STORMWATER REGULATIONS

SECTION 1 GENERAL PROVISIONS

These stormwater regulations are promulgated by the Needham Board of Selectmen pursuant to the authority granted under Section 7 of the General By-Laws of the Town of Needham ("Stormwater By-Law").

The purpose of these regulations is to provide guidance in the implementation of the Stormwater By-Law, and to promote the removal of pollutants from stormwater, to encourage recharging of stormwater, to develop methods to maintain functional operation of stormwater, to utilize best management practices, to improve stormwater quality prior to discharging to a water body, and to education property owners. These regulations are intended to enable the Town of Needham to meet or exceed the minimum standards stipulated in the Stormwater By-Law, the Memorandum of Understanding (MOU) between the Town of Needham and the Environmental Protection Agency (EPA) (dated June 1996), the Massachusetts Stormwater Standards, and the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) requirements issued by the EPA.

These regulations may be revised periodically in order to remain consistent with other State, Federal, or local Laws, regulations, or policies.

SECTION 2 DEFINITIONS

For the purposes of these Regulations, refer to the definitions contained in the Stormwater By-Law.

SECTION 3 ADMINISTRATION AND SUBMISSION REQUIREMENTS

All applications for Building Permits for new construction and additions greater than 25% of the existing building footprint as set forth under Section 7.4.1 of the Stormwater By-Law shall be reviewed by the Director of Public Works/designee for compliance with the Stormwater By-Law and these Regulations. The Plot Plan accompanying the Building Permit application shall include:

- The total amount of impervious area (existing and proposed) on the property including building roofs and driveways;
- The size and location of stormwater improvements, including drywells;
- Erosion control methods proposed for during and after site development work; and
- Operation and maintenance procedures for the stormwater practices.

All applications for a Planning Board Decision and/or a Board of Appeals Decision for new construction and additions greater than 25% of the existing building footprint, as set forth in Section 7.4.2 of the Stormwater By-Law shall be reviewed by the Director of Public Works/designee for compliance with the Stormwater By-Law and these Regulations.

In instances where a Planning Board Decision, Zoning Board of Appeals Decision, and/or Conservation Commission permit is required, preconstruction and post construction stormwater

management and erosion controls that meet the requirements of the Stormwater By-Law and these Regulations shall be shown on plans accompanying those applications for Decisions and/or permits.

SECTION 4 STORMWATER RECHARGE REQUIREMENTS

4.1 Increases in stormwater volumes and flows to the MS4 and pollutant loading to the MS4 and receiving waters shall be prevented or minimized through the recharging of stormwater.

4.2 A minimum combined volumetric capacity to recharge a minimum of one (1) inch of rainfall depth over the total proposed impervious area of the property (buildings and impervious surfaces) shall be provided. Calculations and a design shall be provided to demonstrate compliance, except when the option described in 4.6 below is used.

4.3 For commercial projects and large residential projects, the Stormwater Management Plan and Erosion Control Plan shall include stormwater runoff quality controls and other structural and non-structural Best Management Practices to increase groundwater recharge and remove pollutants from stormwater.

4.4 Stormwater runoff collected from a rooftop may be recharged directly into the ground without pretreatment.

4.5 Stormwater runoff from paved areas subjected to motor vehicles or other potential sources of contamination shall be pretreated to remove sediment, suspended solids, oils, volatile organic compounds (VOCs) that can migrate into groundwater, and other contaminants prior to being infiltrated or recharged.

4.6 As an option to meet the stormwater recharge requirements a Standard Infiltration Method (SIM) for Developments with 4,000 s.f. of impervious area or less may be used.

4.6.1 To satisfy the stormwater recharge requirement, for residential and commercial development with 4,000 s.f. of impervious area or less, a SIM may be utilized consisting of the installation of drywells at one or more corners of the main dwelling/building to collect the roof runoff from the structure.

4.6.2 Drywells may be placed at one or more corners of the building. The total storage of all drywells shall be 300 cu. ft. A single drywell – four (4) feet wide by four (4) feet long by three (3) feet deep with two (2) feet of crushed stone around it results in 75 cu. ft of storage (assuming 25% voids). Drywells may be linked together, if desired, to reduce the number of drywells to one or more corners of the building.

