

CHAPTER LI
STORMWATER MANAGEMENT AND EROSION CONTROL BY-LAW

It is hereby determined that:

Land development projects and other land use conversions, and their associated changes to land cover, permanently alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, which in turn increase flooding, stream channel erosion, and sediment transport and deposition, and decrease groundwater recharge;

Land development projects and other land use conversions also contribute to increased nonpoint source pollution and degradation of receiving waters;

The impacts of construction site/alteration and post-development stormwater runoff quantity and quality can adversely affect public safety, public and private property, surface water drinking water supplies, groundwater resources, drinking water supplies, recreation, aquatic habitats, fish and other aquatic life, property values and other uses of lands and waters;

These adverse impacts can be controlled and minimized through the regulation of stormwater runoff quantity and quality from construction site/alteration, new development and redevelopment, by the use of both structural and nonstructural Best Management Practices;

Localities in the Commonwealth of Massachusetts are required to comply with a number of both State and Federal laws, regulations and permits which require a locality to address the impacts of construction site/alteration runoff, post-development stormwater runoff quality and nonpoint source pollution.

Therefore, the Town of Topsfield has established this stormwater management bylaw to provide reasonable guidance for the regulation of construction site/alteration and post-development stormwater runoff for the purpose of protecting local water resources from degradation. This bylaw regulates the construction site/alteration and post-construction stormwater controls for both new and re-development projects.

It has been determined that it is in the public interest to regulate construction site/alteration and post-development stormwater runoff discharges in order to control and minimize increases in stormwater runoff rates and volumes, construction site/alteration and post-construction soil erosion and sedimentation, stream channel erosion, and nonpoint source pollution associated with post-development stormwater runoff.

51-1 PURPOSES

a. The purposes of this Bylaw 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 and nonpoint 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 construction/alteration and development.

b. It has been determined that proper management of construction site/alteration and post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the

public, protect water and aquatic resources, and promote groundwater recharge to protect surface and groundwater drinking supplies.

This Bylaw seeks to meet that purpose through the following objectives:

1. Establish decision-making processes surrounding land development activities that protect the integrity of the watershed and preserve the health of water resources;
 2. Require that new development, redevelopment and all land conversion activities maintain the after-development runoff characteristics as equal to or less than the pre-development runoff characteristics in order to reduce flooding, stream bank erosion, siltation, nonpoint source pollution, property damage, and to maintain the integrity of stream channels and aquatic habitats;
 3. Establish minimum construction/alteration and post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality; Establish minimum design criteria for the protection of properties and aquatic resources downstream from land development and land conversion activities from damages due to increases in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff; Establish minimum design criteria for measures to minimize nonpoint source pollution from stormwater runoff which would otherwise degrade water quality;
 4. Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum construction/alteration and post-development stormwater management standards;
 5. Encourage the use of nonstructural stormwater management, stormwater better site design practices or “low-impact development practices”, such as reducing impervious cover and the preservation of greenspace and other natural areas, to the maximum extent practicable; Coordinate site design plans, which include greenspace, with the Town’s greenspace protection plan;
 6. Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety;
 7. Establish provisions to ensure there is an adequate funding mechanism, including surety, for the proper review, inspection and long-term maintenance of stormwater facilities implemented as part of this Bylaw;
 8. Establish administrative procedures for the submission, review, approval or disapproval of stormwater management plans, and for the inspection of approved active projects, and long-term follow up; Establish certain administrative procedures and fees for the submission, review, approval, or disapproval of stormwater plans, and the inspection of approved projects.
- c. Nothing in this Bylaw is intended to replace the requirements of either, the Town of Topsfield Flood Plain Zoning Bylaw, the Town of Topsfield General Wetlands Protection Bylaw, or any other Bylaw that may be adopted by the Town of Topsfield. Any activity subject to the provisions of the above-cited Bylaws must comply with the specifications of each.

51-2 DEFINITIONS

The following definitions shall apply in the interpretation and implementation of this Bylaw. Additional definitions may be adopted by separate regulation:

ALTER: Any activity, which will measurably change the ability of a ground surface area to absorb water or will change existing surface drainage patterns. Alter may be similarly represented as “alteration of drainage characteristics,” and “conducting land disturbance activities.”

BEST MANAGEMENT PRACTICE (BMP): Structural, non-structural and managerial techniques that are recognized to be the most effective and practical means to prevent and/or reduce increases in stormwater volumes and flows, reduce point source and nonpoint source pollution, and promote stormwater quality and protection of the environment. “Structural” BMPs are devices that are engineered and constructed to provide temporary storage and treatment of stormwater runoff. “Nonstructural” BMPs use natural measures to reduce pollution levels, do not require extensive construction efforts, and/or promote pollutant reduction by eliminating the pollutant source.

