space
- Charter boat facilities
- Locations for seasonal kiosks
- Open air structure
- Future village market place

5.3.3.2 Park Elements

Marker Elements and Structures

To promote the presence of Marina Park, a park marker element is recommended at the corner of Lakeshore Road and Front Street South in conjunction with a small entry plaza. The intent of marker feature is to announce the entrance to the park and to tie the park visually to Memorial Park West to the north, which will contain a similar feature. Also within the park are a series of interpretive columns (proposed in Memorial Park) that will mark the approximate location of the River's edge as it existed in 1856.

Vehicle Access and Parking

Front Street North Improvements

Retain and improve on-street parallel parking on Front Street with unit paving and planting, improve boulevard with tree planting and landscaping. The concept master plan proposes narrowing the Front Street traffic lanes to provide room for parallel parking spaces along the east side of the street.

Short Term Vehicle Access:

The park will be designed to allow the temporary infiltration of emergency, service and maintenance vehicles as required to support park functions and activities. Short term access for charter boat services will be provided through a drive loop with access points at Port Street and at the service entrance for the pumping station. The drive loop will be located in a pedestrian priority area and should be designed accordingly so that it does not become the dominant feature in the space.



High quality paving materials will define the multi use urban space.



Retail and seating areas could bring the feel of Port Credit Village to the water's edge.



Marina Park is a good location for a farmer's marketplace.



The edge of the Credit River is a natural place to provide places for seating, socializing and watching.

Possible Future Village Market Place

There may be an opportunity to incorporate small scale commercial building(s) within the park should economic / market studies and community support indicate that it is feasible. The scale and aesthetics of the structures should support the district's general character: maximum 2 storey height, well articulated architecture, active uses on all sides, and inconspicuous servicing. Almost the entire site is within the Flood Hazard Limit and may be limited in regards to the addition of structures. Further study will be required to determine the feasibility of permanent structures on the site.

Bay and Port Street Extensions

The Bay and Port Street extensions to the River's edge will promote views to the river that will include a terminus feature with an interpretation element. The street extensions are to be primarily pedestrian spaces and will reinforce the historic layout of the site. Short term vehicle access will be permitted at Port Street, however; incorporation of the vehicle access point will fit within the framework of the historic concept of this area.

Multi-Use Civic Space

The multi-use civic space will provide an area for more intense community use. Locations for seasonal kiosks, access for charters, seating and small gatherings are some of the activities that could happen in this space. The concept design proposed indicates that the existing launch ramps and associated parking and staging areas would be removed from the site. Prior to the finalization of a plan for the development of Marina Park, the proposed elimination of the boat launch ramps will be subject to further review of launch ramp use, demand, the accommodation of capacity elsewhere and further public consultation. The decision on the future of the launch ramps within Marina Park shall be approved by Council.

Flexible Use Open Green Space

The proposed flexible use open green space is designed to be useful for a variety of purposes such as farmers' markets and small gatherings. The possible complementary open air structure and small plaza area will provide enclosure to the park at the south edge.

Seating Areas

Many opportunities for seating are proposed along the length of the park. Seating areas will be a combination of bench seating and table and chair combinations in addition to seating provided by the proposed village market place. Seating elements are intended to provide many diverse opportunities for resting and watching.

Circulation

Multi Use Recreation Trail: Links with the proposed under bridge connection from Memorial Park West to the north, continues south along the River's edge where it will meet a proposed walkway connection to JC Saddington Park.

Bay and Port Street Extensions: Connects Front Street to the interior of the park and to the Multi Use Recreation Trail.

Streetscape: The boulevard along Front Street South is improved with upgraded sidewalk paving and street trees.

Fishing Area

An area separated from the main pedestrian flow has been provided for fishing and related activities.

Charter Boat Facilities

Charter boat facilities remain including charter boat signage, docks and boardwalk. Pedestrian access is still provided from Front Street. A seating area adjacent to charter boat docks is provided for charter clients and the public. Temporary vehicle access will be provided. Charter boat facilities shall be accessible, conforming to the Mississauga Accessibility Design Handbook and the US Access Board Accessible Boating Facilities Guidelines.

Interpretive Elements

Interpretive columns mark the original shoreline location, boating distances and terminus points for Bay and Port Street. Themes include history and heritage of area, fish species and fish habitat.

Planting and landscaping

Planting is to be simple, massed, preserve clear views to the river, low maintenance and be unappealing to geese. Shade trees should be included in the design to provide opportunities for shade.



Shoreline configuration should be designed to discourage geese.



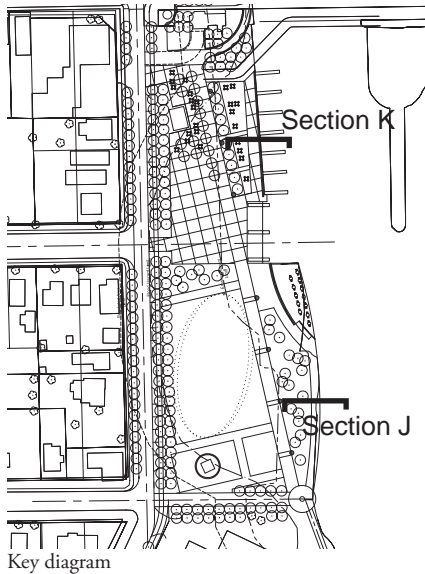
A dedicated fishing area is recommended

5.3.3.3 Shoreline

Two shoreline sections are proposed as indicated in the following sections.

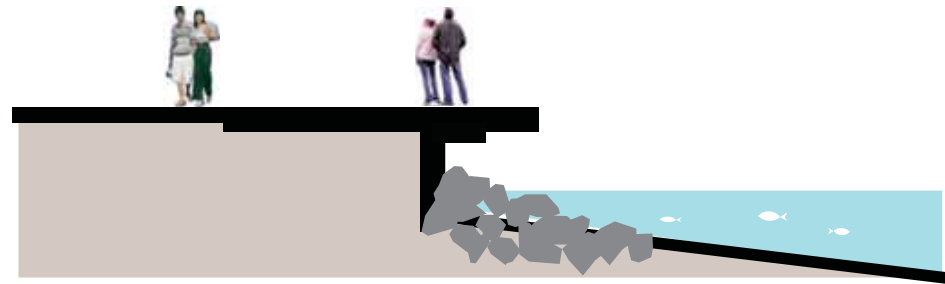


Existing charter boat docks.



Key diagram

Section J. Marina Park at South End of Park

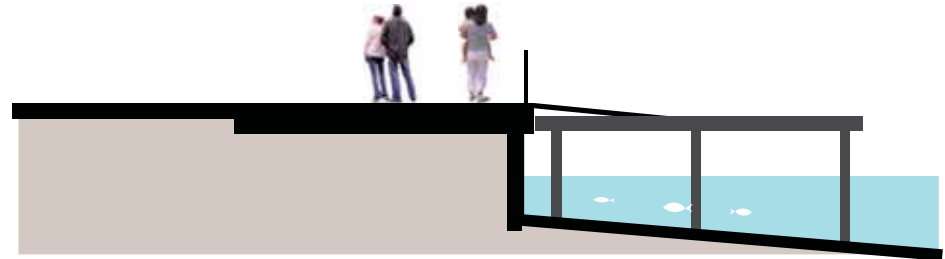


South of the boat ramp, the shoreline is protected by a mix of shore protection in varying states of disrepair. Remedial work is required to protect the shoreline, resolve safety hazards and improve its appearance. (Baird + Associates, March 2006)

Recommendations for Section J – Marina Park

- Determine current, wave and ice action acting on this portion of the shoreline
- Develop protection method that will allow for cantilevered boardwalk structure at Waters edge
- Shoreline protection to promote fish habitat

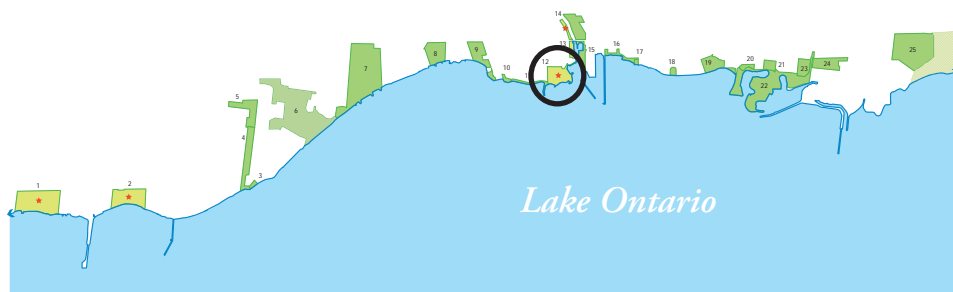
Section K. Marina Park at North End of Park



The northerly lot is protected by a steel sheet pile wall. Timber docks extend from the wall and the docks are used by charter fishing boats. There is a public boat ramp midway along the shoreline. (Baird + Associates, March 2006)

Recommendations for Section K – Marina Park

- Inspect existing sheet pile wall and make necessary repairs, renovations



Waterfront Parks key map highlighting J.C. Saddington Park.



Heritage Aerial, 1954



Heritage Aerial, 1966



J.C. Saddington Park, April 2006

5.4 J.C. Saddington Park

5.4.1 Site Opportunities and Constraints

Location and Significance

Over the past 100 years, changes to the configuration of J.C. Saddington Park have been significant.

Opportunities and Constraints:

- Park design (1970), landfill stages, original shoreline location has unique heritage value.
- Park is generally well used and contains many appropriate program elements, however some of the features require updating, repair or removal.
- Possible location for an all-season park pavilion to provide concession, and washroom/warming facilities. Location and function to be determined.
- Provide more, sheltered seating areas along the water edge, and formal look-out points at various locations.
- Possible location for small, non-motorized watercraft launching facilities in Hacienda Bay. Requires further study.
- There is an opportunity to create a connection to Marina Park to the north via an on-land walkway along the shoreline. A visual assessment indicates that there may be room to achieve this connection however further studies, including a coastal study, would be required.
- Existing parking areas occupy a large expanse of space that could be otherwise dedicated to park use.
- Locate additional picnic facilities throughout the park. The design of picnic areas should be reconsidered to make them less obtrusive, formal and hard surfaced.
- Provide warming facilities for cold season park use. Shape existing berming to facilitate views to the lake from John and Peter Street, elsewhere supplement planting with evergreen species to enhance wind-buffering effects. Provide cold season activity programming to draw visitors in the winter months.
- Provide looped walkways and more continuous Waterfront Trail layout along length of park with potential access to finger piers.
- Adaptive re-use of existing washroom and heritage buildings, potential formation of outdoor square. All season use of buildings may encourage park use in the cold months.
- For future consideration: the shoreline armouring will eventually require replacement. There are opportunities to look at alternative stabilization techniques that would allow

better access to water.

- Promontory at the base of Mississauga Road for viewing planetary, lunar and bright deep sky objects. Park design should incorporate facilities for this use.
- Infrastructure on site for new comfort facilities.
- The Regional Official Plan designates the Credit River Valley System as a Core Area of the Greenlands System in Peel. As JC Saddington Park is adjacent to this core area, development in this park will be regulated through the Credit Valley Conservation Authority on behalf of the Region of Peel.
- The Ontario Ministry of the Environment has established criteria for parkland development on or near closed landfill sites. JC Saddington Park, site #7070, is a closed landfill site. Depending on the type and location of land uses proposed, additional studies may be required at the detail design stage to evaluate the cover depth, extent of wastes and the impact of structure foundations.
- Beech Street pumping station, which manages the sanitary sewer network in the immediate area, is at capacity. Service requirements for new development will need to be evaluated in terms of its impact on the existing facility.



Outdoor amphitheater.



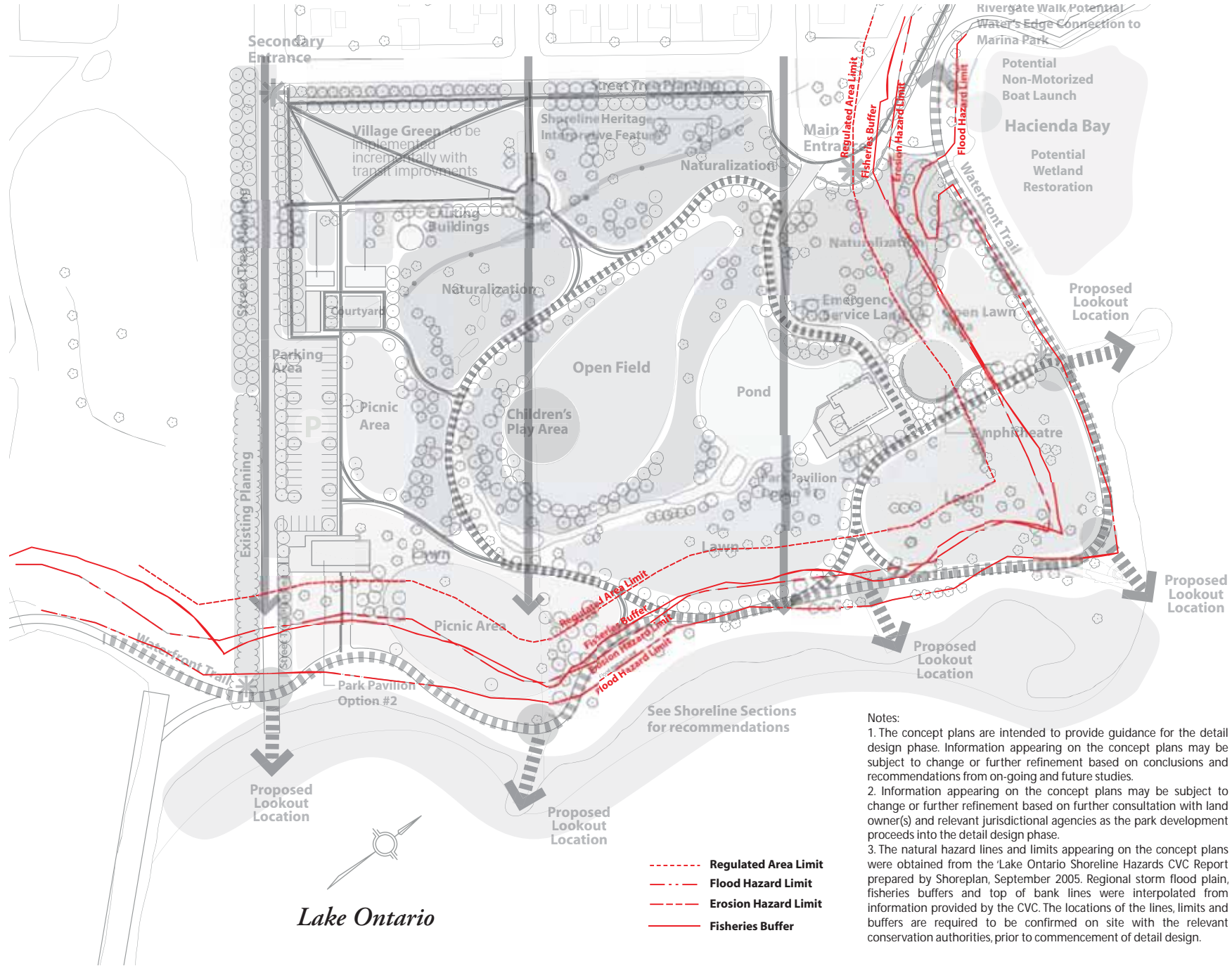
Year round seasonal uses.



