

Stormwater Management and Erosion Control Rules and Regulations

These regulations were adopted by the Board of Selectmen on September 29, 2014 (amended August 28, 2023) pursuant to the authority granted by the Belmont Stormwater Management and Erosion Control Bylaw (“Bylaw”), § 60-325 of the Belmont General Bylaws. They apply to all activities subject to the Bylaw.

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I. Permit Process

A. Regulated Activities

The Stormwater Management and Erosion Control Bylaw requires a Permit for any of the following activities:

- A Sanitary Sewer and Storm Drain Connection Permit is required for:
 - Connection of a pipe or other appurtenance to the Belmont sanitary sewer system;
 - Connection of a pipe or other appurtenance to the Belmont Municipal Separate Storm Sewer System (MS4);
- A Stormwater Management and Erosion Control Permit is required for any land disturbance (except exempt activities specified in the Bylaw) that involves:
 - An alteration that will result in land disturbances of 2,500 square feet of total area

or more, or that is part of a common plan of development that will disturb 2,500 square feet or more;

- An alteration that will increase the amount of a lot's impervious surface area to more than 25% of the lot's total area; or
- Storage or permanent placement of more than 100 cubic yards of excavated material, fill, snow or ice.

The Belmont Office of Community Development ("OCD") is the permit-granting authority.

B. Fee Schedule

The following fees apply to Stormwater Management and Erosion Control Permits and Sanitary Sewer and Storm Drain Connection Permits according to the regulated activity or activities requiring the permit:

Sanitary Sewer or Storm Drain Pipe/ Appurtenance Connection	\$100.00 each connection
Land Disturbance – (1 and 2 dwelling units over 2,500 square feet alteration)	\$300.00
Land Disturbance – (other)	\$500.00

Fees shall be additive where multiple regulated activities are involved. For example, the fee for a Stormwater Management and Erosion Control Permit for construction of a new single-family house involving land disturbance, sanitary sewer connection, and storm drain connection shall be \$500.

Some permit applications may require the OCD to secure the services of a Licensed Professional Engineer with expertise in stormwater management and erosion control to assist with the administration of this bylaw. These services shall be paid for by the Applicant prior to the issuance of the Stormwater Management and Erosion Control Permit.

II. Sanitary Sewer and Storm Drain Connections

A. Submittal Requirements

1. A Sanitary Sewer and Storm Drain Connection Permit Application with the relevant sections completed.
2. A plan showing:
 - Location, size, length and slope of proposed service(s)
 - Structures to be serviced*
 - Location of all clean-outs and/or manholes and/or catch basins
 - Property lines
 - Other underground utilities that serve the site or are near to proposed site activity, as necessary
 - Measurements to relevant points (i.e. connection at main, connection at house, manholes, etc).

*Permit applications will not be processed prior to new addresses being assigned by the OCD and the Office of the Town Clerk as required.

B. Design and Installation Requirements

New sanitary sewer and storm drain connections shall be designed and installed per the Sanitary Sewer and Storm Drain Regulations and Specifications, and designs shall be included with each Permit Application.

A Street Opening Permit is required from the Department of Public Works prior to the start of work. The Department of Public Works will not issue a Street Opening Permit until the required Stormwater Management and Erosion Control Permit and/or Sanitary Sewer Connection Permit is/are issued.

The Town of Belmont storm drain system is impacted by sanitary sewage and the sanitary sewer system is impacted by clean water in the form of Infiltration and Inflow. Consistent with the requirements of Section E of the Stormwater Management and Erosion Control Bylaw and state and federal law, new storm drain and sewer services are required to be installed from the main line storm drain or sanitary sewer, as applicable, and as approved by the Town. Existing portions of sanitary sewer and storm drain services shall not be reused, or otherwise utilized, unless they are lined in place.

Abandoned services shall be cut at the main, filled with controlled density fill, and capped at the upstream and downstream end. The connection at the main shall be removed and the main shall be repaired with new pipe.

