

## **REGULATION #2**

Adopted: 5/14/85  
Effective: 5/14/85  
Revised: 6/24/14  
Revised: 8/09/23

### **Erosion and Sedimentation Control Standards**

Pursuant to the Code of Ordinances, Chapter 2, Section 2-116, and the Planning Board's authority to adopt written rules and regulations to govern its meetings and to aid in carrying out its duties as prescribed by state statute and city ordinance, the following Erosion and Sedimentation Control Standards shall apply under the City's responsibilities within the Municipal Separate Stormwater Sewer Systems (MS4s) program and under the City's current permit under said program.

#### **Section 1 - Purpose**

The purpose of this Regulation is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control erosion at construction sites and prevent migration of sediment from construction sites so that erosion and sedimentation do not adversely impact off-site natural resources, properties, or the Municipal Separate Storm Sewer System ("MS4").

#### **Section 2 - Definitions**

Terms utilized throughout this Regulation shall carry their customary meaning, except where specifically defined herein.

**Common Plan of Development or Sale** - Means "land subdivisions" as defined in City of South Portland Code of Ordinances, Chapter 24, *Subdivisions*.

**Construction Activity** – Means any activity on a Parcel that results in Disturbed Area.

**Discharge** - Means any spilling, leaking, pumping, pouring, emptying, dumping, disposing, or other addition of pollutants to the Waters of the State located within the Municipality's Urbanized Area and not including groundwater.

**General Permit** – Means the Maine Department of Environmental Protection General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems approved October 15, 2020 and modified November 23, 2021 and any amendment or renewal thereof.

**Parcel** - Means all contiguous land in the same ownership, except that lands located on opposite sides of a public or private road are considered each a separate tract or Parcel of land unless the road was established by the owner of land on both sides of the road after September 22, 1971.

**Person** - Means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency, or other legal entity which creates, initiates, originates, or maintains a Discharge authorized or regulated by the General Permit.

**Protected Natural Resource** - Means coastal sand dunes, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, community public water system primary protection areas, great ponds, or rivers, streams or brooks as defined in the *Natural Resources Protection Act* at 38 M.R.S. §480-B.

**Qualified Professional** – Means a person who has been certified by Enviro-Cert International in erosion and sedimentation control practices or has completed the Maine Department of Environmental Protection Erosion and Sedimentation Control Practices Workshop, or is a Maine Professional Engineer with at least two years' experience in designing Erosion and Sedimentation Control BMPs.

### **Section 3 - Applicability**

This Regulation applies to any activity on a Parcel or Common Plan of Development or Sale commencing after the effective date of this Planning Board Regulation, which results in 2,000 square feet of Disturbed Area.

### **Section 4 - Procedure**

#### **4.1 Erosion and Sedimentation Control Plan Required**

No Person shall commence any activity that generates Disturbed Area, as defined in the Code of Ordinances, Chapter 27, Section 27-201, *Definitions*; and is subject to the Section 3, Applicability, of this Regulation without first obtaining approval for an Erosion and Sedimentation Control Plan ("ESC Plan").

#### **4.2 Review Authority**

ESC Plan for activities that are subject to Planning Board review pursuant to the Code of Ordinances, shall be submitted to the Planning Board for concurrent review. For activities that are not subject to Planning Board review, but that require permitting or licensing by the City of South Portland, the ESC Plan shall be submitted to the Code Enforcement Officer for review.

#### **4.3 Review**

The Review Authority will review the ESC Plan for compliance with the standards of Section 5, Section 6, and Appendix 1 of this Regulation, and may approve, deny, seek amendments to, or conditionally approve the ESC Plan to ensure compliance with the MS4 Permit in effect in the City. The Review Authority shall make a determination on the ESC Plan through written comments. Rejected ESC Plans shall be revised and resubmitted.