4.6.3 Building projects involving additions greater than 25% of the existing building footprint but less than 50% of the existing building footprint shall collect the entire runoff from the roof of the addition plus runoff from the roof on the side of the existing structure that contains the addition. The total storage of the drywells shall be 300 cu. ft. for properties with 4,000 s.f. of impervious area or less.

4.6.4 Building projects involving additions that are 50% or greater than the existing building footprint shall capture the stormwater runoff from the entire roof.

4.6.5 If the SIM method is used, no drainage calculations are required and only the roof runoff, or portion thereof, need be collected.

4.6.6 If the SIM method is used, the property must be located within an area of suitable soils as designated on the Watershed Management Plan or documented by on-site soil test pits.

4.6.7 An As-Built drawing showing all stormwater management systems shall be submitted to the Department of Public Works on the Building Department's as-built (certified) Plot Plan prior to the issuance of an Occupancy Permit.

4.6.8 The as-built (certified) Plot Plan showing the improvements to the property shall be stamped by a Massachusetts Registered Land Surveyor.

SECTION 5 STORMWATER MANAGEMENT AND EROSION CONTROL

5.1 Regulated Activities

A Stormwater Management Plan and an Erosion Control Plan, stamped by a MA registered Professional Engineer, as well as an Operation and Maintenance (O&M) Plan signed by the property owner shall be submitted as part of the Building Permit Plot Plan prior to any land disturbance that involves:

a. Construction of a new building or reconstruction of an existing building,
b. Construction of an addition greater than 25% of the existing building footprint,
c. Developments that require Planning Board approval or Zoning Board of Appeals approval for parking lots, and
d. Developments that require an Order of Conditions from the Conservation Commission.

5.2 General Requirements

5.2.1. Stormwater Management Plan

5.2.1.1 Projects on properties that contain 4,000 s.f. or less of impervious area and recharge a minimum of 1-inch of stormwater meet the Stormwater Management requirements listed below.

5.2.1.2 The Stormwater Management Plan shall fully describe the projects in drawings, narrative, and calculations. A complete narrative detailing how the Stormwater Management Plan complies with the applicable MassDEP stormwater management standards shall be provided.

5.2.1.3 Design and Performance Criteria: At a minimum, all regulated activities regardless of the proximity to wetlands shall comply with the performance standards of the most recent version of MassDEP's Stormwater Management Standards and accompanying Massachusetts Stormwater Handbook (MSH), as well as the criteria contained herein.

a. The design of the project shall, to the maximum extent feasible, employ environmentally sensitive site design as outlined in the MSH and shall reproduce natural hydrologic conditions with respect to ground and surface waters to the maximum extent practicable.

b. Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable. Guidance on these practices is provided in the MSH.

c. The Stormwater Management Plan shall incorporate source controls of contaminants and employ Best Management Practices (BMPs) to minimize stormwater pollution.

d. The design of treatment and infiltration practices should follow the guidance in Volume 2 of the MSH, as amended, or other federally or State approved BMP design guidance accepted by the Department of Public Works.

e. The water quality volume for sizing of BMPs shall be based on a minimum of 1-inch of runoff over the tributary impervious area.

f. Hydrologic analyses using TR-55/TR-20 methodology shall be performed on the entire project site and include any off site areas that drain to or through the project site.

g. For purposes of computing runoff, all pervious lands on the site shall be assumed to be in good condition prior to development, regardless of the conditions existing at the time.

h. The analyses shall be analyzed for the 1-inch, and the 2-, 10-, 25-, and 100-year design storms under pre-development and post-development conditions. The 24-hour rainfall amounts for the 2-, 10-, 25-, and 100-year storms are to be based on the NOAA Atlas 14 Point Precipitation Frequency Estimates for Needham, the 24 hour rainfall amounts are as follows (rounded to the nearest one-tenth of an inch):

