TOWN OF MILFORD

STORMWATER MANAGEMENT ORDINANCE

ADOPTED: DECEMBER 12, 2022

Prepared for:

Town of Milford, New Hampshire

1 Union Square

Milford, NH 03055

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A. Purpose and Goals

Developments shall not increase, decrease, modify, or alter the normal patterns of stormwater drainage caused during the development of a site and/or by the eventual development itself. The goal of these standards is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public in the Town of Milford. This Ordinance seeks to meet that goal through the following objectives:

1. Prevent increases in stormwater runoff from any development to reduce flooding, siltation and streambank erosion and maintain the integrity of stream channels.
2. Prevent increases in nonpoint source pollution caused by stormwater runoff from development which would otherwise degrade local water quality.
3. Minimize the total volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic condition to the maximum extent practicable as allowable by site conditions.
4. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety or cause excessive municipal expenditures.
5. Protect the quality of groundwater resources, surface water bodies and wetlands.

B. Authority

This Ordinance is adopted pursuant to the authority vested in:

1. The authority vested in the Selectmen pursuant to RSA 41:11, RSA 47:17, VII, VIII, and XVIII; and
2. The Planning Board pursuant to RSA 674:35 and 36, and RSA 674:44; and, RSA 155-E:11; and
3. The authority vested in the Health Officer and Board of Health pursuant to RSA 147:1 and 147:14; and
4. The authority vested in the Water and Sewer Commissioners pursuant to RSA 38:26 and RSA 149:I:6, respectively.

The Ordinance shall become effective upon adoption by the Board of Selectmen, in accordance with the statutory sections identified above.

C. Jurisdiction

1. This Ordinance shall pertain to all land within the boundaries of the Town of Milford, New Hampshire.
2. In any case where a provision of the Ordinance is found to be in conflict with a provision of any other Ordinance, Regulation, code, or covenant in effect in the Town of Milford or with any State Statute with particular reference to NHRSA Chapter 676:14 and 674:16 and 674:17 and the relevant sections therein, the provision which is the more restrictive shall prevail.

D. Severability

The invalidity of any section, subsection, paragraph, sentence, clause, phrase, or word of this Ordinance shall not be held to invalidate any other section, subsection, paragraph, sentence, clause, phrase, or word of this Ordinance.

E. Amendments

This Ordinance may be amended by the approval of the several boards identified in Section B above, provided that each such agency complies with any applicable statutory or local procedures governing their authority to adopt such Ordinance. Amendments to zoning aspects must be approved at Milford Town Meeting.

F. Minimum Thresholds for Applicability

1. The post-construction stormwater management standards apply to any development or redevelopment project that results in disturbance of more than 43,560 square feet (one acre), or
2. Applications for Subdivisions and Site Plan Applications will be administered by the Planning Board and all other application that do not require Planning Board action (i.e., individual lots) will be administered by the or Community Development/DPW Department officials.
3. The following activities are considered exempt from this Ordinance:
    a. Agricultural and forestry practices that are using established best management practices.
    b. Resurfacing and routine maintenance of roads and parking lots.
    c. Exterior and interior alterations and maintenance to existing buildings and structures that do not change the building footprint.

G. Application and General Requirements

1. Application

    All projects subject to these standards require the applicant to complete a Stormwater Permit Application form and checklist and submit plans and other required documents as required below. Prior to commencement of land disturbance, the applicant must obtain written approval as required by this Ordinance.

2. Administrative Appeal

    A decision or determination of the Community Development/DPW Department officials or Planning Board made under this Ordinance may be appealed by the applicant to the Board of Selectmen within thirty (30) calendar days of the date of decision/issuance of the permit.

