

3. DESCRIPTION OF EXISTING ENVIRONMENT

This section provides a broad description of City's existing physical, natural, socio-economic, cultural and recreational resources based on information derived from the City of Hamilton, the Ministry of Natural Resources, various Conservation Authorities, the Niagara Escarpment Commission and the Hamilton Naturalists Club.

Exhibit 3.1 provides an overall geographic context for the discussion.

3.1 Physical Environment

The City of Hamilton spans an area that covers 1171 km² and is located at the apex of Ontario's Golden Horseshoe. The landscape includes parts of six distinct physiographic regions (Niagara Escarpment, Iroquois Plain, Flamborough Plain, Horseshoe Moraines, Norfolk Sand Plain and Haldimand Clay Plain), and can primarily be described in terms of three prominent landform features:



- The Niagara Escarpment, which runs parallel to the shoreline and is set back approximately 2 km inland;
- The western Lake Ontario shoreline, including the Hamilton Harbour embankment; and
- The Dundas Valley, partially buried bedrock gorge that shapes a major indentation in both the shoreline and Escarpment.

The Niagara Escarpment, formed by differential erosion, is a 725 km long ridge that runs from the tip of the Bruce Peninsula, through Hamilton to Niagara Falls along the southern edge of Lake Ontario. Physiographic regions located above the Escarpment, in the communities of Flamborough, Ancaster and Glanbrook are comprised primarily of bedrock, sand and clay plains. The Galt moraine, a major glacial ridge, is also located above the Escarpment skirting the northwestern boundary of the City. This northern area of Hamilton also contains a number of scattered drumlin fields, moraines and other landforms directly descendant from glacial processes. The areas located below the Escarpment contain soft, reddish shales and sandstones. A number of ravines have been cut into this soft material and, on occasion, these ravines extend back into the Escarpment. The Dundas Valley is the deepest and largest of these notches. Also, this area contains the western edge of the Lake Ontario shoreline, which is characterized by its gently sloping topography, clay till and lacustrine sands.



