

Summarized below are the requirements for preparing the reports and drawings that accompany an Erosion and Sediment Control Plan. The Erosion and Sediment Control Guideline for Urban Construction (December 2006), prepared by the Greater Golden Horseshoe Area Conservation Authorities, describes in detail these requirements and the best management practices for erosion and sediment control. These requirements are based on four key elements: stabilization, multi-barrier approach, dynamic plans and improved inspection. This document should be referred to for more detail.

OBJECTIVES

1. To develop a multi-barrier approach starting with erosion prevention measures.
2. Sediment control measures to be in place prior to land disturbance of site.
3. To develop a phased approach responsive to the changing stages and locations of development.
4. To develop a procedure for monitoring and maintenance of measures to ensure continued effectiveness throughout the seasons and construction phases

SUBMISSION REQUIREMENTS

The following is a list of the detailed documentation, calculations and plans that the proponent must provide in support of the permit application. A sediment and erosion control plan may be prepared and submitted independent of, or in combination with other supporting documents. Sediment and Erosion Control plans must be prepared by a professional engineer with final documents stamped and signed.

1. Design Brief/Report

<p>Project Descriptions: Brief description of the nature and purpose of the land disturbing activity. Also include the legal description of the property and a reference to adjacent properties and landmarks.</p>	<input type="checkbox"/>
<p>Condition of Existing Site: Description of the land use, site topography, vegetation, and drainage of the site under existing conditions.</p>	<input type="checkbox"/>
<p>Condition of Existing Receiving Water: Description of local receiving waters such as watercourses and lakes (e.g. warm water fisheries, cold water fisheries; aquatic habitat use, confined or unconfined valley).</p>	<input type="checkbox"/>
<p>Adjacent Areas and Features: Description of neighbouring areas, such as residential and commercial areas, reserves, natural areas, parks, storm sewers, and roads that might be affected by the land disturbance.</p>	<input type="checkbox"/>
<p>Soils: A description of soils on the site, including erodibility, and grain size analysis. This description should include a summary of the soils/geotechnical report for the site.</p>	<input type="checkbox"/>
<p>Critical Areas: Description of areas within the development site that have potential for serious erosion or sediment problems and measures to be applied to address such areas.</p>	<input type="checkbox"/>

<p>Permanent Stabilization: Description of how the site will be stabilized after construction is completed. This will require a phasing plan (to be provided on the ESC Plan drawing) of the stripped area to be reseeded and the expected time of stabilization.</p>	<input type="checkbox"/>
<p>Design Details of Erosion and Sediment Control Measures: The supporting calculations and design details of the sediment control measures. Specifically for ESC ponds – calculations and details include permanent pool and extended detention volumes, pond sizing volume, and calculations for the pond outlet and emergency overflow outlet. Provide a plan for monitoring and maintenance outlining who is responsible for this activity on the site</p>	<input type="checkbox"/>
<p>Record Keeping Procedure: Include sample inspection and maintenance forms. Maintenance Record keeping procedure including name/designate of the personal who will keep the inspection and maintenance record.</p>	<input type="checkbox"/>
<p>Stockpile Details: Stockpile details to include the height and volume at each proposed location.</p>	<input type="checkbox"/>
<p>Emergency Contact: Provide a list of emergency and non-emergency contacts (e.g. owner, site supervisor).</p>	<input type="checkbox"/>
<p>Stamped and Signed: ESC document/report must be stamped and signed by a professional engineer.</p>	<input type="checkbox"/>