3. Other Required Permits
    a. In addition to local approval, copies of the following permits shall be required if applicable:
        i. *RSA 485-A:17* requires a permit from the New Hampshire Department of Environmental Services (NHDES) Water Supply and Pollution Control Division for "…any person proposing to significantly alter the characteristic of the terrain, in such a manner as to impede

natural runoff or create an unnatural runoff …" Regulations require this permit for any project involving more than one-hundred thousand (100,000) contiguous square feet of disturbance or if such activity occurs in or on the border of the surface waters of the state.

ii. *RSA 482-A* requires a permit from the Department of Environmental Services for any person desiring to "…excavate, remove, fill, dredge or construct any structures in or on any bank, flat, marsh, or swamp in and adjacent to any waters of the State."

iii. *National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit*. A permit issued by the Environmental Protection Agency (EPA) or by the State under authority delegated pursuant to *33 USC, section 1342 (b)* that authorizes the discharge of pollutants to waters of the United States. For a cumulative disturbance of one (1) acre of land that EPA considers "construction activity," which includes, but is not limited to clearing, grading, excavation, and other activities that expose soil typically related to landscaping, demolition, and construction of structures and roads, a federal permit will be required. Consult the EPA for specific rules. This EPA permit is in addition to any state or local permit required.

b. *Stormwater Pollution Prevention Plan (SWPPP*), if applicable.

H. Stormwater Management for New Development

1. All proposed stormwater management practices and treatment systems shall meet the following performance standards.

2. Alternatives to stream and wetland crossings that eliminate or minimize environmental impacts shall be considered. Existing surface waters, including 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. 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 flow and enhance animal passage (see the NHDES Stream Crossing Guidelines, as amended).

3. Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable to reduce stormwater runoff volumes, protect water quality, and maintain predevelopment site hydrology. Low Impact Development techniques that preserve existing vegetation, reduce the development footprint, minimize, or disconnect impervious area, and use enhanced stormwater *Best Management Practices* (BMPs) (such as raingardens, bioretention systems, tree box filters, and similar stormwater management landscaping techniques) shall be incorporated into landscaped areas as discussed in the *NH Stormwater Manual. Volumes 1 and 2, December 2008*, as amended or other equivalent means approved by the Town. Capture and reuse of stormwater is strongly encouraged. The applicant must document in writing why Low Impact Development strategies are not appropriate when not used to manage stormwater. Community Development/DPW Department officials may consult with the Conservation

Commission as needed.

4. All stormwater treatment areas shall be planted with native plantings appropriate for the site conditions: trees, 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. Salt storage areas shall be fully covered with permanent or semi-permanent measures and loading/offloading areas shall be located and designed to not drain directly to receiving waters and maintained with good housekeeping measures in accordance with *New Hampshire Department of Environmental Services* published guidance. 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.

6. Surface runoff shall be directed into appropriate stormwater control measures designed for treatment and/or filtration to the maximum extent practicable and/or captured and reused onsite.

7. All newly generated stormwater from new development shall be treated on the development site. A development plan shall include provisions to retain natural predevelopment watershed areas on the site by using the natural flow patterns.

8. Runoff from impervious surfaces shall be treated to achieve at least eighty (80%) percent removal of Total Suspended Solids and at least fifty (50%) removal of both total nitrogen and total phosphorus using appropriate treatment measures (based on post development conditions), as specified in the *NH Stormwater Manual. Volumes 1 and 2, December 2008*, as amended or other equivalent means approved by the Town. Where practical, the use of natural, vegetated filtration and/or infiltration practices or subsurface gravel wetlands for water quality treatment is preferred given its relatively high nitrogen removal efficiency. All new impervious area draining to surface waters impaired by nitrogen, phosphorus or nutrients shall be treated with stormwater Best Management Practices (BMPs) designed to optimize pollutant removal efficiencies based on design standards and performance data published by the UNH Stormwater Center and/or included in the latest version of the *NH Stormwater Manual*.

