

**Town of Hull**  
**Stormwater Management Regulations**  
**Draft 3/22/2021**

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**SECTION 1. Purpose**

The purpose of these Stormwater Regulations is to protect natural resources, municipal facilities, maintain and enhance public health, safety, welfare, and environment in and around the Town of Hull by establishing minimum requirements and procedures to control the adverse effects of increased runoff, decreased ground water recharge, erosion and sedimentation, and nonpoint source pollution associated with new development and redevelopment of land, as identified in Chapter 354 Stormwater Management Bylaw of the Town of Hull Bylaws.

Development of land including loss of vegetative cover to introduce impervious surfaces, regrading, and other land use changes, permanently alters the hydrologic system of local watersheds by decreasing transpiration and infiltration and increasing stormwater runoff rates and volumes, causing an increase in flooding, stream channel erosion, and sediment transport and deposition. Additional runoff also contributes to increased nonpoint source pollution and degradation of receiving waters.

Stormwater management systems that are properly designed utilizing low impact design (LID) techniques and appropriate best management practices (BMPs) can better simulate the natural (existing) hydrologic conditions and reduce adverse impacts.

During the construction process, soil is often exposed for periods of time and becomes vulnerable to erosion by wind and water. The eroded soil endangers water resources by reducing water quality, and causing the siltation of valuable wetland resources including swamps, streams, rivers, oceans, lakes and other aquatic habitats for fish and other desirable species.

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

These Stormwater Regulations have been established to provide for the regulation of design, construction and post-development stormwater runoff for the purpose of protecting local water resources from degradation. It is in the public interest to regulate construction and post-development stormwater runoff discharges in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion and sedimentation, stream channel erosion, and nonpoint source pollution associated with construction site and post-development stormwater runoff.

**SECTION 2. Definitions**

**ABUTTER:** The owner(s) of land abutting the subject property where work is proposed.

**AGRICULTURE:** The normal maintenance or improvement of land in agricultural or aquacultural use, as defined by the Massachusetts Wetlands Protection Act (310 CMR 10.00) and its implementing regulations.

**ALTERATION OF DRAINAGE CHARACTERISTICS:** Any activity on an area of land that changes the water quality, force, direction, timing or location of runoff flowing from the area. Such changes include: change from distributed runoff to confined, discrete discharge; change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area.

**APPLICANT:** Any person, individual, partnership, association, firm, company, corporation, trust, authority, agency, department, or political subdivision, of the Commonwealth or the Federal government to the extent permitted by law requesting a Land Disturbance Permit for proposed land-disturbance activity.

**BEST MANAGEMENT PRACTICE (BMP):** An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff.

**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 Land Disturbance Permit have been met and that a project has been completed in compliance with the conditions set forth in the SMP.

**CONSTRUCTION AND WASTE MATERIALS:** Any building or site materials, including but not limited to concrete truck washout, chemicals, litter and sanitary waste at a construction site that may adversely impact water quality.

**CLEAN WATER ACT (CWA):** The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) as hereafter amended.

**CLEARING:** Any activity that removes the vegetative surface cover.

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

**DISCHARGE OF POLLUTANTS:** The addition from any source of any pollutant or combination of pollutants into the municipal storm drain system or into the waters of the United States or Commonwealth from any source.

**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 stormwater management purposes.

**EROSION:** The wearing away of the land surface by natural or artificial forces such as wind, water, ice, gravity, or vehicle traffic and the subsequent detachment and transportation of soil particles.

**EROSION AND SEDIMENTATION CONTROL PLAN:** A document containing a narrative, drawings and details developed by a qualified professional engineer (PE) or a Certified

Professional in Erosion and Sedimentation Control (CPESC), which includes best management practices, or equivalent measures designed to control surface runoff and 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.

**ESTIMATED HABITAT OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS:** Habitats delineated for state-protected rare wildlife and certified vernal pools for use with the Wetlands Protection Act Regulations (310 CMR 10.00) and the Forest Cutting Practices Act Regulations (304 CMR 11.00).

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

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

**GROUNDWATER:** Water beneath the surface of the ground.

**GRUBBING:** The act of clearing land surface by digging up roots and stumps.

**ILLICIT CONNECTION:** A surface or subsurface drain or conveyance which allows an illicit discharge into the municipal storm drain system, including without limitation sewage, process wastewater, or wash water, and any connections from indoor drains, sinks, or toilets, regardless of whether said connection was previously allowed, permitted, or approved before the effective date of the Stormwater Management Bylaw.

**ILLICIT DISCHARGE** - Direct or indirect discharge to the municipal storm drain system that is not composed entirely of stormwater, except as exempted in Ch. 354 §11. The term does not include a discharge in compliance with a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit or resulting from fire-fighting activities exempted pursuant to Ch. 354 §11 of the Stormwater Management Bylaw.