2 yr, 24 hr event = 3.3 inches
10 yr, 24 hr event = 5.2 inches
25 yr, 24 hr event = 6.4 inches
100 yr, 24 hr event = 8.2 inches

i. The analysis is to be performed on a pre and post sub-watershed basis with designated control points at each location where runoff leaves the site.

j. The post-development peak discharge rate shall be equal to or less than the pre-development peak discharge rate (based on a 2-, 10-, 25-, and 100-year 24-hour storm event).

k. The same land area shall be used in the analysis to facilitate comparison of existing and proposed conditions.

l. The total volume of discharge as well as peak rate shall be evaluated at each control point.

m. For new construction, the stormwater management system must be designed to remove 90% of the average annual load of Total Suspended Solids (TSS), generated from the post-construction impervious area. In addition, in accordance with the MS4 General Permit, projects must be designed to remove 60% of the average annual load of Total Phosphorous (TP) generated from the post-construction impervious surface areas and remove pathogens.

n. Redevelopment Standards: Projects involving redevelopment of existing sites shall be designed in accordance with the redevelopment checklist provided in the latest MSH. All redevelopment projects must provide a net improvement to stormwater conditions at the site, either in the area of disturbance or to other areas on the site. Redevelopment projects shall be deigned to remove 80% TSS and 50% TP and pathogens. Improvements may be made to areas outside of the area of disturbance where known problems exist and reasonable solutions are available. Such opportunities might include:

- Reduce impervious surfaces;
- Implement source controls of potential stormwater pollutants on the entire site;
- Reroute drainage to maximize treatment efficiencies;
- Segregate roof runoff for direct infiltration or capture and re-use; and/or
- Update Operation and Maintenance plans and procedures for the entire site.

o. Stormwater discharges from developments shall not exceed the water quality limits for the receiving waters that they discharge to as shown on the Town of Needham Watershed Management Plan.

5.2.2 Closed Drainage System

Where closed drainage networks are proposed, calculations shall be provided in accordance with the following requirements:

a. The proposed closed drainage system shall be designed to accommodate a 25-year design storm. Bridges and culverts shall be designed for a 50-year design storm, with consideration being given to avoiding damage during a 100-year design storm.

b. The Rational Method shall be used to determine peak flows of runoff for the design of the closed drainage system. The Rational Method cannot be used to determine runoff volumes. The Manning Formula shall be used for the sizing of drain pipes and other drainage conveyance swales. A worksheet similar to that provided in Exhibit 8-49 of the Massachusetts Highway Department (MHD) Project Development and Design Guide (2006 edition) shall be provided for the design of each closed drainage network.

c. Catch basins shall be required on both sides of roadways at intervals of not more than 400 feet, at all low points in grade, near the corners of roadways at intersecting streets, and at all other locations as required by the Director of Public Works/designee. Catch basins are not allowed in front of driveway openings. Catch basin-to-catch basin connections are not allowed (unless specifically allowed by the Director of Public Works/designee). Each catch basin shall be connected to a manhole. All catch basins shall have a minimum four-foot sump and a floatables control hood on the outlet pipe. All grate openings shall be of a design and placement that will not trap or divert bicycle wheels. Catch basins shall be designed such that the grate capacity of each is not exceeded; double catch basin grates and curb inlets may be used as needed. No catch basin which collects runoff from roadways shall be designed to infiltrate stormwater runoff without providing pre-treatment in accordance with the Massachusetts Stormwater Management Standards.

d. All drain pipes shall be laid in a straight line and grade. A manhole shall be provided at every change in pipe size, material, direction, and/or grade. In no case shall drain manholes be spaced at a distance greater than 400 feet. Pipes shall be designed to operate without building up hydraulic pressure head under design flow conditions. The minimum design flow pipe velocity shall be 2 feet per second (fps) or as acceptable to the Director of Public Works/designee. The maximum allowable full flow pipe velocity shall be 10 fps or as acceptable to the Director of Public Works/designee.