9. Measures shall be taken to control the post-development peak runoff rate so that it does not exceed pre-development runoff for the 2-year, 10-year, and 25-year design storm at each discharge point from the site. Drainage analyses shall include calculations using analysis methodologies in the *NH Stormwater Manual, December 2008, as amended* comparing pre- and post-development stormwater runoff rates (cubic feet/second) for the 2-year, 10-year, and 25-year design storms for all drainage system elements except the stormwater basin overflows which shall be designed to accommodate the 100-year design storm. Stormwater volume control shall mitigate the increase in the post-development runoff volume to infiltrate the groundwater recharge volume GRV according to the ratios of Hydrologic Soil Group (HSG) type versus infiltration rate multiplier (see attached Stormwater Design Criteria Table). 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.

10. The design of the stormwater drainage systems shall provide for the conveyance or recharge of

stormwater without flooding or functional impairment to streets, adjacent properties, downstream properties, soils, or vegetation. The design shall also provide adequate conveyance systems for groundwater collected and diverted to a concentrated location without functional impairment to streets, adjacent properties, or downstream properties.

11. The physical, biological, and chemical integrity of the receiving waters shall not be degraded by the stormwater runoff from the development site.
12. The design of the stormwater management systems shall account for upstream and upgradient runoff that flows onto, over, or through the site to be developed or re-developed and design for this contribution of runoff.
13. All stormwater installations that received runoff must be designed to drain within a maximum of seventy-two (72) hours.
14. Appropriate erosion and sediment control measures 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. 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*, as amended, 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 forty-five (45) days for all other areas. Permanent stabilization should be in place no more than three (3) days following the completion of final grading of exposed soil areas.
15. 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 unless specifically designed to remain.
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.
17. Submission Requirements for Stormwater Management Report and Plans.
    a. All applications subject to these Standards shall include a comprehensive Stormwater Management Plan. The Stormwater Management Plan shall include a narrative description and an Existing Conditions Site Plan showing all pre-development impervious surfaces, buildings, and structures; surface water bodies and wetlands; drainage patterns, sub-catchment, and watershed boundaries; building setbacks and buffers, locations of various hydrologic group soil types, mature vegetation, land topographic contours with minimum 2-foot intervals and spot grades where necessary for sites that are flat.
    b. The Stormwater Management Plan shall include a narrative description and a Proposed Conditions Site Plan showing all post-development proposed impervious surfaces, buildings and structures; temporary and permanent stormwater management elements and Best Management Practices, including GIS coordinates and GIS files; important hydrologic features created or preserved on the site; drainage patterns, sub-catchment and watershed

boundaries; building setbacks and buffers; proposed tree clearing and topographic contours with minimum two (2) foot intervals. The plans shall provide calculations and identification of the total area of disturbance proposed on the site (and off-site if applicable) and total area of new impervious surface created. A summary of the drainage analysis showing a comparison of the estimated peak flow and volumes for various design storms (see Table 1. Stormwater Infrastructure Design Criteria) at each of the outlet locations shall be included.

c. The Stormwater Management Plan shall describe the general approach and strategies implemented, and the facts relied upon, to meet the goals of Section A. The Stormwater Management Plan shall include design plans and/or graphical sketch(es) of all proposed above ground Low Impact Development (LID) practices.

d. The Stormwater Management Plan shall include calculations of the change in impervious area, pollution loading and removal volumes for each best management practice, and GIS files containing the coordinates of all stormwater infrastructure elements (e.g., catch basins, swales, detention/bioretention areas, piping).

e. The Stormwater Management Plan shall include a description and a proposed Site Plan showing proposed erosion and sediment control measures, limits of disturbance, temporary and permanent soil stabilization measures in accordance with the NH Department of Environmental Services *Stormwater Manual Volume 3* (as amended) as well as a construction site inspection plan including phased installation of best management practices and final inspection upon completion of construction. All temporary erosion and sediment control measures shall be removed upon completion (complete stabilization) of the project site.

f. The Stormwater Management Plan shall include a long-term stormwater management Best Management Practices (BMP) inspection and maintenance plan (Section E) that describes the responsible parties and contact information for the qualified individuals who will perform future inspections. The inspection frequency, maintenance and reporting protocols shall be included.

g. The Stormwater Management Plan shall describe and identify locations of any proposed deicing chemical and/or snow storage areas. Stormwater Management Plan will describe how deicing chemical use will be minimized or used most efficiently.

h. In urbanized areas that are subject to the *EPA MS4 Stormwater Permit* and will drain to chloride-impaired waters, any new developments and redevelopment projects shall submit a description of measures that will be used to minimize salt usage, and track and report amounts applied using the UNH Technology Transfer Center online tool (http://www.roadsalt.unh.edu/Salt/) in accordance with Appendix H of the *NH MS4 Permit*.

