

**TOWN OF BELCHERTOWN
STORMWATER MANAGEMENT REGULATIONS**

**DRAFT
April 2, 2007**

1. PURPOSE

The purpose of these Stormwater Management Regulations is to protect the public health, safety, environment, and general welfare by establishing requirements and procedures to control the adverse impacts of stormwater runoff from new development and redevelopment as provided by the Town of Belchertown Stormwater Management Bylaw.

2. DEFINITIONS

Definitions are in Appendix A of these Regulations and shall apply to issuance of a Stormwater Management Permit established by the Town of Belchertown Stormwater Bylaw and implemented through these Stormwater Management Regulations. Terms not defined in Appendix A shall be understood according to their customary and usual meaning.

3. AUTHORITY

- A. These Regulations have been adopted by the ***[insert Town Boards such as Conservation Commission, Planning Board, Board of Health, and Department of Public Works]*** in accordance with the Town of Belchertown Stormwater Management Bylaw.
- B. These Regulations are adopted to administer the Stormwater Management Bylaw and do not replace the requirements of the Town of Belchertown Wetlands Protection Bylaw or any Rules and Regulations adopted thereunder.
- C. These Stormwater Management Regulations may be periodically amended by the Stormwater Authority in accordance with the procedures outlined in Section 4 of the Town of Belchertown Stormwater Management Bylaw.

4. ADMINISTRATION

The Stormwater Authority shall administer these Regulations. Town Boards, including the Conservation Commission, Planning Board, Zoning Board of Appeals, Board of Health, and any other Town Board or Department, which has formally adopted these Regulations, either directly, or by reference, shall have approval authority under these Stormwater Management Regulations. Projects or activities approved by Town boards that adopt these Regulations shall be deemed in compliance with the intent and provisions of these Regulations. Each approving Town Board or Department must forward written approval and all conditions of approval to the Stormwater Authority within 10 days of approval. Upon receipt of written approval from a Board or Department, the Stormwater Authority shall issue a Stormwater Management Permit to the applicant within 14 days.

5. APPLICABILITY

These Regulations apply to all land alteration activities that are not exempt under the Town of Belchertown Stormwater Management Bylaw. Activities within the jurisdiction of the Stormwater Management Bylaw must obtain a Stormwater Management Permit from the Stormwater Authority in accordance with the permit procedures and requirements defined in Section 6 of these Regulations. For projects and/or activities within the jurisdiction of delegated Town Boards, the specific application requirements, public notices and fees of that board shall govern. The Stormwater Review Fee under Section 6.0 E, the Stormwater Management Plan Contents under Section 6.0 L, and the Operation and Maintenance Plan Contents under Section 6.0 M of these Regulations are also required.

6. PERMIT PROCEDURES AND REQUIREMENTS

A. Projects requiring a Stormwater Management Permit shall submit the materials specified in this section, and meet the technical criteria as specified in this section and Section 7. Applications reviewed by a delegated Town Board shall include the materials specified in this section in addition to the information required by the delegated Town Board's normal project review procedures.

B. Permit Required

1. No land owner or land operator shall receive any of the building, grading or other land development permits required for land disturbance activities without first receiving a Stormwater Management Permit and meeting the requirements of the Town of Belchertown Stormwater Management Bylaw and Regulations prior to commencing the proposed activity.
2. The project shall begin within one year after issuance of the Stormwater Management Permit. If the project does not begin within one year, and the Stormwater Authority finds that the approved Stormwater Management Plan is inadequate, the applicant shall submit a modified Plan that requires approval prior to commencement of land-disturbing activities.

C. Filing Application

The applicant shall file with the Stormwater Authority, four (4) copies of an application for a Stormwater Management Permit. A permit must be issued prior to any land altering activity. While the applicant can be a representative, the permittee must be the owner of the site.

