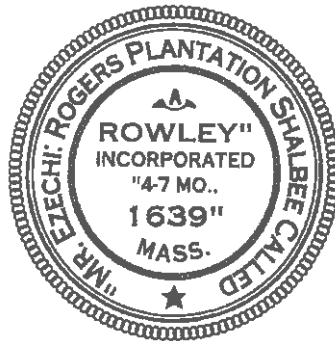


**REGULATIONS**  
for  
**STORMWATER MANAGEMENT AND  
EROSION CONTROL BYLAW**  
**TOWN OF ROWLEY**  
**EFFECTIVE June 2, 2021**



**Rowley Conservation Commission**  
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Public Hearing(s): May 12, 2021 and June 1, 2021  
The Rowley Conservation Commission passed these Regulations unanimously by  
roll call vote on June 1, 2021.

2021 JUN -2 PM 1:02

109-60-24  
10/1/2021

# **REGULATIONS**

## **For Stormwater Management and Erosion Control Bylaw**

### **PURPOSE of the REGULATIONS**

The purposes of these Stormwater and Erosion Control Regulations are to:

1. Protect, maintain and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-development stormwater runoff, decreased groundwater recharge, and non-point source pollution associated with new development and redevelopment;
2. Protect, maintain and enhance the public safety, environment and general welfare by establishing minimum standards and procedures to control runoff and prevent soil erosion and sedimentation resulting from site construction/alteration and development, as more specifically addressed in the Town of Rowley General Bylaws, Stormwater Management and Erosion Control Bylaw.

These Regulations were adopted for implementation of the Stormwater Management and Erosion Control Bylaw of the Town of Rowley by the Rowley Conservation Commission by majority vote on January 29, 2008 and filed with the Town Clerk on January 30, 2008.

### **DEFINITIONS**

**AREA OF CRITICAL ENVIRONMENTAL CONCERN: (ACEC)** shall mean a designated geographic area as defined by 301 CMR 12.00 including without limitation the Parker River /Plum Island Sound ACEC, as amended from time to time.

**HOTSPOTS:** land uses or activities with higher potential pollutant loadings, as defined in the most recent version of the MA DEP Stormwater Management Manual, as amended from time to time.

**INFEASIBLE:** means not technologically possible, or not economically practicable and achievable in light of best industry practices.

### **PART I. APPLICATION**

#### **Stormwater Management Permit**

The applicant shall file with the Conservation Commission ten (10) copies of a completed application package for a Stormwater Management Permit (SMP). Permit issuance is required prior to any land disturbance or site altering activity.

The application package for a SMP shall consist of:

1. Ten (10) copies of a completed Application Form with signatures of all property owners and the signature of the applicant if different;
2. Ten (10) copies each of a list of abutters within 100 feet with accompanying parcel map, certified by the Assessor's Office; (abutters at their mailing addresses shown on the most recent applicable tax list of the assessors, including owners of land directly opposite on any public or private street or way, and abutters to the abutters within 100 feet of the property line of the applicant, including any in another municipality or across a body of water);
3. Ten (10) copies each of the Erosion and Sediment Control Plan, Stormwater Management Plan, and Operation and Maintenance Plan as specified in PARTS II, III, and IV of these regulations

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adopted under the Bylaw, and a descriptive project narrative;

