Town of Hamilton

Stormwater Management Regulations

1. INTRODUCTION

These Stormwater Management Regulations are promulgated under the Authority of Town of Hamilton General Bylaw Ch. XXIX, Stormwater Management (the "Bylaw").

2. DEFINITIONS

All definitions provided in the Bylaw shall apply to these Regulations. Terms not defined in the Bylaw are included below:

ADMINISTRATIVE LAND DISTURBANCE REVIEW: Approval by the Permit Authority of a land disturbance activity that does not require a Stormwater Management Permit.

CONSTRUCTION AND WASTE MATERIALS: Excess or discarded building or site materials, including but not limited to concrete truck washout, chemicals, litter, and sanitary waste at a construction site that may adversely impact water quality.

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).

MASSACHUSETTS ENDANGERED SPECIES ACT: (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00) which prohibit the "taking" of any rare plant or animal species listed as Endangered, Threatened, or of Special Concern.

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 Surface Water Quality Standards (314 CMR 4.00) and the Massachusetts Stormwater Management Standards as set forth in the latest edition of the Massachusetts Stormwater Management Handbook. 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.

PRIORITY HABITAT OF RARE SPECIES: Habitats delineated for rare plant and animal populations protected pursuant to the Massachusetts Endangered Species Act and its regulations.

STABILIZATION: The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or retard erosion.

STRIP: Any activity which removes the vegetative ground surface cover, including tree removal, clearing, grubbing, and storage or removal of topsoil.

WATERCOURSE: A natural or man-man channel through which water flows or a stream of water, including a river, brook, or underground stream.

WETLAND RESOURCE AREA: Areas specified in the Massachusetts Wetlands Protection Act, M.G.L. c.131, §40 and in the Town of Hamilton Wetland Bylaw.

3. AUTHORITY

A. The Stormwater Regulations are promulgated by the Planning Board in accordance with Section 5(E) of the Hamilton Stormwater Management Bylaw.

B. The Planning Board may periodically amend these Regulations following a duly posted and noticed Public Hearing, vote of the Planning Board, and filing of the final document with the Town Clerk.

4. PERMIT PROCEDURES AND REQUIREMENTS – ADMINISTRATIVE REVIEW

An Administrative Land Disturbance Review may be allowed for projects that result in the disturbance of land between 5,000 square feet and 43,559 square feet.

A. A Stormwater Management Permit Application shall be completed for review by the Permit Authority to determine whether a Stormwater Management Permit is required. An Administrative Review Permit Application will include the following submission materials at a minimum:

   I. Completed Stormwater Management Permit Application;
   II. Plans, Drawings, Specifications, Calculations, used to describe the project and determine the area of land disturbance.

B. The filing of an application grants the Permitting Authority permission to enter the site to verify the information in the application and to inspect for compliance.

C. An Administrative Land Disturbance Stormwater Management Permit Application review will be completed within 30 days of the application submission date.

D. An Administrative Land Disturbance Permit application fee of $100 will be collected at the time of application.

5. PERMIT PROCEDURES AND REQUIREMENTS – STORMWATER MANAGEMENT PERMIT

A Stormwater Management Permit is required for land disturbance greater than or equal to 43,560 square feet (1 acre), or as defined within the Stormwater Bylaw (Ch. XXIX, Section 4).

A. A Stormwater Management Permit Application shall be completed for review by the Permit Authority and will include the following submission materials at a minimum:

   I. Completed Stormwater Management Permit Application;

   II. A list of abutters, certified by the Assessor's Office;

   III. Plans, Drawings, Specifications, and Calculations;

   IV. Stormwater Management Plan;

   V. Operation and Maintenance Plan;

   VI. List of Requested Waivers.

B. Notice of Public Hearing shall be given by the Permit Authority in an official publication of, or in a newspaper of general circulation in the Town, once in each of two successive weeks, the first publication being not less than fourteen days before the date of such public hearing. A copy of said notice shall be sent (Certified Mail with Return Receipt) by the Applicant to Abutters at least fourteen days prior to the date of the hearing. The Applicant shall bring the Certified Mail receipt cards, received from the Abutters, with him to the Public Hearing. All expenses incurred in advertising the hearing and mailing the notices shall be paid by the Applicant.