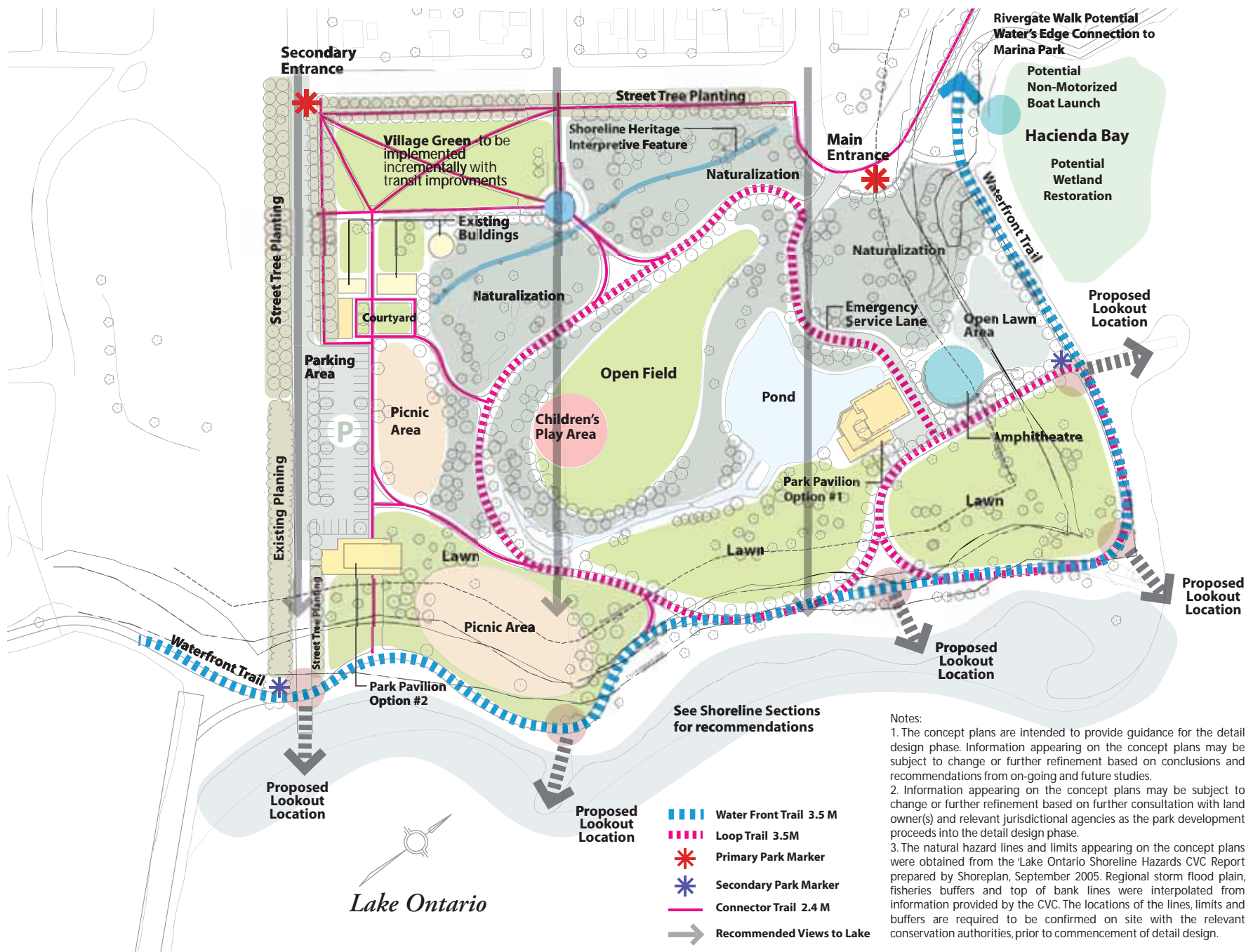
Interpretive features.



Benches located along the waterfront trail facing the lake.



Site Development Constraints: JC Saddington Park
 Note: Image not to Scale



Concept Master Plan: JC Saddington Park
Note: Image not to scale



Artistic rendering of the possible JC Saddington Park pond.



Artistic rendering of the possible JC Saddington Park promontory.

5.4.2 *Design Concept*

J.C. Saddington Park will continue to act as a destination park focusing on full-service, all-season family activities and events with a strong heritage interpretation component.

5.4.3 *Park Recommendations*

5.4.3.1 *Park Activities and Uses*

The proposed concept master plan for J.C. Saddington Park includes the following additional park uses:

- All season park pavilion
- Reconfigured parking areas, reduced parking areas
- Water's edge Boardwalk to Marina Park
- Water's edge seating
- Lake activity viewing areas
- Education and interpretation
- Water Access
- Winter Programming and facilities
- Non-motorized boat launch facility



New park development should include adaptive re-use of existing heritage buildings.



JC Saddington Park features breathtaking views of the Lake. Opportunities for Lake viewing should be expanded.

5.4.3.2 Park Elements

Marker Elements and Structures

All Season Park Pavilion

A new all season park pavilion is proposed for J.C. Saddington Park. The structure is intended to provide comfort facilities for park users that will extend the use of the park into the winter season. The park pavilion will include public washrooms, concession services and warming area. Two optional locations for the park pavilion are proposed. The determination of which location would be preferable will likely happen during the detail design phase of the park.

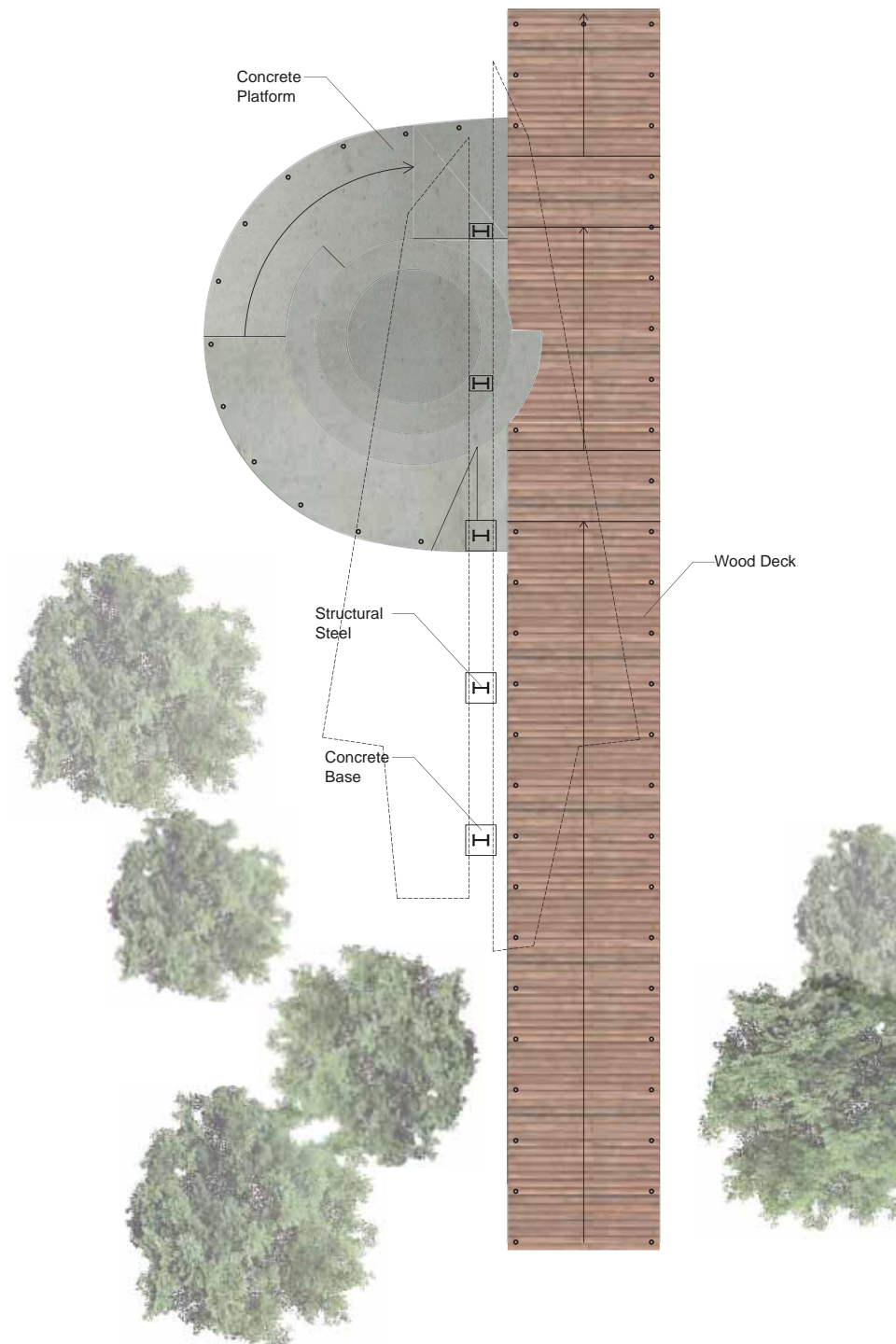
Option 1: Park pavilion is located at the edge of the existing pond internal to the park. This location would focus the building orientation towards the pond and its associated activities. Servicing access would occur from the bend in Front Street, along the Loop Trail.

Option 2: Park pavilion is shown at the end of Mississauga Road, just south of the existing parking areas, facing Lake Ontario. This location was suggested for its easy access to parking and expansive views to the lake. This southern location also provides physical separation from the residential areas to the north.

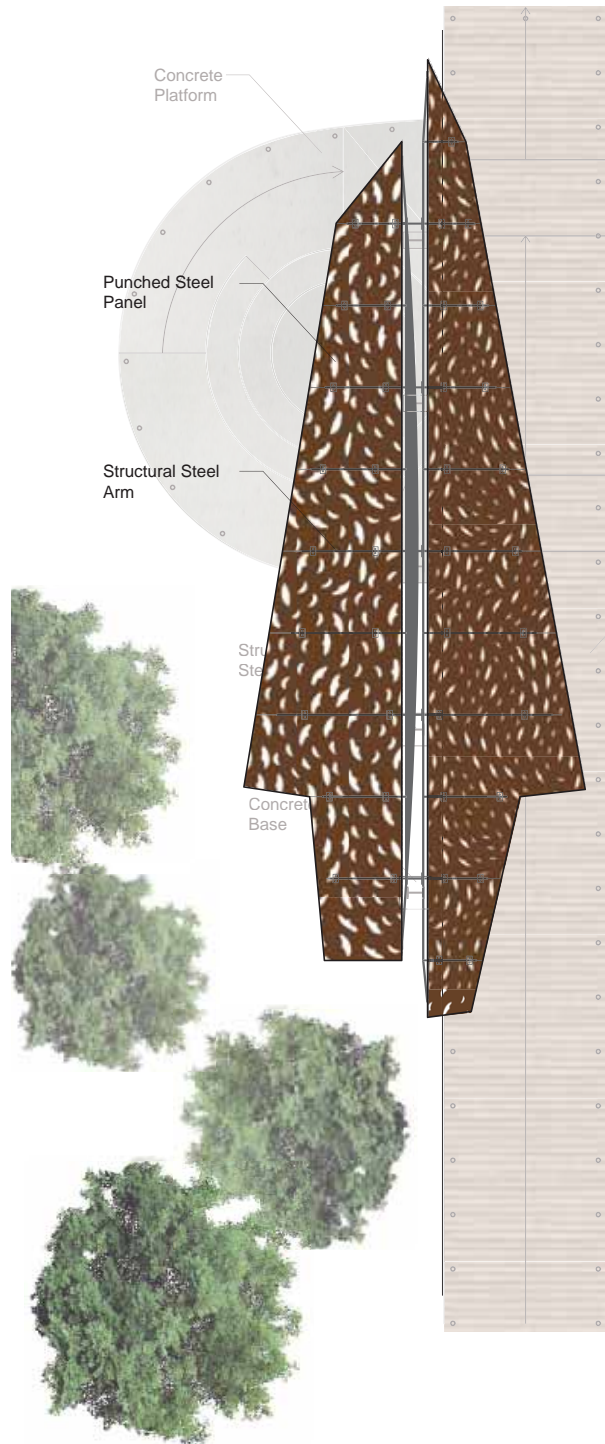
There may be an opportunity to expand the park pavilion into a restaurant use. The feasibility of a restaurant in the park would be subject to market studies and community support. This restaurant would introduce a unique park dining experience to the Port Credit Area and would extend the park hours into the off seasons and later into the evening. A key concern with this project includes minimizing impacts of a restaurant on the surrounding residential areas. This constraint should influence the type of restaurant, its hours and its design. See Appendix A for a demonstration of how the building should be sited to optimize the existing conditions.

Promontory Feature

The visual and physical connection between the lake and river in J.C. Saddington Park should be formalized as a park feature. This demonstration design proposes a simple promontory placed at the mouth of the river. The design is intended to reflect upon the heritage of the Port Credit Area while providing a new experience of the water's edge. The promontory is angled towards sun rise on the summer solstice and carefully frames views in and around the park, including a clear view northwards up the Credit River, eastwards along the waterfront and southwards towards Lake Ontario. The promontory is to be a landmark for the Urban Activity Area visible from the water and land that provides gathering places unique to J.C. Saddington Park. The materials used to create the promontory include steel, concrete, wood and stone.



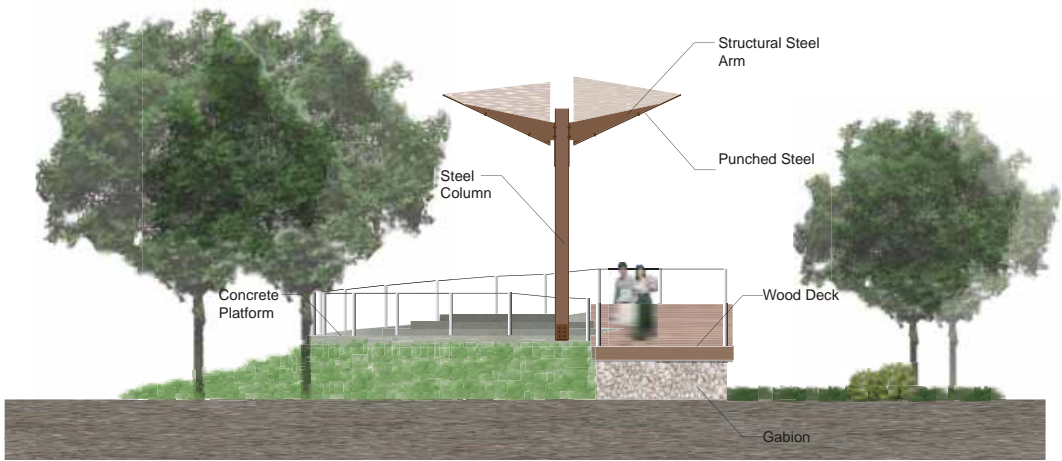
Demonstration Design - Plan for Promontory feature.



Demonstration Design - Roof Plan: Promontory shade structure.



Demonstration Design -Side Elevation: Promontory shade structure.



Demonstration Design - Elevation from the park: Promontory shade structure.



Demonstration Design - Elevation from the water: Promontory shade structure.



Parking areas adjacent to residential or park use should be well planted and buffered while maintaining acceptable CPTED Sight lines .

Vehicle Access and Parking

Parking: Within the concept plan for J.C. Saddington Park an incremental reduction of parking areas is proposed.

Proposed parking and existing parking that remains, that is adjacent to residential areas or other park uses should be buffered by attractive landscaping and landforms where appropriate. Parallel parking spaces are proposed along the east side of Mississauga Road.

Access: Some internal vehicle access will be required for providing service to the proposed park pavilion and to provide access for emergencies and maintenance. The vehicle access point is located at the curve of Front Street and will enter the park in a 7.0m wide lane that will be designed to appear as pedestrian space. From the existing pond area, vehicular access will occur along the multi-use trail and waterfront trail.

Circulation

Waterfront Trail: The Waterfront Trail will continue through J.C. Saddington Park in its present location. Improvements should be made to the trail on an as-needed basis.

Multi Use Recreation Trail: An internal loop of the Multi-Use Recreational Trail, approximately 525m long, will provide pedestrian and recreational access through the main part of the park. It will link the main entrance, picnic, play areas and the pond area to the waterfront trail. The alignment of the multi-use trail generally follows the alignment of the existing walkway system.

Connector Trail: Connects park entrance feature and parking to Multi Use Recreation Trail.

Streetscape: The boulevard along Lake Street and Mississauga Road will be upgraded with high quality sidewalk paving and additional street trees. If the Right of way widths permit, the green streets strategies recommended in Section 4.0 should be implemented in this location.

Village Green

A Village Green will be created as an extension of the neighbourhood and replace the existing parking area. The concept for this design is derived from the heritage of J.C. Saddington Park. The form of the green follows the original block pattern for the area and frames what would have been the original shoreline. It should be noted that the green could only be developed once parking has been successfully relocated.

Heritage Courtyard

As part of the adaptive reuse of the existing pump house buildings, a new building and courtyard are proposed to enhance the potential re-use of the space. The existing buildings could be retrofitted to provide a venue for commercial or community program, such as summer schools, meeting places, small performance theatre, etc. It is intended that any new program would also occupy the adjacent courtyard space creating a vibrant park area.

Children's Play Area and Open Field

The existing children's play area and open field are proposed to remain. Over time, and as need permits, additional play structures that are more interpretive and imaginative in nature should be incorporated. A small splash pad could also be added to this play area for cooling in the summer months.

Existing Pond and Stream

The existing pond and stream are great assets to the park and should be enhanced for more seasonal use. Enhancements include stabilizing the edges and providing planting to improve the aesthetics. Currently the pond is used as a skating surface in the winter but its seasonal use could be expanded to include model boat play in summer. Both the pond and the stream offer interpretation opportunities.

