



Stormwater Management Rules and Regulations Template

CENTRAL MASSACHUSETTS REGIONAL STORMWATER COALITION

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Disclaimer: This document was prepared for municipalities to use as a template for Stormwater Rules and Regulations for compliance with the National Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer Systems General Permit, commonly known as the "NPDES MS4 permit." This document is also intended to be used as a reference document for municipalities that want to use standard language to update an existing Stormwater Rules and Regulations regulatory document. Throughout the document there will be sections labeled "NTU:" (Notes to User) in italics and in between asterisk, ***, borders. These sections describe the edits and/or decisions that need to be made in the following section. These NTU sections will be deleted when putting together the final document. There are also highlighted words/statements throughout the document that are municipality-specific and must be updated accordingly. Regulatory documents should be reviewed by the Town/City legal counsel before adoption.

Language Highlighted in **green** indicates required language for compliance with the MS4 Permit.

Town/City of _____, Massachusetts

Stormwater Management Rules and Regulations

Section 1.0 General Provisions

Section 1.1 Authority

A. These Stormwater Management Rules and Regulations are promulgated by the Authorized Enforcement Agency and/or his/her designees of **(Town/City), Massachusetts** under the **(Insert Chapter/Article and Name of Stormwater Bylaw/Ordinance Here)** of the **Town/City of _____** (the **"Bylaw/Ordinance"**) and may be so cited.

Section 1.2 Applicability

A. These Regulations apply to all activities in accordance with the applicability sections of the **Bylaw/Ordinance** and further described herein.

B. Every user of the municipal storm drainage system shall be subject to these Regulations, as they apply, and to any charges, rates, fees, and assessments which are or may be established by the **Town/City**. Every user of the municipal storm drainage systems shall also be subject to applicable federal, state, and local regulations. In instances where various regulations contain different requirements, the most stringent requirements shall apply.

- C. Projects and/or activities not within the jurisdiction of any of the **Town/City of _____** Boards, Commissions, or Departments, but still within the jurisdiction of the **Bylaw/Ordinance** must comply with these Regulations and, if applicable, must obtain a **Land Disturbance/Stormwater Management Permit** in accordance with the permit procedures outlined herein.

Section 1.3 Purpose

- A. These Regulations establish procedures and standards for compliance with the **Town's/City's Stormwater Management Bylaw** and are required to meet all applicable federal and state requirements of the National Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer Systems General Permit, commonly known as the "NPDES MS4 permit."

Section 1.4 Severability

- A. The provisions of these Regulations are hereby declared to be severable. If any provision, clause, sentence, or paragraph of these Regulations or the application thereof to any person, establishment, or circumstances shall be held invalid for any reason, such invalidity shall not affect the other provisions or application of these Regulations; all other provisions shall continue in full force and effect.

Section 1.5 Administration

- A. The Authorized Enforcement Agency, shall administer, implement, and enforce these rules and regulations. Any powers granted to or duties imposed upon the Authorized Enforcement Agency may be delegated in writing by the Authorized Enforcement Agency to its employees, agents, or other **Town/City** Departments.
- B. Waiver. Strict compliance with any requirement of the **Bylaw/Ordinance** or the Regulations may be waived for the reasons given, and in accordance with the procedures set forth in the **Bylaw/Ordinance**.

Section 1.6 Right to Amend Rules and Regulations

- A. The **City/Town** reserves the right to amend these Regulations in any manner and to establish more stringent limitations or requirements as are deemed necessary and appropriate.

NTU (Key Decision): *If the municipality has its own design/construction standards, make reference to said standards below. Items A1 and A2 should be included. Additional standards/references may be included, and some suggested guidance documents are provided for consideration.*

For Paragraph B: Standard plan sheet size, scale, datum, title block requirements should be defined, and it is recommended that these items be coordinated to the extent possible and appropriate with other boards and commissions in order to streamline project submittals by proponents.

Section 1.7 Design and Construction Standards

A. Design Standards. In order to complete the permit requirements and ensure that developers and landowners meet Massachusetts standards, the Owner shall use the following (most recent edition) references to aid in structural and non-structural best management practices design and implementation:

1. **Town's/City's National Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer Systems General Permit, commonly known as the "NPDES MS4 permit."**
2. **Massachusetts Stormwater Policy and Massachusetts Stormwater Handbook, latest edition, hereinafter referred to as the Massachusetts Stormwater Policy for the purposes of these Regulations.**
3. **Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas.**
4. **Massachusetts Department of Transportation Project Development and Design Guide Drainage and Erosion Control Chapter.**

B. All plans shall be drawn at scale of 1 inch equals 40 feet on sheets not larger than 24 inches by 36 inches registered to Massachusetts State Plane Coordinate System. All elevations shall refer to NAVD88. Each sheet shall have a north arrow, graphic bar scale, proposed and existing street names, sheet number (i.e., Sheet 3 of 7), and a title block. Match lines, if required, shall be shown on all sheets. Each Sheet shall be certified by a Registered Engineer with registration number(s). Plan shall be shown at a scale of one inch equal to 40 feet indicating property bounds of parcels and streets adjoining. A more suitable scale may be used if site conditions warrant the need. Plans shall show property bounds of the existing parcel showing distance and bearings of boundary lines and easements (along with easement purpose), existing contours at 2-foot or smaller shall be shown based on NAVD 88 datum, names and widths of streets abutting the proposed development/redevelopment and within close proximity, location of bounds and type of bounds of the existing parcel(s) of land and relevant buildings thereon, and address, map/parcel number, area of the existing parcel(s).

C. Construction Standards

1. New building stormwater drain laterals, stormwater drains, special stormwater facilities, and appurtenances tributary to the municipal stormwater drainage system shall be designed and constructed in conformance with current **Town/City of _____ Department of Public Works (DPW)/Public Works Department** standards and specifications. In the absence of such specifications, the materials and procedures set forth in the **Massachusetts Department of Transportation Standard Specifications for Highways and Bridges and Supplemental Specifications** most recent edition; and **American Society for Testing and Materials, the ASCE/WEF Manual of Practice - Design and Construction of Urban Stormwater Management Systems** most recent edition shall apply, subject to the prior written approval of Authorized Enforcement Agency.

NTU: *The section below provides definitions for terminology from the MS4 Permit and on a municipality-specific basis. Municipalities may also consider relocating definitions to an Appendix. This section needs to be reviewed and updated as needed for your municipality, and for consistency with definitions included/changed within the Bylaw/Ordinance template.*

Section 1.8 Definitions

A. The definitions of terms in the **Bylaw/Ordinance**, as well as the following definitions, shall apply to terms used in these Regulations.

1. **ABUTTER** — The owner(s) of land abutting the activity.
2. **AGRICULTURE** — The normal maintenance or improvement of land in agricultural or aquacultural use, as defined by the Massachusetts Wetlands Protection Act (M.G.L. c. 131 § 40) and its implementing regulations (310 CMR 10.00).
3. **ALTERATION OF DRAINAGE CHARACTERISTICS** — Any land disturbing activity, as defined herein, on an area of land that changes the water quality, or the force, quantity, direction, timing or location of runoff flowing from the area. Such changes include: change from distributed runoff to confined, discrete discharge; change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area.

4. AUTHORIZED ENFORCEMENT AGENCY: The **(Insert AEA Here)** and/or his/her designees have the authority to enforce **(Insert Bylaw/Ordinance Name Here)** and **(Insert Regulations Name Here.)**
5. BEST MANAGEMENT PRACTICE (BMP) – An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff
6. **CITY – City of (Insert Name here), Massachusetts.**
7. CLEAN WATER ACT – The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.
8. CLEARING – Any activity that removes the vegetative surface cover. Clearing activities generally include grubbing activity as defined below.
9. CONSTRUCTION ACTIVITY – Activities subject to NPDES Construction General Permits.
10. CONSTRUCTION AND WASTE MATERIALS – Excess or discarded building or site materials, including but not limited to concrete truck washout, chemicals, litter, sanitary waste at a construction site that may adversely impact water quality, and clearing/grubbing wastes such as stumps and asphalt.
11. DEVELOPMENT – The modification of land to accommodate a new use or expansion of use, usually involving construction.
12. DIRECTOR – The Director of the **Department of Public Works/Public Works Department.**
13. DISCHARGE OF POLLUTANTS – The addition from any source of any pollutant or combination of pollutants into the municipal storm drain system or into the waters of the United States or Commonwealth from any source.
14. ENVIRONMENTAL SITE MONITOR – Trained professional approved by the Authorized Enforcement Agency and retained by the holder of a **Land Disturbance/Stormwater Management** Permit to periodically inspect the work and report to the Authorized Enforcement Agency.
15. EROSION – The wearing away of the land surface by natural or artificial forces such as wind, water, ice, gravity, or vehicle traffic and the subsequent detachment and transportation of soil particles.
16. EROSION AND SEDIMENT CONTROL PLAN – A document containing narrative, drawings, and details developed by an Environmental Site Monitor which includes BMPs, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-

construction and construction related land disturbances. The plan is required as part of the application for a **Land Disturbance/Stormwater Management** Permit.