18. General Performance Criteria for Stormwater Management Plans.

a. All applications shall apply site design practices as outlined in the Development Regulations, to reduce and/or minimize the generation of stormwater in the post-developed condition, reduce and/or minimize overall impervious surface coverage, seek opportunities to capture and reuse and reduce and/or minimize the impact of discharging stormwater to the municipal

stormwater management system.

b. Water Quality Protection.

   i. No stormwater runoff generated from impervious cover from new development or redevelopment shall discharge directly into a jurisdictional wetland or surface water body without adequate treatment as noted in this Ordinance.

   ii. All developments shall provide adequate management of stormwater runoff and prevent discharge of stormwater runoff from creating or contributing to water quality impairment.

c. Onsite groundwater recharge shall be maintained by promoting infiltration through use of structural and non-structural methods. The recharge from the post development site shall maintain or exceed the recharge from pre-development site conditions in accordance with the soil type requirements discussed above in Section C.9. Capture and reuse of stormwater runoff is encouraged in instances where groundwater recharge is limited by site conditions. All stormwater management practices shall be designed to convey stormwater to allow for maximum groundwater recharge. This shall include, but not be limited to:

   i. Maximizing flow paths from collection points to outflow points.

   ii. Use of multiple best management practices (NH Stormwater Manual).

   iii. Retention of stormwater and discharge to fully vegetated areas.

   iv. Maximizing use of infiltration practices.

   v. Stormwater System Design Performance Standards described in Appendix A.

d. Stormwater system design, performance standards and protection criteria shall be provided as prescribed in Appendix A. Calculations shall include sizing of all structures and best management practices, including sizing of emergency overflow structures based on assessment of the 100-year 24-hour frequency storm discharge rate.

e. The sizing and design of stormwater management practices shall utilize the higher precipitation volume from new precipitation data from the *Northeast Region Climate Center (NRCC) Extreme Precipitation Tables* or the most recent precipitation atlas published by the National Oceanic and Atmospheric Administration (NOAA) for the sizing and design of all stormwater management practices.

f. All stormwater management practices involving bioretention and vegetative cover as a key functional component must have a landscaping plan detailing both the type and quantities of plants and vegetation to be in used in the practice. Additional detail shall include how vegetation is to be maintained and that the owner of the property is responsible for maintaining vegetation. The use of native plantings appropriate for site conditions is required for these types of stormwater treatment areas. The landscaping plan must be prepared by a registered landscape architect, certified wetland scientist, or another qualified professional.

19. Water Quality Protection: All aspects of the application shall be designed to protect the quality of

surface waters and groundwater of the Town of Milford as follows:

a. 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 to contaminate, pollute, harm, impair or contribute to an impairment of such waters.

b. 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).

I. Stormwater Management for Redevelopment

1. Redevelopment (as applicable to this stormwater Ordinance) means:

   a. Any construction, alteration, or improvement that creates a disturbance of existing impervious area (including demolition and removal of road/parking lot materials down to the erodible sub-base) or expands existing impervious cover by any amount, where the existing land use is commercial, industrial, institutional, governmental, recreational, or multi-family residential.

   b. Any new impervious area over portions of a site that are currently pervious.

   c. The following activities are not considered redevelopment:

      i. Interior and exterior building renovation (no change in building footprint).

      ii. Resurfacing of an existing paved surface (e.g., parking lot, walkway, or roadway).

      iii. Pavement excavation and patching that is incidental to the primary project purpose, such as replacement of a collapsed storm drain.