Formal Picnic Area

The existing formal picnic area is proposed to remain with a few improvements. Add deciduous trees to provide shade opportunities, include picnic areas for smaller groups and individuals and locate accessible picnic areas closer to the parking areas.



Children's play area: Imagination play feature.



Amphitheater.



Interpretive Element themed on history and heritage.



Greening of north-south streets (Mississauga Road) leading to the park will extend the park's presence to Lakeshore Road.

Amphitheater

Located to the east of the pond, enhancements to the informal amphitheater and lawn area are recommended so that the area can comfortably be used for small festivals or performance space with the mouth of the Credit River as a backdrop.

Fishing Area

An area separated from the main pedestrian flow has been provided for fishing and related activities on the east side of the existing pier. Proposed shoreline stabilization adjacent to this area will include provisions for improved fish habitat.

Interpretive Elements

Primary themes of history and heritage should be explored while concepts such as wildlife interpretation, landfill and astrology are developed.

Planting and Landscaping

Key views from the north south streets have been identified on the concept master plan. It is recommended that the existing berms and landscape be sculpted to allow for visual connections to the lake in these areas. Elsewhere in the park the existing plant material is recommended to remain in place and be enhanced with additional planting. To reduce the maintenance in the park and to enhance wildlife habitat and foraging, some areas have been indicated for naturalization. Planting is to be simple, massed, preserve clear views to the lake, low maintenance and unappealing to geese. Improved streetscapes along Mississauga Road and Lake Street should include street tree planting to define the edge of the park.

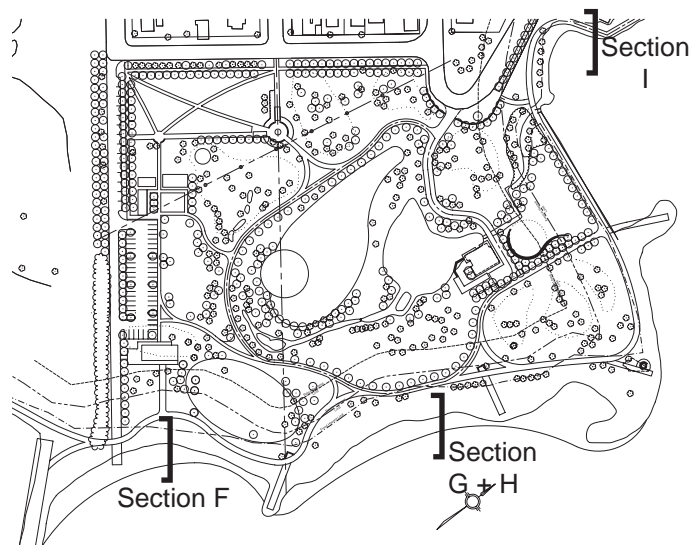
5.4.3.3 Shoreline

Three shoreline sections are proposed as indicated in the following:

The key diagram below outlines the location of the shoreline sections relative to the concept plan. For the area identified for sections G and H, two options are proposed for the City's consideration.

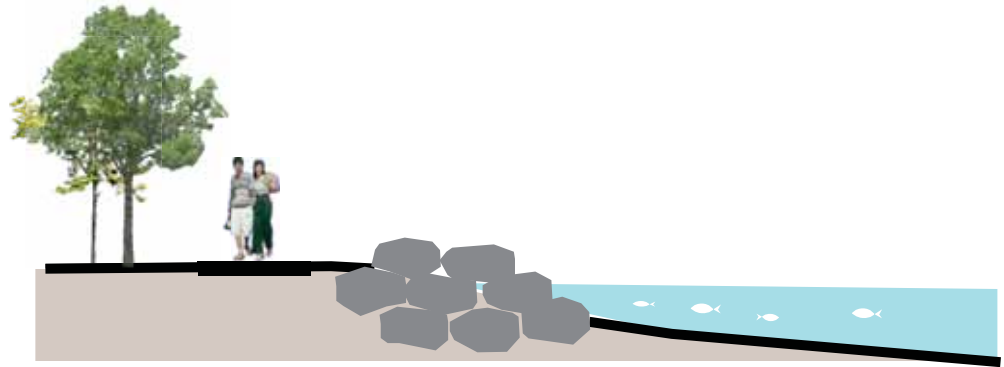


J.C. Saddington Park has a mix of existing shoreline conditions including armourstone, riprap, and dumped concrete. The majority of the park's shoreline will require upgrading in the upcoming years.



Key diagram

Section F. JC Saddington at Western Edge of Park

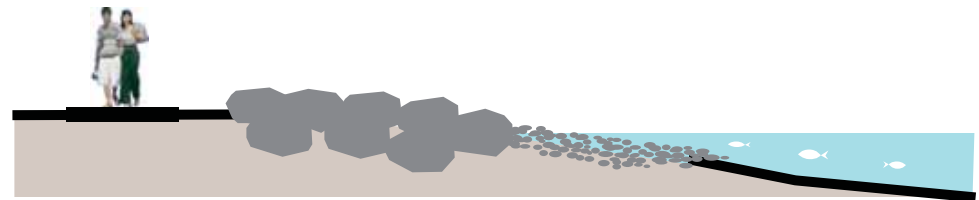


Existing conditions are similar to those recommended.

Recommendations for Section F – JC Saddington Park

- Re-engineer and replace armourstone protection, similar to existing condition
- Allow for public access at formal look out points

Section G. JC Saddington Typical Section - Option 1

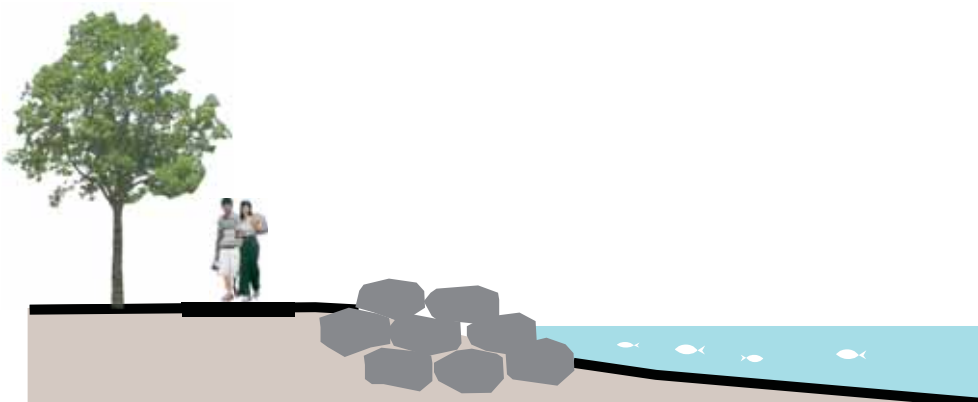


Existing conditions are similar to those found in section F.

Recommendations for Section G – JC Saddington Park

- Determine the rate and nature of erosion
- Develop new shoreline protection incorporating installation of a new cobble beach and armour stone revetment
- Develop breakwater/headlands and reconfigure shoreline to create embayments to protect new cobble beach
- Allow for public access to cobble beach
- Shoreline protection to promote fish habitat

Section H. JC Saddington Typical Section - Option 2

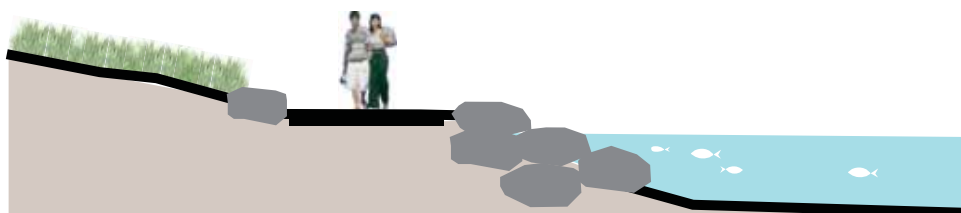


Existing conditions are similar to those recommended.

Recommendations for Section H – JC Saddington Park

- Alternative option for Section G
- Re-engineer and replace armourstone protection, similar to existing condition
- Allow for public access at formal look out points

Section I. JC Saddington at Boardwalk to Marina Park



The shoreline extends into an embayment. Irregularly placed armourstone protects this stretch of shoreline, extending in front of the apartment building. Although the armourstone provides some level of protection, an engineered solution is required for longer term protection. (Baird + Associates, March 2006)

Recommendations for Section I – JC Saddington Park

- Re-engineer and replace armourstone protection
- Develop on-land walkway connection to Marina Park



Existing dumped armourstone and riprap shoreline conditions looking west towards Imperial Oil Trail Extension.



Proposed location for boardwalk connection to Marina Park.

5.5 Lakeside Park

5.5.1 Site Opportunities and Constraints

Location and Significance

Located towards the western boundary of the study area, Lakeside Park is one of the larger park areas available for public use. Previous land uses have shaped the property both above and below the ground to produce a site with a unique combination of topography, vegetation, neighbouring views and shoreline conditions. The relative remoteness of the park creates an opportunity to develop a 'destination' within the waterfront park system.

Opportunities and Constraints:

- Surrounded by heavy industrial uses, the park is located in a highly diverse visual landscape. This siting provides an opportunity to make a strong statement in the landscape to balance and respond to the surroundings.
- Site is a significant rest-stop for migratory birds and provides habitat for songbirds and waterfowl. Preserve, enhance and manage existing plant material to improve environment for birds. Construction schedules should coordinate with nesting sites and seasons.
- Site is designated a special management area (#150) and is located in close proximity to significant natural areas 1,2,3 and 4 as defined in the City of Mississauga Natural Areas Survey, 2005 update.
- Site is large, may provide space for much needed program elements like picnic areas and an open air concert venue.
- Site is easily accessible from Lakeshore Road.
- Site also has excellent opportunities for interpretation: interesting geological history, previous site uses, clay pipe crushing, farmstead etc.
- Shoreline has a unique eroded clay tile shingle beach composition with an actively eroding bank. Protecting bank from further erosion will eliminate the supply of clay tile for beach material. This element will eventually disappear over time if the bank is stabilized and protected from erosion. Look at options for shoreline protection that may



Waterfront Parks key map highlighting Lakeside Park.



The Lakeside shoreline has a unique clay tile erosion feature.



Lakeside Park, April 2006.



Alternate energy sources are recommended for Lakeside Park.



Surrounding area provides unique context.



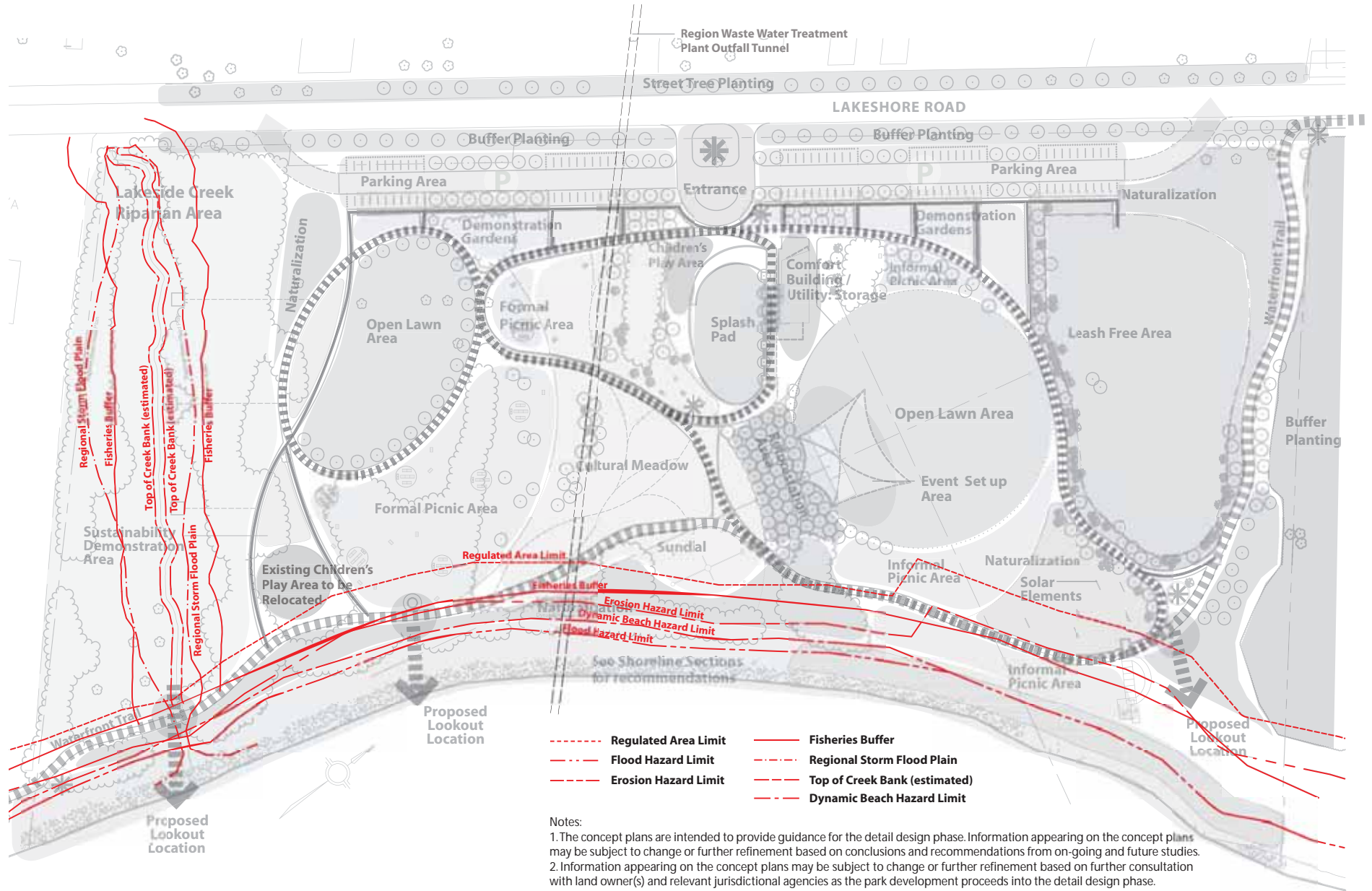
The Splash Pad is central to the parks design.



Picnicking Area with views and access to the water are proposed.

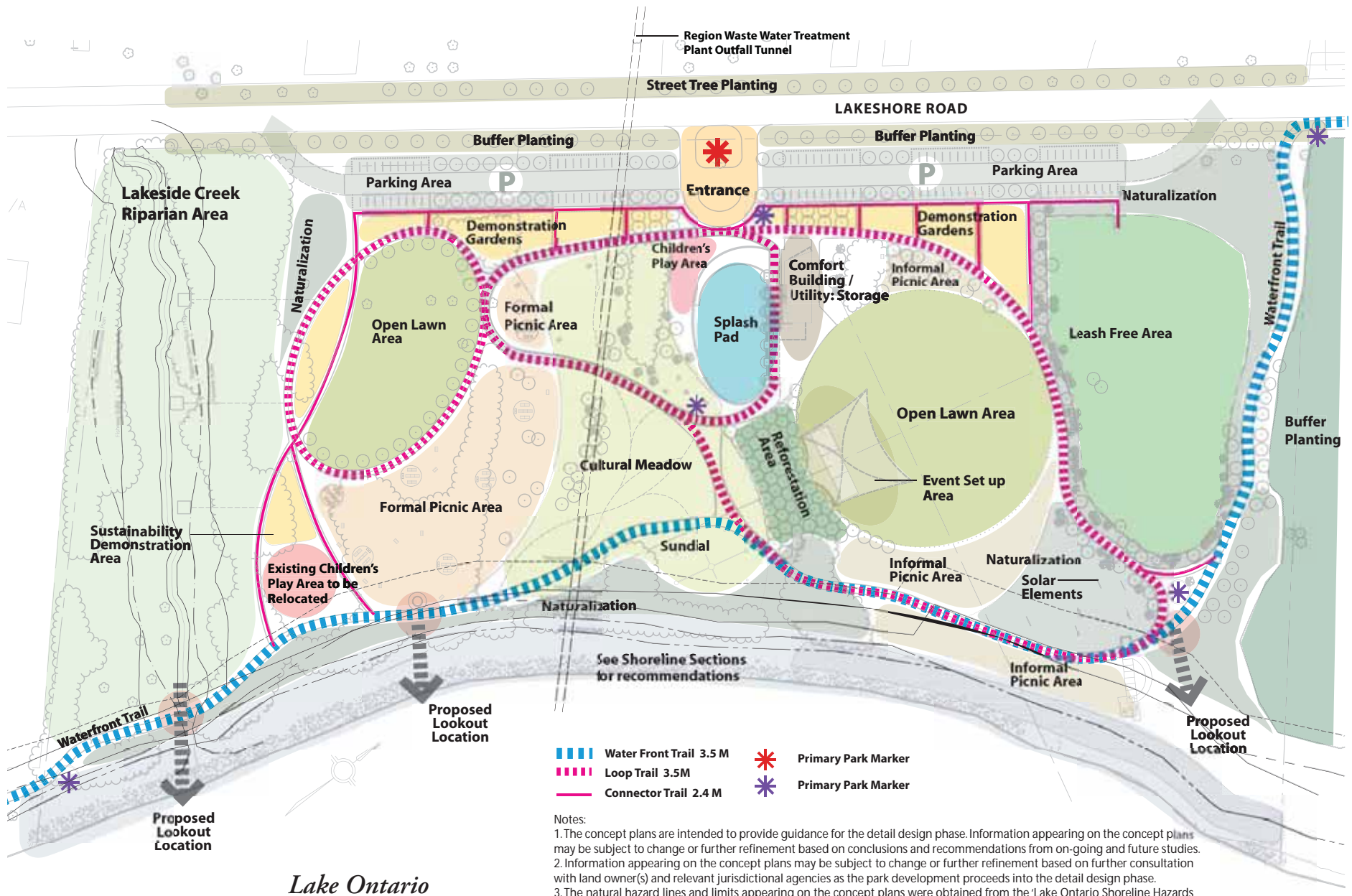
preserve this feature. Bank is as much as 6 metres high; access for public may not be feasible in that area of site.