#### **4.4 Pre-Construction Meeting**

Prior to the issuance of any permit to commence activities that are subject to an approved ESC Plan, the applicant shall request a pre-construction meeting with the Planning Director, or their designee, for Planning Board projects or the Code Enforcement Director, or their designee, for projects not subject to Planning Board Review. All representatives in charge of commencing, conducting, and completing activity that is subject to the ESC Plan shall attend the meeting. The Planning Director, Code Enforcement Director, or their designees, may require an initial site inspection to confirm that adequate erosion and sediment control measures have been installed prior to issuance of any permit to commence construction activities.

#### **4.5 Compliance with Requirements**

The applicant shall implement and comply with the ESC Plan as approved throughout all phases of Construction Activity.

### **Section 5 - Submission Requirements**

#### **5.1 Project Contacts and Qualifications**

The ESC Plan application shall provide contact information (i.e., name, company if applicable, phone number, physical address, and email address) for:

1. Applicant
2. Qualified Professional, and
3. Contractor (if applicable)

#### **5.2 ESC Plan**

An application for review of an ESC Plan must include the following:

- 5.2.1 The ESC Plan shall consist of a graphic representation of the site at a scale no smaller than 1 inch = 100 feet showing:
  - a. Parcel boundaries;
  - b. Locations of Protected Natural Resources;
  - c. Locations of all potential sources of authorized and unauthorized non-stormwater discharges;
  - d. Topography for the pre-and post-construction conditions with 2-foot elevation contours,
  - e. Erosion and Sedimentation Control BMPs Notes with construction standards,
  - f. Dewatering plan if necessary;
  - g. Locations of areas not to be disturbed by Construction Activity, including trees, vegetation, and areas intended for infiltration; and
  - h. Locations and detailed specifications of all Erosion and Sedimentation Control BMPs that will be used to comply with the requirements of Appendix 1. This includes a narrative description of the timing, phasing, and inspections of Erosion and Sedimentation Control BMPs.
- 5.2.2 Any variances or releases provided by the Maine Department of Environmental Protection from Chapter 500 performance standards with respect to erosion and sedimentation control.
- 5.2.3 Confirmation that that the ESC Plan has been prepared by a Qualified Professional.

### **Section 6 - Requirements and Standards**

The following standards shall be met for the Review Authority to grant approval for an ESC Plan:

#### **6.1 ESC BMP Standards**

The proposed ESC Plan shall comply with the requirements of Appendix 1.

## Section 7 - Inspection

### 7.1 Monitoring

Monitoring is required according to the following table:

Project Type	Scheduled Inspections	Rain Event Inspections
<b>Large Projects</b> (≥ 1 acre disturbance)	Monthly inspections by City inspector with photo documentation; weekly inspection frequency if chronic or major deficiencies found; return to monthly inspections following satisfactory remediation of deficiencies	Inspections by City inspector after 1.5" rainfall
	Weekly contractor self-inspections.	Contractor self-inspections within 24 hrs of 0.2" rainfall; photos suggested but not required
<b>Medium Projects</b> (15,000 ft <sup>2</sup> to <1 acre disturbance)	Monthly inspections by City inspector with photo documentation; weekly inspection frequency if chronic or major deficiencies found; return to monthly inspections following satisfactory remediation of deficiencies	Inspections by City inspector after 1.5" rainfall
	Weekly contractor self-inspections.	Contractor self-inspections within 24 hrs of 0.2" rainfall; photos suggested but not required
<b>Small Projects</b> (<15,000 ft <sup>2</sup> disturbance)	City will conduct 2 inspections with photo documentation; additional inspections as needed if deficiencies identified.	Contractor self-inspections within 24 hrs of 0.2" rainfall; photos suggested but not required.
	Weekly contractor self-inspections.	

All self-inspections shall use the City's Erosion & Sediment Control inspection forms which shall be retained on the project site for review. The Portland International Jetport office of the National Weather Service shall be the authoritative reference for determining rainfall amount and intensity.

The applicant may be required by the Planning Director or Code Enforcement Director to pay 100% of the City's costs related to third-party inspection of the ESC Plan. This fee must be paid to the City and shall be deposited in a non-interest bearing escrow account.