1. For land altering activity subject to the Town of Belchertown Stormwater Management Bylaw involving construction of a single-family dwelling, where "approval is not required" (ANR), as defined in the Subdivision Control Act, and that disturbs less than 1 acre of land, the Stormwater Management Permit Application package shall include:
 - a. A completed Application Form with original signatures of all owners;

- b. A list of abutters, certified by the Assessors Office, within 100 feet of the property line of the site, including property owners in another municipality;
 - c. Stormwater Management Plan, as specified in Section 6.L.2 of these Regulations;
 - d. Payment of the application and review fees;
 - e. Surety bond, if determined to be required by the Stormwater Authority.
2. For all other land altering activity subject to the Town of Belchertown Stormwater Management Bylaw, the Stormwater Management Permit Application package shall include:
- a. A completed Application Form with original signatures of all owners;
 - b. A list of abutters, certified by the Assessors Office, within 100 feet of the property line of the site, including property owners in another municipality;
 - c. Stormwater Management Plan, including project description and Erosion and Sediment Control Plan;
 - d. Operation and Maintenance Plan, with Inspection and Maintenance agreement;
 - e. Payment of the application and review fees;
 - f. Surety bond.

D. Entry

Filing an application for a permit grants the Stormwater Authority or its agent, permission to enter the site to verify the information in the application and to inspect for compliance with an approved Stormwater Management Permit.

E. Fees

Application fees established by the Stormwater Authority are required to cover expenses for the review of the Stormwater Management Permit application. The Stormwater Authority is authorized to retain a Registered Professional Engineer or other professional consultant to advise on any aspects of the permit application. Applicants must pay review fees before the review process may begin:

1. Rules

- a. Application fees are in addition to any other local or state fees that may be charged.
- b. The fee schedule may be altered by the Stormwater Authority at a public hearing at least thirty (30) days before the effective date of the change. A copy of the written decision shall be filed with the Town Clerk within 10 days after final action is taken.

2. Application Fees

- a. The following non-refundable fees shall be payable to the Town of Belchertown when an application is filed:
 - i. \$10 for construction of a single-family dwelling, where “approval is not required” (ANR), as defined in the Subdivision Control Act.

- ii. \$25 per lot/unit for construction of residential subdivision and other residential projects (2 or more lots/units in a common plan of development) (maximum of \$1,000).
- iii. \$50 per lot for construction of commercial subdivision (maximum of \$1,000).
- iv. \$100 per acre of land disturbance for individual commercial or industrial sites (maximum of \$1,000).

3. Engineering and Consultant Reviews and Fees

- a. The Stormwater Authority is authorized to require an applicant to pay an "Engineering and Consultant Review Fee" for the reasonable costs for engineering and consultant services necessary for the Stormwater Authority or Reviewing Board(s) to make a decision on the application.
- b. Payment may be required at any point in the deliberations prior to a final decision.
- c. An application filed with the Stormwater Authority must be accompanied by a signed certification statement agreeing to pay for engineering and consultant reviews and fees.
- d. Consultant fees shall be determined at the time of project review based on a specific scope of work, and calculated at a rate as the Stormwater Authority or Reviewing Board(s) may determine.
- e. The services for which a fee may be utilized include wetland survey and delineation, hydrologic and drainage analysis, wildlife evaluation, stormwater quality analysis, site inspections, as-built plan review, and analysis of legal issues.
- f. The Stormwater Authority or Reviewing Board(s) may require an applicant to pay reasonable costs for services of Town Staff for application reviews. The Stormwater Authority or Reviewing Board(s) may require a fee of \$50.00 per hour for more than two (2) hours of review, inspection and monitoring time by Town personnel.
- g. Any unused portion of fees collected shall be returned by the Stormwater Authority or Reviewing Board(s) to the applicant within 45 calendar days of a written request by the applicant, unless the Stormwater Authority or Reviewing Board(s) decides in a public meeting that other action is necessary.
- h. The Engineering and Consultant Review fees collected under this section shall be deposited in a revolving account. The Stormwater Authority shall include a full accounting of the revolving account as part of its annual report to the Town.

F. Public Hearings

The Stormwater Authority is not required to hold a public hearing for projects or activities outside the jurisdiction of delegated Town Boards. For permits within the jurisdiction of Town Boards, a public hearing shall be held in accordance with their procedures. Applicants shall notify abutters about Stormwater Management Permit applications that will be reviewed by the Stormwater Authority.