**IMPERVIOUS SURFACE** - Any material or structure on or above the ground that prevents water from infiltrating the underlying soil. "Impervious surface" includes without limitation roads, paved parking lots, sidewalks, and rooftops.

**IMPOUNDMENT:** A stormwater pond created by either constructing an embankment or excavating a pit which retains a temporary or permanent pool of water.

**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:** Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material.

**LAND USE OF HIGHER POTENTIAL POLLUTANT LOAD (LUHPPL):** Land uses or activities with higher potential pollutant loadings, as defined in the Massachusetts Stormwater Management Standards 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.

**Limit of Moderate Wave Action (LiMWA):** The inland limit of the area expected to receive 1.5-foot or greater breaking waves during the 1-percent-annual-chance flood event

**MASSACHUSETTS ENDANGERED SPECIES ACT:** G.L. c. 131A and its implementing

regulations 321 CMR 10.00 which prohibit the “taking” of any rare plant or animal species listed as Endangered, Threatened, or of Special Concern.

**MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS:** The Standards 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 Standards address 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 Hull.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT -** A permit issued by United States Environmental Protection Agency or jointly with the Commonwealth of Massachusetts that authorizes the discharge of pollutants to waters of the United States.

**NONSTORMWATER DISCHARGE -** Discharge to the municipal storm drain system not composed entirely of stormwater.

**NUISANCE:** the unreasonable, unwarranted and/or unlawful use of property, which causes inconvenience or damage to others, either to individuals and/or to the general public by directing water onto other property.

**OPERATION AND MAINTENANCE PLAN:** A plan setting up the functional, financial and organizational mechanisms for the ongoing operation and maintenance of a stormwater management system to ensure that it continues to function as designed.

**OUTFALL:** The point at which stormwater flows out from a point source into waters of the Commonwealth.

**OUTSTANDING RESOURCE WATERS (ORWs):** Waters designated by Massachusetts Department of Environmental Protection as ORWs. These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards (314 CMR 4.00) and the Massachusetts Stormwater Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies including their bordering vegetated wetlands, and other waters specifically designated.

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

**PERSON -** An individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

**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.

**PRE-CONSTRUCTION:** All activity in preparation for construction.

**POLLUTANT** - Any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heated effluent, or other matter, whether originating at a point or nonpoint source, that is or may be introduced into any storm sewer or waters of the commonwealth. Pollutants shall include but are not limited to:

- a) Paints, varnishes, and solvents;
- b) Oil and other automotive/watercraft fluids;
- c) Nonhazardous liquid and solid wastes and yard wastes;
- d) Refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnance, accumulations and floatables;
- e) Pesticides, herbicides, and fertilizers;
- f) Hazardous materials and wastes; sewage, fecal coliform and pathogens;
- g) Dissolved and particulate metals;
- h) Animal wastes;
- i) Rock; sand; salt; soils;
- j) Construction wastes and residues; and
- k) Noxious or offensive matter of any kind.

**PRIORITY HABITAT OF RARE SPECIES:** Habitats delineated for rare plant and animal populations protected pursuant to the Massachusetts Endangered Species Act and its regulations.

**PROCESS WASTEWATER** - Water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any material, intermediate product, finished product, or waste product.

**RECHARGE** - The process by which groundwater is replenished by precipitation through the percolation of runoff and surface water through the soil.

**REDEVELOPMENT:** Development, rehabilitation, expansion, demolition or phased projects that disturb the ground surface on previously developed sites.

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

**SEDIMENT:** Mineral or organic soil material that is transported by wind or water, from its origin to another location; the product of erosion processes.

**SEDIMENTATION:** The process or act of deposition of sediment.

**SITE:** Any lot or parcel of land or area of property where land-disturbing activities are, were, or will be performed.

**SLOPE:** The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.

**SOIL:** Any earth, sand, rock, gravel, or similar material.

**STABILIZATION:** The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or retard erosion.

**STORMWATER AUTHORITY:** A group consisting of one staff member or their designee from

the Conservation, Community Development & Planning, Building, Public Works, and Sewer Departments. A quorum of the Authority shall consist of three members.

**STORMWATER:** Runoff from precipitation or snow melt and surface water runoff and drainage.

**STORMWATER MANAGEMENT PLAN:** A plan required as part of the application for a Land Disturbance Permit.

**STRIP:** Any activity which removes the vegetative ground surface cover, including tree removal, clearing, grubbing, and storage or removal of topsoil.