## Section 8 - Enforcement

Violations of any conditions or requirements of the ESC Plan shall be documented through the inspections of the ESC Plan, and shall be processed in accordance with the City's enforcement authority contained in the Code of Ordinances.

## Appendix 1 – Erosion and Sedimentation Control Standards

The following are the mandatory minimum standards for Construction Activity subject to this Planning Board Regulation. The ESC Plan required under this Planning Board Regulation shall be developed and implemented to include these mandatory minimum standards, which are based upon the Maine Department of Environmental Protection's 06-096 CMR Chapter 500 Stormwater Management Rule Appendices A, B, and C.

The ESC Plan shall be prepared by a Qualified Professional as defined in this Planning Board Regulation.

### A.1. General Timing of Installation and Maintenance until Permanent Stabilization

Sedimentation Control BMPs must be in place before Construction Activity begins.

- Additional Erosion and Sedimentation Control BMPs must be phased in as appropriate.
  - Erosion and Sedimentation Control BMPs must remain in place and functional until the Site is permanently stabilized.
  - Adequate and timely maintenance of Erosion and Sedimentation Control BMPs must be conducted until permanent stabilization is achieved.
1. **Pollution Prevention:** Minimize Disturbed Area and protect natural downgradient buffer areas, and any areas where stormwater may flow off-Site to the extent practicable. Control stormwater volume and velocity within the Site to minimize soil erosion. Minimize the disturbance of steep slopes. Control stormwater Discharges, including both peak flow rates and volume, to minimize erosion at outlets. The Discharge shall not result in erosion of any open drainage channels, swales, stream channels or stream banks, upland, or coastal or freshwater wetlands off the project Site.
    - a. Whenever practicable, no disturbance activities shall take place within 50 feet of any Protected Natural Resource.
    - b. If it is not practicable to maintain the 50-foot buffer of no disturbance, the ESC Plan must include redundant (at least two) perimeter control measures that are appropriate for the soil and slope.
  2. **Sediment Barriers:** Prior to construction, properly install sediment barriers at the downgradient edge of any area to be disturbed and adjacent to any drainage channels within the Disturbed Area. Sediment barriers shall be installed downgradient of soil and sediment stockpiles and stormwater must be prevented from running onto the stockpile. Maintain the sediment barriers by removing accumulated sediment, or removing and replacing the barrier, until the Disturbed Area is permanently stabilized. Where a Discharge to a storm drain inlet occurs, you must install and maintain protection measures that remove sediment from the Discharge. Storm drain inlet protection must include effective curb inlet or "back throat" protection, where applicable.
  3. **Stabilized Construction Entrance:** Prior to construction, properly install a stabilized construction entrance (SCE) at all points of egress from the Site. The SCE is typically a stabilized pad of aggregate, underlain by a geotextile filter fabric, or an engineered track out control mat which has been approved by Maine DEP which is used to prevent traffic from tracking material away from the Site onto public rights-of-way (ROWs). Maintain the SCE until all Disturbed Areas are stabilized. If an alternate SCE has been approved by Maine DEP, provide proof of this with the Plan or application.
  4. **Temporary Stabilization:**

- a. Within 7 days of the cessation of Construction Activities in an area that will not be worked for more than 7 days, stabilize any exposed soil with mulch, or other non-erodible cover.
  - b. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.
5. Removal of Temporary Measures: Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.
6. Permanent Stabilization: If the Site or a portion of the Site will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, moisture, and soil conditions; amend the Disturbed Area subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding so to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established with 90% cover by healthy vegetation. If necessary, areas must be reworked and restabilized if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. Permanent Stabilization Definitions are as follows:
  - a. Seeded Areas: For seeded areas, permanent stabilization means a 90% cover of the Disturbed Area with mature, healthy plants with no evidence of washing or rilling of the topsoil.
  - b. Sodded Areas: For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
  - c. Permanent Mulch: For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
  - d. Riprap: For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.
  - e. Paved Areas: For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed, provided it is free of fine materials that may runoff with a rain event.
  - f. Ditches, Channels, and Swales: For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.
7. Winter Construction: Winter construction is Construction Activity performed during the period from November 1 through April 15. If Disturbed Areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by the following additional winter construction measures and restrictions:
  - a. Site Stabilization: Hay mulch is applied at twice the standard temporary stabilization rate. At the end of each construction day, areas that have been brought to final grade must be stabilized. Mulch may not be spread on top of snow.
  - b. Sediment Barriers: All areas within 75 feet of a Protected Natural Resource must be protected with a double row of sediment barriers.

