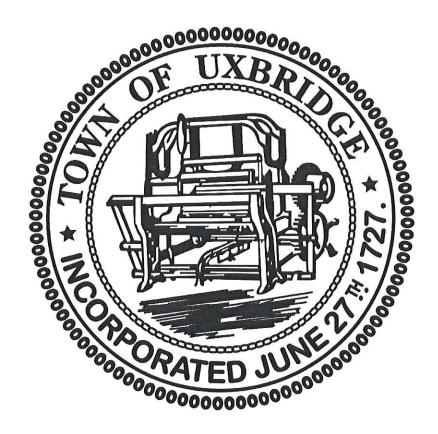
TOWN OF UXBRIDGE REGULATIONS GOVERNING STORMWATER MANAGEMENT

UNDER THE GENERAL BYLAWS OF THE TOWN OF UXBRIDGE, CHAPTER 290: STORMWATER BYLAW

Regulations Adopted By the Planning Board June 26, 2019



Effective 7-8-19 per Town Charter Article 7 Section 5 Revised 1-3-19 by Act of Legislature.



TOWN OF UXBRIDGE REGULATIONS GOVERNING STORMWATER MANAGEMENT

UNDER THE GENERAL BYLAWS OF THE TOWN OF UXBRIDGE, CHAPTER 290: STORMWATER BYLAW

(Stormwater Bylaw adopted at Town Meeting on November 10, 2015)

Table of Contents

Section I: Introduction and Purpose	2
Section 2. Definitions	2
Section 3: Administration	7
Section 4: Applicability	7
Section 5: Permit Procedures, Requirements, and Fees	8
Section 6: Stormwater Management Performance Standards	14
Section 7: Stormwater Management Plan Contents	15
Section 8: Surety	20
Section 9: Enforcement	20
Section 10. Construction Inspections	22
Section 11: Project Completion	24
Section 12: Perpetual Inspection and Maintenance	25
Section 13: Severability	25
Section 14: Signature Page	26



Section I: Introduction and Purpose

A. Purpose & Authority

These Regulations are hereby promulgated under the authority of the Home Rule Amendment of the Massachusetts Constitution, and in accordance with Section 4 of the Town of Uxbridge Stormwater Bylaw. Nothing in these Regulations is intended to replace or be in derogation of the requirements of the Town of Uxbridge Zoning Bylaws, Subdivision Rules and Regulations, or any other Town Bylaws or Regulations.

The purpose of these Regulations is to create a uniformity of process and to clarify and define the provisions of Chapter 290 of the Uxbridge General Bylaw, hereafter called the "Bylaw", administered by the Uxbridge Planning Board.

B. Adoption & Amendment

These Regulations and fee schedules may be periodically amended by the Planning Board in accordance with the procedures outlined in Section 4 Administration of the Town of Uxbridge Stormwater Bylaw.

C. Effective Date

These Regulations are effective 10 days after filing with Town Clerk's office per the Town Charter (Revised January 3, 2019 by act of Legislature) Article 7 Section 5: RULES & REGULATIONS page 19. A copy shall be filed with the office of the Town Clerk, with appropriate endorsements, such as the date of adoption, date filed with the Town Clerk and any amendments.

Section 2. Definitions

The definitions contained here apply to administration, enforcement and issuance of a Stormwater Management Permit established by the Town of Uxbridge Stormwater Bylaw and implemented through these Stormwater Management Regulations. Terms not defined in this section shall be construed according to their customary and usual meaning unless the context indicates a special or technical meaning. The following terms are defined in the Massachusetts Wetlands Regulations (310 CMR 10.00): Critical areas, Environmentally sensitive site design, Flood control, Ground water, Illicit discharge, Land uses with higher potential pollutant loads, Maintenance of a stormwater management system, Stormwater management system, and Surface waters.

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



APPROVAL NOT REQUIRED (ANR) A plan of land that does not require approval under the Subdivision Control Law of Massachusetts (M.G.L. - Chapter 41, Sections 81K through 81GG).

BEST MANAGEMENT PRACTICES (BMPS): A practice or combination of practices that Subject Matter Experts have determined to be an effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water

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.

CERTIFICATE OF COMPLETION (COC): A document issued by Planning Board after all construction activities have been completed which states that all conditions of an issued Stormwater Management Permit have been met and that a project has been completed in compliance with the conditions set forth in the Stormwater Bylaw.

COMPLETED APPLICATION: An application shall be deemed complete by the Planning Board when all information is complete and accurate as stated in these Regulations, including any supplemental information requested by the Planning Board is submitted and accepted for review.

CONVEYANCE: Any natural or man-made structure or device, including pipes, drains, culverts, curb breaks, paved swales or man-made swales of all types designed or utilized to move or direct stormwater runoff or existing water flow.

DEVELOPER: A person who undertakes or proposes to undertake land disturbance activities.

DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA): According to the U.S. EPA, the portion of IMPERVIOUS SURFACE with a direct hydraulic connection to the MS4 or water body via continuous paved surfaces, gutters, pipes and other impervious features. DCIA typically does not include isolated impervious areas with an indirect hydraulic connection to the MS4 (e.g., swale or detention basin) or that would otherwise drain to a pervious area.

DRAINAGE EASEMENT: A legal right granted by a landowner to a grantee allowing the use of private land for Stormwater Management purposes.

EROSION AND SEDIMENTATION CONTROL PLAN: A document containing narrative, drawings and details developed by a qualified professional engineer (PE), which includes BMPs or equivalent measures designed to control surface runoff,



erosion and sedimentation during pre-construction and construction-related land disturbance activities.