G. Actions

The Stormwater Authority's action, rendered in writing, shall consist of either:

1. Approval of the Stormwater Management Permit Application based upon a determination that the proposed plan meets the criteria in Section 7 of these Regulations, and complies with the requirements of the Town of Belchertown Stormwater Management Bylaw;
 2. Approval of the Stormwater Management Permit Application subject to any conditions, modifications or restrictions required by the Stormwater Authority;
 3. Disapproval of the Stormwater Management Permit Application based upon a determination that the proposed plan does not meet the criteria in Section 7 or the Bylaw requirements;
 4. Disapproval of the Stormwater Management Permit Application "without prejudice" where an applicant fails to provide requested additional information that in the Stormwater Authority's opinion is needed to adequately describe the proposed project.
- H. The Stormwater Authority or Reviewing Board(s) will review the permit application for administrative completeness. Incomplete applications will be disapproved and returned to the applicant based on the determination that they are administratively incomplete.
- I. Failure of the Stormwater Authority to take final action upon an application within 45 calendar days of receipt of a complete application shall be deemed to be approval of that application. Upon certification by the Town Clerk that 45 days has passed without action, the Stormwater Authority shall issue a Stormwater Management Permit.

J. Plan Changes

The permittee must notify the Stormwater Authority in writing of any change in a Stormwater Management Permit before any change or alteration is made. If the change or alteration is significant, the Stormwater Authority may require that an amended application be filed and abutters notified.

K. Appeals

A decision of the Stormwater Authority shall be reviewable in Superior Court by an appeal filed within sixty (60) days of the decision. An appeal of a decision by a delegated Town Board shall be conducted under the applicable appeal provisions of that Board. An appeal shall result in revocation of the written approval until the appeal process has been resolved.

L. Project Completion

The permittee shall submit as-built drawings of all structural stormwater controls and stormwater treatment practices, which shall show deviations from the approved plans, if any, and be certified by a Registered Professional Engineer.

M. Stormwater Management Plan Contents

1. A Stormwater Management Plan submitted with the permit application shall contain sufficient information for the Stormwater Authority to evaluate the environmental impact, effectiveness and acceptability of the measures proposed for reducing adverse impacts from construction stormwater runoff and post-development stormwater runoff. This plan shall comply with the criteria established in these Regulations and must be submitted with the stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts.
2. For land altering activity subject to the Town of Belchertown Stormwater Management Bylaw involving construction of a single-family dwelling, where “approval is not required” (ANR), as defined in the Subdivision Control Act, and that disturbs less than 1 acre of land, the Stormwater Management Plan shall include:
 - a. Contact Information. The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected;
 - b. A locus map;
 - c. The existing zoning and land use at the site;
 - d. The location(s) of existing and proposed easements;
 - e. The location of existing and proposed utilities;
 - f. The site’s existing & proposed topography. Existing and proposed topographical contours at 2-foot intervals are required unless the applicant demonstrates that the proposed activity will meet the requirements of the Belchertown Stormwater Management Bylaw and Section 7 of these regulations (Stormwater Management Criteria) without such information;
 - g. Proposed limits of disturbance;
 - h. Estimate of the total area expected to be disturbed by excavation, grading or other construction activities;
 - i. A description of the existing site hydrology;
 - j. A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows;
 - k. A description of the proposed management systems for runoff from impervious surfaces including roofs and driveways and the locations of any foundation drains, curtain drains, or other site features that serve to collect and convey stormwater and their outfalls;
 - l. Description of erosion and sediment control measures.
3. For all other land altering activity subject to the Town of Belchertown Stormwater Management Bylaw, the Stormwater Management Plan shall fully describe the project in narrative, drawings, and calculations and shall include:
 - a. Contact Information. The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected;
 - b. A locus map;
 - c. The existing zoning and land use at the site;
 - d. The proposed land use;
 - e. The location(s) of existing and proposed easements;
 - f. The location of existing and proposed utilities;

