

Table of Contents

Executive Summary	1
1. Introduction	5
1.1 Background	5
1.2 Study Area.....	6
1.3 Study Process	7
2. Planning Policy Framework.....	9
2.1 Provincial Policy	9
2.2 Region of Niagara Official Plan.....	11
2.3 City of Niagara Falls Official Plan	15
2.4 City of Niagara Falls Zoning By-law	20
3. Supporting Technical Analysis	21
3.1 Functional Servicing Study	21
3.2 Environmental Impact Study.....	22
3.3 Transportation Study	23
3.4 Archaeology Assessment	23
3.5 Cultural Heritage Assessment	24
3.6 Noise, Vibration and Air Quality Assessment.....	24
3.7 Environmental Site Assessment	25
3.8 Retail Market Assessment	25
4. Vision and Objectives	27
4.1 Community Vision.....	27
4.2 Community Objectives.....	27
5. Conclusions	29
APPENDICES.....	i
A.1 Provincial Policy Statement	ii
A.2 Growth Plan.....	ix
A.3 Regional Municipality of Niagara Official Plan.....	xiv
1 Imagine Niagara	xiv
2 Growing the Economy.....	xiv
3 Employment.....	xv
4 Managing Growth	xvii
7 Natural Environment	xx
8 Infrastructure.....	xxiv

9	Transportation.....	xxiv
10	Creative Niagara	xxv
11	Housing and Community Services.....	xxv
A.4	City of Niagara Falls Official Plan (NFOP)	xxvi
Part 1	Plan Overview and Strategic Direction	xxvi
Part 2	Land Use Policies	xxvi
Part 3	Environmental Management	xxxiii
Part 4	Administration and Implementation	xxxvi

Executive Summary

The Thundering Waters Secondary Plan Study Area is a unique parcel of land located in the southwest portion of the urban area of Niagara Falls that contains predominately vacant greenfield land. The Study Area is identified as Special Policy Area 56 (SPA 56) in the City's Official Plan which states that development will occur in accordance with a Secondary Plan to be adopted as an amendment to the Official Plan. As a result, a Secondary Plan Study is being undertaken to provide a comprehensive study which will form the basis for future development.

The Study Area is located within the Drummond Community Area and is bounded by Oldfield Road to the north, Thundering Waters Golf Course and Stanley Avenue Industrial Business Park to the east, the Welland River to the south and the Ontario Power Generation Inc. (OPG) Canal to the west. The Thundering Waters Secondary Plan Study area contains approximately 270 hectares and is bisected by the Conrail Drainage Ditch and a lightly used railway line.

The Study will address the policy framework established at the provincial, regional and local level. In particular:

- **Secondary Plan**
The City's Official Plan provides detailed direction on the type of background studies required in the preparation of a Secondary Plan. Further, the Secondary Plan must reflect the general policy context including creating complete, compact communities that include a diverse mix of land uses, a range of local employment opportunities and housing types, high quality public open spaces, and easy access to local stores and services in a transit supportive, and active transportation friendly urban environment.
- **Natural Heritage**
Natural heritage features have been identified in both the Regional and City Official Plans, and their ongoing protection is required by Provincial, Regional and City policy. Policies indicate that core areas, natural heritage features and linkages are to be identified and may be refined through further study. The identification of appropriate buffers and mitigation measures will be addressed as part of the Study process.
- **Residential**
The target density of development in Greenfield areas will be not less than 53 people and jobs per hectare. The calculation will be made over the gross developable areas at a secondary plan scale defined as the total land area net of

natural heritage areas identified for protection. The location and scale of various residential densities will be addressed through the Study process.

- **Employment Areas**
Lands designated for Industrial uses are to be retained and will be protected and buffered from sensitive land uses such as residential.
- **Commercial**
Policies identifying a hierarchy of commercial districts and tourism commercial districts form the basis for evaluating the opportunity for creating commercial uses within the Study Area.
- **Infrastructure**
Development will occur on full municipal services and will address the location of a pumping station to service the southern portion of the subject lands. Development will be serviced by a suitable storm drainage system which will be as natural as possible. The road pattern, including existing and proposed arterial, collector and local roads and associated traffic control, the need for off-site upgrades and the provisions for transit and active transportation plans will need to be addressed.
- **Community Services**
Parks, open space, schools and community services will be further assessed to ensure that an appropriate level of access is provided to the new residential community.
- **Zoning**
A large portion of the Study Area is currently zoned for Industrial uses (GI). As zoning is required to be in conformity with the Official Plan, the GI zoning should be addressed either as part of the Secondary Plan Study process or as part of the subsequent subdivision approval process.

Detailed technical studies are being undertaken as part of the preparation of the Secondary Plan. The work that has been undertaken to date includes:

- **Functional Servicing Study**
A Background Review and Existing Conditions Characterization report has been prepared. It indicates that the study area has a well serviced perimeter with sufficient water pressure and supply, sufficient wastewater capacity, sufficient stormwater capacity within the Conrail drain to address the 100 year storm and adequate utilities that can be extended into the area.

- **Environmental Impact Study**
A Characterization Report has been prepared that identifies natural heritage elements that have been identified on the property which include a variety of different elements of policy interest. Provincially significant wetlands (PSW) have been surveyed in the field and will be protected. The determination of the natural heritage areas in addition to the PSW that require protection will be determined as the Secondary Plan study progresses. The report provides preliminary environmental management strategy recommendations for each of the natural heritage elements that have been identified.
- **Transportation Study**
The transportation assessment analyzes existing transportation conditions on the network within the Study Area and provides conclusions based on the analysis completed. Signalized and unsignalized intersection will operate with satisfactory levels of service except for some legs of the signalized intersections of McLeod Road at Oakwood Drive, McLeod Road at Dorchester Road, and Montrose Road at Lyons Creek / Biggar Road.
- **Archaeological Assessment**
A Stage 1 assessment has been undertaken and recommended that a Stage 2 assessment be carried out which is currently underway.
- **Cultural Heritage Assessment**
The report documents the findings which indicate that areas of potential cultural heritage interest were not identified.
- **Noise, Vibration and Air Quality**
A noise, vibration and air quality analysis has been undertaken which indicates that development within certain portions of the Study Area may be limited or subject to a more detailed assessment in order to address the influence of industrial land uses and the railway branch line on sensitive land uses.
- **Environmental Site Assessment**
The Phase 1 report identified areas of possible concern with respect to:
 - Industrial use in the northeast and northwest portion of the Study Area;
 - Infilling in the southern portion of the Study Area; and
 - Former Washington Mills facility on Progress Street.On the basis of the findings of the Phase 1 report, a Phase 2 environmental site assessment has been initiated.
- **Retail Market Assessment**
The report identifies an opportunity for a shopping area that provides medium to high grade facilities that are oriented to tourists, residents and supplemented by

the business industry (including conferences and exhibitions). Preliminary analysis suggests a themed commercial space with a size of 300,000 to 400,000 square feet at full build out would be appropriate in this area. The potential size and location of commercial development will be addressed through the Study process.

The technical studies will support the development of the Secondary Plan and provide the basis for the creation of the detailed land use plans. They will be finalized when more details of the proposed Plans have been prepared in order to provide a complete analysis of the requirements necessary to support the creation of the community.

Vision

The Vision for the Secondary Plan area is to create a dynamic new community that:

- Provides a range of housing choices including those for the expanding “empty nester” market.
- Is “green”, energy efficient, sustainable, respects the natural environment and protects the provincially significant wetlands.
- Encourages a healthy, active lifestyle by embracing the outdoors, taking advantage of water on two sides and the golf course next door, and providing new recreational and leisure opportunities.
- Has a memorable community core focused on lively pedestrian streets that provide local residents and international tourists with a multicultural setting that includes:
 - world famous restaurants catering to international cuisines,
 - entertainment complexes,
 - boutique shops,
 - health care and wellness services and facilities.
- Supports a vibrant local and regional economy.

1. Introduction

1.1 Background

The Thundering Waters Secondary Plan Study Area is a unique parcel of land located in a strategic location in the City of Niagara Falls. The Study Area represents a large parcel of predominately vacant greenfield land within the City. The Study Area is identified as Special Policy Area 56 (SPA 56) in the City's Official Plan which states that development will occur in accordance with a Secondary Plan to be adopted as an amendment to the Official Plan. As a result, a Secondary Plan Study is being undertaken to form the basis for future development.

In September 2008 the lands were redesignated to Residential and Environmental Protection Area through OPA #81. The Municipal Comprehensive Review undertaken in 2012 concluded that the Thundering Waters area is one of the future urban growth areas in the City. The "Thundering Waters Secondary Plan" draft Terms of Reference issued by the City on May 1, 2012 identified a concept plan which includes lands use patterns to meet not only residential neighbourhoods but also commercial, schools, parks, community facilities and employment land opportunities which is consistent with and conforms to Provincial and Region growth strategy, plans and policies. A small portion in the north-west and east side of the Study Area remains designated Industrial to reflect the industrial uses existing at the time.

The Secondary Plan is intended to achieve the goals, objectives and policies set out in the Niagara Falls Official Plan. This will result in the development of a pedestrian friendly, vibrant and complete community with a mix of uses and densities that meet the minimum Provincial and Regional requirements. The Secondary Plan will prioritize people, sustainability and livability, as well as high quality urban design.

The purpose of this report is to summarize a review of initial available background information as part of the basis for the Secondary Plan. The report outlines:

- existing context, land use, and community infrastructure;
- the current planning policy framework for development;
- preliminary technical analysis related to natural environment, transportation, servicing, commercial opportunities, cultural heritage and environmental considerations.
- preliminary vision, and objectives.

The Thundering Waters Background Report is intended to form part of the discussion with the City, Region, Niagara Region Conservation Authority, residents, landowners,

agencies and other stakeholders, which will lead, after further analysis and input, to the establishment of a planning framework for the Secondary Plan Area.

The Secondary Plan when complete will provide a land use plan and policies based on the potential of the area within the context of the site's physical characteristics, features, servicing capabilities, and transportation requirements consistent with the City's Growth Strategy, the Provincial Policy Statement and the Growth Plan. The Secondary Plan, and supporting studies will provide a "road map" to support the proposed development. The focus of the Study will be simultaneously on the Secondary Plan and its implementation.

1.2 Study Area

The Study Area is located within the Drummond Community Area in the southern portion of the City's Urban Area. The Study Area is bounded by Oldfield Road to the north, Thundering Waters Golf Course and Stanley Avenue Industrial Business Park to the east, the Welland River to the south and the Ontario Power Generation Inc. (OPG) Canal to the west. An aerial context for the Study Area is shown on Map 1 and the existing land uses for the Study Area and surrounding lands are shown on Map 2.

The Thundering Waters Secondary Plan area contains approximately 270 hectares and with the exception of a few existing and former industrial uses around the periphery of the site, the study area is predominantly vacant. The Study Area is bisected by the Conrail Drainage Ditch and a lightly used railway line that serves a few industrial operations including one within the Study Area.

The Study Area is fairly flat as shown on the topography on Map 3 and there is vegetation over a large portion of the Study Area as can be seen on Map 1. There are a variety of vegetation communities including wetlands, woodlands, cultural thickets and meadows.

Approximately 70% of the lands in the Study Area are owned by GR (CAN) as shown on Map 1. There are six other property owners within the study area.

There are a variety of existing schools, parks and community facilities within the Dorchester community to the north as shown on Map 4. As part of the Study process an assessment will be made of the need for additional facilities within the Secondary Plan Study Area.

1.3 Study Process

The Secondary Plan study is being undertaken by consultants with assistance from a Steering Committee which will provide guidance and technical input throughout the process. The Committee will generally meet approximately once a month throughout the process to discuss the study progress, findings and directions.

The Study Process will be undertaken in 3 phases.



Phase 1 – Background Study and Analysis

Phase 1 will involve background research to review the existing conditions, current policy framework and information available from existing sources including aerial photography and contour mapping. It will also identify major influences within the Study Area. This Background Report outlines the preliminary findings.

Phase 2 – Plan Development Process

The second phase of the Study will utilize the background information as the basis for preparing supporting studies which include:

- Environment Report
- Archaeological Resources
- Heritage Resources
- Environment (Noise, Vibration, Air Quality and Site Contamination)
- Sanitary Sewers, Water and Stormwater Management
- Land Budget, Housing Mix Analysis
- Transportation

A land use concept will be developed in which will then be reviewed and refined through steering committee, public, and stakeholder input. A draft Secondary Plan will also be prepared.

Phase 3 – The Approval Process

The draft Secondary Plan will go through a formal statutory process which will include a public open house and public meeting. The input received will be reviewed and comprehensive technical report will be prepared and then the plan will be revised and presented to Council for adoption.

Public Engagement

There will be a variety of opportunities for input and public engagement throughout the Study process. These will include:

- Regular meetings with the Steering Committee;
- Three Public Information Centres/Workshops including the Statutory Open House;
- Meetings with the Stanley Business Park Association;
- Meetings with other stakeholders as appropriate;
- Statutory Public Meeting; and
- Reports to Council.

2. Planning Policy Framework

The Provincial Policy Statement 2014 (PPS), the Growth Plan for the Greater Golden Horseshoe (Growth Plan), and the Niagara Region Official Plan provide broad policy direction with respect to development in Thundering Waters. However, for the detailed planning required at the secondary plan level for Thundering Waters, the Niagara Falls Official Plan establishes the key policy directions. The Secondary Plan for Thundering Waters must be consistent with the directions in the PPS, and conform with the Growth Plan, the Niagara Region Official Plan and the Niagara Falls Official Plan.

