

5.0 MASTER PLAN

The Master Plan is shown on Figure 8. This Section describes proposed projects on a Ward by Ward basis. These projects are either City of Hamilton sponsored or co-sponsored projects with Hamilton's trail partners.

Other trails projects may be initiated by Hamilton's trail partners (i.e. Royal Botanical Gardens, Hamilton Conservation Authority, Bruce Trail Association and the TransCanada Trail) and added to the trail system at a latter time without amendment of this Master Plan.

Where projects require additional analysis, either by way of transportation demand and design analysis or through separate analysis by Hamilton's trail partners, proposed projects are recommended for consideration and formal approvals upon completion of this analysis.

5.1 FIELDWORK METHODOLOGY

Fieldwork for the Hamilton Recreational Trails Master Plan was completed over two large time periods, Phase 1 of the Study (Wards 1-8) and Phase 2 (Wards 9-15). This fieldwork was completed over many days between April and September 2002 (Phase 1) and in June 2005 (Phase 2). This work was undertaken by Plant Ecologist Dan Gregory and Landscape Architect Glenn A. O'Connor of G. O'Connor Consultants Inc.

To assist in reviewing each site, available mapping and Hamilton Bikeways, Trails and Parks Map were obtained from the City of Hamilton together with other available aerial photographs.

Fieldwork was straight forward and consisted of qualitative written notes and observations, noting existing trail or route conditions, features and photographing all sites with either a S.L.R. or digital camera using a 50 mm equivalent lens. All sites were visited either on foot, by mountain bike or by car or combination of each for efficiency purposes. Distances were recorded using the digital bike trip odometer to the nearest 10 m. Prior to commencing the fieldwork, a draft data sheet was developed by the Consultants based upon available data, desired data required by the City of Hamilton, related information and experience of the Consultants.

The data sheet style, format and content were refined during Phase 2 work and are similar to work completed by the same Consultants for the Waterfalls and Cascades of Hamilton study (April 2006). Given the relationship of these two study initiatives, the ability to relate data was advantageous to both projects and generated better data sheets to allow for future integration.

The data sheets and photographs are contained in the report. All fieldwork notes and site photographs are located in the appendices of the complete document (Appendices 1-4).

Once all data had been recorded in draft, all field notes and data were transferred into electronic format. Data sheets were filled out and a Microsoft Access "database" was created to allow transfer to City staff for future integration and G.I.S. work.

Mapping was updated using electronic data provided by the City and updated by the Consultants as required. Potential alignments were reviewed with aerial photographs where available and verified in the field and discussed with City staff.

5.2 ANALYSIS OF FIELDWORK

At the conclusion of the fieldwork and following completion of the data sheets, draft copies were provided to City staff for review and comment. Refinements and corrections were made as required to all data sheets which have been incorporated into the final document on a ward basis.

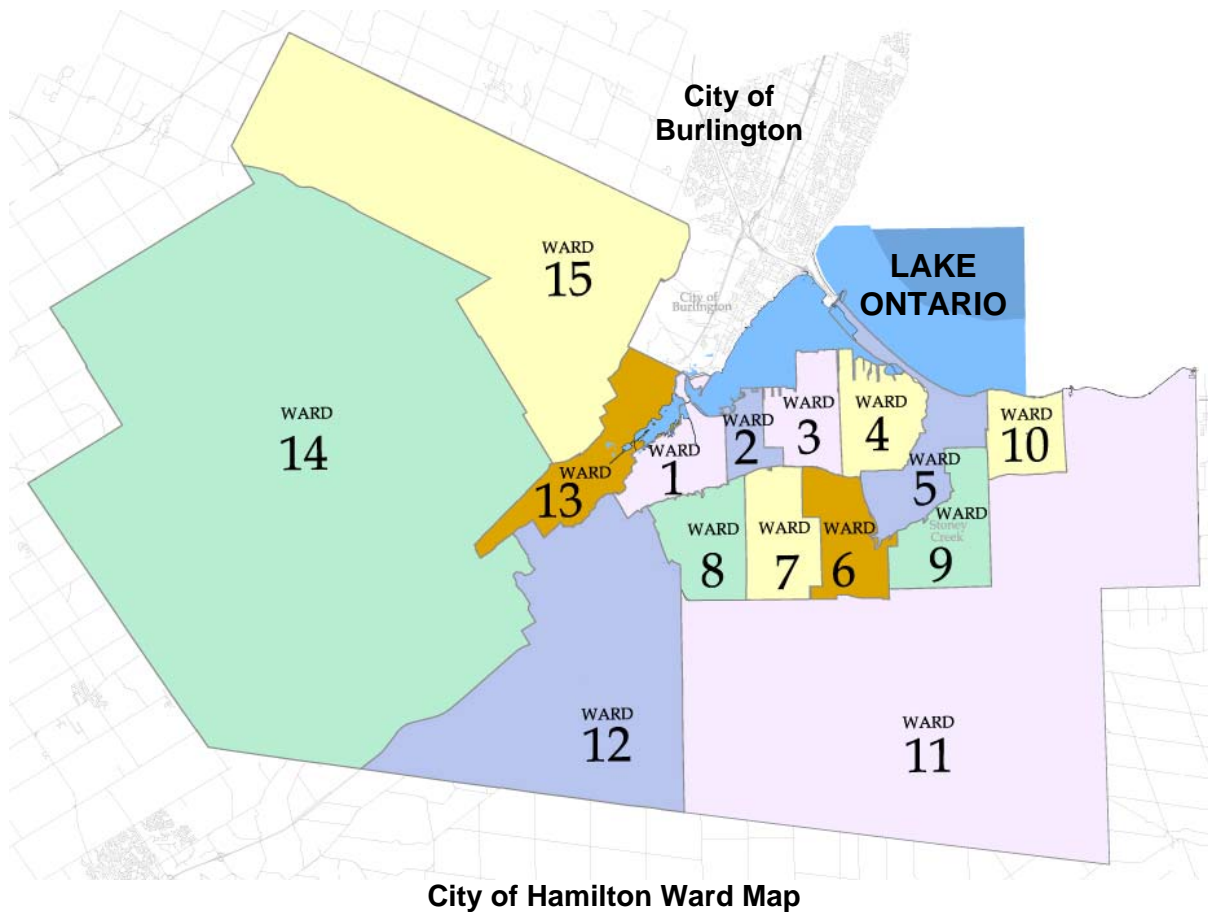
One of the purposes of the study was to review opportunities for expanding and improving trails on a system wide basis throughout the City. While the primary focus was on off-street, multi-purpose recreation trails, opportunities to improve on-street links were considered where links to off-road trails were possible or required. In this regard, sites were considered using a number of criteria (listed on the datasheets) including, but not limited to, general location/accessibility, degree of difficulty rating, classification, trail gradient, accessibility rating, ownership and links to other trails.

Sites within Hamilton, both new trails or upgrades and enhancements were identified and costed for capital forecasting utilizing 2007 construction prices. These are summarized on a Ward by Ward basis noting Ward # and Initiative #. *These are not ranked in order of priority but shown on a mapping order basis.* Phases are indicated (1-3) based on the scoring system shown in Section 6.0. This summary chart is shown in **Section 6.0, Summary of Individual Ward Initiatives.**

For each site, a schematic layout design was prepared using the City of Hamilton 2005 digital mapping, as a base. Key alignments are schematically shown on each initiative. The intention of displaying the information for each site on the drawing is to provide the City of Hamilton with site specific data and photographs for each site and provide a design schematic with capital cost in a simple format. This format allows staff to proceed with future work on a project stand alone basis with all information conveniently and readily accessible for each site on a site by site initiative, ward by ward basis.