The Town of Belmont reserves the right to require lining and reuse of an existing sanitary or storm drain service on roads that have been reconstructed within the previous 5 years prior to application of a new service connection.

Pipe of different material shall be joined using a Fernco Coupling or other equivalent item meeting industry standard.

Saddle connections are allowed for 6-inch diameter services connecting to mains with a diameter of 12 inches or greater. Connections for larger diameter services require approval by the Town Engineer.

New wye connections are required for 6-inch diameter services connecting to mains with a diameter of less than 12 inches. The main shall be replaced to the nearest joint or to a section of pipe that is free from defects. A Fernco Coupling or another equivalent item shall be used to join new pipe to existing pipe.

New catch basins shall have a minimum depth of sump of 4 feet. The Office of Community Development reserves the right to require a minimum depth of sump of 6 feet when conditions require such.

C. Inspections

Inspection is required prior to backfilling. Any work backfilled without the approval of the Office of Community Development will be excavated and exposed for inspection before final approval is given.

III. Land Disturbance

Note: A Stormwater Management and Erosion Control Plan must be approved and its features and construction BMPs installed prior to the issuance of a Demolition Permit.

A. Applicability

All land disturbance activities subject to the Bylaw (as set forth in Section F) must obtain a Stormwater Management and Erosion Control Permit. The “Applicability” section of the Massachusetts Stormwater Standards is superseded by the explicit jurisdictional provisions of Section F of the Bylaw.

The exemption of Section F.2 (d) of the Bylaw applies only to stormwater runoff governed by an Order of Conditions from the Belmont Conservation Commission. In some situations, the Conservation Commission may not be required to apply the Massachusetts Stormwater Standards to a project within its jurisdiction, because of exemptions in the Wetlands Protection Act and Regulations and/or in the Massachusetts Stormwater Standards. In these cases, the stormwater runoff is not governed by the Order of Conditions, and thus the exemption of Section F.2(d) of the Bylaw does not apply. In addition, projects which have received an Order of Conditions are subject to the Bylaw if a direct connection to the MS4 is required.

B. Submittal Requirements

A completed Stormwater Management and Erosion Control Permit Application with the relevant sections completed shall be filed with the OCD. The Permit Application will include the Applicant/Project Name, Project Address, and Name of Firm and Registered Professional Engineer.

A Stormwater Management and Erosion Control Report must be submitted with the Application and must include:

- A completed Checklist for Stormwater Management and Erosion Control Report (available from the OCD) to document compliance with applicable stormwater standards, including required attachments,
- A Long-Term Pollution Prevention Plan,
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan, and
- An Operation and Maintenance Plan.

C. In Lieu Fees

The OCD may require the applicant to contribute to the cost of design, construction, and maintenance of a public or shared stormwater facility in lieu of an onsite stormwater facility where the OCD determines that there are not sufficient site conditions for onsite Best Management Practices that will satisfy the design criteria and the performance standards set forth

in the Bylaw and these Regulations. Funds so contributed may be used to design, construct, and maintain stormwater projects that will improve the quality and quantity of surface waters in Belmont by treating and recharging stormwater from existing impervious surfaces that is now discharged to said waters with inadequate treatment or recharge. The amount of any required contribution to the fund shall be determined by the OCD pursuant to standards established in the Regulations adopted pursuant to this bylaw.

The in-lieu fee for one- and two-family projects shall be a reasonable flat fee to be set by the OCD, taking into account the typical range of costs of designing, constructing and maintaining onsite stormwater facilities on lots where such facilities are feasible.

For projects other than 1 and 2 dwelling unit residential developments, the fee shall take into account each applicable Stormwater Standard that cannot be met onsite.

The fee shall be based on the estimated cost to the Town of constructing and maintaining an offsite facility to provide compensatory stormwater mitigation. The calculation of storm water fees shall be based on a uniform procedure, as determined by and on file with the OCD.

Partial fees shall be paid in lieu of full compliance for any development where the OCD determines that only partial implementation of onsite Best Management Practices is feasible. The partial fees shall be based upon the percentage of required storm water control, treatment and/ or infiltration that the practices to be implemented fail to achieve.