4. Payment of the application fee and professional review fee, which may include the creation of an escrow account in accordance with Section 7 B of the Bylaw. See “Stormwater Bylaw Fee Schedule” (Part V of the Regulations);
5. A project that has been reviewed and approved by the Conservation Commission under the authority of the Wetlands Protection Act and the Wetlands Protection Bylaw, may be deemed as acceptable under the Stormwater Management and Erosion Control Bylaw only if the entire project and construction activities, including all land disturbance, adhere fully and meet the requirements as specified in PARTS II, III, and IV of these regulations adopted under the Bylaw. The applicant must submit to the Conservation Commission only two (2) completed copies of the SMP application form along with two (2) copies of the Conservation Commission’s issued Order of Conditions and Final Approved Plans. The Conservation Commission may issue a Stormwater and Erosion Control Permit at its next regularly scheduled meeting after receipt and review of said materials;
6. A project that has been reviewed and definitively approved by the Planning Board under the Massachusetts Subdivision Control Law or the special permit provisions of the Rowley Protective Zoning Bylaws, may be deemed as acceptable under the Stormwater Management and Erosion Control Bylaw only if the entire project and construction activities, including all land disturbance, adhere fully and meet the requirements as specified in PARTS II, III, and IV of these regulations adopted under the Bylaw. The applicant must submit to the Conservation Commission only two (2) completed copies of the SMP application form along with two (2) copies of the Planning Board’s issued Definitive Subdivision Permit, Final Approved Plans, and/or applicable Special Permit. The Conservation Commission may issue a Stormwater and Erosion Control Permit at its next regularly scheduled meeting after receipt and review of said materials; and
7. The Conservation Commission reserves the right to request additional copies as necessary.

## **PART II. EROSION AND SEDIMENTATION CONTROL PLANS**

### **A. Standards**

The Erosion and Sediment Control 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 Plan must be prepared in accordance with the following standards:

1. The total area of disturbance shall be minimized;
2. Activities shall be sequenced to minimize simultaneous areas of disturbance;
3. Soil erosion shall be minimized, and sedimentation will be controlled during construction, with the understanding that prevention of erosion is preferred over sedimentation control;
4. Uncontaminated surface water shall be diverted around disturbed areas, degraded surface water shall be contained and appropriately treated prior to release or discharge;

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5. All storm drain inlets (including newly constructed) shall be protected;
6. All Erosion and Sediment Control measures shall be installed and maintained in accordance with Town specifications and good engineering practices;
7. Off-site transport of sediment shall be prevented, including sediment tracked by vehicles leaving the site; stabilized construction site entrances must be used to prevent off-site tracking;
8. On and off-site stockpile areas shall be managed to provide protection from erosion and sediment transport (overburden and stockpiles of dirt, borrow areas, or other areas used solely by the permitted project are considered a part of the project);
9. Applicable Federal, State and local laws and regulations shall be complied with fully including waste disposal, sanitary sewer or septic system regulations, and air quality requirements (including dust control);
10. The proposed activities shall not be permitted to have adverse impacts to 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;
11. Interim and permanent stabilization measures shall be instituted on a disturbed area as soon as practicable but no more than fourteen (14) days after construction activity has temporarily or permanently ceased on that portion of the site; and
12. On-site construction and waste materials including, but not limited to, discarded building materials, concrete truck wash out, chemicals, litter and sanitary wastes, shall be handled properly, which includes but is not limited to, appropriate containment, prevention of harborage and vermin control, protection from the elements, and timely off-site disposal at a permitted and approved waste disposal facility.
13. Incorporate appropriate BMPs designed to comply with the Massachusetts Stormwater Handbook.

**B. Contents**

The Erosion and Sediment Control Plan shall contain the following information:

1. Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan;
2. Title, date, north arrow, names of abutters with Assessors information, scale no greater than one inch equals forty feet (1"=40'), legend, and locus map (1"=200');
3. Location and description of natural features including:
  - a. Watercourses and water bodies, wetland resource areas, riparian zones 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

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these maps;