17. ESTIMATED HABITAT OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS – Habitats delineated for state-protected rare wildlife and certified vernal pools for use with the Wetlands Protection Act Regulations (310 CMR 10.00) and the Forest Cutting Practices Act Regulations (304 CMR 11.00).
18. GRADING – Changing the level or shape of the ground surface.
19. GROUNDWATER – Water beneath the surface of the ground.
20. GRUBBING – The act of clearing land surface by digging up roots and stumps.
21. HAZARDOUS OR TOXIC MATERIALS – Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, corrosive, flammable, reactive, toxic, radioactive, or infectious characteristics, may cause or significantly contribute to a substantial present or potential hazard to human health, safety, or welfare, or to property or the environment. Hazardous or Toxic materials include, but are not limited to, any synthetic organic chemical, petroleum product, heavy metal, radioactive or infectious waste, acid and alkali, and any substance defined as Hazardous or Toxic under M.G.L. c.21C and c.21E, and 310 CMR 30.000 and 310 CMR 40.0000.
22. ILLICIT CONNECTIONS – An illicit connection is defined as either of the following:
 - (a) Any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the municipal storm drain system, including but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the municipal storm drain system, and any connections to the municipal storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency; or
 - (b) Any drain or conveyance connected from a commercial or industrial land use to the municipal storm drain system which has not been documented in plans, maps, or equivalent records and approved by the **Town/City**.
23. ILLICIT DISCHARGE – Any direct or indirect non-stormwater discharge to the municipal storm drain system, except as exempted in *Section 2.5*.
24. IMPERVIOUS SURFACE – Any material or structure on or above the ground that prevents water infiltrating the underlying soil. Impervious surface includes without limitation roads,

paved parking lots, sidewalks, and roof tops. Impervious surface also includes soils, gravel driveways, and similar surfaces with a runoff coefficient (Rational Method) greater than 0.85.

25. INDUSTRIAL ACTIVITY – Activities subject to NPDES Industrial Permits.
26. LAND-DISTURBING ACTIVITY, LAND DISTURBANCE, or DISTURBANCE of LAND – Any activity, including clearing and grubbing, that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material.
27. LOW IMPACT DEVELOPMENT – An approach to environmentally friendly land use development. It includes landscaping and design techniques that attempt to maintain the natural, pre-developed ability of a site to manage rainfall. LID techniques capture water on site, filter it through vegetation, and let it soak into the ground.
28. MASSACHUSETTS ENDANGERED SPECIES ACT – (MGL c. 131A) and its implementing regulations at (321 CMR 10.00) which prohibit the “taking” of any rare plant or animal species listed as Endangered, Threatened, or of Special Concern.
29. MASSACHUSETTS STORMWATER POLICY – The Policy and guidance Handbook issued by the Department of Environmental Protection, as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act MGL c. 131 s. 40 and the Massachusetts Clean Waters Act MGL c. 21, ss. 23-56. The Policy addresses stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site. The Handbook provides detailed guidance on the Policy.
30. MAXIMUM EXTENT PRACTICABLE – The limits of available technology and the practical and technical limits on a Owner in planning and designing stormwater management practices to reduce potential for pollutants to enter the municipal storm drainage system or waters of the Commonwealth.
31. MUNICIPAL STORM DRAINAGE SYSTEM or MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) – The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or manmade or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the **Town/City**.

32. MUNICIPALITY: Refers to **Town/City of _____**.
33. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGE PERMITS – General, group, and individual stormwater discharge permits issued by the United States Environmental Protection Agency which regulate facilities defined in federal NPDES regulations pursuant to the Clean Water Act.
34. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES – Permit required by the EPA for construction activities that disturb one acre or more of land, either by itself or as part of a larger development. Permit requires a Notice of Intent (NOI) to be submitted to the EPA and the development of a Stormwater Pollution Prevention Plan (SWPPP).
35. NEW DEVELOPMENT – Any construction activities or land alteration on an area that has not previously been developed to include impervious cover.
36. NON-STORMWATER DISCHARGE – Any discharge to the municipal storm drain system that is not composed entirely of stormwater.
37. OFF-SITE MITIGATION – An approach whereby pollutant removal practices are implemented at redevelopment or retrofit sites at another location in the same HUC12 watershed, as approved by the Authorized Enforcement Agency.
38. OPERATION AND MAINTENANCE PLAN – A plan setting up the functional, financial, and organizational mechanisms for the ongoing operation and maintenance of a stormwater management system to ensure that it continues to function as designed.
39. OUTFALL – The point at which stormwater flows out from a point source discernible, confined, and discrete conveyance into waters of the Commonwealth of Massachusetts.
40. OUTSTANDING RESOURCE WATERS (ORWs) – Waters designated by Massachusetts Department of Environmental Protection as ORWs. These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards (314 CMR 4.00) and the Massachusetts Stormwater Policy. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated.
41. OWNER – A person with a legal or equitable interest in property.

42. OWNER'S TECHNICAL REPRESENTATIVE – A Massachusetts Registered Professional Engineer in a competent field and retained by the holder of a **Land Disturbance/Stormwater Management Permit** to certify that design, construction, and maintenance are completed in accordance with the applicable local, state, and federal stormwater requirements.
43. PERSON – Any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, legal entity, agency, public or quasi-public body, authority, department, or political subdivision of the **Town/City**, the Commonwealth, or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.
44. PLAN – Any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot.
45. POINT SOURCE – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.
46. POLLUTANT – Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure (including but not limited to sediments, slurries, and concrete rinsates); and noxious or offensive matter of any kind.
47. POLLUTION – The human-made or human-induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses.
48. PRE-CONSTRUCTION – All activity in preparation for construction.
49. PREMISES – Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.
50. PRIORITY HABITAT OF RARE SPECIES – Habitats delineated for rare plant and animal populations protected pursuant to the Massachusetts Endangered Species Act and its regulations.

51. PROCESS WASTEWATER – Water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any material, intermediate product, finished product, or waste product.
52. RECHARGE – The replenishment of underground water reserves.
53. REDEVELOPMENT – Development, rehabilitation, expansion, demolition or phased projects that disturb the ground surface or increase the impervious area on previously developed sites.
54. RESPONSIBLE PARTY(IES) or PERSON(S) – owner(s), persons with financial responsibility, and persons with operational responsibility.
55. RUNOFF – Rainfall, snowmelt, or irrigation water flowing over the ground surface.
56. SEDIMENT – Mineral or organic soil material that is transported by wind or water, from its origin to another location; the product of erosion processes.
57. SEDIMENTATION – The process or act of deposition of sediment.
58. SITE – Any lot or parcel of land or area of property where land disturbances are, were, or will be performed.
59. SLOPE – The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.
60. SOIL – Earth materials including duff, humic materials, sand, rock, gravel or similar material.
61. STABILIZATION – The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or retard erosion.
62. STORMWATER – Any surface flow, runoff, and drainage consisting entirely of water from rainstorm events.
63. **STORMWATER COMMITTEE (Delete if not applicable)** – A Committee of the **Town/City** consisting of the **(Insert Committee Members Here.)**
64. STORMWATER MANAGEMENT PLAN – A plan required as part of the application for a **Land Disturbance/Stormwater Management Permit.**
65. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) – plan required for permit coverage under the NPDES General Permit for Discharges from Large and Small Construction Activities. The SWPPP is a detailed plan describing how erosion and sediment controls and other BMPs will be implemented on a construction site.
66. STRIP – Any activity which removes the vegetative ground surface cover, including tree removal, clearing, grubbing, and storage or removal of topsoil.

67. SURFACE WATER DISCHARGE PERMIT – A permit issued by the Department of Environmental Protection (DEP) pursuant to 314 CMR 3.00 that authorizes the discharge of pollutants to waters of the Commonwealth of Massachusetts.
68. TOTAL MAXIMUM DAILY LOAD or TMDL: Section 303(d) of the Clean Water Act authorizes the EPA to assist states, territories and authorized tribes in listing impaired waters and developing Total Maximum Daily Loads (TMDLs) for these waterbodies. A TMDL establishes the maximum amount of a pollutant that a water body can accept and still meet water quality standards for protecting public health and maintaining the designated beneficial uses of those waters for drinking, swimming, recreation, and fishing. A TMDL includes Waste Load Allocations for point source discharges, Load Allocations for nonpoint sources and/or natural background, and must include a margin of safety and account for seasonal variations.
- 69. TOWN – Town of (Insert Town), Massachusetts.**
70. TOTAL SUSPENDED SOLIDS or TSS: Undissolved organic or inorganic particles in water.
71. **VERNAL POOLS (Update from Bylaw/Ordinance definition, if applicable)** – Temporary bodies of freshwater which provide critical habitat for a number of vertebrate and invertebrate wildlife species.
72. WATERCOURSE – A natural or man-made channel through which water flows or a stream of water, including a river, brook, or underground stream.
73. WATERS OF THE COMMONWEALTH – All waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters, groundwaters, and vernal pools.
74. WETLAND RESOURCE AREA – Areas specified in the Massachusetts Wetlands Protection Act MGL c. 131, § 40 and in the **Town's/City's Wetlands Bylaw/Ordinance (if applicable).**
75. WETLANDS – Coastal and freshwater wetlands, including wet meadows, marshes, swamps, and bogs, as defined and determined pursuant to G.L. c. 131, § 40 and 310 CMR 10.00 et seq.

Section 2.0 Municipal Storm Drainage System Use

Section 2.1 Municipal Storm Drainage System

- A. The use of all municipal storm drainage systems in the **Town/City** shall be controlled by the Authorized Enforcement Agency. No person shall, without prior authorization from the Authorized

Enforcement Agency, uncover, excavate over, block access to, make any connection with or opening into, alter, or disturb any municipal storm drainage system.

Section 2.2 Prohibited Connections to Municipal Storm Drainage Systems

- A. The construction, use, maintenance or continued existence of illicit connections to the municipal storm drainage system is prohibited.