NOTE: ITEMS FROM DESIGN ISSUES (SECTION 3.3, ISSUE #13) HAVE BEEN ILLUSTRATED IN THE VARIOUS INDIVIDUAL WARD INITIATIVES.

5.3 INDIVIDUAL WARD PROJECTS



City of Hamilton Ward Map

Read this text together with overall Ward maps and individual Ward Initiatives.

5.3.1 Ward 1 – Chedoke-Cootes

Description

Ward 1 comprises the west end of the old City of Hamilton. It borders the Niagara Escarpment in the south, Dundas Valley in the west, Cootes Paradise/Burlington Heights/Hamilton Harbour in the north, and Queen Street in the east. The existing trails include both “on street” cycling trails and “off street” multipurpose recreational trails as well, portions of the Hamilton Brantford Rail Trail, Chedoke Rail Trail and Hamilton Harbour Waterfront Trail which traverse the Ward.

Built and Natural Features

Ward 1 is situated among a variety of rich natural heritage features including Hamilton Harbour, Cootes Paradise, Burlington Heights, the Chedoke Ravine and the Niagara Escarpment and several waterfalls. Significant built environment features include McMaster University and Medical Centre, the new McMaster Innovation Park centered on Longwood Road, Highway 403, Columbia College, Chedoke Golf Course, Dundurn Castle and Royal

Botanical Gardens facilities including the Aviary, Churchill Park, Victoria Park, the H.A.A.A Grounds, Alexander Park, Kay Drage Park and Princess Point.

These facilities are interspersed with residential neighbourhoods and street commercial uses (e.g., Westdale Village and Locke Street), and a shopping plaza situated on Dundurn Street between Main and King Streets. Highway 403 and the remnants of the Chedoke Ravine separate the west Hamilton component of the Ward from the older City to the east.

East of the Chedoke Ravine, there are no off street corridors along which a recreational trail can be developed from west to east. Further heavy truck and automobile traffic on existing major streets and in the north end make it difficult to route trails into the industrial area. For safety and air quality reasons, it isn't appropriate to use heavily traveled streets to convey recreational trail users between existing and planned trails. Consideration should be given to a dedicated right of way, perhaps elevated, to address this deficiency where it isn't possible to route an off road recreational trail or on street cycling lane.

Recreational Trail Design Issues

Examples of specific design issues to be addressed include:

- develop a trail crossing over Highway 403 on the existing Canadian Pacific Rail bridge to connect the Hamilton Brantford Rail Trail into the City of Hamilton and provide a third Highway 403 trail crossing linking residential neighbourhoods and McMaster University campuses (Note in May 2006, agreement was reached with CPR and the City of Hamilton for the 403 link crossing.);
- improve trail inter-connections between Hamilton and Burlington along York Boulevard and along the waterfront and extend the Harbourfront Trail into Burlington along the waters edge on both sides: the Harbour and Cootes Paradise;
- improve inter-connections along King Street between Longwood Road and Macklin Street;
- develop trail/public transit hubs based at the McMaster University Campuses and McMaster University Medical Center on Main Street and Longwood Road to enable users and HSR to provide complimentary services;
- provide alternative access across the Niagara Escarpment to connect the upper and lower City with the development of the Beckett Drive Gondola Project;
- develop recreation trail links to the Hunter Street Station in Ward 2 to integrate Go Transit and trail usage;
- provide facilities which assist in the implementation of transportation demand management strategies for government, civic, commercial and industrial employees; and
- provide looped inter-connections from residential neighbourhoods to the existing and improved trail facilities, to parkland on the Niagara Escarpment, Cootes Paradise, Chedoke Ravine, Hamilton Harbour and neighbourhood parks and to commercial streets and employments centers (i.e. McMaster University, McMaster Medical Center and Longwood Road/Dundurn Street.

Design Issue Responses

Responses to each of these design issues are included on **Ward One Map, Figure 9** and the individual ward initiative sheets which follow. Examples of specific design responses include the following:

- The provision of a dedicated recreational trail linkage over the Canadian Pacific Rail bridge makes possible the extension of the Hamilton Brantford Rail Trail across the Chedoke Ravine/Highway 403 into the future Longwood Road McMaster Innovation Park and the creation of a HSR trail hub within the Park.
- With the completion of a class environmental assessment of on and off street commuting improvements on the upper deck of Hamilton Heights, a commuting linkage between Hamilton and Burlington will be available in the immediate future. An inter-connection along the waterfront awaits development and a successful design of trail facilities along the Harbour's edge to address natural features and sensitive habitat issues.
- Improvements to Macklin and Longwood Road interconnections between the University as part of the redevelopment of the McMaster Innovation Park.

FIGURE 9

5.3.2 Ward 2 – Downtown

Description

Ward 2 comprises Hamilton's civic center including commercial, office and City Hall, Federal, Provincial Government facilities, City wide recreational facilities associated with Bayfront Park, Hamilton Harbour Waterfront Trail, Gore Park and the Parks Canada Marine Discovery Center, Hamilton Port facilities and heavy industries associated with the Port and rail infrastructure, and the downtown Hunter Street Go Station. This ward extends from Hamilton Harbour in the north to the Niagara Escarpment in the south and from Queen Street in the west to Wentworth Street (north of King) and Wellington Street (south of King) in the east.

Built and Natural Features

The Ward's natural features include Hamilton Harbour and the Niagara Escarpment. Port facilities and industries occupy much of the Harbour while several transportation facilities have been etched into the Niagara Escarpment limiting public access to both.

Ravines through which streams flowed from the Escarpment to Harbour inlets have been long since filled and surface flows intercepted and piped to the Harbour. There are no natural corridors along which recreational trails can be developed between Hamilton Harbour and the Niagara Escarpment.

Built environment features include the Bayfront Park, the Federal Marine Museum and heavy industries and port/railway facilities. Residential neighbourhoods extend south to Hamilton's City Center focused on King, Main, James and John Streets and comprising Jackson Square, City Hall, Copps Coliseum, and the new Federal Building. Further south are residential neighbourhoods and St. Joseph's Hospital between City Hall and the Niagara Escarpment. Neighbourhood parks include Durand Park, Woolverton Park, Corktown Park, Beasley Recreational Center, Central Park and Eastwood Park.

There are no off street corridors along which a recreational trail can be developed from west to east. Further heavy truck and automobile traffic on existing major streets and in the north end make it difficult to route trails into the industrial area. For safety and air quality reasons, it isn't appropriate to use heavily traveled streets to convey recreational trail users between existing and planned trails. Consideration should be given to a dedicated right of way, perhaps elevated, to address this deficiency where it isn't possible to route an off road recreational trail.

Recreation Trail Design Issues

Examples of specific design issues to be addressed include:

- provide looped recreational trails from the Niagara Escarpment to Hamilton Harbour along existing on and off street facilities including the existing and proposed Ferguson Street facilities;
- extend the Hamilton Harbour Waterfront Trail eastwards from Bayfront Park through port and industrial facilities into Ward 3;
- develop recreational trail access from Hamilton's City Centre to the Niagara Escarpment and Bayfront Park;
- develop east/west recreational trails as well as looped interconnections between the Escarpment Rail Trail, the Chedoke Rail Trail and the Hamilton to Brantford Trail and

office/shopping opportunities associated with Jackson Square, the entertainment district and government offices at City Hall and the new Federal Building;

- plan and develop joint HSR/trail commuter incline rail linkages between the lower and upper City in the vicinity of James Street/St. Joseph's Hospital and planned health care facilities on the Mountain;
- develop cycling and pedestrian routes to the Hunter Street Station and facilities at the Station to better integrate Go Transit and trail usage; and
- provide looped trail facilities which assist the implementation of transportation demand management strategies for Hamilton's City Centre, Harbour industrial facilities, St. Joseph's and Hamilton General Hospitals, government offices and their surrounding residential neighbourhoods.