e. Drain pipes shall be either reinforced concrete pipe (RCP) (minimum 2 feet of cover) or high-density polyethylene pipe / polyvinyl chloride (HDPE/PVC) (minimum 3 feet of cover). Ductile iron pipe shall be used in areas with less than two feet of cover.

f. Pipe inlets or outfalls with a diameter of 15 inches or greater shall be fitted with a protective barrier, suitable in the opinion of the Director of Public

Works/designee, to prevent access by children. Said barrier shall be removable for maintenance purposes. Masonry headwalls and flared end-sections shall be installed, as approved by the Director of Public Works/designee, to prevent erosion. Ground surfaces at all drainage outfalls shall be stabilized with rip-rap or other means to prevent erosion from stormwater flows up to the design capacity of the discharging conveyance. Design calculations for rip-rap splash pads or other proposed outfall protection may be required at the discretion of the Director of Public Works/designee.

5.2.3 Stormwater Infiltration System

5.2.3.1 This section is not intended to replace the requirements outlined in Section 4 Stormwater Recharge Requirements.

5.2.3.2 For proposed large residential or commercial properties with greater than 4,000 s.f of impervious area and include infiltration systems as part of the stormwater management design the stormwater infiltration systems shall be designed in accordance with the design standards listed in Volume 3 of the Massachusetts Stormwater Handbook (MSH), with the following additional criteria:

a. For all projects proposing infiltration BMPs, the Applicant shall provide documentation of the soil conditions and seasonal high groundwater conditions at the proposed site of the infiltration facility or facilities. At a minimum, existing Estimated Seasonal High Groundwater (ESHGW) elevation shall be documented at each location where an infiltration-type stormwater management practice is proposed. The soils on-site shall be classified according to the NRCS Hydrologic Soil Groups (HSG), and a soil textural analysis consistent with USDA methodologies shall be conducted where the HSG classification is inconclusive. Seasonal high groundwater shall be estimated based on redoximorphic features in the soil.

b. The static, simple dynamic, or dynamic field methods shall be used to estimate storage volume sizing. The use of the Rational Method to size infiltration systems is strictly prohibited.

c. When the static or simple dynamic methods are used, the infiltration rate for each system shall be estimated based on the rates specified by Rawls et al. 1982. For the "dynamic field" method, saturated hydraulic conductivity rates shall be determined at the actual location and soil layer (i.e., elevation) where infiltration is proposed. A Title 5 percolation test does not provide an acceptable estimate of the infiltration rate on the site using any of the three design methods. The Applicant shall identify the depth to bedrock or other restrictive layer in the vicinity of proposed infiltration

systems. Compaction of soils in designated infiltration areas shall be minimized during and after construction.

d. The bottom of stormwater infiltration systems shall be a minimum of 2 feet above the estimated seasonal high groundwater elevation.

e. Where a project proposes to attenuate the peak discharge from a 10-year, 24-hour design storm or higher, the bottom of the infiltration system shall be a minimum of 4 feet above the estimated seasonal high groundwater elevation.

f. A groundwater mounding analysis may be required, at the discretion of the Director of Public Works/designee, to ensure that the infiltration system will not cause groundwater to break out above land surface, seep into basements of nearby buildings, or cause other problems. All infiltration systems shall be designed to drain within 72 hours.

g. Detention/retention basins shall be designed to have a minimum of 1 foot of freeboard during the 100-year design storm. The volume of sediment forebays (if applicable) shall not be counted towards the storage volume of the detention/retention basin. For design purposes, it shall be assumed that there will be no infiltration of stormwater within the drainage basin unless the basin is designed as an infiltration basin in accordance with the MSH. Detention/retention basins and associated forebays shall be required to drain with 72 hours. Basins shall be designed with an emergency overflow device, such as a weir, to safely pass the 100-year design storm to prevent overtopping and potential erosion of the berm, assuming the primary outlet is not functioning. The bottom of any sediment forebay shall be constructed of concrete or grass that may be mowed, for ease of maintenance. Depending on the depth and size of the basin, the Director of Public Works/designee may require fencing or other effective measures to be installed to prevent unauthorized persons and vehicles from entering the basin.

h. Place inlets and outlets to maximize the flow path through the basin.

i. Low flow outlets shall be designed to prevent clogging.

j. At the discretion of the Permitting Authority, these requirements may be waived or modified.

