

**CHECKLIST**  
Millbury Planning Board  
Submission of Stormwater Management Permit Application

**Property Address:** \_\_\_\_\_

**Applicant Name:** \_\_\_\_\_

**Owner's Name** (if different): \_\_\_\_\_

**Applicant Phone & Email:** \_\_\_\_\_

**Assessor's Map** \_\_\_\_\_ **Lot:** \_\_\_\_\_

**Plan Name:** \_\_\_\_\_

**Engineering Firm:** \_\_\_\_\_

**Submission Checklist:**

- ☐ **Application Fee – \$200**
- ☐ **Legal Advertisement Fee - \$50**
- ☐ **Technical Review Fee – Refer to Fee Schedule or contact Planning Department staff**  
*Note: Fees can be combined into one check. Checks should be made out to the Town of Millbury.*
- ☐ **Three (3) full size, seven (7) 11"x17" size, and one (1) electronic copy of a stamped plan showing the stormwater management plan requirements in Millbury Municipal Code Ch. 13.15.070:**
  - ☐ Scale of 1"=20' or other such scale, as approved by the Planning Board  
Names, addresses and telephone numbers of the owner, applicant and person(s) or firm(s) preparing the plan
  - ☐ Name of project, property address, assessor's map and lot number, the date, north arrow, names of abutters, and scale
  - ☐ A locus map
  - ☐ The existing zoning, and land use at the site
  - ☐ The proposed land use
  - ☐ The location(s) of existing and proposed easements
  - ☐ The location of existing and proposed utilities
  - ☐ The site's existing and proposed topography with contours at one-foot intervals
  - ☐ The existing site hydrology
  - ☐ A description and delineation of existing storm water conveyances, impoundments, and wetlands on or adjacent to the site or into which storm water flows
  - ☐ A delineation of 100-year flood plains, if applicable
  - ☐ Estimated seasonal high groundwater elevation (November to April) in areas to be used for storm water retention, detention, or infiltration
  - ☐ The existing and proposed vegetation and ground surfaces with runoff coefficient for each
  - ☐ A drainage area map showing pre- and post-construction watershed boundaries, drainage area and storm water flow paths

- ☐ A description and drawings of all components of the proposed drainage system including:
- Locations, cross-sections, and profiles of all brooks, streams, drainage swales and their method of stabilization;
  - All measures for the detention, retention or infiltration of water;
  - All measures for the protection of water quality;
  - The structural details for all components of the proposed drainage systems and storm water management facilities;
  - Notes on drawings specifying materials to be used, construction specifications, and typicals;
  - Expected hydrology with supporting calculations. Storms of 2, 10, 25, and 100 year frequency events shall be analyzed for existing (pre development) and proposed (post-development) site conditions based on proposed site plans. The rainfall amounts used shall be based on the 1998 Cornell University Study, NOAA Atlas 14 Volume 10 Point Precipitation Frequency Estimates for Millbury, or other studies approved by the Massachusetts Department of Environmental Protection:

| Values to be used for 24-hour rainfall calculations (Cornell, 1998) |                   |
|---------------------------------------------------------------------|-------------------|
| Storm Frequency                                                     | 24 Hour Rain Fall |
| 2 Year Storm                                                        | 3.2 Inches        |
| 10 Year Storm                                                       | 4.9 Inches        |
| 25 Year Storm                                                       | 6.1 Inches        |
| 50 Year Storm                                                       | 7.3 Inches        |
| 100 Year Storm                                                      | 8.5 Inches        |

- ☐ Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable
- ☐ Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization
- ☐ A plan to control wastes that lists the construction and waste materials expected to be generated or stored on the construction site. These wastes include, but are not limited to, discarded building materials, concrete truck washout, chemicals, litter, sanitary waste and material stockpiles. An applicant must also describe in narrative form the Best Management Practices that will be utilized to reduce pollutants from these materials including storage practice so to minimize exposure of the materials to stormwater.
- ☐ A maintenance schedule for the period of construction
- ☐ A description of all low impact development best management practices used to preserve environmentally sensitive areas, such as wet lands, native vegetation, mature trees, slopes, natural drainage courses, permeable soils, floodplains, woodlands, and soils;
- ☐ **Conformance with MMC Ch. 13.15.070(b) Design Standards** that all projects shall meet the stormwater runoff control standards of the Massachusetts Stormwater Handbook and additional town requirements. *See Attachment A for the Design Standards.*
- ☐ **Operation and Maintenance Plan** that includes:
- The name(s) of the owner(s) for all components of the system.
  - Maintenance agreements that specify:
    - The names and addresses of the person(s) responsible for operation and maintenance.
    - The person(s) responsible for financing maintenance and emergency repairs.
    - A maintenance schedule for all drainage structures, including swales and ponds.
    - A list of easements with the purpose and location of each.
    - The signature(s) of the owner(s).
  - Storm Water Management Easement(s) shall be provided by the property owner(s), as necessary, for:
    - Access for facility inspections and maintenance.
    - Preservation of storm water runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event.

iii. Direct maintenance access by heavy equipment to structures requiring regular cleanout. The purpose of each easement shall be specified in the maintenance agreement signed by the property owner. Storm water management easements are required for all areas used for off-site storm water control, unless a waiver is granted by the board. Easements shall be recorded with the Worcester County registry of deeds prior to issuance of a certificate of completion by the board.