Design Issue Responses

Responses to each of these design issues are included on **Ward 2 Map, Figure 10**, and on the individual ward initiative sheets which follow. Examples of specific design responses include the following:

- The provision of a Ferguson Street bridge over CNR tracks will inter-connect on street cycling facilities from the Niagara Escarpment to Bayfront Park and create a cycling loop with the Bayfront Trail. (Note: As of 2007, much of this system is completed)
- The provision of an incline rail facility providing trail access over the Niagara Escarpment will also help link HSR facilities above and below the Niagara Escarpment and link health care facilities at the General Hospital with new health care facilities being planned on the Mountain.

FIGURE 10

5.3.3 Ward 3 – Hamilton Centre

Description

Ward 3 comprises the City between the Niagara Escarpment and Hamilton Harbour and between Wellington/Wentworth and Ottawa Streets in the west and east. The Escarpment Rail Trail is situated on the Niagara Escarpment.

Built and Natural Features

The Niagara Escarpment and remnants of the Sherman Inlet are the remaining natural features while port facilities, heavy industries, residential neighbourhoods and community parks including Gage Park, Ivor Wynne Stadium and Woodland Park are significant built features. Mixed commercial and residential uses are found along major east west streets and some north south streets (i.e., the garment district centered on Ottawa Street). Burlington Street, heavy industries, port facilities and rail infrastructure separate the harbour from the remainder of the City.

Ravines through which streams flowed from the Escarpment to Harbour inlets have long since been filled and surface flows intercepted and piped to the Harbour. There are no natural corridors along which recreational trails can be developed between Hamilton Harbour and the Niagara Escarpment. However, remnants of some inlets remain where ecological habitat restoration may be possible to re-create habitat which previously existed along these waterways.

There are no off street corridors along which a recreational trail can be developed from west to east. Further heavy truck and automobile traffic on existing major streets and in the north end make it difficult to route trails into the industrial area. For safety and air quality reasons, it isn't appropriate to use heavily traveled streets to convey recreational trail users between existing and planned trails. Consideration should be given to a dedicated right of way, perhaps elevated, to address this deficiency where it isn't possible to route an off road recreational trail.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- develop recreation trails to the Hunter Street Station in Ward 2 to integrate Go Transit and trail usage;
- upgrade the Escarpment Rail Trail surface and width to improve use and broaden the range of users;
- provide looped recreational trail inter-connections to Windermere Basin and remnant inlets (i.e., the Sherman Inlet) in Ward 4, where possible, in conjunction with civic and industrial efforts to re-establish and restore remnant Harbour features and proposed trail projects in Ward 4;
- provide east/west recreational trail linkages through the City's residential and commercial neighbourhoods (i.e., Ottawa Street's garment district);
- provide recreational trail linkages across rail and heavy truck traffic infrastructure centered on Burlington Street to local industries; and
- to the extent possible, provide looped trail facilities which assist the implementation of transportation demand management strategies for Hamilton's City Centre, Harbour

industrial facilities, St. Joseph's and Hamilton General Hospitals, government offices and the residential neighbourhoods in Ward 3.

Design Issue Responses

Responses to these design issues are included in the **Ward 3 Map, Figure 11**, and on the individual ward initiative sheets which follow. Examples of specific design responses include the following:

- The development of a trail along the Hydro corridor between Birch Park (Barton Street) to Burlington Street will provide access to Harbour industries and the remaining Harbour inlet opposite Burlington Street.
- The development of a trail from the foot of Ottawa Street to the Rail Trail will provide an additional access to the Niagara Escarpment.

FIGURE 11

5.3.4 Ward 4 – East Hamilton

Description

Ward 4 comprises the City between the Niagara Escarpment/Lawrence Avenue and Hamilton Harbour/Windermere Basin in the south and north and Ottawa Street and the Red Hill Creek Valley in the west and east. The Escarpment Rail Trail and Red Hill Creek trail facilities border the Ward.

Built and Natural Features

Ward 4 is bounded by three natural features: the Niagara Escarpment; the Red Hill Creek Valley; and Hamilton Harbour/Windermere Basin. Ravines through which streams flowed from the Escarpment to Harbour inlets have long since been filled and surface flows intercepted and piped to the Harbour.

There are no natural corridors along which recreational trails can be developed between Hamilton Harbour and the Niagara Escarpment. However, remnants of some inlets remain where ecological restoration may be possible to re-create habitat which previously existed along these waterways.

Built features include the industrialized harbour and port facilities, Burlington Street and associated rail facilities, Center Mall, neighbourhood parks (i.e., Montgomery, Parkdale, Mahoney and Red Hill Parks), Brock University's Hamilton Campus, Hamilton Health Science facilities and residential neighbourhoods extending south to the Niagara Escarpment and Lawrence Avenue.

There are no off street corridors along which a recreational trail can be developed from west to east. Further heavy truck and automobile traffic on existing major streets and in the north end make it difficult to route trails into the industrial area. For safety and air quality reasons, it isn't appropriate to use heavily traveled streets to convey recreational trail users between existing and planned trails. Consideration should be given to a dedicated right of way, perhaps elevated, to address this deficiency where it isn't possible to route an off road recreational trail.

West of the Red Hill Creek Valley lies an electrical transmission line which extends from the Niagara Escarpment to the Beach Strip. In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province subsequently is actively seeking other uses for these transmission corridors and these corridors should be considered for recreational trail purposes because they provide important linkages unavailable otherwise.

Where the corridor is owned by the Province, often the lands underneath the transmission lines are used by adjoining property owners. In this instance, many adjoining landowners use the corridor for parking. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor and to access their properties from the street. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct and maintain transmission towers.

Properly constructed recreational trails can co-exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. In this instance, the transmission corridor provides access to the Windermere Basin and the Harbour industrial lands that is unavailable otherwise and provides looped service to trail users within the Red Hill Creek Valley and cross town access to Gage Park through a pipeline corridor trail.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- provide looped trail inter-connections to Windermere Basin and remnant inlets (i.e., the Sherman Inlet), where possible, in conjunction with civic and industrial efforts to re-establish and restore these remnant Harbour features;
- provide east/west recreational trail linkages through the Ward's residential and commercial neighbourhoods to the Red Hill Creek Valley in the east and downtown in the west;
- expand and extend the Pipeline trail from Gage Park to the Red Hill Valley and Windermere Basin;
- expand recreational trails running from Barton St. to Kings Forests Park along the existing Hydro corridor west of Stratherne Avenue;
- develop recreation trails to the Hunter Street Station in Ward 2 to integrate Go Transit and trail usage; and
- provide looped trail facilities which assist the implementation of transportation demand management strategies for Hamilton's City Centre, Harbour industrial facilities, St. Joseph's and Hamilton General Hospitals, government offices and the residential neighbourhoods in Ward 4.