A detailed outline of the policy framework is provided in Appendix A to this report. This section summarizes the applicable key policy directions.¹ The analysis reviews the general applicability of the Provincial plans, followed by a discussion of the policies relevant to the Secondary Plan in the Provincial plans. It then addresses the relevant policies of the Region and the City's Official Plans and summarizes existing zoning in the Study Area.

2.1 Provincial Policy

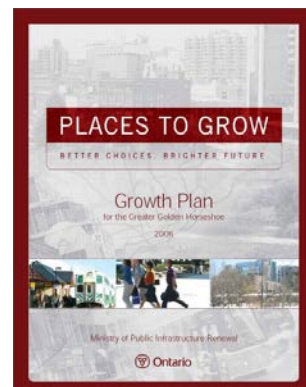
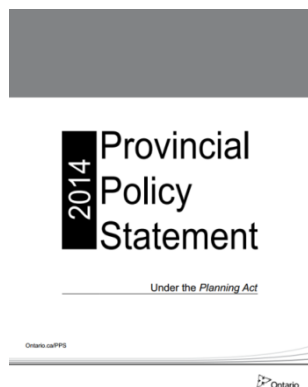
The *PPS* is issued under the authority of Section 3 of the *Planning Act*. Section 3 requires that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act. It should also be noted that Section 4.4 of the *PPS* establishes that the *PPS* is to be read in its entirety and all relevant policies are to be applied to each situation. The *PPS* came into effect April 30, 2014.

The *Growth Plan* is intended to inform decision-making with respect to growth management in the Greater Golden Horseshoe. It was approved under the *Places to Grow Act*, 2005 and applies to all decisions on matters, proceedings or applications made under the *Planning Act* and the *Condominium Act*, 1998. The *Growth Plan* is to be read in conjunction with the *PPS* and other relevant Provincial Plans. The *Growth Plan* prevails where there is a conflict between the *PPS* and the *Growth Plan*. The only exception is where the conflict is between policies relating to the natural environment or human health. In that case, the direction that provides more protection to the natural environment or human health prevails. It should also be noted that Section 5.4.1.1 of the *Growth Plan* establishes that the *Growth Plan* is to be read in its entirety and all relevant policies are to be applied to each situation. The *Growth Plan* came into effect

¹ Note: The analysis summarizes the policy framework but reference should be made to the documents themselves for a complete understanding of all the policies.

on June 16, 2006 and has been amended twice on January 19, 2012 and June 17, 2013.

The *PPS* and the *Growth Plan* provide direction related to the creation of efficient land use and development patterns which support sustainability by promoting strong, liveable, healthy and resilient communities, protecting the environment and public health and safety and facilitating economic growth (Section 1.0 PPS). The *Growth Plan* builds on the directions in the *PPS* providing more specific direction related to growth management (e.g. intensification targets).



Key general policy themes which are relevant to planning for Thundering Waters Study Area include:

- creating efficient land use and development patterns, and in greenfield areas, focusing on compact form, a mix of uses and increased densities;
- recognizing the link between the management of growth and the provision of infrastructure and the need to integrate servicing and land use considerations at all stages of the planning process;
- ensuring that development is phased, and that it occurs with a density and mix of uses which is appropriate for and efficiently uses existing and planned infrastructure and which avoids unjustified and/or uneconomical expansion;
- providing an appropriate range of housing types and densities to meet projected requirements including affordable housing;
- promoting economic development and competitiveness including a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses;

- promoting healthy, active communities that include a full range of publicly accessible recreational, open space, and community service facilities;
- ensuring that sewage, water and stormwater systems are environmentally and financially sustainable and that the implementation of such systems promotes a culture of conservation;
- designing transportation systems which offer a balance of transportation choices and opportunities for multi-modal use with a priority on active transportation and transit;
- protecting the natural heritage system and protecting, improving and restoring of the quality and quantity of water;
- conserving significant built heritage resources and cultural heritage landscapes as well as protecting archaeological resources;
- establishing a culture of conservation including energy efficiency, water demand management, and water recycling, improving air quality, and climate change adaptation; and
- directing development away from areas of natural or human-made hazards.

2.2 Region of Niagara Official Plan

The Region of Niagara Official Plan (NROP) is intended to guide the physical, economic and social development of the Regional Municipality of Niagara. It contains objectives, policies and mapping that to provide for managing growth, growing the economy, protecting the natural environment, resources and agricultural land, and providing infrastructure.

- Tourism
Tourism plays an important role in Niagara's economy, is seen an industry with significant growth potential and the development and integration of cultural tourism is supported by the Region. The NROP recognizes that tourism is one of the main industries in the City of Niagara Falls.
- Niagara Economic Gateway
The Study Area is within the Niagara Economic Gateway area which is intended to attract investment and promote employment growth in strategic locations by taking advantage of the unique locational opportunities and linking them with

Niagara's market opportunities. Tourism uses and tourism economic development is a priority in the Niagara Economic Gateway zone.

- Employment

The intent is to plan for, protect and preserve employment areas for current and future use and where new sensitive land uses are proposed adjacent to or in proximity to employment areas, analysis will be required to assess any constraints caused by introducing those uses.

- Commercial

Local municipalities are encouraged to plan for commercial uses and commercial space on the basis of a hierarchy of commercial areas. The Region promotes the "Main Street" form of commercial development, with building facades closer to the street, an efficient use of land, and a mix of uses. Commercial development should be transit and active transportation friendly with parking requirements that are adequate but not excessive and which includes bicycle parking and pedestrian walkways.

- Managing Growth

Growth should be based on developing complete, compact communities that include a diverse mix of land uses, a range of local employment opportunities and housing types, high quality public open spaces, and easy access to local stores and services in a transit supportive, and active transportation friendly urban environment.

The Region requires a minimum combined gross density target of 50 people and jobs per hectare across all Designated Greenfield Areas, excluding the features within the Environmental Protection Areas and Environmental Conservation Areas in the Region's Core Natural Heritage System and any non-developable features designated in local official plans.

Designated Greenfield Areas will be planned as compact, complete communities by:

- Accommodating a range of land uses including residential, commercial, institutional, recreational, employment and other uses where scale permits.
- Providing opportunities for integrated, mixed land uses.
- Creating street patterns that are a fine grain, grid pattern, supporting transit and active transportation within the area and to adjacent areas.
- Ensuring that Greenfield development is sequential, orderly and contiguous with existing built-up areas.
- Ensuring the provision of municipal servicing in accordance with water and wastewater servicing master plans.

The Region encourages the local municipalities to establish policies that address the principles of environmentally sustainable development such as reducing energy demands, maximizing water conservation, providing appropriate stormwater infiltration at source, integrating active transportation and transit, and maintaining and enhancing natural heritage and hydrological features and functions.

- Natural Environment

Development should maintain, enhance or restore ecosystem health and integrity with the first priority being given to avoiding negative environmental impacts. If negative impacts cannot be avoided then mitigation measures are required.

The objectives are to maintain, restore and, where possible, enhance the long term ecological health, integrity and biodiversity of the Core Natural Heritage System and to recognize the linkages among natural heritage features and ground and surface water resources.

The Core Natural Heritage System includes Core Natural Areas, classified as either Environmental Protection Areas or Environmental Conservation Areas and potential Natural Heritage Corridors connecting the Core Natural Areas. The boundaries of Core Natural Areas and potential Natural Heritage Corridors may be defined more precisely through Environmental Impact Studies (EIS). Only minor boundary adjustments to Environmental Protection Areas will be permitted without an amendment to the Plan. Natural heritage features of local significance may be identified by local municipalities in their planning documents.

Development and site alteration may be permitted in Environmental Conservation Areas and on adjacent lands to Environmental Protection and Environmental Conservation Areas if it has been demonstrated that there will be no significant negative impact on the Core Natural Heritage System.

Stormwater management facilities will not be constructed in Core Natural Heritage Areas, Fish Habitat, and key hydrologic features.

An EIS is required when:

- lands are within 120 m of a provincially significant wetland;
- lands are inside or within 50 metres of a ANSI, significant habitat of threatened or endangered species significant woodland, significant wildlife habitat, significant habitat of species of concern, significant valleylands and other evaluated wetlands;
- land are within 15 m of other fish habitat.

In order to ensure that measures to protect the natural environment are properly implemented:

- Local municipalities are encouraged to ensure that development within the Core Natural Heritage System and adjacent lands is subject to either subdivision or site plan approval; and
- Applicants may be required to enter into a development agreement or conservation easement, or provide financial security, to ensure implementation of mitigation measures.

Local municipalities are encouraged to employ measures such as parkland dedications, density bonuses, transfer of development rights, land acquisition and exchange, holding provisions and conservation easements to facilitate environmental conservation in the development process.

- Infrastructure

Municipal sewage services and water services are the required form of servicing for development in Urban Areas. All new urban development areas must be provided with separate storm drainage systems.

- Transportation

The Region has adopted the Regional Niagara Bikeways Master Plan and encourages cycling as a part of active living and for tourism. Dorchester Road and Chippawa Parkway in the Study Area are both part of the regional bicycle network.

There are no regional roads within the Study Area.

- Creative Niagara

Significant built heritage resources and cultural heritage landscapes will be conserved.

- Housing and Community Services

The Region encourages the development of attractive, well designed residential development that:

- a) Provides for active transportation within neighbourhoods with connections to adjacent residential and commercial areas, parks and schools.
- b) De-emphasizes garages, especially in the front yard.
- c) Emphasizes the entrance and points of access to neighbourhoods.
- d) Is accessible to all persons.
- e) Incorporates the principles of sustainability in building design.
- f) Provides functional design solutions for such services as waste collection and recycling.
- g) Provides an attractive, interconnected and active transportation friendly streetscape.

- h) Contributes to a sense of safety within the public realm.
- i) Balances the need for private and public space.
- j) Creates or enhances an aesthetically pleasing and functional neighbourhood.
- k) Encourages a variety of connections based on transportation mode between land uses based on diverse transportation modes, allowing people to move freely between the places where they live, work and play.

2.3 City of Niagara Falls Official Plan

The Niagara Falls Official Plan has a 20 year vision outlining long term objectives and policies of the City with respect to the growth and development of urban lands; the conservation of natural heritage areas; and the provision of necessary infrastructure.

- Strategic Direction

The relevant growth objectives for the City are to:

- direct growth to urban areas and protect the Natural Heritage Areas and their functions,
- to support increased densities,
- to phase infrastructure and development in Greenfield areas,
- to develop Greenfield areas as compact complete communities with a range of housing, employment and public transit,
- to protect prime employment lands for the long term in Industrial designations, and
- to develop transit and pedestrian friendly, sustainable and livable City through the use of urban design criteria and guidelines.

- Residential

The target density of development in Greenfield areas will be not less than 53 people and jobs per hectare. The calculation will be made over the gross developable areas at a secondary plan scale defined as the total land area net of natural heritage areas identified for protection.

Multiple unit housing should address the following:

- high density housing should be within 250 m of an arterial road and designed to avoid microclimatic impacts on abutting lands,
- structured parking is encouraged, appropriate separation will be provided between residential and other sensitive uses and industrial uses.

- Commercial

The commercial hierarchy consists of:

- Major Commercial which includes space greater than 10,200 square metres of gross leasable retail floor area with a full range of retail outlets to serve the entire market population and may include mixed use developments, recreational, community and cultural facilities as secondary uses.
 - Minor Commercial which ranges in size from 3,700 to 10,200 sq metres of gross leasable floor area and includes a wide range of retail outlets, personal service shops and offices on a small scale. Mixed use developments, recreational uses and community and cultural facilities may be permitted and development may be oriented to the street in plaza or multi-unit buildings.
 - Neighbourhood Commercial which is permitted within the Residential designation and in a Greenfield area is limited to 930 square metres of total floor area unless substantiated by appropriate studies in a Secondary Plan.
- Tourism Commercial
Tourism and accommodation is major source of employment and lands designated Tourism Commercial are considered employment land.

There is a hierarchy of tourist districts consisting of the Central Tourist District and four Satellite Districts and no new Tourist Commercial District is contemplated however; where such development is proposed, an amendment to the NFOP may be considered based on need and the submission of the following studies:

- land use study describing the appropriateness of the site for the proposed use, compatibility with surrounding land uses and integration with the established tourist plant;
 - traffic impact study addressing the functionality of roads and necessary upgrades;
 - servicing report outlining the method of accommodating sanitary and storm water systems; and,
 - environmental studies describing any woodlots, fish habitat and watercourses which may be affected by the development.
- Industrial
The primary uses for lands designated Industrial will be for industry as well as ancillary uses, commercial services, corporate and business offices, health and fitness facilities, conference centres and private clubs. Zoning for industrial uses will differentiate the type of industrial activity ranging from heavy to prestige uses. General and heavy industrial uses will be separated from residential areas where possible, to protect such areas from the effects of noise, heavy traffic and other offensive characteristics.

- Natural Heritage

The City supports an ecosystem approach to the identification, protection and enhancement of the natural heritage resources. The policies of the Natural Heritage System apply to protect any previously unmapped natural heritage feature identified by an Environmental Impact Study (EIS) regardless of the land use designation applying to such feature in this Plan.

An EIS is required as part of a complete application for site alteration or development on lands:

- a) within or adjacent to an Environment Protection Area (EPA) or Environmental Conservation Area (ECA); or
- b) that contain or are adjacent to a natural heritage feature.

New development should not interfere with the function of linkages and corridors which provide connections between natural heritage features and efforts should be made through design for the enhancement or rehabilitation of natural heritage resource connections. If necessary an alternative corridor may be created through the development process that will function as an ecological link between all natural heritage features in the area.