The OCD will not waive the requirement to construct a stormwater facility if it finds that runoff from the development may materially adversely exacerbate an existing problem.

D. Permit and Procedures

Information Requests. The applicant shall submit all additional information requested by the OCD to issue a decision on the application.

Determination of Completeness: The OCD shall make a determination as to the completeness of the application and adequacy of the materials submitted. No review shall take place until the application is determined complete.

Fees. Each application must be accompanied by the appropriate application fee as established in Part I, Section B of these regulations. Applicants shall also pay review fees as determined by the OCD sufficient to cover any expenses connected with the public hearing and review of the Stormwater Management and Erosion Control Permit Application before the review process commences. The OCD is authorized to retain a registered Professional Engineer (PE) or other professional consultant to advise the OCD on any or all aspects of the Application.

Entry. Filing an application for a permit grants the OCD or its agent, permission to enter the site to verify the information in the application and to inspect for compliance with permit conditions.

Other Departments. The OCD shall provide one copy of the application package to the Highway Department or Department of Public Works as necessary.

Action by the OCD. The OCD may:

- (1) Approve the Stormwater Management and Erosion Control Permit Application and issue a permit if it finds that the performance standards and requirements set forth herein have been met;
- (2) Approve the Stormwater Management and Erosion Control Permit Application and issue a permit with conditions, modifications or restrictions that the OCD determines are required to ensure that the performance standards and requirements set forth herein are met;
- (3) Disapprove the Stormwater Management and Erosion Control Permit Application and deny the permit if it finds that the performance standards and requirements set forth herein have not been met; or
- (4) Disapprove the Stormwater Management and Erosion Control Permit Application “without prejudice” where an applicant fails to provide requested additional information or review fees that in the OCD’s opinion are needed to adequately describe or review the proposed project.

Final Approval. Final approval, if granted, shall be endorsed on the Stormwater Management and Erosion Control Permit by the signature of the person officially authorized by the Stormwater Authority.

Project Changes. The permittee, or their agent, must notify the OCD in writing of any change or alteration of a land-disturbing activity authorized in a Stormwater Management and Erosion Control Permit before any change or alteration occurs. If the OCD determines that the change or alteration is significant, based on the design requirements and accepted construction practices, the OCD may require that an amended Stormwater Management and Erosion Control Permit application be filed. If any change or alteration from the Stormwater Management and Erosion Control Permit occurs during any land disturbing activities, the OCD may require the installation of interim erosion and sedimentation control measures before approving the change or alteration.

E. Long-Term Pollution Prevention Plan for Permit Applications (Standards 4-6)

The Long-Term Pollution Prevention Plan must include all requirements listed in the Checklist for Stormwater Management and Erosion Control Report for Standards 4 through 6.

F. Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan for Permit Applications (Bylaw Section F.4(b); Standard 8)

The Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include all requirements listed in the Checklist for Stormwater Management and Erosion Control Report for Standard 8. The Plan must identify:

- Any potential adverse impacts during site disturbance and construction activities; the erosion and sediment controls that the Applicant will implement and maintain to prevent these adverse impacts; and the remaining adverse impacts, if any.
- A description of construction and waste materials expected to be stored on-site. The Plan shall include a description of controls to prevent offsite discharge of pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and procedures for spill prevention and response.

G. Operation and Maintenance (O&M) Plan for Permit Applications (Standard 9)

A long-term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed. As-built drawings shall be submitted to the Office of Community Development at the completion of a project. The as-built drawings must depict or explain all on site controls, both structural and non-structural, designed to manage the stormwater associated with the completed site.

All stormwater BMPs shall be operated and maintained in accordance with the design plans and any applicable manufacturer's requirements and the Operation and Maintenance Plan approved by the OCD.