Section 2.3 Wastewater System Connections

- A. Any wastewater system which is or has been connected to the municipal storm drainage system, or which is or has been connected to the municipal storm drainage system as a result of a false application, misrepresentation, or non-disclosure on a construction permit, or which was connected to the municipal storm drainage system by way of obtaining a wastewater system connection and plumbing permits through any means which circumvented the limitations created by these or any previous Regulations or Bylaws/Ordinances on the matter shall be immediately disconnected from the municipal storm drainage system by the Owner or by the municipality at the Owner's expense.

Section 2.4 Flow Obstructions Prohibited

- A. No person shall place any dam or other flow restricting structure or device in any drainage facility or watercourse without first having obtained written authorization from the Authorized Enforcement Agency.
- B. No person shall place or deposit into any outfall, drainage facility, stormwater drain or watercourse within the municipality any garbage, yard waste, soil, rock or similar material, or any other substance which obstructs flow in the municipal storm drainage system or damages the system or interferes with the proper operation of the system or which constitutes a nuisance or a hazard to the public. In the event that such an obstruction occurs, the Authorized Enforcement Agency may cause such obstruction to be removed or cause such damage to be repaired and to recover applicable costs pursuant to the provisions of these Regulations.

NTU: The section below repeats the authorized discharges to stormwater drains as established and set forth in the bylaw/ordinance. Municipalities may choose to remove this section. If leaving this section in the Regulations, ensure it is consistent with any changes made to language in the bylaw/ordinance. Note that a change in the list requires a change of the bylaw/ordinance.

Section 2.5 Authorized Discharges to Stormwater Drains

A. In accordance with the Bylaw, the following non-stormwater discharges and flows to the municipal storm drain system and to waters of the Commonwealth are exempt from the prohibition on illicit discharges, provided that, in the opinion of the Authorized Enforcement Agency, the source is not a significant contributor of a pollutant to the Municipal Storm Drain System or to waters of the Commonwealth:

1. Potable water line flushing;
2. Uncontaminated pumped groundwater and other discharges from potable water sources;
3. Landscape irrigation and lawn watering;
4. Diverted stream flows;
5. Rising groundwater;
6. Groundwater infiltration to the municipal storm drain system;
7. Uncontaminated foundation and footing drains;
8. Uncontaminated water from crawl space pumps;
9. Air conditioning condensation;
10. Uncontaminated non-industrial roof drains;
11. Natural springs;
12. Individual residential and occasional non-commercial car washing;
13. Flows from riparian habitats and wetlands;
14. Dechlorinated swimming pool discharges (provided that the chlorine content is < 1 ppm, water has been allowed to stand for one week prior to draining, and that the discharge is performed in such a way as not to cause a nuisance);
15. Street sweeping waters;
16. Flows resulting from firefighting activities;
17. Non-stormwater discharges permitted under an NPDES permit, waiver, or waste discharge order administered under the authority of the United States Environmental Protection Agency, or a surface water discharge permitted by DEP, provided that the discharge is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided further that written approval has been granted by the Authorized Enforcement Agency Director for any discharge to the municipal storm drain system;

18. Any other non-stormwater discharges that are not a source of pollutants to the Municipal Storm Drain System nor waters of the Commonwealth, as set forth in a written determination by the Authorized Enforcement Agency.

Section 2.6 Authorization to Discharge to Municipal Storm Drainage Systems

- A. No person shall cause or allow any non-stormwater discharges to the municipal storm drainage system without having first obtained written authorization from the Authorized Enforcement Agency. Discharges to stormwater drains that require written authorization include, but are not limited to, dewatering drainage, subsurface drainage, non-contact cooling water, non-contact industrial process waters, uncontaminated cooling water, uncontaminated industrial process water, or water associated with the excavation of a foundation or trench, hydrological testing, groundwater treatment/remediation, removal or installation of an underground storage tank, foundation drains, crawl space pumps, footing drains or utility access chamber discharges. The decision to approve such discharges rests entirely with the Authorized Enforcement Agency. Such discharges shall comply with all other applicable requirements.
- B. Persons seeking to discharge pursuant to written authorization from Authorized Enforcement Agency shall also obtain, when applicable, a NPDES Permit, coverage under a NPDES Permit or a NPDES Exclusion for the discharge. A copy of which shall be provided to the Authorized Enforcement Agency.
- C. Written authorization issued to the user may stipulate special conditions and terms as deemed necessary or appropriate by the Authorized Enforcement Agency.
- D. Authorization shall be denied, revoked, suspended or modified if the Authorized Enforcement Agency determines that the discharge, whether singly or in combination with others, is or may cause or contribute to a water quality problem, or may cause or contribute to a violation of the **Town's/City's** NPDES Permit.
- E. In the case of construction site dewatering, the duration of the permit shall not exceed the time period necessary to keep a site dewatered during construction. A Owner may apply to the Authorized Enforcement Agency for an extension of authorization for construction site dewatering if so approved by the appropriate state or federal agency. Such application shall be submitted to the Authorized Enforcement Agency a minimum of fourteen 14 days prior to the expiration of the existing permit.

Section 2.7 NPDES Notice of Intent and Permit

- A. The owner of any property or project located within the Town and subject to the requirements of a NPDES Permit for a Stormwater Discharge associated with Industrial Activity or for construction purposes shall submit to the Authorized Enforcement Agency a copy of the completed NPDES Multi-Sector General Permit Notice of Intent or individual application as submitted to EPA, and the information identified in items 1. through 8. below, as applicable:
1. Address of the building (or premises) where the discharge will take place and the name and address of the building (or premises) owner;
 2. Name of a contact person, title and phone number;
 3. A site plan or sketch which shows the location of the connection of the building stormwater drain or the point(s) of discharge to the municipal storm drainage system, including the street name, size of the stormwater drain to which the stormwater will discharge and the outfall to which the discharge will be conveyed and discharged;
 4. Standard Industrial Code (SIC Code) of the facility;
 5. A description of the product or services provided by the facility;
 6. A description of the nature of the discharge;
 7. Existing NPDES permit, if any.
 8. **Town/City** Utilities servicing Facility.
- B. Any person subject to a NPDES permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Authorized Enforcement Agency pursuant to or as a condition of his recommendation concerning a proposed special permit, variance, subdivision approval, site plan approval, or building permit; during any enforcement proceeding or action; or for any other reasonable cause.

Section 2.8 Waste Disposal Prohibitions

- A. No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the municipal storm drain system, or water of the Commonwealth, any refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempt from this prohibition.

Section 2.9 Dumping to Catch Basins

- A. No person shall directly or indirectly dump, discharge or cause or allow to be discharged into any catch basin, any solid waste, construction debris, paint or painting product, antifreeze, hazardous waste, oil, gasoline, grease and all other automotive and petroleum products, solvents and degreasers, drain cleaners, commercial and household cleaners, soap, detergent, cleaning or wash waters ammonia, food and food waste, fats, wax, oil and grease, grass or yard waste, leaves, animal feces, dirt, sand, gravel or other pollutant.
- B. Any person determined by the municipality to be responsible for the direct or indirect discharge of any of the above substances to a catch basin may be responsible for all clean-up costs and for paying any penalties assessed by the municipality or other federal state or local agencies.

Section 2.10 Disposal of Septage Prohibited

- A. No person shall discharge or cause or allow to be discharged any septage into a stormwater drain.

NTU (Key Decision): *A procedure for notification of spills is required. The sample language below can be adjusted for each municipality. It is recommended that the AEA receive the notification, even if notifications are also required to be sent to other departments.*

Section 2.11 Notification of Spills

- A. In accordance with the Bylaw, a release of materials resulting in or which may result in discharge of pollutants or illicit discharges into stormwater, to the municipal storm drainage system, or waters of the Commonwealth, the person shall take all necessary steps to ensure discovery, containment, and cleanup of the release. In the event of a release of oil or hazardous waste to the municipal storm drainage system, the person shall immediately notify the **AEA** and the **Town's/City's Fire and Public Works Departments and the Board of Health**. In the event of a release of a non-hazardous pollutant to the municipal storm drainage system, the reporting person shall notify the **AEA in person or by phone no later than 4:00 p.m. of the next business day**. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the **AEA** within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial facility, the facility owner or operator of the facility shall retain on-site a written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained in accordance with the Massachusetts Public Records Law.

Section 2.12 Transitional Provisions

- A. Owners shall have 60 days from the effective date of these Regulations to comply with the provisions in *Section 2.0*, provided good cause is shown for the failure to comply during that period.

Section 3.0 Land Disturbance

Section 3.1 Permits and Procedures

NTU (Key Decisions):

Land disturbance permit thresholds must be established and included in the bylaw or ordinance, and will be copied into the language under Section 3.1 A. The municipality should decide if it will have one singular permit process for all projects or if there will be a tiered permit structure split between major/minor projects.

For a singular permit process, remove the highlighted language in Sections 3.1 M and 3.2. Remove the word “Major” from subsequent sections. Section 3.3 will establish the singular process.

For a tiered permit process (major/minor), see sample language below for consideration (Sections 3.1M through 3.3).

Review Time – each municipality must determine how long the review process will take and provide an appropriate timeframe for response to project proponents. This timeframe is set in Section 3.1 J and should be adjusted as appropriate.

Application Fees – must be set by the municipality in accordance with any fee-setting policies. It is recommended that municipalities consider the level of effort required to review the application and coordinate with project proponents when setting fees.

