

## **Site Alteration Plan or Fill Management Plan Template** (As may be amended from time to time)

### **Site Alteration Plan (SAP) or Fill Management Plan (FMP) Preparation**

The SAP and FMP must outline the current conditions, demonstrate how the site alteration activities will be conducted, the final site conditions and the impact mitigation measures to be employed.

The SAP and FMP must be prepared by an appropriately qualified person/professional licensed in the province of Ontario and be based on the background studies and site specific conditions of the property.

The following sections of this template outlines the submission content for the preparation of the Site Alteration Plan (SAP) and Fill Management Plan (FMP).

General submission details and requirements are provided in Appendix F of the guideline.

### **SAP and FMP Template**

#### **i. Cover Page**

Provide a cover page that outlines:

- title of Document, whether a SAP or FMP
- subject property municipal address and/or legal description
- Qualified Person & firm information
- excess soil management Contractor contact information
- date of submission
- Town site alteration application and file number
- any other site specific/project details of acknowledgement

#### **ii. Table of Contents**

Provide a table of contents outlining the headings, subheadings, tables, figures and appendices in relation to the page numbers.

## **1.0 Introduction & Site Description**

Provide historical and current site description with past and current uses on the subject site in comparison with current uses of surrounding properties in the community. The site description should include the size of the overall property, size of proposed site alteration area, and a general description of land contours and topography, ie. Flat, rolling hills, berms, forestry, streams/rivers etc..

## **2.0 Purpose & Rationale**

Provide rationale regarding the purpose of the site alteration and it's conformance with the good engineering and scientific practices and how the site alteration will not degrade the environmental condition of the site or surrounding properties as described in Section 1.0 of this template. This section should also identify any external agencies that may have jurisdiction over the property and conformance to their requirements.

## **3.0 Project Team**

Provide contact information including roles and responsibilities of the Qualified Persons (QP), Associates and soil management contractor, involved with carrying out the permit process and the FMP until the project is fully completed with permit closure.

## **4.0 General Project Work Schedule**

Provide a work schedule for site alteration activities including:

- Proposed start date;
- Proposed end date; and
- A brief description of the timing of major activities such as completion of silt fencing and preparatory work, period of filling and final surface cover application.

## **5.0 Project Daily Operational Schedule**

Provide the timing of the Site Alteration activities such that no activities occur, as a minimum:

- Between the hours of 7:00 p.m. and 7:00 a.m. Monday to Saturday;
- Anytime on a Sunday or Statutory Holiday;
- During a scheduled Christmas school break by the respective School Boards;
- During any period in which a wind warning has been issued by Environment Canada, recommended wind gusts range of 35km/hr -50km/hr max.;
- During any weather conditions where the ability to mitigate site alteration activity impacts is severely compromised (i.e., heavy rain, etc.); and
- During any situation where site alteration activities can unduly impact adjacent landowners (i.e., brush fires, floods, unsuitable road conditions, etc.).

## **6.0 Drawings and Cross Sections**

Provide engineering drawings and cross-sections with sufficient topographic and site condition details to illustrate:

- Existing grades, topography and conditions;
- Existing surface water flow on and around the site;
- Site alteration process;
- Proposed final grades and conditions; and
- Proposed final surface water flow on and around the site.

General submission details and requirements are provided in Appendix F of the Guideline.

## **7.0 Surface Water Flow and Impact**

Provide surface water flow conditions before, during, and after site alteration activities on and around the site including:

- Mitigation methods to be used to control erosion, sedimentation and surface water flow during the site alteration;
- Impacts of the site alteration on surface water flow; and
- Mitigation methods employed to ensure no significant deleterious impacts (blockage, siltation, contamination, flooding, increased runoff, etc.) to water courses and surrounding properties occur as a result of the site alteration.