- Existing vegetation on site provides many opportunities for enhancement, opportunity to restore portion of historic dry-forest / savanna, cultural meadow, cultural woodlands area (former farmstead planting) offers diverse experiences: forest, open field, reclaimed meadow.
- West portion of site should remain as a picnic and playground area. The playground needs to be inventoried and upgraded, opportunity to include a variety of non-obtrusive, imagination play opportunities such as sand and water play with shade structure, tricycle circuit, balance beam, stone garden etc. should be explored.
- Existing picnic area to be improved with organized table configuration that includes large and small groupings. Parking area should be reconfigured and linked to the picnic areas with a formal, internal walkway system.
- A multiuse flexible space is proposed on the eastern side of the park for informal picnicking, festivals and events.
- Lakeside Creek riparian zone could provide habitat and potentially improve water quality.
- Park does not have cohesive presence along Lakeshore Road, parking areas are not consolidated or consistently designed.
- Other than leash-free, the park does not have significant draw today for park visitors.
- Few noise restrictions.
- Leash free area is well established and valued, users of the leash free area contribute to the safety of the park as they are constantly using and monitoring the park area. As this park is isolated from surrounding residential areas this is a key reason to retain the use.
- The waterfront trail exists within Lakeside Park. Expansion of the Waterfront trail to Watersedge Park through the Petro Canada lands should be pursued.
- The existing recycling centre across Lakeshore Road presents some conflicts from a traffic perspective.
- Heavy transport traffic on Lakeshore Road creates noise pollution and potentially hazardous traffic conditions.
- No infrastructure on site for new comfort buildings.
- No formal internal walkways.
- The Region of Peel Wastewater Treatment outfall pipe crosses the park underground between Lakeshore Road and Lake Ontario.



Lake Ontario

Site Development Constraints: Lakeside Park
 Note: Image not to Scale



Concept Master Plan: Lakeside Park
Note: Image not to scale



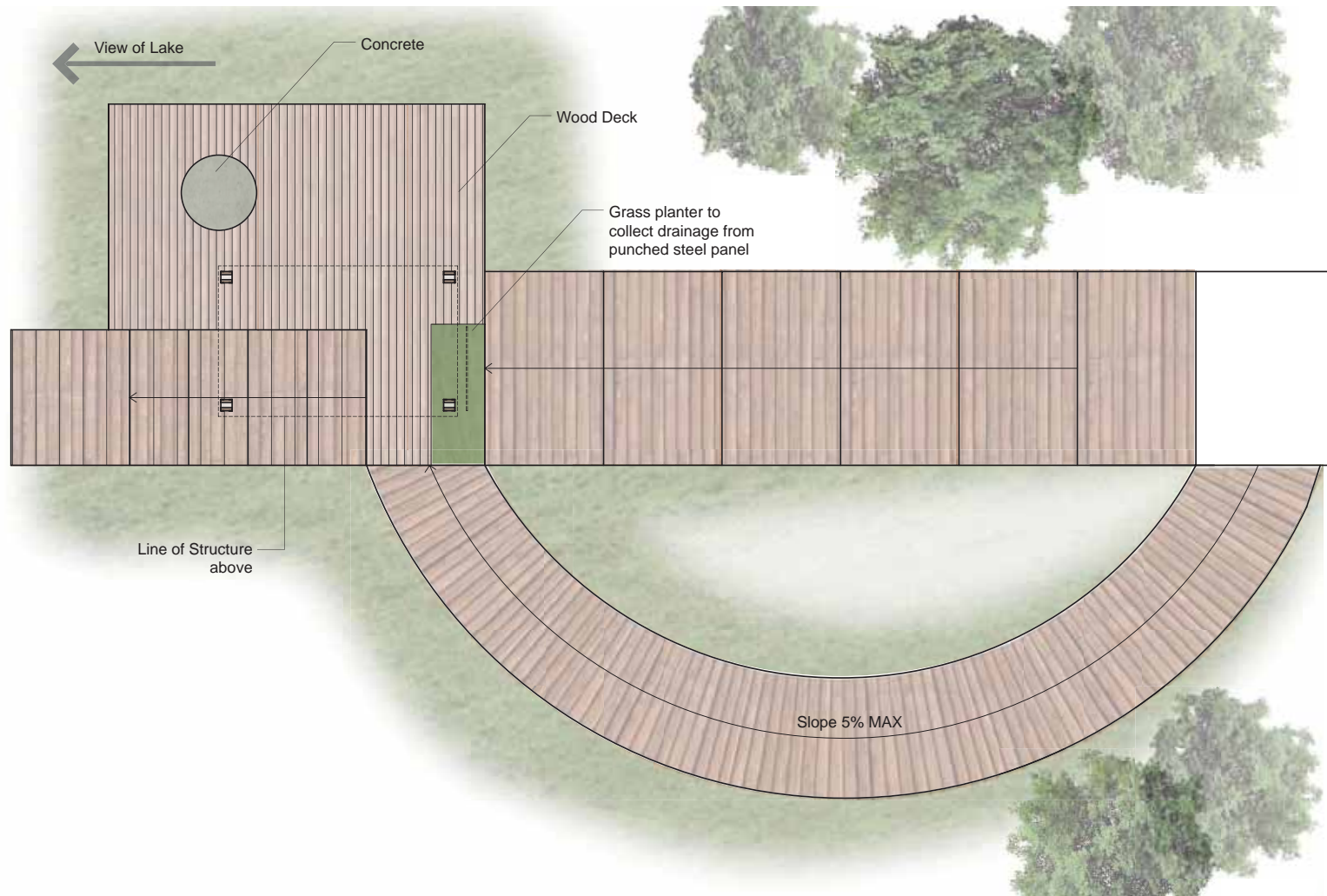
Artistic rendering of the possible entrance and parking area in Lakeside Park.



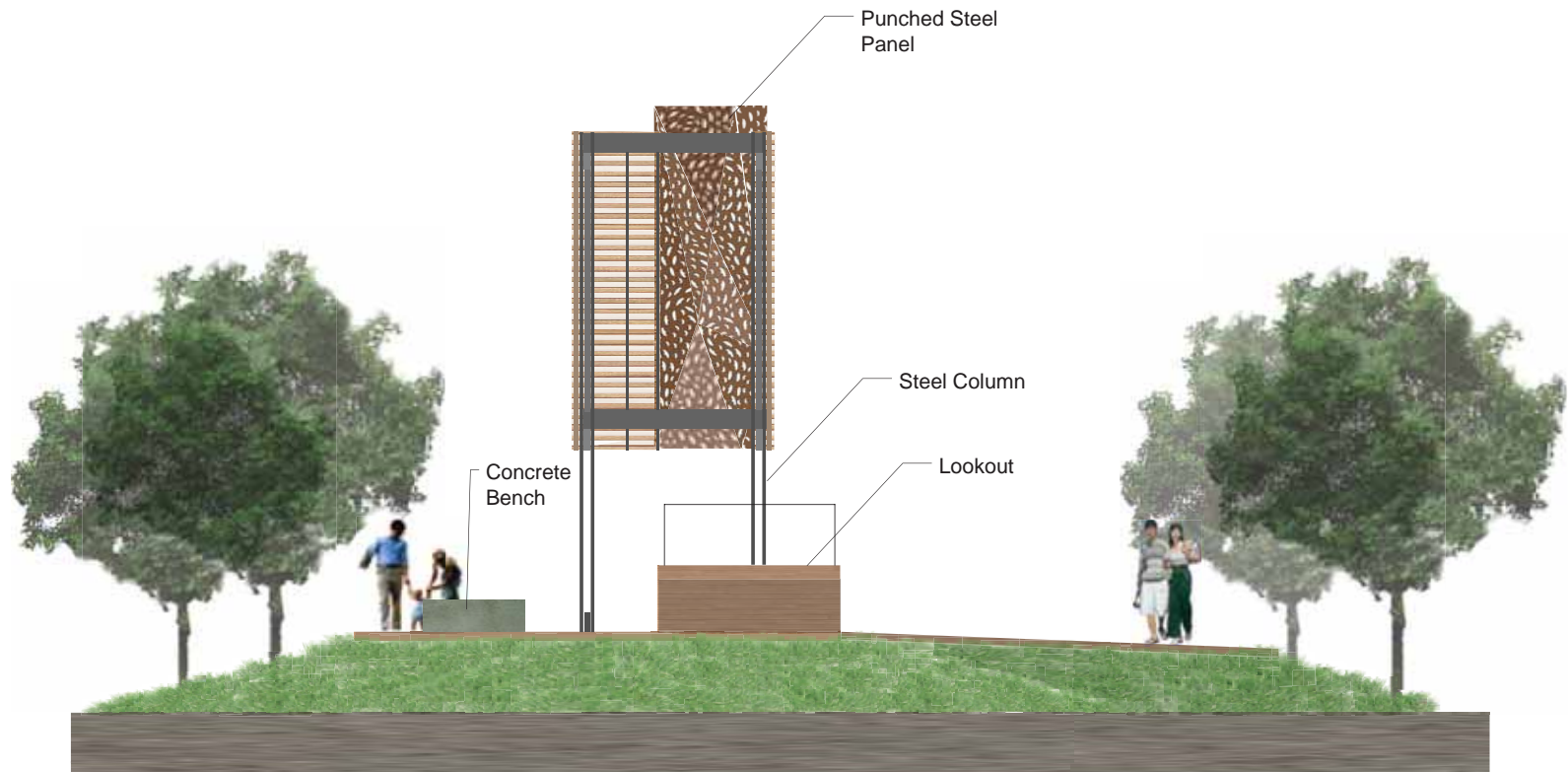
Artistic rendering of possible splash pad area in Lakeside Park.

Promontory

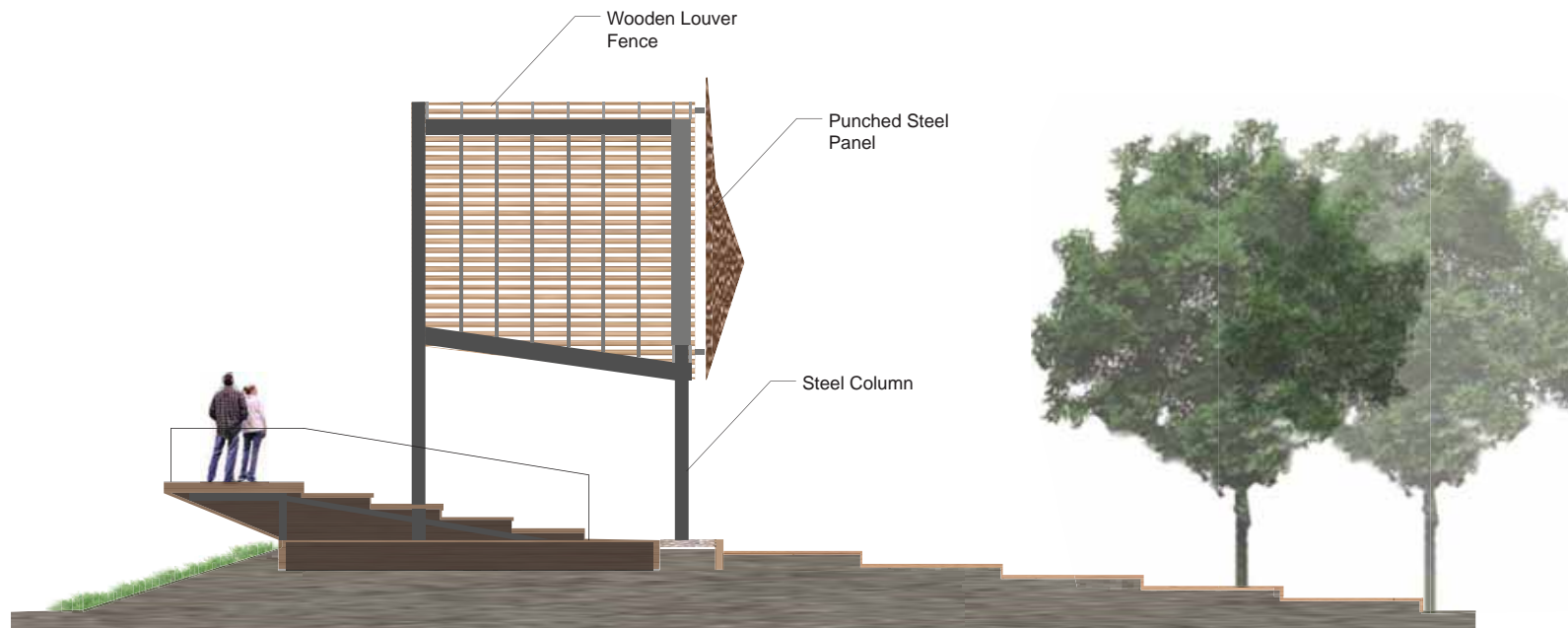
The creation of a new city park at Lakeside is one of the primary recommendations of this Waterfront Park Strategy. The following demonstration designs articulate a combination of layered materials and uses such as benches, steps and ramps that are intended to invite visitors to investigate this new landmark structure. The demonstration design celebrates the expansive waterfront views that are typical for Lakeside Park. The design also lifts park visitors to a higher viewing platform directed towards the lake. Constructed of stone, concrete, corrugated steel, wood and custom punched steel panels, the diversity of materials respond to the diversity of the site and weather conditions. Folds are created in the punched metal screen that are reminiscent of wind while the light frame platform is anchored with heavy concrete or stone benches that give the feeling that the structure itself is about to take flight out over the water. The promontory is oriented to sunrise on the winter solstice and provided directed views to the water. The vertical nature of the structure complements the horizontal line of Lake Ontario and gives the vastness of the water a human and occupiable scale.



Demonstration Designs: Promontory, plan view



Demonstration Designs: Promontory, elevation from the lake looking towards the park



Demonstration Designs: Promontory, side elevation

5.5.2 Design Concept

Lakeside Park will be themed as a demonstration area for green technologies; a commentary landscape focusing on the contrast between industrial and waterfront landscapes.

5.5.3 Park Recommendations

5.5.3.1 Park Activities and Uses

- 2 Children's Play Areas with 1 Splash Pad
- Comfort Station with Washrooms
- Leash-free area
- Flexible Open Space with Designated Stage Area for events
- Multi-Use Trails
- Erosion Education Elements
- Water Access from Beach
- Open Lawn Area
- Naturalized Meadow and Restoration Areas
- Demonstration Gardens
- Picnicking

5.5.3.2 Park Elements

Vehicle Access and Parking

Entrance Area: Centralized entry loop supports more cohesive park presence along the Lakeshore Road frontage. Loop geometry supports bus turning function for drop off and pick-up of large groups. Contains primary entrance marker for park identification. Main access to parking areas.

Parking: Situated as close to Lakeshore Road as possible while incorporating a landscape buffer. Approximately 100 parking spaces are proposed as a part of this park concept plan. Materials to transition from hard paving of entry loop to "green paving" solution of the parking stalls. Parking area to be de-emphasized visually. Demonstration garden area could include storm water infiltration areas. Parking stall areas to be interspersed with tree and shrub planting.

Overflow Parking: May be possible to provide parallel parking spaces long Lakeshore Road. The existing speed limit in this area and the heavy truck traffic can be a constraint for parking along the boulevard but typically the high traffic time periods will not correspond with high volume park activities.

