

Notes for Future Adopters

Elements required for MS4 compliance are in black text – this text should not be modified without careful consideration of 2022 MS4 General Permit.

Optional elements incorporating Maine Climate Council Recommendations or items more stringent than Chapter 500 are shown in blue italicized text. Municipalities may or may not incorporate these elements as they wish.

Much of the text is standard ordinance language and is shown in green. Municipalities may modify this to conform to their own ordinances and procedures.

Some sections of this model ordinance contain placeholders (underlined) for municipalities to fill in, such as municipal code references or the Enforcement Authority for the ordinance.

Comments are provided in the margins for better understanding (In the document ribbon, under the Review tab, select comments from the “Show Markup” pulldown menu).

Maine Model Ordinance for Erosion and Sedimentation Control at Construction Sites

2/20/2022 Final



Credits: This model ordinance was prepared by SMPDC, CCSWCD, and Integrated Environmental Engineering, Inc. under award CZM NA20NOS4190064 to the Maine Coastal Program from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA or the Department of Commerce.

Table of Contents

Section 1 Purpose	3
Section 2 Definitions	3
Section 3 Applicability.....	5
Section 4 Procedure.....	5
4.1 Erosion and Sedimentation Control Plan Required	5
4.2 Submission	5
4.3 Review.....	6
4.4 Pre-Construction Meeting.....	6
4.5 Compliance with Requirements.....	6
4.6 Notice of Permanent Stabilization	6
Section 5 Submission Requirements.....	7
5.1 Project Contacts and Qualifications.....	7
5.2 Erosion and Sedimentation Control Plan Content.....	7
Section 6 Requirements and Standards.....	7
Section 7 Inspection.....	8
Section 8 Enforcement.....	8
Section 8.1 Right of Entry.....	9
Section 8.2 Notice of Violation	9
Section 8.3 Stop Work Notice	9
Section 8.4 Penalties/Fines/Injunctive Relief	9
Section 8.5 Consent Agreement	10
Section 8.6 Appeal of Notice of Violation	10
Section 8.7 Enforcement Measures.....	10
Section 9 Severability and Conflicts	10
Section 10 Waivers.....	10
Section 11 Authority	11
Appendix 1 – Erosion and Sedimentation Control Standards.....	i
Alternate Appendix 1 – Erosion and Sedimentation Control Standards	Alt - i

Section 1 Purpose

The purpose of this Ordinance 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 Regulated Small MS4.

Section 2 Definitions

Adverse Impact – Means any undue deleterious effect due to erosion or sedimentation from Construction Activity on Waters of the State, Protected Natural Resources, the infrastructure of the Regulated Small MS4, or off-Site. Such undue deleterious effect is or may be potentially harmful or injurious to human health, welfare, safety, or property to biological productivity, diversity, or stability, or may unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

Erosion and Sedimentation Control Best Management Practices (Erosion and Sedimentation Control BMPs) - Means schedules of activities, prohibitions of practices, maintenance procedures, and other methods, techniques, designs, and management practices to prevent or reduce the pollution of Waters of the State and to control erosion (Erosion Control BMPs) and sedimentation (Sedimentation Control BMPs). BMPs also include treatment requirements, operating procedures, and practices to control Site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Common Plan of Development or Sale - Means a “subdivision” as defined in Title 30-A M.R.S. §§ 4401 *et seq.* (the Maine Subdivision statute) and in _____ of the Municipality’s code of ordinances.

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.

Disturbed Area - Means all land areas of a Parcel that are stripped, graded, grubbed, filled, or excavated at any time during the Site preparation or removing vegetation for, or construction of, a project. Cutting of trees, without grubbing, stump removal, disturbance, or exposure of soil is not considered Disturbed Area. Disturbed Area does not include routine maintenance but does include redevelopment and new Impervious Areas. “Routine maintenance” is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Paving impervious gravel surfaces provided that an applicant or permittee can prove the original line and grade and hydraulic capacity shall be maintained and original purpose of the gravel surface remains the same is considered routine maintenance. Replacement of a building is not considered routine maintenance of the building and is therefore considered Disturbed Area.