C. Technical Review may take place in conjunction with outside technical review of the accompanying plan filed under M.G.L. c. 44, §81, M.G.L. c. 40A, and M.G.L. c. 40B. Employment of Outside Consultants under the terms of M.G.L. c. 44, §53G, is authorized for review under these Regulations.

D. A Stormwater Management Permit application fee of $500 will be collected at the time of application.

6. STORMWATER MANAGEMENT PLAN

A. The Stormwater Management 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.

B. The design requirements of the Stormwater Management Plan shall include at a minimum but not be limited to the following:

I. Minimize total area of disturbance;

II. Sequence activities to minimize simultaneous areas of disturbance;

III. Minimize peak rate of runoff in accordance with the Massachusetts Stormwater Policy;

IV. Minimize soil erosion and control sedimentation during construction, provided that prevention of erosion is preferred over sedimentation control;

V. Divert uncontaminated water around disturbed areas;

VI. Maximize groundwater recharge;

VII. Install and maintain all Erosion and Sediment Control measures in accordance with the manufacturer's specifications and good engineering practices;

VIII. Prevent off-site transport of sediment;

IX. Protect and manage on and off-site 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);

X. 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;

XI. Prevent significant alteration of habitats mapped by the Massachusetts Natural Heritage & 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;

XII. 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;

XIII. Properly manage on-site construction and waste materials;

XIV. Prevent off-site vehicle tracking of sediments.

C. Standards. Projects shall be consistent with, or more stringent than, the requirements of the latest edition of the Massachusetts Stormwater Handbook. In addition, the following requirements shall also be met:

I. Stormwater management systems on <u>new development</u> sites shall be designed to meet an average annual pollutant removal equivalent to <u>90%</u> of the average annual load of Total Suspended Solids (TSS)

related to the total post-construction impervious area on the site AND 60% of the average annual load of Total Phosphorus (TP) related to the total post- construction impervious surface area on the site;

II. Stormwater management systems on redevelopment sites shall be designed to meet an average annual pollutant removal equivalent to 80% of the average annual post- construction load of Total Suspended Solids (TSS) related to the total post-construction impervious area on the site AND 50% of the average annual load of Total Phosphorus (TP) related to the total post-construction impervious surface area on the site;

III. Average annual pollutant removal requirements shall be achieved through one of the following methods:

1. Installing BMPs that meet the pollutant removal percentages based on calculations developed consistent with EPA Region 1's BMP Accounting and Tracking Tool (2016) 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, then any Federally or State-approved BMP design guidance or performance standards (e.g., State stormwater handbooks and design guidance manuals) may be used to calculate BMP performance; or
2. Retaining the volume of runoff equivalent to, or greater than, one (1.0) inch multiplied by the total post-construction impervious surface area on the new development site; or
3. Meeting a combination of retention and treatment that achieves the above standards; or
4. Utilizing offsite mitigation that meets the above standards within the same United States Geological Survey (USGS) Hydrologic Unit Code (HUC)12 as the new development site.

D. Stormwater Management Plan Content. This Stormwater Management Plan shall contain sufficient information for the Permit Authority to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Applicant for reducing adverse impacts from stormwater. The Plan shall be designed to meet the Massachusetts Stormwater Management Standards as set forth in Part B of this section and DEP Stormwater Management Handbook Volumes I and II, or more recent editions. The Stormwater Management Plan shall fully describe the project in drawings, and narrative. All plan sheets shall be 24" x 36" in size. The Plan shall include at a minimum but not be limited to the following information:

I. Names, addresses, and telephone numbers of the owner, Applicant, and person(s) or firm(s) preparing the plan;

II. A Locus map with title, date, north arrow, names of abutters, existing zoning and land uses, scale, and legend;

III. Existing and proposed zoning and land use;

IV. Location of existing and proposed utilities;

V. Lines of existing abutting streets showing drainage and driveway locations and curb cuts;

VI. Existing soils, volume, and nature of imported soil materials;

VII. The site's existing & proposed topography with contours at 2-foot intervals;

VIII. 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;

IX. A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows;

X. A delineation of 100-year flood plains, if applicable;

XI. Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration;

XII. The existing and proposed vegetation and ground surfaces with runoff coefficient for each;

XIII. A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths;

XIV. Location and details of proposed 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, and material stockpiling areas;

XV. Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans);

XVI. Location and description of natural features including:

1. Watercourses and water bodies, wetland resource areas and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by a professional engineer for areas not assessed on these maps; and
2. 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; and
3. Habitats mapped by the Massachusetts Natural Heritage & 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 one hundred (100') feet of any construction activity.