A. Permit issuance is required prior to any land disturbance activity that results in:

1. Enter Land Disturbance thresholds from Bylaw/Ordinance

- B. The **AEA** and its agents shall review all applications for a **Land Disturbance/Stormwater Management Permit**, issue a final permit, and conduct any necessary enforcement action.
- C. The Owner is required to be the applicant of the permit, unless written authorization is granted by the Authorized Enforcement Agency.
- D. The Authorized Enforcement Agency and his/her designees will refer to the policy, criteria and information including specifications, guidance, and standards of the latest edition of the Massachusetts Stormwater Policy or the latest edition of **Town/City of _____ Design Standards**,

to be adopted and amended from time to time by the Authorized Enforcement Agency, whichever is more stringent in the protection of the municipality's environmental and infrastructure resources, for execution of the provisions of these Regulations.

- E. Information requests. The Owner shall submit all additional information requested by the Authorized Enforcement Agency to issue a decision on the application.
- F. Actions. The Authorized Enforcement Agency action, rendered in writing, shall consist of either:
 - 1. Approve the Application and issue a permit if it finds that the proposed plan will protect water resources and meets the objectives and requirements of these Regulations;
 - 2. Approve the Application and issue a permit with conditions, modifications, requirements for operation and maintenance requirements of permanent structural Best Management Practices, designation of responsible party, or restrictions that the Authorized Enforcement Agency determines are required to ensure that the project will protect water resources and will meet the objectives and requirements of these Regulations; or
 - 3. Disapprove the application and deny a permit if it finds that the proposed plan will not protect water resources or fails to meet the objectives and requirements of these Regulations. If the Authorized Enforcement Agency or any other designated reviewers finds that the Owner has submitted insufficient information to describe the site, the work, or the effect of the work on water quality and runoff volume, the Authorized Enforcement Agency may disapprove the application, denying a permit.
- G. Issuance of the **Land Disturbance/Stormwater Management Permit** is subject to the following:
 - 1. No **Land Disturbance/Stormwater Management Permit** shall be issued until the required application packages are approved.
 - 2. As a condition of permit issuance, the Owner shall agree to allow any inspections to be conducted.
 - 3. Where a bond, letter of credit, or other surety is required, the **Land Disturbance/Stormwater Management Permit** shall not be issued until the surety has been obtained and approved.
- H. A decision of the Authorized Enforcement Agency shall be final. Further relief of a decision by the Authorized Enforcement Agency made under this Regulation shall be reviewable in a Court of competent jurisdiction. The remedies listed in this Regulation are not exclusive of any other remedies available under any applicable federal, state or local law.

- I. Failure of the Authorized Enforcement Agency to take final action. Failure of the Authorized Enforcement Agency to take final action upon an application within **30 days** of the filing (or receipt of documentation addressing comments) of the stormwater application with the DPW shall be deemed to be approval of said application. Upon certification by the DPW that the allowed time has passed without the Authorized Enforcement Agency action, the **Land Disturbance/Stormwater Management Permit** shall be issued by the Authorized Enforcement Agency.
- J. Plan Changes. The Owner must notify the Authorized Enforcement Agency in writing of any drainage change or alteration in the system authorized in a **Land Disturbance/Stormwater Management Permit** before any change or alteration is made. If the Authorized Enforcement Agency determines that the change or alteration is significant, based on the Stormwater Management Standards in *Sections 3.4, 3.5, and 3.6* and accepted construction practices, the Authorized Enforcement Agency may require that an amended application be filed. If any change or alteration from the **Land Disturbance/Stormwater Management Permit** occurs, the Authorized Enforcement Agency may require the installation of interim erosion and sediment control measures before approving the change or alteration.
- K. **Project Completion. At completion of the project the Owner or Owner's Technical Representative shall submit to the Authorized Enforcement Agency as-built record drawings of all structural stormwater controls and treatment BMPs required for the site. The as-built drawings shall show deviations from the approved plans, if any, and be certified by a Registered Professional Engineer (PE).**
- L. Intent and Consistency with Other Plans. The intent of this permit is to ensure compliance with the State and municipality's Stormwater Standards as well as compliance with the NPDES MS4 Permit issued to the municipality by the EPA. Submittals to other **Town/City** departments, boards, and commissions, State or Federal Agencies, may be utilized and supplemented to fulfill all requirements of the **Land Disturbance/Stormwater Management Permit**.
- M. **Minor and Major Projects. For the purpose of these Regulations, applications shall be divided into Minor and Major categories. The application procedures and submittal requirements for Minor and Major applications shall be described in Sections 3.2 and 3.3.**
1. **A Minor project is any activity where:**
 - (a) **land disturbance is undertaken on a single property or is part of a larger common plan of development or sale that results in:**

- (i) a total cumulative added impervious surface that meets or exceeds 5,000 square feet of area.
 - (ii) a total cumulative disturbance of land that meets or exceeds 20,000 square feet of area and is less than 1 acre of area.
2. A Major project is any project subject to the Stormwater Bylaw/Ordinance which involves:
 - (a) land disturbance is undertaken on a single property or is part of a larger common plan of development or sale that results in a total cumulative disturbance of land that meets or exceeds 1 acre of area.

Section 3.2 Minor Land Disturbance Permit Application

- A. The site owner or his/her agent shall file with the Authorized Enforcement Agency a completed application package for a Minor Land Disturbance Permit. The Minor Land Disturbance Permit application package shall include:
 1. A completed Application Form with original signatures of all owners of the subject property;
 2. A Site Plan complete with Stormwater BMP calculations and Erosion and Sediment Control measures shown;
 3. A Project Narrative addressing how the Owner is in compliance and with and/or meeting the Standards set forth in *Section 1.7 Design and Construction Standards* to the maximum extent practicable. Include with this narrative a copy of the calculations performed to ensure compliance.
 4. Certification that Operations and Maintenance of BMPs will be performed in perpetuity;
 5. All copies of the application form and materials listed above must be filed with the DPW. The date of receipt by the DPW shall be the official filing date; and
 6. Payment of the application and review fee. The Authorized Enforcement Agency shall obtain with each submission an Application Fee of **\$250.00**. The Authorized Enforcement Agency may require higher fees if deemed necessary.
 7. The Authorized Enforcement Agency is authorized to require additional fees, in accordance with the **Bylaw/Ordinance** and as provided by G.L. Ch. 44 §53G, for the following:
 - (a) Specific engineering and consultant services. Services may include, but are not limited to hydrologic and drainage analysis, stormwater quantity and quality analysis, design review, site inspections, as-built plan review, and legal issues. Fees are determined at the time of project review based on a specific scope of work.
 - (b) Inspection services as detailed in *Section 3.8*.

B. Minor Permit Conditions. The Minor Land Disturbance Permit shall have the following conditions:

1. The development shall not alter the flow of stormwater runoff leaving the site, nor shall it alter the stormwater flow to any adjoining properties, public ways, or wetland resource areas.
2. To the maximum extent practicable, the Owner shall manage stormwater runoff from the development by using Infiltration Best Management Practices. Stormwater runoff from on-site impervious surfaces shall be directed to Infiltration Best Management Practices to promote groundwater recharge and reduce stormwater runoff from the project site. Infiltration Best Management Practices shall be selected and sized using the latest edition of the Massachusetts Stormwater Policy.
3. The Owner shall provide and maintain erosion and sedimentation controls until the site is permanently stabilized.
4. The Owner and/or successor shall perpetually inspect and maintain the site and stormwater management systems. Maintenance requirements for a site shall remain in perpetuity with the parcel.
5. The Owner shall prevent construction impacts such as erosion, sedimentation and other pollutant discharges during construction by providing Construction Period Best Management Practices prior to the commencement of land disturbing activities. Construction Best Management Practices shall be selected, located, inspected and maintained using the latest edition of the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas available online.

Section 3.3 Major Land Disturbance Permit Application

A. The site owner or his/her agent shall file with the Authorized Enforcement Agency a completed application package for a Major Land Disturbance Permit. The Major Land Disturbance Permit application package shall include:

1. A completed Application Form with original signatures of all owners;
2. Stormwater Management Plan and project description as specified in *Section 3.4*;
3. Project Narrative addressing how the Owner is in compliance and with and/or meeting the Standards set forth in *Section 1.7 Design and Construction Standards* to the best of their ability. Include with this Narrative a copy of the calculations performed to ensure compliance as defined in *Section 3.4.C.*
4. Erosion and Sediment Control Plan as specified in *Section 3.5*;

5. Operation and Maintenance Plan as specified in *Section 3.6*;
6. If required by the EPA, NPDES General Permit for Discharges from Large and Small Construction Activities application, including the NPDES Construction General Permit Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP);
7. Application form, Stormwater Management Plan, Erosion and Sediment Plan, and Operation and Maintenance Plan must be filed with the Authorized Enforcement Agency. The date of receipt by the DPW shall be the official filing date; and
8. Payment of the application and review fee. The Authorized Enforcement Agency shall obtain with each submission an Application Fee of **\$1,000.00**. The Authorized Enforcement Agency may require higher fees if deemed necessary for the Authorized Enforcement Agency to complete its review.
9. The Authorized Enforcement Agency is authorized to require additional fees, in accordance with the **Bylaw/Ordinance** and as provided by G.L. Ch. 44 §53G, for the following:
 - (a) Specific engineering and consultant services. Services may include, but are not limited to hydrologic and drainage analysis, stormwater quantity and quality analysis, design review, site inspections, as-built plan review, and legal issues. Fees are determined at the time of project review based on a specific scope of work.
 - (b) Inspection services as detailed in *Section 3.8*.

NTU (Key Decision):

Design Storms - Municipalities may choose different design storms and modeling/calculation methods, consistent with other project review processes in the Town/City (as appropriate) for the drainage system calculation.

Required Sections per MS4 Permit – the technical standards detailed, and as highlighted, in Section 3.4 C are required by the MS4 permit and should remain.