- g. The site's existing & proposed topography with contours at 2 foot intervals,
- h. Proposed limits of disturbance;
- i. Estimate of the total area expected to be disturbed by excavation, grading or other construction activities;
- j. A description of the existing site hydrology;
- k. A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows;
- l. A delineation of 100-year flood plains, if applicable;
- m. Habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, and Priority Habitats of Rare Species within five hundred (500) feet of any construction activity.
- n. Estimated seasonal high groundwater elevation in areas to be used for stormwater retention, detention, or infiltration;
- o. The existing and proposed vegetation and ground surfaces with runoff coefficients for each;
- p. A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths, including municipal drainage system flows;
- q. A description and drawings of all components of the proposed stormwater management system including:
 - i. Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization;
 - ii. All measures for the detention, retention or infiltration of water;
 - iii. All measures for the protection of water quality;
 - 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 improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable;
 - vii. Any other information requested by the Stormwater Authority.
- r. Hydrologic and hydraulic design calculations for the pre-development and postdevelopment conditions for the design storms specified in this Regulation. Such calculations shall include:
 - i. Description of the design storm frequency, intensity and duration;
 - ii. Time of concentration;
 - iii. 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. Information on construction measures used to maintain the infiltration capacity of the soil where any kind of 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.

- s. Post-development downstream analysis, if deemed necessary by the Stormwater Authority. The downstream analysis will evaluate the hydrologic impacts of the project downstream of the project to a location where the watershed to project size is approximately equal to 10:1;
- t. Soils Information from test pits performed at the location of proposed stormwater management facilities, including soil descriptions, depth to seasonal high groundwater, depth to bedrock, and infiltration rates. Soils information will be based on site test pits logged by a Massachusetts Registered Soil Evaluator, a Massachusetts Registered Sanitarian, or a Massachusetts Registered Professional Engineer;
- u. Landscaping plan describing the woody and herbaceous vegetative stabilization and management techniques to be used within and adjacent to the stormwater practices;
- v. Drainage patterns and approximate slopes anticipated after major grading activities;
- w. Location and details of erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, and material stockpiling areas;
- x. Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable;
- y. Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures;
- z. A description of construction and waste materials expected to be stored on-site. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response;
- aa. A description of provisions for project phasing.

N. Operation and Maintenance Plan Contents

An Operation and Maintenance Plan (O&M Plan) is required at the time of application for all projects subject to the Town of Belchertown Stormwater Management Bylaw, with the exception of construction of a single-family dwelling, where "approval is not required" (ANR), as defined in the Subdivision Control Act, and that disturbs less than 1 acre of land. Although submittal of an O&M Plan is not required for single-family residential ANR lots that disturb less than 1 acre of land, such developments that have stormwater management facilities are subject to the maintenance requirements of Section 12 of these Regulations. The O&M Plan shall be designed to ensure compliance with the Permit, the Town of Belchertown Stormwater Management Bylaw and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The O&M Plan shall remain on file with the Stormwater Authority and shall be an ongoing requirement. The O&M Plan shall include:

1. The name(s) of the owner(s) for all components of the system;
2. A map showing the location of the systems and facilities including catch basins, manholes/access lids, main, and stormwater devices;
3. Maintenance agreements that specify:

- a. The names and addresses of the person(s) responsible for operation and maintenance;
- b. The person(s) responsible for financing maintenance and emergency repairs;
- c. An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed;
- d. A list of easements with the purpose and location of each;
- e. The signature(s) of the owner(s).

4. Stormwater Management Easement(s)

- a. Stormwater management easements shall be provided by the property owner(s) as necessary for:
 - i. Access for facility inspections and maintenance;
 - ii. 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.
- b. The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
- c. Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Stormwater Authority.
- d. Easements and other applicable deed restrictions shall be recorded with the Hampshire County Registry of Deeds prior to issuance of a Certificate of Completion by the Stormwater Authority.

5. Changes to Operation and Maintenance Plans

- a. The owner(s) of the stormwater management system must notify the Stormwater Authority of changes in ownership or assignment of financial responsibility.
- b. The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of this Regulation by mutual agreement of the Stormwater Authority and the Responsible Parties. Amendments must be in writing and signed by all Responsible Parties. Responsible Parties shall include owner(s), persons with financial responsibility, persons with operational responsibility, and easement grantors.

