



TOWN OF DEDHAM

COMMONWEALTH OF MASSACHUSETTS

MAJOR STORMWATER MANAGEMENT PERMIT APPLICATION

Dedham Stormwater Management By-Law, General
By-Law, Article 246

Instructions for Completing a Major Stormwater Management Permit

1. Complete one (1) Major Stormwater Management Permit Application Form with the following:
 - a) Name and contact information, of owner(s), applicant(s), and, if applicable, representative.
 - b) Address of property as well as assessor map and parcel ID.
 - c) Registry of Deeds recording information (book and page) or Land Court Certificate number.
 - d) A brief project description.
 - e) Type of Major Stormwater Management Permit being requested.
 - f) Site plan reference(s).
 - g) A completed Affidavit of Service form regarding notification of abutters, along with a sample abutter notification letter and proof of mailing.
 - h) Fee information including payer name on check, applicant name, check number, check amount, and check date.
 - i) Signature of applicant, property owner (if different), and representative, if applicable.
 - j) An Engineering Consultant Fee Acknowledgement signed by the applicant.
 - k) A Site Inspection Authorization signed by the property owner.
 - l) A locus map.

2. A Project Narrative that includes:
 - a) A description of the proposed project
 - b) A description of how and where stormwater will be controlled and erosion and sediment controls implemented
 - c) Square footage summaries indicating existing, proposed and net changes in impervious surface areas and areas of alteration.
 - d) An explanation of why the applicant believes the plans:
 - i. Meet the Design Standards enumerated in Section 5;

- ii. Employ, to the maximum extent practicable, environmentally sensitive site design as outlined in the Massachusetts Stormwater Handbook¹; and
 - iii. Attempt to reproduce natural hydrologic conditions with respect to groundwater and surface water.²
3. Include a check payable to the Town of Dedham for the amount shown in the appropriate project category:
- a) New Single-Family Homes and Residential Additions greater than 2,000 ft²: \$300
 - b) Multi-Family Development: \$300 per residential unit
 - c) Commercial, Institutional, or Manufacturing with less than 5,000 ft² of disturbance: \$500
 - d) Commercial, Institutional, or Manufacturing with 5,000 ft² – 1 acre of disturbance: \$1,000
 - e) Commercial, Institutional, or Manufacturing with greater than 1 Acre of disturbance: \$1,000 per acre plus an additional \$1,000 for any fractional additional portion
4. Include a Stormwater Management Site Plan prepared as follows:
- a) General Information
 - i. Sheet size: Sheets shall have a maximum dimension of 24" x 36". Large plans should be rolled rather than folded. If more than one sheet is needed to describe the proposed work, a key sheet is required showing a general composite of all work proposed.
 - ii. Scale: Not more than 1" = 50' (the Commission routinely accepts plans at 1"=20' or 1"=40'). If project sites are large, an overall site plan at 1" = 100' is acceptable, but detail detailed plans must be at or less than 1" = 50'. Include graphical scales on all plans. Coordinate system shall be 1983 North American Datum, Massachusetts State Plane, feet, and North American Vertical Datum (NAVD) of 1988.
 - iii. Title Block: A title block shall be included on all plans, located at the lower right hand corner, oriented to be read from the bottom when bound at the left margin. Include:
 - (a) Plan title.
 - (b) Original date plus additional space to reference the title and dates of all plan revisions.
 - (c) Name and address of record owner and engineer and/or surveyor.
 - (d) Address of property, Assessor Map and Parcel ID.
 - iv. A legend identifying line types and symbols used in plan set
 - v. A locus Map.
 - b) Existing Conditions Plan
 - i. Property lines
 - ii. The existing zoning and land use at the site.

¹ Massachusetts Stormwater Handbook, as updated February 2008.
<http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html>

² Guidance on these practices is provided in Appendix C of these Regulations and the MA Stormwater Management Handbook.