The long-term Operation and Maintenance Plan shall at a minimum include:

- (1) Stormwater management system(s) owners;
- (2) The party or parties responsible for operation and maintenance, including how future property owners will be notified of the presence of the stormwater management system and the requirement for proper operation and maintenance;
- (3) The routine and non-routine maintenance tasks to be undertaken after construction is complete and a schedule for implementing those tasks;
- (4) A plan that is drawn to scale and shows the location of all stormwater BMPs in each treatment train along with the discharge point;
- (5) A description and delineation of public safety features; and
- (6) An estimated annual operations and maintenance budget.
- (7) Operation and Maintenance Log Form

In addition to the O&M Plan the following is required at the completion of the project:

- (1) A copy of a recorded instrument identifying the Owner of the property (or other entity if applicable) as the party responsible for the maintenance and operation of the systems. The instrument shall include the Operation and Maintenance Plan. The instrument shall state that the Owner (or other entity) of the property shall:

- (a) maintain a rolling operation and maintenance log for the last three years, including inspections, repairs, replacement and disposal (for disposal, the log shall indicate the type of material and the disposal location);
- (b) make this log available to the Office of Community Development upon request; and
- (c) allow members and agents of the Office of Community Development to enter and inspect the premises to evaluate and ensure that the responsibility party complies with the Operation and Maintenance Plan requirements for each BMP.

- (2) An Operation and Maintenance Compliance Statement, certified by a registered professional engineer, stating that:

- (a) the site has been inspected for erosion and appropriate steps have been taken to permanently stabilize any eroded areas;
- (b) all aspects of the stormwater BMPs have been inspected for damage, wear and malfunction, and appropriate steps have been taken to repair or replace the system or portions of the system so that the stormwater at the site may be managed in accordance

- with the Stormwater Management Standards;
- (c) responsible parties have been notified of their responsibility to operate and maintain the structures; and
- (d) the Operation and Maintenance Plan for the stormwater BMPs is being implemented.

Prior to final approval, the Office of Community Development shall inspect the site to determine whether the Stormwater BMPs are operating as designed so that the stormwater at the site may be managed in accordance with the Stormwater Management Standards. Final approval for certificate of occupancy shall not be granted unless and until the stormwater BMPs are functioning in accordance with the Stormwater Management Standards, and until the Owner provides evidence that the approved O&M requirements have been recorded at the Registry of Deeds.

H. Design Criteria

1. Stormwater Management Standards and Handbook (Bylaw Section F(4)(a))

The most recent Massachusetts Department of Environmental Protection **Stormwater Handbook** is the minimum standard for compliance with Section F(4)(a) of the Town of Belmont Stormwater Management and Erosion Control Bylaw.

For the purposes of the Stormwater Management and Erosion Control Bylaw any reference in the Stormwater Handbook to the issuing authority shall mean the Office of Community Development.

If there is a conflict between the design criteria in the local bylaw (or rules and regulations) and the Stormwater Handbook, the stricter standard shall control.

2. Erosion Controls Design Standards (Bylaw Section F(4)(b))

The Stormwater Management and Erosion Control Plan shall be developed to comply with the MS4 Permit and shall meet the following standards:

- (1) Minimize total area of disturbance;

3. Changes to Existing Conditions of Abutting Properties (Bylaw Section F(4)(c))

The Stormwater Management and Erosion Control Plan must identify any potential change to the existing conditions of abutting properties from any increase in peak flows and volumes of stormwater runoff or from erosion, silting, flooding, sedimentation or impacts to wetlands, ground water levels or wells. The Report must also describe the practices and controls that the Applicant will implement and maintain to prevent these adverse impacts and the remaining adverse impacts, if any. For compliance with the stormwater runoff component of Section F.4(c) of the Town of Belmont Stormwater Management and Erosion Control Bylaw, stormwater management systems shall be designed so that the post-development discharge peak flows and volumes do not exceed the pre- development discharge peak flows and volumes.

To prevent storm damage and downstream off-site flooding, the bylaw requires that the post-development discharge peak flows and volumes are equal to or less than the pre-development

discharge peak flows and volumes from the **2-year, 10-year, 25-year, and 100-year 24-hour storms for each design point**. BMPs that decrease runoff peak flows and volumes, such as LID techniques, must be provided to meet the bylaw.