## **8.0 Groundwater**

Provide an evaluation of the potential for the site alteration to impact groundwater on and around the site including:

- Existing groundwater conditions;
- Groundwater sensitivities (i.e., well head protection area, aquifer vulnerability, source water protection, groundwater discharge areas, etc.);
- Potential impacts, monitoring and post site alteration confirmation of groundwater conditions; and
- Mitigation methods

## **9.0 Wells**

Provide sufficient documentation to demonstrate that the site alteration activities will not impact a groundwater well and/or the modifications to the well including:

- Existing on and off-site groundwater well conditions;
- Clear and safe distance of site alteration activities from a well;
- Pre and post site alteration drainage patterns away from a well;
- Pre and post site alteration potential impacts, monitoring and post site alteration confirmation of on and off-site well conditions; and
- Mitigation methods

## **10.0 Septic Systems**

Provide sufficient documentation to demonstrate that the site alteration will not impact a septic system and/or the modifications to a septic system including bed and reserve bed area including:

- Existing septic system conditions;
- Clear and safe distance of site alteration activities from a septic system;
- Pre and post site alteration potential impacts, monitoring and post site alteration confirmation of septic system and capacity conditions; and
- Mitigation methods;

## **11.0 Buildings and Structures**

Provide sufficient documentation to demonstrate that the site alteration will not impact a house, building and/or structure and/or the modifications to a building and/or structure for which a Building Permit would be required to construct including:

- Existing topographic conditions;
- Clear and safe distance of site alteration activities from a building and/or structure;
- Grading, drainage and geotechnical conditions from all buildings and/or structures
- Potential impacts, monitoring and post site alteration confirmation of buildings and/or structures; and
- Mitigation methods

## **12.0 Adjacent Properties and Property Boundaries**

Provide sufficient documentation to demonstrate that the site alteration will not impact adjacent properties including:

- Existing topographic conditions;
- Clear and safe distance of site alteration activities from a neighbouring property(ies);
- Potential impacts, monitoring and post site alteration confirmation of neighbouring property(ies); and
- Mitigation methods and where the site alteration will impact a neighbouring property(ies), provide documentation of the neighbouring property(ies) owner's permission to carry out the proposed site alteration activities

## **13.0 Soil Management**

### **13.1 Fill Quality Criteria**

Where the site alteration will involve the importation of topsoil, soil or fill from off-site:

- i. Apply Table 1: Full Depth Background Site Condition Standards for Agricultural or Other Property Use from the Soil, Groundwater and Sediment Standards for

Use Under Part XV.1 of the Environmental Protection Act, as the default comparative criteria to evaluate the soil being imported from off-site. All of the imported material must meet this criteria; or

ii. Provide rationale in accordance with O.Reg. 153/04 and/or O. Reg. 406/19 good engineering, scientific practices and soil rules for the application of alternative soil quality criteria for consideration by the Director. Any deviation from the default soil quality criteria must be approved by the Director; and

iii. Provide rationale, in accordance with relevant MECP Regulations (O.Reg. 153/04, O.Reg. 406/19, O.Reg. 347, etc.) Best Management Practices, good engineering, scientific practices and soil rules, if the imported materials are not categorized as inert fill material and geotechnically and environmentally suitable for the proposed purpose. The use of any non-inert fill material must be approved by the Director.

### **13.2 Receiving Site Evaluation and Assessment**

Provide methodology of investigations to determine current soil conditions and geotechnical stability and suitability in relation to the placement of imported soils

### **13.3 Fill Quality Evaluation and Assessment**

Provide methodology of how any imported fill will be evaluated to ensure it meets the quality requirements established for the site including:

- Source site assessment by a Qualified Professional/Person;
- Collection and analysis of samples of the fill material in accordance with O.Reg. 153/04 analytical procedures with necessary modification, including but not limited to, the requirements in relation to the handling and storage of the samples, the requirement that the analyses of the samples to be carried out by an accredited lab and the requirements to comply with the “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” published by the MECP and as it may be amended from time to time;
- Evaluation of the material based on analytical results; and
- Quality control/quality assurance procedures.

### **13.4 Fill and Truck Tracking**

Provide methodology of how imported and/or exported fill will be documented and managed between the source site to the receiving site including:

- Record keeping, bills of lading and tracking system in accordance with provincial excess soil management rules, guidelines and regulations;
- Receiving site assessment; and
- Soil screening, inspections, auditing and reporting.