- iii. The location(s) of existing easements.
- iv. The location of existing utilities.
- v. Existing contours at 2-foot minimum vertical increments. For level and nearly level work areas, GIS-based topography may be sufficient. Spot grades for proposed conditions are required when 2-foot contour intervals do not provide sufficient detail to show stormwater flow path and /or more specific detail is needed to demonstrate stormwater flow path.
- vi. Existing landscaping and vegetation including existing trees within 25 feet of the work area that are over 6 inches in diameter breast height (dbh) and major vegetative cover types, including wooded areas defined by tree line drip line, shrub communities, limits of lawn, and edge of tree canopy.
- vii. Locations of existing structures, pipes, swales and detention ponds.
- viii. Locations of bodies of water, including wetlands.
- ix. A delineation of FEMA Special Flood Hazard areas and calculation of FEMA flood elevation, if applicable. Floodplain elevation data shall be based on 1988 NAVD (North American Vertical Datum) and reference the appropriate National Flood Insurance Rate Map and/or Flood Study.
- x. Location of existing septic systems and private wells, if present.
- xi. The location(s) of soil tests and description of soil from test pits performed at the location of proposed stormwater management facilities, including but not limited to soil description, depth to seasonal high groundwater, depth to bedrock, and percolation rates. Soils information shall be based on site test pits logged by a Massachusetts Registered Soil Evaluator.
- xii. Stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts or Professional Land Surveyor (PLS).

c) Proposed Conditions Plan

- i. Property lines, building envelope restrictions and/or easement areas, including areas affected by conservation restrictions, if applicable.
- ii. Proposed improvements including location of buildings or other structures, utilities, easements if applicable, and impervious surfaces. For single family homes plans shall show, at a minimum, house footprint, decks, garages, sheds, sewage disposal systems, roof drainage and stormwater drainage structures, as applicable), and all areas of existing and proposed impervious areas including tennis courts, patios, and driveways, etc.
- iii. FEMA Special Flood Hazard areas, if applicable.
- iv. Proposed erosion controls and materials to be used (i.e. straw bales, silt fence and straw wattles, compost filter mitts, etc.) must be indicated on the plan. For projects that may encounter or manage groundwater, provide dewatering contingency plans, details and location(s). Hay bales may NOT be used as these have been found to introduce invasive species.
- v. Measures to minimize, to the extent practicable, off-site vehicle tracking of sediments onto paved surfaces and the generation of dust.

- vi. Limits of disturbance (i.e., work area) with proposed grading at 2-foot contours. For level and nearly work areas, GIS-based topography may be sufficient. Include an estimate of the total area expected to be disturbed by excavation, grading, or other construction activities.
 - vii. Locations for storage of materials, equipment, soil, snow and other potential pollutants.
 - viii. Location(s) and description of existing stormwater conveyances, impoundments, wetlands, drinking water resource areas, or other critical environmental resource areas on or adjacent to the site or into which stormwater flows.
 - ix. Proposed drainage facilities (plan view and details) including drawings of all components of the proposed stormwater management 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) For engineered systems designed to provide drainage or stormwater management including, but not limited to, culverts, drainage outfalls, catchbasins and pervious pavement 'systems'; provide an appropriate plan detail with notes on drawings specifying materials to be used, and construction specifications.
 - (5) Notes indicating the required inspections for the site and the stormwater drainage facilities during construction.
 - x. Proposed post-construction landscaping. When proposing mitigation areas, a table on the plan shall indicate plant types and quantities. The Commission recommends at least 2:1 tree planting of minimum 2-inch caliper shall be required for mitigation of removed trees. A planting density of 5 feet on center for shrub species and 10 feet on center for trees is recommended by the Commission.
 - xi. Locations where stormwater discharges to surface water (include all roads, drains and other structures that could carry stormwater to a wetland or other water body, on or offsite).
 - xii. A general construction note that stating the Conservation Commission shall be notified prior to work in accordance with project permits.
 - xiii. Stamp and signature of 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 Stormwater Regulations; a stamp and signature of a Professional Land Surveyor (PLS) is acceptable if no drainage facilities are proposed and they have the experience and capability to prepare the required Site Plan and to provide the required existing and proposed grading and erosion control provisions.
 - xiv. Notes indicating the required inspection for the site and the stormwater drainage facilities.
5. A Stormwater Management Plan Report shall be prepared in conformance with the Town of Dedham Design and Stormwater Management Standards and Section 7 of the Stormwater Management Rules and Regulations and contain the following elements:
- a) The existing site hydrology.