EROSION CONTROL: The prevention or reduction of the movement of soil particles or rock fragments due to stormwater runoff and other erosive forces (e.g. wind)..

EROSION CONTROL PLAN: A plans that shows the location and construction detail(s) of the erosion and sediment reduction controls to be utilized for a construction site during and after construction.

FLOODING: A local and temporary inundation or a rise in the surface of a body of water, such that it covers land not usually under water.

FLOOD CONTROL: The prevention or reduction of flooding and flood damage.

GRADING: Changing the level or shape of the ground surface.

GROUNDWATER: All water beneath any land surface including water in the soil and bedrock beneath water bodies.

IMPAIRED WATERS: Include those waters that MassDEP has identified pursuant to section 303(d) of the Clean Water Act as not meeting applicable state water quality standards. Impaired waters encompass both those with approved Total Maximum Daily Loads (TMDLs), and those for which TMDL development has been identified as necessary, but for which a TMDL has not yet been approved.

IMPERVIOUS SURFACE (IS) or IMPERVIOUS COVER (IC) or IMPERVIOUS AREA (IA): Any material or structure on or above the ground that prevents water from infiltrating through the underlying soil. Impervious surface is defined to include, without limitation: paved surfaces (parking lots, sidewalks, driveways), roof tops, swimming pools, patios, and paved, gravel and compacted dirt surfaced roads.

INVASIVE SPECIES: Those plant species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health. For the purpose of this bylaw, a plant species is considered "invasive" only when it occurs on the List of Federal Noxious Weeds (available at

htt://plants.usda.gov/java/noxious?rptType=Federal) or on the Massachusetts Prohibited Plant List (available at

http://www.mass.gov/agr/farmproducts/prohibitedplantlist.htm).

INFILTRATION: The act of conveying surface water into the ground to permit groundwater recharge and the reduction of stormwater runoff from a project site.

LAND-DISTURBING ACTIVITY OR LAND DISTURBANCE: Any activity, including clearing and grubbing, that causes a change in the position or location of soil, sand, Stormwater Regulations

Page 4 of 25

June 26, 2019



rock, gravel, or similar earth material. See also ALTER.

LOW-IMPACT DEVELOPMENT (LID): Development that results in minimized alterations of the land for a more sustainable land development pattern. The site planning process first identifies critical natural resources and then determines appropriate building envelopes to preserve resources. LID also incorporates a range of BMPs that preserve the natural hydrology of the land, minimize impervious areas and preserve vegetation. LID techniques capture water on site, filter it through vegetation, and let it soak into the ground where it can recharge the local water table rather than being lost as surface runoff.

MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS: The requirements described in the Massachusetts Stormwater Handbook, as they may be amended from time to time, that address water quality (pollutants) and water quantity (flooding, low base flow and recharge) by establishing standards that require the implementation of a wide variety of stormwater management strategies. These strategies include environmentally sensitive site design and LID techniques to minimize impervious surface and land disturbance, source control and pollution prevention, structural Best Management Practices, construction period erosion and sedimentation control, and the long-term operation and maintenance of stormwater management systems. The Stormwater Management Standards have been incorporated in the Wetlands Protection Act Regulations, 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) Storm Water Discharge Permit shall mean a permit issued by United States Environmental Protection Authority or jointly with the State that authorizes the discharge of pollutants to waters of the United States.

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

NON-POINT SOURCE POLLUTION: Pollution from diffuse sources (as opposed to discrete conveyances), caused by water, including rainfall or snowmelt, moving over or through the ground. i.e. - any source from which pollution is discharged which is not identified as a point source, including, but not limited to urban, agricultural, or silvicultural runoff. Nonpoint source pollution emanates from many diffuse sources caused by rainfall or snowmelt moving over and/or 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.

OWNER: A person with a legal or equitable interest in a property.

PLAN MODIFICATIONS: Any change in the stormwater management plan as authorized in the Stormwater Management Permit.



POINT SOURCE: Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete, fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

RECHARGE: The replenishment of underground water reserves.

REDEVELOPMENT: Development, replacement, rehabilitation, expansion, demolition or phased projects that disturb the ground surface or increase the impervious area on previously developed sites. Redevelopment is further defined by Massachusetts Stormwater Handbook Standard 7.

RESOURCE AREA: Any area protected under, including without limitation: the Massachusetts Wetlands Protection Act, Massachusetts Rivers Act or any such resources defined within the bylaws of the Town of Uxbridge or any regulation thereunder..

STANDARD SPECIFICATIONS: Commonwealth of Massachusetts, Department of Public Works Standard Specifications for Bridges & Highways, as amended.

STOP WORK ORDER: An order issued by the Planning Board that requires that all construction activity on a site be stopped.

STORMWATER MANAGEMENT: The use of structural or non-structural practices that are designed to reduce and control stormwater runoff pollutant loads, discharge volumes and/or peak flow discharge rates.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP): a site-specific, written document that: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.

SUBDIVISION: Defined in the Subdivision Control Law of Massachusetts (M.G.L. – Chapter 41, Section 81L Definitions).

TOTAL MAXIMUM DAILY LOAD (TMDL): A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act



and 40 CFR §130.2 and §130.7).

TOTAL SUSPENDED SOLIDS (TSS): A measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR Part 136.

VERNAL POOL: A water body that has been certified, or meets the criteria for being certified, by the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program as a vernal pool.

Vernal pools are confined basin depressions which, at least in most years, hold water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations.

WATER QUALITY VOLUME (WQV): The storage volume needed to capture a specified average annual stormwater runoff volume. Numerically (WQV) will vary as a function of drainage area or impervious area.