A stormwater management plan must demonstrate that the proposal will minimize vegetation removal, grading and soil compaction, erosion and sedimentation, and impervious surfaces. Stormwater management facilities will not be constructed within any EPA or ECA features. A stormwater management facility may be permitted where it has been demonstrated that there will be no impact on any natural heritage feature or the function of the natural heritage system.

All development is to be designed in a sensitive manner having regard to the environmental, social and aesthetic benefits of trees, hedgerows and woodlands through such matters as the following:

- The retention and protection, to the greatest extent possible, of the existing tree cover, recognizing its environmental and aesthetic importance.
- Ensuring efficient harvesting and use of trees that must be removed to accommodate the placement of buildings, structures and roads.
- The incorporation of land with existing tree cover into the urban area park system, if appropriate.
- The maintenance and possible enhancement of tree cover along watercourses and on steep slopes, in order to reduce soil erosion and improve water quality.
- The use of native trees in development design.

Good stewardship of urban woodlots and forested areas is promoted. The location of treed and wooded areas, including those located outside of significant woodlands, is shown on Map 7.

The limits of the EPA and ECA designations and their adjacent lands may be expanded or reduced as new environmental mapping and studies are produced or through site specific applications.

The EPA designation applies to Provincially Significant Wetlands, Niagara Peninsula Conservation Area (NPCA) regulated wetlands greater than 2 ha in size, Provincially Significant Life Areas of Natural and Scientific Interest (ANSIs), significant habitat of threatened and endangered species, floodways and erosion hazard areas and environmentally sensitive areas.

A vegetated buffer established by an EIS must be maintained around Provincially Significant Wetlands and NPCA Wetlands greater than 2 ha in size.

- Open Space
Uses that are permitted in the Open Space designation include major public parks, conservation areas, cemeteries, golf courses, private clubs, recreational areas and ancillary uses that don't harm or interfere with the open space uses. The integration and linkage of areas that are designated Open Space will be encouraged. The acquisition of open space lands by public agencies will be encouraged.
- Special Policy Area 56
Special Policy Area 56 addresses the Thundering Waters Secondary Plan Study Area. Development will occur in accordance with a Secondary Plan to be adopted as an amendment to the Official Plan. The extent of the Residential and Environmental Protection Area designations may be affected by the environmental and feasibility studies yet to be completed and will be refined through the Secondary Plan process.

The Secondary Plan must address the following:

- Residential design in compliance with the policies and density targets of the Growth Plan for the Greater Golden Horseshoe and applicable Growth Management Studies;
- The separation and buffering of sensitive land uses from existing rail lines and proximate industrial uses, facilities and designations in accordance with relevant Provincial and Regional policies and regulations and in consultation with the industrial property owners;
- The availability of adequate municipal services including road, water, sanitary sewer and stormwater management services including the location

of a pumping station to service the southern portion of the subject lands;
and,

- The density targets will be based on the entire Secondary Plan area and not any individual development.

No development or site alteration will be permitted within areas designated EPA. Refinement to the extent of the EPA and Residential designation and appropriate setbacks and linkages will occur at the Secondary Plan, zoning by-law, draft plan of subdivision, plan of condominium and site plan control stage and will be based on the detailed EIS.

- Municipal Infrastructure

Development within the urban area will be on the basis of full municipal services. All new development will be serviced by a suitable storm drainage system which will be as natural as possible to create habitat areas and provide linkages to other natural areas where applicable.

There is a hierarchy of roads within the City and the following road are under the jurisdiction of the City:

- City arterial roads which will have a width of 26 m,
- Collector roads which will have a width of 20 to 23 m, and
- Rocal roads are 20 m in width but under special circumstances may be less than 20 m.

Dorchester Road and Chippawa Parkway within the Study Area are City arterial roads.

- Parkland Strategy

Neighbourhood Parks will serve the needs of local residents. They will be designed with extensive street frontage for visibility and safety, coordinated with elementary school sites wherever possible and may include active play areas, passive landscaped areas, playgrounds and play fields. Within secondary plan areas, a system of trails and open space should be provided.

- Urban Design

High quality development is encouraged and within secondary plans design elements such as the arrangement of uses and densities, road layout and orientation, lotting schemes, parks, pedestrian and cycling routes, tree planting, landscaping and services will be addressed.

- Secondary Plans

Secondary Plans will be prepared for greenfield areas and generally provide the following items:

- The overall population capacity of the community related to road and

- service infrastructure;
- The location of major engineering services and public utilities;
- The location and areas of various residential densities;
- The needs of the residential community including access to parks and open space, schools, convenience retail, employment and energy conservation;
- The road pattern, including existing and proposed arterial, collector and local road roads; and,
- Environmental constraints and particularly recognizing important natural heritage features and areas of hydrological significance.

2.4 City of Niagara Falls Zoning By-law

The existing zoning for the Study Area is shown on Map 13. The majority of the Study area is currently zoned GI which permits a variety of industrial uses and employment uses and the remainder of the Study Area is zone Open Space and Hazard Land. The GI zoning conformed to the previous land use designations in the Official Plan but not reflect the uses currently permitted at the Official Plan level.

3. Supporting Technical Analysis

The following background reports have been prepared in support of the Secondary Plan Study.

3.1 Functional Servicing Study

A Phase 1 Functional Servicing Plan Background Review and Existing Conditions Characterization has been undertaken by Amec Foster Wheeler which addresses the following matters:

Stormwater Management

- Background information review,
- Field reconnaissance,
- Baseline assessment,
- Hydrology,
- Hydraulics, and
- Regulatory mapping

Wastewater Servicing

- Background information review,
- Methodology,
- Design Criteria
- Topographic constraints, and
- Required analysis

Water Servicing

- Background information review,
- Methodology,
- Design Criteria, and
- Required analysis

Other Utilities

- Bell
- Cogeco,
- Enbridge
- Hydro electricity.

The Background report indicates that the study area has a well serviced perimeter with sufficient water pressure and supply, sufficient wastewater capacity, sufficient

stormwater capacity within the Conrail drain to address the 100 year storm and adequate utilities that can be extended into the area. Oldfield Road acts as a major artery for all required services.

3.2 Environmental Impact Study

An Environmental Impact Study is being undertaken and extensive fieldwork has been carried out with late fall field work still on-going. A Characterization Report has been prepared that summarizes the work to date, including a description of the field work undertaken, and detailed findings and analysis from that fieldwork with respect to the vegetation, wildlife, avian and aquatic communities.

The property contains provincially significant wetland (PSW) which has been staked and reviewed in the field with staff from the Ministry of Natural Resources and Forestry. Buffers around the PSW will be recommended based on sensitivities within the wetland, functional linkages to adjacent lands, and proposed land uses. Additional lands outside of the PSW may also be identified for protection where they complement the natural features that occur within the PSW, provide significant wildlife habitat, and/or provide important ecological linkage functions. The determination of the additional natural heritage areas that require protection to ensure the long-term sustainability of the natural features will be determined as the Secondary Plan study progresses and will be based on on-going fieldwork, site analysis, and integration with other disciplines (e.g. hydrology and transportation).

The natural heritage elements that have been documented within the Study Area include the following:

- Provincially Significant Wetland Slough Forest
- Endangered/Threatened Species at Risk and their associated habitat
- Old growth/Mature Forest Habitat
- Shrub/Early Successional Bird Habitat
- Bat Maternity Roost Habitat
- Mast Tree Habitat
- Amphibian Breeding Habitat (Woodland Type)
- Habitat for Provincially Rare and/or Species of Special Concern (Schreber's Aster, Honey Locust, Eastern Wood-Pewee, Wood Thrush, and Snapping Turtle)
- Reptile Hibernacula
- Deer Winter Congregation Areas
- Rare Vegetation Communities
- NPCA regulated wetlands
- ECA woodlands

The report provides preliminary environmental management strategy recommendations for each of these natural heritage elements. Mitigation recommendations are provided, as well as key considerations in developing the environmental management strategy.

3.3 Transportation Study

The Secondary Plan will integrate with the City and Regional Transportation Master Plans to achieve a balanced transportation network to serve the Study Area. The background work that has been undertaken includes the following:

- Summarizes relevant background reports and studies considered in preparing the transportation plan;
- Documents the data collection process for the Transportation Study;
- Analyzes existing transportation conditions on the network within the Study Area; and
- Provides conclusions based on the analysis completed which indicate that.
 - Signalized and unsignalized intersection will operate with satisfactory levels of service during the weekday afternoon peak hour except for some legs of the signalized intersections of McLeod Road at Oakwood Drive, McLeod Road at Dorchester Road, and Montrose Road at Lyons Creek / Biggar Road; and
 - During the Saturday peak hour, some legs of the signalized intersections of McLeod Road at Oakwood Drive, and McLeod Road at Dorchester Road operate with overall LOS E and v/c ratios greater than 1.0. All remaining signalized and unsignalized intersection operate with satisfactory levels of service.

3.4 Archaeology Assessment

The Stage 1 assessment has been undertaken and included the following:

- Update existing data base of known archaeological sites within the Study Area by:
 - Reviewing pertinent provincial and federal government files (Ontario Archaeological Sites Database); and,
 - Reviewing and compiling the results of a literature search (published and unpublished).
- Determine the archaeological potential of the Study Area by:
 - Reviewing the archaeological site location data;
 - Reviewing the geomorphological and hydrological character of the Study Area on the basis of available project mapping; and,

- Conducting a field review to confirm archaeological potential, and to determine the degree to which recent construction disturbance has affected that potential.

The Stage 1 assessment identified a need to conduct a Stage 2 assessment which is currently underway and will assess the areas outside of the provincially significant wetlands. The Stage 2 work will include carrying out test pit surveys at 5 metre intervals, processing and analyzing artifacts if recovered and preparing a report for submission to MTCR.

3.5 Cultural Heritage Assessment

A Cultural Heritage Assessment was undertaken which included:

- Background historic research including literature review and historic mapping to identify the evolution of the built environment and cultural heritage landscapes;
- Reviewing listings of cultural heritage structures and landscapes;
- Visiting the site and reviewing photo documentation;
- Consulting library, municipal and archival sources; and
- Compiling background evidence necessary to assess the built heritage and cultural heritage landscape potential

The report documents the findings which indicate that areas of potential cultural heritage interest were not identified. It provides recommendations with regard to future cultural heritage assessment during development of the property.

3.6 Noise, Vibration and Air Quality Assessment

A Noise, vibration and air quality analysis has been undertaken to address potential noise, vibration and air quality issues from the adjacent industrial uses and any other noise sources such as road and rail traffic. The analysis indicates that development within certain areas of the Study Area may be limited or subject to a more detailed assessment in order to address the influence of industrial land uses and the railway branch line on sensitive land uses. This may require noise and vibration mitigation measures for lands within the railway influence zones and noise and air quality assessments for existing industry.

Mitigation measure for sensitive land uses may include such measures as:

- Barriers;
- Enclosed balconies;
- Building location/ orientation / room layout;
- Upgraded façade;

- Deep foundations;
- Vibration isolation; and
- Ventilation (air conditions)

3.7 Environmental Site Assessment

A Phase 1 environmental site assessment was undertaken to address areas of potential contamination. The Phase 1 report identified areas of possible concern with respect to:

- Industrial use in the northwest portion of the Study Area;
- Industrial use in the northeast portion of the Study Area;
- Infilling in the southern portion of the Study Area; and
- Former Washington Mills facility on Progress Street.

On the basis of the Phase 1 report, a Phase 2 environmental site assessment has been initiated.

3.8 Retail Market Assessment

A commercial retail market assessment has been undertaken to address the amount and type of retail commercial development that is being proposed for the Study Area. The work has included:

- A review of current location, population, economic factors, industrial development, and infrastructure
- An analysis of existing market conditions including current supply volume, future supply trends, rental prices, and vacancy rates, brand preferences of customers, business pattern preferences and retail locations within the trade area on the basis of size and function
- Identification of the opportunity for the scale and type of retail facilities within the Study Area.

The report identifies an opportunity for a shopping area that provides medium to high grade facilities that are oriented to tourists, residents and supplemented by the business industry (including conferences and exhibitions). It recommends an approach which is geared to:

- **Society** – regional node and interactive space for local residents
- **Tourism** – providing a one stop shopping experience
- **Art** – architectural art and culture
- **Green** – a natural environment atmosphere geared to a healthy lifestyle
- **Ecology** – energy conservation and environmental protection.

Preliminary analysis suggests a themed commercial space with a size of 300,000 to 400,000 square feet at full build out would be appropriate. The scale and location of commercial development will be addressed through the Study.

3.9 Future Technical Analysis

The technical studies initiated in Phase 1 will support the development of the Secondary Plan and provide the basis for the creation of the detailed land use plans. They will be finalized when more details of the proposed Plans have been prepared in order to provide a complete analysis of the requirements necessary to support the creation of the community.

4. Vision and Objectives

4.1 Community Vision

To create a dynamic new community that:

- Provides a range of housing choices including those for the expanding “empty nester” market.
- Is “green”, energy efficient, sustainable, respects the natural environment and protects the provincially significant wetlands.
- Encourages a healthy, active lifestyle by embracing the outdoors, taking advantage of water on two sides and the golf course next door, and providing new recreational and leisure opportunities.
- Has a memorable community core focused on lively pedestrian streets that provide local residents and international tourists with a multicultural setting that includes:
 - world famous restaurants catering to international cuisines,
 - entertainment complexes,
 - boutique shops,
 - health care and wellness services and facilities.
- Supports a vibrant local and regional economy.

