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Pembroke Municipal Separate Storm Sewer System (MS4) Post-Construction Stormwater Management Ordinance

I. OVERVIEW

- A. Applicability of Stormwater Management Standards.
The Municipal Separate Storm Sewer System (MS4) Stormwater Management Overlay District shall be comprised of all land depicted in the MS4 Stormwater Management Overlay District as depicted on the Official Zoning Map of the Town of Pembroke dated March 10, 2020. The following stormwater standards shall apply to all land within the district boundaries. Redevelopment of existing developed sites shall also be subject to the standards described herein.
- B. Compliance with this Article shall be determined during the site plan and subdivision review process. The Planning Board will consult with the Town’s Engineer, as needed and at the applicant’s expense, to determine compliance. Relief from one or more of the requirements of the overlay district may be granted through issuance of a (SUP) issued by the Planning Board. All such requests to diverge from any requirement or standard shall be accompanied by a narrative description of and justification for the requested relief, a site plan showing the proposed standard(s) and required standard(s).
- C. A Special Use Permit is a decision that would permit relief from or reduction in a specific requirement or standard of the overlay district but that is otherwise generally consistent with its goals, purpose and provisions. The Planning Board shall have the authority to grant or deny a request for a Special Use Permit pursuant to the provisions of RSA 674:16 and RSA 674:21.
- D. The grant or denial of a Special Use Permit by the Planning Board may be appealed to the Superior Court, as provided for in RSA 677:15.
- E. A Special Use Permit, for relief from the requirements of the overlay district, may be granted by the Planning Board after proper public notice and public hearing provided the Planning Board finds that the applicant’s request complies with standards E.1, E.2 or E.3 below:
 - 1. Improves a specific aspect of public health; *or*
 - 2. Provides an increased level of ecosystem services, environmental or natural resource protection; *or*
 - 3. Provides a measureable public benefit (such as increased public space, open space or public amenities).

Commented [M1]: This establishes an overlay district based on the EPA defined boundaries of the MS4. The other option is to do it town wide. The PB should decide what method they prefer.

II. APPLICABILITY STANDARDS

- A. These standards apply to all projects situated within the MS4 Stormwater Management Overlay District. At the discretion of the Planning Board, qualifying applications may be

required to include a post-construction stormwater management plan prepared by an NH licensed engineer.

- B. All projects under review by the Planning Board of such magnitude as to require a stormwater permit from the EPA Construction General Permit (CGP) program or the NH Department of Environmental Services (NHDES) Alteration of Terrain (AOT) program shall comply with the standards of EPA and/or NHDES permits and this section, whereas the stricter standards shall apply.

III. MINIMUM THRESHOLDS FOR APPLICABILITY

- A. Minimum Thresholds for Applicability: These stormwater management standards apply to all projects requiring Planning Board review and approval under this Ordinance. For smaller projects that disturb less than 10,000 square feet, an applicant may request a waiver of the full standards providing minimum protections and management are implemented. For the purpose of these standards, “disturbance” is defined as any alteration of the land surface or permanent removal of vegetation or trees associated with a development activity. A “disturbed area” is an area in which the natural vegetative soil cover has been removed or altered and, therefore, is susceptible to erosion.
- B. Waiver Option for Small Development Projects: At the request of an applicant, the Planning Board may grant a waiver to any or all stormwater standards for projects that: disturb less than 10,000 square feet; create less than 5,000 square feet of new impervious surface; and do not disturb land within 100 feet of a surface water body or wetland.
- C. Conditions for Granting of Waivers: In order for the Planning Board to issue a waiver, the applicant must demonstrate, and Board must find that, the application meets the minimum criteria listed below and, if granted, will be considered conditions of approval.
 - 1. Runoff from **NEW** impervious surfaces shall be directed to a filtration and/or infiltration device or properly discharged to a naturally occurring or fully replanted and vegetated area with slopes of 15 percent or less and with adequate controls to prevent soil erosion and concentrated flow.
 - 2. Impervious surfaces for parking areas and roads shall be minimized to the extent possible (including minimum parking requirements for proposed uses and minimum road widths).
 - 3. Runoff generated from **NEW** impervious surfaces shall be retained on the development site and property and mimic natural hydrologic processes to the maximum extent possible, or it is determined that the biological and chemical properties of the receiving waters will not be degraded by, or its hydrology will benefit from, discharge of stormwater runoff from the development site.