2. Redevelopment applications shall comply with the requirements of Sections H.17 Submission Requirements for Stormwater Management Report and Plans, H.18 General Performance Criteria for Stormwater Management Plans, and H.19 Water Quality Protection.

3. For sites meeting the definition of a redevelopment project and having less than forty (40%) percent existing impervious surface coverage (based on the area of the property being developed), the stormwater management requirements will be the same as other new development projects. The applicant must satisfactorily demonstrate that impervious area is minimized, and Low Impact Development (LID) practices have been implemented on-site to the maximum extent practicable.

4. For sites meeting the definition of a redevelopment project and having more than forty (40%) percent existing impervious surface area for the entire property, stormwater shall be managed for water quality in accordance with one or more of the following techniques, listed in order of preference:

   a. Implement measures onsite that result in disconnection or treatment of fifty (50%) percent of the additional proposed impervious surface area and at least thirty (30%) percent of the

existing impervious area and pavement areas, preferably using filtration and/or infiltration practices.

b. Implement other LID techniques onsite to the maximum extent practicable to provide treatment for at least 50% of the entire site area.

c. An alternative plan resulting in greater overall water quality improvement from runoff from the site, as approved by the Planning Board.

5. Off-Site Mitigation:

a. In cases where the applicant demonstrates, to the satisfaction of the planning board, that onsite treatment has been implemented to the maximum extent possible or is not feasible, off-site mitigation will be an acceptable alternative if implemented within the same sub-watershed, within the project's drainage area or within the drainage area of the receiving water body. To comply with local watershed objectives the mitigation site would be preferably situated in the same sub-watershed as the development and impact/benefit the same receiving water.

b. Off-site mitigation shall be equivalent to no less than the total area of impervious cover NOT treated on-site.

c. An approved off-site location must be identified, the specific management measures identified, and an implementation schedule developed in accordance with planning board review. The applicant must also demonstrate that there is no downstream drainage or flooding impacts as a result of not providing on-site management for large storm events.

d. A monetary contribution may be allowed by the Planning Board if the funds can be used for water quality mitigation that is at least equal to the impact caused by the development project and the Planning Board determines that it is in the Town's best interest and meets the intent of this Ordinance.

J. Stormwater Management Plan and Site Inspections

1. The applicant shall provide that all stormwater management and treatment practices have an enforceable operations and maintenance plan and agreement to ensure the system functions as designed. This agreement will include all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater system. The operations and maintenance plan shall specify the parties responsible for the proper maintenance of all stormwater treatment practices. The operations and maintenance plan shall be provided to the Planning Board as part of the application prior to issuance of any local permits for land disturbance and construction activities.

2. The applicant shall provide legally binding documents for filing with the registry of deeds (recorded plan for subdivisions and a deed reference for all other projects) which demonstrate that the obligation for maintenance of stormwater best management practices and infrastructure runs with the land and that the Town has legal access to inspect the property to ensure their

proper function or maintain onsite stormwater infrastructure when necessary to address emergency situations or conditions.

3. The property owner shall bear responsibility for the installation, construction, inspection, and maintenance of all stormwater management and erosion control measures required by the provisions of these Ordinances and as approved by the Planning Board, including emergency repairs completed by the Town.

K. Stormwater Management Plan Recordation

1. Stormwater management and sediment and erosion control plans shall be incorporated as part of any approved development application. A Notice of Decision acknowledging the Planning Board approval of these plans shall be maintained in the Town's Planning Office.
2. The applicant shall submit as-built drawings (hard copy and CAD/GIS format) of the constructed stormwater management system following construction.
3. Easements: Where a development is traversed by or requires the construction of a watercourse or a drainage way, an easement to the Town of adequate size to enable construction, reconstruction and required maintenance shall be provided for such purpose. Easements to the Town shall also be provided for the purpose of periodic inspection of drainage facilities and Best Management Practices should such inspections by the Town become necessary. All easements shall be recorded at the County Registry of Deeds.