Internal Vehicle Access: Some internal vehicle access required to provide access to event area, splash pad and picnic areas.



Green paving solution for parking.



Existing waterfront trail will continue through the park.



Nature trail through meadow.



Open air concert facilities.



Splash/spray area.



Sustainability interpretation: Water Play

Access to be shared with the multi-use trail loop. Pavement to be designed to accommodate vehicular use.

Circulation

Waterfront Trail: The Waterfront Trail will continue through Lakeside Park in its present location. Improvements should be made to the trail on an as-needed basis.

Multi-Use Recreation Trail: Internal loops of the multi-use recreational trail will provide pedestrian and wheeled access through the main part of the park. It will link the main entrance, picnic, play areas and open lawn areas to the waterfront trail.

Connector Trails: Connects park entrance feature and parking to Multi-Use Recreation Trail and other park elements.

Nature Trails: The new naturalized areas to the western side of the park provide multiple opportunities for nature trails with coordinated educational material.

Streetscape: The boulevard along Lakeshore Road will be improved with buffer planting and street trees, where ever possible the existing views to the lake should be preserved.

Sustainability Interpretation

Alternate energy sources: Many features through the park to demonstrate the functionality of solar and wind energy. Power site lighting, comfort building, splash pad, etc.

Demonstration Gardens: Drought tolerant plants, storm water infiltration, butterfly garden, pumpkin patch, sensory garden.

Kinetic Sculpture: Incorporate interactive movement features to educate on the physics of movement. Sculptures could incorporate wind elements.

Water play: "Watershed experiments", interpretation elements incorporating water and movement, located near the existing children's play area adjacent to Lakeside Creek. Interpretative elements could reference the creek and its function while appropriately located planting can limit access to the sensitive natural areas.

Splash Pad

Centrally located near comfort building, parking, play area, picnic areas and open lawn. Splash pad adjacent to the comfort building, to be designed for imagination play, 'catalogue' order splash features to be avoided. No pooling water. Spray and splash features to be designed so that the space could be used for other uses such as sculpture gardens or display area.

Open Lawn Area/Open Air Concert Venue

Open lawn area approximately 6500 square meters, could contain 1600 people sitting in lawn chairs (4sq.m per person). No permanent structures proposed, enhances flexibility of site. Stage proposed to be portable with portable shade/canopy structure. Open lawn oriented to provide open views to the lake. Stage oriented to face north.

Picnic Areas

Formal: Provided in key locations, include paved surface and BBQ pits. Located near paved walkways, some near potential vehicle access loop. Size and configuration to allow for groups of 75 people.

Informal: Provided for smaller groups, single picnic table with or without paving underneath, secured in place, non-flammable materials

Children's Play Areas

Existing play area on the west side of the site to be inventoried and potentially improved with variety of non-obtrusive, imagination play opportunities: sand and water play with shade structure, tricycle circuit, balance beam, stone garden, etc. Tie theme of new elements into sustainability concept for park. All new children's play areas in Lakeside park should be fully accessible.

Leash-Free

The Leash-free areas provide recreational opportunities for dogs, a safe location for pets to run free, a place for pet owners to socialize, and containment of sanitary issues generated by owners who fail to clean-up after their dog. This leash-free zone is also critical towards maintaining a constant user presence in the park. The leash free area is recommended to be two acres in size.

Lakeside Creek

The City should coordinate with the CVC to restore and enhance riparian floodplain of the creek. Apply bank stabilization where

required, provide nature trails and viewing platforms for access to wildlife and nature viewing. Bank improvements and planting potentially improve water quality.

Winter Warming

Provide opportunities for shelter and warming in the cooler weather. Landscape buffering and microclimate, comfort building open all year round and one fire pit location.

Planting and Landscaping

Existing plant material is to remain in place and enhanced with additional planting. To reduce the maintenance in the park and to enhance wildlife habitat and foraging, some areas have been indicated for naturalization and reforestation. Planting is to be simple, massed, preserve clear views to the lake, be low maintenance and unappealing to geese.

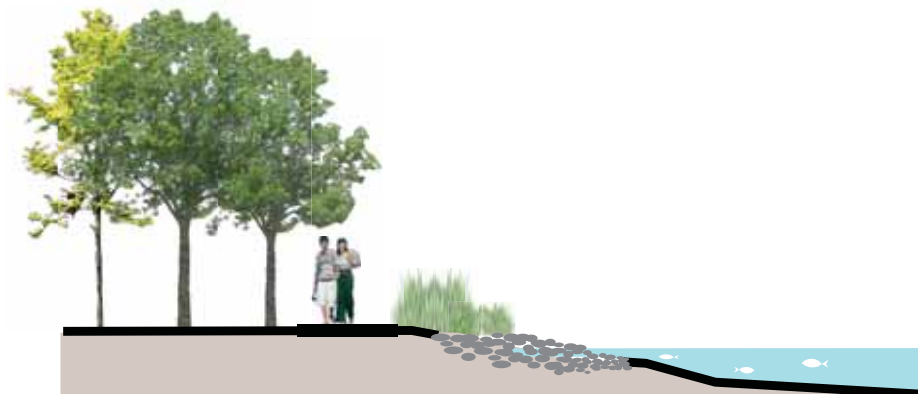


Imagination play feature.

5.5.3.3 Shoreline

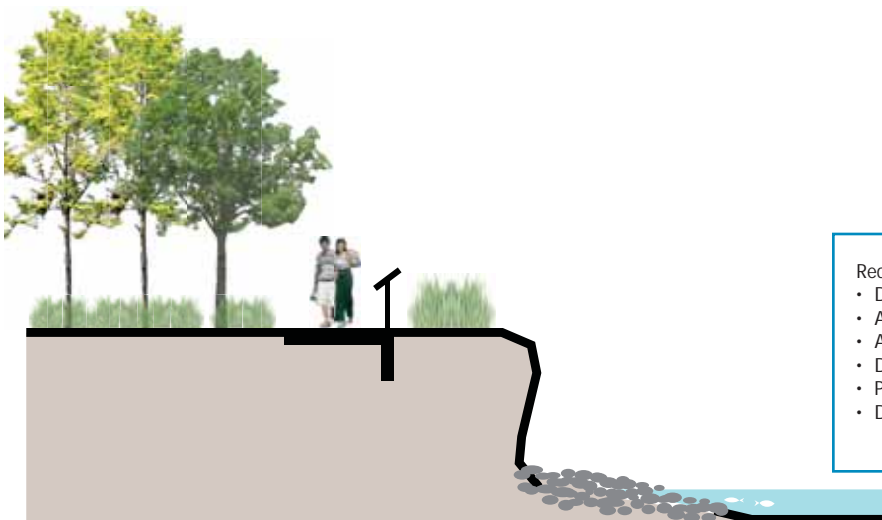
Two shoreline sections are proposed as indicated in the following sections.

Section A. Lakeside Park at Existing Beach



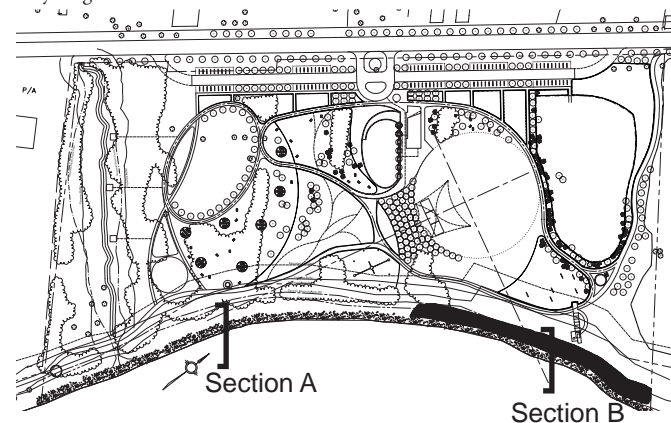
The shoreline at the west end of the park is a low bank with a clay and shale shingle beach. The beach composition is fairly unique in this area, and is the product of clay pipes dumped along the shoreline, that have broken down under wave action, forming a shingle beach. (Baird + Associates, March 2006)

Section B. Lakeside Park at Existing Bluff



The shoreline at the east end of the park is an eroding bank, approximately 6 m in height. The Clay pipes become exposed as the shoreline erodes. If the shoreline is not protected, it will continue to erode. It is important however to recognize, that the clay shingle that makes up a large proportion of the beach, is a product of the eroding shoreline. If the shoreline is protected, this source of beach material will no longer exist and the composition of the beach will change as the clay is abraded by wave action. (Baird + Associates, March 2006)

Key diagram



Recommendations for section A - Lakeside Park:

- Preserve and enhance natural vegetation adjacent to shoreline to boost upper bank stabilization
- Monitor bank condition
- Allow access to lake only through areas that are stable

Recommendations for section B - Lakeside Park:

- Determine the rate and nature of erosion
- Allow nature to take its course and let bluff formation continue to recede
- Allow public access to top of bank, setback to a point deemed stable and safe
- Develop educational opportunities with themes focusing on erosion
- Preserve and enhance natural vegetation adjacent to top of bank to boost bank stabilization
- Do not develop formal access points to cobble beach

5.6 Not Yet Named (Fusion Property)

5.6.1 Site Opportunities and Constraints

Location and Significance

Known as the Fusion Property, this area is located at the border of the Town of Oakville. The park is made up of many diverse landscape typologies including naturalized open spaces, forest, formal gardens, and lakefront. The manor and the carriage house provide a focus on the property and provide the catalyst for the park vision and its combination of potential uses. Even though the park is currently not open to the public, the gently sloping and mature landscape conditions and the potential for existing buildings to support year round activities would make this Gateway Park unlike any others found on the waterfront.

Opportunities and Constraints:

- Site is large, may provide space for much needed program elements like picnic areas and nature trails.
- Site is easily accessed from Lakeshore Road.
- Existing buildings could be adaptively reused for public/private use. The property has been a homestead since the early 1800's, first as a log cabin. In 1937 the manor house and carriage house were built in the modern classical style as designed by the same architect that created the Ottawa's Bank of Canada building.
- Site has excellent opportunities for interpretation: interesting geological history, previous site uses, significant natural areas.
- Existing vegetation on site provides many opportunities for recreation and education, provides diversity of experiences: open lawn, creek floodplain, forest, open field.
- Park does not have cohesive or well defined presence along Lakeshore Road.
- The waterfront trail exists along Lakeshore Road, may be opportunity to bring trail into park.
- Site is a significant rest-stop for migratory birds, bats and insects and provides habitat for songbirds and waterfowl. Preserve, enhance and manage existing plant material to improve environment for birds. Construction schedules should coordinate



Waterfront Parks key map highlighting the Fusion Property.



Fusion Property, April 2006



Formal gardens



Bird watching



Cross country skiing



Diversity of walking trails



Wedding Functions



Hay rides

with nesting sites and seasons.

- There is potentially a rare bird species in the area: Black-crowned Night Heron.
- Site is defined as a significant natural area and is located in close proximity to significant natural areas #2, #3 and special management area #150 as defined in the City of Mississauga Natural Areas Survey, 2005 update.
- To the north of the property are the Joshua Creek and Wildflower Woods ESA's.
- Site also has interesting geological history – excellent opportunities for interpretation.
- Shoreline is low-lying, vegetated and fronted by cobble beach with armourstone protection at the mouth of Joshua Creek. The shoreline is actively eroding till bluff and will continue to erode unless the bank is stabilized.
- Considering the low level biophysical constraints of this portion of the site, it may be appropriate to incorporate program elements such as sheltered picnic areas with warming huts, small pockets of parking, looped trail circuits, seasonally themed festivals (ie, pumpkin festival, hayrides, skating, etc.). Enhance and manage the Clearwater Creek flood zone.
- Naturalization of the existing channelized Clearview Creek may provide educational opportunities. Creek to be ameliorated for public use (not swimming) and access to the water's edge will be promoted. A floodplain will have to be determined in coordination with the CVC.
- Few formal internal walkways.
- Inadequate infrastructure on site for public building use.
- The Halton Region Conservation Authority and the Credit Valley Conservation Authorities have both been consulted regarding the conceptual design. Both authorities should be further engaged during the detail design phase to ensure that the requirements of the natural environment are met.

5.6.2 *Design Concept*

Fusion Property will be themed as an early century manor-house with a narrative landscape, powerfully linked to the natural environment and elemental experience. The site has the opportunity to take visitors back to a time where sustenance, for both mind and body, came from the landscape.

5.6.3 *Park Recommendations*

5.6.3.1 *Park Activities and Uses*

- Event Venue
- Bird Watching and Nature Interpretation Centre
- Picnicking
- Walking Trails
- Educational Features
- Reuse of Existing House and Public Access to Grounds
- Flexible Open Spaces
- Naturalized Areas
- Waterfront Trail Connection
- Skating Rink on the front lawn adjacent to Lakeshore Road.



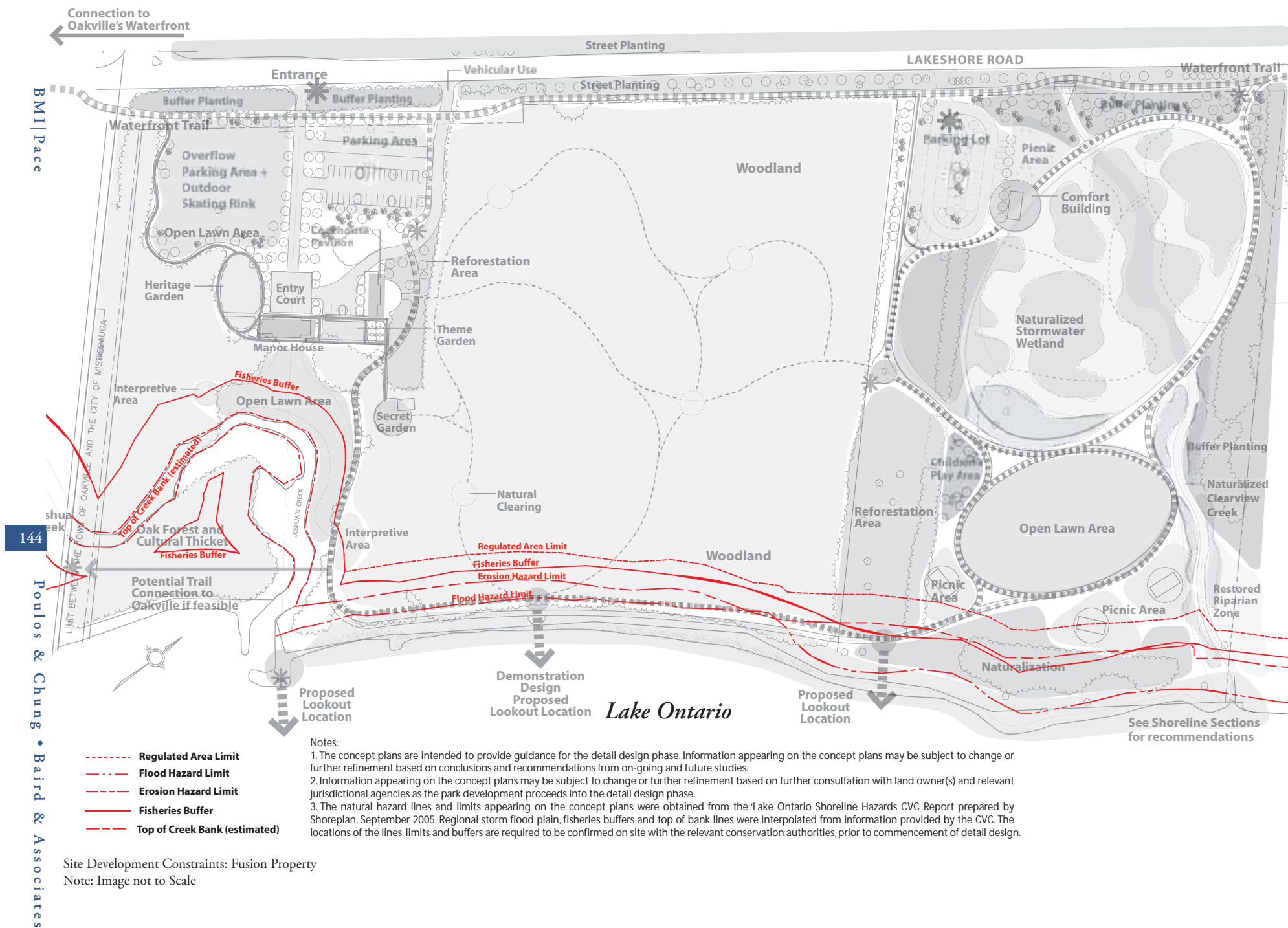
Existing manor house to be reused.