Enforcement Authority – The _____, and their designee, are authorized to enforce this Ordinance. The use of Enforcement Authority in this Ordinance is synonymous with “Enforcement Authority or their designee”.

General Permit – Means the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) approved October 15, 2020 and modified November 23, 2021 and any amendment or renewal thereof.

Impervious Area - Means the total area of a Parcel covered with a low-permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability. Common Impervious Areas include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and macadam or other surfaces which similarly impede the natural infiltration of stormwater. Pervious pavement, pervious pavers, pervious concrete, and underdrained artificial turf fields are all considered impervious.

Municipal Separate Storm Sewer Systems (MS4) - Means a conveyance or system of conveyances designed or used for collecting or conveying stormwater (other than a publicly owned treatment works (POTW), as defined at 40 CFR 122.2, or a combined sewer), including, but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains owned or operated by any municipality, sewer or sewage district, Maine Department of Transportation (MDOT), Maine Turnpike Authority (MTA), State agency or Federal agency or other public entity that Discharges to Waters of the State other than groundwater.

Municipality – Means the City/Town of _____.

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.

Permitting Authority - Means the Code Enforcement Officer, Building Inspector, Planning Board, or other official or body authorized by State law or the Municipality’s ordinances to approve development or redevelopment projects.

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 been certified by completing 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.

Regulated Small MS4 - Means any Small MS4 authorized by the most recent, in-force MS4 General Permit or the general permits for the Discharge of stormwater from MDOT and MTA Small MS4s or state or federally owned or operated Small MS4s including all those located partially or entirely within an Urbanized Area.

Small MS4 - Means any MS4 that is not already covered by the Phase I MS4 stormwater program including municipally owned or operated storm sewer systems, state or federally owned systems, such as colleges, universities, prisons, military bases and facilities, and transportation entities such as MDOT and MTA road systems and facilities. See also 40 CFR 122.26(b)(16).

Site - Means the portion(s) of a Parcel upon which Construction Activity subject to this Ordinance is located.

Urbanized Area - Means the area of the Municipality so defined by the inclusive sum of the 2000 decennial census and the 2010 decennial census by the U.S. Census Bureau.

Waters of the State – Means Waters of the State as defined in 38 M.R.S. §361-A (7).

Section 3 Applicability

This Ordinance applies to Construction Activity on a Parcel or Common Plan of Development or Sale commencing after the effective date of this Ordinance, with stormwater Discharges to the Regulated Small MS4 within the Municipality’s Urbanized Area, that results in:

- a. Disturbed Area of one or more acres of land, or
- b. Disturbed Area that is less than one acre of land if the Construction Activity creating Disturbed Area less than one acre of land is part of a larger Common Plan of Development or Sale that as approved or amended would create Disturbed Area of one acre or more, or
- c. 2,000 square feet of new Impervious Area regardless of total Disturbed Area.

Commented [KR1]: Delete this phrase for municipal-wide application of the Ordinance and to expand applicability to those Sites that Discharge to locations other than the Regulated Small MS4 (such as directly to water bodies or forested areas). Also adjust items a, b, and c below to conform to municipal ordinance requirements if they are currently more stringent than these. Element c is recommended by the 2017 Municipal Climate Adaptation Guidance Series.

Section 4 Procedure

4.1 Erosion and Sedimentation Control Plan Required

No Person shall commence Construction Activity subject to the Applicability Section of this Ordinance without first preparing and obtaining approval for an Erosion and Sedimentation Control Plan in accordance with this Ordinance.