- c. Ditch Lines: Ditch lines must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the Maine DEP. If release from Maine DEP has been granted, provide proof of this with the Plan or application.
  - d. Slopes: Mulch netting must be used to anchor mulch on all slopes greater than 8% unless erosion control blankets or erosion control mix is being used on these slopes. Unvegetated slopes less than 8% must be protected with an erosion control blanket, erosion control mix, or riprap.
8. Stormwater Channels: Each channel shall be constructed in sections so that the section's grading, shaping, and installation of the permanent lining can be completed the same day. If a channel's final grading or lining installation must be delayed, then diversion berms must be used to divert stormwater away from the channel, properly-spaced check dams must be installed in the channel to slow the water velocity, and a temporary lining installed along the channel to prevent scouring.
9. Sediment Basins: Sediment basins that will be used to control sediment during construction activities must be designed to provide storage for either the calculated runoff from a 2-year, 24-hour storm or provide for 3,600 cubic feet of capacity per acre draining to the basin. Outlet structures must discharge water from the surface of the basin whenever possible. Erosion controls and velocity dissipation devices must be used if the discharging waters are likely to create erosion. Accumulated sediment must be removed as needed from the basin to maintain at least half of the design capacity of the basin. Clearly visible staking must be installed with marks showing the elevation of half design capacity for easier inspection.
- The use of cationic treatment chemicals in Sediment Basins, such as polymers, flocculants, or other chemicals that contain an overall positive charge designed to reduce turbidity in stormwater may only be used if proof of approval by Maine DEP is provided.
10. Phasing Plan Requirements: No phasing plan is required if contractor will limit Disturbed Area to a maximum of 5 acres of disturbance across the Site at any time. If the Construction Activity will result in more than 5 acres of Disturbed Area at any one time, the Contractor shall provide a phasing plan showing:
- a. the initial 5-acre area to be disturbed;
  - b. which portions of the initial disturbance will be stabilized, and what temporary or permanent stabilization methods will be used;
  - c. which areas will be subsequently disturbed and what temporary or permanent stabilization methods will be used; and
  - d. each phase of disturbance and stabilization must clearly show the total areas in square feet or acres such that the 5-acre Disturbed Area limit at any one time is met throughout the entire project.

## **A.2. Inspection, Maintenance and Corrective Action by Applicant On-Site Personnel During Construction**

During construction, the following are the inspection, maintenance, and corrective action requirements which must be implemented by the applicant or their on-Site representative:

1. Inspection: Disturbed and Impervious Areas, Erosion and Sedimentation Control BMPs, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the Site

are inspected at least once a week as well as before and within 24 hours after a storm event (rainfall), and prior to completing permanent stabilization measures. A person with knowledge of erosion and sedimentation control, including the standards and conditions in the permit shall conduct the inspections.