4.2 Community Objectives

To create a safe, healthy and livable residential community that:

- Provides a range of housing types and densities consistent with the requirements of the Growth Plan and the Region’s and City’s Official Plans;
- Provides a vibrant mixed use core that serves as a focal point for the community;
- Provides recreational, community and commercial facilities that serve the needs of the area and act as a tourism draw;
- Takes advantage of the unique natural characteristics and features within and adjacent to it;
- Sustains and enhances the natural environment through protection and restoration (where appropriate) of the provincially significant wetlands and

associated buffers, and addressing other significant environmental features on the property;

- Provides a linked open space and parkland system that is visible and accessible and provides view corridors through the community and to the Welland River and Canal where possible;
- Is pedestrian oriented and encourages active transportation;
- Maintains transportation linkages both within and to the greater community and accommodates the long term travel needs of the area;
- Provides transit supportive densities and uses;
- Provides for full municipal services including stormwater management best management practices that meet the needs of the community;
- Preserves significant heritage and cultural assets;
- Protects and minimizes conflicts with adjacent industrial uses;
- Fits within the existing local context and is compatible with the surrounding areas; and
- Is sustainable and resilient.

5. Conclusions

The Thundering Water Secondary Plan is being undertaken to provide a comprehensive study which will provide the foundation for the development of a new community as required by the City's Official Plan. The Secondary Plan will address the policy framework established at the provincial, regional and local level. In particular:

- **Secondary Plan**
The City's Official Plan provides detailed direction on the type of background studies required in the preparation of a Secondary Plan. Further, the Secondary Plan must reflect the general policy context including creating complete, compact communities that include a diverse mix of land uses, a range of local employment opportunities and housing types, high quality public open spaces, and easy access to local stores and services in a transit supportive, and active transportation friendly urban environment.
- **Natural Heritage**
Natural heritage features have been identified in both the Regional and City Official Plans, and their ongoing protection is required by Provincial, Regional and City policy. Policies indicate that core areas, natural heritage features and linkages are to be identified and may be refined through further study. The identification of appropriate buffers and mitigation measures will be addressed as part of the Study process.
- **Residential**
The target density of development in Greenfield areas will be not less than 53 people and jobs per hectare. The calculation will be made over the gross developable areas at a secondary plan scale defined as the total land area net of natural heritage areas identified for protection. The location and scale of various residential densities will be addressed through the Study process.
- **Employment Areas**
Lands designated for Industrial uses are to be retained and will be protected and buffered from sensitive land uses such as residential.
- **Commercial**
Policies identifying a hierarchy of commercial districts and tourism commercial districts form the basis for evaluating the opportunity for creating commercial uses within the Study Area.

- **Infrastructure**
Development will occur on full municipal services and will address the location of a pumping station to service the southern portion of the subject lands. Development will be serviced by a suitable storm drainage system which will be as natural as possible. The road pattern, including existing and proposed arterial, collector and local roads and associated traffic control, the need for off-site upgrades and the provisions for transit and active transportation plans will be addressed.
- **Community Services**
Parks, open space, schools and community services will be further assessed to ensure that an appropriate level of access is provided to the new residential community.
- **Zoning**
A large portion of the Study Area is currently zoned for Industrial uses (GI). As zoning is required to be in conformity with the Official Plan, the GI zoning should be addressed either as part of the Secondary Plan Study process or as part of the subsequent subdivision approval process.

Detailed technical studies are being undertaken as part of the preparation of the Secondary Plan. The work that has been undertaken to date includes:

- **Functional Servicing Study**
A Background Review and Existing Conditions Characterization report has been prepared. It indicates that the study area has a well serviced perimeter with sufficient water pressure and supply, sufficient wastewater capacity, sufficient stormwater capacity within the Conrail drain to address the 100 year storm and adequate utilities that can be extended into the area.
- **Environmental Impact Study**
A Characterization Report has been prepared that identifies natural heritage elements that have been identified on the property which include a variety of different elements of policy interest. Provincially significant wetlands (PSW) have been surveyed in the field and will be protected. The determination of the natural heritage areas in addition to the PSW that require protection will be determined as the Secondary Plan study progresses. The report provides preliminary environmental management strategy recommendations for each of the natural heritage elements that have been identified.
- **Transportation Study**
The transportation assessment analyzes existing transportation conditions on the network within the Study Area and provides conclusions and recommendations

based on the analysis completed. Signalized and unsignalized intersection will operate with satisfactory levels of service except for some legs of the signalized intersections of McLeod Road at Oakwood Drive, McLeod Road at Dorchester Road, and Montrose Road at Lyons Creek / Biggar Road.

- **Archaeological Assessment**
A Stage 1 assessment has been undertaken and recommended that a Stage 2 assessment be carried out which is currently underway.
- **Cultural Heritage Assessment**
The report documents the findings which indicate that areas of potential cultural heritage interest were not identified.
- **Noise, Vibration and Air Quality**
A noise, vibration and air quality analysis has been undertaken which indicates that development within certain portions of the Study Area may be limited or subject to a more detailed assessment in order to address the influence of industrial land uses and the railway branch line on sensitive land uses.
- **Environmental Site Assessment**
The Phase 1 report identified areas of possible concern with respect to:
 - Industrial use in the northeast and northwest portion of the Study Area;
 - Infilling in the southern portion of the Study Area; and
 - Former Washington Mills facility on Progress Street.On the basis of the findings of the Phase 1 report, a Phase 2 environmental site assessment has been initiated.
- **Retail Market Assessment**
The report identifies an opportunity for a shopping area that provides medium to high grade facilities that are oriented to tourists, residents and supplemented by the business industry (including conferences and exhibitions). Preliminary analysis suggests a themed commercial space with a size of 300,000 to 400,000 square feet at full build out would be appropriate in this area. The potential size and location of commercial development will be addressed through the Study process.

The technical studies will support the development of the Secondary Plan and provide the basis for the creation of the detailed land use plans. They will be finalized when more details of the proposed Plans have been prepared in order to provide a comprehensive analysis of the requirements necessary to support the new community.

APPENDICES

A.1 Provincial Policy Statement

The policies of the *PPS* are found in Part V of the document and relate to the following general categories:

- Section 1.0 Building Strong Healthy Communities
- Section 2.0 Wise Use and Management of Resources
- Section 3.0 Protecting Public Health and Safety
- Section 4.0 Implementation and Interpretation
- Section 5.0 Figure 1
- Section 6.0 Definitions.

Key policies relevant to the Phase 1B Secondary Plan are summarized below.

Section 1.0 Building Strong Healthy Communities

The policies in Section 1.0 provide direction related to the creation of “efficient land use and development patterns” which support sustainability with the intent of creating “strong, liveable, healthy and resilient communities, protecting the environment and public health and safety, and facilitating economic growth.”

Specific directions related to efficient and resilient development and land use patterns, which also reflect recognition of the link between the management of growth and the provision of infrastructure and public services facilities (e.g. fire and police services, education), are found in Section 1.1 and include:

- providing for land use patterns in settlement areas based on densities and a mix of land which efficiently use land and resources, as well as “infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion”; and minimize negative impacts to air quality and climate change, promote energy efficiency, support active transportation and transit, and are freight supportive (Section 1.1.3.2);
- requiring that new development in designated growth areas occur adjacent to existing built-up areas and have “a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities”(Section 1.1.3.6);

- the establishment and implementation of phasing policies that ensure intensification and redevelopment are achieved prior to, or concurrent with, new development in designated growth areas (Section 1.1.3.6) and that ensure orderly growth in designated growth areas “and the timely provision of the infrastructure and public service facilities required to meet current and projected needs” (Section 1.1.3.7); and
- only allow expansion of a settlement area boundary at the time of a comprehensive review where it has been demonstrated that sufficient opportunities for growth are not available to accommodate projected needs, that infrastructure and public service facilities are suitable for the development over the long term, are financially viable and protect public health and safety and the natural environment, that in prime agricultural areas there are no reasonable alternatives to avoid prime agricultural areas or no reasonable alternatives on lower priority land, that the expanding settlement area is in compliance with minimum distance separation formulae and the impact from the expansion on agricultural operations are mitigated to the extent feasible (Section 1.1.3.8).

Section 1.0 also provides other relevant directions which include:

- Section 1.2 Coordination - requires a coordinated, integrated and comprehensive approach when dealing with planning matters with other levels of government and agencies. This includes managing and promoting growth and development; economic strategies; and employment projections based on regional markets.
- Section 1.2.6 Land Use Compatibility - directs that major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects, minimize risk to public health and safety and to ensure long term viability of the major facilities.
- Section 1.3 Employment Areas – states that planning authorities should promote economic development and competitiveness including “providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses” and “ensuring the necessary infrastructure is provided to support current and projected needs”.
- Section 1.3.2 Employment Areas – “Planning authorities shall protect employment areas in proximity to major goods movement facilities and corridors for employment uses that require those locations.”

- Section 1.4 Housing – requires provision of an appropriate range and mix of housing types and densities to meet projected requirements of the regional market areas through a range of mechanisms including establishing and implementing minimum targets for affordable housing and permitting and facilitating all forms of housing. Section 1.4.1 also requires maintaining:
 - the ability “to accommodate residential growth for a minimum of 10 years through residential intensification and redevelopment and, if necessary, through lands designated and available for residential development”; and,
 - “where new development is to occur, land with servicing capacity sufficient to provide at least a three- year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.”
- Section 1.5 Public Spaces, Recreation, Parks, Trails and Open Space – indicates that healthy, active communities should be promoted by a number of initiatives including “planning public streets, spaces and facilities to be safe, meet the needs of pedestrians, foster social interaction and facilitate active transportation and community connectivity” and “providing for a full range and equitable distribution of publicly-accessible built and natural settings for recreation”.
- Section 1.6 Infrastructure and Public Service Facilities -includes general policies, as well as specific direction related to sewage, water and stormwater, transportation systems, transportation and infrastructure corridors and airports, rail and marine facilities. The general directions in Sections 1.6.1 - 1.6.5 inclusive are intended to promote a “coordinated, efficient and cost-effective” approach to the provision of infrastructure and public service facilities “that considers the impacts from climate change while accommodating projected needs”. Use, including adaptive re-use, of existing infrastructure and public service facilities is to be optimized where feasible before new infrastructure is developed. In addition, the use of green infrastructure should be promoted.

Specific directions related to infrastructure and public service facilities relevant to the Phase 1B Lands include:

- Section 1.6.6 Sewage, Water and Stormwater

The policies of Section 1.6.6 identify municipal sewage and water services as the preferred for servicing of settlement areas (Section 1.6.6.2) and promote efficient use and optimization of existing systems (Section 1.6.6.1 a). Section 1.6.6.1 also requires that the planning for sewage and water services:

“b) ensure the these systems are provided in a manner that:

1. can be sustained by the water resources on which such systems rely;
 2. is feasible, financially viable and complies with all regulatory requirements; and
 3. protects human health and the natural environment;
- c) promote water conservation and water use efficiency;
- d) integrate servicing and land use considerations at all stages of the planning process; and,
- e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.1, 1.6.6.2, 1.6.6.4 and 1.6.6.5.”

Section 1.6.6.7 provides general direction with respect to planning for stormwater management including “promoting stormwater best management practices including stormwater attenuation and re-use, and low impact development.”

- Section 1.6.7 Transportation Systems

The policies require the following:

- Section 1.6.7.1 – transportation systems are to be “safe, energy efficient, facilitate movement of people and goods and are appropriate to address projected needs”;
 - Section 1.6.7.2 – efficient use is to be made of “existing and planned infrastructure, including the use of transportation demand strategies, where feasible”;
 - Section 1.6.7.3 – “As part of a multimodal transportation system, connectivity within and among transportation systems and modes should be maintained and, where possible, improved including connections which cross jurisdictional boundaries”;
 - Section 1.6.7.4 – a land use pattern, density and mix of uses which minimizes length and number of vehicle trips, supports the current and future use of transit and active transportation is to be promoted;
 - Section 1.6.7.5. – transportation and land use considerations are to be integrated at all stages of the planning process.
- Section 1.6.8 Transportation and Infrastructure Corridors

The policies of Section 1.6.8 are designed to ensure that corridors and rights-of-way for infrastructure, including transportation, transit and electricity generation facilities and transmission systems are planned for and protected. Major goods movement facilities and corridors are to be protected for the long term. Section 1.6.8.3 states:

“Planning authorities shall not permit development in planned corridors that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.

New development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.”

In addition, Section 1.6.8.5 requires consideration to be given to the significant resources identified in Section 2 of the PPS when planning for corridors and rights-of-way.

- Section 1.6.9 Airport, Rail and Marine Facilities – specific direction for land uses in the vicinity of airports, rail and marine facilities to ensure that their long term operation and economic role are protected.
- Section 1.6.10 Waste Management – Planning authorities are to consider “the implications of development and land use patterns on waste generation, management and diversion.”
- Section 1.6.11 Energy Supply – Planning authorities should provide opportunities for development of energy supply including electrical generation facilities and transmission and distribution systems. In addition, renewal energy systems and alternative energy systems should be promoted where feasible.
- Section 1.7 Long Term Economic Prosperity – outlines directions that support this objective including “promoting opportunities for economic development and community investment-readiness”; “optimizing the long-term availability and use of land, resources, infrastructure, electricity generation facilities and transmission and distribution facilities and public service facilities”; “encouraging a sense of place, by promoting well designed built form and cultural planning, and by conserving features that help define character”; “providing for an efficient, cost-effective, reliable multimodal transportation system” and “minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature”.