- b. Existing vegetation of various kinds including tree lines, shrub layer, ground cover and herbaceous vegetation, and trees over twelve (12) inch diameter measured at four (4) feet above the ground level, noting specimen trees and forest communities; and
  - c. 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, Potential Vernal Pools, and Priority Habitats of Rare Species within five hundred (500) feet of any construction activity.
4. Lines of existing abutting streets showing drainage and driveway locations and curb cuts;
  5. Existing soils (type, hydrologic group, erodibility) and the volume and nature of imported soil materials;
  6. Topographical features including existing and proposed contours at intervals no greater than two (2) feet with spot elevations provided when needed;
  7. Surveyed property lines showing distances and monument locations, all existing and proposed easements (any easement must either be shown on a plan with a metes and bounds description or preferably a written easement with metes and bounds stated), 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;
  8. Drainage patterns, watersheds and subwatersheds, with calculations of proposed land disturbance within each subwatershed and areas of soil to be disturbed in each watershed throughout the duration of the proposed land disturbance activity;
  9. 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, and material stockpiling areas;
  10. Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable;
  11. Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures;
  12. 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;
  13. A description of provisions for phasing the project where a proposed disturbance of a 20,000 square foot area or larger and/or a land disturbance that will alter an area of 10,000 square feet or more on existing or proposed slopes steeper than 15 %, forms a contiguous area that is to be altered or disturbed;
  14. Plans, reports, and calculations must be stamped and certified by a qualified registered

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professional engineer (PE), as defined in Section 4 of the Town of Rowley Stormwater Management and Erosion Control Bylaw, or a Certified Professional in Erosion and Sediment Control; and

15. Such other information as is required by the Conservation Commission.

**C. Minimum Erosion and Sedimentation Control Requirements**

Minimum Erosion and Sedimentation Control Requirements for projects less than 20,000 square feet or a land disturbance that will alter an area of less than 10,000 square feet on existing or proposed slopes steeper than 15% as required under Section 3B of the Bylaw:

1. Siltation and erosion controls shall be employed prior to the commencement of land disturbing activities on the site, siltation controls shall be placed to prevent soils or other eroded matter from being deposited onto adjacent properties, rights-of-ways, public storm drainage system, or wetland or watercourse.
2. Filter fabric shall be installed as recommended by the manufacturer except as otherwise directed by the Conservation Commission or its Agent. The bottom six (6) inches of the material shall be buried by excavating a six (6) inch deep trench along the toe of the fabric line and placing the bottom six (6) inches of filter fabric into the trench. The trench shall then be backfilled with the spoil material and compacted. In no instance shall the bottom of the filter fabric be laid on the ground surface and simply covered with backfill or stone.
3. Individual hay bales shall remain tied with twine, placed with ends tightly abutting adjacent hay bales, without leaving appreciable space for sediment to travel through the barrier. Hay bales shall be anchored in place by two (2) wooden stakes. The first stake in each bale shall be angled toward the previously staked bale to pin the bales together.
4. Adequate erosion and sedimentation control measures shall be implemented and maintained in their proper effectiveness during the entire construction phase for a project. Such erosion control measures shall be monitored on a daily basis, or as needed, and be reinforced or replaced when needed, per judgment of the site foreman, owner, and/or Conservation Commission or its Agent.
5. The adequacy of various erosion control methodologies shall be evaluated on a site-specific basis and shall be subject to review and approval by the Conservation Commission or its Agent and adherence to construction site Best Management Practices.
6. Such erosion and sedimentation control devices shall remain in place until the site has become stabilized with an adequate vegetative cover.

**PART III. STORMWATER MANAGEMENT PLANS**

**A. Standards**

The Stormwater Management Plan shall be prepared in accordance with the Massachusetts DEP Stormwater Management Standards and Stormwater Handbook Volumes One and Two as revised and the additional requirements below.