5.2.4 Erosion and Sediment Control (ESC) Plan

5.2.4.1 An Erosion and Sediment Control (ESC) Plan shall be submitted with the application for a Building Permit, Planning Board application, Board of Appeals application, or Conservation Commission application pursuant to the Stormwater By-Law and these Regulations. If applicable, the ESC shall be in

compliance with the NPDES General Permit for Discharges from Construction Activities. In addition, the plan shall ensure that the Massachusetts Surface Water Quality Standards (314 CMR 4.00) are met in all seasons.

5.2.4.2 If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NPDES General Permit for Discharges from Construction Activities, then the permittee is required to submit a complete copy of the SWPPP as part of its application for a building permit. If the SWPPP meets the requirements of the NPDES General Permit, it will be considered equivalent to the ESC Plan described in this Section.

5.2.4.3 The ESC Plan shall contain sufficient information to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sedimentation controls. The applicant shall submit such material as is necessary to show that the proposed development will comply with the design requirements listed below.

5.2.4.4 For larger developments where construction phasing occurs, the ESC Plan shall be updated as needed based on changing conditions at the site.

5.2.4.5 The ESC Plan shall be designed to meet the following criteria and guidelines.

a. Minimize total area of disturbance and minimize unnecessary clearing and grading from all construction sites. Clearing and grading shall only be performed within areas needed to build the project, including structures, utilities, roads, recreational amenities, post-construction stormwater management facilities, and related infrastructure.

b. Prior to any land disturbance activities commencing on the site, the developer shall physically mark limits of no land disturbance on the site with tape, signs, or orange construction fence, so that workers can see the areas to be protected. The physical markers shall be inspected weekly.

c. ESC measures shall be installed and maintained in accordance with the manufacturer's specifications and good engineering practices to ensure they perform as intended.

d. ESC measures used shall be chosen based on the goal of minimizing site disturbance from installation of such measures, such as the use of filter mitts where appropriate.

e. Keep stormwater runoff velocities as low as possible. The removal of existing vegetative cover during development and the resulting increase in impermeable surface area after development will increase both the volume and velocity of runoff. These increases must be taken into account when providing for erosion control.

f. Protect disturbed areas from stormwater runoff. Best management practices (BMPs) can be utilized to prevent water from entering and running over the disturbed area. Diversions and other control practices intercept runoff from higher watershed areas, store or divert it away from vulnerable areas, and direct it toward stabilized outlets.

g. Sediment trapping and settling devices shall be employed to trap and/or retain suspended sediments and allow time for them to settle out in cases where perimeter sediment controls (e.g., silt fence and straw bales) are deemed to be ineffective in trapping suspended sediments on-site. Sediment basins shall also be used to minimize peak rate of runoff in accordance with the MSH.

h. BMPs to be used for infiltration after construction shall not be used as BMPs during construction unless otherwise approved by the Director of Public Works/designee. Most infiltration technologies are not designed to handle the high concentrations of sediments typically found in construction runoff, and thus must be protected from construction related sediment loadings.

i. Sediment shall be removed once the volume reaches ¼ to ½ the height of a straw bale or silt sock. Sediment shall be removed from a silt fence prior to reaching ¼ to ½ the height.

j. Sediment from sediment traps or sedimentation ponds shall be removed when capacity has been reduced by 50 percent.

k. On and off-site material storage areas, including construction and waste materials, shall be properly protected and managed.

l. Soil stockpiles must be stabilized or covered at the end of each workday. Stockpile side slopes shall not be greater than 2:1. All stockpiles shall be surrounded by sediment controls.

m. Projects must 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 and debris control;

n. Applicants must include control of demolition debris, litter, and sanitary waste as part of the ESC Plan.

o. A tracking pad shall be constructed at all entrance/exist points of the site to reduce the amount of soil carried onto roadways and off the site.