Section 3: Administration

The Uxbridge Planning Board is designated as the administering authority under the Stormwater Bylaw. The Planning Board is the entity responsible for adopting regulations pursuant to the Bylaw and shall administer, implement and enforce these Regulations. The Planning Board may designate an authorized agent for administering, implementing and enforcing the Bylaw and these Regulations.

Section 4: Applicability

These Regulations apply to all activities in accordance with the Applicability of Chapter 290-5(A)&(B) of the Stormwater Bylaw and as described in this section. Any exemptions to the Stormwater Bylaw are located in Chapter 290-5(C) Exemptions.

Projects and/or activities not specifically under the currently regulated jurisdiction of any of the Town of Uxbridge boards, commissions or departments but still within the jurisdiction of the Town of Uxbridge Stormwater Bylaw must obtain a Stormwater Management Permit from the Planning Board in accordance with the permit procedures and requirements defined in Section 5 of these Regulations.

If a portion of a project or activity meets the Applicability of Chapter 290-5 of the Stormwater Bylaw and it is within the specific jurisdiction of another Town board, then the Planning Board will remain responsible for facilitating stormwater review and approval of the Stormwater Management Permit. The specific application submission requirements, public notices, and fee requirements of the applicable board, commission, and/or department shall remain in effect in addition to the requirements of the Stormwater Bylaw. The Planning Board and other relevant public bodies shall

coordinate any necessary expert engineering and other consultant services required for application review. No work may commence without a Stormwater Management Permit from the Planning Board when such a permit is required as stated herein.



Section 5: Permit Procedures, Requirements, and Fees

Projects requiring a Stormwater Management Permit per Chapter 290-5 Applicability of the Stormwater Bylaw shall be required to submit the materials as specified in this Section, and are required to meet the Performance Standards as specified in Section 6 of these Regulations.

- A. Stormwater Management Permit Application
 - The Applicant shall file with the Planning Board, three (3) hard copies of a completed application package for a Stormwater Management Permit and one (1) PDF formatted copy consistent with the current Standard for Digital Plan Submission to Municipalities, published by the Commonwealth's Bureau of Geographic Information (MassGIS). Permit issuance is required prior to any land disturbance. While the application can be prepared by a representative, the owner of the site must sign the application.
- B. The Stormwater Management Permit Application Package
 The Stormwater Management Permit application package shall include:
 - 1. A completed Application Form with original signatures of all owners and representatives;
 - 2. Payment of the Application Fee;
 - 3. Responsible Billing Party;
 - 4. Maintenance Agreement;
 - 5. Surety bond (if required);
 - 6. A list of abutters, certified by the Assessor's Office, to be used by the applicant to provide notice to abutters at their mailing addresses shown on the most recent applicable tax list of the assessors, including owners of land directly opposite on any public or private street or way, and abutters to the abutters within 300 feet of the property line of the applicant, including any in another municipality or across a body of water);
 - 7. A list of requested waivers, if applicable. Such a request shall be accompanied by an explanation or documentation supporting the waiver request and demonstrate that strict application of the Bylaw or Regulations is not necessary to meet the purposes or objectives of the Bylaw; and
 - 8. A Stormwater Management Plan (Stormwater Report, Erosion and Sediment Control Plan, Operation and Maintenance Plan, Cost Estimate and Timeline) and narrative to document compliance with the Stormwater Management
 - 9. Proof of notification to Natural Heritage and Endangered Species Program if within Estimated or Priority Habitat or proof that project is not within Estimated or Priority Habitat.

All items in Section 5B are required for application submission to be reviewed. Planning Board will notify applicant within 14 days whether the application is considered a completed application. If application is determined to be incomplete, the Planning Board or its designated agent will state which items are deficient and preventing the application from being determined to be a completed application. No



work proposed shall be undertaken without a Stormwater Management Permit from the Planning Board.

C. Entry on Land

To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Planning Board or its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under the Stormwater Bylaw and these Regulations and may make or cause to be made such examinations, surveys or sampling as the Planning Board deems reasonably necessary to determine compliance with the Stormwater Management Permit.

D. Fees

1. General

The Planning Board shall obtain with each submission an Application Fee established by the Planning Board to cover expenses connected with the administration of an application review of the Stormwater Management Permit.

2. The Planning Board is authorized to retain a Registered Professional Engineer (PE) or other professional consultant to advise the Planning Board on any or all aspects of these plans at the expense of the applicant. Applicants must pay review fees before the review process may begin.

3. Rules for Application Fees

- a. Application Fees are payable at the time of application and are non-refundable.
- b. All fees shall be calculated by the Planning Board in accordance with the fee schedule below.
- c. These fees are in addition to any other local or state fees that may be charged under any other law, regulation, or local Bylaw.
- d. Municipal projects shall be exempt from Application Fees associated with a Stormwater Management Permit.

4. Application Fees

Application Fees, in accordance with these Regulations, shall be payable to the Town of Uxbridge at the time of filing. Any application not accompanied by the appropriate fee payment at the time of application shall be considered incomplete. The Application Fee will be used for processing of the application, coordination of Town staff, posting hearings, and other clerical work by Town staff. No fees are refundable in whole or in part under any circumstances.

The application fee is based on the land area that will be disturbed by construction and post construction activities. The application fee is:

- a) \$100 for disturbance of one (1) acre
- b) plus \$50 each additional one (1) acre (or portion thereof) of disturbance up to and including five (5) acres of total disturbance
- c) plus \$50 each additional five (5) acres (or portion thereof) of disturbance.



(e.g. Fee for 100 acres of disturbance is \$1250.) Fees for after-the-fact filings are doubled.

