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## ENVIRONMENTAL STUDY REPORT
### CLASS EA FOR WASTEWATER TREATMENT AND CSO CONTROL IN WOODWARD AVENUE WWTP SERVICE AREA

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1. INTRODUCTION

1.1 BACKGROUND

The City of Hamilton is one of a number of municipalities in the Greater Golden Horseshoe Area situated around the south western end of Lake Ontario and one of the fastest growing regions in North America. As legislated by the province in the Places to Grow Act, by 2031, the population of this area is forecasted to grow by an additional 3.7 million (from 2001) to 11.5 million people, accounting for over 80 percent of Ontario’s population growth. This new growth will require 1.75 million new homes and 1.7 million additional jobs.

Ready and accessible public infrastructure is essential to the viability of existing and growing communities. Infrastructure planning, land use planning and infrastructure investment require close integration to ensure efficient, safe and economically achievable solutions to providing the required water and wastewater infrastructure.

The City of Hamilton has developed goals to blend the economic and social activities of a growing City with the preservation and protection of natural areas and resources through a sustainable approach to land management. This approach was initiated by the former Regional Municipality of Hamilton-Wentworth, now the City of Hamilton, through strategic policies generated through VISION 2020, “Building A Strong Foundation” (BASF) and its Growth Related Integrated Development Strategy (GRIDS) as outlined in Figure 1.

![Building A Strong Foundation Diagram](image)

**Figure 1**  Growth Related Integrated Development Strategy (GRIDS)
GRIDS brings together into one process, all of the activities related to development including the water and wastewater, transportation, and storm water master plans. This enables a more coordinated, time efficient and cost efficient investment process for the public and private sectors.

The Water and Wastewater Master Plan (2006) for the Lake-based systems, a critical component in the integrated GRIDS process, provided the framework and vision for the water and wastewater servicing needs for the City into the future. This vision was developed in consideration of the Triple Bottom Line (TBL), balancing criteria for environmental protection, social impacts and benefits, and minimizing costs (financial impacts). For wastewater, the preferred solution included the following primary 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 overflows resulting from wet weather events, 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.

To ensure timely completion of the planning studies, the City has proceeded with Phases 3 and 4 of the Class EA process for planning the expansion of the Woodward Avenue WWTP and the trunk collection system improvements necessary for wet weather flow management. This project falls within the scope of projects described in Schedule 'C' of the Class EA (MEA, October 2000, amended in 2007). Phase 3 involves an evaluation of conceptual design and implementation concepts to achieve the capacity expansion and wet weather flow control improvements, as well as a full evaluation of environmental impacts and mitigation measures. Phase 4 involves the preparation of an Environmental Study Report (ESR) to present the rationale for selection of a preferred design and implementation plan.

1.2 OBJECTIVES OF THE ENVIRONMENTAL STUDY REPORT

The purpose of this Environmental Study Report (ESR) is to present background on the study, as a summary of the Phase 1 and 2 Master Planning process, and to document Phase 3 of the Class EA study. Phase 3 is an evaluation of design concepts and implementation approaches for expanding and upgrading the Woodward Avenue WWTP and improving the collection system for wet weather flow management, and recommendation of a preferred design concept and implementation strategy. The report also fully documents the public and agency consultation process undertaken as part of the Class EA Phase 3 and 4 study.
Members of the public and review agencies are entitled to provide comments on the ESR. For this purpose, the ESR will be placed on the public record for a period of 30 days. During this period, those with outstanding concerns regarding the project, should contact the City to try to resolve these. If concerns cannot be resolved with the City, members of the public and review agencies may request that the Minister of the Environment make an order for the project to comply with Part II of the Environmental Assessment Act by submitting a written request to the Ministry of the Environment at the following address:

Hon. John Gerretsen  
Minister of the Environment  
135 St. Clair Avenue West  
15th Floor, Toronto, Ontario  
M4V 1P5

If no Part II Order (bump-up) requests are received within the 30 day review period, the project will proceed through design and construction as outlined in the ESR.

All information, with the exception of personal information, collected as part of the Class EA process was obtained in accordance with the Freedom of Information & Protection of Privacy Act.

1.3 REPORT OUTLINE

The report is organized as follows:

Section 2: Information on the Class Environmental Assessment (EA) study process.

Section 3: An overview of the Hamilton Water and Wastewater Master Plan, which fulfilled Phases 1 and 2 of the Class EA, and the preferred solution identified in the Master Plan.

Section 4: A description of the Class EA Phase 3 and 4 study area.

Section 5: Development of the preferred study area strategy.

Section 6: An overview of the evaluation methodology used to select the preferred design concepts.

Section 7: Development and evaluation of design concepts for expanding and upgrading treatment capacity at the Woodward Avenue WWTP.

Section 8: Development and evaluation of design concepts for improvement of the collection system for wet weather flow management.

Section 9: Summary of the preferred design concept and implementation plan for treatment and wet weather flow management at the Woodward Avenue WWTP.

Section 10: Identification and discussion of potential benefits, impacts, and mitigation measures associated with the preferred strategy.

Section 11: Proposed program for monitoring the project.
SECTION 1
INTRODUCTION

Section 12: A summary of the public and agency consultation program for Phases 3 and 4 of the Class EA process.

Section 13: References used in the preparation of the Environmental Study Report.