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- B. The application for a Stormwater Management Permit shall include a Stormwater Management Plan. The Stormwater Management Plan shall contain sufficient information for the Conservation Commission to evaluate the environmental impact, effectiveness, and acceptability of the site planning process and the measures proposed by the applicant to reduce adverse impacts from stormwater runoff during construction, and post-construction in the long-term.
- C. The Stormwater Management Plan shall fully describe the project in narrative, drawings, and calculations. It shall at a minimum include:
- (1) Contact Information. The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected;
  - (2) Narrative describing:
    - (a) Purpose;
    - (b) Methodologies and assumptions;
    - (c) Existing and proposed uses and conditions;
    - (d) Project impacts and mitigation techniques including:
      - i. Summary of proposed land area to be cleared, proposed impervious area, work within proximity of regulated wetland resources, aquifer protection zones, earthwork within 4 feet of seasonal high groundwater elevations, and other sensitive environmental areas;
      - ii. Low Impact Development (LID) techniques considered for this project and an explanation as to why they were included or excluded from the project;
      - iii. Proposed best management practices;
      - iv. Identifying the immediate down gradient waterbody(s) that stormwater runoff from the project site discharges to, EPA's waterbody assessment and TMDL and/or impairment status of the waterbody(s), and the LIDs and BMP's included in the project to address the pollutant(s) of concern;
    - (e) Summary of pre- and post-development peak rates and volumes of stormwater runoff demonstrating no adverse impacts to down-gradient properties, stormwater management systems and wetland resources; and
    - (f) Conclusions
  - (3) Plans
    - (a) Portion of the USGS Map indicating the site locus and properties within a minimum of 500 feet of project property line;
    - (b) Existing conditions and proposed design plans showing:
      - i. Buildings and/or structures including materials, approximate height;

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- ii. Utilities including size, material and invert data; and
  - iii. Regulated wetland resource areas within proximity of the site
- (c) Stormwater management design plan(s) and details showing:
  - i. Location, size, material, inverts data and details for all existing and proposed stormwater management system components including structures, pipes, swales, detention, retention, and infiltration systems and any other Low Impact Development techniques or BMPs;
  - ii. Profiles of drainage trunk lines; and
  - iii. Drainage easements;
- (d) Separate Pre- and Post- Condition Watershed Plans indicating:
  - i. Structures, pavements, surface vegetation and other ground cover materials;
  - ii. Topography sufficient to delineate watershed areas;
  - iii. Point(s) of analysis;
  - iv. Watershed areas including upgradient areas that contribute stormwater flow onto the project site, labeled to be easily identified in calculations. Total pre and post watershed areas should be equivalent;
  - v. Breakdown summary of various surface conditions by soil hydrologic group rating; and
  - vi. Flow path for time of concentration ( $T_c$ ) calculation.
- (4) Calculations
  - (a) Hydrologic calculation to determine pre and post peak rates and volumes of stormwater runoff for 2, 10, 25 and 100-year 24 hour storm events;
  - (b) Groundwater recharge calculations and BMP drawdown (time to empty);
  - (c) Water quality calculations including (if applicable):
    - i. TSS removal calculation for each watershed;
    - ii. Specific BMPs utilized in critical areas;
    - iii. Specific BMPs utilized for land uses of higher potential pollutant loads; and
    - iv. Specific treatment for pollutant causing impairment of down-gradient waterbody identified by U.S. Environmental Protection Agency and Massachusetts Department of Environmental Protection.
  - (d) Hydraulic calculations to size drainage pipes, swales and culverts; and
  - (e) Supplemental calculations for sizing LID and BMPs and addressing impairments to water bodies.