5. Revision of Fee Schedule and Regulations Governing Fees

a. The Planning Board may review and revise its Regulations and fee schedules periodically as it sees fit.

b. Amendments shall be preceded by a posted public hearing of the Planning Board not less than 10 days prior to the date upon which the change is to be effective.

 A copy of the written decision will be filed with the Town Clerk within 14 business days after final action is taken.

6. Rules for Hiring consultants

As provided by GL Ch. 44 § 53G, the Uxbridge Planning Board may impose reasonable fees for the employment of outside consultants, engaged by the Planning Board, for specific expert services deemed necessary by the Planning Board to come to a final decision on an application submitted to the Planning Board pursuant to the requirements of the Stormwater Bylaw, , or any other state or municipal statute, bylaw or regulation, as they may be amended or enacted from time to time

Funds received by the Planning Board pursuant to these rules shall be deposited with the town treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Planning Board without further appropriation as provided in GL Ch. 44 §53G. Expenditures from this account shall be made only in connection with the review of a specific project or projects for which a consultant fee has been collected from the applicant.

Specific consultant services may include but are not limited to resource area survey and delineation, analysis of resource area values, hydrogeologic and drainage analysis, impacts on municipal conservation lands, and environmental or land use law. The consultant shall be chosen by, and report only to, the Planning Board and/or its Administrator or designated agent.

The Planning Board shall give written notice to the applicant of the selection of an outside consultant, which notice shall state the identity of the consultant, the amount of the fee to be charged to the applicant, and a request for payment of said fee in its entirety. Such notice shall be deemed to have been given on the date it is mailed or delivered. No such costs or expenses shall be incurred by the applicant if the application or request is withdrawn within five days of the date notice is given.

The fee must be received in its entirety prior to the initiation of consulting services. The Planning Board may request additional consultant fees if necessary review requires a larger expenditure than originally anticipated or new information requires additional consultant services. Failure by the applicant to pay the consultant fee specified by the Planning Board within ten (10) business days of the request for payment shall be cause for the Planning Board to determine that the application is



administratively incomplete (except in the case of an appeal). The Planning Board shall state such in a letter to the applicant. No additional review or action shall be taken on the permit request until the applicant has paid the requested fee.

The applicant may appeal the selection of the outside consultant to the Uxbridge Board of Selectmen, who may disqualify the outside consultant selected only on the grounds that the consultant has a conflict of interest or does not possess the minimum required qualifications. The minimum qualifications shall consist of either an educational degree or three or more years of practice in the field at issue or a related field. Such an appeal must be in writing and received by the Board of Selectmen and a copy received by the Planning Board, so as to be received within ten (10) days of the date consultant fees were requested by the Planning Board. The required time limits for action upon the application shall be extended by the duration of the administrative appeal.

E. Public Hearings

A public meeting will be held within thirty (30) days of the receipt of a Completed Application and shall take final action within thirty (21) days from the close of the hearing unless such time is extended by agreement between the Applicant and the Planning Board. Notice of the public meeting shall be given, at the expense of the Applicant, by a publication in a local newspaper of general circulation, by posting, and by hand delivery or a certified mailing, return receipt requested, at least fourteen (14) days prior to the hearing.

- F. Permit Application Review Procedures All applications for a Stormwater Management Permit shall be reviewed and determined by the Planning Board.
 - Abutter Notification
 The Applicant shall provide notice to all abutters of the projects filing and invite comment to the Planning Board on said application for a period of not less than fourteen (14) days. The Planning Board shall make the application available for inspection by the public during business hours at the office of the Planning Board.
 - 2. Existing Conditions Review
 As part of the application review, the Planning Board reserves the right for an existing conditions review which includes an on-site evaluation. Please refer to Section 5C.
 - 3. Final Action
 The Planning Board shall take final action within twenty-one business (21) days of the close of public hearing, unless such time is extended by agreement between the Applicant and the Planning Board, per subsection 4 below. The Planning Board shall take final action, rendered in writing, as set out in the Bylaw.
 - 4. Mutual Extension of Time



The required time limits for final action may be extended by written agreement between the applicant and the Planning Board.

G. Plan Modifications

The applicant must notify the Planning Board in writing of any changes in the Stormwater Management Plan as authorized in the Stormwater Management Permit before any change or alteration is made. If the Planning Board determines that the change or alteration is significant, the applicant shall file a new application. For all minor modifications, the applicant shall follow the procedure outlined below.

Changes in ownership or responsible parties will not require resubmission of amendment request as long as the permit timeline has not expired.

- 1. Final Action with Plan Modifications The Planning Board shall take final action within thirty businesses (30) days of the receipt of an amendment request with Plan Modifications unless such time is extended by agreement between the Applicant and the Planning Board, per Subsection 4 Mutual Extension of Time, above. The Planning Board's final action, rendered in writing, shall consist of either:
 - a. Approval of the amendment request with Plan Modifications based upon determination that the proposed modifications will adequately protect the resources of the community as outlined in Stormwater Bylaw and is in compliance with the requirements set forth in these Regulations;
 - Approval of the amendment request with Plan Modifications subject to any conditions, modifications or restrictions required by the Planning Board which will ensure that the project with Plan Modifications will adequately protect the water resources of the community and is in compliance with the requirements set forth in these Regulations;
 - c. Disapproval of the amendment request with Plan Modifications based upon a determination that the proposed Plan Modifications, as submitted, does not adequately protect water resources, as set forth in these Regulations, or the application is deemed incomplete.

H. Appeals of Actions

A decision of the Planning Board shall be final. Further relief of a decision by the Planning Board under the Stormwater Bylaw and these regulations shall be reviewable in the Superior Court in an action filed within 60 days thereof, in accordance with M.G.L. Ch 249 § 4.