4.2 Submission

When Construction Activity is subject to subdivision, site plan, or other review under the Municipality’s planning, zoning, and land use ordinances which includes a review for erosion and

sedimentation control, an Erosion and Sedimentation Control Plan meeting these requirements shall be submitted to the Permitting Authority concurrently with that review. When a concurrent review is not otherwise required, an Erosion and Sedimentation Control Plan shall be submitted to the Enforcement Authority.

4.3 Review

The Erosion and Sedimentation Control Plan shall be reviewed by the Enforcement Authority or incorporated into the municipal review of a subdivision, site plan, or other review under the Municipality's planning, zoning, and land use ordinances by the Permitting Authority, in accordance with subsection 4.2 above. The Enforcement Authority and the Permitting Authority, as appropriate, will conduct the review under the standards of this Ordinance, and will accept and consider public comment provided as part of that review.

The Enforcement Authority or Permitting Authority, as appropriate, will review the Erosion and Sedimentation Control Plan for compliance with the standards of Section 5, Section 6, and Appendix 1 of this Ordinance and may provide comments where standards have not been met. Once an applicant has submitted an Erosion and Sedimentation Control Plan that the Enforcement Authority or Permitting Authority finds is in compliance with the standards of Section 5, Section 6, and Appendix 1 of this Ordinance, the Enforcement Authority or Permitting Authority shall provide written confirmation to the applicant. The Enforcement Authority or Permitting Authority may approve the Erosion and Sedimentation Control Plan, approve it with conditions, or deny the Erosion and Sedimentation Control Plan, and that decision shall be in writing and supported by findings of fact and conclusions of law. Appeals from decisions of the Enforcement Authority regarding the Erosion and Sedimentation Control Plan may be taken within 30 days of the date of decision to the Board of Appeals as provided under the Municipality's Zoning Ordinance; appeals from decisions of the Permitting Authority regarding the Erosion and Sedimentation Control Plan may be taken within 30 days of the date of decision in the same manner as appeals are taken under the Municipality's subdivision or site plan ordinance, as appropriate.

4.4 Pre-Construction Meeting

At least ten (10) days prior to commencing Construction Activity, the applicant shall request a pre-construction meeting with the Enforcement Authority. At a minimum, attendance at the meeting is required by the Enforcement Authority and the applicant or their representative in charge of construction. If the representative in charge of construction is not the primary earthwork contractor, a representative of the earth work contractor must also attend the pre-construction meeting. Meeting minutes must be prepared by the Municipality's representative and distributed to all attendees and the Municipality's Planner.

4.5 Compliance with Requirements

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

4.6 Notice of Permanent Stabilization

The applicant shall provide notice to the Enforcement Authority when permanent stabilization of the Site has been achieved to allow for final inspection per Section 7 of this Ordinance.

Section 5 Submission Requirements

5.1 Project Contacts and Qualifications

The applicant shall provide contact information (i.e., name, company if applicable, phone number, physical address, and email address) as described below:

- Applicant,
- Qualified Professional, and
- Contractor (if applicable)

5.2 Erosion and Sedimentation Control Plan Content

The Erosion and Sedimentation Control Plan shall be prepared in accordance with the performance standards contained in Appendix 1.

The Erosion and Sedimentation Control Plan shall consist of a graphic representation of the Site at a scale no smaller than 1 inch = 100 feet showing:

- Parcel boundaries,
- Locations of Protected Natural Resources,
- Locations of all potential sources of authorized and unauthorized non-stormwater discharges,
- Locations of all Erosion and Sedimentation Control BMPs to be used,
- Topography for Site pre-and post-construction conditions as 2-foot elevation contours,
- Details for all Erosion and Sedimentation Control BMPs to be used,
- Details and timing associated with phasing of Construction Activity in Disturbed Areas at the Site, and phasing of installation and stabilization of Erosion and Sedimentation Control BMPs (if applicable),
- Erosion and Sedimentation Control BMPs Notes with construction standards,
- A narrative description of the timing, inspections, and Erosion and Sedimentation Control BMPs to be used,
- Example inspection form,
- Dewatering plan if necessary, and
- Locations of areas not to be disturbed by Construction Activity, including trees, vegetation, and areas intended for infiltration.