Section 3.4 **Stormwater Management Plan**

- A. To the greatest extents practicable, the **Town/City** requires development and redevelopment project proponents to attenuate runoff and infiltrate rainfall on the property, to minimize and mitigate against runoff and contaminants leaving private properties, both during construction and once completed.

B. The application for a **Land Disturbance/Stormwater Management Permit** shall consist of submittal of a Stormwater Management Plan to the Authorized Enforcement Agency. This Stormwater Management Plan shall contain sufficient information for the Authorized Enforcement Agency and relevant **Town/City** Departments to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Owner for reducing adverse impacts from stormwater. The Plan shall be designed to meet the Design and Construction Standards as set forth in *Section 1.7*. The Stormwater Management Plan shall fully describe the project in drawings, and narrative. It shall include:

1. Contact Information. Name, address, and telephone numbers of the owner, Owner, and person(s) or firm(s) preparing the Plan,
2. A locus map showing the parcel in relation to the surrounding properties,
3. A North arrow, scale, and date,
4. Surveyed property lines,
5. The existing zoning, and land use at the site,
6. Critical area boundaries at the site,
7. The proposed land use,
8. The location(s) of existing and proposed easements,
9. The location of existing and proposed utilities,
10. The site's existing and proposed topography with contours at intervals no greater than 2-foot (NAVD 88) with spot elevations provided when needed,
11. The existing site hydrology,
12. A description and delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows,
13. A delineation of 100-year flood plain, if applicable,
14. Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration,
15. The existing and proposed vegetation and ground surfaces with runoff coefficient for each,
16. A drainage area map showing pre- and post-construction watershed boundaries, drainage areas, NRCS hydrologic soil group boundaries (A, B, C, and D soil groups), flow paths for time of concentration, points of analysis and location of soil tests.
17. A description and drawings of all components of the proposed drainage system including:

- (a) Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization,
 - (b) All measures for the detention, retention, or infiltration of water,
 - (c) All measures for the protection of water quality,
 - (d) The structural details for all components of the proposed drainage systems and stormwater management facilities,
 - (e) Notes on drawings specifying materials to be used, construction specifications, and typical details, and
 - (f) Expected hydrology with supporting calculations.
18. A description and drawings of all components of the proposed drainage system,
 19. Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable,
 20. Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization,
 21. The name, address, and cell phone number of the best management practices manager and a proposed schedule for the inspection and maintenance of all best management practices.
 22. A narrative section which includes a discussion of each measure, its purpose, its construction sequence and installation timing as they apply to the site and the project proposed,
 23. Any other information requested by the Authorized Enforcement Agency.
- C. Standards. Projects shall meet the *Section 1.7 Design and Construction Standards* and the following standards:
1. Stormwater Management Design Calculations and Standards
 - (a) Drainage systems shall have adequate capacity to handle all storm water runoff presently flowing through the property/site, as well as to dispose of any additional runoff generated by the proposed development up to the **100-year storm event**. Rainfall data used for stormwater design shall utilize the **24-hour event from the most recent and recognizable data by the State and Federal entities**.
 - (b) Calculations shall be prepared, sealed and stamped by the Owner's Technical Representative for pre- and post-development conditions to show peak rates of runoff for **the 2-,10-, 25- and 100-year storm events using software program-based SCS TR-55 and/or TR-20 stormwater modeling methods**. Calculations and

assumptions shall be clearly shown. Calculations shall be supported by soil logs and USDA NRCS soil maps. The stormwater volume to be recharged to groundwater shall be determined using the methods in the Massachusetts Stormwater Policy and MS4 Permit.

NTU: Municipality can consider the following alternate language for the above paragraph regarding information supporting soil classification and infiltration rate calculation:

*Test pits shall be performed in the location of all proposed retention or detention facilities to determine depth to groundwater, depth to refusal, and soil classification. If the system proposes recharge to groundwater an infiltration test shall also be performed. Soil testing must be conducted in accordance with the Massachusetts Stormwater Policy. All soil testing shall be witnessed by the **Town/City Engineer** or his/her designee. Additional testing may be required by the **Town/City Engineer** at his/her discretion.*

- (c) **Low Impact Development (LID) site planning and design strategies must be used to the maximum extent feasible.**
- (d) **To the extent that the project will discharge, directly or indirectly, to a water body subject to one or more pollutant-specific Total Maximum Daily Loads (TMDLs), implement structural and non-structural stormwater best management practices (BMPs) that are consistent with each such TMDL.**
- (e) **To the extent the project will discharge, directly or indirectly, to an impaired water body not subject to a TMDL, implement structural and non-structural stormwater BMPs optimized to remove the pollutant or pollutants responsible for the impairment.**
- (f) **The design of treatment and infiltration practices must follow the guidance in Volume 2 of the Massachusetts Stormwater Policy, as amended.**
- (g) **Pollutant removal shall be calculated consistent with EPA Region 1's BMP Performance Extrapolation Tool or other BMP performance evaluation tool provided by EPA Region 1, where available. If EPA Region 1 tools do not address the**

planned or installed BMP performance any federally or State approved BMP design guidance or performance standards (e.g. Massachusetts Stormwater Policy and design guidance manuals) may be used to calculate BMP performance.

- (h) Capacity of drainage systems shall be adequate to carry all stormwater run-off presently flowing through the proposed project area, as well as to dispose of any additional run-off generated by the proposed project up to and including the run-off from a 100-year storm, including a minimum of one foot of freeboard, using the following methods:
 - (i) The flow from storms of up to a 25-year frequency and 24-hour duration shall be conveyed through the municipal storm drainage system on the developed site. Storm drain piping and grate inlets shall be designed for a 25-year storm event; Detention facilities and culverts shall be provided to accommodate all runoff, up to and including the run-off generated by the 100-year, 24- hour storm. Stream crossing culverts shall be designed in accordance with the latest addition of the Massachusetts Stream Crossing Handbook. As a minimum, detention basin routing calculations shall be prepared for the 10, 25 and 100-year storm events.
 - (i) Drainage pipe systems shall be designed to accommodate the 25 year storm event, maintain velocities between 2.5 and 10 feet per second, provide self-cleaning flow velocities, and provide calculations using the Mannings Equation.
 - (j) The combination of storage and design release rate shall not result in a storage duration of greater than seventy-two (72) hours.
 - (k) Maximum total depth of detention/retention area shall be four feet (4') as measured from the lowest outlet point to the lowest point of the emergency overflow.
 - (l) Outlet control structures shall be designed to minimize required maintenance for proper operation.
 - (m) Each stormwater detention/retention area shall be provided with a method of emergency overflow in the event of a storm in excess of the 100-year frequency type.
 - (n) Drainage swales shall be designed to accommodate the 25 year storm event and velocities below 4 feet per second.

- (o) At the discretion of the Authorized Enforcement Agency, drainage system may discharge to an existing, adjacent municipal drainage system if the Owner can show that the municipal drainage system provides sufficient excess capacity to accommodate both the existing runoff and the proposed additional runoff from the project during a 25-year frequency and a 24-hour duration storm event.
- (p) Hydraulic calculations, prepared by the Owner's Technical Representative, shall note the specific engineering and/or computer program to be used. Hydraulic calculations shall be submitted to substantiate all design features of any proposed or existing drainage system utilized by the project. Computations for run-off shall be made in accordance with standard engineering practice and in compliance with MassDEP standards. Hydraulic calculations shall include the following:
 - (i) Runoff area boundaries shown on a plan
 - (ii) Methodology used
 - (iii) Soil and land use characterization and design storm parameters
 - (iv) Soil conditions and ground water
 - (v) Pipe size calculation
 - (vi) Detention and retention pond and outlet control calculations as applicable
 - (vii) Total suspended solid (TSS) removal rates and calculations
 - (viii) Infiltration calculations as applicable
 - (ix) Culvert analysis and calculation as applicable
- (q) A continuous design element (i.e. railing or hedge) shall border any detention/retention basin area with interior side slopes greater than 3:1. Drainage basins shall be designed to facilitate access for maintenance vehicles and personnel.
- (r) If it is necessary to carry drainage across lots within the development, storm drainage easements shall be provided, of such width and construction as will be adequate to accommodate the volume and velocity of the run-off. However, no such easement shall be less than twenty feet (20') in width.
- (s) If a proposed drainage system will carry water across land outside the development boundaries to an approved outfall, appropriate drainage rights shall be secured by the Owner and at the Owner's expense.

- (t) Outfalls are to be designed to prevent erosion of soils, and pipes 24 inches or larger are to be fitted with grates or bars to prevent ingress.
- (u) Retention and detention ponds, and methods of overland flow may be used to retain, detain, and treat any increased and accelerated runoff which the development may generate.
- (v) There shall be a minimum of two feet (2') of naturally occurring soils between the detention basin bottom and the maximum annual ground water table;
- (w) Intermittent surface water courses and such as swales, forebays, detention/retention basins shall be vegetated and appropriately reinforced along the low flow channel.
- (x) The use of drainage facilities coordinated with landscaped buffers, open space and conservation areas is encouraged.
- (y) Drainage easements are to provide sufficient access for maintenance and repairs of system components and be at least 20 feet wide.
- (z) Neighboring properties shall not be negatively impacted by flooding due to excessive runoff caused by the development.