- Section 1.8 Energy, Conservation, Air Quality and Climate Change – directs that energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions and climate change adaptation be supported through land use and development patterns that meet a number of criteria including compact form and a structure of nodes and corridors; promotion of active transportation and transit; focus of major employment, commercial and other travel-intensive uses on sites well served by transit or designing them to facilitate future transit; and focus freight intensive land use to areas well served by major highways. In addition, design and orientation is promoted which maximizes energy efficiency and conservation and the mitigating effects of vegetation, maximizes opportunities for the use of renewable energy systems and alternative energy systems, and vegetation within settlement areas, where feasible.

Section 2.0 Wise Use and Management of Resources

Section 2.0 provides policies with respect to the protection of natural heritage, water, agriculture, mineral, petroleum, mineral aggregate and cultural heritage and archaeological resources for their economic, environmental and social benefits.

Relevant directions include:

- Section 2.1 Natural Heritage – directs that “natural features and areas shall be protected for the long term” and recognizes the need to maintain, restore, and where possible improve the diversity and connectivity of natural features and “the long-term ecological function and biodiversity of natural heritage systems... recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.” Development and site alteration is not permitted in specific feature such as provincially significant wetlands in certain areas, and is restricted in others, as well as adjacent lands, unless it is demonstrated that there is no negative impact on the feature and its ecological functions. In addition, with respect to fish habitat and the habitat of endangered and threatened species, development and site alteration is not permitted except in accordance with provincial and federal requirements.
- Section 2.2 Water – requires the protection, improvement and restoration of the quality and quantity of water in accordance with a range of criteria including identification of surface and ground water features, hydrologic functions, natural heritage features and areas and surface water features which are necessary for the ecological and hydrological integrity of the watershed and “ensuring stormwater management practices that minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.” Development and site alteration is to be restricted in or near sensitive surface and ground water features.

- Section 2.6 Cultural Heritage and Archaeology – requires the conservation of significant built heritage resources and cultural heritage landscapes. It also prohibits development and site alteration on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved. In addition, development and site alteration may only be permitted on adjacent lands to protected heritage property where it has been demonstrated that the heritage attributes will be conserved.

Section 3.0 Protecting Public Health and Safety

The objective of the policies in Section 3.0 is to reduce the potential for public cost or risk to residents from natural or human-made hazards. Development is to be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage. In particular, development is to be directed to areas outside hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards and hazardous sites (Section 3.1.1 b).

With respect to human-made hazards (Section 3.2), “development on, abutting or adjacent to land affected by mine hazards; oil, gas and salt hazards; or former mineral mining operations, mineral aggregate operations or petroleum resource operations may be permitted only if rehabilitation measures to address or mitigate known or suspected hazards are under-way or have been completed.” In addition, contaminated sites are required to be remediated prior to activity on the site associated with the proposed use so that there will be no adverse effects.

Section 4.0 Implementation and Interpretation

These policies relate to the implementation and interpretation of the PPS. In particular, Section 4.7 notes that the official plan is the most important vehicle for implementation of the PPS and zoning is important for implementation of the PPS.

Section 5.0 Figure 1

The two maps in this section identify a specific natural heritage protection line referenced in the policies related to natural heritage.

Section 6.0 Definitions

The definitions apply to a wide variety of terms (e.g. “infrastructure”, “natural heritage system”).

A.2 Growth Plan

The intent of the Growth Plan, like the PPS, is to create efficient land use and development patterns. The policies of the Growth Plan relevant to Phase 1B Employment Lands are found in Sections 2-5 and Section 7 of the document and relate to the following general categories:

- Section 2 Where and How to Grow
- Section 3 Infrastructure To Support Growth
- Section 4 Protecting What is Valuable
- Section 5 Implementation and Interpretation
- Section 6 Definitions

Key policies relevant to the Phase 1B Lands are summarized below.

Section 2 Where and How to Grow

The policies of Section 2 are intended to set out the parameters with respect to where and how growth occurs in the Greater Golden Horseshoe (GGH) to ensure the development of healthy, safe and balanced communities.

The policies of Section 2 establish initially that the population and employment forecasts in Schedule 3 to the Plan are to be used for planning and managing growth (Section 2.2.1.1).² General directions with respect to managing growth and intensification are established in Sections 2.2.2 and 2.2.3, and Section 2.2.7 provides specific direction with respect to designated greenfield areas. Thundering Waters is considered a greenfield area.

The policies provide strong direction that development in designated greenfield areas be compact and transit supportive. Specifically, Section 2.2.7 provides direction on the form of development in designated greenfield areas including contributing to the creation of complete communities; providing a diverse mix of land uses and creating high quality public spaces. A minimum density target of not less than 50 residents and jobs is established for each upper tier municipality. (Section 2.2.7.2).

Section 2.2.6 dealing with Employment Areas indicates that:

² Note: Amendment No. 2 to the Growth Plan updated the population and employment forecasts to 2041 from 2031. The Region is responsible for allocating these forecasts to the local municipalities and is currently carrying out the necessary work to update the allocations.

- An adequate supply of lands providing locations for a variety of appropriate employment uses will be maintained to accommodate the growth forecasts in Schedule 3.
- Municipalities will promote economic development and competitiveness by –
 - providing for an appropriate mix of employment uses including industrial, commercial and institutional uses to meet long-term needs;
 - providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
 - planning for, protecting and preserving employment areas for current and future uses; and,
 - ensuring the necessary infrastructure is provided to support current and forecasted employment needs.
- Other general directions in Section 2.2.2 which are applicable include “reducing dependence on the automobile through the development of mixed-use, transit-supportive, pedestrian-friendly urban environments”, “providing convenient access to intra- and inter-city transit”, and development of complete communities.

Section 3 Infrastructure to Support Growth

Section 3 provides a framework to guide infrastructure and strategic investment decisions to support and accommodate forecasted population and employment growth – particularly in three key areas of transportation, water and wastewater systems and community infrastructure.

With respect to the infrastructure required to support growth, while the Growth Plan does not specifically define infrastructure, Section 3.2.1.1 states that:

“Infrastructure includes but is not limited to transit, transportation corridors, water and wastewater systems, waste management systems, and community infrastructure.”

Section 3.2.1, Infrastructure Planning provides general policies related to infrastructure and the key direction is that “infrastructure planning, land use planning, and infrastructure investment will be co-ordinated to implement this Plan.”

Specific policies related to transportation are found in Sections 3.2.2 Transportation – General; 3.2.3 Moving People and 3.2.4 Moving Goods. Key directions include:

- planning and managing the transportation system to:
 - provide connectivity among modes,
 - offer a balance of transportation choices,

- encourage the most financially and environmentally appropriate mode of trip-making,
 - offer multi-modal access;
 - provide safety for users (Section 3.2.2.1);
- planning for transportation corridors (which includes highways and arterial roads) to:
 - ensure corridors are identified and protected to meet current and projected needs for various travel modes,
 - support opportunities for multi-modal use with a priority on transit and goods movement needs over single occupant automobiles;
 - consider increased opportunities for moving people and goods by rail;
 - consider separation of modes within corridors;
 - provide linkages to planned or existing inter-modal opportunities for goods movement corridors (Section 3.2.2.3);
- municipalities will develop and implement transportation demand management policies in official plans or other planning documents (Section 3.2.2.5);
- public transit will be the first priority for transportation infrastructure planning and major transportation investments (Section 3.2.3.1);
- municipalities will ensure that pedestrian and bicycle networks are integrated with transportation planning (Section 3.2.3.3);
- Province and municipalities are to:
 - co-ordinate and optimize goods movement systems;
 - improve corridors for moving goods consistent with Schedule 6;
 - promote and better integrate multi-modal goods movement and land-use and transportation system planning, including the development of freight-supportive land-use guidelines (Section 3.2.4.2);
- municipalities will plan for land uses adjacent to, or in the vicinity of, major transportation facilities that are compatible with, and supportive of, the primary goods movement function of these facilities (Section 3.2.4.5); and,
- Schedule 6 to the Growth Plan provides the strategic framework for future goods movement investment decisions (Section 3.2.4.6).

Specific policies related to water and wastewater systems are found in Section 3.2.5. Key directions include:

- municipalities will generate sufficient revenue to recover the full cost of providing municipal water and wastewater systems (Section 3.2.5.1);

- municipalities are encouraged to plan and design municipal water and wastewater systems that return water to the Great Lake watershed from which the withdrawal originates (Section 3.2.5.2);
- construction of new, or expansion of existing systems should only be considered when:
 - strategies for water conservation and other water demand management initiatives are implemented in the existing service area;
 - plans for expansion or for new services are to serve growth in a manner that supports achievement of the intensification target and density targets;
 - plans have been considered in the context of the applicable Great Lakes Basin agreements (Section 3.2.5.4);
- municipalities that share an inland water source and/or receiving water body should co-ordinate planning for potable water, stormwater and wastewater systems (Section 3.2.5.6); and,
- municipalities in conjunction with conservation authorities, are encouraged to prepare watershed plans and use such plans to guide development decisions and water and wastewater decisions (Section 3.2.5.8).

Section 3.2.6 provides policies that relate to community infrastructure. Key directions include:

- community infrastructure planning, land-use planning and community infrastructure investment are to be co-ordinated to implement the Growth Plan and the development of a community infrastructure strategy is encouraged (Sections 3.2.6.1 and 3.2.6.4);
- planning for growth is to take into account the availability and location of existing and planned community infrastructure (Section 3.2.6.2); and
- an appropriate range of community infrastructure is to be planned to meet population changes and foster complete communities (Section 3.2.6.3).
- minimum affordable housing targets are to be established in accordance with the PPS and a housing strategy developed (Sections 3.2.6.5 and 3.2.6.6).

Section 4 Protecting What is Valuable

The policies of Section 4 identify how the protection of natural systems, prime agricultural areas, and mineral aggregate resources will be integrated with the other

directions of the Plan. It also establishes policies which support a range of conservation initiatives.

The policies indicate that through sub-area assessments, the Province will identify natural systems, prime agricultural areas and significant mineral resource areas and policies/strategies for their protection (Sections 4.2.1.1., 4.2.2.1 and 4.2.3.1). In addition, municipalities are encouraged “to identify natural heritage features and areas that complement, link, or enhance natural systems”; develop a system of public parkland, open space and trails; and establish an urban open space system (Sections 4.2.1, 4.2.2 and 4.2.3).

Section 4.2.4, A Culture of Conservation, directs that municipalities develop and implement official plan policies and other strategies to support a number of conservation objectives. The objectives include:

- water conservation including water demand management and water recycling;
- energy conservation, including energy conservation for municipal facilities and land use patterns and urban design standards that encourage and support energy-efficient buildings and opportunities for cogeneration;
- air quality protection;
- integrated waste management; and,
- cultural heritage conservation, including conservation of cultural heritage and archaeological resources where feasible, as built-up areas are intensified (Section 4.2.4.1 e).

Section 5 Implementation and Interpretation

These policies relate to the implementation and interpretation of the Growth Plan.

The Growth Plan’s population target for the Niagara Region is 543,000 by 2031.

Section 6 Definitions

The definitions apply to a wide variety of terms, a number of which are the same as the PPS. A specific definition of infrastructure is not included, although there are definitions of terms such as transportation corridor and sewage works.

A.3 Regional Municipality of Niagara Official Plan

The following summarizes the relevant policies of Niagara Region Official Plan (NROP)

1 Imagine Niagara

The physical characteristics of the Region are dominated by the Niagara Escarpment. Land drainage in the fruit growing area is good but is only moderately good to poor though much of the Region with large swamps in the southern part of the Region.

Tourism, the manufacturing of finished products, chemicals and abrasives provides much of the employment in Niagara Falls. The supply of hydroelectric power is an attraction for industry and the Falls are the largest tourist attraction, attracting millions of visitors every year.

2 Growing the Economy

“The preservation and enhancement of the Region's special character will be important to the quality of life here in the future. At the same time, though, it is also important to provide for economic development and housing to meet the needs of those who live in Niagara. The challenge is to provide a balance between conservation and development. At the Regional scale, there is the opportunity to achieve such a balance, accommodating urban development while conserving resources and protecting the environment.”

The Strategic Objectives are:

1. To recognize the diversified opportunities and needs in Niagara by balancing both urban development and the conservation of natural resources.
2. To facilitate and maintain a pattern of distinctive and identifiable urban communities.
3. To encourage two discontinuous development corridors, one between Thorold and Port Colborne and the other between Niagara Falls and Fort Erie, through enabling public policies.
4. To preserve and enhance the ecological processes and life-support systems essential for sustaining human well-being and the health of the natural environment.
5. To improve regional self-reliance through long-range economic development planning and economic diversification.
6. To provide for the conservation and wise use of Niagara's agricultural and other natural resources, through environmentally sound resource use without compromising the needs of future generations.
7. To undertake and support those activities which improve the quality of life for the Niagara community.

2.A Tourism

“Tourism plays a very important role in Niagara’s economy, providing employment and generating business for support service and supply industries. It is an industry with significant growth potential. The Region envisions a strong tourism economy that draws tourists with the promise of diverse opportunities and supports the development and integration of cultural tourism.”

Tourism and recreation related development is one of the core components of Niagara’s economy and the continued expansion and development of it, within Settlement Areas, is supported and encouraged.

3 Employment

3A Niagara Economic Gateway

The Niagara Economic Gateway is comprised of a number of components including the Gateway Economic Zone which includes all settlement areas with Niagara Falls and Fort Erie, the Queen Elizabeth Way Corridor between Fort Erie and Niagara Falls and major tourist destinations. Lands within the Niagara Economic Gateway which are designated in local plan for employment uses are Niagara Gateway Employment Lands.