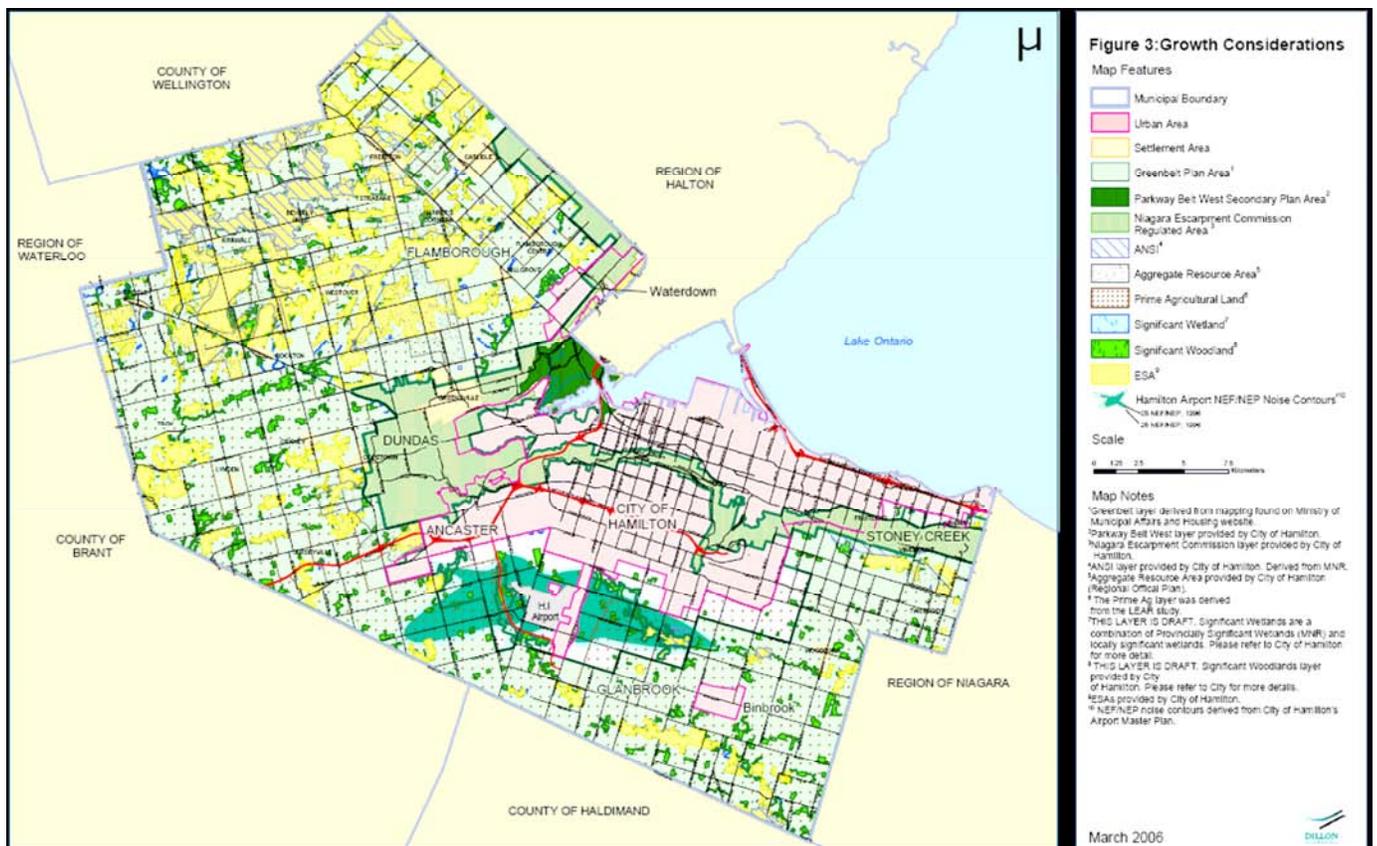
3.2 Natural Environment

The City of Hamilton, located in the transition zone between two major forest regions, the Eastern Deciduous Forest (Carolinian Zone) and the Great Lakes St. Lawrence Forest, contains a diverse range of natural features that serve important ecological and hydrologic functions. The natural features of the area include both undeveloped lands such as woodlots, wildlife

reserves, Escarpment lands, ravines and wetlands and previously disturbed lands that are reverting to a natural state. Although no part of the City can be considered pristine, there are several large, relatively undisturbed greenspace areas.

The largest natural features in the area are associated with the Niagara Escarpment and/or the bedrock plain located above the Escarpment in Flamborough. The Niagara Escarpment, a UNESCO World Heritage Site, cuts a 22 km linear route through the City and is home to broad range of plant and animal species. The poorly drained, shallow, rocky soils north of the Escarpment in Flamborough (bedrock plain) have resulted in a collection of broadleaf, mixed and cedar swamps.

Exhibit 3.1: Natural Environment Features and Constraints



Source: Growth Related Integrated Development Strategy, City of Hamilton, May 2006

This is considered quite significant compared to other parts of southwestern Ontario, as Hamilton has managed to maintain a number of its upland natural wetland areas. In addition to these areas, the City is also home to a number of riparian marshes and swamps, small slough forest remnants, shoreline marshes, and the occasional kettle bog.

Currently, various agencies are working to improve the natural heritage system by enhancing the inter-connection between natural areas and improving existing natural areas. The City of Hamilton also maintains a well-documented inventory of its natural features and the maintenance of the City's natural heritage database is an on-going initiative.

Four Conservation Authorities have jurisdiction within the City. The Hamilton Conservation Authority covers the Spencer Creek, Borer's Creek, Red Hill Creek, Stoney Creek and Fifty Creek watersheds. Conservation Halton maintains jurisdiction over the Bronte Creek and Grindstone Creek watersheds. The Grand River Conservation Authority is responsible for the Fairchild Creek and Big Creek watersheds. Lastly, the Niagara Peninsula Conservation Authority regulates activities within the watersheds of the Upper Welland River, Twenty Mile Creek and Forty Mile Creek

3.3 Socio-Economic Environment

As it has only been six years since amalgamation, the former constituent municipalities are still very distinctive in terms of their social and economic characteristics. Furthermore, the City of Hamilton is comprised of both urban and rural communities. With exception of the the former City of Hamilton, which is almost entirely urbanized, the former municipalities of Dundas, Ancaster, Stoney Creek, Flamborough and Glanbrook include significant rural and agricultural areas. The majority of land within the City's existing urban boundary is already built-up, with a few exceptions like Binbrook and vacant residential and employment lands scattered across the City. The urban areas contain a mix residential housing types and a variety of businesses while the rural areas consist of farming communities and small hamlets.