Design Issue Responses

Responses to each of these design issues are included on **Ward 4 Map, Figure 12**, and the individual ward initiatives that follow. Examples of specific design responses include the following:

- Development of a recreation trail along a Hydro corridor extending along Stratherne from Kings Forest Park to Barton Street will link with the Pipeline Walkway and help create an almost complete loop to Gage Park.
- Development of a recreational trail along Woodward Avenue from the Red Hill Valley to Windermere Basin creates the potential for a looped trail back into the Red Hill Valley.

FIGURE 12

5.3.5 Ward 5 – Red Hill

Description

Ward 5 extends from the Hamilton Harbour/Windermere Basin/Lake Ontario shores southwards to above the Niagara Escarpment and from the western edge of the Red Hill Valley to Centennial Parkway (south of Queenston Road) and Gray's Road (north of Queenston Road).

Built and Natural Features

Ward 5 includes the beach strip between Hamilton Harbour and Lake Ontario, Windermere Basin and Confederation Park, Red Hill Creek Valley and two major tributary ravines, King's Forest Park and the Niagara Escarpment including Felker's and Mt. Albion Falls. Two major tributaries of the Red Hill Creek and their ravines have been traversed by multiple streets on fill with culverts which block the ability to create linked trails through these valleys to the Niagara Escarpment.

The head of the Red Hill Creek Valley is a focal point for the confluence of the Niagara Escarpment, the Red Hill Creek and tributaries, the Kings Forest and the Lincoln Alexander Parkway and the Red Hill Creek Expressway. In addition, the Bruce Trail, the Escarpment Rail Trail and its extension to Caledonia together with local trails above and below the Escarpment converge on this area. Specific provisions are required to provide for a trail hub and to provide for trail access over the Niagara Escarpment, the Red Hill Creek and the Lincoln Alexander Parkway/Red Hill Creek Expressway.

Built features include the Red Hill Creek Expressway, former land fills situated within the Red Hill Creek Valley closer to the Windermere Basin, the Woodward Street Sewage Treatment Plant, Confederation Park, the QEW, industrial neighbourhoods, residential neighbourhoods, Glendale Golf and Country and Kings Forest Golf Clubs and neighbourhood parks (i.e., Sam Manson, Glendale, Sisters of St. Joseph and Father Sean O'Sullivan Memorial Parks).

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- provision of looped trail inter-connections to Windermere Basin and remnant inlets (i.e., the Sherman Inlet), where possible, in conjunction with efforts to re-establish and restore these remnant Harbour features;
- provide for trail access over the Canal Lift Bridge to connect Waterfront Trail facilities in Hamilton with those provided for in Burlington;
- provide facilities at the head of the Red Hill Creek Valley which will provide for the design and implementation of a trail hub in Ward 6; and
- provide looped trail facilities which assist the implementation of transportation demand management strategies for Hamilton's City Centre, Harbour industrial facilities, St. Joseph's and Hamilton General Hospitals, government offices and the residential neighbourhoods in Ward 5.

Design Issue Responses

Responses to each of these design issues are included on **Ward 5 Map, Figure 13**, and the individual ward initiatives which follow. Examples of specific design responses include the following:

- Provision is made for looped recreational trails along the Niagara Escarpment and Red Hill Creek tributaries where significant valleys exist. At such time as when bridge or culvert repairs are completed, consideration should be given to building trail corridors through street crossings to enable free movement along the waters edge.
- Trail facilities provided in the Red Hill Creek Valley have been linked to trails throughout the Ward.

FIGURE 13

5.3.6 Ward 6 – East Mountain

Description

Ward 6 includes residential, industrial lands and open space lands above the Niagara Escarpment extending from the Niagara Escarpment south to includes lands south of Rymal Road and from Upper Gage (south of Mohawk) and Upper Sherman (north of Mohawk) to the Niagara Escarpment and Pritchard Road.

Built and Natural Features

Natural features include the Niagara Escarpment, Mt. Albion Falls, and open channel portions of the Red Hill Creek above the Niagara Escarpment. Built features include residential and industrial neighbourhoods, Mt. Albion and Felker's Falls Conservation Areas, Mohawk Sports Park, Upper Kings Forest Park, the former City Sanitary Landfill and several neighbourhood parks (i.e., Bobby Kerr, Templemead, and Fernwood Parks). The Lincoln Alexander Parkway traverses the Ward and connects with the Red Hill Creek Expressway. The neighbourhood drains into the Red Hill Creek.

The head of the Red Hill Creek Valley is a focal point for the confluence of the Niagara Escarpment, the Red Hill Creek and tributaries, the Kings Forest and the Lincoln Alexander Parkway and the Red Hill Creek Expressway. In addition, the Bruce Trail, the Escarpment Rail Trail and its extension to Caledonia together with local trails above and below the Escarpment converge on this area. Specific provisions are required to provide for a trail hub and for trail access over the Niagara Escarpment, the Red Hill Creek and the Lincoln Alexander Parkway/Red Hill Creek Expressway.

The older residential neighbourhoods near the Niagara Escarpment exhibit a rectangular organization of streets. Vehicular traffic flows along multiple routes and it is easier to organize a trail system, especially where there are natural features. Newer southern neighbourhoods are designed with interior curvilinear streets which direct through traffic to heavier collector streets which border the exterior and preclude the organization of trails through the interior.

This is further complicated by the absence of natural features and surface drainage along the tributaries of the Red Hill Creek which have been piped from Upper Ottawa Street westwards. Unfortunately, the opportunity to design trails along natural corridors following these streams has been lost.

There may be opportunity to develop trails along the lands owned by the City under which these streams have been piped where these are outside street allowances. The corridor from the former Upper Ottawa Street Landfill to T. B. McQuesten Park is one example. Where industrial and residential neighbourhoods are undeveloped, Red Hill Creek tributaries should be maintained as naturalized drainage corridors with potential use for recreational trails.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from east to west south of Rymal Road. The east/west inter-connections also follow the southern limits of Hamilton's Wards 5, 7 and 8 and continue eastward to Niagara Falls following the alignment of the first transmission facilities constructed from Niagara Falls to service Toronto and urban areas between.

In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province subsequently is actively seeking other uses for these transmission corridors should be considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through land which continues to be farmed, or allowed to be left fallow with periodic management. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers.

Properly constructed recreational trails can co-exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. There do not appear to be comparable examples within rural municipalities and more infra-structure may be required such as gating through agricultural fields. There is, however, no practical reason why trails could not be developed within these corridors. These trails are situated in locations which could provide access to major trails such as the Rail Trail to Caledonia to form part of a larger system.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- provision of a trail hub and Lincoln Alexander Parkway crossing at the head of the Red Hill Creek Valley;
- review storm drainage alignments for Red Hill Creek tributaries to determine whether off street recreational trails can be developed on these alignments; and
- consider within undeveloped neighbourhoods, where surface drainage exists, consider maintaining natural drainage corridors along which recreational trails may be developed.

Design Issue Responses

Responses to each of these design issues are included on **Ward 6 Map, Figure 14**, and the individual ward initiatives which follow. Examples of specific design responses include the following:

- By maintaining surface natural drainage corridors for the remaining Red Hill Creek tributaries through developing neighbourhoods and provide recreational trails along these corridors where appropriate, a better system of recreational trails can be created.
- Where the Red Hill Creek have been sewerred, the corridors should be considered for trail design and development in order to overlay an off road system of trails.

FIGURE 14

5.3.7 Ward 7 – Central Mountain

Description

Ward 7 comprises residential neighbourhoods extending south from the Niagara Escarpment to the old City of Hamilton boundaries south of Rymal Road and from Upper James Street east to Upper Sherman (north of Mohawk Road) and Upper Gage (south of Mohawk Road).