BETTER SITE DESIGN: Site design approaches and techniques that can reduce a site’s impact on the watershed through the use of nonstructural stormwater management practices. Better site design includes conserving and protecting natural areas and green space, reducing impervious cover, and using natural features for stormwater management.

COMMON PLAN OF DEVELOPMENT: A common plan of development is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under on plan. (Art. 39, 5/5/15)

HOTSPOT: Land uses or activities with higher potential pollutant loadings, inclusive of auto salvage yards, auto fueling facilities, fleet storage yards, commercial parking lots with high intensity use, road salt storage areas, commercial nurseries and landscaping, outdoor storage and loading areas of hazardous substances, or marinas. (Art. 31, 5/1/12)

MASSACHUSETTS STORMWATER MANAGEMENT POLICY: The Policy issued by the Department of Environmental Protection, and as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act G.L. c. 131 § 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56. The Policy addresses stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site.

NEW DEVELOPMENT: Any construction or land disturbance of a parcel of land that is currently in a natural vegetated state and does not contain alteration by man-made activities.

NONPOINT SOURCE POLLUTION: Pollution from many diffuse sources caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into water resource areas.

PERSON: Any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to Town Bylaws, administrative agency, public or quasi-public corporation or body, the Town of *Topsfield*, and any other legal

entity, its legal representatives, agents, or assigns.

POORLY DRAINED SOILS: Poorly drained soils shall have the meaning as contained in the list of definitions set forth in the glossary under the heading of “drainage class” in the **Soil Survey of Essex County, Massachusetts - Northern Part** prepared by the US Department of Agriculture, Soil Conservation Service – Donald Fuller, editor, first printed 1981 and following editions. Poorly drained soils shall include all such soils listed as “moderately poorly drained, poorly drained, and very poorly drained” as well as soils that contain a fragipan layer in the section entitled Soil series and Morphology beginning on page 75 and ending on page 101 of the **Soil Survey of Essex County, Massachusetts – Northern Part**. (Art. 31, 5/1/12)

PRE-DEVELOPMENT: The conditions that exist at the time that plans for the land development of a tract of land are submitted to the *[Planning Board]*. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time prior to the first plan submission shall establish pre-development conditions.

POST-DEVELOPMENT: The conditions that reasonably may be expected or anticipated to exist after completion of the land development activity on a specific site or tract of land. Post-development refers to the phase of a new development or redevelopment project after completion, and does not refer to the construction phase of a project.

RECHARGE: The replenishment of underground water reserves.

REDEVELOPMENT: Any construction, alteration, or improvement of land that has been subject to previous development. (Art. 31, 5/1/12)

SLOPE: The vertical rise divided by the horizontal distance and expressed as a fraction or percentage, e.g. one-fifth (1/5) or twenty (20) percent.”

STORMWATER AUTHORITY: The Town of Topsfield Planning Board or its authorized agent(s). The Topsfield Planning Board or its authorized agent(s) are responsible for coordinating the review, approval and permit process as defined in this Bylaw. Other Boards and/or departments of the Town of Topsfield, including (but not limited to) the Conservation Commission, Board of Health, and Highway Department, may participate in the review process as defined in the Stormwater Regulations adopted by the Planning Board.

STORMWATER MANAGEMENT PERMIT (SMP): A permit issued by the Planning Board, after review of an application, plans, calculations, and other supporting documents, which is designed to protect the environment of the Town from the deleterious affects of uncontrolled and untreated stormwater runoff.

51-3 AUTHORITY

This Bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34, and as authorized by the residents of the Town of Topsfield at Town Meeting, dated May 3, 2005 and as amended at the May 1, 2012 Annual Town Meeting. (Art. 31, 5/1/12)

51-4 ADMINISTRATION

- a. The Planning Board, shall administer, implement and enforce this Bylaw. Any powers granted to or duties imposed upon the Planning Board may be delegated in writing by the

Planning Board to its employees or agents.

- b. Stormwater Regulations. The Planning Board may adopt, and periodically amend, rules and regulations relating to the terms, conditions, definitions, enforcement, fees (including application, inspection, and/or consultant fees), procedures and administration of this Stormwater Management Bylaw by majority vote of the Planning Board, after conducting a public hearing to receive comments on any proposed rules and regulations, or revisions thereto. Such hearing dates shall be advertised in a newspaper of general local circulation, at least fourteen (14) days prior to the hearing date. The Planning Board may promulgate rules and regulations to effectuate the purposes of this Bylaw. Failure by the Planning Board to promulgate such rules and regulations or a legal declaration of their invalidity by a court shall not act to suspend or invalidate the effect of this Bylaw.
- c. Stormwater Management Manual. The Planning Board will utilize the policy, criteria and information including specifications and standards of the latest edition of the Massachusetts Stormwater Management Policy, for execution of the provisions of this Bylaw. This Policy includes a list of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. The Policy may be updated and expanded periodically, based on improvements in engineering, science, monitoring, and local maintenance experience. Unless specifically altered in the Stormwater Regulations, stormwater management practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to be protective of Massachusetts's water quality standards.
- d. Actions by the Planning Board. The Planning Board may take any of the following actions as a result of an application for a Stormwater Management Permit as more specifically defined as part of Stormwater Regulations promulgated as a result of this Bylaw: Approval, Approval with Conditions, Disapproval, or Disapproval without Prejudice.
- e. Appeals of Action by the Planning Board. A decision of the Planning Board shall be final. A decision by the Planning Board made under this Bylaw shall be reviewable in the Court.