- b) A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater time of concentration (Tc) flow paths, including municipal drainage system flows.
- c) Hydrologic and hydraulic design calculations 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.
 - ii. Time of concentration;
 - iii. Soil Runoff Curve Number (CN) based on land use and soil hydrologic group.
 - iv. Peak runoff rates and total runoff volumes for each watershed area.
 - v. Information on construction measures used to maintain the infiltration capacity of the soil where any kind of infiltration is proposed.
 - vi. Infiltration rates, where applicable.
 - vii. Culvert capacities.
 - viii. Flow velocities.
 - ix. Data on the increase in rate and volume of runoff for the specified design storms.
 - x. Demonstration that proposed Infiltration systems are designed to have a water storage capacity of 2 inches over the area discharging to the infiltration system.
 - xi. Documentation of sources for all computation methods and field test results.

6. Post-Construction Operation and Maintenance Plan

- a) The Post-Construction O&M Plan shall be designed to ensure compliance with the Permit, the Stormwater Management By-Law, the Stormwater Management Rules and Regulations, the Drainage and Stormwater Design Standards, 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 O&M Plan shall be a stand-alone document, and shall remain on file with the Conservation Commission 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 a Certificate of Completion and reflect any modifications made during the permitting process and the site specific conditions.
- b) The Operation and Maintenance Plan shall include, at a minimum:
 - i. The name(s) of the owner(s) for all components of the system and emergency contact information.
 - ii. The signature(s) of the owner(s).
 - iii. 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.
 - iv. An easy-to-read plan or map showing the location of the systems and facilities including easements, catch basins, manholes/access lids, main, and stormwater devices.
 - v. An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed.

- vi. A list of easements with the purpose and location of each. Easements shall be recorded with the Norfolk District Registry of Deeds prior to issuance of a Certificate of Completion by the Conservation Commission.
 - vii. An estimate of annual inspection and maintenance costs.
 - viii. Provisions for the Conservation Commission, its Stormwater Officer or its designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.
 - ix. Any other information required by the Conservation Commission.
- c) The Operations and Maintenance Plan shall apply to the entire project site, not just the disturbance area. At a minimum, inspections shall occur during the first year of operation and in accordance with the Operation and Maintenance Plan in the approved stormwater management permit.
 - d) 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 Massachusetts Department of Environmental Protection and the Conservation Commission upon request.
 - e) If required by permit, inspection reports shall be submitted to and maintained by the Conservation Commission for all stormwater management systems. Inspection reports for stormwater management systems shall include:
 - i. The date of inspection.
 - ii. Name of inspector.
 - iii. The condition of each BMP
 - iv. Description of the need for maintenance.
 - f) Any other information required by the Conservation Commission.
7. Provide notification to all abutters to the property or properties on which work is planned by Certified Mail, Return Receipt Requested or Certificate of Mailing. The notification shall state where within the municipality copies of the Stormwater Management Permit may be examined or obtained and where information on the date, time, and location of the Public Hearing may be obtained. The Applicant shall provide notification at the mailing addresses shown on the most recent applicable tax list from the municipal assessor. Mailing at least seven days prior to the Public Hearing shall constitute timely notice. The Applicant shall submit a completed Affidavit of Service form along with the return receipts from the Certified Letters or Certificates of Mailing to the Conservation Commission as proof of notification.
8. In addition to the original, the applicant shall provide the following copies:
- a) One (1) copy of the complete Major Stormwater Management Permit Application package with full size plans,
 - b) Two (2) copies of the Major Stormwater Permit Application Form with copies of the Existing Conditions Plan (reduced to 11" x 17"), Proposed Conditions Plan (reduced to 11" x 17"), and Post Construction O&M Plan shall be submitted.
 - c) An electronic (pdf) version of the complete Major Stormwater Management Permit Application package sent to conservation @dedham-ma.gov.