Built and Natural Features

Built features include Limeridge Plaza, Henderson Hospital, the Upper James commercial strip, residential neighbourhoods, the older Concession Street commercial area, neighbourhood parks (i.e., T. B. McQueston, Turner, Sackville Hill Memorial, Inch and Sam Lawrence Parks), the Lincoln Alexander Parkway and the Jolley Cut. Natural features include the Niagara Escarpment, secondary geological features associated with the Niagara Escarpment in the Limeridge Road area and the corridor within which the Red Hill Creek has been piped along the southern limit of the Lincoln Alexander Parkway. The neighbourhood drains into the Red Hill Creek.

The older residential neighbourhoods between the Niagara Escarpment and Mohawk Road exhibit a rectangular organization of streets. Vehicular traffic flows along multiple routes and it is easier to organize a trail system through this pattern, especially where there are natural features. Newer southern residential neighbourhoods are designed with interior curvilinear streets which direct through traffic to heavier collector streets which border the exterior and preclude the organization of trails through the interior.

This is further complicated by the absence of natural features and surface drainage along the tributaries of the Red Hill Creek which have been piped from Upper Ottawa Street westwards. Unfortunately, the opportunity to design trails along natural corridors following these streams has been lost. There may be opportunity to develop trails along the lands owned by the City under which these streams have been piped where these are outside street allowances. The corridor from the former Upper Ottawa Street Landfill to T. B. McQueston Park is one example.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from east to west south of Rymal Road. The east/west inter-connections also follow the southern limits of Hamilton's Wards 6, 8 and 9 and continue eastward to Niagara Falls following the alignment of the first transmission facilities constructed from Niagara Falls to service Toronto and urban areas between.

In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province is actively seeking other uses for these transmission corridors should be considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through land which continues to be farmed, or allowed left fallow with periodic management. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor. From time to time, construction and

maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers.

We believe properly constructed recreational trail can exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. There do not appear to be comparable examples within rural municipalities and more infra-structure may be required such as gating through agricultural fields. There is, however, no practical reason why trails could not be developed within these corridors. These trails are situated in locations which could provide access to major trails such as the Rail Trail to Caledonia.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- review storm drainage alignments for Red Hill Creek tributaries to determine whether off street recreational trails can be developed on these alignments; and
- consider within undeveloped neighbourhoods, where surface drainage exists, maintaining natural drainage corridors along which recreational trails may be developed.

Design Issue Responses

Responses to these design issues are included on **Ward Map 7, Figure 15**, and individual ward initiatives which follow. Examples of specific design responses include the following:

- By maintaining surface natural drainage corridors for the remaining Red Hill Creek tributaries through developing neighbourhoods and provide recreational trails along these corridors where appropriate, a better system of recreational trails can be created.
- Where Red Hill Creek have been sewered, the corridors should be considered for trail design and development in order to overlay an off road system of trails.
- Develop in conjunction with HSR an inclined rail service over the Niagara Escarpment to end in the Upper James area.

FIGURE 15

5.3.8 Ward 8 – West Mountain

Description

Ward 8 comprises the west end of the old City of Hamilton above the Niagara Escarpment. It borders the Niagara Escarpment on the north and extends south to include lands south of Rymal Road. It extends from Upper James Street in the east to the old municipal boundary between the former municipalities of Ancaster and Hamilton in the west (Scenic Drive and Upper Horning Road). Portions of the neighbourhood are drained by the Chedoke Creek, Tiffany Creek, Twenty Mile Creek and the Red Hill Creek.

Built and Natural Features

Built features include residential neighbourhoods, Mohawk College Fennell and Chedoke Campuses, Chedoke Hospital, Hamilton Psychiatric Hospital, Hillfield Strathallan, Recreation Centres and the Lincoln Alexander Parkway. Natural features include the Niagara Escarpment and portions of the Tiffany Creek and Twenty Mile Creek which will be integrated into an open space system. The ward is drained by the Chedoke, Tiffany, Red Hill and Twenty Mile Creeks.

The older residential neighbourhoods between the Niagara Escarpment and Mohawk Road exhibit a rectangular organization of streets. Vehicular traffic flows along multiple routes and it is easier to organize a trail system through this pattern, especially where there are natural features. Newer southern residential neighbourhoods are designed with interior curvilinear streets which direct through traffic to heavier collector streets which border the exterior and preclude the organization of trails through the interior.

This is further complicated by the absence of natural features and surface drainage along the tributaries of the Red Hill Creek which have been piped from Upper Ottawa Street westwards. Unfortunately, the opportunity to design trails along natural corridors following these streams has been lost. There is one exception and that is the upper reaches of the Tiffany Creek which has been maintained as an open space link and along which a recreational trail is planned.

In other neighbourhoods which have not been fully developed, where possible, natural surface drainage should be maintained and recreational trails should be provided along these corridors. In addition, there may be opportunity to develop trails along the lands owned by the City under which these streams have been piped where these are outside street allowances.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from east to west south of Rymal Road. The east/west inter-connections also follow the southern limits of Hamilton's Wards 5, 6 and 7 and continue eastward to Niagara Falls following the alignment of the first transmission facilities constructed from Niagara Falls to service Toronto and urban areas between.

In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province subsequently is actively seeking other uses for these transmission corridors should be considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through land which continues to be farmed, or allowed left fallow with periodic management. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers.

We believe properly constructed recreational trail can exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- review storm drainage alignments for Red Hill Creek tributaries to determine whether off street recreational trails can be developed on these alignments; and
- consider within undeveloped neighbourhoods, where surface drainage exists, maintaining natural drainage corridors along which recreational trails may be developed comparable to the open space corridor provided for along the Tiffany Creek.

Design Issue Responses

Responses to each of these design issues are included on the Ward 8 Map, Figure 16, and individual project sheets which follow. Examples of specific design responses include the following:

- By maintaining surface natural drainage corridors for the remaining Red Hill, Tiffany and Twenty Mile Creek tributaries through developing neighbourhoods and provide recreational trails along these corridors where appropriate, a better system of recreational trails can be created.
- Where Red Hill Creek have been sewered, the corridors should be considered for trail design and development in order to overlay an off road system of trails.

FIGURE 16

5.3.9 Ward 9 – Heritage Stoney Creek

Ward 9 includes the older Stoney Creek community centered on Battlefield Park and Highway 8 below the Niagara Escarpment and the Saltfleet Community above the Niagara Escarpment.

Built and Natural Features

Built features include the planned Saltfleet Community and the older Stoney Creek Village, Highway 20, Taro landfills (active and inactive) and Battlefield Park. Natural heritage features include the Niagara Escarpment, Felker's Falls and the Devil's Punchbowl, Red Hill Creek tributaries and karst features. These karst features, Felker's Falls and the Devil's Punchbowl together with other Escarpment lands make up three Conservation Areas.

The City of Hamilton is fortunate to have over sixty-nine (69) waterfalls and counting along the Niagara Escarpment, both privately and publicly held. These are important for tourism, public health and recreation. Many of these waterfalls are, or will be accessible by multi-use recreation trails. Work is currently underway with the City of Hamilton, Hamilton Conservation Authority and Bruce Trail Association to improve access to these waterfalls.

The Growth Related Development Strategy: Growth Report (May 2006) contains a Neighbourhood Concept Plan which is similar to that which was used to plan the growth of residential neighbourhoods in Wards 6, 7 and 8 south of Mohawk Road. While it is different in that provision is made for through vehicular traffic, there is no provision for off street recreational trails and on street cycling routes will compete with vehicular traffic and experience air quality issues. As new Greenfield expansion is planned for lands within this Ward, the Neighbourhood Concept Plan needs to be re-considered to provide better trail design opportunities and connections.