“The vision for the Niagara Economic Gateway employment lands is to attract investment and promote employment growth in strategic locations. By addressing the challenges in a strategic and coordinated manner and by taking advantage of the unique locational opportunities and linking them with Niagara’s market opportunities, Niagara will attract new investment to support its existing employment base and further develop its emerging employment clusters. The vision is to transform the collection of vacant lands into a diversified mix of vibrant, attractively designed, accessible and sustainable employment areas.”

There are a number of objectives for the employment lands including promoting employment land intensification and brownfield redevelopment, supporting appropriately located tourism facilities while maintaining the broader employment land focus, and balancing development with natural heritage.

“The concept for the Niagara Falls QEW Business Park is to capitalize on long-term opportunities for business and services in close proximity to 400 series highways focusing on manufacturing, warehousing and other employment land uses.”(3.A.3.9)

The Region will identify transportation improvements and upgrades required to support the Niagara Gateway Employment Lands Strategy through a comprehensive Gateway-specific transportation plan. The Region will also confirm the Regional infrastructure

improvements and upgrades required to support the Niagara Gateway Employment Lands Strategy through the Region's Master Servicing Study. (3.A.3.18 and 19)

"Tourism uses and tourism economic development is a priority for the Niagara Economic Gateway Zone and Centre. Tourism focused lands are not identified on a map as they are broadly through the Gateway Zone and Centre in such areas as the Niagara River Parkway, the Niagara Falls Tourist Area, tourism areas in Fort Erie, and along the Welland Canal. Transit opportunities for strengthening the tourism economy will be pursued." (3.A.3.24)

3C Employment Lands

The Region and the local municipalities will ensure economic competitiveness by providing an appropriate mix of employment uses, including industrial, commercial and institutional uses to meet long term needs; providing opportunities for a diversified economic base; planning for, protecting and preserving employment areas for current and future use; and ensuring that the necessary infrastructure and services are provided to support current and forecasted employment needs including transit and active transportation facilities. This will include discussions with telecommunications providers regarding the feasibility of providing broadband technology, to attract knowledge-based industries and support existing businesses. (3.C.1)

"Local municipalities should designate and preserve lands within Urban Areas which are adjacent to or in close proximity to existing major highway interchanges, ports or rail yards as employment areas providing for manufacturing, warehousing, transportation and associated retail, office and ancillary employment uses, where appropriate." (3.C.2)

"Where new sensitive land uses are proposed adjacent to or in proximity to employment areas, analysis is required to assess any constraints the introduction of such uses will have on the types of uses which could locate within all or portions of the employment area and/or on any existing employment uses." (3.C.3)

3D Commercial Areas

Local municipalities are encouraged to plan for commercial uses and commercial space on the basis of a hierarchy of commercial areas and to develop policies which support the use of market impact studies and peer reviews for major commercial applications.

"Market impact studies and peer reviews should consider:

- a) The need for the proposed use.
- b) The location, size and scale of the proposed development.
- c) The potential for compatibility issues.
- d) The potential market impacts on existing and planned commercial areas, including downtowns and other shopping nodes.

- e) The potential for negative impacts on the natural environment.
- f) The adequacy of the existing transportation infrastructure, including pedestrian and cycling infrastructure, serving the proposed use.
- g) The adequacy of the existing water and waste water infrastructure and other municipal services.
- h) The intent of the policies of this Plan.

Where the trade area for a market study extends beyond the boundary of the local municipality in which the proposed commercial facility would be located, the local municipality should consult with the other municipalities within the trade area.” (3.D.4)

“The Region promotes the “Main Street” form of commercial development, with building facades closer to the street, an efficient use of land, a mix of uses in both new and established areas, and support and access for active transportation.” (3.D.7)

Commercial development should be transit and active transportation friendly and the parking requirements should be adequate but not excessive and include provision for secure and sheltered bicycle parking and pedestrian walkways. (3.D.12)

4 Managing Growth

4.A Shaping Growth

The Growth Management objectives include (among others):

- Build compact, mixed use, transit supportive, active transportation friendly communities in the Built-up Area and in Designated Greenfield Areas.
- Reduce dependence on the automobile through the development of compact, mixed use, transit supportive, active transportation friendly urban environments.
- Provide a framework for developing complete communities all across Niagara, including a diverse mix of land uses, a range of local employment opportunities and housing types, high quality public open spaces, and easy access to local stores and services via automobile, transit and active transportation. (4.A.1)

4.B Population , Household and Employment Projections

The Region provides forecasts from the Growth Plan for both population and employment to 2031 and also provides municipal population, household and employment forecasts for each lower tier municipality consist with the provincial forecast. These forecasts must be included in local Official Plans.

The population forecasts for Niagara Falls are an excerpt of Table 4-1.

Forecast Period	Total Households	Total Population	Total Population with Undercount	Total Population in Households	Persons Per Household (PPH)	Total Employment	Total Employment including NFPOW
2006	32,495	82,200	85,500	83,900	2.58	38,900	42,800
2011	33,750	84,800	88,200	86,500	2.56	40,490	44,410
2016	34,940	86,800	90,300	88,500	2.53	41,380	45,330
2021	36,470	89,400	93,000	91,000	2.50	41,930	45,890
2026	38,550	93,000	96,700	94,500	2.45	42,680	46,670
2031	40,300	96,500	100,341	98,000	2.43	43,640	47,670

4.C Intensification and Greenfield Growth

Intensification is generally encouraged throughout the Built-Up Areas and by 2015 a minimum of 40% of all residential development within the Region will occur with the Built-Up Areas.

“Designated Greenfield Areas will be planned as compact, complete communities by:

- a) Where permitted by scale, accommodating a range of land uses including residential, commercial, institutional, recreational, employment and other uses.
- b) Where limited by scale or configuration, making a significant contribution to the growth of the respective Urban Areas as a complete community.
- c) Providing opportunities for integrated, mixed land uses.
- d) Creating street patterns that are fine grain and in grid pattern, supporting transit and active transportation within the area and to adjacent areas.
- e) Ensuring that Greenfield development is sequential, orderly and contiguous with existing built-up areas.
- f) Ensuring that the provision of municipal servicing is in accordance with the water and wastewater servicing master plans.” (4.C.5.1)

A minimum combined gross density target of 50 people and jobs per hectare is required across all Designated Greenfield Areas, excluding the following features within the Environmental Protection Areas and Environmental Conservation Areas in the Region’s Core Natural Heritage System and any non-developable features designated in local official plans:

- a) Wetlands;
- b) Coastal wetlands;
- c) Significant woodlands;
- d) Significant valley lands;
- e) Areas of natural and scientific interest;
- f) Habitat of endangered species and threatened species;
- g) Publically owned conservation lands;
- h) Significant wildlife habitat;
- i) Fish Habitat; and,
- j) Floodplain areas. (4.C.6.1)

In order to achieve the planned minimum greenfield density target, official plans will:

- a) Adopt minimum and maximum residential and employment densities in local Official Plans, including distinctions between net and gross density.
- b) Include policies for achieving higher residential and employment densities in greenfield areas.
- c) Include policies for achieving a mix of housing types and residential densities in greenfield areas.
- d) Develop greenfield development guidelines to support local policy direction for greenfield areas. (4.C.7.1)

4F Phasing of Development

Greenfield development approval will be given when both regional and local existing planned infrastructure can be provided in a financially and environmentally sustainable manner and where development would not be isolated from existing development. (4.F.1.3)

4G Urban Growth

“Niagara aspires to build sustainable, complete communities. Such communities serve the needs of the present local population, without compromising the potential needs of future generations. Niagara’s approach to building such communities addresses social, environmental, economic and cultural aspects of land use planning. Niagara will build more sustainable, complete communities by:

- Encouraging mixed and integrated land uses;
- Making efficient use of land, resources and infrastructure;
- Promoting compact, transit supportive development friendly to active transportation;
- Supporting intensification;
- Building better greenfield neighbourhoods;
- Fostering development that conserves natural resources and maintains or enhances natural systems.
- Integrating cultural programs and facilities in our Urban Areas;
- Making prudent fiscal decisions.”

“The Region encourages the local municipalities to establish official plan policies and other measures supporting development that addresses the principles of environmental sustainability including:

- a) Reducing energy demands;
- b) Designing development to optimize passive solar energy gains;
- c) Providing for on-site, renewable energy generation and co-generation and district energy systems

- d) Maximizing water conservation, including water efficient landscaping and collection and reuse of clean water;
- e) Providing appropriate stormwater infiltration at source;
- f) Integrating green roofs into energy and water conservation strategies;
- g) Providing for collection and storage of recyclable wastes on site;
- h) Integrating active transportation and transit into development plans; and
- i) Maintaining and enhancing natural heritage and hydrological features and functions in accordance with Chapters 7 of this Plan.

The Region shall assist and support the local municipalities in developing such policies and measures to implement them.” (4.G.3.1)

7 Natural Environment

7A Healthy Landscape

The Healthy Landscape concept addresses ecosystem health and environmental sustainability. It recognizes that environmental conditions in any particular location affect, and are affected by, environmental conditions in the surrounding landscape.

“Development should maintain, enhance or restore ecosystem health and integrity. First priority is to be given to avoiding negative environmental impacts. If negative impacts cannot be avoided then mitigation measures shall be required.” “New development, including infrastructure, should be designed to maintain or enhance the natural features and functions of a site.” (7.A.2 & 3)

“Development and site alteration shall only be permitted if it will not have negative impacts, including cross-jurisdictional and cross-watershed impacts, on:

- a) The quantity and quality of surface and ground water;
- b) The functions of ground water recharge and discharge areas, aquifers and headwaters;
- c) The natural hydrologic characteristics of watercourses such as base flow;
- d) Surface or ground water resources adversely impacting on natural features or ecological functions of the Core Natural Heritage System or its components;
- e) Natural drainage systems, stream forms and shorelines; and
- f) Flooding or erosion.” (7.A.2.1)

“A stormwater management plan submitted with an application for development shall demonstrate that the proposal will minimize vegetation removal, grading and soil compaction, erosion and sedimentation, and impervious services.... Stormwater management facilities shall not be constructed in Core Natural Heritage Areas, Fish Habitat, key hydrologic features, or in required vegetation protection zones in the Unique Agricultural Areas unless permitted under Chapter 7.B of this Plan.” (7.A.2.7)

“Public access to Niagara’s shorelines as shown on Schedule C shall be maintained or enhanced.” (7.A.5.1)

7B Core Natural Heritage System

The objectives are to maintain, restore and, where possible, enhance the long term ecological health, integrity and biodiversity of the Core Natural Heritage System and its contributions to a Healthy Landscape and to recognize the linkages among natural heritage features and ground and surface water resources. (7.B.1 & 2)

The Core Natural Heritage System includes:

- a) Core Natural Areas, classified as either Environmental Protection Areas or Environmental Conservation Areas;
- b) Potential Natural Heritage Corridors connecting the Core Natural Areas

Natural heritage features may be further defined through future studies and additional features of local significance may be identified by local municipalities in their planning documents. (7.B.1.1)

“Environmental Protection Areas include provincially significant wetlands; provincially significant Life Science Areas of Natural and Scientific Interest (ANSIs); and significant habitat of endangered and threatened species. In addition, within the Greenbelt Natural Heritage System, Environmental Protection Areas also include wetlands; significant valleylands; significant woodlands; significant wildlife habitat; habitat of species of concern; publicly owned conservation lands; savannahs and tallgrass prairies; and alvars. Mapping of the significant habitat of endangered and threatened species is not included in the Core Natural Heritage Map although much of this habitat may be found within the Environmental Protection and Environmental Conservation areas shown on the Map. Significant habitat of endangered and threatened species will be identified through the Planning and Development review process. Where such habitat is identified development and site alteration shall be subject to the policies for Environmental Protection Areas.” (7.B.1.3)

“Environmental Conservation Areas include significant woodlands; significant wildlife habitat; significant habitat of species of concern; regionally significant Life Science ANSIs; other evaluated wetlands; significant valleylands; savannahs and tallgrass prairies; and alvars; and publicly owned conservation lands.” (7.B.1.4)

“To be identified as significant a woodland must meet one or more of the following criteria:

- a) Contain threatened or endangered species or species of concern;
- b) In size, be equal to or greater than:
 - i. 2 hectares, if located within or overlapping Urban Area Boundaries;
 - ii. 4 hectares, if located outside Urban Areas and north of the Niagara Escarpment;

- iii. 10 hectares, if located outside Urban Areas and south of the Escarpment;
- c) Contain interior woodland habitat at least 100 metres in from the woodland boundaries;
- d) Contain older growth forest and be 2 hectares or greater in area;
- e) Overlap or contain one or more of the other significant natural heritage features listed in Policies 7.B.1.3 or 7.B.1.4; or
- f) Abut or be crossed by a watercourse or water body and be 2 or more hectares in area.” (7.B.1.5)

The boundaries of Core Natural Areas, Potential Natural Heritage Corridors and Fish Habitat are shown on Map 10. They may be defined more precisely through Watershed or Environmental Planning Studies, Environmental Impact Studies, and may be mapped in more detail in local official plans and zoning by-laws. Significant modifications, such as a change in the classification of a Core Natural Area, or a significant change in the spatial extent or boundaries of a feature, require an amendment unless otherwise provided for in the NROP. Only minor boundary adjustments to Environmental Protection Areas are permitted without an amendment. (7.B.1.7)

“Through the review of a planning application, if it is determined that there are important environmental features or functions that have not been adequately evaluated, an evaluation by a qualified biologist must be prepared and if the evaluation finds one or more natural heritage features meeting the criteria for Core Natural Heritage System components, then the appropriate Core Natural Heritage System policies will apply. (7.B.1.8)

“Development and site alteration may be permitted without an amendment to this Plan:

- a) In Environmental Conservation Areas; and
- b) On adjacent lands to Environmental Protection and Environmental Conservation Areas as set out in Table 7-1 except for those lands within vegetation protection zones associated with Environmental Protection Areas in the Greenbelt Natural Heritage System.