2. New Development Stormwater Management Performance and Design Standards

- (a) Stormwater management systems on New Development sites shall be designed to:
 - (i) Not allow new stormwater conveyances to discharge untreated stormwater in accordance with Massachusetts Stormwater Policy Standard 1;
 - (ii) Control peak runoff rates in accordance with Massachusetts Stormwater Policy Standard 2;
 - (iii) Recharge groundwater in accordance with Massachusetts Stormwater Policy Standard 3;
 - (iv) Eliminate or reduce the discharge of pollutants from land uses with higher pollutant loads as defined in the Massachusetts Stormwater Policy in accordance with Massachusetts Stormwater Policy Standard 5;
 - (v) Protect Zone II or Interim Wellhead Protection Areas of public water supplies in accordance with Massachusetts Stormwater Policy Standard 6;
 - (vi) Implement long term maintenance practices in accordance with Massachusetts Stormwater Policy Standard 9; and

(vii) Require that all stormwater management systems be designed to: (1) Retain the volume of runoff equivalent to, or greater than, one (1.0) inch multiplied by the total post-construction impervious surface area on the site and/or 2) Remove 90% of the average annual load of Total Suspended Solids (TSS) generated from the total post-construction impervious area on the site and 60% of the average annual load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site.

3. Redevelopment Stormwater Management Performance and Design Standards

(a) Stormwater management systems on Redevelopment sites shall meet the following Standards to the maximum extent feasible:

(i) Massachusetts Stormwater Policy Standards 1, 2, and 3, the pretreatment and structural best management practices requirements Massachusetts Stormwater Policy Standards 5 and 6.

(ii) Stormwater management systems on Redevelopment sites shall also improve existing conditions by requiring that stormwater management systems be designed to: 1) Retain the volume of runoff equivalent to, or greater than, 0.80 inch multiplied by the total post-construction impervious surface area on the site and/or 2) Remove 80% of the average annual post-construction load of Total Suspended Solids (TSS) generated from the total post-construction impervious area on the site and 50% of the average annual load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site.

(iii) Redevelopment activities that are exclusively limited to maintenance and improvement of existing roadways, (including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving projects) shall improve existing conditions where feasible and are exempt from 3.4.C.2.(a)(i through iii). Roadway widening or improvements that increase the amount of impervious area on the redevelopment site by greater than or equal to a single lane width shall meet the requirements of 3.4.C.2.(a)(i through iii).

(iv) Stormwater management systems on redevelopment sites may utilize offsite mitigation within the same USGS HUC12 as the redevelopment site to meet the equivalent retention or pollutant removal requirements.

4. Redevelopment Offsite Mitigation Performance and Design Standards

- (a) For Redevelopment projects where the Owner proposes to utilize off-site mitigation to meet the average annual pollutant removal requirements, the Owner will describe in writing why it is not technically feasible to meet the average annual pollutant removal requirements on-site, including which on-site treatment BMPs were considered and why they were deemed not feasible.
- (b) Off-site mitigation shall be located within the municipality and the same tributary to the maximum extent feasible. Under no circumstances will off-site mitigation be located outside the same USGS HUC12.
- (c) The off-site mitigation project shall be designed and constructed in a manner consistent with the requirements of the **Town/City Stormwater Management Bylaw/Ordinance** and related regulations.
- (d) The Authorized Enforcement Agency shall, at its discretion, identify priority areas within the watershed and/or tributary area in which offsite mitigation may be completed.
- (e) Offsite mitigation provided at a site not owned by the municipality, requires a separate **Land Disturbance Permit/Stormwater Management Permit** covering the off-site mitigation project, the terms and conditions of which, including ongoing operations and maintenance requirements, shall run with the land where the off-site mitigation is located.
- (f) Construction of the off-site mitigation project shall commence within 12 months of **Land Disturbance/Stormwater Management Permit** issuance and be completed within 12 months of commencement.

5. When one or more of the Standards cannot be met, an Owner may demonstrate that an equivalent level of environmental protection will be provided. Additional design standards are referenced in *Section 1.7*.

6. Landscaping

- (a) All open areas, exclusive of areas to remain in an existing natural state shall be landscaped utilizing both natural and man-made materials such as grasses, trees,

shrubs, paving materials and outdoor furniture that are appropriate to the local climate and anticipated uses of the project.

(b) Type and arrangement of street trees shall be acceptable to DPW and/or his/her authorized designee.

(c) All required landscaping shall be maintained in good condition at all times.

7. Non-structural Stormwater Management Strategies

(a) To the maximum extent practicable, non-structural stormwater management strategies set forth in *Section 3.4.C.7.(b)* shall be incorporated into the design. The Owner shall identify the nonstructural measures incorporated into the design of the project. If the Owner contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any nonstructural stormwater management measures identified in *Section 3.4.C.7.(b)* below into the design of a particular project, the Owner shall identify the strategy considered and provide a basis for the contention.

(b) Non-structural stormwater management strategies incorporated into site design shall:

- (i) Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss,
- (ii) Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces,
- (iii) Maximize the protection of natural drainage features and vegetation,
- (iv) Minimize the decrease in the "time of concentration" from pre-construction to post construction,
- (v) Minimize land disturbance including clearing and grading,
- (vi) Minimize soil compaction,
- (vii) Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides,
- (viii) Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas, and

- (ix) Provide other source controls to prevent or minimize the use or exposure of pollutants at the site, in order to prevent or minimize the release of those pollutants into stormwater runoff. Such source controls include, but are not limited to:
1. Site design features that help to prevent accumulation of trash and debris in drainage systems,
 2. Site design features that help to prevent discharge of trash and debris from drainage systems,
 3. Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments, and
 4. When establishing vegetation after land disturbance, applying fertilizer in accordance with the requirements established under the Massachusetts Stormwater Policy.

Section 3.5 Erosion and Sediment Control Plan

- A. The application for a **Land Disturbance/Stormwater Management Permit** shall consist of submittal of an Erosion and Sediment Control Plan to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sediment controls. The Owner shall submit such material as is necessary to show that the proposed development will comply with the design requirements listed in *Section 3.5.B* below.
- B. The design requirements of the Erosion and Sediment Control Plan are:
1. Minimize total area of land disturbance,
 2. Sequence activities to minimize simultaneous areas of land disturbance,
 3. Minimize peak rate of runoff in accordance with the Massachusetts Stormwater Policy,
 4. Minimize soil erosion and control sedimentation during construction, provided that prevention of erosion is preferred over sediment control,
 5. Divert uncontaminated water around disturbed areas,
 6. Maximize groundwater recharge,
 7. Install and maintain all Erosion and Sediment Control measures in accordance with manufacturer specifications and good engineering practices,
 8. Prevent off-site transport of sediment; depositing or washing soil into a waterbody or the storm drainage system is prohibited,

9. Protect and manage on and off-site construction and waste material storage areas (overburden and stockpiles of dirt, borrow areas, or other areas used solely by the permitted project are considered a part of the project),
10. Comply with applicable Federal, State and local laws and regulations including waste disposal, sanitary sewer or septic system regulations, and air quality requirements, including dust control,

11. Comply with the Massachusetts Department of Conservation and Recreation (DCR)

Wachusett Watershed Protection Act (Applicable to Holden, Leominster, Paxton, Sterling, and West Boylston).

12. Prevent significant alteration of habitats mapped by the Massachusetts Natural Heritage and Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, and Priority Habitats of Rare Species from the proposed activities,
13. Institute interim and permanent stabilization measures, which shall be instituted on a disturbed area as soon as practicable but no more than 14 days after construction activity has temporarily or permanently ceased on that portion of the site,
14. Properly manage on-site construction and waste materials,
15. Prevent off-site vehicle tracking of sediments. Graveled roads, access drives and parking areas of sufficient width and length are required to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by street cleaning (not flushing) before the end of each workday,
16. Install measures intended to keep soil on site or out of water bodies, storm drainage systems or the public right-of-way as the first step in any development. These measures shall be made functional prior to any upslope development taking place,
17. Remove any soil that enters the public right-of-way,
18. Protect stormwater inlets that are functioning during the course of the development by approved sediment control measures so that sediment-laden water cannot enter the inlets without first being filtered.
19. Apply permanent or temporary soil stabilization to denuded development site areas in conformance with the following schedule:
 - (a) All denuded sites shall immediately be provided with either temporary or permanent soil stabilization.

- (b) Temporary erosion and sediment control measures to reduce dust and sediment transport shall be applied as soon as practicable, but in no case more than seven days after land disturbing activity occurs.
- (c) Ground cover shall be installed on any portion of a site that is denuded for more than six months. Sports fields or playgrounds surrounded by vegetative cover or permanently installed curbing are exempt from this requirement.
- (d) Temporary measures shall be maintained until permanent measures are established.
- (e) Permanent non-permitted land disturbing activities may achieve compliance with the standards set out in subsections (a) through (d) above, with the installation and maintenance of approved permanent BMPs.
- (f) There shall be no stockpiling of soil or other material within 30 feet of any resource area. Secure or protect soil stockpiles throughout the project with temporary or permanent soil stabilization measures. The Owner is accountable for the protection of all stockpiles on the site, and those transported from the site. Depositions of soil may be subject to additional regulations requiring permit, review or erosion and sediment control.