 Permit Expiration / Extension Should a land-disturbing activity permitted in accordance with these Regulations not begin during a 180-day period following permit issuance, or if work has not been



completed within three (3) years, the Applicant shall notify the Planning Board 30 days before expiration to avoid expiration and resubmission. The Planning Board may re-evaluate the originally approved Stormwater Management Plan to determine whether the plan still satisfies local program requirements. Permits may be renewed for one (1) additional one (1) year term, without Public Hearings at the discretion of the Planning Board. If the Planning Board finds the previously filed Plan to be inadequate, a Modified Plan shall be submitted and approved prior to the commencement of land-disturbing activities per the procedure in Section 5F of these Regulations.

J. Vesting of Rights

Upon amendment of the bylaw or regulations, applicants shall have a 180-day period following the effective date of the new bylaw or regulations, to use a previously issued SMP. After such time the Planning Board may reevaluate the originally approved Stormwater Management Plan to determine whether the plan still satisfies the bylaw and regulation requirements. If the Planning Board finds the previously filed plan to be inadequate, a modified plan shall be submitted and approved before the commencement of land-disturbing activities.

Section 6: Stormwater Management Performance Standards

A. Minimum Performance Standards

For compliance with Performance Standards of the Uxbridge Stormwater Bylaw, the applicant must meet all the standards of the Massachusetts Department of Environmental Protection's Stormwater Management Standards and Handbook using current (BMPs).

B. Additional Design Criteria

Low Impact Development and Better Site Design
 The use of non-structural LID Management practices and Better Site Design are
 encouraged to minimize reliance on structural management measures. The
 design of Better Site Design and or LID Management Practices shall be in
 accordance with the Massachusetts Stormwater Handbook.

2. Landscape Design

Site plans and landscape plans for all proposed projects shall take appropriate steps to minimize water use for irrigation and to allow for natural recharge of groundwater. Native species and habitat creating species shall be used in all landscape plans to the maximum extent possible. Invasive species shall not be planted in the Town of Uxbridge.

3. Hydrologic Basis for Design

For stormwater facility sizing criteria, the basis for hydrologic and hydraulic evaluation of development and redevelopment sites are as follows:

a All hydrological calculations shall be completed and certified to by a Registered Engineer licensed to practice in this field. Typically, the procedures to follow will include Technical Release Number 55 (TR55) and/or TR20 (as



- amended); with pipe design flows calculated using the Rational Method for the 25-year storm event.
- b. The rainfall amounts shall be determined using Type III 24-hour storm precipitation as referenced in Technical Release Number 55 and 20.
- c The minimum time of concentration for street drainage (Rational Method) shall be five (5) minutes.
- d. Water velocities in pipes and gutters shall be between two (2) and ten (10) feet per second, not more than five (5) feet per second on paved surfaces, and not more than four (4) feet per second in vegetated areas. These velocities shall be included within the analysis.
- e. Impervious cover is measured from the site plan and includes any material or structure on or above the ground that prevents water from infiltrating through the underlying soil.
- f. Off-site areas shall be assessed based on their "pre-developed condition" for computing the water quality volume (i.e., treatment of only onsite areas is required). However, if an offsite area drains to a proposed BMP, flow from that area must be accounted for in the sizing of a specific practice.
- g. Off-site areas draining to a proposed facility should be modeled as "present condition" for peak-flow attenuation requirements.
- h. The length of sheet flow used in time of concentration calculations is limited to no more than 50 feet.
- Detention time is defined as the time between the center of mass of the inflow hydrograph and the center of mass of the outflow hydrograph.
- j. For purposes of choosing a runoff Curve Number, all pervious lands in the site shall be assumed prior to development to be in "good" hydrologic condition regardless of conditions existing at the time of computation.
- k Flooding and channel erosion impact to receiving streams due to land development projects shall be determined at each point of discharge from the development project and such determination shall include any runoff from the balance of the watershed which also contributes to that point of discharge.
- Proposed residential, commercial, or industrial subdivisions or ANRs shall apply these Stormwater Management criteria to the land development as a whole. Individual lots in new subdivisions shall not be considered separate land development projects, but rather the entire subdivision shall be considered a single land development project. Hydrologic parameters shall reflect the ultimate land development and shall be used in all engineering calculations.
- C. Sensitive Areas Additional Design Criteria
 Stormwater discharges to Critical Areas with sensitive resources as defined in the
 Massachusetts Stormwater Management Standard No. 6, and vernal pools, whether
 certified or not, (providing they meet the standards for certification, are subject to
 additional criteria, and may need to utilize or restrict certain Stormwater Management
 practices at the discretion of the Planning Board. The Planning Board may designate
 additional Sensitive Areas and specific criteria for these areas by amending these
 Regulations.



D. Discharges to Water Quality Impaired Waters The Applicant must determine whether stormwater discharges from the proposed site will contribute, either directly or indirectly, to an impaired water body. Structural and non-structural stormwater BMPs shall be selected that will control the discharge of the pollutants of concern and ensure that the discharges will not cause any instream exceedances of applicable water quality standards. Pollutants of concern refer to the pollutant identified as causing the impairment.