The Erosion and Sedimentation Control Plan shall also include documentation of any variances or releases provided by the Maine Department of Environmental Protection from Chapter 500 performance standards.

Section 6 Requirements and Standards

The Enforcement Authority shall determine if the following standards are met in accordance with Appendix 1.

- a. **Qualified Professional.** The Erosion and Sedimentation Control Plan has been prepared by a Qualified Professional.

Commented [KR2]: Planning Boards may use this paraphrasing of the Performance Standards and findings after review in their Findings of Fact.

- b. **Timing of Installation and Maintenance.** The Erosion and Sedimentation Control Plan requires that Erosion and Sedimentation Control BMPs shall be in place before construction begins, additional measures phased in if phasing is used, and shall be maintained until permanent stabilization is achieved.
- c. **Inspection.** The Erosion and Sedimentation Control Plan provides for inspection of the Site by the applicant to confirm that Erosion and Sedimentation Control BMPs are in place and functioning. The Erosion and Sedimentation Control Plan also provides for corrective action if erosion is occurring or there is a discharge of sediment or turbid water from the construction Site.
- d. **Spill Prevention.** The Erosion and Sedimentation Control Plan includes measures that prevent construction Site pollution and spills from entering stormwater.
- e. **Groundwater Protection.** The Erosion and Sedimentation Control Plan restricts the storage or handling of liquid petroleum products and other hazardous materials that may drain to an “infiltration area.”
- f. **Fugitive Sediment and Dust.** The Erosion and Sedimentation Control Plan includes provisions to prevent erosion of soils, tracking or migration of soils into the right of way, discharge of sediment from the Site, and fugitive dust emissions during or after construction.
- g. **Debris.** The Erosion and Sedimentation Control Plan includes provisions to minimize the exposure of construction materials and waste to stormwater runoff and prevent them from migrating off-Site.
- h. **Excavation Dewatering.** The Erosion and Sedimentation Control Plan must include provisions to remove or properly disperse the collected water in a manner that prevents sediment from entering stormwater.
- i. **Non-stormwater Discharges.** The Erosion and Sedimentation Control Plan minimizes non-stormwater discharges and, if non-stormwater discharges are allowed, they are identified in the Erosion and Sedimentation Control Plan with appropriate pollution measures for discharge.

Section 7 Inspection

The Enforcement Authority will inspect the Site as follows at a minimum:

- a. Once before any disturbance begins and after all Erosion and Sedimentation Control BMPs specified in the Erosion and Sedimentation Control Plan are in place
- b. Three times during the active earth moving phase of construction
- c. Once at project completion to ensure the Site has reached permanent stabilization and all temporary erosion and sedimentation controls have been removed

Additional inspection requirements to be completed by the applicant during construction are contained in Appendix 1.

Commented [KR3]: Some MS4 Stormwater Coordinators and Managers recommend doing monthly inspections. Note these are inspections by the municipal Enforcement Authority, and the applicant has requirements to conduct inspections weekly and before and after precipitation events as specified in Appendix 1.

Section 8 Enforcement

It shall be unlawful for any Person to violate any provision of or to fail to comply with any of the requirements of this Ordinance. Whenever the Enforcement Authority believes that a Person has violated this Ordinance, the Enforcement Authority may enforce this Ordinance in accordance with 30-A M.R.S. § 4452 and this Section.

Section 8.1 Right of Entry

In order to determine compliance with this Ordinance, the Enforcement Authority may enter upon the Parcel at reasonable hours with the consent of the owner, occupant, agent, or contractor to inspect the Parcel for compliance with this Ordinance.