Commented [M2]: The threshold is for 10,000 sf projects or greater; less than 10,000 can request a waiver. Coupled with defining the overlay as the EPA area, and it would mean that the project would need to be in the zone and be 10,000 sf or greater to need to comply.

4. Compliance with standards C.1-C.3 above will be determined by the Planning Board on a case by case basis as site conditions and constraints will differ greatly between various redevelopment proposals.

IV. BEST MANAGEMENT PRACTICES (BMP)

- A. Performance Specifications: All proposed stormwater practices and measures shall be installed and maintained in accordance with manufacturers' specifications and performance specifications in the NH Stormwater Management Manual Volume 2 (December 2008 or current revision) a copy of which is available from the NHDES website at www.des.nh.gov/organization/divisions/water/stormwater/manual.htm.
- B. Water Quality Protection: All aspects of the application shall be designed to protect the quality of surface waters and groundwater of the Town of Pembroke as follows:
 1. No person shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quantity, noxiousness, toxicity, or temperature that may run off, seep, percolate, or wash into surface water or groundwater so as to contaminate, pollute, harm, impair, or contribute to an impairment of such waters.
 2. All storage facilities for fuel, chemicals, chemical or industrial wastes, and biodegradable raw materials, shall meet the regulations of the New Hampshire Department of Environmental Services (NHDES) including but not limited to those involving Underground Storage Tanks, Above Ground Storage Tanks, Hazardous Waste and Best Management Practices for Groundwater Protection (Env-Wa 401).
- C. Stormwater Management for New Development: All proposed stormwater management and treatment systems shall meet the following performance standards.
 1. All newly generated stormwater, whether from new development, or expansion of existing development (redevelopment), shall be treated on the development site. Runoff shall not be discharged from the development site to municipal drainage systems, privately owned drainage systems (whether enclosed or open drainage). Runoff shall not be discharged to surface water bodies or wetlands in excess of volumes discharged under existing conditions (developed condition or undeveloped condition).
 2. Existing surface waters, including lakes, ponds, rivers, perennial and intermittent streams (natural or channelized), and wetlands (including vernal pools) shall be protected by the minimum buffer setback distances as specified in the Zoning and Regulations. Stormwater and erosion and sediment control BMPs shall be located outside the specified buffer zone unless otherwise approved by the Planning Board. Alternatives to stream and wetland crossings that eliminate or minimize environmental impacts shall be considered whenever possible. When necessary, as determined by the Planning Board or their representative, stream and wetland crossings shall comply with state recommended design standards to minimize impacts

to hydrological flow, and enhance wildlife passage (see the University of New Hampshire Stream Crossing Guidelines (May 2009, as amended) available from the UNH Environmental Research Group website at http://www.unh.edu/erg/stream_restoration/nh_stream_crossing_guidelines_unh_web_rev_2.pdf)

3. Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable in order to reduce the generation of the stormwater runoff volume for both new development and redevelopment projects (see Section V, Applicability for Redevelopment for redevelopment standards). An applicant must document in writing why LID strategies are not appropriate if not used to manage stormwater. A list of potential LID strategies, and a definition, can be found in the Pembroke Site Plan Regulations.
4. All stormwater treatment areas shall be planted with native plantings appropriate for the site conditions: grasses, shrubs and/or other native plants in sufficient numbers and density to prevent soil erosion and to achieve the water quality treatment requirements of this section.
5. All areas that receive rainfall runoff must be designed to drain within a maximum of 72 hours for vector control.
6. Salt storage areas shall be covered and loading/offloading areas shall be designed and maintained in accordance with NH DES published guidance such that no untreated discharge to receiving waters results. Snow storage areas shall be located in accordance with NH DES published guidance so that no direct untreated discharges to receiving waters are possible from the storage site. Runoff from snow and salt storage areas shall enter treatment areas as specified above before being discharged to receiving waters or allowed to infiltrate into the groundwater. See NHDES published guidance fact sheets on road salt, water quality, and snow disposal at <http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/index.htm>.
7. Runoff shall be directed into recessed vegetated and landscape areas designed for treatment and/or filtration to the maximum extent possible to minimize Effective Impervious Cover (EIC) and reduce the need for irrigation systems.
8. A development plan shall include provisions to retain stormwater on the site by using the natural flow patterns of the site. Runoff from impervious surfaces shall be treated to achieve 80% removal of Total Suspended Solids and at least 50% removal of both total nitrogen and total phosphorus using appropriate treatment measures, as specified in the NH Stormwater Manual. Volumes 1 and 2, December 2008 as amended (refer to Volume 2, page 6, Table 2.1 Summary of Design Criteria, Water Quality Volume for treatment criteria) or other equivalent means. Where practical, the use of natural, vegetated filtration and/or infiltration BMPs or subsurface gravel wetlands for water quality treatment is preferred given its relatively high nitrogen removal efficiency.

Note: The Anti-Degradation provisions of the State Water Quality Standards require that runoff from new development shall not lower water quality or contribute to existing water body impairments.

9. Measures shall be taken to control the post-development peak rate runoff so that it does not exceed pre-development runoff for the 2-year, 10-year and 25-year, 24-hour storm events. Similar measures shall be taken to control the post-development runoff volume to infiltrate the Groundwater Recharge Volume (GRV) according to the following ratios of Hydrologic Soil Group (HSG) type versus infiltration rate multiplier: HSG-A: 1.0; HSG-B: 0.75; HSG-C: 0.4; HSG-D: 0.15. For sites where infiltration is limited or not practicable, the applicant must demonstrate that the project will not create or contribute to water quality impairment. Infiltration structures shall be in locations with the highest permeability on the site.
10. The physical, biological and chemical integrity of the receiving waters shall not be degraded by the stormwater runoff from the development site.
11. The design of the stormwater drainage system shall provide for the disposal of stormwater without flooding or functional impairment to streets, adjacent properties, downstream properties, soils, or vegetation.
12. The design of the stormwater management systems shall take into account upstream and upgradient runoff that flows onto, over, or through the site to be developed or re-developed, and provide for this contribution of runoff.
13. Appropriate erosion and sediment control measures, as described here and/or in the Site Plan and Subdivision Regulations, shall be installed prior to any soil disturbance, the area of disturbance shall be kept to a minimum, and any sediment in runoff shall be retained within the project area. Such control measures shall be inspected by the Building Inspector or other Town Official (including the Town's Engineer) prior to beginning any site work. Wetland areas and surface waters shall be protected from sediment. Disturbed soil areas shall be either temporarily or permanently stabilized consistent with the NHDES Stormwater Manual Volume 3 guidelines. In areas where final grading has not occurred, temporary stabilization measures should be in place within 7 days for exposed soil areas within 100 feet of a surface water body or wetland and no more than fourteen (14) days for all other areas. Permanent stabilization should be in place no more than 3 days following the completion of final grading of exposed soil areas.
14. All temporary control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized prior to removal of temporary control measures.
15. Every effort shall be made to use pervious parking surfaces as an alternative to impervious asphalt or concrete for general and overflow parking areas. Pervious

pavement shall be appropriately sited and designed for traffic and vehicle loading conditions.

16. Whenever practicable, native site vegetation shall be retained, protected, or supplemented. Any stripping of vegetation shall be done in a manner that minimizes soil erosion.