Generally, neighbourhoods planned and developed in the Saltfleet Community closer to the Niagara Escarpment have maintained open space corridors along the Red Hill Creek tributaries and these can be used for recreational trails through these neighbourhoods. In undeveloped neighbourhoods, where possible, natural surface drainage should be maintained and recreational trails should be provided along these corridors. In addition, there may be opportunity to develop trails along the lands owned by the City under which these streams have been piped where these are outside street allowances.

Below the Niagara Escarpment, little opportunity exists to provide recreational trails along the surface drainage between the Niagara Escarpment to Lake Ontario because houses have developed rear yards over the surface drainage.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- Provide trail access from the Niagara Escarpment to Lake Ontario via the Red Hill Valley Trail System;
- Plan for recreational trails through neighbourhoods which are yet to be planned and Greenfield lands proposed to be added to the City's urban area; and
- Loop recreational trails into selected waterfalls.

Design Issue Responses

Responses to each of these design issues are included on the **Ward 9 Map, Figure 17**, and the individual ward initiatives which follow. Examples of specific design responses include the following:

- By maintaining surface natural drainage corridors for the remaining Red Hill tributaries through developing neighbourhoods and provide recreational trails along these corridors where appropriate, a better system of recreational trails can be created.
- Where Red Hill Creek have been sewered, the corridors should be considered for trail design and development in order to overlay an off road system of trails.
- Provide recreational trail linkages through neighbourhoods which have not been developed and Greenfield lands proposed to be added to Hamilton's urban lands.

FIGURE 17

5.3.10 Ward 10 – Stoney Creek

Description

Ward 10 extends from the Lake Ontario shore south to the Niagara Escarpment and from Gray's Road in the west to Fruitland Road in the east.

Built and Natural Features

Built features are organized as layers extending south from Lake Ontario to the Niagara Escarpment. The layers from north to south include:

- residential uses bordering Lake Ontario;
- the Queen Elizabeth Way;
- industrial neighbourhoods;
- rail lines running east/west;
- residential neighbourhoods;
- old Highway 8;
- the Niagara Escarpment (including the Escarpment bench and associated residential development); and
- the Bruce Trail.

Natural features include the Lake Ontario shore and the Niagara Escarpment. Intermittent unnamed watercourses which drain northwards from the Niagara Escarpment to Lake Ontario have been or will be piped. Where the larger streams drain into Lake Ontario, at least one wave action created pond exists.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- the absence of surface drainage connecting the Niagara Escarpment to Lake Ontario along which recreational trails can be developed;
- the layered pattern of land uses and transportation corridors between Lake Ontario and the Niagara Escarpment which creates barriers to recreational trails inter-connecting the two natural features; and
- the pattern of residential and land ownership along Lake Ontario and the juxtaposition of the lake shore with the QEW makes extending a lakeshore/waterfront trail difficult.

Design Issue Responses

Responses to each of these design issues are included on the **Ward 10 Map, Figure 18**, and the individual ward initiatives that follow. Examples of specific responses include the following:

- Where possible consideration should be given to using subsurface drainage corridors where surface drainage has been sewered and easements or municipal ownership of the corridor exists as possible recreational trails.
- A route which uses on street and off street trails, where possible, has been identified along the Lake shore north of the Q.E.W.

FIGURE 18

5.3.11 Ward 11 – Glanbrook, Stoney Creek, Winona

Description

Ward 11 is an irregularly shaped large and diverse ward extending from Lake Ontario to Haldimand County in south and from Glancaster Road in the west to Niagara Region in the east.

Built and Natural Features

Below the Escarpment, built and natural features are organized as layers extending south from Lake Ontario to the Niagara Escarpment. The layers from north to south include:

- residential uses bordering Lake Ontario;
- the Queen Elizabeth Way;
- industrial neighbourhoods;
- residential neighbourhoods;
- old Highway 8;
- the Niagara Escarpment (including the Escarpment bench); and
- the Bruce Trail.

South of the Escarpment, lies a predominantly agricultural landscape used for livestock and cash cropping is drained by the Twenty Mile and Red Hill Creeks and the Welland River. Remnant woodlots along rear lot lines and stream valleys together and wetlands along the creek beds are the remaining natural features. The Welland River occupies a valley sufficiently well defined to be able to accommodate a recreational trail along its length.

Provincial Highways #20, #56 and #6 traverse the ward together with new Highway 6 which accesses the John C. Munroe International Airport. Urban areas include Mt. Hope, Binbrook, new and proposed urban expansions in the Elfrida area, around the airport and the Glanbrook Industrial Park. Conservation Areas include Fifty Point and the Binbrook Lake Conservation Areas. The Hamilton to Caledonia Rail Trail traverses the Ward.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from east to west and north to south. The east west inter-connections follow the southern limits of Hamilton's Wards 5, 6, 7 and 8. These continue eastward to Niagara Falls following the alignment of the first transmission facilities constructed from Niagara Falls to service Toronto and urban areas between. The north south corridor contains a pipeline but no electrical transmission facilities and connects Hamilton's urban areas to Lake Niapenco and the Grand River downstream of Caledonia roughly parallel to Rail Trail.

In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province is actively seeking other uses for these transmission corridors should be considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through productive farmland, or allowed to regenerate naturally with periodic management. Easements to

adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers.

We believe properly constructed recreational trails can co-exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. There do not appear to be comparable examples within rural municipalities and more infra-structure may be required such as gating through agricultural fields. There is, however, no practical reason why trails could not be developed within these corridors.

Together with existing Rail Trail, an opportunity exists to create looped, off road recreational trails which inter-connect residential areas to Lake Niapenco in Ward 11 and thence into a future system of public lands to be acquired along the Welland River by the Niagara Peninsula Conservation Authority.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- the layered pattern of land uses and transportation corridors between Lake Ontario and the Niagara Escarpment which creates barriers to recreational trails inter-connecting the two natural features; and
- the pattern of residential and land ownership along Lake Ontario and the juxtaposition of the lake shore with the QEW makes creating a lakeshore trail difficult.

Design Issue Responses

Responses to each of these design issues are included on the **Ward 11 Map, Figure 19**, and the individual ward initiatives that follow. Examples of specific responses include the following:

- A future study area is provided for along the Welland River corridor wherein a program initiated by the Niagara Peninsula Conservation Authority to acquire wetlands and Carolinian forests can be linked with off road and on road trails to create a corridor along the Welland River from the John Munroe International Airport east into Niagara Region.
- Where possible, drainage ways between the Niagara Escarpment and lake Ontario should be maintained as surface corridors along which recreational trails can be planned, especially in the Fifty Point Area where a large Conservation Area exists along the Lake shore.
- Hydro corridors are proposed to be used for recreational trails to create looped systems to the Lake Binbrook Conservation Area and along Power Line Road (the Dofasco Trail) and Ridge Road.

FIGURE 19A

FIGURE 19B

5.3.12 Ward 12 – Ancaster

Description

Ward 12 comprises the former Town of Ancaster and extends from Brant County in the south and west to Highway 403, Shaver Road and the Dundas Valley in the north and Glancaster Road and the former City of Hamilton in the east.