The City's Vision 2020 document envisions that Hamilton is a vibrant community that is socially, economically and culturally diverse, encourages opportunities for individuals, reduces inequities and ensures the full participation for all in community life.

The City's Economic Development Strategy organizes economic activity into three strategic clusters. Traditionally, the City of Hamilton has been a manufacturing centre. Initially its focus was on textile production and later it would transform into one of Canada's major producer of steel and metal materials. In recent years however, due to global shifts in the manufacturing industry, Hamilton's economy has been subjected to major structural changes that are dramatically impacting its industrial composition. As U.S. firms relocated to other places with cheaper labour costs, mid-sized manufacturing firms have grown to replace many of the large industrial giants that once dominated the City's economic landscape. Hamilton's advantageous access to transportation, relatively inexpensive power, and markets has fuelled the emergence of these mid-sized firms. Despite this shift, manufacturing still remains the largest of Hamilton's economic clusters.



The second traditional cluster of Hamilton's economy is an estimated \$1 Billion a year agricultural industry. The rural areas of Hamilton are home to an agricultural/agri-business industry, which generates significant tax revenues while utilizing few municipal services. Closely related to the agriculture/agri-business sector is the food and beverage processing industry. Together, the two sectors pose a significant economic cluster within the City of Hamilton.

The third traditional economic cluster in the City consists of the Port related industries and businesses. Hamilton Harbour is a naturally protected body of water that is strategically located at the western tip of Lake Ontario. The Port of Hamilton, is accessible from the Burlington Shipping Canal, and has long been a major hub for economic activity.

The City's Economic Development Strategy also identifies three non-traditional economic clusters. These emerging clusters are the Airport Employment Growth District, Biotechnology/ Biomedical and the Film and Cultural Industries. Hamilton's desire to diversify its economic base is enhanced

by the presence of two major post secondary institutions, McMaster University and Mohawk College.

3.4 Cultural Heritage



The Hamilton area has a rich cultural history, which dates back approximately 9000 B.C. Due to the area's diverse and impressive natural environment, the City has attracted inhabitants dating back to the first arrival of humans to Ontario. The City has a rich archaeological record, with a number of sites that include finds from the hunting bands of the Paleoindian Period (9,000 B.C. to 7,000 B.C.), the nomadic hunter-gatherers of the Archaic Period (7,000 B.C. to 1,000 B.C.), the native Iroquois of the Woodland Period (1,000 B.C. to A.D. 1650) and European settlers of the Contact Period (1650-present).

In addition to archaeological resources, the City also possesses a rich inventory of built heritage and cultural landscapes. Evidence of such features can be found throughout the City in the older commercial and residential areas, early residential suburbs, waterfront and riverscapes, rural crossroad and milling villages, cottage enclaves and agricultural areas of well-established fields and farms.

The need to protect and enhance cultural facilities was a key consideration in the identification of strategic transportation projects. Impacts on cultural heritage will be further considered in follow-on Environmental Assessments for specific projects.

3.5 Recreation Resources

Hamilton has a number of active and passive parklands, recreational trails and conservation areas supporting a wide range of uses. The City actively maintains over 400 community and neighbourhood parks covering an area of approximately 1400 hectares. The City boasts a number of hiking and biking trails, which are discussed in more detail in Section 4. Two of the most prominent trails are the Bruce Trail, which runs along the Niagara Escarpment and the Waterfront Trail, which links Bayfront Park to Cootes Paradise. In addition to parks the City operates a number of recreation and community facilities that include golf courses, ice rinks, swimming pools and community centres. The City also runs several museums, including Dundurn Castle and Military Museum, Children's Museum, Whitehern, Museum of Steam and Technology, Battlefield Park, and Fieldcote Museum. One of the major recreation facilities in the City is the Royal Botanical Gardens, which includes approximately 809 hectares of private open space.