Section 8.2 Notice of Violation

Whenever the Enforcement Authority finds that a Person has violated this Ordinance, the Enforcement Authority may order compliance with this Ordinance by written notice of violation to that Person indicating the nature of the violation(s), a statement of the Ordinance provision(s) alleged to have been violated, including a statement of the penalties for violation, and ordering the action necessary to correct it, including, without limitation:

- a. The abatement of violations and the cessation of practices or operations in violation of this Ordinance;
- b. At the Person's expense, compliance with or repair of the Erosion and Sedimentation Control BMPs required as a condition of approval of the Erosion and Sedimentation Control Plan, and/or the restoration of any affected portion(s) of the Parcel;
- c. The payment of fines, of the Municipality's remediation costs and of the Municipality's reasonable administrative costs and attorneys' fees and costs;
- d. If abatement of a violation, compliance with the Erosion and Sedimentation Control Plan, repair of Erosion and Sedimentation Control BMPs, and/or restoration of affected portions of the Parcel is required, the notice shall set forth a deadline within which such abatement, compliance, repair, and/or restoration must be completed.

Section 8.3 Stop Work Notice

The Enforcement Authority may issue a Stop Work Notice whenever:

- a. A Person has not acted on a notice of violation issued pursuant to this Ordinance within the time set forth in the notice, or
- b. A Person subject to the applicability section of this Ordinance undertakes Construction Activity without first submitting an application for and obtaining approval of an Erosion and Sedimentation Control Plan.

The Enforcement Authority will attempt to deliver the Stop Work Notice to the applicant, the Person performing the Construction Activity, or the owner or occupant of the Parcel, as appropriate, by any means reasonable calculated to effectuate delivery.

Once the Stop Work Notice has been delivered, no further Construction Activity at the Site may proceed other than as is necessary to correct the non-compliance. Construction Activity may resume only when the Enforcement Authority provides written notice that the Person may resume that Construction Activity.

Section 8.4 Penalties/Fines/Injunctive Relief

Any Person who violates this Ordinance, including, but not limited to the Erosion and Sedimentation Control Plan, shall be subject to fines, penalties, and orders for injunctive relief and shall be responsible for the Municipality's attorney's fees and costs, all in accordance with 30-A M.R.S. § 4452. Each day that such violation continues shall constitute a separate violation. Moreover, any

Person who violates this Ordinance also shall be responsible for any and all fines, penalties, damages, and costs, including, but not limited to attorneys' fees and costs, incurred by the Municipality for enforcement of violation(s) of Federal and State environmental laws and regulations caused by or related to that Person's violation of this Ordinance; this responsibility shall be in addition to any penalties, fines, or injunctive relief imposed under this Section.

Section 8.5 Consent Agreement

The Enforcement Authority may, with the approval of the municipal officers, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this Ordinance for the purposes of eliminating violations of this Ordinance and of recovering fines, costs, and fees without court action.

Section 8.6 Appeal of Notice of Violation

Any Person receiving a Notice of Violation or Stop Work Notice may appeal the determination of the Enforcement Authority to the Zoning Board of Appeals. The notice of appeal must be received within 30 days from the date of receipt of the Notice of Violation. The Board of Appeals shall hold a de novo hearing on the appeal within 30 days from the date of receipt of the notice of appeal. A party aggrieved by the decision of the Board of Appeals may appeal that decision to the Maine Superior Court within 45 days of that date of the Board of Appeals decision pursuant to Rule 80B of the Maine Rules of Civil Procedure.

Section 8.7 Enforcement Measures

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal to the Board of Appeals, within 45 days of a decision of the Board of Appeals affirming or modifying the Enforcement Authority's decision, then the Enforcement Authority may recommend to the municipal officers that the Municipality's attorney file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.

Section 9 Severability and Conflicts

The provisions of this Ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any Person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this Ordinance.

Whenever a provision of this Ordinance conflicts with or is inconsistent with another provision of this Ordinance or of any other ordinance, regulation or statute administered by the Municipality, the more restrictive provision shall control.

