

#### 4.0 Regulations for Stormwater and Runoff Management

[Regulation Adopted March 10, 2015]

##### 4.1 Purpose

The purpose of this regulation is to protect the public and environmental health by providing a level of protection from pollutants, flooding, icing, siltation, and other drainage problems while maintaining a level of protection for the health and safety, quality of life, and property of residents. These regulations are intended to supplement and expand other existing requirements but not to supersede or conflict with those requirements. As such they are generally intended to be more strict than state and/or federal regulations. In any given case where a Property Owner or its designate Agent believes that federal and/or state regulations are more strict than or sharply conflict with these regulations, that party shall request a variance of these regulations as set forth below.

##### 4.2 Definitions

*Agent:* Any duly authorized Agent of the Board of Health including but not limited to the Director of Public Health, the Health Agent, and the Environmental Engineer.

*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.”

*Alteration of Drainage Characteristics:* Any activity on an area of land that changes the water quality, force, direction, timing or location of runoff from a pre-activity condition. Such changes from a pre-activity condition may include: change from distributed runoff to confined discrete point discharges, change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area.

*Best Management Practice (BMP):* Structural and nonstructural techniques that are generally recognized by appropriate professionals to be an effective and practical means to prevent and/or reduce increases in stormwater volumes and flows, reduce point source and nonpoint source pollution, and promote good stormwater quality and protection of the environment. “Structural” BMPs are devices that are engineered and constructed to provide permanent or 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. Nonstructural BMPs include managerial techniques that focus on the preservation and protection of natural features.

*Detention Basin:* A low lying area that is designed to temporarily hold a set amount of water while slowly draining to another location. They are used for flood control when large amounts of rain could cause flash flooding if not dealt with properly.

*Development:* Any alteration, construction, disturbance, improvement or modification of land or structures to accommodate a use, expansion or re-development on a site.

*Land Disturbance:* Any action that causes a change in the position, location, or arrangement of soil, sand, rock, gravel or similar earth material. Land disturbance includes, but is not limited to, changes in contour, increases in runoff rate or volume, changes in elevation, decreases in water absorption rate, changes in drainage patterns, changes to a stormwater structure, construction, enlargement or location of any building. See also *Alter*.

*Massachusetts Stormwater Management Policy:* The Policy issued by the Department of Environmental Protection, and as amended from time to time, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act M.G.L. c. 131 § 40 and Massachusetts Clean Waters Act M.G.L. ch.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.

*Municipal Separate Storm Sewer System (MS4), or Municipal Storm Drain System, or Municipal Drainage System:* The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the Town.

*Rain Garden:* A garden which takes advantage of rainfall and stormwater runoff in its design and plant selection. A small garden which is designed to withstand the extremes of moisture and concentrations of nutrients, particularly nitrogen and phosphorus.

*Site:* The parcel of land being developed or redeveloped or a designated planning area in which the land development or re-development project is located.

*Stormwater Runoff:* Water that accumulates on land because of storms, that flows overland and is not absorbed into the ground.

*Stormwater Authority:* The Board of Health, or its Agent(s), is responsible for coordinating the review and approval as defined in these Regulations. Other Boards and/or departments may participate in the review process.

*Stormwater Management:* The use of structural or nonstructural practices that are designed to reduce stormwater runoff pollutant loads, discharge volumes, and/or peak flow discharge rates.

### **4.3 Applicability**

These regulations shall be applicable to the following:

- A. All new development and re-development projects that:
  - a. Includes any activity that has resulted in a land disturbance where the effect of such disturbance has created, in the opinion of the Board of Health and/or its Agent, a repeated accumulation of stagnant water or flooding or any other drainage problem, either on the property where the land disturbance has occurred or any other property in the Town; or,
  - b. Require a Special Permit, Site Plan Approval, or Subdivision Plan Approval as required under the Town Zoning Bylaw; or,
  - c. Require Stormwater Management or other drainage mitigation measures required under the Town, General Bylaws, Article XIV, Environment, Section 1.0 (Wetlands Protection Bylaw) and/or Section 6.0 (Erosion and Sedimentation Control).

- B. All properties in the Town that manage stormwater from a sump pump. Properties that utilize sump pumps for the management of stormwater must adhere to the following:
- a. Storm water pumped from a sump must be infiltrated on the property where the sump is located or, if that is not possible, directed from the sump to the Town stormwater system via closed, underground piping or piped to an on-site dry well that is properly constructed as to allow for and promote storm water infiltration without impacting adjacent properties. If on-site infiltration is not possible, the homeowner can, with prior approval from the Department of Public Works, connect his/her sump to the Town stormwater system. All piping between the sump pump and the Town stormwater system must be installed underground. Overland hose or piping connections to stormwater drains are not allowed.
  - b. Sump pump water outfall shall occur at an up gradient portion of the property or a portion of the property which will allow for the water to infiltrate on the property of generation. The outfall shall not be proximal to a cross gradient or down gradient property boundary.