7. STORMWATER MANAGEMENT CRITERIA

A. All projects shall comply with the most recent version of Massachusetts Stormwater Management Policy and achieve the following performance standards:

- 1. LID and Site Planning Process: The site planning process shall be documented and shall include the following elements:
 - a. Identify, map, and preserve the site's natural features and environmentally sensitive areas such as wetlands, native vegetation, mature trees, slopes,

- drainageways, permeable soils, flood plains, woodlands and soils to the greatest extent possible;
- b. Minimize grading and clearing;
 - c. Delineate potential building envelopes, avoiding environmental resource areas and appropriate buffers by clustering buildings and reducing building footprints;
 - d. Develop methods to minimize impervious surfaces, and protect and preserve open space. Reduce impervious surfaces wherever possible through alternative street design, such as omission of curbs and use of narrower streets, shared driveways and through the use of shared parking areas;
 - e. Manage runoff using smaller, decentralized, low-tech stormwater management techniques to treat and recharge stormwater close to the source;
 - f. Lengthen flow paths and maximize sheet flow;
 - g. Use nonstructural, low-tech methods including open drainage systems, disconnection of roof runoff, and street sweeping where possible;
 - h. Use native plant vegetation in buffer strips and in rain gardens (small planted depressions that can trap and filter runoff);
 - i. Use drought-resistant vegetation;
 - j. Integrate the following techniques into the site design to create a hydrologically functional lot or development site, including but not limited to the following:
 - i. Grass swales along roads;
 - ii. Rain gardens;
 - iii. Buffer strips;
 - iv. Use of roof gardens where practicable;
 - v. Use of amended soils that will store, filter and infiltrate runoff;
 - vi. Bioretention areas;
 - vii. Use of rain barrels and other cisterns to provide additional stormwater storage;
 - viii. Use of permeable pavement.
2. No Untreated Discharges: Stormwater shall not be discharged directly to a wetland, local water body, municipal drainage system, or abutting property, without adequate treatment.
 3. Channel Protection: The post-development peak discharge rate from the 2-year storm event shall be equal to the pre-development rate to prevent stream channel erosion and degradation.
 4. Construction/Land Disturbance: A sediment and erosion control plan shall show best management practices for site conditions and minimize the area of the land disturbance. The plan shall also establish requirements for the control of wastes, including discarded building materials, concrete truck wash out, chemicals, litter and sanitary wastes.
 5. Flood Protection: The post-development peak discharge rate for the 10-year, 24-hour frequency storm event shall be equal to the pre-development rate in order to protect downstream property. The 100-year, 24-hour return frequency storm event shall be evaluated to demonstrate there will be no increase flooding impacts off-site.

6. Groundwater Recharge: Post-development recharge rates shall mimic pre-development conditions. Annual recharge rates shall be maintained by use of structural and non-structural management practices. The stormwater volume to be recharged to groundwater shall be determined using the methods in the most recent Massachusetts DEP Stormwater Management Handbooks. The recharge criterion is not required for any portion of a site designated as a stormwater hotspot. The Stormwater Authority may reduce recharge requirement at its discretion, if the site is on unsuitable soils or in a redevelopment area where contaminated soils are documented.
7. Structural Practices for Water Quality: All structural stormwater management facilities shall be based on design criteria from the most recent Massachusetts DEP Stormwater Management Handbooks and shall remove at least 80% of the total suspended solids (TSS).
8. Water Quality Volume: The volume for sizing a structural stormwater facility shall be designed according to criteria specified by the Massachusetts DEP Stormwater Management Policy.
9. Hydrologic Basis for Design of Structural Practices: For facility sizing criteria, the basis for hydrologic and hydraulic evaluation of development sites are as follows:
 - a. Impervious cover is measured from the site plan and includes any material or structure that prevents water from infiltrating through the underlying soil. These include paved parking lots, sidewalks, roof tops, driveways, patios, and paved, gravel and compacted dirt surfaced roads.
 - b. Off-site areas shall be assessed based on “pre-development condition” for computing the water quality volume. If an off-site area drains to a proposed stormwater management practice, the flow from that area must be accounted for in the sizing of a specific practice.
 - c. Off-site areas draining to a proposed facility should be modeled as “present condition” for peak-flow attenuation requirements.
 - d. The length of sheet flow used in time of concentration calculations is limited to no more than 50 feet for both pre-development and post-development conditions.
 - e. Detention time for the one-year storm is defined as the center of mass of the inflow hydrograph and the center of mass for the outflow hydrograph.
 - f. Peak discharge rates will be determined by most recent version of models approved for use by MA DEP.
 - g. The standard for characterizing pre-development land use for on-site areas shall be woods.
 - h. For purposes of computing runoff, all pervious lands in the site shall be assumed prior to development to be in good condition.
 - i. If an off-site area drains to a facility, off-site areas should be modeled assuming an “ultimate buildout condition” upstream.
 - j. Determination of flooding and channel erosion impacts to receiving streams shall be measured at each point of discharge from the development project. This determination shall include any runoff from the balance of the watershed, which contributes to that point of discharge.
 - k. Stormwater criteria will be applied to the land development as a whole. Individual lots shall not be considered separate 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.