## **14.0 Haul Route and Traffic**

When importing or exporting fill from the site, provide:

- A transportation plan in accordance with the requirements of the Town and/or County and/or the MTO;
- Methodology of traffic and site access management to and from the source site and the receiving site including, Haul routes, Traffic volume and control, and Road maintenance; and
- Impacts and mitigation.

## **15.0 Mitigation of Mud and Dust on Roads**

For site alterations involving the transportation of materials on and off the site, provide:

- Protocol for controlling and monitoring mud tracking and dust on roadways;
- Mitigation methods such as access road paving, mud mats, wheel wash systems, etc.; and
- Response plan to address mud and dust incidents such as maintaining a road sweeper full time or on standby with maximum response time.

## **16.0 Dust Control**

For site alterations where airborne dust could impact neighbouring properties, provide:

- Protocol for controlling and monitoring dust;
- Mitigation methods (road/site watering, suppression materials, surface cover, etc.); and
- Response plan to address dust incidents, such as, reducing traffic to limit dust generation, temporary suspension of operations during high winds and clean-up actions to address any impacts (window and building washing, car washing, etc.).

## **17.0 Retaining Walls**

For site alterations requiring retaining walls 1.0 metres and higher, provide:

- Detailed engineering design; and
- Appropriate Building Permits where required.

## **18.0 Sub-surface Drainage**

For site alterations that will involve the installation or alteration of any type of sub-surface drainage system provide:

- Engineering drawings for the system; and
- Inspection report prepared by an appropriately qualified person prior to covering.

## **19.0 Protection of Trees**

For site alterations that may harm trees provide:

- Engage a qualified tree consultant (certified arborist/landscape architect) to comply with the Town's Tree and Natural Vegetation Management Policy, No. ID-002-2019, By-law 2019-086, provided in Appendix L for reference
- Tree inventory and preservation study including compensation for tree loss;
- Existing vegetation and tree details;
- Proposed changes due to site alterations;
- Mitigation methods to limit damage to trees;
- Restoration and/or landscaping plan; and

## **20.0 Final Surface Cover and Grades**

For site alterations that will result in a change to surface cover provide:

- Existing grade and surface cover conditions;
- Final grade and surface cover conditions;
- Mitigation methods employed to minimize impervious surfaces, maximize infiltration and enhance natural vegetation and conditions; and
- Demonstrate that existing downstream conditions will be maintained or improved.

## **21.0 Public and Adjacent Land Owners**

For site alterations that could impact the public and adjacent landowners, provide:

- Identification of potential impacts (dust, noise, vibration, traffic, etc.);
- Proposed mitigation methods; and
- Complaint response and resolution protocol with immediate contact person(s).

## **22.0 Reporting**

For site alterations that require the regular reporting of site activities, monitoring and calculation of imported fill volumes provide:

- A mechanism for public and adjacent landowner liaison;
- Reporting program and schedule;
- Monitoring program and schedule; and
- Method of determining and reporting the volume of imported fill.

## **23.0 Site Control**

For site alterations where there is the potential for illegal dumping and unauthorized access, provide;

- A protocol for site security and access control during and closure of site operations; and.
- Fencing, signage and gate requirements.

## **24.0 Noise and/or Vibration Impacts**

For site alterations where there is the potential for noise and/or vibration impacts to adjacent properties, provide:

- An assessment of potential noise and/or vibration impacts (ie. machinery, back up beepers, tailgate banging, compaction, etc.);
- Mitigation methods (ie. white noise technology, tailgate banging zero tolerance, etc.); and
- A monitoring program to confirm compliance.

## **25.0 Public Complaints and Incidents**

For Large Site Alterations with the potential for public complaints, unexpected incidents, or a change in conditions, provide:

- A Risk Management Matrix;
- Response and mitigation protocol;
- An internal improvement protocol to reduce the potential for reoccurrences; and
- A public consultation and liaison mechanism.

## **26.0 Other Requirements (TBD)**