If it has been demonstrated that, over the long term, there will be no significant negative impact on the Core Natural Heritage System component or adjacent lands and the proposed development or site alteration is not prohibited by other Policies in this Plan. The proponent shall be required to prepare an Environmental Impact Study (EIS) in accordance with Policies 7.B.2.1 to 7.B.2.5.

Where it is demonstrated that all, or a portion of, an Environmental Conservation Area does not meet the criteria for designation under this Plan and thus the site of a proposed development or site alteration no longer is located within the Environmental Conservation Area or adjacent land then the restrictions on development and site alteration set out in this Policy do not apply.” (7.B.1.11)

Policies establish that an EIS is required when:

- lands are within 120 m of a provincially significant wetland;

- lands are inside or within 50 metres of a ANSI, significant habitat of threatened or endangered species significant woodland, significant wildlife habitat, significant habitat of species of concern, significant valleylands and other evaluated wetlands;
- land are within 15 m of other fish habitat.

Potential Natural Heritage Corridors which are conceptually shown on Map 10 will be considered when development is proposed in or near one. Development should maintain and where possible enhance the ecological functions of the Corridor. (7.B.1.13)

Where development is approved in or adjacent to the Core Natural Heritage System new lots will not extend into either the area to be retained in a natural state as part of the Core Natural Heritage System or the buffer zone identified through an Environmental Impact Study. (7.B.1.18)

A Tree Saving Plan must be prepared when development is approved within the Core Natural Heritage System or adjacent lands showing the applicant is maintaining or enhancing the remaining natural features and ecological functions. (7.B.1.19)

When an Environmental Impact Study (EIS) is required, it must be prepared by a qualified biologist or environmental planner in accordance with the Environmental Impact Study Guidelines (EIS Guidelines) adopted by Regional Council. Within Settlement Areas, the EIS has to be prepared to the satisfaction of the local municipality in consultation with the Region and the NPCA. (7.B.2.1)

7C Implementation Measures

“Where major changes in land use or municipal plans are proposed for an area, such as an urban boundary expansion or a secondary plan, an Environmental Planning Study (EPS) shall be prepared. It shall address the guidelines and terms of reference established through relevant watershed plans and shall include:

- a) An environmental inventory and assessment;
- b) A recommended environmental management strategy to maintain, enhance and restore ecological health and integrity within the study area;
- c) A recommended development plan identifying where development may take place, environmental features and functions to be maintained or restored, and appropriate policies;
- d) Recommendations for amendments to Regional and local planning documents; and
- e) A monitoring plan to assess environmental health during and after development.” (7.C.2.2)

“In order to provide more effective means to ensure that measures to protect the natural environment identified through the planning process are properly implemented the Region:

- a) Shall encourage local municipalities to ensure that development within the Core Natural Heritage System and adjacent lands is subject to either subdivision or site plan approval; and
- b) May require an applicant to enter into a development agreement or conservation easement, or provide financial security, to ensure implementation of mitigation measures.” (7.C.2.8)

Local municipalities are encouraged to employ measures such as parkland dedications, density bonuses, transfer of development rights, land acquisition and exchange, holding provisions and conservation easements to facilitate environmental conservation in the development process. (7.C.2.9)

8 Infrastructure

The Region, in consultation with local municipalities, will prepare design criteria for water and sewer works to be used in the design and approval of such facilities” and “will undertake jointly with local municipalities, the determination of development densities (through zoning by-laws or other means) in accordance with present and proposed water and sewer works capacities. This will ensure that servicing is co-ordinated with local zoning by-laws and staging of development.” (8.B.2 & .3)

Municipal sewage services and water services are the required form of servicing for development in Urban Areas. (8.B.9) All new urban development areas must be provided with separate storm drainage systems. (8.B.22)

9 Transportation

The Region will:

- a) Ensure that corridors are identified and protected to meet current and projected needs for various modes of travel including active transportation.
- b) Support opportunities for multi-modal use where feasible, in particular prioritizing transit and goods movement needs over single occupant automobiles.
- c) Consider increased opportunities for moving people and goods by rail, where appropriate.
- d) Consider the separation of modes within corridors, where appropriate. (9.B.1)

“The distribution of land uses, particularly the location of future large industrial and commercial areas, must take into account the availability of suitable transportation facilities.” (9.B.6)

There are no regional roads within the Study Area.

The Region has adopted the Regional Niagara Bikeways Master Plan and encourages cycling as a part of active living and for tourism. (9.F.1) Dorchester Road and Chippawa Parkway in the Study area are both part of the regional bicycle network.

10 Creative Niagara

Significant built heritage resources and cultural heritage landscapes will be conserved. Areas of archaeological potential will be determined through provincial screening criteria and archaeological assessment will be completed for development where the Region has not completed an Archaeological Management Plan.

The Region will encourage cultural tourism.

11 Housing and Community Services

“The Region encourages the development of attractive, well designed residential development that:

- l) Provides for active transportation within neighbourhoods with connections to adjacent residential and commercial areas, parks and schools.
- m) De-emphasizes garages, especially in the front yard.
- n) Emphasizes the entrance and points of access to neighbourhoods.
- o) Is accessible to all persons.
- p) Incorporates the principles of sustainability in building design.
- q) Provides functional design solutions for such services as waste collection and recycling.
- r) Provides an attractive, interconnected and active transportation friendly streetscape.
- s) Contributes to a sense of safety within the public realm.
- t) Balances the need for private and public space.
- u) Creates or enhances an aesthetically pleasing and functional neighbourhood.
- v) Encourages a variety of connections based on transportation mode between land uses based on diverse transportation modes, allowing people to move freely between the places where they live, work and play.” (11.A.2)

The Region encourages the integration of smaller-scale community facilities within neighbourhoods, and location of new school sites in the centre of new neighbourhoods.

A.4 City of Niagara Falls Official Plan (NFOP)

The following summarizes the relevant policies of NFOP:

Part 1 Plan Overview and Strategic Direction

The relevant growth objectives for the City are to:

- direct growth to urban areas and protect the Natural Heritage Areas and their functions,
- to support increased densities,
- to phase infrastructure and development in Greenfield areas,
- to develop Greenfield areas as compact complete communities with a range of housing, employment and public transit,
- to protect prime employment lands for the long term in Industrial designations, and
- to develop transit and pedestrian friendly, sustainable and livable City through the use of urban design criteria and guidelines.

Part 2 Land Use Policies

1 Residential

The predominant use of lands designated Residential will be for dwelling units of all types and a variety of ancillary uses where they are compatible, such as schools, churches, nursing homes, open space, parks recreational facilities, public utilities and neighbourhood commercial use. Ancillary uses are encouraged to locate on arterial or collector roads and conveniently accessed by walking, cycling and transit and will be addressed through Secondary Plans.

Greenfield

The target density of development in Greenfield areas will be not less than 53 people and jobs per hectare. The calculation will be made over the gross developable areas at a secondary plan scale defined as the total land area net of natural heritage areas identified for protection. A diverse range of uses is to be provided including neighbourhood commercial facilities and community services and employment that are compatibly integrated with the built and natural environments. (1.16.1 and 1.16.2)

Multiple unit housing should address the following:

- high density housing should be within 250 m of an arterial road and designed to avoid microclimatic impacts on abutting lands,
- structured parking is encouraged,

- appropriate separation will be provided between residential and other sensitive use and industrial use. (1.16.3)

Street configuration and urban design will support walking, cycling and public transit and the following policies apply:

- Collector roads will be designed to accommodate transit,
- Transit users should be within 300 m of a transit stop,
- Neighbourhoods should be designed based on a modified or fused grid pattern and block lengths should not exceed 250 metres and local roads should dead end at trails within natural heritage features to provide a view shed and public access,
- Sidewalks should be on both sides of collector and arterial roads
- Cul de sacs are discouraged and pedestrian connections should be provided out of cul de sacs
- Pedestrian connectivity is encouraged to lessen walking distances. (1.16.5)

3 Commercial

The commercial hierarchy consists of Major Commercial Districts, Minor Commercial Districts and Neighbourhood Commercial facilities. No new districts are contemplated.

Major Commercial includes space greater than 10,200 square metres of gross leasable retail floor area with a full range of retail outlets to serve the entire market population and may include mixed use developments, recreational, community and cultural facilities as secondary uses. (3.2.1)

Minor Commercial districts range in size from 3,700 to 10,200 sq metres of gross leasable floor area and include a wide range of retail outlets, personal service shops and offices on a small scale. Mixed use developments, recreational uses and community and cultural facilities may be permitted and development may be oriented to the street in plaza or multi-unit buildings. (3.3.1)

Neighbourhood Commercial is permitted within the Residential designation and in a Greenfield area is limited to 930 square metres of total floor area unless substantiated by appropriate studies in a Secondary Plan. (3.4.3)

4 Tourist Commercial

The policies envision a world class tourist destination as a modern urban centre at the heart of beautifully landscaped settings and natural wonders. The intent is to promote high standards of building design and an enhanced urban environment in order to effectively compete in the international market place.

Tourism and accommodation is major source of employment and lands designated Tourism Commercial are considered employment land and are subject to the policies regarding the conversion of employment lands to non-employment lands. (4.1.4)

“Within the Tourist Commercial Districts, City streets need to be planted with trees, thus extending the "green" of Queen Victoria Park into the urban setting. The greening of streets shall be accompanied by other streetscape improvements designed to create a vibrant and animated public realm, consistent with the expectations of the international traveler.” (4.1.7)

As system of built form regulations will be established in the Tourist Area with the highest buildings in the Central Tourist District and heights reduced towards the periphery and in satellite districts where low rise residential predominates. Additional heights will be based on the proviso of public realm improvements and Architectural Peer Review will be required for buildings over 10 storeys in height. (4.1.24)

There is a hierarchy of tourist districts consisting of the Central Tourist District and four Satellite Districts and no new Tourist Commercial District is contemplated however where such development is proposed, an amendment to this Plan may be considered based on need and the submission of the following studies:

- i) land use study describing the appropriateness of the site for the proposed use, compatibility with surrounding land uses and integration with the established tourist plant;
- ii) traffic impact study addressing the functionality of roads and necessary upgrades;
- iii) servicing report outlining the method of accommodating sanitary and storm water systems; and,
- iv) environmental studies describing any woodlots, fish habitats and watercourses which may be affected by the development.” (4.2.8)

Residential uses may be permitted throughout lands designated Tourist Commercial either as stand-alone or mixed use buildings in order to assist in creating a complete community. (4.2.9)

The physical setting of the Tourist areas must have a high quality public realm consisting of generous landscaped streets, open spaces, parks and gateways. (4.3.1)

8 Industrial

The City has a substantial supply of land available for industrial development within the Built-up Area. The redevelopment and intensification of this land supply for industrial and employment uses that are compatible with surrounding land uses is encouraged.

“Conversion of brownfield sites to non-employment uses, where the removal of the

industrial land is consistent with a Municipal Comprehensive Review, may be considered through an amendment to this Plan where at least one of the following criteria are met:

- the reduction or elimination of any long-standing land use compatibility issues with surrounding conforming uses;
- provision of affordable housing;
- contributing to a mix of housing types and densities in the planning area; or
- the provision of facilities that assist in the development of a complete community” (8.1.1)

The primary uses for last designated Industrial will be for industry as well as ancillary uses such as offices, retail and wholesale showrooms and outlets for products produced on site, commercial services such as banks restaurants and convenience retail outlets serving the industrial are, corporate and business offices and health and fitness facilities, conference centres and private clubs. (8.2)

Zoning for industrial uses will differentiate the type of industrial activity ranging from heavy to prestige uses. General and heavy industrial uses will be separated from residential areas where possible, to protect such areas from the effects of noise, heavy traffic and other offensive characteristics. (8.3)

The QEW Employment Corridor as identified in the Urban Structure Plan Schedule A2 applies to the lands west of Dorchester Road and in the north-west corner of the Study Area where the lands are currently designated Industrial. The QEW is a major transportation corridor and southern gateway to the City and the Corridor is well suited to employment uses that require highway frontage. The land within the Corridor will be protected from conversion to and encroachment from non-employment uses. (8.8)

11 Natural Heritage System

The City supports “an ecosystem approach to the identification, protection and enhancement of our natural heritage resources that addresses:

- a) the interrelationships between air, land, water, plant and animal life, and human activities;
- b) the health and integrity of the overall landscape, within and beyond the City's boundaries; and
- c) the long term and cumulative impacts on the ecosystem.” (11.1.1)

The policies of the Natural Heritage System apply to protect any previously unmapped natural heritage feature identified by an Environmental Impact Study regardless of the land use designation applying to such feature in this Plan. (11.1.10)

An EIS is required as part of a complete application under the Planning Act for site alteration or development on lands:

- a) within or adjacent to an Environment Protection Area or Environmental Conservation Area; or
- b) that contain or are adjacent to a natural heritage feature. (11.1.17)

“Linkages and natural corridors that provide a connection between natural heritage features can include valleylands, contiguous woodlands and wetlands, creeks, hedgerows, and service corridors.” “New development should not interfere with the function of these linkages and corridors and all efforts should be made through design for the enhancement or rehabilitation of natural heritage resource connections.” (11.1.23)

“Development or site alteration in or near a natural heritage feature should be designed to maintain and, where possible, enhance the ecological functions of existing linkages. If necessary an alternative corridor may be created through the development process that will function as an ecological link between all natural heritage features in the area (water, wildlife, flora). Alternative corridors must be supported by an EIS that is reviewed by the appropriate authorities and approved by the City or Region.” (11.1.25)

A stormwater management plan has to demonstrate that the proposal will minimize vegetation removal, grading and soil compaction, erosion and sedimentation, and impervious surfaces. Stormwater management facilities will not be constructed within any EPA or ECA features. A stormwater management facility may be permitted where it has been demonstrated that there will be no impact on any natural heritage feature or the function of the natural heritage system. (11.1.31 & 11.1.32)

“Development or site alteration adjacent to any hydrologic feature such as valleylands, stream corridors or Municipal Drains shall be setback from the stable top of slope in accordance with the Regulations of the Niagara Peninsula Conservation Authority. The required setback shall be protected through the implementing zoning by-law.” (11.1.36)

The City recognizes the values and benefits of trees, hedgerows and woodlands to the overall environmental health of the community as well as its visual appeal and places a high priority on the protection of these features. (11.1.39)

“All development is to be designed in a sensitive manner having regard to the environmental, social and aesthetic benefits of trees, hedgerows and woodlands through the following:

- i) The retention and protection, to the greatest extent possible, of the existing tree cover, recognizing its environmental and aesthetic importance.
- ii) Ensuring efficient harvesting and use of trees that must be removed to accommodate the placement of buildings, structures and roads.