10. Sensitive Areas: Stormwater discharges to swimming beaches, aquifer recharge areas, and other sensitive water resources may be subject to special criteria established by the Stormwater Authority after a public hearing in accordance with the Town of Belchertown Stormwater Bylaw.
11. Hotspots: Stormwater discharges from land uses with higher pollutant loadings, known as “hotspots”, require treatment practices specified in the MA DEP Stormwater Management Handbooks. The use of infiltration practices without pretreatment is prohibited.

8. WAIVERS

- A. The Stormwater Authority may waive strict compliance with these Regulations if such action is allowed by federal, state and local statutes and/or regulations; is in the public interest; and is consistent with the purposes of the Town of Belchertown Stormwater Bylaw.
- B. Any applicant may submit a written request for a waiver, accompanied by supporting information explaining how the waiver will comply with the purposes of the Stormwater Bylaw.
- C. All waiver requests shall be considered within 45 days, and the Stormwater Authority will provide a written decision. If additional information is required, the Stormwater Authority may extend the review period. If the applicant objects to an extension, or fails to provide requested information, the waiver request may be denied “without prejudice” by the Stormwater Authority.

9. SURETY

The Stormwater Authority may require the permittee to post a bond, cash or other acceptable surety. The form of the bond shall be approved by Town Counsel, in an amount deemed sufficient to ensure that the work will be completed in accordance with the permit, but not less than the total estimated construction cost of the stormwater management facilities. A portion of the bond may be released as each phase of the project is completed in compliance with the permit, but the bond shall not be fully released until the Stormwater Authority has received the final inspection report and has issued a Certificate of Completion. A portion of the bond may be held after issuance of a Certificate of Occupancy until all site work is completed and a Certificate of Completion is issued by the Stormwater Authority.

10. CONSTRUCTION INSPECTIONS

- A. The applicant must notify the Stormwater Authority before starting a land-disturbing activity. The applicant must also notify the Stormwater Authority before constructing the key components of the stormwater management system.

- B. At the discretion of the Stormwater Authority, periodic inspections of the stormwater management system construction shall be conducted by the Town or a professional engineer approved by the Stormwater Authority. Written reports shall include: the inspection date and location; evaluation of compliance with the stormwater permit; any variations from approved specifications or any violations of the Stormwater Management Plan.
- C. At a minimum, inspections shall include: an initial site inspection prior to approval of any plan; inspection of site erosion controls; inspection of the stormwater management system prior to backfilling of any underground drainage or stormwater conveyance structures; and a final inspection before the surety is released. The stormwater system shall be inspected to verify its as-built features, and the inspector shall also evaluate the system during a storm event. If the inspector finds the system adequate, this shall be reported to the Stormwater authority which will issue a Certificate of Completion. As-built plans shall be full size plans that include all final grades, prepared by a Professional Engineer. All changes to project design should be clearly depicted on the as-built plans.
- D. If the system is found to be inadequate due to operational failure, even though built according to the Stormwater Management Plan, the system shall be corrected by the applicant before the Certificate of Completion is issued. If the applicant fails to act, the Stormwater Authority may use the surety bond to complete the work. If the system does not comply with the Plan, the applicant shall be notified in writing 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 Stormwater Authority.