2. **Maintenance and Corrective Action:** If Erosion or Sedimentation Control BMPs need to be maintained, or repaired or enhanced (corrective action), the work shall be initiated upon discovery of the problem but no later than the end of the next workday. If additional Erosion or Sedimentation Control BMPs or significant repair of Erosion or Sedimentation Control BMPs are necessary, implementation must be completed prior to any storm event (rainfall) and within 7 calendar days of identification. All measures must be maintained in effective operating condition until areas are permanently stabilized.
3. **Documentation:** A log (report) summarizing the inspections and any repairs or enhancements (corrective actions) added must be maintained by the applicant. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the Parcel. Major observations must include Erosion and Sedimentation Control BMPs that need maintenance, Erosion and Sedimentation Control BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional Erosion and Sedimentation Control BMPs are needed. The log must document each Erosion and Sedimentation Control BMP requiring maintenance, Erosion and Sedimentation Control BMP needing replacement, and location needing additional Erosion and Sedimentation Control BMPs, as well as the corrective action taken and when it was taken. The log shall be maintained for at least three years from the completion of permanent stabilization.

### **A.3 Housekeeping Requirements**

1. **Spill Prevention:** Controls must be used to prevent pollutants from construction and waste materials stored on-Site from entering stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The Site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.
2. **Groundwater Protection:** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the Site draining to an infiltration area. An infiltration area is any area of the Site that by design or as a result of soils, topography, and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the Site for the purposes of storage and handling of these materials.
3. **Fugitive Sediment and Dust:** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance shall be included to minimize tracking of mud and sediment. If off-Site tracking occurs, public roads shall be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, shall wet down unpaved

access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

4. **Debris and Other Materials:** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source. Sediment generated by concrete or mortar mixing, brick cutting & saw cutting activities must be contained (e.g., sausage boom, straw bales, etc.) and cleaned up using dry methods (i.e., sweeping or vacuuming) to prevent it from entering drainage structures or water resources. These activities shall be done on vegetated areas whenever possible and away from drainage structures and water resources.
5. **Excavation Dewatering:** Excavation dewatering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or otherwise treated to collect the maximum amount of sediment possible, like a coffer dam sedimentation or sediment filter bag. Avoid allowing the water to flow over Disturbed Areas of the Site. If the Maine DEP has approved equivalent measures, provide proof of approval. Note that discharge of excavation dewater fluids from the Site must be visually clear (no visible suspended or settleable solids).
6. **Washout from Concrete, Stucco, Paint, Curing Compounds, or Other Construction Materials:** If washout/cleanout is to be completed on the Site, a designated area(s) shall be established and marked on the Erosion and Sedimentation Control Plan. This area shall be a minimum of 50 feet from all drainage structures, ditches, waterbodies, and resource areas, as well as property boundaries. The area shall not have an outlet to discharge wastes or flows. No detergents shall be used or vehicles washed in this location. A leak-proof pit or container shall be established in the washout area(s), to which washings shall be directed. This area shall be used for washout containment and dewatering by evaporation only. The pit shall not allow infiltration to occur. To prevent clean water from entering the pit, the washout area shall be covered during precipitation events. Inspections of the pit shall be conducted daily to ensure no leaks are present and no discharge is occurring.
7. **Authorized Non-stormwater Discharges:** Identify and prevent contamination by non-stormwater Discharges. Where allowed non-stormwater Discharges exist, they must be identified, and steps shall be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the Discharge. Authorized non-stormwater Discharges are:
  - a. Discharges from firefighting activity
  - b. Hydrant flushing if dechlorinated to 0.05 mg/l or less
  - c. Vehicle wash water if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage, and transmission washing is prohibited)
  - d. Dust control runoff if it does not cause erosion
  - e. Routine external building washdown, not including surface paint removal, that does not involve detergents
  - f. Pavement wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used
  - g. Uncontaminated air conditioning or compressor condensate

- h. Uncontaminated groundwater or spring water
  - i. Foundation or footer drain-water where flows are not contaminated
  - j. Uncontaminated excavation dewatering per item 5 Excavation Dewatering
  - k. Potable water including waterline flushings
  - l. Landscape irrigation
8. Unauthorized Non-stormwater Discharges: The following Discharges are prohibited:
- a. Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds, or other construction materials;
  - b. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
  - c. Soaps, solvents, or detergents used in vehicle and equipment washing; and
  - d. Toxic or hazardous substances from a spill or other release.