XVII. A description and drawings of all components of the proposed drainage system including:

1. Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization;
2. All measures for the detention, retention or infiltration of water;
3. All measures for the protection of water quality;
4. The structural details for all components of the proposed drainage systems and stormwater management facilities;
5. Notes on drawings specifying materials to be used, construction specifications, and typicals;
6. Expected hydrology with supporting calculations;
7. Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable;
8. Location and description of industrial discharges.

E. Stormwater runoff calculations in accordance with the Department of Environmental Protection's Stormwater Management Policy as set forth in the latest edition of the Massachusetts Stormwater Management Handbook. Hydrologic and hydraulic design calculations must be included for the pre-development and post-development conditions for the design storms specified in this Regulation. Such calculations shall include:

I. Description of the design storm frequency, intensity, and duration; time of concentration;

II. Soil Runoff Curve Number (RCN) based on land use and soil hydrologic group;

III. Peak runoff rates and total runoff volumes for each watershed area;

IV. Information on construction measures used to maintain the infiltration capacity of the soil where any kind of infiltration is proposed;

V. Infiltration rates, where applicable;

VI. Culvert capacities;

VII. Flow velocities;

VIII. Data on the increase in rate and volume of runoff for the specified design storms;

IX. Documentation of sources for all computation methods and field test results;

X. Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, vegetative controls, and other stabilization measures;

XI. A description of construction and waste materials expected to be stored on-site. 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;

XII. A maintenance schedule for the period of construction;

XIII. A description of provisions for phasing the project where one acre of area or greater is to be altered or disturbed;

XIV. Plans must be stamped and certified by a qualified Professional Engineer registered in Massachusetts;

XV. Such other information as is required by the Permit Authority;

XVI. Low Impact Development Techniques. The use of low-impact development techniques is required, where applicable. The Applicant shall employ meaningful low impact techniques which will result in less impervious area, direction of roof runoff toward rain gardens and swales, and plantings indigenous to the area. The use of recycled or recaptured rainwater is encouraged. The Stormwater Management Plan shall contain an evaluation of all low-impact development techniques considered during the design for the proposed development. (A Low Impact Development Handbook and other references are available from the Planning Board Office).

7. OPERATION AND MAINTENANCE PLAN

A. An Operation and Maintenance Plan ("O&M Plan") is required at the time of application for projects that require a Stormwater Management Permit. The maintenance plan shall be designed to ensure compliance with the Permit, this Bylaw, 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 Permit Authority shall make the final decision of what maintenance option is appropriate in a given situation. The Permit Authority 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 O&M Plan shall remain on file with the Permit Authority and shall be an ongoing requirement.

B. The O&M Plan shall include:

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

II. Maintenance Agreements that specify:

1. The names and addresses of the person(s) responsible for operation and maintenance;
2. The person(s) responsible for financing maintenance and emergency repairs;
3. A Maintenance Schedule for all drainage structures, including swales and ponds;
4. A list of easements with the purpose and location of each.

C. Stormwater Management Easement(s). Stormwater management easements shall be provided by the property owner(s) as necessary for:

I. Access for facility inspections and maintenance;

II. Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100- year storm event;

III. Direcmaintenance access by heavy equipment to structures requiring regular cleanout;

IV. The purpose of each easement shall be specified in the Maintenance Agreement signed by the property owner;

V. Stormwater management easements are required for all areas used for off- site stormwater control, unless a waiver is granted by the Permit Authority;

VI. Easements shall be recorded with the Essex County Registry of Deeds prior to issuance of a certificate of completion by the permit authority.

D. Changes to Operation and Maintenance Plan:

I. The owner(s) of the stormwater management system must notify the Permit Authority of changes in ownership or assignment of financial responsibility;

II. The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of this by-law by mutual agreement of the Permit Authority 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.