Section 7: Stormwater Management Plan Contents

- A. The application for a Stormwater Management Permit shall include the submittal of a Stormwater Management Plan (Stormwater Report, Erosion and Sediment Control Plan, Operation and Maintenance Plan, Cost Estimate and Timeline) to the Planning Board prepared in accordance with the Massachusetts Stormwater Handbook and the criteria established in these Regulations. This Stormwater Management Plan shall document compliance with each of the ten (10) Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook and shall contain sufficient information for the Planning Board to evaluate the environmental impact, effectiveness, and acceptability of the site planning process and the measures proposed by the applicant for reducing adverse impacts from stormwater runoff. The Stormwater Management Plan shall remain on file with the Planning Board.
- B. The Stormwater Management Plan shall fully describe the project in drawings, narrative and calculations. The plan, and its sections listed below shall bear the stamp and signature of a PE licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the Stormwater Handbook, the Stormwater Bylaw and these Regulations. To demonstrate compliance to the Planning Board, the applicant shall include the following in addition to the requirements in the Stormwater Handbook:
 - 1. Stormwater Report
 - a. Locus Map;
 - b. Existing Site Plan;
 - c. The existing zoning, and land use at the site and abutting properties;
 - d. The proposed land use and limit of work;
 - e. The location(s) of existing and proposed easements;
 - f. The location of existing and proposed utilities;
 - g. The location of existing and proposed site improvements (buildings, drives, walkways, etc.)
 - h. The site's existing & proposed topography with contours at 1-foot intervals;
 - i. The existing site hydrology (both groundwater recharge and surface runoff);
 - j. A description and delineation of existing stormwater conveyances, impoundments, wetlands, drinking water supplies and resource areas, swimming beaches, sensitive areas, vernal pools, NHESP (Natural Heritage and Endangered Species Program) habitat, or other protected resource areas, on or adjacent to the site or into which stormwater flows, and how



they will be protected;

- k. A delineation of 100-year flood plains, if applicable;
- I. The existing and proposed vegetation and ground surfaces with runoff coefficients for each; (including all impervious cover parking, driveways, etc.)
- m. A drainage area map showing pre- and post-construction watershed boundaries, drainage areas, time of concentration, and stormwater flow paths, including municipal drainage system flows;
- n. A description and drawings of all components of the proposed Stormwater Management system including:
 - i. All measures for the detention, retention or infiltration of water;
 - ii. Description of non-structural BMPs;
 - iii. All measures for the protection of water quality (see Erosion and Control Plan for more details);
 - iv. The structural details for all components of the proposed drainage systems and Stormwater Management facilities;
 - v. Notes on drawings specifying materials to be used, construction specifications, and expected hydrology with supporting calculations;
 - vi. Proposed site plan including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable;
 - vii. Any other information requested by the Planning Board.
- o. Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the Stormwater Handbook. Such calculations shall include:
 - i. Description of the design storm frequency, intensity and duration;
 - ii. Time of concentration;
 - Soil Runoff Curve Number (RCN) based on land use and soil hydrologic group;
 - iv. Peak runoff rates and total runoff volumes for each watershed area;
 - v. Provisions for protecting, during construction, the infiltration capacity of the soil where 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, and
 - x. Documentation of sources for all computation methods and field test results.
- p. Landscaping plan describing the woody and herbaceous vegetative stabilization and management techniques to be used within and adjacent to the stormwater practice.
- q. Proposed measures to prevent exposure of any salt stockpiles to precipitation and runoff.
- 2. The Erosion and Sediment Control Plan (Drawings and Narrative) shall contain the following:



a. Direction(s) of stormwater flow and approximate slopes anticipated after major grading activities;

b. Areas of soil disturbance and areas that will not be disturbed (limit ofwork

line);

c. Locations of site access/egress, including applicable sediment control measures;

d. Locations where stabilization practices are expected to occur;

- e. Locations where stormwater discharges to a surface water (include all roads, drains and other structures that could carry stormwater to a wetland or other water body, on or offsite); and
- f. The on-site location(s) and erosion control measures to be used for storage of materials, wastes, vehicles, equipment, soil, snow and other potential pollutants including but not limited to, discarded building materials and demolition debris, concrete truck wash out, chemicals, litter and sanitary waste. These wastes must be contained and not discharged from the site. If off-site, note location(s) of storage area(s) and detail applicable sediment control measures;
- g. Estimation of the total area (in square footage and percentage) and total volume (in cubic feet) expected to be disturbed by excavation, grading or other construction activities (include dedicated off-site borrow and fill areas).
- h. Description of appropriate erosion control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation.

i. Description of structural practices to divert flows from exposed soils, retain/detain flows or otherwise limit runoff and the discharge of pollutants

from exposed areas of the site.

j. Description of construction and waste materials expected to be stored onsite and a description of controls, including storage practices, to minimize exposure of the materials to stormwater, and spill prevention and response practices.

k. Description of interim and permanent slope stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Use of impervious surfaces for stabilization should be avoided.

I. A description of measures to minimize the tracking of sediments and dust off-site.

m. Sediment and Erosion Control Plans shall:

- i. Minimize the amount of disturbed area and protect natural resources:
- ii. Stabilize sites when projects are complete or operations have temporarily ceased;

iii. Protect slopes on the construction site;

- iv. Protect all storm drain inlets and armor all newly constructed outlets;
- v. Use perimeter controls at the site;



- vi. Stabilize construction site entrances and exits to prevent off-site tracking:
- vii. Inspect stormwater controls at consistent intervals.
- 3. Operation and Maintenance Plan (Drawings and Narrative shall contain the following:

In addition to compliance with the Stormwater Management Handbook, the Operation and Maintenance Plan (the O & M Plan) shall be designed to ensure compliance with the Massachusetts Surface Water Quality Standards (314 CMR 4.00) in all seasons and throughout the life of the system. When applicable, Stormwater Management easements will be required for all areas used for off-site stormwater control, unless the Planning Board grants a waiver.