Built and Natural Features

Built features include the old village of Ancaster and newer residential neighbourhoods, an industrial park, the Meadowlands Power Center, Redeemer College, Highway 403, the new Highway 6 and the Lincoln Alexander Parkway. Future development includes lands within the Areotropolis Project. In the rural areas, farm complexes are located on former County Roads and Township side roads with former rural communities in Alberton and Carluke. Conservation Areas include the Iroquoia Heights, Tiffany Falls and Dundas Valley Conservation Areas.

Natural features include the Niagara Escarpment and the Dundas Valley. The ward is drained by the Fairchild Creek into the Grand River, the Welland River which drains into the Niagara River and the Tiffany and Ancaster Creeks which drain into Cootes Paradise. The sandier soils associated with the moraines above the Dundas Valley are excellent vegetable growing soils. Woodlots and hedgerows together with remnant wetlands found along creek beds comprise the remaining natural features.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from north to south from the Westover area in the north to Middleport along the Grand River in Brant County and from London in the west to the Waterdown area in the east. In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province is actively seeking other uses for these transmission corridors should be considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through productive farmland, or allowed to regenerate naturally with periodic management. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor.

Visually, agricultural operations continue through the corridors giving the appearance that except for the transmission towers, the lands are within the farm's ownership. But that is not the case particularly with the corridor extending south to Middleport which occupies substantial land. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers. More recently, an Imperial Oil products pipeline was installed within this corridor (need to check).

Properly constructed recreational trails can co-exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. There do not appear

to be comparable examples within rural municipalities and more infra-structure may be required such as gating through agricultural fields.

There is, however, no practical reason why trails could not be developed within these corridors. Together with existing Brantford to Hamilton Rail Trail, the LaFarge Trail and unopened road allowances/public lands and conservation areas, substantial opportunities exist to create looped, off road recreational trails which inter-connect residential areas to the major Conservation Areas in Ward 12.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- Develop a rural trail system where there are no Conservation Areas or natural features to link into a trail system;
- Incorporate Hydro One Network's transmission corridors; and
- Provide linkages and strengthen existing trail linkages to sites beyond the City of Hamilton (i.e., Brantford and the Grand River).

Design Issue Responses

Responses to each of these design issues are included on the **Ward 12 Map, Figure 20**, and the individual ward initiatives that follow. Examples of specific design responses include the following:

- Existing Hydro corridors have been used to provide trail linkages to the Grand River in the Middleport area and east to link and create looped systems with existing trails in Wards 5, 6, 7 and 8.

FIGURE 20A

FIGURE 20B

5.3.13 Ward 13 – Community of Dundas

Description

Ward 13 covers the “valley town” situated at the head of the Desjardins Canal below the Niagara Escarpment on Spencer’s Creek.

Built and Natural Features

Built features include the original scenic Town of Dundas of which commercial, institutional and residential uses are centered on Highway 8 and the Spencer’s Creek and surrounding suburban residential subdivisions and University Plaza on Main Street. The Spencer Creek was the focal point for earlier water power developments and industrial development. Some of these industries are being replaced with residential complexes. Cootes Drive links the downtown to Hamilton and McMaster University while Governor’s Road and Highway 8 link the Town to the west and north.

Borer’s Creek, Webster’s Falls, Tew’s Falls, Spring Creek and the Dundas Valley Conservation Areas and the Royal Botanical Gardens border or cover lands and waters within the Ward. The road and street pattern uses culverts with fill to span these creeks as opposed to clear spans thereby preventing recreational trail development at stream level. At the foot of the Niagara Escarpment, Spencer’s Creek flows through an unusual device constructed, in part by rail authorities and by former mill owners, to direct water under the CNR line to the Creek’s natural bed downstream, effectively blocking access from Dundas to Webster’s Falls in Greensville and Tew’s Falls along the creek.

Natural features include the Niagara Escarpment, the Dundas Valley, a number of creeks and associated substantial ravines and floodplains including the Spencer’s, Borer’s, Ann Street, Spring, Spencer’s and Ancaster Creeks. Most street crossings utilize fill and culvert designs which effectively limit the ability to route recreational trails along the water’s edge. The Bruce Trail follows the Niagara Escarpment.

The City of Hamilton is fortunate to have over eighty (80) waterfalls and counting along the Niagara Escarpment, both privately and publicly held. These are important for tourism, public health and recreation. Many of these waterfalls are, or will be accessible by multi-use recreation trails. Work is currently underway with the City of Hamilton, Hamilton Conservation Authority and Bruce Trail Association to improve access to these waterfalls.

Recreational Trail design Issues

Examples of specific Design issues to be addressed include:

- Develop a trail system within steep ravines of the Ancaster and Spring Creeks or where urban encroachment within the Spencer Creek flood plains leaves little space for a recreational trail;
- Develop a trails system along the Ancaster, Spring and Spencer Creeks where bridges have used fill and culverts to block access along the water’s edge; and
- Link Dundas to Borer’s, Webster’s and Tew’s Falls.

Design Issue Responses

Responses to each of these design issues are included in the **Ward 13 Map, Figure 21**, and the individual ward initiatives which follow. Examples of specific design responses include the following:

- Provision has been made to provide for a trail along the Spencer Creek from Cootes Paradise to the Niagara Escarpment and to access Webster's and Tew's Falls.

FIGURE 21

5.3.14 Ward 14 – Wentworth

Description

Ward 14 includes lands bordered by Wellington and Brant Counties to the north and west, Highway 403 and the Niagara Escarpment to the south, Ofield Road and Highway 6 to the east.

Built and Natural Features

Built features include farmsteads spaced at regular intervals throughout the better agricultural lands on original township lots along County roads and Township side roads, scattered residences created by severances, Highways 8 and 6 and Governor's Road, bulk electrical transmission facilities and pipeline stations.

Interesting sites include Conservation Areas (i.e., Christie, Valen's, Crook's Hollow, Webster's Falls and Tew's Falls Conservation Areas organized on the Spencer and Borer's Creeks watersheds by the Hamilton Region Conservation Authority), Westfield Heritage Village and African Lion Safari. Rural communities such as Greensville, Millgrove, Freelon, Valens, Hayesland, Strabane, Westover, Kirkwall, Sheffield, Rockton, Troy and Copetown serve the rural community. Several limestone quarries are situated north of Greensville.

The Fairchild (Grand River) and Spencer Creek watersheds traverse the ward. While both creeks and their tributaries are discernable features in the landscape neither is large enough to route recreational trails along its length. Other natural features include wetlands (i.e., Beverly Swamp, Fletcher's Creek Swamp) interspersed with drumlins. These extensive pattern of wetlands and drumlin fields throughout the northern and central portions of the ward result in an incomplete grid of county and township side roads where the road allowance exists but isn't opened or maintained and an irregular pattern of farmsteads. A higher percentage of these lands are forested.

The irregular terrain (i.e., steep slopes associated with the drumlins and poor drainage associated with the wetlands) has limited agricultural production in the past and further limits the use of larger machinery presently. Farmers are abandoning some fields and drainage improvements on poorer agricultural soils and, consequently, wetlands and forest cover are expanding. The combined result is an expanding rich and interesting natural heritage system interspersed among producing farms.

Flat lands with very shallow overburden and soils over the limestone bedrock lie north of Greensville. This terrain produces unusually drier alvar plains (prairie ecosystems) and karst topography within which little rural development has occurred other than residences on scattered severances and large limestone quarries. Farming isn't viable on these thinly soiled plains.