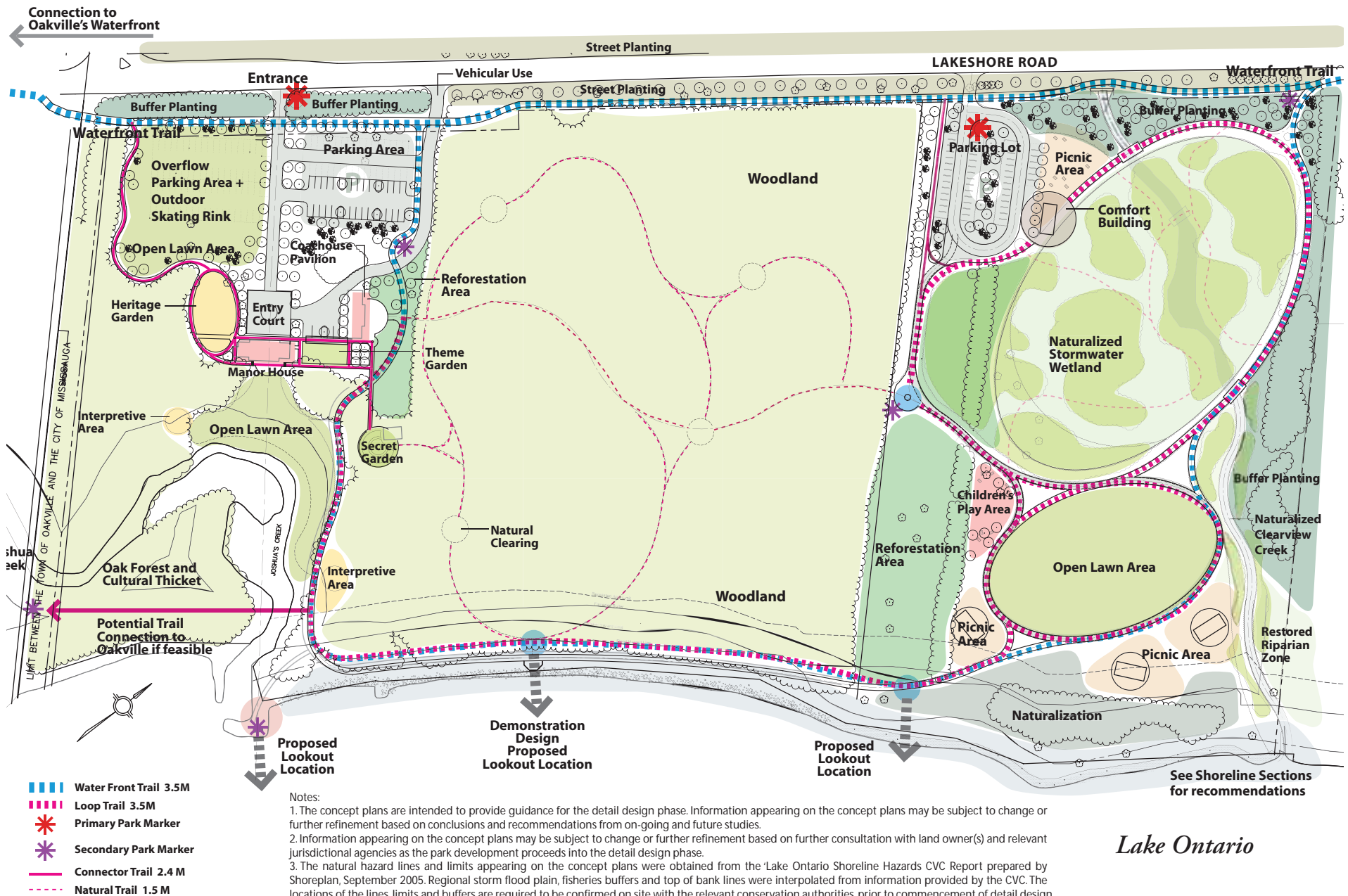


Joshua Creek will provide many opportunities for interpretation and education.



Fusion's natural shoreline is a stable and beautiful place to be near the Lake.





Concept Master Plan: Fusion Property
Note: Image not to scale

Lake Ontario

5.6.3.2 Park Elements

Promontory Feature

Along the water's edge nestled between the forest and shoreline a demonstration design for a new promontory has been developed. The promontory located just off of the waterfront trail, sits low in the landscape and frames one of many entrances into the forest. A punched metal sun shade structure is proposed to bring the filtered light of the forest out to the shore. This calming promontory is proposed to be a quiet resting point that allows for a protected location for viewing wild life and experiences the sounds on the water lapping against the naturalized pebble beach. The promontory frames not only views to the lake, but tries to incorporate the unique conditions of the forest and water into one simple structure. This is a found place that is to be enjoyed as part of a larger trip or to be made a special destination location for those who have happened upon it before.



Photo of suggested promontory location at Fusion Property.



Demonstration Design: Promontory feature, elevation from Lake Ontario with existing forest behind.



Demonstration Design: Plan of promontory feature with showing roof dotted in above.



Demonstration Design: Roof Plan showing punched steel roof above concrete platform.

5.6.3.2 Park Elements (continued)

Vehicle Access and Parking

West Entrance: Existing main entrance, secondary entrance and driveway to be retained and improved, some parking areas added between house and carriage house. Main entrance contains primary entrance marker for park identification. Approximately 125 parking spaces are proposed at the main and overflow parking areas.

East Entrance: Proposed new entry loop supports bus turning function for drop off and pick-up. The entrance is recommended for a primary entrance marker for park identification. This is adjacent to the new parking areas where there are approximately 50 parking spaces provided. The total number of parking spaces should be sufficient if balanced with the suggested waterfront park shuttle bus.

Parking: Proposed parking and existing parking to remain that is adjacent to Lakeshore Road is to be buffered from the street by attractive landscaping and berms where appropriate. Existing parking at manor house to be retained and redeveloped with “green paving solution”, parking area to be de-emphasized with tree planting and multiple pedestrian circulation routes.

Overflow Parking: the open lawn area to the east of the manor house may be utilized for overflow parking for approximately 70 vehicles. The vehicles would park on the grass in its current condition – reinforcement of the turf is recommended come such time that the overflow parking is frequently full.

Internal Vehicle Access: Some internal vehicle access required to provide access picnic areas and for emergency and maintenance purposed. Access to be shared with the multi-use trail loop. Pavement to be designed to accommodate vehicular use.

Circulation

Waterfront Trail: The Waterfront Trail will continue along Lakeshore Road in its existing location. Proposed alignment of waterfront trail through site is indicated in the concept master plan.

Multi Use Recreation Trail: Internal loops of the Multi-use Recreational Trail, of varied lengths, will provide pedestrian and wheeled access through the main part of the park. It will link all portions of the park to various park elements including the waterfront trail, pond, picnic areas, manor house and parking areas.

Connector Trail: Connects park features to parking and to Multi Use Recreation Trail.

Streetscape: The boulevard along Lakeshore Road will be improved with upgraded sidewalk paving and street trees.

Nature Trails: Various nature trails are recommended throughout the site to provide access to natural areas and protect areas that are sensitive to pedestrian traffic. It is essential that the sensitive natural areas be protected for the future; for this reason trails and access point are to be carefully managed, monitored and located to prevent damage to the existing natural systems.



Woodland trail in summer.

Manor House and Surrounding Gardens

The Manor Precinct, which includes the house and surrounding gardens, has the possibility to provide opportunities for emulating historic activities such as informal picnicking, garden parties, tea at four, small performances, croquet, theme gardens and a winter skating rink on the open lawn area. Programming could include kitchen gardens, sensory gardens, the great lawn, the front lawn, heritage and other theme gardens. It is suggested that a suitable use for the Manor house is to retrofit the building for a food preparation facilities and possible expansion could allow it to open year round for corporate events, weddings and other functions. Further investigation of revenue generating options is needed. Grounds should continue to be accessible to the public and the reuse of the building should benefit the user of the park.

Carriage House and Woodland Trail

Investigate opportunity to retain the Coach House as a complementary building to the main house. Building could be renovated as an open-air structure with functioning fire place (original retained) and could provide trailhead structure/interpretation area for woodland trails.

Tree House and Secret Garden

Renovate storage shed into facility that can be used for small gathering for all ages: story tree-house for children, new mothers meeting room, starting point for summer day-camp programs, book club meetings, chess house etc. The landscape surrounding the story house should be a 'secret garden' theme for all ages and should be sensitively and lightly incorporated into the existing landscape. Elements of the secret garden could include hidden sculptures, birdhouses, rock garden and a maze.

The Forest

The western portion of the site is naturally significant as it is representative of the original shoreline landscape for this area. Consider level of intrusion into natural area: sensitivity vs. education. Restore and manage this area to reduce fragmentation. Incorporate interpretation areas based on the themes of forests ecosystems, and migratory birds.



Theme garden near manor house.



Secret garden element.



Crossing of the naturalized creek should minimize impacts on sensitive natural areas.

Joshua Creek

Access to the creek edge should be permitted with non obtrusive methods, for example natural stepping stone path or overpass bridge. Coordination with the Town of Oakville and the Halton Region Conservation Authority (HRCA) is required to determine the feasibility of a waterfront trail location in this area.

Woodland

The woodland area (centre of the site) provides opportunities for educational and interpretive elements. Determining the level of intrusion should be appropriate for the sensitivities of the woodland micro-environments. Walkways will be appropriately located, using appropriate materials. Natural clearings are used for gathering or picnic areas. Diversify planting in this area to improve breeding, foraging and migratory habitat. The central walkway through the woodland will be accessible to provide link from the east end of the park to the manor precinct.

Clearview Creek Improvements

Part of the design for the eastern portion of the Fusion Property is the naturalization of the Clearview Creek. The creek is currently directed within a concrete channel. Naturalization of the creek profile would return it to a more environmentally sustainable profile that allow it to contribute to the surrounding ecosystems. Partnership with the CVC is recommended to design and implement the naturalization of the creek.

Picnic Areas - East side

Formal and informal picnic areas are recommended on the east side of the Fusion property. The implementation of these areas should occur at such a time that the lakeside picnic areas are determined to be over capacity.

Children's Play Area - East side

A children's play area is recommended on the east side of the Fusion property. The implementation of this area should be coordinated with the previously discussed picnic areas.

Interpretation Areas

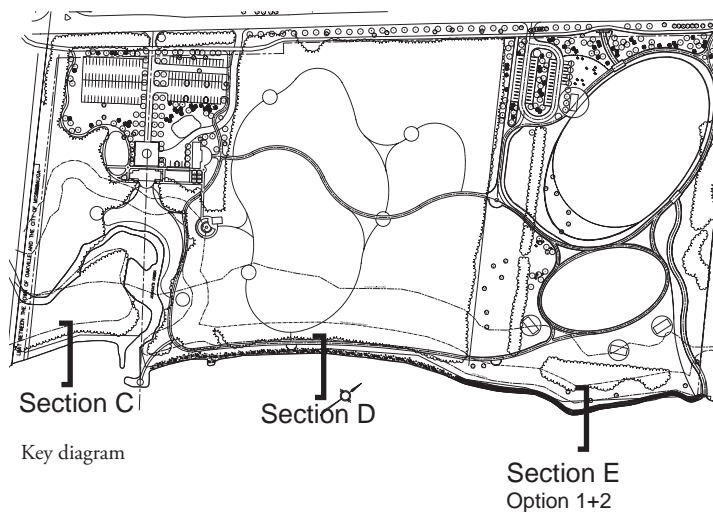
Various interpretation areas should be provided based on themes of forest ecosystems, migratory birds, wildlife interpretation, shoreline interpretation, history and heritage and reforestation.

5.6.3.3 Shoreline

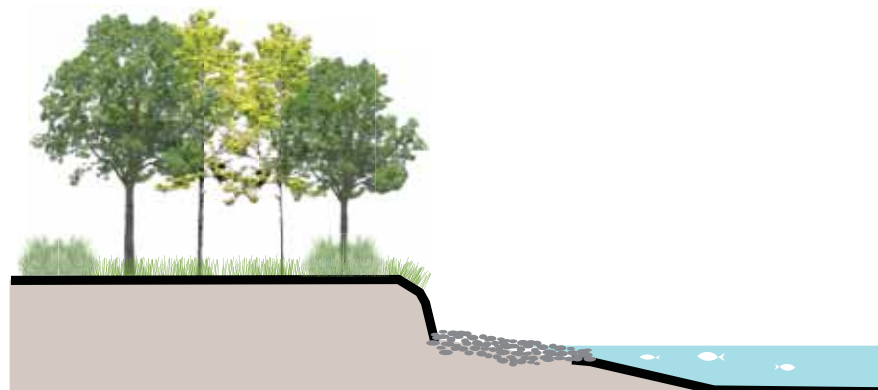
Three different shoreline sections are proposed as indicated in the following sections. Section E has two recommended profiles for the City's consideration.



The fusion property shoreline has two distinct edge conditions including the bluff at the mouth of the Joshua Creek (Section C) and the sensitive cobble beach (shown above) (Section D and E).



Section C. Fusion Park at Western Edge of Park



The shoreline on the west side of Joshua Creek is eroding till bluff and is starved of sediment and this has likely contributed to the erosion problem, though erosion of till bluffs along the Great Lakes shorelines is a natural process. (Baird + Associates, March 2006)

Recommendations for section C - Fusion Park:

- Determine the rate and nature of erosion
- Determine method of stabilizing shoreline
- Allow for natural and enhanced re-vegetation of bank and backshore to provide natural stability,
- Shoreline protection to promote fish habitat
- Develop interpretive and educational feature to view from a distance, themed on shoreline and erosion education

Section D. Fusion Park at Existing Cobble Beach

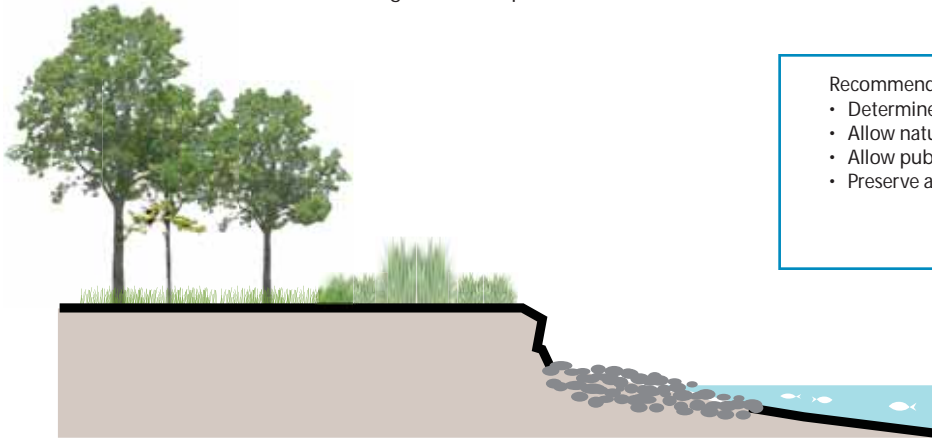


The shoreline is largely low lying with vegetated, undeveloped backshore fronted by a cobble beach. (Baird + Associates, March 2006)

Recommendations for section D - Fusion Park:

- Preserve and enhance natural vegetation adjacent to shoreline to boost upper bank stabilization
- Monitor bank condition
- Allow access to lake only through areas that are stable

Section E. Fusion Park at Eastern Edge of Park - Option 1



Recommendations for section E, Option 1 - Fusion Park:

- Determine the rate and nature of erosion
- Allow nature to take its course and let bluff formation continue to recede
- Allow public access to top of bank, setback to a point deemed stable and safe
- Preserve and enhance natural vegetation adjacent to top of bank to boost table land stabilization

The shoreline at the east end of the site is eroding till bluff. This shoreline has been partially protected with dumped armourstone. Although the armourstone has decreased the rate of erosion, it is not an engineered structure and remediation is required to protect the shoreline. If left unprotected, the eroding shoreline will naturally continue to erode. (Baird + Associates, March 2006)

Section E. Fusion Park at Eastern Edge of Park - Option 2



Recommendations for section E, Option 2 - Fusion Park:

- Determine the rate and nature of erosion
- Determine preferred method of stabilization
- Armour shoreline for protection
- Preserve and enhance natural vegetation adjacent to top of bank to boost table land stabilization



6.0 Implementation

- Key Parks Implementation 6.1
- Acquisitions and Easements for Future Park Lands Expansion 6.2
- Walkways, Trails and Path Systems 6.3
- Structures 6.4
- Stakeholder Roles 6.5
- Marketing and Commercial Opportunities 6.6
- Park Maintenance and Management 6.7
- Implementation Phasing and Costing 6.8
- Approvals and Coordination 6.9
- Potential Future Studies 6.10

6.1 Priority Parks Implementation

6.1.1 Design Check List

The following Design Checklist was compiled as a guideline for assessing each new park development activity. The Checklist is based on the Waterfront Parks system and park design strategies outlined in detail in section 4.0 of this document. The checklist is designed to 'kick-start' implementation by providing a way to measure how the park development integrates with the Strategy. As this entire document is considered to be a 'living document', in that it will be reviewed and revised as needed every five years, the design checklist will be revised appropriately so that it can always function as a useful evaluation tool.