- a. The location of the systems and facilities including all stormwater and low-impact development best management practices, catch basins, manholes/access lids, pipes, and other stormwater devices;
- b. The location(s) of Stormwater Management easements provided by the property owner(s) as necessary for:
 - i. Access for facility inspections and maintenance;
 - Preservation of stormwater 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 maintenance.
- c. The names, addresses and contact information of the property owner.
- d. The names, addresses and contact information of the person(s) responsible for site operation and maintenance;
- e. The person(s) responsible for financing maintenance and emergency repairs;
- f. A list of easements with the purpose of each; and
- g. An Inspection and Maintenance Schedule for all stormwater management facilities, including what routine and non-routine maintenance tasks are to be performed, when they are to be conducted, who is to perform them, and to whom to report results (per SECTION, Annual Reports).
- h. Maintenance Inspections
 - i. Stormwater management facilities and practices included in an O & M Plan with a Maintenance Agreement in accordance with Section 6.M of these Regulations shall undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the agreement, the Plan and these Regulations.
- i. At a minimum, inspections shall occur once every year. A Maintenance Agreement as specified under Section 6.M of these Regulations between the owner and the Planning Board shall be executed for privately owned stormwater management systems that specify the



Responsible Party for conducting long term inspections.

- j. Records of Maintenance and Repair Activities Parties responsible for the operation and maintenance of a stormwater management facility shall provide records of all maintenance and repairs to the Planning Board upon request. Parties responsible for the operation and maintenance of a stormwater management facility shall prepare records of the installation and of all maintenance and repairs, and shall retain the records for the most recent five years on site. These records shall be made available to the Planning Board annually, during inspection of the facility, and upon request.
- 4. Budget and Timeline shall contain the:
 - a. A pre-construction, construction and post-construction budget should be included in the project description. Any variances should be noted and communicated as soon as discovered to the Planning Board.
 - b. A timeline should be included in the project description. Any variances should be noted and communicated as soon as discovered to the Planning Board.
- C. If in the applicant's opinion one or more of the Stormwater Management Standards or other requirements cannot be reasonably met, the applicant shall provide a detailed explanation in the Stormwater Report. This narrative shall include reasons that the requirement or Standard could not be met and a description of potential consequences if no mitigating measures are provided.

Section 8: Surety

Before the start of any land disturbance or construction activity, the Planning Board may require the applicant to furnish a Performance Bond of cash, certified check, a surety bond, irrevocable letter of credit, or other acceptable security to the Town as obligee in a penal sum. The form of the bond shall be approved by Town Counsel, and be in an amount deemed sufficient by the Planning Board to ensure that the work will be completed in accordance with the Stormwater Management Permit if the project is phased, the Planning Board may release part of the bond as each phase is completed in compliance with the permit but the bond may not be released to an amount less than 15% of the original amount until the Planning Board has received the final inspection report as required by Section 11 of these Regulations and issued a COC.



Section 9: Enforcement

Enforcement powers of the Planning Board or an authorized agent of the Planning Board are granted in the Stormwater Bylaw, Section 7.

A. Notices and Orders

- The Planning Board may issue a written notice of violation or an enforcement order to enforce the provisions of the Stormwater Bylaw and the Regulations, which may include requirements to:
 - a. Suspend or revoke approval of any Stormwater Management Permit;
 - b. Cease and desist from a portion of construction or land disturbing activity until there is compliance with the Bylaw and the Stormwater Management Permit:
 - c. Repair, maintain, or replace the stormwater management system or portions thereof in accordance with the Maintenance Agreement;
 - d. Perform monitoring, analyses, and reporting; and/or
 - e. Fix adverse impact resulting directly or indirectly from malfunction of the stormwater management system.

The suspension or revocation of the Stormwater Management Permit shall not relieve the Applicant of his obligation thereunder except at the discretion of the Planning Board.

- 2. If the Planning Board determines that abatement or remediation of adverse impacts is required, the order may set forth a deadline by which such abatement or remediation shall be completed. Said order may further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town of Uxbridge may, at its option, undertake such work, and the property owner shall reimburse the Town of Uxbridge for expenses incurred.
- 3. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner shall be notified of the costs incurred by the Town of Uxbridge, including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Planning Board within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of the Planning Board affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner and will constitute a lien on the owner's property for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. Ch. 59, § 57, after the thirty-first day at which the costs first become due.
- B. Purchase, Inheritance, or Acquisition of Property
 Any person who purchases, inherits or otherwise acquires real estate upon which work
 Stormwater Regulations
 Page 20 of 25
 June 26, 2019



has been done in violation of the provisions of the Stormwater Bylaw and these Regulations, or in violation of the approved Plans under this Section shall forthwith comply with any such Order, and restore such real estate to its condition prior to such violation, as the Stormwater Agent deems necessary to remedy such violation.

C. Fines

Any person who violates any provision of the Town of Uxbridge Stormwater Bylaw, these Regulations, or order or permit issued thereunder, may be ordered to correct the violation and/or shall be punished by a fine of not more than \$100.00, excluding the cost of damages. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

D. Non-Criminal Disposition Reserved.

E. Appeals

A decision of the Planning Board shall be final. Further relief of a decision by the Planning Board under the Stormwater Bylaw and these regulations shall be reviewable in the Superior Court in an action filed within 60 days thereof, in accordance with M.G.L. Ch 249 § 4.

F. Remedies Not Exclusive

The remedies listed in these Regulations are not exclusive of any other remedies available under any applicable federal, state or local law.