Section 10 Waivers

Where the Enforcement Authority finds that there are special circumstances of a particular Erosion and Sedimentation Control Plan that make a particular submission requirement or standard inapplicable, a waiver may be granted, provided that such waiver will not have the effect of nullifying the intent and purpose of this Ordinance. The applicant shall submit, in writing, the reason for the requested waiver. In

granting waivers or modifications, the Enforcement Authority may require such conditions that will substantially secure the objectives of the standards so waived or modified.

Section 11 Authority

The Municipality enacts this Erosion and Sedimentation Control Ordinance pursuant to 30-A M.R.S. §§3001 et seq. (municipal home rule ordinance authority), 38 M.R.S. §413 (the Wastewater Discharge Law), 33 USC §§1251 et seq. (the Clean Water Act), and 40 CFR Part 122 (US Environmental Protection Agency’s regulations governing the National Pollution Discharge Elimination System (NPDES)). The Maine Department of Environmental Protection, through its promulgation of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems has listed the Municipality as having a Regulated Small MS4; under this General Permit, listing as a Regulated Small MS4 necessitates enactment of elements of this Ordinance as part of the Municipality’s stormwater management program in order to satisfy the minimum control measures for Construction Site Stormwater Runoff Control.

Appendix 1 – Erosion and Sedimentation Control Standards

The following are the mandatory minimum standards for Construction Activity subject to this Ordinance. The Erosion and Sedimentation Control Plan required under this Ordinance 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.

Where not otherwise specified in this Appendix, the Erosion and Sedimentation Control BMPs shall be designed using Performance Standards specified in the Maine Erosion and Sediment Control BMPs Manual for Designers and Engineers developed by the Maine Department of Environmental Protection (October 2016 or most current version).

Erosion and Sedimentation Control BMPs that require design to accommodate specific storm events shall be designed using precipitation data from either the Northeast Regional Climate Center (<http://precip.eas.cornell.edu>), Extreme Precipitation Tables, or the NOAA Atlas 14 precipitation data (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html).

The Erosion and Sedimentation Control Plan shall be prepared by a Qualified Professional as defined in this Ordinance.

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 Erosion and Sedimentation Control 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

Commented [KR4]: Municipalities that want to embed all standards in their ordinances should use this version of Appendix 1. See also Appendix 1 Alternate to provide a reference to Chapter 500 and just call out changes that are different than Chapter 500.

Commented [KR5]: Recommended by the Maine Climate Council Coastal Resiliency Working Group

Commented [KR6R5]: Municipalities may use either set of data. Atlas 14 is preferred.

Commented [KR7]: If a municipality does not adopt item b., they must replace b. with: If disturbance activities take place between 30 feet and 50 feet of any Protected Natural Resource, and stormwater Discharges through the Disturbed Areas toward the Protected Natural Resource, perimeter erosion controls must be doubled. If disturbance activities take place less than 30 feet from any Protected Natural Resource, and stormwater Discharges through the Disturbed Areas toward the Protected Natural Resource, perimeter erosion controls must be doubled and Disturbed Areas must be temporarily or permanently stabilized within 7 days, or before the next rain event, whichever comes sooner.

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 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.

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 **Qualified Professional** 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.

Commented [KR8]: If municipalities do not adopt this optional text, they must replace the text "Qualified Professional" with "person with knowledge of erosion and sedimentation control, including the standards and conditions in the permit,".

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

Commented [KR9]: For communities with their own dewatering standards, compare them to 5 & 6 and ensure that they do not conflict and meet at least the State's minimum standards.

Commented [KR10]: Maine DEP Chapter 500 states applicants can apply for equivalent measures. If they have done so, they must indicate that to the municipality.

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.

Commented [KR11]: There is some overlap with the Non-Stormwater Discharge Ordinance. If municipalities want to reference that list, and ordinance instead of repeating the Construction related authorized Non-SW discharges, they must add the following missing items:
c. Vehicle wash water w/out detergents and no engine/undercarriage
d. Dust control per (C)(3)
e. External building washdown w/out detergents
j. Uncontaminated excavation dewatering as described in item (5) of Appendix 1 to the Erosion and Sedimentation Control Ordinance.