- iii) The incorporation of land with existing tree cover into the urban area park system, if appropriate.
- iv) The maintenance and possible enhancement of tree cover along watercourses and on steep slopes, in order to reduce soil erosion and improve water quality.
- v) Permitting the continued management and selective harvesting of forest resources, where appropriate.
- vi) The use of native trees in development design.” (11.1.41)

“The City supports the protection of woodlands greater than 0.2 hectares in size and individual trees or small stands of trees on private lands that are deemed by Council to be of significance to the City because of species, quality, age or cultural association from injury and destruction through such means as the Region's Tree and Forest Conservation By-law or any similar municipal by-law.” (11.1.42)

“Good stewardship of urban woodlots and forested areas shall be promoted. The location of treed and wooded areas, including those located outside of significant woodlands, are illustrated on Appendix III to this Plan. Where such lands are under private ownership and are contemplated for development, the preservation and maintenance of natural environment conditions will be encouraged to the fullest extent possible. Where deemed appropriate, the City will consider such measures as bonusing, land purchase, transfer of development rights or land exchanges to safeguard important natural areas.” (11.1.43)

Environmental Protection Area (EPA) and Environmental Conservation Area (ECA)

The aim of NFOP is “to protect, maintain and enhance the important ecological and environmental features within the City.”

“The individual features protected through the EPA and ECA designations are most often interconnected through their location and function. The functions of the natural heritage features within the ecosystem are to be identified, maintained and, if at all possible, improved as identified in studies required through the planning process.” (11.2)

The limits of the EPA and ECA designations and their adjacent lands may be expanded or reduced as new environmental mapping and studies are produced or through site specific applications. (11.3)

The EPA designation applies to Provincially Significant Wetlands, NPCA regulated wetlands greater than 2 ha in size, Provincially Significant Life ANSIs, significant habitat of threatened and endangered species, floodways and erosion hazard areas and environmentally sensitive areas. (11.2.13)

Development or site alteration is not permitted in the EPA designation “except where it has been approved by the Niagara Peninsula Conservation Authority or other appropriate authority, for the following:

- a) forest, fish and wildlife management;
- b) conservation and flood or erosion projects where it has been demonstrated that they are necessary in the public interest and other alternatives are not available;
- c) small scale, passive recreational uses and accessory uses such as trails, board walks, footbridges, fences, docks and picnic facilities that will not interfere with natural heritage features or their functions.” (11.2.14)

A vegetated buffer established by an Environmental Impact Study (EIS) must be maintained around Provincially Significant Wetlands and Niagara Peninsula Conservation Area Wetlands greater than 2 ha in size. The precise location of the vegetated buffer will be determined through an EIS and may be reduced or expanded. New development or site alteration is not permitted within the vegetated buffer. (11.2.16)

“Endangered and Threatened species are identified through lists prepared by the Ministry of Natural Resources. The Significant habitat of threatened and endangered species are identified, mapped and protected through management plans prepared by the Ministry of Natural Resources and the Committee on the Status of Endangered Wildlife in Canada and all applications made pursuant to the Planning Act within or adjacent to the EPA designation will be circulated to the Ministry of Natural Resources for review.” (11.2.17).

12 Open Space

Permitted uses in the Open Space designation include major public parks, conservation areas, cemeteries, golf courses, private clubs, recreational areas and ancillary uses that don't harm or interfere with the open space uses. The integration and linkage of areas that are designated Open Space will be encouraged. The acquisition of open space lands by public agencies will be encouraged.

13 Special Policy Areas

Special Policy Area 56 (SPA 56) addresses this Study Area. Development will occur in accordance with a Secondary Plan to be adopted as an amendment to the Official Plan. The extent of the Residential and Environmental Protection Area designations may be affected by the environmental and feasibility studies yet to be completed and will be refined through the Secondary Plan process.

In addition, the Secondary Plan is to address the following:

- Residential design in compliance with the policies and density targets of the

Growth Plan for the Greater Golden Horseshoe and applicable Growth Management Studies;

- The separation and buffering of sensitive land uses from existing rail lines and proximate industrial uses, facilities and designations in accordance with relevant Provincial and Regional policies and regulations and in consultation with the industrial property owners;
- The availability of adequate municipal services including road, water, sanitary sewer and stormwater management services including the location of a pumping station to service the southern portion of the subject lands; and,
- The density targets will be based on the entire Secondary Plan area and not any individual development. (13.56.2)

The SPA 56 policies further state that the Secondary Plan may include design guidelines for public realm facilities including neighbourhood structure, block design, lot size and variety, neighbourhood edge interfaces, local street design guidelines, sidewalks and streetscaping, parks, trails and open spaces and natural heritage as well as the private realm including building variety and density, setbacks, building height, apartment buildings and parking areas. (13.56.3)

No development or site alteration will be permitted within areas designated Environmental Protection Area (EPA). Refinement to the extent of the EPA and Residential designation and appropriate setbacks and linkages will occur at the Secondary Plan, zoning by-law, draft plan of subdivision, plan of condominium and site plan control stage and will be based on the detailed Environmental Impact Study (EIS).

A report will be prepared to determine the feasibility of creating a wetland area south of the Con Rail Drainage Ditch to the satisfaction of the Niagara Peninsula Conservation Authority. The wetland will be greater than or equal to the area of wetland to be lost north of the Drainage Ditch and will match the hydrological and ecological functions of any wetland lost north of the Drainage Ditch. (13.56.6)

The Secondary Plan will require the completion of the appropriate studies or receipt of Record of Site Conditions through the implementing planning applications.

Part 3 Environmental Management

1 Municipal Infrastructure

Schedule B establishes a phasing plan for the City and the Thundering Waters Study Area is within Phase 2. Secondary Plans will provide details on the staging of development with respect to uses, residential densities and the extension of roads and services.

Development within the urban area will be on the basis of full municipal services (1.2.4). All new development will be serviced by a suitable storm drainage system which may include pipes, ditches, culverts, swales, man-made and natural watercourses, detention storage areas of any other system acceptable to the City Region and NPCA. Master stormwater management plans will be developed for watershed areas in advance of major development and the plans may be adopted as part of a secondary plan. (1.3.1 & 1.3.3) Stormwater management system will be as natural as possible to create habitat areas and provide linkages to other natural areas where applicable.

Transportation Corridors consist of rail corridors, provincial highways and arterial roads. Transit service planning will be connected with the City and Regional Bicycling network and collector roads within Secondary Plan areas will be designed to accommodate transit. (1.5.8)

Where residential or institutional development is proposed in close proximity to operation railway uses and noise and vibration impact assessment will be required. (1.5.11)

The City will provide public facilities for active transportation in the form of bicycle or shared use lanes, off road recreational trails, bicycle parking facilities and sidewalks to the extent financially feasible. (1.5.12) The City may require the dedication of trails as a condition of development approval.

There is a hierarchy of roads within the City and major roads are shown on Map 8. The roads which are under the jurisdiction of the City are City arterial roads, collector roads and local roads. City arterial roads have a width of 26 m, collector roads have a width of 20 to 23 m and local roads are 20 m in width but under special circumstances may be less than 20 m. Dorchester Road and Chippawa Parkway within the Study Area are City arterial roads. Daylighting requirements for each type of road are also established.

2 Parkland Strategy

Neighbourhood Parks will serve the needs of local residents and be designed with extensive street frontage for visibility and safety and may include active play areas, passive landscaped areas, playgrounds and play fields and coordinated with elementary school sites wherever possible. (2.1.1)

In accepting parkland conveyances the City will ensure that the land is suitable for park development, in accordance with municipal standards and various criteria including:

- Open space shall be designed to respect and integrate with protected natural heritage features. The minimum prescribed buffers shall be provided and maintained as a naturalized area. Playgrounds, sports fields and other forms of active recreational uses shall be setback from buffers and the intervening area planted with vegetation that hinders human traffic.

- Active parkland should be designed to accommodate various forms of recreational activities. Within secondary plan areas, a system of trails and open space should be provided that is integrated with the built environment, with connections to schools and other forms of community infrastructure in order to create a more liveable community. (2.4)

3 Energy Conservation

The City will encourage an energy efficient community through a compact and contiguous pattern of urban growth, including the intensified use of land and higher densities of residential development, where appropriate, and orderly, economic and energy conserving development that fosters the logical extension of public services with urban expansion being phased to optimize the use of existing infrastructure. (3.1.1)

Energy conservation considerations shall be incorporated in new urban growth plans and individual development projects.

4 Cultural Heritage Conservation

The City will maintain a register of properties that are of cultural heritage interest and may designate properties of cultural heritage value under Part IV or V of the Ontario Heritage Act. (4.2)

“The City recognizes that there are many archaeological sites containing artifacts or other physical evidence of past human use or activities throughout the municipality. Every effort will be taken to ensure archaeological resources are protected in situ. No work will be carried out on a property which has identified archaeological resources or has archaeological potential without first conducting archaeological fieldwork and submitting a report, both undertaken by a licensed archaeologist.” (4.10)

5 Urban Design Strategy

New development, redevelopment and public works projects shall utilize building, streetscaping and landscaping designs to improve the built and social environment of the City and to enhance quality of life.

The design of new development and redevelopment shall specifically address height, setbacks, massing, siting and architecture of existing buildings in order to provide a compatible relationship with development in an area. Development shall be designed and oriented to the pedestrian and buildings will be set as close to the street as possible. Where development includes multiple buildings, the buildings should be sited to pedestrians to move between buildings with a minimum of interference from vehicular traffic. Development will be designed to minimize microclimatic impacts on adjacent

lands. Parking areas will primarily be located in the rear or side yards and parking structures or underground parking will be encouraged for tourist commercial and high density residential development. (5.1)

Streets are a public space that should also be designed as a safe, comfortable and convenient environment for the pedestrian and cyclist. Upgrading of streetscapes is encouraged through the development of facilities and amenities such as sidewalk cafes, plazas, piazzas and other space. (5.2.2)

Parking areas should be designed to minimize the extent of pavement and provide opportunities for additional landscaping. (5.4)

High quality development is encouraged and aspects such as the arrangement of uses and densities, road layout and orientation, lotting schemes, parks, pedestrian and cycling routes, tree planting, landscaping and services will be addressed as design elements within secondary plans. (5.6)

6 Environmental Quality

Potentially contaminated properties are properties where the environmental condition of the site (soil and/or groundwater) may have potential for adverse effects on human health, ecological health or the natural environment. In order to prevent these adverse effects, it is important prior to permitting development, to identify these properties and ensure that they are suitable or have been made suitable for the proposed land use(s) in accordance with Provincial legislation and regulations.

For properties that have been identified as potentially contaminated, and where there is a proposed change in land use to a more sensitive use, the City will require verification from a Qualified Person, that the property has been remediated and made suitable for the proposed use in accordance with provincial legislation and regulations by filing a Record of Site Condition. A Holding provision or draft plan of subdivision conditions will be used to ensure satisfactory verification. (6.9)

Part 4 Administration and Implementation

3 Community Secondary Plan and Neighbourhood Plans

Secondary Plans will be prepared for greenfield areas and generally provide the following items:

- The overall population capacity of the community related to road and service infrastructure;
- The location of major engineering services and public utilities;

- The location and areas of various residential densities;
- The needs of the residential community including access to parks and open space, schools, convenience retail, employment and energy conservation;
- The road pattern, including existing and proposed arterial, collector and local road roads; and,
- Environmental constraints and particularly recognizing important natural heritage features and areas of hydrological significance. (3.3)

4 By-laws

Holding Zones may be used in implementing the Zoning By-law and may be applied to:

- To encourage orderly development of lands in the municipality in situations where other lands in the same zone category should be developed first.
- To phase development in accordance with the necessary approvals and the orderly progression of sanitary sewers and waterlines.
- To provide for further study of lands for the purpose of establishing design criteria for development. Correspondingly, the removal of the holding provision is conditional upon the following:
 - The substantial development of other lands in the same zone category or the need for large parcels of land which cannot be accommodated in these other lands in the same zone category.
 - The necessary approvals have been obtained to facilitate the logical progression of sanitary sewers and waterlines.
 - A study has been carried out and design criteria has been established relevant to the lands, and the necessary implementing agreements have been entered into.

When the conditions relating to the holding provision have been satisfied the Holding symbol can be removed. (4.2.1)