p. Permanent seeding shall be undertaken in the spring from March through May, and in late summer and early fall from August to October 15. During

the peak summer months and in the fall after October 15, when seeding is found to be impractical, appropriate temporary mulch shall be applied. Permanent seeding may be undertaken during the summer if plans provide for adequate mulching and watering.

q. Slopes (steeper than 3:1) shall be protected from erosion by limiting clearing of these areas in the first place or, where grading is unavoidable, by providing special techniques to prevent upland runoff from flowing down a steep slope and through immediate stabilization to prevent gullying. Offsite runoff shall be diverted from highly erodible soils and steep slopes to stable areas.

r. Interim and permanent stabilization measures shall be instituted on a disturbed area immediately after construction activity has temporarily or permanently ceased on that portion of the site. Two methods are available for stabilizing disturbed areas: mechanical (or structural) methods and vegetative methods. In some cases, both are combined in order to retard erosion.

s. Temporary sediment trapping devices must not be removed until permanent stabilization is established in all contributory drainage areas.

t. All temporary ESC measures shall be removed after final site stabilization. Disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within 30 days of removal.

5.2.5 Construction Inspections

5.2.5.1 To ensure that erosion control practices are functioning in accord with the ESC Plan, inspections shall be conducted by the applicant or its authorized representative at least once every week and within 24 hours of the end of a storm event of 0.5 inches or greater, from the start of construction until the site is permanently stabilized. Inspection frequency may be reduced to at least once a month if the site is temporarily stabilized, runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or if construction is occurring during seasonal dry periods. The Applicant shall request approval from the Director of Public Works/designee for any change in inspection frequency, including termination of inspections due to site stabilization).

5.2.5.2 Inspections by the applicant or its authorized representative must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors must look for evidence of, or the potential for, pollutants entering the stormwater conveyance system. Sedimentation and erosion control measures identified in the ESC Plan must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to the MS4 or receiving waters

bodies. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

5.2.5.3 The applicant or its authorized representative must complete an inspection form for each inspection required, the following information, shall be included at a minimum:

a. The inspection date;

b. Names, titles, and qualifications of personnel making the inspection;

c. Weather information and a description of any discharges occurring at the time of the inspection;

d. Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;

e. Location(s) of discharges of sediment or other pollutants from the site;

f. Location(s) of BMPs that need to be maintained;

g. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;

h. Location(s) where additional BMPs are needed that did not exist at the time of inspection;

i. Photographs documenting site conditions at the time of inspection; and

j. Corrective action required including any changes to the ESC or SWPPP necessary and implementation dates.

5.2.5.4 All erosion and sediment control measures and other protective measures identified in the ESC Plan must be maintained in effective operating condition until final site stabilization is achieved. If site inspections identify BMPs that are not operating effectively, maintenance must be performed as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of storm water controls

5.2.5.5 A record of each inspection and of any actions taken must be provided to the Permitting Authority with any application for an Occupancy Permit, Certificate of Compliance, or other document certifying that construction has been satisfactorily completed. The inspection reports must identify any

incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the construction project or site is in compliance with these Regulations.

5.2.6 Operation and Maintenance (O&M) Plan

5.2.6.1 An Operation and Maintenance Plan (O&M Plan) shall be submitted with the application for a Building Permit, Planning Board application, Board of Appeals application, or Conservation Commission application pursuant to the By-Law and these Regulations. The O&M Plan shall be designed to ensure compliance in all seasons and throughout the life of the system.

5.2.6.2 For residential and commercial development with 4,000 s.f. of impervious area or less, the O&M Plan shall consist of an annual inspection of the drywells, and removal of sediment, leaves and/or debris as needed.

5.2.6.3 The O&M Plan shall be a stand-alone document, shall remain on file with the Director of Public Works/designee, and shall be an ongoing requirement. To ensure that all BMPs continue to function as designed a final O&M Plan shall be submitted prior to issuance of an Occupancy Permit or Certificate of Compliance, shall be signed by the property owner, and shall reflect any modifications made during construction to the location or type of stormwater management practices.