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- (5) Soil mapping and test data;
  - (6) Massachusetts Department of Environmental Protection Checklist for Stormwater Report completed, stamped and signed by a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the Massachusetts Stormwater Management Standards, Rowley Stormwater Management bylaw and these regulations; and
  - (7) Any other information requested by the Conservation Commission.
- D. General Performance Standards for All Sites.
- (1) Low Impact Development and Green Infrastructure site design strategies shall be utilized to preserve existing natural features of the site, minimize the creation of impervious surfaces and manage stormwater in a decentralized fashion, unless infeasible.
  - (2) The selection, design and construction of all pre-treatment, treatment and infiltration BMPs shall be in accordance with Massachusetts Stormwater Handbook and shall be consistent with all elements of the Massachusetts Stormwater Standards including but not limited to those regarding new stormwater conveyances, peak runoff rates, recharge, land uses with higher potential pollutant loads, discharges to Zone II or interim wellhead protection areas, sediment and erosion control, and illicit discharges.
  - (3) The first 1.0 inch of runoff from all post-construction impervious surfaces shall be retained on-site through a combination of infiltration, reuse and/or evaporation, to the maximum extent practicable. When determining whether the requirements have been met, the Stormwater Authority shall consider all stormwater management practices available and capable of being implemented after taking into consideration costs, existing technology, proposed use, and logistics in light of overall project purposes. Project purposes shall be defined generally (*e.g.*, single family home or expansion of a commercial development).
  - (4) Where it is not technically feasible to retain the first 1.0 inch of runoff from all impervious areas, the Applicant will describe in writing why it is technically infeasible to do so due to physical site constraints, and indicate the volume of runoff to be retained. If different volumes are retained on different areas of the site, each area shall be described individually. That portion of the required volume which is not retained on-site shall be treated using stormwater BMPs that are optimized for the removal of TSS, total phosphorus, bacteria and pollutants of concern identified in any applicable TMDL or impaired waters designation.
  - (5) All Applicants who do not retain the first 1.0 inch of runoff from all impervious areas shall use the pollutant load reduction estimation tool(s) designated by the Stormwater Authority to document that the proposed BMPs will remove 90% or more of the annual average load of total suspended solids and 60% or more of the average annual load of total phosphorous for all post-construction impervious areas on-site.
- E. Redevelopment Projects Off-Site Compliance. For Redevelopment projects where it is not technically feasible to retain or treat the first 1.0 inch of runoff on-site due to physical site

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restraints, the Applicant will describe in writing why it is not technically feasible to do so, including which on-site treatment BMPs were considered and why they were deemed not feasible. In lieu of requiring the applicant to meet the standards identified in Section III (D), the Conservation Commission may approve a Stormwater Management Plan that includes on-site BMPs that retain at least 0.5 inch of runoff (one inch of runoff for projects involving Land Uses with Higher Potential Pollutant Loads) and Off-Site Compliance projects meeting the following criteria:

- (a) Applicant has demonstrated to the satisfaction of the Conservation Commission that on-site compliance has been met to the maximum extent practicable.
- (b) Off-site Compliance shall be provided at a ratio of 1.5 times the volume of required runoff not retained or treated for phosphorous and pathogens on-site.
- (c) Off-Site Compliance shall be located within **Rowley** and the same tributary to the maximum extent feasible. Under no circumstances will off-site mitigation be located outside the same USGS HUC10.
- (d) The Off-Site Compliance project shall be designed and constructed in a manner consistent with the requirements of the **Rowley Stormwater Management Bylaw** and related regulations.
- (e) The Off-Site Compliance project shall remediate the impacts of existing impervious surface that is not expected to be the subject of Redevelopment in the next five or more years.
- (f) The Conservation Commission shall, at its discretion, identify priority areas within the watershed in which Off-Site Compliance may be completed.
- (g) Off-Site Compliance provided at a site not owned the Town of Rowley requires a separate Land Disturbance Permit covering the Off-Site Compliance project, the terms and conditions of which, including ongoing operations and maintenance requirements, shall run with the land where the Off-Site Compliance is located.
- (h) Construction of the Off-Site Compliance project shall commence within 12 months of Land Disturbance Permit issuance and be completed within 12 months of commencement.

#### **F. Stormwater Management Design Standards**

- (1) Projects must be designed to collect and dispose of stormwater runoff from the project site in accordance with Massachusetts Stormwater Management Standards, recognized engineering methodologies, and these regulations with an emphasis to include Low Impact Development techniques in the design.
- (2) Projects must manage surface runoff so that no flow is conducted over public ways, nor over land not owned or controlled by the Applicant unless an easement in proper form is obtained permitting such discharge.
- (3) Projects must use Low Impact Development techniques where adequate soil, groundwater and topographic conditions allow. These may include but not be

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limited to reduction in impervious surfaces, disconnection of impervious surfaces, bioretention (rain gardens) and infiltration systems.-The site design practices that qualify are identified in the Massachusetts Stormwater Handbook.