Alternate Appendix 1 – Erosion and Sedimentation Control Standards

The Erosion and Sedimentation Control Plan required under this Ordinance shall be developed and implemented to conform to the Maine Department of Environmental Protection's 06-096 CMR Chapter 500 Stormwater Management Rule Appendices A, B, and C as mandatory minimum standards with the following additional standards (shown as underlined text and deletions shown as strikethrough text).

Where not otherwise specified in this Appendix, the Erosion and Sedimentation Control BMPs shall be designed using Performance Standards specified in the Maine Erosion and Sediment Control BMPs Manual developed by the Maine DEP (October 2016 or most current version).

Erosion and Sedimentation Control BMPs that require design to accommodate specific storm events shall be designed using precipitation data from either the Northeast Regional Climate Center (<http://precip.eas.cornell.edu>), Extreme Precipitation Tables, or the NOAA Atlas 14 precipitation data (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html).

The Erosion and Sedimentation Control Plan shall be prepared by a Qualified Professional as defined in this Ordinance.

Chapter 500 Appendix A. Erosion and Sedimentation Control:

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

- Additional Erosion and Sedimentation Control BMPs must be phased in as appropriate.
 - 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. ~~And temporary and permanent stabilization measures must be taken.~~
1. Pollution Prevention: Minimize Disturbed Areas 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 may 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 disturbance activities take place between 30 feet and 50 feet of any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled. If disturbance activities take place less than 30 feet from any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled and disturbed areas must be temporarily or permanently stabilized within 7 days, or before the next rain event, whichever comes sooner.~~
 - c. If it is not practicable to maintain the 50-foot buffer of no disturbance, the Erosion and Sedimentation Control Plan must include redundant (at least two) perimeter control measures that are appropriate for the soil and slope.

Commented [KR12]: Municipalities that want to reference Chapter 500 and point out what is different from Chapter 500 should use this version of Appendix 1.

Commented [KR13]: Recommended by the Maine Climate Council Coastal Resiliency Working Group

Commented [KR14R13]: Municipalities may use either set of data. Atlas 14 is preferred.

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...

And Add: 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 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.
7. Winter Construction: Add to item c. Ditch: If release from Maine DEP has been granted, provide proof of this with the Plan or application.
9. Sediment Basins: Add: Clearly visible staking must be installed with marks showing the elevation of half design capacity for easier inspection.
10. Add: Phasing Plan Requirements: No phasing plan is required if contractor shall limit disturbance to a maximum of 5 acres of Disturbed Area across the Site at any time. If the Site shall 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 shall be stabilized, and what temporary or permanent stabilization methods shall be used
 - c. which areas shall be subsequently disturbed and what temporary or permanent stabilization methods shall be used
 - d. each phase of disturbance and stabilization shall 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

Chapter 500 Appendix B Inspection and Maintenance – no changes

- a. Inspection and Corrective Action: Add: A Qualified Professional shall conduct the inspections.
- b. Maintenance: If Erosion or Sedimentation Control BMPs need to be repaired or enhanced, the repair work shall be initiated upon discovery of the problem but no later than the end of the next workday.

Chapter 500 Appendix C Housekeeping

4. Debris & 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.

Commented [KR15]: If municipalities do not adopt this optional text, they must replace the text "Qualified Professional" with "person with knowledge of erosion and sedimentation control, including the standards and conditions in the permit,".

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 basin. 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. Authorized Non-SW Discharges change only item b:
 - b. Hydrant flushing [if dechlorinated to 0.05 mg/l or less](#)
8. Add New item: [Washout from concrete, stucco, paint, curing compounds, or other construction materials: If washout/cleanout is to be completed on-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.](#)