Hydro-electric transmission and hydrocarbon pipeline facilities and corridors traverse the Ward from north to south from the Westover area in the north to Middleport along the Grand River and from London in the west to Waterdown area in the east. In the 1990's, Ontario Hydro was broken up into Ontario Power Generation (OPG) and Hydro One Networks. The former operated Ontario's public electricity generation system while the latter operates electrical transmission facilities. But the ownership and leases for land on which the transmission system exists was assumed by Ontario Realty Corporation. The Province subsequently is actively seeking other uses for these transmission corridors should be

considered for recreational trail purposes because these corridors could provide important linkages unavailable otherwise.

Where the corridor is owned by the Province and used by Hydro One Networks for transmission facilities, the corridors are farmed, where these cross through productive farmland, or allowed to regenerate naturally with periodic management. Easements to adjoining property owners where corridors traverse properties enable owners to maintain their properties on either side of the corridor. From time to time, construction and maintenance may require Hydro One Networks to enter the corridor to construct access lanes to build and maintain transmission towers.

Properly constructed recreational trails can co-exist within these corridors, subject to obtaining the necessary approvals (i.e., Environmental Assessment Act). Many urban municipalities provide recreational trails within transmission corridors. There do not appear to be comparable examples within rural municipalities and more infra-structure may be required such as gating through agricultural fields. There is, however, no practical reason why trails could not be developed within these corridors. Together with existing Brantford to Hamilton Rail Trail, the LaFarge Trail and unopened road allowances/public lands and conservation areas, substantial opportunities exist to create looped, off road recreational trails which inter-connect residential areas to the major Conservation Areas in Ward 14.

The LaFarge Trail inter-connects Christie Conservation Area along opened and un-opened road allowances through agricultural lands, alvar ecosystems to drumlins and wetlands associated with the Beverly Swamp north to the Galt Moraine and Highway 6. The Hamilton to Brantford Rail Trail inter-connects the Grand River with Hamilton and through the Rail Trail to Caledonia, eventually the Grand River downstream of Brantford.

Recreational Trail design Issues

Examples of specific design issues to be addressed include:

- provide better and more sustainable recreational trail design and upgrades for the LaFarge Trail especially where the trail crosses drumlins;
- using where possible, lands purchased for conservation purposes, electrical and utility corridors or easements and unopened municipal right of ways, inter-connect the LaFarge Trail with Valens, Fletcher's Creek and Mountsberg Conservation Areas;
- provide local inter-connections between Christie, Crook's Hollow and Webster's/Tew's Falls Conservation Areas and Greenville settlement area with Dundas; and
- use hydro-electric utility corridors owned by the Province to inter-connect with the Grand River in the Middleport area, northwards to the Westover area and south of Hamilton to create looped rural systems within Wards 14 and 13.

Design Issue Responses

Responses to each of these design issues are included on the **Ward 14 map, Figure 22** and individual ward initiatives which follow. Examples of specific design responses include the following:

- Provision has been made for a looped system which inter-connects with Valen's Conservation Area through on road and unused municipal right of ways through the Beverly Swamp and the LaFarge Trail.
- Linkages have been created using Hydro One Network's corridors to connect trails into Ward 12 to the Grand River and east into Mountain wards.
- Inter-connections have been provided between Greensville and Crook's Hollow and Christie Conservation Areas.

FIGURE 22

5.3.15 Ward 15 – Flamborough

Description

Ward 15 is bound by the Regional Municipality of Niagara in the north, Wellington County, Highway 6 and Ofield Road in the west and the Niagara Escarpment and Halton Region in the east and south.

Built and Natural Features

Built features include the Waterdown urban area and the Carlisle, Mountsberg and Millgrove settlement areas. Farmsteads are spaced at regular intervals along the original county and township side roads while scattered residences are found in an irregular pattern where severances have occurred in the past.

With the exception of that portion of the Ward situated west of Highway #6, Concession road and lot lines are organized at regular intervals right angles to the north shore of Hamilton Harbour. The spacing of concession and side roads is consistent with that found in Burlington in Halton Region to the east and inconsistent with that found west of Highway 6. West of Highway 6, concession and lot lines are aligned on an angle to those situated east of Highway 6.

Rear agricultural lots are usually occupied by farm woodlots and hedgerows. Where surface drainage and wetlands are found, a more extensive natural heritage system exists. Closer to the Galt Moraine, steeper slopes associated with the moraine and Bronte Creek tributaries are more forested than the sandier soiled agricultural lands closer to Waterdown and the original township fabric of concession and side roads is discontinuous owing to drainage and wetland patterns and irregular slopes associated with the Galt Moraine. Unopened road allowances may provide opportunities for recreational trail access to Mountsberg Conservation Area to Carlisle and subsequently to Lake Medad east of Waterdown.

Natural features include Niagara Escarpment related features in Carlisle (Bronte Creek), Waterdown (Grindstone Creek/valley and Medad Valley). These features are situated primarily within Halton Region and recreational trails associated with the Bruce Trail and other organizations are focused on these features in Halton Region.

Presently, secondary, master drainage plan, subwatershed and transportation planning studies are underway in Waterdown to accommodate new urban development. Looped recreational trails linking both new and existing residential areas with the existing and proposed recreational trails along the Niagara Escarpment, the Grindstone Creek and Borer's Creek to commercial, employment, institutional uses, Waterdown's heritage district and newly developing areas should be an integral result of these planning and development efforts.

The Borer's, Grindstone and Bronte Creek and tributaries flow through the Ward. While these creeks in the rural areas are definable features in the landscape, individually, they are not large enough to plan recreational trail corridors within their limits except where these are situated within urban areas and are used for storm water management, flood plain management and other servicing/recreational purposes. Bronte Creek tributaries occupy much of the northern portion and rise on the Galt Moraine.

Borer's Creek falls within the Hamilton Conservation Authority watershed while Grindstone and Bronte Creeks fall within the Conservation Halton watershed.

Mountsberg Conservation Area is situated in the north. The combination of Highway #401 situated in Puslinch Township to the north, Highway #6 and the irregular topography associated with the Galt Moraine isolate this conservation area. If the Lowndes quarry proposals go forward to approval, one component of that planning approval should include off road recreational trails which interconnect Mountsberg with Carlisle and lands to the south through the Lowndes properties in the future.

Recreational Trail Design Issues

Specific design issues to be addressed include:

- link developed and developing Waterdown neighbourhoods to the emerging recreational trail system being developed by the City of Burlington and Conservation Halton in the Aldershot area through municipal secondary and transportation planning efforts underway currently in Waterdown;
- plan and develop recreational trail systems along the Borer's and Grindstone Creek valleys in conjunction with stormwater and servicing projects to service Waterdown's development;
- develop accesses under Highway #6 in the Waterdown area (Borer's Creek) and over Highway #6 in the Mountsberg area;
- provide recreational trail linkages into and from Halton Region;
- provide on-street trail linkages into and from Halton Region; and
- future trail connection opportunity in the vicinity of the Cartwright Nature Sanctuary and the bike route along Patterson Side Road.

Design Issue Responses

Responses to each of these design issues are included on **Ward 15 Map, Figure 23** and individual ward initiatives that follow. Examples of specific design responses include the following:

- Provision is made to link the Niagara Escarpment in the Lake Medad area to Mountsberg Conservation Area in the north.
- Recommendations are made to seek recreation trails in the detailed planning for Greenfield neighbourhoods in Waterdown to link residential, the heritage district, commercial and employment areas with the Niagara Escarpment and Borer's Creek.
- The extensions of the Bruce Trail at Highway #6 will be provided within an underground tunnel as part of the MTO improvements on the Clappison Hill in the location of the existing crossing of the trail at Patterson Road and Highway #6.

FIGURE 23A

FIGURE 23 B