5.2.6.4 The O&M Plan for commercial developments with greater than 4,000 s.f. of impervious area shall include, at a minimum:

a. The name(s) of the owner(s) for all components of the system.

b. The signature(s) of the owner(s).

c. The names and addresses of the person(s) responsible for operation and maintenance; if responsibility is contracted to a third party, a copy of the maintenance agreement(s) must be provided.

d. A plan or map showing the location of the systems and facilities including easements, catch basins, manholes/access lids, main, and stormwater devices.

e. An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed.

f. A list of easements with the purpose and location of each. Easements shall be recorded with the Norfolk Registry of Deeds prior to issuance of a Certificate of Occupancy from the Department of Public Works.

g. Provisions for the Director of Public Works/designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

h. Any other information required by the Director of Public Works/designee.

5.2.6.5 The following criteria shall apply to commercial developments with greater than 4,000 s.f. of impervious area:

a. O&M Plan shall apply to the entire project site, not just area the most recently permitted area.

b. At a minimum, inspections shall occur during the first year of operation and in accordance with the O&M plan.

c. The owner of the property shall maintain a log of all operation and maintenance activities, including without limitation, inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and the disposal location). This log shall be made available to the MassDEP and Director of Public Works/designee upon request.

d. Inspection reports shall be submitted to the Director of Public Works/designee for all stormwater management systems.

e. The owner(s) of the stormwater management system must notify the Director of Public Works/designee of changes in ownership.

f. Depending on the complexity of the stormwater management system installed, the Director of Public Works/designee may require recording of the O&M Plan.

5.2.7 Properties with Poor Soils

5.2.7.1 Stormwater management for single family, multi-family and commercial properties with 4,000 s.f. or less of total impervious area that are located within an area of poor soils as designated on the Watershed Management Plan, or where test pits confirm that the on-site soils are not suitable for infiltration.

a. If the property is located within 100 feet of the Town's drainage system, a small diameter Schedule 40 PVC drain at least 6 inches in diameter shall be constructed from the Town's drainage system to the property to collect the roof drains from the dwelling, building and/or out buildings. The small diameter drain shall be connected to a catch basin, another small diameter drain, or a drain manhole located adjacent to the edge of pavement or curb and shall be designed so that it can be extended to adjacent properties. See

the Construction Detail Plan – Typical Small Diameter Drain Construction for more information.

b. If the property is located beyond 100 feet from the Town's drainage system, a one-time stormwater fee of $12 per cubic foot of stormwater required (minimum one inch of rainfall depth over total impervious area) to be recharged shall be contributed to a stormwater fund for the Town to construct a communal infiltration system. Extension of a small diameter Schedule 40 PVC drain at least 6 inches in diameter may be constructed from the Town's drainage system to the property to collect the roof drains from the dwelling, building and/or out buildings in lieu of the stormwater fee, if desired.

5.2.8 Except as provided in Subsection 4.6.8 above, as-built drawings stamped by a Massachusetts Registered Professional Engineer Surveyor showing all stormwater management systems shall accompany the as-built Plot Plan and request for an Occupancy Permit.

SECTION 6 ILLICIT DISCHARGE, DETECTION & ELIMINATION (IDDE)

6.1 General

Section 7.5 of the Stormwater By-Law sets forth the prohibited activities, regulated activities, and exemptions associated with compliance with the IDDE Program. The IDDE program is intended to prevent sanitary wastes from entering the stormwater drain system. Discharges to the stormwater drain system are not treated and are released directly into the surrounding neighborhood in the vicinity of the discharge. Sanitary wastes are a health hazard to people and animals and can cause sickness and disease in both. Likewise, discharges of stormwater, groundwater, and runoff into the sanitary sewer system are prohibited and can cause the sanitary sewer system to overflow into the stormwater system, or directly into the environment where people may be exposed to it.

6.1.1 The applicant shall identify all sanitary sewer connections from the subject property and confirm that they are not connected to any stormwater drain system. The applicant shall also identify and confirm that all connections from the property to the stormwater drain system are free from pollutants, or consists of clean sump pump discharges.