L. Inspection and Maintenance Responsibility

1. Municipal staff or their designated agent, including but not limited to the Code Enforcement Officer or Town Engineer, shall be granted site access to complete 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.
    a. 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.
    b. If violations or non-compliance with a condition(s) of approval are found on the site during routine inspections, the inspector shall provide a report to the Board of Selectmen and the Planning Board documenting these violations or non-compliance, including recommend corrective actions. The Code Enforcement Officer or other municipal staff shall notify the property owner in writing of these violations or non-compliance and corrective actions necessary to bring the property into full compliance. At their discretion, the Code Enforcement officer may issue a stop work order if corrective actions are not completed within 10 business days.
    c. If corrective actions are not completed within a period of 30 days from property owner's notification, the Planning Board may exercise their jurisdiction under RSA 676:4-a, *Revocation of Recorded Approval*.

2. 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.

    a. The applicant and the applicant's engineer (or technical representative) shall schedule and attend a mandatory preconstruction meeting with the Town Engineer or his designee at least two weeks prior to commencement of construction. All required escrow deposits and bonding must be in place prior to the scheduled meeting. (Note: Preconstruction conferences will typically not be required for construction of one single-family home or one residential duplex, not part of a larger plan of construction.)

    b. The Department of Community Development and/or Department of Public Works reserve the right to prepare and request the applicant's acknowledgement of a preconstruction checklist.

    c. The applicant shall bear final responsibility for the installation, construction, inspection, and disposition of all stormwater management and erosion control measures required by the provisions of this Ordinance.

    d. The Department of Community Development may require a bond or other security with surety conditions in an amount satisfactory to the Town, providing for the actual construction, installation, and removal of such measures within a period specified by the Town and expressed in the bond or the security.

    e. The Department of Community Development and/or Code Enforcement may require the owner or his authorized agent to deposit in escrow with the Town an amount of money sufficient to cover the Town's costs for inspection and any professional assistance required for site compliance monitoring.

    f. Site development shall not begin before all Town, State and Federal Permits are in place.

3. 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.

4. Landowners subject to an approved Stormwater Management Plan that includes permanent structural stormwater mitigation practices shall be responsible for submitting an annual report to the Planning Board by September 1 each year by a qualified professional that all stormwater management and erosion control measures are functioning per the approved stormwater management plan. The annual report shall note if any stormwater infrastructure has needed any repairs other than routine maintenance and the results of those repairs. If the stormwater infrastructure is not functioning per the approved stormwater management plan the landowner shall report on the malfunction in their annual report and include detail regarding when the infrastructure shall be repaired and functioning as approved.

5. If no report is filed by September 1st, municipal staff or their designated agent shall be granted 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 and at the landowner's expense.

6. If the stormwater infrastructure is not functioning per the approved stormwater management plan the landowner shall report on the malfunction in their report and include detail regarding when the infrastructure shall be repaired and functioning as approved. Landowners are responsible for maintaining their own records and the Town may request record information on any sites as they determine necessary.
7. Municipal staff or their designated agent 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 and at the landowner's expense.
8. Confirmation by Registered Professional Engineer. Upon such inspection, when the circumstances of any suspected breach of condition or violation of this Ordinance involve standards that implicate technical engineering criteria either included in this Ordinance or as a condition of such permits, the Code Enforcement Officer, Health Officer, and/or DPW Director or their designee shall seek confirmation that such circumstances constitute a violation of such criteria prior to taking any enforcement at the landowner's expense.
9. Enforcement. Upon such confirmation by a Registered Professional Engineer, or when such confirmation is not required due to the fact that the circumstances of such violation do not implicate technical engineering criteria either included in this Ordinance or as a condition of such permit, the Code Enforcement Officer, Health Officer, and/or DPW Director or their designee may proceed to enforce the provisions of this Ordinance or conditions of the permit in accordance with applicable statutes, rules or regulations and at the landowner's expense.