Section 10: Construction Inspections

- A. Notice of Construction Commencement. The applicant must notify the Planning Board or its authorized Agent 14 days prior to the commencement of construction and schedule a pre-construction meeting.
- B. Stormwater Management System Installation. The applicant must notify the Planning Board 14 days in advance of construction of critical components (as defined during hearing process and/or the pre-construction meeting) of any stormwater management facility. At a minimum the applicant will notify when the component area has been excavated to sub-grade, after components have been installed, and before the backfilling of any underground drainage or stormwater conveyance structures.
- C. At the discretion of the Planning Board, periodic inspections of the stormwater management system construction shall be conducted by qualified personnel (a PE, or their designee who has been approved by the Planning Board). All inspections shall be documented and written reports prepared that contain the following information:
 - 1. The date and location of the inspection;
 - 2. Names, titles, and qualifications of personnel making the inspection;
 - 3. Whether construction is in compliance with the approved Stormwater



Management Plan;

4. Variations from the approved construction specifications; and

5. Any other variations or violations of the conditions of the approved Stormwater Management Plan.

D. Erosion Control Inspection

- 1. To ensure erosion control practices are in accord with the filed Stormwater Management Plan, Erosion Control Inspections will be conducted by the site owner or an authorized representative at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.25 inches or greater from the start of construction until the site is permanently stabilized. Inspection frequency may be reduced to at least once a month if the site is determined by the Planning Board to be temporarily stabilized, such as runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or if construction is occurring during seasonal dry periods.

 The Applicant is required to notify the Planning Board of any change in inspection frequency, including termination of inspections due to site stabilization.
- 2. The inspection form will include:

a. Name, date, and signature of qualified inspector.

b. Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;

c. Location(s) of discharges of sediment or other pollutants from the site;

d. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location, and/or location(s) where additional BMPs are needed that did not exist at prior inspection; and

e. Corrective action required including any changes to the Stormwater Management Plan necessary and implementation dates.

If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) General Permit for Storm Water Discharges From Construction Activities (the most recent EPA Construction General Permit), then the Applicant is required to submit all Inspection Reports to the Planning Board. If the Inspection Reports meet the requirements of the most recent Construction General Permit, it will be considered equivalent to the Erosion Control Inspection as described above.

E. The Planning Board or its designee shall inspect the project site at the following stages, at a minimum:

1. Initial Site Inspection: prior to approval of any plan;

2. Stormwater Management System Inspection: An inspection will be made of the completed stormwater management system, prior to backfilling of any



underground drainage or stormwater conveyance structures.

- 3. Final Inspection, following receipt of final As-Built.
 - a. After the stormwater management system has been constructed and before the surety has been released, all applicants are required to submit actual "as built" plans for any stormwater management facilities or practices after final construction is completed and must be certified by a PE.
 - b. The Planning Board or an authorized agent shall inspect the system to observe its "as-built" features. This inspector shall also observe the effectiveness of the system in an actual storm. The inspector shall report the observations to the Planning Board before a Certificate of Completion is issued.

F. Inadequacy of System

- If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built in accordance with the Stormwater Management Plan, it shall be corrected by the applicant before the Certificate of Completion is released. If the applicant fails to act the Planning Board may use the surety bond to complete the work.
- 2. If the Planning Board determines that there is a failure to comply with the plan, the property owner shall be notified in writing of the nature of the violation and the required corrective actions. A Stop Work Order shall be issued until any violations are corrected and all work previously completed has received approval by the Planning Board.

Section 11: Project Completion

A. "As-Built" Plans

Within 90 days of completion of the project, the applicant shall submit an on-the-ground surveyed as-built of all structural stormwater controls and treatment best management practices required in Section 7. A Registered PE must prepare As- built Plans that show the "as built" conditions, including all final grades, all work completed, including, but not limited to all drainage, elevations, location of all wetland resource areas, no-disturb zone, tree-shrub lines, and any other areas of work associated with this project developed by contractor. As-built drawings shall be shown as *bolded* overlays on proposed plans at the same scale as the approved plans. All work deleted, corrections in elevations, and changes in materials, shall be shown on the as-built drawings and explained in writing. A Registered PE shall specify deviations, if any, from the approved SMP and certify that the project has been completed in accordance with the SMP and the approved design plans.

As-builts shall also be submitted electronically to the Planning Board in PDF and GIS format consistent with the current Standard for Digital Plan Submission to Municipalities, published by the Bureau of Geographic Information (MassGIS) or as otherwise required by Town of Uxbridge and compatible with ArcView GIS.

B. Certificate of Project Completion

1. Upon completion, the Applicant is responsible for certifying that the completed project is in accordance with the approved plans and specifications by



submitting As-built Plans to the Planning Board. The certification statement shall be based on regular inspections that occurred during construction sufficient to adequately document compliance.

- 2. Easements shall be properly recorded and/or registered at the Worcester County Registry of Deeds before the Planning Board can issue a Certificate of Completion.
- 3. The Planning Board will issue a Certificate of Completion to the Applicant upon satisfactory receipt and approval of the above information and final inspection. and reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with the Stormwater Bylaw and these Regulations.

Section 12: Perpetual Inspection and Maintenance

The owner of the property on which work has been done pursuant to these Regulations for private stormwater management facilities, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices. Such repairs or restoration and maintenance shall be in accordance with approved plans.

A. Failure to Maintain

- 1. If a Responsible Party fails or refuses to meet the requirements of the Maintenance Agreement, the Planning Board, after 30 days written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, no prior notice shall be required), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. The Planning Board may assess the owner(s) of the facility for the cost of repair work, which shall be a lien on the property.
- 2. After notification is provided to the person responsible for carrying out the maintenance plan of any deficiencies discovered from an inspection of a stormwater management system, the person responsible for carrying out the maintenance plan shall have 30 days or other time frame mutually agreed to between the Planning Board and the person responsible for carrying out the maintenance plan to correct the deficiencies. The Planning Board shall then conduct a subsequent inspection to ensure completion of repairs.

Section 13: Severability

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