3. PHASE 1 AND 2 MASTER PLAN OVERVIEW AND PREFERRED SOLUTION

The Hamilton Water and Wastewater Master Plan (2006) represents Phases 1 and 2 of the Class EA process. To provide background on the project, this section presents a summary of the Master Plan. The work completed for this project represents Phases 3 and 4 of the process to plan for treatment of future flows associated with growth and for wet weather flow management and treatment at the Woodward Avenue WWTP.

3.1 DESCRIPTION OF STUDY AREA

In 2001, the City of Hamilton was amalgamated with the former municipalities of Ancaster, Dundas, Flamborough, Glanbrook and Stoney Creek. Hamilton is now the 10th-largest municipality in Canada, and covers an area of over 112,000 hectares. The City of Hamilton currently includes both urban and rural areas, and encompasses a number of hamlets.

The Study area is currently governed by the land use policies set forth in seven former Official Plans (the Region and the six former municipalities). A new Official Plan is being created which will update and consolidate the policies of the seven former Official Plans into one Plan to apply to the entire City. Several ongoing Corporate Projects are integrated with the development of the new Official Plan: Vision 2020, the Growth Related Integrated Development Strategy (GRIDS) project, Social Development Strategy, Master Plans and Secondary Plans. All programs are linked through an initiative called “Building a Strong Foundation” (BASF). BASF is an initiative coordinated by the City that takes a cross-disciplinary, integrative and community-based approach to implementing Hamilton’s Vision for a sustainable future. In accordance with the City of Hamilton Act, the by-laws of the 6 former municipalities remain in effect until new ones are established through the new Official Plan.

The study area for the Master Plan consists of the existing Lake Ontario based water and wastewater servicing area, which extends to the Urban Boundary, plus any urban boundary expansion areas that are required to service the anticipated growth between the present date and 2031. A map of the study area is included in Figure 3.

Initially, the portion of community of Greensville served by the communal system, due to its close proximity to Dundas, was included in the Study Area. However, the City has initiated the Mid-Spencer Creek/Greensville Rural Settlement Area Subwatershed study to determine the servicing needs and, as such, assessment of this area has been deferred.

The portion of Carlisle served by the communal system, due to the recommendations in a recent Class Environmental Assessment, was also included in the study area to assess long term water supply. Subsequently, an addendum to the Carlisle Water Supply Master Plan and Class Environmental Assessment was completed and identified an adequate water supply scheme which addresses the water demand projections included in the April 2004 project file report. As such, the Carlisle communal system was excluded from this Master Plan.
3.2 DESIGN CRITERIA

3.2.1 Planning Context

The City of Hamilton, like all municipalities in Ontario must operate within the administrative, legislative and financial framework established by senior levels of government. Subsequent to the adoption of the GRIDS study process, the Province adopted a more proactive role in growth management and planning issues. The key provincial initiatives that provided directives and were considered under the Master Plan process include the following:

♦ Provincial Policy Statement 2005
♦ Greenbelt Plan
♦ Places to Grow Plan
♦ Niagara Escarpment Plan
♦ Parkway Belt West Plan
♦ Greater Golden Horseshoe Growth Plan
♦ Planning Act Reform.

The results of these initiatives directly affect future growth in Hamilton and the City's policies to accommodate growth.

3.2.2 Preferred Growth Option

The preferred growth option selected through the GRIDS evaluation process was adopted by Council in May, 2006. Council gave direction to implement Growth Strategy through the new Official Plan, Infrastructure Master Plans and Development Charges By-law.

The preferred growth option is depicted in Figure 4. This option is generally based on the nodes and corridors concept. The primary growth areas include the Elfrida node located in the southwest mountain and the airport lands. This option also includes selected intensification located primarily along corridors in the central mountain and downtown core.
As described through the GRIDS process, the preferred growth option achieves the following objectives:

- Creates complete communities in keeping with Vision 2020 and Provincial Plans, such as Places to Grow and the Greenbelt Plan
- Provides reasonable intensification
- Supports a vibrant Downtown
- Focuses growth around transit infrastructure
- Develops compact, complete communities – Not “more of the same” but rather creates liveable, walk-able communities
- Directs development to areas with full servicing
- Avoids and protects local natural features and green space
- Identifies and protects the movement of goods along defined corridors
- Reinforces importance of Hamilton International Airport.

3.3 PROBLEM/OPPORTUNITY STATEMENT

The purpose of the Problem/Opportunity Statement is to define the principal starting point in the undertaking of the Master Plan Class EA and assist in defining the scope of the project.