V. APPLICABILITY FOR REDEVELOPMENT

A. Redevelopment Criteria:

1. In order to determine the stormwater requirements for redevelopment projects, the percentage of the site covered by existing impervious areas must be calculated. Stormwater requirements for redevelopment will vary based upon the amount of site surface area that is covered by existing impervious surfaces.
2. For sites meeting the definition of a redevelopment project and having less than 40% existing impervious surface coverage, the stormwater management requirements will be the same as other new development projects with the important distinction that the applicant can meet those requirements either on-site or at an approved off-site location. The applicant must satisfactorily demonstrate that impervious area reduction, LID strategies and BMPs have been implemented on-site to the maximum extent practicable.
3. For sites meeting the definition of a redevelopment project and having more than 40% existing impervious surface coverage, stormwater shall be managed for water quality in accordance with one or more of the following techniques:
 - i. Implement measures on-site that result in disconnection or treatment of at least 30% of the existing impervious cover as well as 50% of the additional proposed impervious surfaces and pavement areas through the application of filtration media; or
 - ii. If a proposal does not meet the standards described in item V.A.3.i above, it must implement other LID techniques on-site to the maximum extent practicable to provide treatment for at least 50% of the entire site area.

VI. STORMWATER MANAGEMENT PLAN APPROVAL AND RECORDATION

- A. Plan Approval and Review. The Planning Board shall approve the Stormwater Management Plan if it complies with the requirements of these regulations and other requirements as provided by law. At the discretion of the Planning Board, a technical review by a third party may be required of any stormwater management and erosion control plan prepared under these regulations. The technical review shall be performed by

a qualified professional consultant, as determined by the Planning Board, and the expense of which shall be the full responsibility of the applicant.

- B. Recordation of Approved Stormwater Management Plan. After final Planning Board approval, and established as a condition of such approval, the owner of record of the property shall record at the Merrimack County Registry of Deeds documentation sufficient to provide notice to all persons that may acquire any property subject to the requirements of and responsibilities described in the approved stormwater management plan (see RSA 477:3-a). The notice shall comply with the applicable requirements for recording contained in RSA 477 and 478. A copy shall also be provided to the Pembroke Town Planner and Pembroke Building Inspector. Further, if the Registry of Deeds will not record the document documentation the Planning Board's Notice of Decision shall be recorded in its place indicating the presence of the Stormwater Management Plan being on file with the Town.

VII. OPERATIONS AND MAINTENANCE CRITERIA

Stormwater management and sediment and erosion control plans shall be incorporated as part of any approved site plan or subdivision plan. The owner of record of the property shall record a Notice of Decision of these plans at the Merrimack County Registry of Deeds. The Notice of Decision shall be attached to the property deed and apply to all persons that may acquire any property subject to the approved stormwater management and sediment control plans. The Notice of Decision shall reference the requirements for maintenance pursuant to the stormwater management and erosion and sediment control plans as approved by the Planning Board.

VIII. POST-CONSTRUCTION STORMWATER INFRASTRUCTURE – INSPECTION AND RESPONSIBILITY

Municipal staff or their designated agent(s) shall have site access to complete routine inspections to ensure compliance with the approved stormwater management and sediment and erosion control plans. Such inspections shall be performed at a time agreed upon with the landowner. If permission to inspect is denied by the landowner, municipal staff or their designated agent shall secure an administrative inspection warrant from the district or superior court under RSA 595-B Administrative Inspection Warrants. Expenses associated with inspections shall be the responsibility of the applicant/property owner.

The applicant shall bear final responsibility for the installation, construction, inspection, and disposition of all stormwater management and erosion control measures required by the Planning Board. Site development shall not begin before the Stormwater Management Plan receives written approval by the Planning Board.

The municipality retains the right, though accepts no responsibility, to repair or maintain stormwater infrastructure if: a property is abandoned or becomes vacant; and in the event a property owner refuses to repair infrastructure that is damaged or is not functioning properly. In the event the municipality acts to maintain or repair infrastructure, it may

seek compensation and/or reimbursement for such actions from the property owner in a manner consistent with applicable state law.

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