M. Glossary of Terms

BEST MANAGEMENT PRACTICES (BMPs) - A structural or non-structural device designed to temporarily store or treat urban stormwater runoff in order to mitigate flooding, reduce pollution and provide other amenities.

BIORETENTION – A water quality practice that utilizes vegetation and soils to treat urban stormwater runoff by collecting it in shallow depressions, before filtering through an engineered bioretention planting soil media.

BUFFER – An upland area adjacent to a wetland or surface water. This buffer zone, under the jurisdiction of the Town of Milford, shall include an area of one hundred (100) feet, measured on a horizontal plane from the mean high-water mark of a surface water, the delineated edge of a wetland, or the limits of hydric soils (whichever is most restrictive).

DISTURBANCE – Disturbance is defined as an alteration of the land surface or removal of vegetation or trees associated with any development activity (excluding routine landscaping and yard maintenance, gardening commercial excavation operations, or removal of trees, stumps, and invasive vegetation).

EFFECTIVE IMPERVIOUS COVER (EIC) – The total impervious surface areas less the area of disconnected impervious cover (areas where runoff is captured and infiltrated or otherwise treated).

ENVIRONMENTAL (NATURAL RESOURCE) PROTECTION - Policies and procedures aimed at conserving natural resources, preserving the current state of natural environments and, where possible, reversing degradation. Any activity to maintain or restore environmental quality through preventing the emission of pollutants or reducing the presence of polluting substances in environmental media and preventing physical removal or degradation of natural resources.

FILTRATION – The process of physically or chemically removing pollutants from runoff. Practices that capture and store stormwater runoff and pass it through a filtering media such as sand, organic material, or the native soil for pollutant removal. Stormwater filters are primarily water quality control devices designed to remove particulate pollutants and, to a lesser degree, bacteria, and nutrients.

GROUNDWATER RECHARGE – The process by which water that seeps into the ground, eventually replenishing groundwater aquifers and surface waters such as lakes, streams, and the oceans. This process helps maintain water flow in streams and wetlands and preserves water table levels that support drinking water supplies.

GROUNDWATER RECHARGE VOLUME (GRV) – The post-development design recharge volume (i.e., on a storm event basis) required to minimize the loss of annual pre-development groundwater recharge. The GRV is determined as a function of annual pre-development recharge for site-specific soils or surficial materials, average annual rainfall volume, and amount of impervious cover on a site.

IMPAIRED WATERS – Those waterbodies not meeting water quality standards. Pursuant to Section 303(d) of the federal Clean Water Act, each state prepares a list of impaired waters (known as the 303(d) list) which is presented in the state's Integrated Water Report as Category 5 waters. Those impaired waters for which a TMDL has been approved by US EPA and is not otherwise impaired, are listed in Category 4A.

IMPERVIOUS COVER – Impermeable surfaces shall include buildings, paved and unpaved vehicular access and parking areas, and any other area incapable of percolating water at a rate comparable to dry uncompacted ground. Term defined in Zoning Ordinance, Section IX General Standards, E.

INFILTRATION – the process of runoff percolating into the ground (subsurface materials). Stormwater treatment practices designed to capture stormwater runoff and infiltrate it into the ground over a period of days.

LOW IMPACT DEVELOPMENT (LID) - Low impact development is a site planning and design strategy intended to maintain or replicate predevelopment hydrology through the use of site planning, source control, and small-scale practices integrated throughout the site to prevent, infiltrate, and manage runoff as close to its source as possible. Examples of LID strategies are pervious pavement, rain gardens, green roofs, bioretention basins and swales, filtration trenches, and other functionally similar BMPs located near the runoff source.

MAXIMUM EXTENT PRACTICABLE (MEP) - To show that a proposed development has met a standard to the maximum extent practicable, the applicant must demonstrate the following: (1) all reasonable efforts have been made to meet the standard, (2) a complete evaluation of all possible management measures

has been performed, and (3) if full compliance cannot be achieved, the highest practicable level of management is being implemented.