11. CERTIFICATE OF COMPLETION

- A. Upon completion, the applicant shall certify that the project is in accordance with approved plans and specifications, and shall provide inspections to adequately document compliance. A Certificate of Occupancy may be issued prior to receiving a Certificate of Completion by the Stormwater Authority. A portion of the bond may be held after issuance of a Certificate of Occupancy until all site work is completed and a Certificate of Completion is issued by the Stormwater Authority.
- B. The Stormwater Authority will issue a letter certifying completion upon its receipt and approval of the final inspection and reports, and/or upon otherwise determining that all work was completed in conformance with the Town of Belchertown Stormwater Management Bylaw and these Regulations.

12. PERPETUAL INSPECTION AND MAINTENANCE

- A. Maintenance Responsibility

Stormwater management facilities and practices shall be inspected to document maintenance and repair needs, and to ensure compliance with the O&M Plan and these Regulations. The owner or other person in control of such property shall maintain in good condition and promptly repair all grade surfaces, walls, drains, dams, vegetation,

and erosion controls and other protective measures in accordance with the approved O&M Plan and these Regulations.

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B. Maintenance Inspections

Inspections shall occur during the first year of operation and at least once every three years thereafter. An agreement between the property owner and the Stormwater Authority shall be executed for privately-owned stormwater systems, which specifies the responsible party for conducting long term inspections. Inspection reports shall be submitted to and maintained by the Stormwater Authority. Inspection reports shall include: the date of inspection; an evaluation of the condition of structures and practices used to manage stormwater; and a description of any needed maintenance.

C. Right-of-Entry for Inspection

The terms of the inspection and maintenance agreement as specified in Section 6.M of these regulations shall provide for the Stormwater Authority or its designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. The Stormwater Authority or its designee shall have authority to enter upon privately owned land for the purpose of performing their duties under this Regulation and may make or cause to be made such examinations, surveys, or sampling as the Stormwater Authority deems necessary, subject to the constitutions and laws of the United States and the Commonwealth.

D. 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 Stormwater Authority, upon request, and shall retain those records for five [5] years.

E. Failure to Maintain

If a responsible person fails to meet requirements of the inspection and maintenance agreement, the Stormwater Authority may take action to restore the stormwater facility or practice after thirty [30] days written notice. If the violation is an immediate threat to public health or public safety, 24 hours notice shall be sufficient prior to actions required to return the facility or practice to proper working condition. The Stormwater Authority may assess the owner(s) of the facility for the cost of repair work which shall be a lien on the property.

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 Stormwater Authority and the person responsible for carrying out the maintenance plan to correct the deficiencies. The Stormwater Authority shall then conduct a subsequent inspection to ensure completion of repairs.

13. ENFORCEMENT

- A. The Stormwater Authority or its authorized agent shall enforce this Bylaw, regulations, orders, violation notices, and enforcement orders, and may pursue all civil, criminal and non-criminal remedies for such violations.