Mississauga Waterfront Parks Strategy

Park Development Design Checklist

10.17.2007

No.	Waterfront Parks Strategies	Achieves Strategy	Partially Achieves Strategy	Does Not Achieve Strategy	Does not Apply
4.1	Connectivity				
4.1.1	Emotional				
4.1.2	Physical and Visual				
	<i>Land and Water</i>				
	<i>Land Ownership</i>				
	<i>Land ownership Opportunities</i>				
4.1.3	Natural				
4.2	Identity				
4.2.1	Waterfront Park System Identity				
4.2.2	Types of Waterfront Parks				
4.3	Sustainability				
4.3.1	The Environment and Park Development				
4.3.2	Community Self Reliance				
4.4	Shorelines				
4.4.1	Continuity				
	<i>Public Access</i>				
	<i>Natural Corridors</i>				
4.4.2	Access to the Lake				
	<i>Physical Access</i>				
	<i>Visual Access</i>				
4.4.3	Aquatic Habitat and Fisheries Buffer				
	<i>Habitat</i>				
	<i>Fisheries Buffer</i>				
4.4.4	Terrestrial Habitat				
4.4.5	Shoreline Related Hazards				
	<i>Flood Hazard Limit</i>				
	<i>Erosion Hazard Limit</i>				
	<i>Dynamic Beach</i>				
	<i>Regional Storm Floodplain</i>				
4.4.6	Natural Shoreline Restoration				

No.	Waterfront Parks Strategies	Achieves Strategy	Partially Achieves Strategy	Does Not Achieve Strategy	Does not Apply
4.5	Transportation				
4.5.1	Connectivity				
4.5.2	Access				
4.5.3	Walkability				
4.5.4	Alternate Transit Opportunities				
4.5.5	Bicycles				
4.5.6	Internal Park Roads and Parking Layout				
4.6	Parking				
4.6.1	Motor Vehicle Parking				
	<i>Philosophy - the Future of Parking</i>				
	<i>New and Redeveloped Parking</i>				
	<i>Designated Parking</i>				
	<i>Flexible Capacity</i>				
	<i>Paving Materials</i>				
4.6.2	Associated Parking Elements				
	<i>Waiting Areas</i>				
	<i>Signage</i>				
	<i>Planting</i>				
	<i>Lighting and Security</i>				
	<i>Aisles and Internal Pedestrian Network</i>				
4.7	Heritage				
	Natural and Cultural Heritage				
4.8	Signage				
4.8.1	Signage Design				
4.8.2	City Signage				
	<i>Welcome Signage</i>				
	<i>Roadway Signage</i>				
4.8.3	Park Signage				
	<i>Major Orientation Signage</i>				
	<i>Minor Orientation</i>				
	<i>Interpretive Signage</i>				
4.9	Environmental Design				
4.9.1	Definition of Sustainable Park Development				
4.9.2	Relevance				
4.9.3	Implementation				
4.9.4	Public Realm Principles				
4.9.5	Sustainable Master Plan Principles				
4.9.6	Costs and Incentive Programs				
4.10	Circulation				
4.10.1	Street Networks				
	<i>North South Streets</i>				
	<i>Lakeshore Road</i>				
4.10.2	Internal Park Circulation				
	<i>Circulation Design</i>				

No.	Waterfront Parks Strategies	Achieves Strategy	Partially Achieves Strategy	Does Not Achieve Strategy	Does not Apply
	<i>Waterfront Trail</i>				
	<i>Multi-Use Recreational Trail</i>				
	<i>Looped and Connector Trail</i>				
	<i>Nature Trails</i>				
	<i>Boardwalks</i>				
	<i>Emergency and Servicing Vehicles, Picnic Access</i>				
	<i>Steps, Stairs and Ramps</i>				
4.11	Water Access				
4.11.1	General Recommendations				
	<i>Boating Access</i>				
	<i>Swimming and Wading</i>				
	<i>Fishing</i>				
	<i>Water Access Conflicts</i>				
4.12	Waterfront Activities & Facilities				
	Incorporates Appropriate Activities and Facilities				
4.13	Education				
4.13.1	Respect for the Environment				
4.13.2	Interpretive Elements				
4.13.3	Programming Opportunities				
4.13.4	Public & Private Partnerships				
4.14	Seasonal Use				
4.14.1	Wind Protection				
4.14.2	Warming Stations				
4.14.3	Snow and Ice Removal				
4.14.4	Park Uses and Events				
4.15	Landscaping				
4.15.1	Naturalization				
4.15.2	Sustainable Landscaping				
4.15.3	Ornamental Planting				
4.15.4	Seasonality				
4.15.5	Interpretive Planting				
4.15.6	Tree Planting				
4.15.7	Lawn Areas				
4.15.8	Grade Changes				
4.15.9	Maintenance				
4.16	Building and Structures				
4.16.1	Green Buildings and Site Design				
4.16.2	Seasonal Structures				
4.16.3	Year Round Structures				
4.16.4	Shade and Open Air Structures				

No.	Waterfront Parks Strategies	Achieves Strategy	Partially Achieves Strategy	Does Not Achieve Strategy	Does not Apply
4.17	Park Design Amenities				
4.17.1	Benches and Seating				
4.17.2	Picnic Areas				
	<i>Large Formal Picnic Areas</i>				
	<i>Individual Picnic Areas</i>				
	<i>BBQ's and Grills</i>				
	<i>Associated Amenities</i>				
4.17.3	Litter and Recycling				
4.17.4	Bicycle Storage				
4.17.5	Drinking Fountains and Other Water Services				
4.17.6	Bollards and Barriers				
4.17.7	Telephones and Emergency Beacons				
4.17.8	Banners, Flags and Posters				
4.17.9	Lighting				
4.17.10	Public Art				
4.17.11	Off Leash Area Amenities				
4.18	Service Infrastructure				
	Sustainable Site Design				
4.19	Accessibility				
	Promotes Universal Design				
	Conformance to Accessibility Design Handbook				
		Achieves Strategy	Partially Achieves Strategy	Does Not Achieve Strategy	Does not Apply
Project Summary					

6.2 Waterfront Parks / Open Space Land Securement Plan

6.2.1 Criteria for Park Land Expansion

Outlined in the list below are the draft Park Land Expansion Criteria for the Waterfront Parks and Open Spaces. These criteria are intended to provide direction to City Staff and City Council as to the expansion priorities for the existing Waterfront Parks and Open Space Networks. Established criteria will enable the City to act efficiently and appropriately as park expansion opportunities arise.

1. To improve continuous public shoreline access
2. To expand recreational activities
3. To provide needed support facilities
4. To improve views and 'windows' on the Lake
5. To protect sensitive and /or natural features
6. To expand natural features and systems
7. To protect and explore cultural heritage elements
8. To provide important east/west and north/south connections

Methods of securing additional park lands could include public private partnerships, land easements, access agreements, land acquisition, land conveyances and/or protection agreements. Parks are not recommended to be expanded through land expropriation.

6.2.2 Methods of Park Area Expansion

The City of Mississauga has many potential methods of expanding the land area of the Waterfront Parks. Some of these methods include outright conveyance, ownership, property easements, use or stewardship agreements, public-private partnerships and public-public partnerships. Whenever development occurs along the waterfront the City should take steps to secure public park space adjacent to the water through redevelopment applications.

6.2.3 Land Use and Ownership Agreements

There are opportunities for the City of Mississauga to work together with other park land owners to achieve mutual land acquisition goals on the waterfront. Amendments to existing ownership agreements, partnerships, land exchanges, acquisition and the establishment of right of ways or leases are all ways in which the City could maintain or achieve expanded connectivity along the waterfront.



Considered views to the water and surrounding landscape helps to frame parks.



Close proximity to the water with a continuous trail or path reinforces the waterfront park identity.



When expanding park areas a priority is placed on creating trails along the water's edge.



Access to break waters and pier will have to be determined on a case by case basis.



New park structures should frame not block waterfront views and can provide opportunities for new park programming and commercial/public uses.

6.3 Walkways, Trails and Path Systems

A priority in the Waterfront Parks Strategy is to achieve a connected and continuous waterfront. The first step to realizing the long term goal of a continuous waterfront trail system is to connect the existing streets, trails and walkways that make up the current waterfront system. By identifying the trail through the installation of signage along streets where direct waterfront access is not available, the city has begun this process but additional wayfinding is required. In addition to the signage, integrated landscape and hardscape methods of visual connection could also be introduced. Some examples of these methods include inlaid markers, coordinated planting or a waterfront trail lighting standard.

6.4 Structures

The integration of new buildings, weather protecting structures and viewing promontories in the priority park plan is important to the implementation of this Waterfront Parks Strategy. These types of structures help to highlight the individual nature of each park and extend their use throughout all seasons. New structures must be carefully reviewed to minimize conflicts with the natural environment and where necessary, natural compensation areas should be provided when conflict cannot be avoided. Wherever possible, structures and building should be located outside of the natural hazard areas, if this is unavoidable, steps must be taken by the City to coordinate with the regulating authorities to make the necessary reparations.

6.5 Stakeholder Roles

Throughout the development of this Waterfront Parks Strategy, internal and external stakeholders have played an important role in shaping the guiding principles and the Strategy's key areas of concentration. Future work based on the recommendations of all contributing stakeholders should ensure that the implementation process reflects the desired outcomes.

6.6 Marketing / Commercial Opportunities

The public and community stakeholders recommended that marketing and commercial opportunities within the parks should not be undertaken at the expense of park elements and qualities that are cherished by the community. These qualities include preservation of the Waterfront Parks, a fully accessible waterfront, flexible green space and a park first vision for Mississauga's waterfront.

When the City considers the marketing and commercial opportunities available to them, such as sponsorship or provision commercial spaces within parks areas, they must be assured that these endeavors do not undermine or interfere with the primary park programming use assigned for each park area. The City can and should pursue potential sponsorship partnerships to help achieve the designated park themes and visions identified in the Waterfront Parks Strategy for each of the priority parks. Any identification of corporate sponsorship must be incorporated into an educational or public art installation and must not interfere or detract from the park experience.

6.7 Park Maintenance and Management

6.7.1 Park Management Strategy

Mississauga's Waterfront Parks, by virtue of their location represent a significant city-wide resource. Given this, these parks should be managed in a manner consistent with the City's "Placemaking" initiative. This will require a management structure geared toward implementation of parks programming and events, and active community engagement. Management resources and expertise will need to be devoted to working with community groups, businesses, schools, and other stakeholders to develop activities, amenities and programs that meet community needs. Management will need to focus on community building, programming, partnerships, alternate sources of funding, communication and promotion in addition to the more traditional role of parks maintenance.

The Waterfront Parks should be managed based on the philosophy of "putting people in parks". This will ensure that these parks are vibrant, attractive places that help build communities and help Mississauga to meet its goal of being a healthy city. As such, there should be a unified management structure for all parks south of Lakeshore Road that will ensure the cleanliness and safety of the waterfront park elements.

6.7.2 Park Maintenance

The City of Mississauga currently allocates a standard cost per acres for park maintenance. This Waterfront Parks Strategy recognizes that community parks along the waterfront require a higher per acre maintenance cost than the City's other non Waterfront Parks. This higher cost is associated with achieving a world class waterfront park system which include high quality, durable park furnishings, additional landscaping and planting, maintenance for increased waterfront activities, higher costs for winter maintenance and the introduction of a system wide integrated education and public art program.

6.7.3 By-Laws

By-Laws are used to provide guidance towards appropriate activities for and within the Waterfront Parks. It is important that these by-laws are clearly displayed in a legible and easily comprehended manner. Steps should be taken by the City to ensure that park by-law displays are integrated into the proposed park signage to eliminate unnecessary signage clutter. This method was used for St. Lawrence Park and Port Credit Memorial Park. Public Art installations that demonstrate the activities allowed in the parks areas are a method of showing what activities are available in each park without resorting to additional signage.

6.7.4 Wildlife Management

Wildlife within public parks is typically managed by Environment Canada and the Canadian Wildlife Service. It is unlawful to kill, sell, hunt, disturb nests and immature animals unless permitted by Environment Canada.

Although many forms of wildlife that find their way into the park systems are not destructive, there are animals that do affect the environment in a negative way. Geese, deer, seagulls, raccoons and skunks, to name a few, do affect the public park environment to an extent that wildlife management may become necessary. Any of the following criteria can result in the requirement to manage wildlife within the Waterfront Parks:

- Public safety is compromised
- Public health is compromised
- Eco-system becomes unbalanced
- Park maintenance is impeded
- Access to the parks are impeded
- Fisheries require restocking

In Mississauga, the Waterfront Parks are particularly affected by geese. Two methods of management for geese encouraged in this document, include public education and habitat modification. Habitat modification is simply the application of design elements that will deter geese from landing, emerging from the water, nesting and foraging. The Strategy encourages the use of habitat modification as it has greater long term effects.



Throughout the implementation process public art should be considered as a means to make the ordinary extraordinary.

Examples of Habitat Modification:

- Increase mowing heights in lawn areas
- Reduce / eliminate irrigation and fertilizing
- Utilize unpalatable plant species
- Install barrier shrubs and tall grasses at shoreline
- Reduce manicured lawn areas adjacent to the shoreline
- Keep open lawn areas small with dimensions under 75m
- Utilize rough, tumbled shoreline treatments to discourage geese from emerging from the water
- Maintain a 0.75m difference between the water level and solid ground (if possible)
- Utilize tall grasses and shrubs in the lowland and upland riparian zones
- Use barrier fencing or netting around newly installed plugs and other planting

Examples of Public Education:

- Encourage the public to NOT feed the wildlife
- Provide habitat modification information to home owners along the shoreline, assist in installation

The City of Mississauga should employ private and public partnerships to help balance wildlife habitats and human occupation in the Waterfront Parks.

6.7.5 *Water Quality Management*

Water quality in Lake Ontario, the Credit River and the many stream and creeks that make up the waterfront system is essential to the health and vibrancy of Mississauga's Waterfront Parks. Through regular monitoring and the prioritization of good water quality throughout the implementation of the Waterfront Parks Strategy, Mississauga will be even closer to the goal of a clean and green Waterfront Parks system.

6.8 Implementation Phasing and Costing

Implementation of Waterfront Park System Strategies will depend on the following principles:

- The order of development for the Priority Parks should proceed in order of greatest community need.
- Structural or servicing requirements (i.e. shoreline stabilization, soil remediation) should be given priority to ensure long-term viability of the park land as a whole. For example, installation of servicing and shoreline works should be done prior to the program elements and plantings.
- Scheduling of park redevelopment should take into consideration waterfront use, legal regulations, availability of material and weather conditions. For example, shoreline works could be performed during the winter months but will be dependant on ice and fish spawning season restrictions.
- Development should be balanced throughout the length of the Waterfront System. Improvements should be evenly distributed throughout, but should be in keeping with the Waterfront Parks Strategy and benefit the majority of users.
- Alleviating operating issues such as emergency access, pedestrian access, security lighting and emergency call stations are examples of works that must be undertaken to ensure the safety and comfort of all waterfront users.
- Development is dependent on the availability of funding from the City and funding partners. Projects that are cost shared or fully funded by groups will be considered if they respect the Waterfront Parks Strategy and the appropriate infrastructure is in place. Availability of specific types of funding may mean that certain aspects of the Waterfront Parks Strategy will advance ahead of their anticipated priority.
- Development of the proposed park buildings with complimentary revenue generating facilities (e.g. J.C. Saddington Park Restaurant or the Lakeview Park Comfort Building) would assist in recovery of capital and maintenance costs and assist in the promotion, usage and marketability of the waterfront. For these reasons they should be considered an implementation priority.



Selections of planting material for the priority parks should focus on minimal maintenance requirements but strive for maximum high quality visual impact.



The City should look for innovating ways to demonstrate appropriate park activities.