#### 4.4 Goals and Requirements

All projects subject to Article III, Section 4.3 of these regulations, shall submit a Stormwater and Runoff Management Plan (the "Plan") to the Board of Health. Upon receipt of the Plan, an Agent of the Board of Health may at its discretion 1) approve the Plan, so long as the applicant has demonstrated, to the reasonable satisfaction of the Agent, that a level of protection, consistent with the below goals, requirements and guidelines, from pollutants, flooding, icing, siltation, and other drainage problems is achieved and the health and safety, quality of life, and property of residents is maintained; or, 2) request that the applicant(s) appear in person, including any representatives and experts, at a duly noticed, public hearing held by the Board of Health where the Board of Health may grant or deny the Plan or take any other action it deems warranted and appropriate.

A. Goals

The Plan shall accomplish the following goals:

- a. Mitigate the effects of increased stormwater runoff onto public streets and adjacent private property due to development or re-development; and
- b. Reproduce, as nearly as possible, the hydrogeologic conditions in the ground and surface waters prior to development or re-development; and
- c. Have an acceptable Operation and Management Plan; and
- d. Have a neutral effect on the natural and human environment; and
- e. Be appropriate for the site, given physical restraints; and
- f. Provide a sufficient level of health and environmental protection during the construction phase; and

- g. Provide a sufficient level of protection to maintain the safety and quality of life of residents as well as the protection of property.

**B. Requirements**

- a. A complete Stormwater and Runoff Management Plan Submittal Form with original signatures of all owners; and
- b. A Plan that meets the goals outlined in Article III, Section 4.4 (A) of these regulations and contains the following:
  - i. A project narrative that includes a description of the proposed project and how and where stormwater will be controlled as well as erosion and sedimentation controls to be implemented, if any; and
  - ii. A site plan showing existing conditions including, but not limited to, physical features, topography, wetlands, septic systems, private wells, and buildings; and
  - iii. A site plan showing proposed conditions including, but not limited to, proposed grading, buildings or other structures, stormwater structures (i.e. drainage basins, rain gardens, underground infiltration areas, trenches).
- c. Detention or retention basins shall be utilized only in non-residential applications. Rain gardens may be used in residential applications and must be shallow, flat on the bottom, contain deep rooted native plants and grasses, and prevent the collection of standing water.
- d. The Board of Health and/or its Agent may require that hydrologic and hydraulic calculations, prepared by a Massachusetts Registered Professional Engineer, be included in the Plan.
- e. Known or suspected areas of environmental contamination must be identified. Infiltration in known or suspected areas of environmental contamination will not occur, unless, in the opinion of a Massachusetts Licensed Site Professional, infiltration will not cause the migration and/or exacerbation of contaminants.

**4.5 Penalties**

- A. A non-criminal disposition process as provided in M.G.L. c.40, § 21D and Burlington's non-criminal disposition bylaw. If non-criminal disposition is elected, then any person who violates any provision of these regulations shall, in accordance with Article 1, Section 4.0, be subject to a penalty in the amount of fifty dollars (\$50.00) per day for each day of violation. Each day or portion thereof shall constitute a separate offense; and/or,
- B. In the alternative, or in addition to the above, these regulations may be enforced through any other means available at law as deemed appropriate by the Board of Health, including, but not limited to, civil enforcement for injunctive relief.

**4.6 Hearing**

Any person that has received an Order or notice issued pursuant to this regulation may request a hearing before the Board of Health. Such request shall be in writing and shall be submitted to the office of the Board of Health in writing so as to be received by the Board of Health within ten (10) days after receipt of the Order or notice. After said hearing, the Board of Health may affirm, modify or rescind said Order or notice or take any other action it deems warranted and appropriate.

**4.7 Variances**

Upon written application and public hearing, the Board of Health may in its sole discretion vary the application of any provision of this regulation with respect to any particular case when, in its opinion, the enforcement thereof would do manifest injustice; provided that the decision of the Board of Health shall not conflict with the spirit of these regulations or any minimum standards required by Federal or State law; and provided that the applicant demonstrates to the reasonable satisfaction of the Board of Health that an sufficiently equivalent level of protection can be achieved. Any variance granted by the Board of Health shall be in writing and shall be subject to such conditions as the Board of Health deems appropriate. A copy of any such variance shall, while it is in effect, be available to the public at all reasonable hours in the office of the Board of Health.