2. Drawings

<p>General Items:</p> <ul style="list-style-type: none"> ▪ Site address including application number (e.g. SP or T number) ▪ Key map including site boundary limits ▪ A legend identifying ESC measures ▪ Drawing scale ▪ North arrow ▪ Location of any existing or proposed building(s) or structure(s) on the site 	<input type="checkbox"/>
<p>Existing Contours: Existing elevation of the site at 0.5-1.0 m intervals to determine drainage patterns. Spot elevations may also be required. Extend existing contours to beyond property limit by a minimum of 30 meters.</p>	<input type="checkbox"/>
<p>Existing Vegetation: Location of any trees, shrubs, grasses, and unique vegetation to be preserved or removed. Tree hoarding area(s) to be clearly shown.</p>	<input type="checkbox"/>
<p>Water Resources Location(s): Location of any water body such as wetlands, lakes, rivers, streams, or drainage course on or adjacent to the site.</p>	<input type="checkbox"/>
<p>Regional Storm Flood Plain and Regulated Areas: Regional flood line level, Regulation Limit and reference to relevant hydraulic model cross-section where applicable.</p>	<input type="checkbox"/>

<p>Critical Areas: Area within or near the proposed development with potential for serious erosion or sediment problems.</p>	<input type="checkbox"/>
<p>Proposed Contours/Elevation: Proposed changes in existing elevation contours for each stage of grading. A cut/fill plan showing existing and proposed contours. Spot elevation for proposed conditions should also be illustrated.</p>	<input type="checkbox"/>
<p>Site Boundary Limits and Limits of Clearing and Grading: Site boundary limits and the limits of all proposed land disturbing activities.</p>	<input type="checkbox"/>
<p>Existing and Proposed Drainage Systems: Location and direction of any existing/proposed storm drainage system (e.g. storm sewers, swales, ditches, etc.) and overland flow drainage patterns within and adjacent to the site.</p>	<input type="checkbox"/>
<p>Limits of Clearing and Grading: A line defining the boundary of the area to be disturbed.</p>	<input type="checkbox"/>
<p>Stockpile and Berm Data: Stockpile and/or berm locations, size and the diversion route of the runoff. Consideration will include proximity to existing homes</p>	<input type="checkbox"/>
<p>Erosion and Sediment Control Measures Locations and Details: Location and details for all ESC measures proposed with notes provided to direct their timing/phasing such that there is an appropriate level of protection provided during all stages of construction (e.g. Sediment fence should be installed prior to any land disturbing activities).</p>	<input type="checkbox"/>
<p>Stormwater Management Systems: Plan and cross section profiles of ESC ponds/SWM ponds and location(s) to be shown. Also include the storm inlet, outlet, emergency outlet, and other permanent and temporary drainage facilities (swale, waterways, and channels). Volume, depth, and inflow and outflow rates should be provided. ESC pond maintenance target volumes and drainage areas to the pond to be specified.</p>	<input type="checkbox"/>
<p>Stormwater Discharge Locations: All stormwater discharge locations are to be identified and detailed.</p>	<input type="checkbox"/>
<p>Access Road: A description of the site's access and measures to be taken to prevent the transfer of sediment off site via construction vehicles.</p>	<input type="checkbox"/>
<p>Internal Haul Road: The information about the internal haul road that will be used during construction and its maintenance schedule.</p>	<input type="checkbox"/>
<p>Construction Phasing and Scheduling: Details of phasing of the construction project and the scheduling of the proposed construction works.</p>	<input type="checkbox"/>
<p>Inspection and Maintenance: A schedule of regular inspections and repairs to erosion and sediment control practices that are provided in the ESC Plan. Monitoring and maintenance plan for sediment accumulation within the pond.</p>	<input type="checkbox"/>
<p>Stamped and Signed: All drawings must be stamped and signed as approved by a professional engineer.</p>	<input type="checkbox"/>

Notes:

Requirements of the Erosion and Sediment Control Guideline for Urban Construction (December 2006), prepared by the Greater Golden Horseshoe Area Conservation Authorities are to be followed. These checklists are a summary of the information contained in that document.

Erosion and sediment control measures should be inspected weekly, at a minimum, after rain and snowmelt events and daily during extended rain or snowmelt periods. During inactive periods, where the site is inactive for 30 days or longer, a monthly inspection should be conducted. All damaged erosion and sediment control measures should be repaired or replaced within 48 hours of the inspection.