- (4) Projects must use TR-55 and TR-20 methodologies to calculate peak rate and volume of runoff from pre-development to post-development conditions.
- (5) Stormwater management systems shall be designed to avoid disturbance of areas susceptible to erosion and sediment loss, avoiding, to the greatest extent practicable: the damaging of large forest stands; building on steep slopes (15% or greater); and disturbing land in wetland buffer zones and floodplains.
- (6) Watershed area for hydrologic analysis and BMP sizing calculations must include at a minimum the site area and all upgradient areas from which stormwater runoff flows onto the site.
- (7) For purposes of computing runoff, all pervious lands in the site are assumed prior to Development to be in “good hydrologic condition” regardless of the conditions existing at the time of the computation.
- (8) Length of sheet flow used for times of concentration is to be no more the 50 feet.
- (9) At a minimum, utilize the 24-hour rainfall data taken from the NOAA Atlas 14 Point Precipitation Frequency Estimates unless the Massachusetts DEP Stormwater Management Standards adopts other sources for 24-hour rainfall data.
- (10) Soils tests to be conducted by a Registered Professional Engineer or Massachusetts Soil Evaluator, performed at the location of all proposed Low Impact Development techniques and BMPs, to identify soil descriptions, depth to estimated seasonal high groundwater, depth to bedrock, and soil texture.
- (11) The design infiltration rate shall be determined from the on-site soil texture and published Rawls rates or saturated hydraulic conductivity tests.
- (12) Size drainage pipes to accommodate the 25-year storm event and maintain velocities between 2.5 and 10 feet per second using the Rational Method.
- (13) Size drainage swales to accommodate the 25-year storm event and velocities below 4 feet per second.
- (14) Size culverts to accommodate the 50-year storm event and design adequate erosion protection. Design stream crossing culverts in accordance with the latest addition of the Massachusetts Stream Crossing Handbook.
- (15) Size stormwater basins to accommodate the 100-year storm event with a minimum of one foot of freeboard.
- (16) All drainage structures are to be able to accommodate HS-20 loading.
- (17) Catch basins structures are to be constructed as required by **the Rowley Highway Department** and spaced a maximum of 250 feet apart in roadways.
- (18) Catch basins adjacent to curbing are to be built with a granite curb inlet as required by **the Rowley Highway Department**.

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- (19) Catch basins in low points of road and on roads with profile grades greater than 5 percent are to be fitted with double grates (parallel with curb) as required by the Rowley Highway Department.
  - (20) All drain pipes are to be reinforced concrete pipe or High Density Polyethylene pipe and have a minimum diameter of 12 inches
  - (21) 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.
  - (22) Drainage easements are to provide sufficient access for maintenance and repairs of system components and be at least 20 feet wide.
  - (23) Minimize permanently dewatering soils by:
    - (a) Limiting grading within 4 feet of seasonal high groundwater elevation (SHGWE);
    - (b) Raising roadways to keep roadway section above SHGWE; and
    - (c) Setting bottom floor elevation of building(s) a minimum of 2 feet above SHGWE.
- F. Permittees shall submit as-built drawings no later than one year after completion of construction projects. The as-built drawings must depict all on-site controls, both structural and non-structural, designed to manage stormwater associated with the completed site.

**PART IV. OPERATION AND MAINTENANCE PLANS and AGREEMENTS**

**A. Operation and Maintenance Plan Requirements**

An Operation and Maintenance Plan (O&M Plan) is required at the time of application for all projects. The maintenance plan shall be designed to ensure compliance with the Permit and the Stormwater and Erosion Control 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. Once approved by Conservation Commission, the Operation and Maintenance Plan shall be recorded at the Registry of Deeds. The O&M Plan shall remain on file with the Conservation Commission and adherence to the O&M Plan shall be an ongoing requirement.