6.1.2 Any connections to the stormwater system found to not meet these requirements shall be eliminated and disconnected from the stormwater drain system by the applicant within 30 calendar days.

6.1.3 The applicant shall provide an Illicit Discharge Compliance Statement verifying that there are no illicit discharges existing on the site and all illicit discharges shall be prevented from entering the stormwater management system, including wastewater discharges and discharges of stormwater contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, oil, or

grease. This statement shall be consistent with the statement required per Standard 10 of MassDEP stormwater management standards.

6.1.4. The Illicit Discharge Compliance Statement shall be provided with the application for a Building Permit.

SECTION 7 EMERGENCY SUSPENSION OF STORM DRAIN SYSTEM ACCESS

In accordance with Section 7.6 of the Stormwater By-Law, the Director of Public Works/designee may suspend MS4 access to any person or property without prior written notice when such suspension is determined to be necessary to prevent or terminate a threatened or actual discharge of pollutants that presents imminent risk of harm to the public health, safety, welfare or the environment.

SECTION 8 GREEN CITIZEN CERTIFICATE

Residents who undertake water quality improvements on their property on their own volition in an effort to improve the environment without being required to do so will be recognized by the Board of Selectmen and issued a Green Citizen Certificate. Each recipient's accomplishments will also be included in the Town's annual report to the EPA and posted on the Town's website.

SECTION 9 ENFORCEMENT

The Director of Public Works/designee shall enforce the Stormwater By-Law and these regulations, and may pursue all civil and criminal remedies to address violations.

9.1 The Director of Public Works/designee may issue a written order to enforce the provisions of this By-Law or the regulations hereunder, which may include (but are not limited to) an order to:

(a) eliminate illicit connections or discharges to the MS4;

(b) perform monitoring, analyses, and reporting;

(c) cease and desist unlawful discharges, practices, or operations; and

(d) remediate contamination in connection therewith.

9.2 If the Director of Public Works/designee determines that abatement or remediation of contamination is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Department of Public Works may, at its option, authorize such work, and the expenses thereof shall be charged to the violator in an amount not exceeding the penalty specified in paragraph (e) below.

9.3 If the Department of Public Works performs the work described in paragraph (b) above, the violator and the property owner shall be notified of the costs incurred by the Department of Public Works, including administrative costs, within thirty (30) days after completing all measures necessary for the abatement or remediation. Within thirty (30) days of receipt of such notification, the violator or property owner may file with the Town Manager a written protest objecting to the amount or basis of the costs incurred. Upon receipt of such a protest, the Town Manager may adjust the amount of the costs to be charged to the violator.

9.4 If a person violates the provisions of this By-Law, or any regulation, permit, notice, or order issued hereunder, the Director of Public Works/designee, with the approval of the Board of Selectmen, may seek injunctive relief in a court of competent jurisdiction to restrain such person from activities that would create further violations or to compel the person to perform abatement or remediation of the violation.

9.5 As an alternative to criminal remedies set forth in this Section, the Director of Public Works/designee may elect to utilize non-criminal disposition procedures set forth in *M.G.L.* c.40, § 21D. The penalty for the first violation shall be $0 and shall include a requirement to cure the violation within 15 days of the notice of the first violation. If there is a violation, the notice of the first offense shall coincide with the issuance of the Building Permit or thereafter. The penalty for the second violation shall be $50 and shall include a requirement to cure the violation within 15 days of the notice of the second violation. Each day or part thereof that the violation is not remedied shall constitute a separate offense. The penalty for the third and subsequent violations shall be $100.00. Each day or part thereof that the violation is not remedied shall constitute a separate offense until the violation is remedied.

9.6 To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Department of Public Works, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this By-Law and promulgated Regulations, and may make or cause to be made such examinations, surveys or sampling as the Director of Public Works/designee deems reasonably necessary.

9.7 The remedies set forth in this Section are not intended to be exclusive of any other remedies available under applicable federal, state, or local law.

Issued by the Board of Selectmen

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DATE

TRUE COPY ATTEST: _____
Theodora K. Eaton, Town Clerk