C. Erosion and Sediment Control Plan Content

1. Names, addresses, and telephone numbers of the Owner and person(s) or firm(s) preparing the Plan,
2. The name, address, and cell phone number of the best management practices manager.
3. Title, date, north arrow, names of abutters, scale, legend, and locus map,
4. Location and description of natural features including:
 - (a) Watercourses and water bodies, Outstanding Resource Waters (ORWs), wetland resource areas, vernal pools, **DCR Wachusett Watershed Protection Act (Applicable to Holden, Leominster, Paxton, Sterling, and West Boylston)**, and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by the Owner's Technical Representative for areas not assessed on these maps,
 - (b) Existing vegetation including tree lines, canopy layer, shrub layer, and ground cover, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities,

- (c) The 25-foot No Disturb Zone and the 100-foot buffer to all Bordering Vegetated Wetlands, and
 - (d) Habitats mapped by the Massachusetts Natural Heritage and Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, and Priority Habitats of Rare Species within five hundred 500 feet (500') of any construction activity.
5. Lines of existing abutting streets showing drainage and driveway locations and curb cuts,
 6. Existing soils, volume and nature of imported soil materials,
 7. A depiction or description of areas of soil disturbance,
 8. A depiction or dextrcription of areas of cut and fill,
 9. Topographical features including existing and proposed contours at intervals no greater than two 2 feet (2') with spot elevations provided when needed,
 10. Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed,
 11. Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans),
 12. Location and details of erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, earth movement schedule, and construction and waste material stockpiling areas,
 13. Proposed schedule for the inspection and maintenance of all best management practices during construction.
 14. The outline of any areas, including drainage ways, steep slopes and proposed stockpile of topsoil that shall be restored and/or seeded immediately,
 15. Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable,
 16. Location and description of industrial discharges, including stormwater discharges from dedicated asphalt plants and dedicated concrete plants, which are covered by this permit,
 17. Stormwater runoff calculations in accordance with the Massachusetts Stormwater Policy,
 18. Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures,

19. A description of construction and waste materials expected to be stored on-site and intended disposal methods. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response,
 20. A description of provisions for phasing the project where one acre of area or greater is to be altered or disturbed,
 21. If a subdivision, a general note indicating the responsibility to maintain erosion/sedimentation controls during construction and, until sale of the lots involved, including the frequency of maintenance and that temporary ground cover or erosion/siltation control shall be established on any unbuilt lots where required by the Authorized Enforcement Agency.
 22. Plans must be stamped and/or certified by the Owner's Technical Representative, and
 23. Such other information as is required by the Authorized Enforcement Agency.
- D. Project Changes. The Owner, or their agent, shall notify the Authorized Enforcement Agency in writing of any change or alteration of a land disturbance authorized in a **Land Disturbance/Stormwater Management Permit** before any change or alteration occurs. If the Authorized Enforcement Agency determines that the change or alteration is significant, based on the design requirements listed in these Regulations and accepted construction practices, the Authorized Enforcement Agency may require that an amended **Land Disturbance/Stormwater Management Permit** application be filed. If any change or deviation from the **Land Disturbance/Stormwater Management Permit** occurs during a project, the Authorized Enforcement Agency may require the installation of interim measures before approving the change.

Section 3.6 Operation and Maintenance Plan

- A. Operation and maintenance of private facility construction are the responsibility of the Owner.
- B. If the Operation and Maintenance Plan identifies a person other than the Owner (for example, a public agency, private agency, or homeowners' association) as having the responsibility for maintenance, the Plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management facility to such person under an applicable **Bylaw/Ordinance** or regulation.
- C. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project.

- D. If the person responsible for maintenance identified under *Section 3.6.B* above is not a public agency, the operation and maintenance and any future revisions based on *Section 3.6.G* below shall be recorded upon the deed of record for each property on which the maintenance described in the Operation and Maintenance Plan must be undertaken.
- E. Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of nonvegetated linings.
- F. The person responsible for maintenance identified under *Section 3.6.B* above shall maintain a detailed log as detailed in *Section 3.6.L*.
- G. The person responsible for maintenance identified under *Section 3.6.B* above shall evaluate the effectiveness of the Operation and Maintenance Plan at least once per year and adjust the Plan and the deed as needed.
- H. The person responsible for maintenance identified under *Section 3.6.B* above shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the Operation and Maintenance Plan and the documentation required by *Section 3.6.L*.
- I. The requirements of *Sections 3.6.C and 3.6.D* do not apply to stormwater management facilities that are dedicated to and accepted by the municipality.
- J. In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the Authorized Enforcement Agency shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to affect maintenance and repair of the facility in a manner that is approved by the Authorized Enforcement Agency or their designee. The Authorized Enforcement Agency, in its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair, the municipality may immediately proceed to do so and shall bill the cost thereof to the responsible person.
- K. Nothing in this *Section 3.6* shall preclude the Authorized Enforcement Agency from requiring the posting of a performance or maintenance guarantee.
- L. An Operation and Maintenance Plan is required at the time of application for all projects. The Operation and Maintenance Plan shall be designed to ensure compliance with the **Land Disturbance/Stormwater Management Permit**, these rules and regulations, and that the

Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The Authorized Enforcement Agency shall make the final decision of what maintenance option is appropriate in a given situation. The Authorized Enforcement Agency will consider natural features, proximity of site to water bodies and wetlands, extent of impervious surfaces, size of the site, the types of stormwater management structures, and potential need for ongoing maintenance activities when making this decision. The Operation and Maintenance Plan shall remain on file with the Authorized Enforcement Agency and shall be an ongoing requirement.

The Operation and Maintenance Plan shall include:

1. The name(s) of the owner(s) for all components of the system.
2. Maintenance agreements that specify:
 - (a) The names and addresses of the person(s) responsible for operation and maintenance,
 - (b) The person(s) responsible for financing maintenance and emergency repairs,
 - (c) A Maintenance Schedule for all drainage structures, including swales and ponds,
 - (d) A cost estimate for the operation and maintenance of the stormwater drainage system, including long-term replacement costs,
 - (e) A list of easements with the purpose and location of each, and
 - (f) The signature(s) of the owner(s).
3. Map showing locations of all stormwater facilities including but not limited to catch basins, manholes, drainage piping, and stormwater devices.
4. Detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspection and copies of all maintenance-related work orders.
5. Record of annual updates.

M. Stormwater Management Easement(s)

1. Stormwater management easements shall be provided by the property owner(s) as necessary for:
 - (a) access for facility inspections and maintenance;
 - (b) preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event; and
 - (c) direct maintenance access by heavy equipment to structures requiring regular cleanout.

2. The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
3. Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Authorized Enforcement Agency.
4. Easements shall be recorded with the municipality's corresponding Registry of Deeds prior to issuance of a Certificate of Occupancy by the Building Inspector.

N. Changes to Operation and Maintenance Plan

1. The owner(s) of the stormwater management system must notify the Authorized Enforcement Agency of changes in ownership or assignment of financial responsibility.
2. The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of these rules and regulations by mutual agreement of the Authorized Enforcement Agency and the Responsible Parties. Amendments must be in writing and signed by all Responsible Parties. Responsible Parties shall include owner(s), persons with financial responsibility, and persons with operational responsibility.

O. The Owner is required to obtain an annual certification from the Owner's Technical Representative that maintenance is being performed on structural BMPs.

P. Waivers

1. The municipality shall perform operation and maintenance of structural BMPs for public facilities only.

Section 3.7 Surety

A. The Authorized Enforcement Agency may require the Owner to post before the start of land disturbance or construction activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by **Town/City Counsel** and be in an amount deemed sufficient by the Authorized Enforcement Agency to ensure that the work will be completed in accordance with the permit. If the project is phased, the Authorized Enforcement Agency may release part of the bond as each phase is completed in compliance with the permit but the bond may not be fully released until the Authorized Enforcement Agency has received the final inspection report and the final inspection has been conducted as required by *Section 3.9* and issued a Certificate of Occupancy. For subdivisions, the bond may not be fully released until street acceptance.

NTU (Key Decisions):

Inspections - Municipality must decide which inspections to require and who will perform the inspections.

Fees – Municipality must set inspection fees consistent with Town/City policy and as appropriate for the level of effort anticipated.

Section 3.8 Site Inspections and Supervision

- A. Pre-construction Meeting. Prior to starting clearing, excavation, construction, or land disturbance, the Owner, the Owner’s Technical Representative, the general contractor or any other person with authority to make changes to the project, shall meet with the Authorized Enforcement Agency, to review the permitted plans and their implementation.
- B. The Owner’s Technical Representative shall inspect the project site and provide certification to the Authorized Enforcement Agency of project completeness at the following stages:
 - 1. Initial Site Inspection. Inspection prior to approval of any plan.
 - 2. The Owner’s Technical Representative, at the sole expense of the Owner, as designated by the Authorized Enforcement Agency shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the Owner wherein the work fails to comply with the **Land Disturbance/Stormwater Management Permit** as approved. The **Land Disturbance/Stormwater Management Permit** and associated plans for grading, stripping, excavating, and filling work, bearing the signature of approval of the Authorized Enforcement Agency, shall be maintained at the site during the progress of the work. The Owner shall notify the Authorized Enforcement Agency at least two (2) working days before each of the following events; the Owner’s Technical Representative shall be responsible to observe and assure the project progresses appropriately at the following events:
 - (a) Erosion and sediment control measures are in place and stabilized;
 - (b) Site Clearing has been substantially completed;
 - (c) Rough Grading has been substantially completed;
 - (d) Final Grading has been substantially completed;
 - (e) Close of the Construction Season; and
 - (f) Final Landscaping (permanent stabilization) and project final completion.