The O&M Plan shall include:

1. The name(s) of the owner(s) for all components of the system;
2. A map showing the location of the systems and facilities including all structural and nonstructural stormwater best management practices (BMPs), catch basins, manholes/access lids, pipes, and other stormwater devices. The plan showing such systems and facilities to be privately maintained, including associated easements shall be recorded with the Registry of Deeds prior to issuance of a Certificate of Compliance by the Conservation Commission.
3. 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 inspections, maintenance, and emergency repairs;
  - c. An Inspection and Maintenance Schedule for all stormwater management facilities, including

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- swales and ponds, and including routine and non-routine maintenance tasks to be performed;
- d. A list of easements with the purpose and location of each (any easement must either be shown on a plan with a metes and bounds description or preferably a written easement with metes and bounds stated); and
  - e. The signature(s) of the owner(s) and all persons responsible for the operation and maintenance, financing, and emergency repairs, as defined in the Maintenance Agreement, if maintenance is to be performed by an entity other than the owner.

#### **B. Stormwater Management Easement(s)**

1. Stormwater management easements shall be provided by the property owner(s) as areas that are 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 maintenance.
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 Conservation Commission; and
4. Easements shall be recorded with the Registry of Deeds prior to issuance of a Certificate of Completion by the Conservation Commission.

**C. Enforcement.** To ensure adequate long-term operation and maintenance of stormwater management practices, applicants are required to implement one or more of the following procedures, as directed by the Stormwater Authority:

1. Filing by the applicant of an annual Operation and Maintenance Report with the Stormwater Authority on a form specified by the Conservation Commission, accompanied by an annual filing fee established by the Conservation Commission for administration and enforcement of the operation and Maintenance plan.
2. Establishment by the applicant of a dedicated fund or escrow account in the form of a Bond, Insurance Policy or similar instrumentality, to be maintained for a number of years and for an amount specified by the Conservation Commission. Such fund or account may be used by the applicant to perform its operation and maintenance responsibilities or, if the Conservation Commission finds that the applicant has failed to comply with the Plan, by the Conservation Commission to perform or cause to be performed the required operation and maintenance tasks;
3. Payment by the applicant to the Town of Rowley of an amount specified by the Conservation Commission in compensation for its acceptance of ownership of all privately constructed BMPs;

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4. A maintenance contract between the applicant and the Conservation Commission in an amount specified by the Conservation Commission whereby the Town of Rowley will perform or cause to be performed the required operation and maintenance tasks;
5. Submission by the applicant of an annual certification documenting the work that has been done over the last 12 months to properly operate and maintain the stormwater control measures. The certification shall be signed by the person(s) or authorized agent of the person(s) named in the permit as being responsible for ongoing operation and management;
6. Recording of Operation and Maintenance Plans at the appropriate Registry of Deeds.

**PART V. STORMWATER BYLAW REVIEW FEE SCHEDULE**

The following fee schedule is established by the Conservation Commission to accomplish appropriate review and administration of applications and issued permits. Fees for professional review will be established in accordance with G.L. c. 44§53G. Application fees are payable at the time of application and are non-refundable.

Area of Disturbance	Fee
Less Than 20,000 Square Feet or less than 10,000 Square Feet sloped 15%	No application required
20,000 Square Feet to 2 Acres or 10,000 Square Feet or more sloped at 15% or greater	\$250*
2 Acres or greater in area	\$500*
Request to Amend SMP	\$100
Request to Extend SMP	\$100
Request for Certificate of Completion	
20,000 Square Feet to 2 Acres or 10,000 Square Feet or more sloped at 15% or greater	\$150
2 Acres or greater in area	\$200
*For filings resulting from an enforcement action, double the applicable SMP fee	

The Conservation Commission may waive the application fee, completion review fee and professional review fee for a permit or other application filed by a government agency.