B. Notices and Orders

1. The Stormwater Authority or its authorized agent may issue a written notice of violation or enforcement order to enforce the provisions of this Bylaw or the regulations thereunder, which may include requirements to:
 - a. Cease and desist from construction or land disturbing activity until there is compliance with the Bylaw and the stormwater management permit;
 - b. Repair, maintain; or replace the stormwater management system or portions thereof in accordance with the operation and maintenance plan;
 - c. Perform monitoring, analyses, and reporting;
 - d. Fix adverse impact resulting directly or indirectly from malfunction of the stormwater management system.
 2. If the enforcing person determines that abatement or remediation of adverse impacts is required, the order may set forth a deadline by which such abatement or remediation must 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 Belchertown may, at its option, undertake such work, and the property owner shall reimburse the Town of Belchertown 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 Belchertown including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Stormwater Authority 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 Stormwater Authority 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 shall 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.
- C. Any person who violates any provision of the Town of Belchertown Stormwater Bylaw, or regulation, order or permit issued thereunder, may be ordered to correct the violation and/or shall be punished by a fine of not more than \$500. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.
- D. Non-Criminal Disposition. As an alternative to criminal prosecution or civil action, the Town of Belchertown may elect to utilize the non-criminal disposition procedure set forth in Chapter 1, Section 1-2 of the Town's Bylaws. The Stormwater Authority shall be the enforcing entity. The penalty for the 1st violation shall be \$100. The penalty for the 2nd violation shall be \$250. The penalty for the 3rd and subsequent violations shall be \$500. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.
- E. Appeals. The decisions or orders of the Stormwater Authority shall be final. Further relief shall be to a court of competent jurisdiction.

F. Remedies Not Exclusive. The remedies listed in this Bylaw are not exclusive of any other remedies available under any applicable federal, state or local law.

14. 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.

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TOWN OF BELCHERTOWN STORMWATER MANAGEMENT REGULATIONS

APPENDIX A – DEFINITIONS

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.”

APPLICANT: A property owner or agent of a property owner who has filed an application for a Stormwater Management Permit.

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 greenspace, reducing impervious cover, and using natural features for stormwater management.

CERTIFICATE OF COMPLETION (COC): A document issued by the Stormwater Authority 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 a Stormwater Management Permit.

CONVEYANCE: Any 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.

DEVELOPMENT: The modification of land to accommodate a new use or expansion of use, usually involving construction.

DISTURBANCE OF LAND: Any action that causes a change in the position, location, or arrangement of soil, sand, rock, gravel or similar earth material.

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

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

EROSION CONTROL: The prevention or reduction of the movement of soil particles or rock fragments.

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

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

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.

FOREST CUTTING PLAN: A plan for the cutting of trees on forest land, which is prepared and submitted in accordance with M.G.L. Chapter 132 Sections 40 - 46A. The forest cutting plan requires approval by a Service Forester of the Massachusetts Department of Conservation and Recreation, as provided under 304 CMR 11.04.

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

HOTSPOT: Land uses or activities with higher potential pollutant loadings, such as 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.

IMPERVIOUS SURFACE: 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 parking lots, rooftops, driveways, patios, and paved roads.

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

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.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or MUNICIPAL STORM DRAIN 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 of Belchertown.

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.

OPERATION AND MAINTENANCE PLAN: A plan that defines the functional, financial and organizational mechanisms for the ongoing operation and maintenance of a LID Management system to insure that it continues to function as designed.

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

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 Belchertown, and any other legal entity, its legal representatives, agents, or assigns.

PRE-DEVELOPMENT: The conditions that exist at the time that plans for the land development of a tract of land are submitted to the Stormwater Authority. 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.

POINT SOURCE: Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.

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 exceeding land disturbance of 10,000 square feet, where the existing land use is commercial, or institutional.

RESOURCE AREA: Any area protected under including without limitation: the Massachusetts Wetlands Protection Act, Massachusetts Rivers Act, or Town of Belchertown Wetlands Protection Bylaw.

RUNOFF: Rainfall, snowmelt, or irrigation water flowing over the ground surface.

SEDIMENTATION: A process of depositing material that has been suspended and transported in water.

SITE: The parcel of land being developed, or a designated planning area in which the land development project is located.

STORMWATER AUTHORITY: The Town of Belchertown Department of Public Works. The Stormwater Authority is responsible for coordinating the review, approval and permit

process as defined in this Bylaw. Other Boards and/or departments participate in the review process as defined in Section 4 of the Town of Belchertown Stormwater Management Bylaw.

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

STORMWATER MANAGEMENT PERMIT: A permit issued by the Stormwater Authority, after review of an application, plans, calculations, and other supporting documents, which is designed to protect the environment of the Town from the adverse affects of uncontrolled and untreated stormwater runoff.

STOP WORK ORDER: An order issued which requires that all construction activity on a site be stopped.

TSS: Total suspended solids.

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

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