- C. Owner Inspections. The Owner or Environmental Site Monitor, at the sole expense of the Owner, shall conduct and document inspections of all control measures no less than weekly or as specified in the permit, and prior to and following anticipated storm events. The Environmental Site Monitor must be a qualified inspector and approved by the AEA, in accordance with the Definitions section of these Regulations. The purpose of such inspections will be to determine the overall effectiveness of the required plans and the need for maintenance or additional control measures. The Owner or Environmental Site Monitor shall submit (daily, weekly or monthly reports as indicated in the permit) to the Authorized Enforcement Agency or designated agent in a format approved by the Authorized Enforcement Agency.
- D. Bury Inspection. Prior to backfilling of any underground drainage or stormwater conveyance structures the Authorized Enforcement Agency shall be notified.
- E. Final Inspection. After the stormwater management system has been constructed, the Owner must submit a stamped record plan signed by the Owner' Technical Representative detailing the actual stormwater management system as installed, exempt to minor permits. The record plan will include a statement box on the plan certifying the site review was conducted in accordance with these rules and regulations and all items were constructed according to the approved permit. The Owner or Owner's Technical Representative shall request a final inspection site meeting with the Authorized Enforcement Agency. The Authorized Enforcement Agency shall visit the site with the Owner's Technical Representative to confirm its "as-built" features. As-Built drawings of structural BMPs shall be submitted to the Authorized Enforcement Agency. The final inspection shall be completed and the final report (*Section 3.9*) shall be submitted to the Authorized Enforcement Agency before the surety has been released and prior to requesting the issuance of Certificate of Occupancy.
- F. Access Permission. To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Authorized Enforcement Agency or an authorized agent thereof may enter upon privately owned property for the purpose of performing their duties under these rules and regulations and may make or cause to be made such examinations, surveys or sampling as the Authorized Enforcement Agency deems reasonably necessary to determine compliance with the **Land Disturbance/Stormwater Management Permit**.
- G. If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built as called for in the Stormwater Management Plan, it shall be corrected by the Owner before the performance guarantee is released. If the Owner fails to act the municipality may use the surety bond to complete the work. Examples of inadequacy shall be limited to: errors in the

infiltrative capability, errors in the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges from basins.

- H. Inspection Fees. If necessary, the Authorized Enforcement Agency may require additional fees for site inspections conducted by **Town/City** Departments. **Fees are calculated at a rate of \$65 per hour for review, inspection, and monitoring services that require an excess of two (2) hours** of review, inspection, and monitoring time by a **Town/City** Department.

Section 3.9 Final Report

- A. The Owner's Technical Representative shall evaluate the effectiveness of the stormwater BMPs during an actual storm and document the findings. The final report will include certification from the Owner's Technical Representative as to the effectiveness of the installed system during storm events.
- B. Upon completion of the work, the Owner shall submit a report (including certified as-built construction plans) from the Owner's Technical Representative certifying that all stormwater BMPs, and approved changes and modifications, have been completed in accordance with the conditions of the approved **Land Disturbance/Stormwater Management Permit**. Any discrepancies should be noted in the cover letter.

Section 3.10 Waivers

- A. The Authorized Enforcement Agency may waive strict compliance with any requirement of these rules and regulations promulgated hereunder, where:
1. such action is allowed by federal, state and local statutes and/or regulations,
 2. is in the public interest, and
 3. is not inconsistent with the purpose and intent of these rules and regulations.
- B. Any Owner may submit a written request to be granted such a waiver. Such a request shall be accompanied by an explanation or documentation supporting the waiver request and demonstrating that strict application of these rules and regulations does not further the purposes or objectives of these rules and regulations.
- C. All waiver requests may be discussed with other municipal departments and/or voted on at a public hearing for the project.
- D. If in the Authorized Enforcement Agency's opinion, additional time or information is required for review of a waiver request, the Authorized Enforcement Agency may issue a written continuance for their review. In the event the Owner objects to a continuance, or fails to provide requested information, the waiver request shall be denied.

Section 3.11 Exemptions

- A. Pursuant to the **Bylaw/Ordinance**, the provisions of this Regulation do not apply to:
 1. Construction activities waived from permit coverage under the NPDES General Permit for Stormwater Discharges from Construction Activities.
 2. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04;
 3. Maintenance of existing landscaping, gardens or lawn areas associated with a single family dwelling;
 4. The construction of fencing that will not substantially alter existing terrain or drainage patterns;
 5. Construction of utilities other than drainage (gas, water, electric, telephone, etc.) which will not alter terrain or drainage patterns;
 6. Emergency work to protect life, limb, or property.

Section 3.12 Certificate of Occupancy

- A. The Authorized Enforcement Agency will issue a letter certifying completion upon receipt and approval of the final reports and/or upon otherwise determining that all work of the **Land Disturbance/Stormwater Management Permit** has been satisfactorily completed in conformance with these rules and regulations, which letter shall be submitted by the Owner to the **Town/City of _____ Office of the Building Inspector** prior to the issuance of a Certificate of Occupancy, if applicable.

NTU (Key Decisions): *Municipalities should review the sample enforcement language and penalty dollar amounts in both this regulations template and the bylaw template with legal counsel and adjust in accordance with Town/City policy, precedent, and preference. It is recommended that fines are issued per violation per day (consistent with Federal Clean Water Act).*

Legal Counsel should advise as to which enforcement paragraphs must be placed in the bylaw vs. regulations.

Section 4.0 Enforcement

Section 4.1 Enforcement

- A. The **(Insert Authorized Enforcement Agency Here)**, or an authorized agent thereof (hereafter known as Authorized Enforcement Agency) shall enforce these Regulations, the

Bylaw/Ordinance, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

- B. Civil Relief. If a person violates the provisions of these Regulations, the Authorized Enforcement Agency may seek injunctive relief in a court of competent jurisdiction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.
- C. Notice of Violation. Whenever the Authorized Enforcement Agency finds that a person has violated a prohibition or failed to meet a requirement of these Regulations, the Authorized Enforcement Agency may order compliance by written Notice of Violation to the responsible person. Such Notice of Violation may require without limitation:
1. The performance of monitoring, analyses, and reporting;
 2. The elimination of illicit connections or discharges;
 3. A requirement to cease and desist from the violating discharges, practices, operations, or Land-Disturbing Activity until there is compliance with the **Bylaw/Ordinance** or provisions of the **Land Disturbance/Stormwater Management Permit**;
 4. Maintenance, installation or performance of additional erosion and sediment control measures;
 5. remediation of erosion and sedimentation resulting directly or indirectly from the Land Disturbing Activity;
 6. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
 7. Payment to cover the municipality's administrative and remediation costs; and
 8. The implementation of source control or treatment of the stormwater.
- D. If the Authorized Enforcement Agency determines that abatement of a violation, restoration of affected property and/or remediation of erosion and sedimentation is required, the Notice of Violation shall set forth a deadline by which such abatement, remediation, and/or restoration must be completed. Said Notice of Violation shall further advise that, should the violator or property owner fail to abate, restore, and/or perform remediation within the specified deadline, the **Town/City of _____** may, at its option, undertake such work, and the violator shall reimburse the municipality's expenses.

Section 4.2 Penalties

- A. Criminal Penalty. Any person who violates any provision of these Regulations regulation, order or permit issued there under, shall be punished by a fine of not more than **\$300**. Each day or part thereunder that such violation occurs or continues shall constitute a separate offense.
- B. Tax Liens. The **Town/City of _____** shall require the repayment of services provided to the responsible party which the responsible party was obligated to perform as put forth in **Land Disturbance/Stormwater Management Permit** Documents submitted and reviewed in accordance with the Regulations. Such services may include but are not limited to the following: removing sediment from stormwater devices, repairing stormwater devices or revegetating stormwater devices. The municipality will send the responsible party a bill for services provided. If the bill is not paid the municipality may impose a tax lien on the responsible party or parties' property.

Section 4.3 Appeals

- B. Notwithstanding the provisions of *Section 4.6* below, any person receiving a Notice of Violation under *Section 4.1* above may appeal the determination of the Authorized Enforcement Agency to the **Town Manager/Mayor**. The notice of appeal must be received by the **Town Manager/City** within 5 days from the date of the Notice of Violation. A hearing on the appeal before the **Town Manager/Mayor** or his/her designee shall take place within 15 days from the date of municipality's receipt of the notice of appeal. The decision of the **Town Manager/Mayor** or designee shall be final. Further relief shall be to a court of competent jurisdiction.

Section 4.4 Charging Cost of Abatement/Liens

- A. Within 30 days after completing all measures necessary to abate the violation or to perform remediation, the Authorized Enforcement Agency shall notify the violator and the property owner of the costs incurred by the municipality, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment with the **Board of Selectmen/City Council** within 15 days of receipt of the notification of the costs incurred. A hearing on the protest by the **Board of Selectmen/City Council** shall take place within 30 days from the date of municipality's receipt of the written protest. The decision of the **Board of Selectmen/City Council** shall be final. Further relief shall be to a court of competent jurisdiction.
- B. If the amount due is not paid within 10 days of the decision of the **Board of Selectmen/City Council** or the expiration of the time in which to file an appeal under this Section, the charges

shall be recorded as a municipal charges lien on the property, pursuant to M.G.L. c.40, §58. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in M.G.L. c.59, §57 after the thirty-first day at which the costs first become due.

Section 4.5 Emergency Abatement

- A. The Authorized Enforcement Agency shall require the immediate abatement of any violation of these Regulations that constitutes an immediate threat to the health, safety or welfare of the public. If any such violation is not abated immediately as directed by the Authorized Enforcement Agency, to the extent permitted by law, or if authorized by the owner or other party in control of the property, the **Town/City** may enter the property and take any and all measures required to remediate the violation. Any expense related to such remediation undertaken by the municipality shall be at the expense of the property owner and/or violator, pursuant to *Section 4.1*. Any relief obtained under this Section shall not prevent the municipality from seeking other and further relief authorized under these Regulations.

Section 4.6 Compensatory Action

- A. In lieu of enforcement proceedings, penalties, and remedies authorized by these Regulations, the Authorized Enforcement Agency may accept from a violator alternative compensatory actions, such as storm drain stenciling, maintenance of stormwater BMPs, participation in municipal waste or pollution reduction programs, attendance at compliance workshops, brook cleanup, etc.