The Problem/Opportunity Statement developed in the Master Plan is as follows:

- The Province, through its Places to Grow document, has identified the need to accommodate growth within the City of Hamilton.
- Water and wastewater infrastructure upgrades will be required to service areas already approved for development as well as future residential and non residential lands.
- Wastewater infrastructure upgrades will be required to address water quality concerns in Hamilton Harbour.
- Integration of planning, water/wastewater, transportation and stormwater processes will ensure implementation of a sustainable growth strategy and fulfill the City’s goals identified in Vision 2020.

3.4 PREFERRED WASTEWATER SERVICING SOLUTION

Figure 5 presents the preferred wastewater servicing solution that was developed in the Master Plan.
The Master Plan preferred wastewater servicing solution includes the following:

- New infrastructure, including pumping stations, forcemains and sewers, to service new growth areas
- Upgrades to existing infrastructure, including sewer, forcemain and collection system upgrades
- Upgrades to the Western Interceptor collection system, to reduce the discharge of combined sewer overflows into Hamilton Harbour.

With regard to the Woodward Avenue WWTP service area, the preferred solution included the following components:

- Decommissioning of the Waterdown WWTP and diversion of flow to the Woodward Avenue WWTP service area
- Expansion of the Woodward Avenue WWTP capacity to service new growth, and to accommodate flow from Waterdown
- Upgrades to the Woodward Avenue WWTP performance, to strive to achieve contaminant loading goals defined by the Hamilton Harbour Remedial Action Plan (RAP)
- Trunk collection system and Woodward Avenue WWTP improvements, to reduce the discharge of untreated combined sewer flows, and strive to achieve the goals defined by the Hamilton Harbour RAP, the Ministry of the Environment (MOE) Procedure F-5-5 and wet weather policies developed by the City to protect the Harbour.

Appendix 2 presents the alternative solutions that were considered for expanding the Woodward Avenue WWTP service area wastewater treatment capacity, which led to the preferred solution of expanding the plant on the existing site.

The Master Plan also identified that expansion of the Woodward Avenue WWTP and trunk collection system upgrades requires a Schedule C, Class EA study, and completion of Phases 3 and 4 of the Class EA process.

3.5 PUBLIC AND AGENCY CONSULTATION

At the outset of the Master Plan process, a Public Consultation Plan was developed. The activities that were undertaken as part of the process are described in the following sections and are considered critical and required under the Class EA Master Planning process.

3.5.1 Public Access to Information

At the onset of the project, the City developed a website (www.gridsmasterplans.com), where all project publications, presentation materials and other documentation has been made available to the general public. Notices of upcoming Public Information Centres (PICs) and other project milestones were also posted on this website.
For those without Internet access, the City also maintained a Contact List, sent relevant project materials to all who had expressed interest in the process and posted information at City Centres and libraries located throughout the City.

3.5.2 Public Information Centres (PIC)

Through Phases 1 and 2 of a Municipal Class EA, the study proponent (in this case, the City of Hamilton) is required to consult the public only once the alternative solutions to the problem being addressed have been evaluated, and a preferred option selected. The City of Hamilton, however, decided to consult the public more often than was required by the Class EA process, and instead consulted with the public on six (6) occasions:

- GRIDSPIC 1: May 30th 2005
- GRIDSPIC 2: May 16th, 17th, and 18th 2006
- Water/Wastewater PIC #1: June 20th, 21st, and 23rd 2005
- Water/Wastewater PIC #2: November 28th, 30th, and December 5th 2005
- Water/Wastewater PIC #3: July 6th and 10th 2006

Each of these PICs was advertised in the local media and on the City's website such that any concerned parties would be aware of the opportunities to become involved in the Master Planning process.

3.5.3 Stakeholder Workshops

In addition to the project information disseminated through the mandatory contact distribution and public information centres, stakeholder workshops were held to provide opportunity for detailed discussion on the development and evaluation of the servicing strategies and for detailed discussion on specific technical topics related to Hamilton's systems.

The Stakeholder Workshops included:

- Wet Weather Workshop #1: May 2004
- Policy Workshop: November 2004
- Phase 1 Workshops: June 2005
- Wet Weather Workshop #2: May 2006
- Wet Weather Workshop #3: June 2006.

The stakeholders included representatives from various agencies including, but not limited to:
3.5.4 Aboriginal Dialogue

The project communications approach also included specific dialogue with aboriginal agencies.

Three contacts including Hamilton Executive Directors Aboriginal Coalition (HEDAC), Six Nations and Ontario Secretariat for Aboriginal Affairs were part of the mandatory contact list and received all project notices and communications.

The City of Hamilton undertook additional communications with the aboriginal agencies during the project.