The issuing authority relies on the most current rainfall data published by the Northeast Regional Climate Center (<http://precip.eas.cornell.edu>) for **24-hour design storm precipitation depths for the two (2), ten (10), twenty-five (25) and one hundred (100) year frequency storms**.

Applicants must calculate runoff peak flows and volumes from pre-existing and post-development conditions. The topography of the site may require evaluation at more than one design point, if flow leaves the property in more than one direction and the OCD may require more than one design point. An applicant may demonstrate to the OCD that a feature beyond the property boundary is more appropriate as a design point. However, the OCD has final say in determining design points.

The Stormwater Management and Erosion Control Plan must identify any potential change from pre-existing and post-development conditions in the seasonal high-water table and storm-related groundwater mounding at the development site and abutting properties. This shall include potential impacts to abutting properties including, but not limited to, wells and basements. The storm-related groundwater mounding analysis shall be based on the 24-hour 10-year design storm. The Plan must describe the practices and controls that the Applicant will implement and maintain to prevent adverse impacts and the remaining adverse impacts to groundwater and basements and wells, including the lowering of ground water levels.

4. Impact on Streams, Wetlands, or Storm Sewers (Bylaw Section F(4)(d))

The Stormwater Management and Erosion Control Report must identify any potential impact upon streams, wetlands and/or storm sewers, the mitigating measures that the Applicant will implement and maintain to prevent these adverse impacts.

If the discharge is to the MS4, the Stormwater Management and Erosion Control Plan (and report) must include supporting calculations and a certification that the discharge will meet Massachusetts Surface Water Quality Standards and any applicable approved Total Maximum Daily Load (TMDL) waste load allocation.

5. Performance Standards for New Development and Redevelopment (Bylaw Section F(4)(e))

General Performance Standards for All Sites.

- (2) LID site planning and design strategies must be utilized to the maximum extent feasible.
- (3) The selection, design and construction of all pre-treatment, treatment and infiltration BMPs shall, as a minimum, 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. The requirements of the Stormwater Management and Erosion Control Bylaw and regulations shall apply if more stringent than those of the Massachusetts Stormwater Handbook.

Performance Standards for New Development.

- (1) Stormwater management systems on new development shall be designed to meet an average annual pollutant removal equivalent to 90% 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 postconstruction impervious surface area on the site. Average annual pollutant removal requirements shall be achieved through one of the following methods:
 - (a) Installing stormwater BMPs that meet the pollutant removal percentages required 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
 - (b) 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
 - (c) Meeting a combination of retention and treatment that achieves the above standards.
 - (d) Utilizing off-site mitigation that meets the above standards within the same USGS HUC12 as the new development site.

Performance Standards for Redevelopment Sites.

- (1) 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. Average annual pollutant removal requirements shall be achieved through one of the following methods:
 - (a) 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
 - (b) Retaining the volume of runoff equivalent to, or greater than, 0.8 inch multiplied by the total post-construction impervious surface area on the redeveloped site; or
 - (c) Meeting a combination of retention and treatment that achieves the above standards; or
 - (d) Utilizing off-site mitigation that meets the above standards within the same USGS HUC12 as the redevelopment site.

Requirements for waterbodies with impairments and TMDLs.

- (1) Stormwater BMPs shall be implemented consistent with applicable TMDLs.
- (2) In areas discharging to waters impaired for phosphorus, new development and

redevelopment stormwater management BMPs must be optimized for phosphorus removal.

(3) In areas discharging to waters impaired for solids, oil and grease (hydrocarbons), or metals:

- (a) Stormwater management systems designed on commercial and industrial land use area draining to the water quality limited waterbody shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event. EPA also encourages the permittee to require any stormwater management system designed to infiltrate stormwater on commercial or industrial sites to provide the level of pollutant removal equal to or greater than the level of pollutant removal provided through the use of biofiltration of the same volume of runoff to be infiltrated, prior to infiltration.