*\*For questions regarding applicability of any of the above requirements, please contact the Planning Department.*

**Waivers:**

The board may waive strict compliance with any requirement of this chapter or the rules and regulations promulgated hereunder, where:

- a. Such action is allowed by federal, state and local statutes and/or regulations;
- b. Is in the public interest; and
- c. Is not inconsistent with the purpose and intent of this chapter.

Any applicant may submit a written request to be granted such a waiver. Such a request shall be accompanied by an explanation or documentation supporting the waiver request and demonstrating that strict application of this chapter does not further the purposes or objectives of this chapter.

Under in MMC 13.15.070(b), Minor Project are defined as projects with land disturbances of (1) acre or less and specifically allow for waivers, at the discretion of the Planning Board.

**Applicant Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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*For Staff Review Only*

The Millbury Department of Planning & Development has accepted the submission of the above Stormwater Management Application. This document certifies that, as currently submitted, the Application meets the minimum submission guidelines as set forth by the Town of Millbury. This document certifies that the Application is officially accepted for Planning Board review and consideration. It does not constitute approval of the Application.

**Planning Department Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Attachment A

### Millbury Municipal Code Chapter 13.15.070 (b): Design Standards

1. No new storm water conveyances (e.g., outfalls) may discharge untreated storm water directly to or cause erosion in wetlands or water of the commonwealth.
2. Storm water management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.
3. Low impact design practices shall be implemented to the maximum extent feasible. Applicants shall address each of the following LID principles in the project narrative:
  - a. Preservation of Natural Area
  - b. Tree Protection
  - c. Vegetation and Landscaping
  - d. Riparian Buffer Protection
  - e. Limit Land Disturbance during Construction
  - f. Limit New Impervious Surfaces
  - g. Promote the Use of Vegetative (Green Infrastructure) Stormwater Controls
  - h. Disconnect Flow Paths
  - i. Promote Infiltration
  - j. Capture and Reuse Stormwater

Applicants not incorporating low impact development practices into their plans must indicate why LID is not feasible at the site.

4. Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. The Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.
5. Stormwater management systems for Major Projects on new development sites 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 post-construction impervious surface area on the site. Average annual pollutant removal requirements are 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)<sup>3</sup> 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., the MA Stormwater Management Handbook)<sup>4</sup> 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; or
  - d. Utilizing offsite mitigation that meets the above standards within the same USGS HUCI 2 as the new development site.
6. Stormwater management systems for Major Projects 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 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 are 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)6or other BMP performance evaluation tool provided by EPA Region I, 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., the MA Stormwater Management Handbook)7may be used to calculate BMP performance; or
  - b. Retaining the volume of runoff equivalent to, or greater than, 0.80 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; or
  - d. Utilizing offsite mitigation that meets the above standards within the same USGS HUCJ 2 as the new development site.
7. Storm water discharges from areas with higher potential pollutant loads require the use of specific storm water management BMPs (see Massachusetts Stormwater Handbook Volume I: Stormwater Management Standards). The use of infiltration practices without pretreatment is prohibited.
  8. Storm water discharges to critical areas must utilize certain storm water management BMPs approved for critical areas (see Massachusetts Stormwater Handbook Volume I: Stormwater Management Standards). Critical areas are outstanding resource waters (ORWs), shellfish beds, swimming beaches, cold water fisheries and recharge areas for public water supplies.
  9. Redevelopment of previously developed sites must meet the storm water management standards to the maximum extent practicable. However, if it is not practicable to meet all the standards, new (retrofitted or expanded) storm water management systems must be designed to improve existing conditions.
  10. Erosion and sediment controls must be implemented to prevent impacts during disturbance and construction activities. The developer shall control erosion and sedimentation during construction according to the objectives, principles and design considerations set forth in the latest edition of the 'Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Area: A Guide for Planners, Designers, and Municipal Officials, ' as maintained by the MassDEP.
  11. All storm water management systems must have an operation and maintenance plan to ensure that systems function as designed.
  12. All stormwater management best management practices employed within a watershed for a water body impaired for phosphorus shall be shown to be optimized for phosphorus removal by the standards set forth by the MA Stormwater Management Handbook or the approved TMDL, if it exists, whichever is more strict. Infiltration BMPs, bioretention areas, constructed stormwater wetlands, and filter systems are recommended tools for reducing the concentration of nutrients in stormwater discharges.
  13. To support compliance with the Town's MS4 Permit, all new development and redevelopment stormwater management BMPs located on commercial or industrial land must incorporate designs that allow for shutdown and containment to isolate the drainage system in the event of an emergency spill or other unexpected event.
  14. Major and Minor Projects. Activities will be classified as major and minor projects. "Major projects" are defined as projects which have activities resulting in the land disturbance of one acre or more. All other activities will be considered minor projects. Major projects must either *MMC Ch. 13.15 Post-Construction Stormwater Management with June 2020 ATM Updates* meet the requirements listed above, or demonstrate that an equivalent level of environmental protection is provided in the event that one or more of the standards are not met. Minor projects must meet the standards above; however, at the discretion of the planning board, certain aspects of the storm water management plan may be waived. In general, projects which fall into this category will not require the submission of an operation and maintenance plan.