Floodline Delineation Study /Hydraulic Analysis

PURPOSE:

This document provides guidance for the completion of a Floodline Delineation Study / Hydraulic Analysis, which may be required for the submission of an application under the *Planning Act*. All Floodline Delineation Studies / Hydraulic Analyses shall follow the requirements referenced in this document.

A Floodline Delineation Study / Hydraulic Analysis provides information to assess the potential impact of development on upstream and/or downstream flooding, and erosion potential within a flood plain.

A Floodline Delineation Study / Hydraulic Analysis is required for a Planning Application where there is no existing flood plain mapping for the subject site, or where updated flood plain mapping is required.

PREPARED BY:

A Floodline Delineation Study / Hydraulic Analysis must be prepared by a consultant registered as a Professional Engineer (P. Eng.) in the province of Ontario. The consultant must affix their stamp and seal and specifically identify the engineer who prepared the work.

CONTENTS:

At a minimum, a Floodline Delineation Study / Hydraulic Analysis for Regulatory Floodplain Mapping shall include:

- A Terms of Reference submitted to the City and Conservation Authority for approval, at the onset of the project to clarify modelling scope, data sources, modelling methodology, and conformance to the Technical Guide for River & Stream Systems: Flood Hazard Limit (MNR, 2002) and Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017);
- An explanation of how boundary conditions were determined;
- A description of how/where flow values used to model the floodline were determined and confirmation that flows used have been calibrated and validated;
- Topographic data of watercourse, contributing watershed and any structures;
- A topographic map (with datum clarified) showing cross-sections and floodlines; and,
- Electronic files of the input and output for the existing and proposed conditions.

OTHER INFORMATION:

Hamilton Conservation Authority Planning & Regulation Policies and Guidelines: PlanRegPolicyGuidewAppendices.pdf (conservationhamilton.ca)

Conservation Halton Polices and Guidelines: https://www.conservationhalton.ca/policies-and-guidelines/

Niagara Peninsula Conservation Authority Policy Document:

NPCA_Policy_Document_-_Nov_18_2022_Office_Consolidation.pdf

Grand River Conservation Authority Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation: grca-compliance-policies_procedures_2009-_aoda-2024.pdf

REVIEWED AND APPROVED BY:

The Conservation Authority with regulatory authority over the subject lands, namely:

- Hamilton Conservation Authority

- Conservation Halton
- Niagara Peninsula Conservation Authority
- Grand River Conservation Authority

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