MITIGATION – Activities, strategies, policies, programs, actions that, over time, will serve to avoid, minimize, or compensate for (by treating or removing pollution sources) the impacts to or disruption of water quality and water resources. MS4 – Refers to the Small Municipal Separate Storm Sewer System General Permit - the MS4 General Permit - issued by the EPA under the Clean Water Act. MS4 applies to municipalities that contain any portion of an urbanized area as defined by the Census. It applies to stormwater conveyances owned by a State, city, town, or other public entity that discharge to 'Waters of the United States.' The MS4 Permit requires that operators of small MS4s develop a Storm Water Management Program that uses appropriate Best Management Practices (BMPs) for each of the six minimum control measures required in the MS4 permit.

NATIVE VEGETATION AND PLANTINGS - Plants that are indigenous to the region, adapted to the local soil and rainfall conditions, and require minimal supplemental watering, fertilizer, and pesticide application.

LOAD – means an amount of pollutants that is introduced into a receiving waterbody measured in units of concentration or mass per time (i.e., concentration (mg/l) or mass (lbs./day)).

RETENTION – The amount of precipitation on a drainage area that does not escape as runoff. It can be expressed as the difference between total precipitation and total runoff from an area. TOTAL

SUSPENDED SOLIDS (TSS) – The total amount of soils particulate matter which is suspended in the water column.

WATER QUALITY VOLUME - The storage needed to capture and treat 90% of the average annual stormwater runoff volume. In New Hampshire, this equates to 1-inch of runoff from impervious surfaces.

WATERSHED – All land and water area from which runoff may run to a common (design) discharge point.

Appendix A. Stormwater Infrastructure Design Criteria

Design Criteria	Description
Water Quality Volume (WQV)	WQV = (P)(Rv)(A) P = 1 inch of rainfall Rv = unitless runoff coefficient, Rv = 0.05 + 0.9(I) I = percent impervious cover draining to the structure converted to decimal form A = total site area draining to the structure
Water Quality Flow (WQF)	WQF = (q_u)(WQV)/640 WQV = water quality volume calculated as noted above q_u = unit peak discharge from TR-55 exhibits 4-II and 4-III [1 square mile=640 acres, converts WQF equation to cubic feet per second] Variables needed for exhibits 4-II and 4-III: Ia = the initial abstraction = 0.2S S = potential maximum retention in inches = (1000/CN) - 10 CN = water quality depth curve number $= 1000/(10+5P+10Q-10[Q^2+1.25(Q)(P)]^{0.5})$ P = 1 inch of rainfall Q = the water quality depth in inches = WQV/A A = total area draining to the design structure
Groundwater Recharge Volume (GRV)	GRV = $(A_I)(R_d)$ A_I = the total area of effective impervious surfaces that will exist on the site after development R_d = the groundwater recharge depth based on the USDA/NRCS hydrologic soil group, as follows: Hydrologic Group — R_d (inches) A — 0.40 B — 0.25 C — 0.10 D — 0.00
Channel Protection Volume (CPV)	If the 2-year, 24-hour post-development storm volume *does not increase* due to development then: control the 2-year, 24-hour post-development peak flow rate

	to the 2-year, 24-hour predevelopment level. If the 2-year, 24-hour post-development storm volume *does increase* due to development then: control the 2-year, 24-hour post-development peak flow rate to ½ of the 2-year, 24-hour pre-development level or to the 1-year, 24-hour pre-development level.
Peak Control	Post-development peak discharge rates shall not exceed pre-development peak discharge rates for the 2-year, 10-year, 25-year, 24-hour storms
EIC and UDC	%EIC = area of effective impervious cover/total drainage areas within a project area x 100 %UDC = area of undisturbed cover/total drainage area within a project area x 100

[Source: *NH DES Stormwater Manual: Volume2 Post-Construction Best Management Practices Selection & Design (December 2008),* as amended.