51-5 STORMWATER MANAGEMENT PERMIT REQUIREMENT

- a. Applicability

No person shall alter land within the Town of Topsfield including without limitations any new development or redevelopment, other activity that will alter the drainage characteristics of a parcel of land or an activity that may result in stormwater flowing from the parcel under development on to an adjacent parcel of land without obtaining a Stormwater Management Permit, unless exempt pursuant to Section 51-5(b) of this Bylaw. In addition, any alteration or redevelopment of a hotspot, or conversion of land to a hotspot shall require a Stormwater Management Permit and shall not be subject to the exemptions set forth in Section 51-5(b) of the Bylaw. (Art. 31, 5/1/12) (Art 39, 5/5/15)

- b. Exemptions

The following activities shall be exempt from the requirement to obtain a Stormwater Management Permit. The exemptions in b.1 and 2 below shall not be applied to projects entirely or in any part on poorly drained soils, or for projects consisting of the installation of any drain system designed to transport stormwater or groundwater beyond the boundaries of the property on which it is located. The exemptions in b.1 and b.2 shall also not apply to an activity that is part of a common plan of development that,

considered as a whole, would alter an area greater than the area permitted by b.1 and b.2 below. In applying the exemptions in b.1 and b.2 below, the area subject to alteration pursuant to such exemptions may not exceed, in the aggregate, 7,500 square feet. (Art. 31, 5/1/12) (Art. 39, 5/5/15)

1. Any activity that will alter an area of 7500 square feet or less of land where the existing or proposed slopes are both less than 15 %; (Art. 31, 5/1/12)
2. Any activity that will alter an area of 4000 square feet or less of land where the existing or proposed slopes are between 15% and 25%, inclusive; (Art. 31, 5/1/12)
3. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04 and MGL Chapter 40A Section 3;
4. Maintenance of existing landscaping, gardens or lawn areas associated with a single family dwelling; construction of patios, walkways, driveways less than the minimum square foot thresholds, swimming pools below the minimum square foot thresholds, or replacement of wells or septic systems on lots having an existing dwelling;
5. Repair or replacement of an existing roof of a single-family or multi-family dwelling;
6. The construction of any fence that will not alter existing terrain or drainage patterns;
7. Construction of utilities (gas, water, electric, telephone, etc.) other than drainage, which will not alter terrain, ground cover, or drainage patterns, the reconstruction of or resurfacing of any public way; the construction and associated grading of a street that has been approved by the Planning Board;
8. For the removal of earth products undertaken in connection with a sand, gravel or similar enterprise where such activity is allowed by zoning;
9. Emergency repairs to any utilities (gas, water, electric, telephone, etc.), stormwater management facility or practice that poses a threat to public health or safety, or as deemed necessary by the Planning Board;
10. Any work or projects for which all necessary approvals and permits have been issued before the effective date of this Bylaw.
11. Deleted (Art. 31, 5/1/12)

51-6 PROCEDURES

Permit Procedures and Requirements shall be defined and included as part of any rules and regulations promulgated as permitted under Section 51-4 of this Bylaw.

51-7 ENFORCEMENT

The Stormwater Coordinator, the Planning Board or an authorized agent of the Planning Board shall enforce this Bylaw, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations. Enforcement shall be further defined and included as part of any Stormwater regulations promulgated as permitted under Section 51-4 of this Bylaw. This bylaw may also be enforced by the Planning Board, its agent, or any Police Officer of the Town of Topsfield, by any available means in law or equity, including but not limited to enforcement by non-criminal disposition pursuant to M.G.L. Chapter 40, §21D. Each day a violation exists shall constitute a separate violation. When enforced through non-criminal

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disposition, unless otherwise specifically provided for by bylaw, rule or regulation, the penalties shall be as follows:

First violation:	\$25.00
Second violation:	\$50.00
Third violation:	\$100.00
Fourth and subsequent violations:	\$200.00

(Art. 29, 5/4/2010 ~ 7; Art. 31, 5/1/12)

51-8 SEVERABILITY

The invalidity of any section, provision, paragraph, sentence, or clause of this Bylaw shall not invalidate any section, provision, paragraph, sentence, or clause thereof, nor shall it invalidate any permit or determination that previously has been issued.

(Art. 44, 5/3/2005)