6.8.1 Phase 1 (0-5 years)

The first phase of the implementation of the Waterfront Parks Strategy should concentrate on developing a community culture that is indicative of a Waterfront City. Key implementation steps that should be undertaken in the 5 years following the approval of this plan include:

1. Waterfront Trail Improvements

- Develop a common language and implement an interpretative waterfront trail marker for all segments including trails, pathways and streets. Introduce distance measuring tools within the markers for joggers, cyclists and pedestrian.

2. Shoreline Improvements

- A detailed maintenance evaluation based on the Baird Review of the existing shoreline should be undertaken to identify a priority of necessary shoreline improvements. This improvement plan should be coordinated with the priority park implementation.

3. Park System Connections

- Transit service should be widely promoted prior to any changes or improvements that would impact on accessing Waterfront Parks. Transit should continue monitoring passenger activities and feedback to examine the feasibility of providing a dedicated waterfront route to respond to the potential increase in transit usage by park users.
- Bike racks should be located at entrances and facility locations throughout all the Waterfront Parks. The racks should be located in highly visible areas near park destination locations.
- The loss of park area to parking lots should be minimized wherever possible. Steps should be taken to secure parking locations outside of the parks.
- Safe north-south cycling connections should be further investigated to encourage cycling as an alternative to driving to the Waterfront Parks.

4. Coordinated Waterfront Signage Plan

- The City of Mississauga is a waterfront community. With over 22 km of shoreline the waterfront should be one of the City's defining characteristics. An integrated signage plan for the Waterfront Parks will help to build awareness of the entire waterfront.



The timing of park programming changes and priority park redevelopment will need to be coordinated with peak use periods.

5. Priority Parks Implementation

- A process to finalize the detailed design for Lakeside Park should begin following the approval of this Waterfront Parks Strategy. The park is anticipated to be operational within the next 5 years.
- The remaining priority park implementation should be based on community need and available resources.

6. Sustainability

- The City should pursue public and private partnerships to educate the public on environmental sustainability and introduce a minimum of one sustainable education installation into each of the park areas.

7. Management Plan

- A best practices management plan for the Waterfront Parks should be developed and implemented.
- A coordinated strategy of creating a sustainable park identity and developing a world class series of Waterfront Parks could be a central theme of the management plan.
- The management plan should concentrate on developing strategies to minimize park maintenance requirement while maximizing the impacts of proposed planting areas.
- Developing a sustainable park management and maintenance strategy is essential for the long-term viability of the parks.

8. Strategy Coordination

- Recommendations from the Waterfront Parks Strategy should be coordinated with relevant city policies and policy documents including the City's Official Plan, The Future Directions Document and all upcoming park related documents.
- The Mississauga Waterfront Parks Strategy should be consulted for all waterfront park design and improvements.



Heritage features such as the Credit River Railway Trestle should be identified through a coordinated park signage plan.



The balance between sustainable shorelines for people, plant life, wildlife and water life must be constantly revisited to ensure a long-term and viable future for the Waterfront Parks.

6.8.2 Phase 2 (5-10 years)

1. Park System Connections

- A dedicated waterfront bus may be considered based on an evaluation of the 2011-2012 ridership numbers. If ridership is lower than anticipated, steps should be taken to introduce more people to this sustainable transit option.
- Simultaneously to the expansion of the transit service to the Waterfront Parks, the amount of surface parking within the parks should be reduced and the park lands expanded. Alternative parking solutions such as multi-use parking garages (i.e. retail at grade) should be considered at key locations.
- Safe north-south cycling connections should be implemented to encourage cycling as an alternative to driving to the Waterfront Parks.

2. Coordinated Mississauga Parks Signage Plan

- A coordinated Mississauga Park Signage Plan should be undertaken and implemented. The signage should concentrate on first identifying the specific park and its programming and then other parks with similar programming and lastly a summary of the entire Mississauga Parks System, highlighting the Waterfront Parks.

3. Priority Parks Implementation

- Programming and site plan recommendation for the priority park concept plans should be reviewed and updated as required and should reflect the needs of the community.
- The recommended waterfront systems strategies should be consulted for all waterfront park design and improvements.

4. Sustainability

- The City of Mississauga should make a firm commitment towards fully sustainable practices within the Waterfront Parks, including green surface parking lots, bio-filtration for storm water runoff, efficient energy sources, low impact



Shoreline improvement require approvals from the Credit Valley Conservation Authority.

naturalized areas and water efficient plantings.

- The City should monitor and review the current practices and technologies in sustainability to ensure that the methods used in the Waterfront Parks remains advanced and recognizes future sustainable technology advancements.

6.8.3 Phase 3 (10-25 years and beyond)

1. Creating Car Free Parks

- Expansion to the dedicated waterfront bus should be considered based on an evaluation of the 2011-2012 ridership numbers. If ridership is lower than anticipated steps should be taken, such as fare and schedule incentives, to introduce more people to this sustainable transit option.

2. Priority Parks Implementation

- Key design strategies from the concepts plans for the priority parks should be implemented throughout all the Waterfront Parks. See section 4.0 for the overall systems strategies.

3. Waterfront Parks Strategy Update

- As the Waterfront Parks Strategy is implemented many of its recommendation will become common practice. As this occurs it is essential that these achievements are highlighted. It is also essential that the Waterfront Parks Strategy be revisited and revised to ensure that all recommended practices are appropriate and relevant for the Waterfront.

6.9 Approvals and Coordination

The following section provides an overview of the necessary approvals and coordination that will be required to implement the Waterfront Parks Strategy. Designs that effect change to the shoreline, river banks and adjacent sensitive lands may require special permits from conservation authorities for specific projects and may also be subject to a formal Environmental Assessment. In addition, the normal municipal approval process must also be followed.

In order to coordinate the various approvals it is important that all stakeholders including the Planning and Building Department, the Credit Valley Conservation Authority (CVC) or other relevant conservation authorities and the Ministry of the Environment are engaged early in the process.

6.9.1 Conservation Authorities

The Credit Valley Conservation Authority (CVC) regulates development in environmentally sensitive areas in most of Mississauga including the waterfront and the Credit River Valley. Conservation Halton is responsible for lands adjacent to Joshua's Creek and the Toronto Region Conservation Authority also regulates the sensitive lands along the Mississauga-Toronto border.

Of the 24 parks that define the Lake Ontario shoreline, CVC owns title to or has lease-hold



Environmental Assessments (EA) processes can be triggered by any number of park improvement processes including park upgrades or projects that impact wildlife habitats.

interest in eight. These include Lakefront Promenade Park, A.E. Crooks Park, R.K. McMillan Park, Adamson Estate, J.C. Saddington Park, Rattray Marsh, Watersedge, and Lakeside. With the exception of Rattray Marsh, all of these properties are leased or sub-leased to the City for parks and conservation purposes.

As per lease and sub-lease agreements, redesign or improvement to existing infrastructure, as well as development and implementation of new infrastructure requires approvals from the appropriate public agency, including: Credit Valley Conservation (CVC), the Ministry of Natural Resources (MNR), the Ministry of Environment (MOE) and the Department of Fisheries and Oceans.

Shoreline modifications, regrading, placing of fill and construction of buildings in sensitive areas requires a special permit from the appropriate or relevant conservation authority. Circulation of park development plans to conservation authorities is also necessary for Official Plan and Zoning amendments, and other planning applications such as subdivision, condominium and site plans. The authorities review proposals for potential impacts on control of flooding, erosion, dynamic beaches, pollution and land conservation.

Conservation Authority staff review plans and typically conducts site visit. Discussions are also held with applicants to obtain additional information and/or recommend design changes. The Conservation Authority Board of Directors may approve, conditionally approve or deny development applications. Alternatively, if the staff review indicates non-support for a proposal, the applicant can request the decision be referred to the Conservation Authority's Hearing Committee. Final decisions may be appealed to the Minister of Natural Resources.

If a project will potentially alter, disrupt or destroy a fish habitat, the federal Department of Fisheries and Oceans (DFO) must also provide its approval. However the Conservation Authorities have an arrangement with DFO whereby applications are processed DFO's behalf to either:

- Advise on ways to avoid or mitigate impacts on fish habitats; or
- Specify a compensation package in respect of damage to fish habitats.

Only if a compensation package is necessary should direct approval from DFO be obtained.

6.9.2 *Environmental Assessments*

The Environmental Assessment Act requires all public undertakings which affect the environment to undergo a formal Environmental Assessment (EA), unless specifically exempted by Regulations or Ministerial Order. The word “environment” is broadly defined to encompass ecological, social, economic and cultural factors.

The EA process consists of a rational analysis of proposed projects, called “undertakings”, which includes:

- A clear description of the project purpose and rationale;
- An definition of the affected environment, potential environmental effects and likely actions needed to mitigate the effects;
- Identification of preferred and alternative undertakings, as well as alternative methods of carrying out each of the possible undertakings;
- An evaluation of advantages and disadvantages of the alternatives; and
- Thorough documentation of the public, stakeholder and expert consultations.

Two approvals from the Ministry of the Environment are required:

first for the EA Terms of Reference; and second for the EA itself. Public notice and consultation is required at each of the approval stages. Approval of the Terms of Reference must be given by the Minister before most subsequent work on the EA can begin.

Final approval of the EA rests with the Environment Minister and other Ministers the Cabinet may designate. The decision may be an outright approval, a conditional approval or a denial. Alternatively, the decision could be referred to a Tribunal. In any case, a decision by the Tribunal could be modified or overruled by the Minister.

Some undertakings are exempted by Regulation 390/01 to the Act from requiring an EA. These include:

- Undertakings valued less than \$3.5 million;
- Research comprising measuring, monitoring and testing;
- Some works undertaken by a Conservation Authority; and
- Undertakings by a municipality which are addressed by a “Municipal Class Environmental Assessment”

A Municipal Class Environmental Assessment typically covers road, water and wastewater projects that recur, are similar in nature, have predictable environmental effects, and are responsive to mitigating measures. The City of Mississauga should obtain detailed criteria for the applicability of Municipal Class Environmental Assessments from the Municipal Engineers Association, and review each specific waterfront park project to determine whether a Municipal Class EA can be used.

The City of Mississauga should also consider the pursuit of a



City of Mississauga Municipal Approvals process as outlined in the City of Mississauga’s “Get Involved with the Planning Process” brochure.

ministerial exemption from the EA requirement. Similar exemptions have been sought and received by the Toronto Waterfront Revitalization Corporation for the redevelopment of Waterfront Parks in that city.

6.9.3 *Municipal Approvals*

The usual planning and building approval process must be followed to implement aspects of the Waterfront Parks Strategy, such as changes to parkland categories in the Official Plan, rezoning necessary to accommodate new or renovated park buildings and approval of detailed site plans. Similarly, building permits are required for all construction projects.

Due process for Official Plan and Zoning amendments include a formal Public Meeting as per the Planning Act and adoption by Council. An informal Community Meeting may also be held prior to the statutory Public Meeting to give stakeholders and the public more time to comment. The statutory Public Meeting is typically held during a scheduled Planning and Development Committee meeting. At that time, the Committee may support, amend or defer the issue to a later meeting. The matter then proceeds to the full City Council. Council's final decision may be appealed to the Ontario Municipal Board.

Site Plan Approval may be required for institutional or commercial projects. This step is usually administrative in nature – and does not need Council's approval. A coordinator is assigned to each Site Plan Application who decides which departments must be on the circulation list for plans. Each department will review and comment on the site plan. The proponent is then expected to address the comments and resubmit revised plans. If satisfactory, approval is granted which allows the proponent to seek a building permit.

Once all the previous steps are completed the proponent (the City of Mississauga) may submit plans to the Building Division. If the plans submitted do not omit any necessary elements and are stamped by a certified architect or engineer, then the application must be processed within a time frame specified by the Building Code Act.

6.10 Potential Future Studies

Throughout the development the Waterfront Parks Strategy a series of future studies have been identified. These studies will potentially aid in the implementation of the system strategies. The requirement, scope and budget for the studies will be reviewed by the relevant City Departments on an annual basis during the capital budget process. These studies include:

Costal Engineering

- Park 389 (Fusion) – Evaluate erosion rates for west, central and east shorelines using historical air photo analysis and review of erosion monitoring data.
- Park 389 (Fusion) – If a decision is made to protect either the east or west eroding shorelines, a coastal engineering study will be required to evaluate alternatives and develop a final design.
- Lakeside Park - Evaluate erosion rates using historical air photo analysis and review of erosion monitoring data.
- Lakeside Park – If a decision is made to protect the shoreline, a coastal engineering study will be required to evaluate alternatives and develop a final design.
- J.C. Saddington - A coastal engineering study is recommended to fully investigate and evaluate shore protection alternatives. The determination of setbacks for pathways, considering wave uprush and other hazards should be included in the study.
- J.C. Saddington - A coastal engineering study would be required to fully evaluate and develop an alternative for beach access at the northeast corner of the park, considering beach stability, beach retaining structures, beach material size, etc.
- Marina Park – A coastal engineering study is required to evaluate alternative locations and develop designs for a new boat launch, should the existing launch be moved.
- Port Credit Memorial Park West Side – A coastal engineering study would be required to develop shore protection alternatives and final designs.
- Pedestrian Connection between Marina Park and Memorial Park West - under-bridge option to be explored
- Pedestrian Connection between J.C. Saddington and Marina Park

(Rivergate Walk) - A coastal engineering study would be required to develop access alternatives and final designs. Depending on the solution, CEAA may be triggered.

- Port Credit Harbour Dredging - An evaluation of river processes, review of dredging records and bathymetry data and cost benefit analysis would be required to answer questions regarding the value of the ongoing maintenance dredging program, functional and environmental issues related to dredging, the natural evolution of the Credit River channel and other related issues.
- Lakefront Promenade Harbour Study - water in the basin now freezes, changed environmental factors, explore partnerships with harbour partners to evaluate expansion of operations and land requirements.

Planning

- Mississauga Plan Review for Waterfront Parks Land Use Policies and Designation

Urban and Park Design

- Waterfront Park Comprehensive Signage Strategy
- Public Art Implementation Plan - to guide choice, placement and theme
- Sponsorship Study for Waterfront Park Elements
- Park Management Model Study - to make recommendations regarding costs and operation techniques based on an examination of international precedent parks
- Special Events Strategy
- Park Winterization Strategy - identifies priority areas for winterization including costs and implementation
- Park Lighting Policy
- Waterfront Parks North / South Street Greening
- Adaptive Reuse of Existing Waterfront Park Buildings
- Port Credit Community Parking Strategy
- Commercial and Small Scale Retail Study for Marina Park and JC Saddington Park
- Detail Design Plan for Lakeside Park
- Detail Design Plan for the Fusion Property
- Expression of Interest for Existing Building on the Fusion Property
- Detail Design Plan for J.C. Saddington Park
- Detail Design Plan for Marina Park
- Detail Design Plan for Port Credit Memorial Park West

Natural Environment

- Lake Ontario Shoreline Strategy
- Landscape Scale Analysis of the Lake Ontario Watersheds
- Lake Ontario Shoreline Strategy

- Landscape Scale Analysis of the Lake Ontario Watersheds
- Urban Terrestrial Ecosystem Enhancement Model (Urban TEEM)
- Credit River Water Management Strategy Update
- Mississauga Water Quality Strategy Update
- Watershed and Subwatershed Studies
- Rattray Marsh Restoration Strategy
- Park Management Plans
- Environmental Assessments if required
- Required technical documents to be submitted in support of proposed park development.
- Comprehensive Aquatic Habitat Assessment

Traffic Engineering

- Future Transit Needs Study - focus on Waterfront Parks, includes costs and implementation recommendations
- Traffic study for the introduction of a pedestrian crossing on Lakeshore Drive from Marina Park to Port Credit Memorial Park West.
- Traffic study examining the long term feasibility of High Occupancy Vehicle (HOV) lanes on Lakeshore and a dedicate cycling lane.
- A functional design study to determine the location of bus stops, bus bays, possible traffic signal installation and other road/transit features to support and encourage related pedestrian and transit activities at Marina and Memorial Parks.
- An information and signage study could be initiated. This study would identify the information and directional signage to identify the parks along Lakeshore Road. This signage plan could also tie into the transit supportive initiatives, bike trail and lane network.
- An operational study to determine the operating costs and benefits of introducing a new Lakeshore transit route. The study could investigate benefits to businesses and solicit their participation in offsetting costs.
- A functional design study of Fusion and Lakeside Parks to finalize the bus stop locations, pedestrian crossings and traffic signal design plans.
- Review of traffic speeds along Lakeshore Road West, adjacent to Lakeside Park and Park 389.

Geo-technical Studies

- Geo-technical review of priority parks at key locations to be determined in the detailed design process.

Site Servicing

- Each of the priority park detail design processes will require functional design study for site servicing.