8. PROJECT CHANGES

A. The Applicant, or their agent, shall notify the Permit Authority in writing of any change or alteration of a land-disturbing activity authorized in a Stormwater Management Permit before any change or alteration occurs. If the Permit Authority determines that the change or alteration is significant, based on the design requirements and accepted construction practices, the Permit Authority may require that an amended Stormwater Management Permit application be filed and a public hearing held. If any change or deviation from the Stormwater Management Permit occurs during a project, the Permit Authority may require the installation of interim measures before approving the change.

9. INSPECTION AND SITE SUPERVISION

A. Pre-construction Meeting. Prior to starting of clearing, excavation, construction, or land disturbing activity the Applicant, the Applicant's technical representative, the general contractor, or any other person with authority to make changes to the project, shall meet with the Permit Authority designee(s), Technical Review Agent or Inspecting Agent, and any other person designated by the Permit Authority, to review the permitted plans and their implementation.

B. Board Inspection. The Permit Authority or its designated agent shall make inspections as required below and shall either approve that portion of the work completed or shall notify the permittee as to where the work fails to comply with the Stormwater Management Permit as approved. The Permit and associated plans for grading, stripping, excavating, and filling work, approved by the Permit Authority, shall be maintained at the site during the progress of the work. The permittee shall request that the Permit Authority or its designee perform an inspection at least two (2) working days before each of the following events:

I. Erosion and sediment control measures are in place and stabilized;

II. Site Clearing has been substantially completed;

III. Rough Grading has been substantially completed;

IV. Final Grading has been substantially completed;

V. Close of the Construction Season, and;

VI. Final Landscaping (permanent stabilization), and project final completion.

C. Applicant Inspections. The Applicant or his/her/its agent shall conduct and document number of site inspections, site reviews, and any enforcement actions on all control measures no less than weekly or as specified in the permit, and prior to and following anticipated storm events. The purpose of such inspections is to determine the overall effectiveness of the control plan, and the need for maintenance or additional control measures. The Applicant or his/her agent shall submit monthly reports to the Permit Authority or designated agent in a format approved by the Permit Authority.

D. Access Permission. To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Permit Authority and its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this by-law and may make or cause to be made such examinations, surveys or sampling as the Permit Authority deems reasonably necessary to determine compliance with the permit.

E. Tracking. It is the responsibility of the applicant to maintain a record of the number of site reviews, inspections, and enforcement actions. Such record shall be submitted annually to the Permit Authority or designated agent in a format approved by the Permit Authority.

10. PERFORMANCE GUARANTEE

A. A reasonable performance guarantee, commensurate to the estimated duration and size of the project, shall be assessed by the Permit Authority and held in an interest-bearing escrow account pending completion of the project. The guarantee shall be based on the cost of the stormwater management system being established.

11. HIRING OF OUTSIDE CONSULTANTS TO ASSIST PERMIT AUTHORITY

A. When reviewing an application for (permit/approval), the Board may determine that the assistance of outside consultants is warranted due to the size, scale, or complexity of a proposed project or because of a project's potential impacts. The Board may require that applicants pay a "review fee" consisting of the reasonable costs incurred by the Board for the employment of outside consultants engaged by the Board to assist in the review of an application.

B. To the extent that most of the filings before the Permit Authority will be submitted concurrently and in conjunction with drainage, site design, and other technical elements of a plan, the Stormwater Management

Plan and requirements outlined above shall be reviewed concurrently with these other elements. The technical review fee for stormwater management elements shall be assessed along with the fee for review of the project submitted, which falls under the purview of the Planning Board for Subdivision Plans under M.G.L. c. 44, §81 and Special Permits under M.G.L. c. 40A; and the Zoning Board of Appeals for Variances, Special Permits, under M.G.L. c. 40A, and Site Plan Review under the Zoning Bylaw, and Comprehensive Permits under M.G.L. c. 40B. The Fee shall be deposited in the Town Treasury in compliance with the terms of M.G.L. c. 44, §53G.

C. For applications which are not submitted concurrently with another application, a fee shall be assessed in conformity with M.G.L. c. 44, §53G, and Planning Board Regulations.

12. CERTIFICATE OF COMPLETION

A. At completion of the project, and not more than two (2) years following, the Applicant shall submit an as-built stamped by a registered engineer for all structural and non-structural stormwater controls and treatment best management practices required for the site. The as-built will indicate all deviations from the plan. A letter certifying the completion will be issued before an occupancy permit is issued by the Building Inspector.