**TOTAL MAXIMUM DAILY LOADS (TMDLs):** A TMDL is 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 of water or wastewater

**TOXIC OR HAZARDOUS MATERIAL OR WASTE:** Any material which, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment. Toxic or hazardous materials include any synthetic organic chemical, petroleum product, heavy metal, radioactive or infectious waste, acid and alkali, and any substance defined as "toxic" or "hazardous" under MGL c. 21C and c. 21E, and the regulations at 310 CMR 30.000 and 310 CMR 40.0000.

**VERNAL POOLS:** Any confined basin or depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species, regardless of whether the site has been certified by the Massachusetts Division of Fisheries and Wildlife.

**WASTEWATER** - Any sanitary waste, sludge, or septic tank or cesspool overflow, and water that during manufacturing, cleaning or processing comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product or waste product.

**WATERCOURSE** - A natural or man-made channel through which water flows or a stream of water, including a river, brook or underground stream.

**WATERS OF THE COMMONWEALTH** - All waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters, and groundwater.

**WETLAND RESOURCE AREA:** Areas specified in the Massachusetts Wetlands Protection Act M.G.L. c. 131, § 40.

**WETLANDS:** As specifically defined in the Massachusetts Wetlands Protection Act but generally include tidal and non-tidal areas characterized by saturated or nearly saturated soils

most of the year that are located between terrestrial (land-based) and aquatic (water-based) environments, including freshwater marshes around ponds and channels (rivers and streams), brackish and salt marshes; common names include marshes, swamps and bogs.

### **SECTION 3. Authority**

- A. The Regulations have been adopted by the Stormwater Authority in accordance with the Town of Hull Stormwater Management Bylaw.
- B. Nothing in these Regulations is intended to replace or be in derogation of the requirements of the Town of Hull Zoning Bylaw, Subdivision Control Law or any other Regulations adopted thereunder.

### **SECTION 4. Administration**

- A. The Stormwater Authority, under the Stormwater Management Bylaw, shall administer, implement and enforce these regulations and the Stormwater Bylaw.
- B. The Stormwater Authority may amend these regulations including rules and/or written guidance relating to the terms, conditions, definitions, enforcement, fees, procedures and administration of this Stormwater Bylaw by majority vote after conducting a public hearing to receive comments. Such hearing shall be advertised in a newspaper of general local circulation, once in each of two successive weeks, the first publication being at least fourteen (14) days prior to the hearing date. Once this has been completed, the Regulations shall be provided to the Board of Selectmen for their approval.
- C. Time Periods. All time periods of ten days or less specified in the Regulations and Stormwater Management Bylaw shall be computed using business days only. All other time periods specified in Regulations and Bylaw shall be computed on the basis of calendar days, unless the last day falls on a Saturday, Sunday or legal holiday, in which case the last day shall be the next business day following.

### **SECTION 5. Applicability**

- A. The Bylaw and these regulations shall apply to all activities that result in disturbance of 12,500 square feet or more of land that drains to the municipal separate storm sewer system (MS4), except as authorized by the Stormwater Authority in a Land Disturbance Permit or as otherwise provided in these regulations. There is one level of review based on the amount of proposed land to be disturbed as part of a single project, which is as follows:
  - 1) Land Disturbance Permit is required for disturbance of 12,500 square feet or more of land, or proposed use is listed as a land use of higher potential pollutant loads as defined in the Massachusetts Stormwater Management Standards. A Land Disturbance Permit is required for all commercial developments.
- B. Exemptions:
  - 1) Maintenance of existing landscaping, gardens or lawn areas associated with a single family dwelling conducted in such a way as not to cause a nuisance;
  - 2) Construction of fencing that will not substantially alter existing terrain or drainage patterns. Fencing that does not allow water to flow through (i.e. is 50% flow



through or elevated a minimum of 6" off of the ground) can be determined to be a substantial alteration;

- 3) Construction of utilities other than drainage (gas, water, electric, telephone, etc.) which will not alter terrain or drainage patterns or result in discharge of sediment to the MS4;
- 4) Normal maintenance and improvement of land in agricultural or aquacultural use as defined by the Massachusetts Wetlands Protection Act (310 CMR 10.00).

D. Waivers: Following review by the Stormwater Authority, the Authority may waive strict compliance with any requirement of these regulations promulgated hereunder, where such action:

- 1) is allowed by federal, state and local statutes and/or regulations,
- 2) is in the public interest, and
- 3) is not inconsistent with the purpose and intent of the bylaw and these regulations.

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

If in the Stormwater Authority's opinion, additional time or information is required for review of a waiver request, the Stormwater Authority may continue a hearing to a certain date announced at the meeting. In the event the applicant objects to a continuance, or fails to provide requested information, the waiver request shall be denied.

## **SECTION 6. Land Disturbance Permit and Procedure**

A. A Land Disturbance Permit is required for disturbance greater than 12,500 square feet of land, or proposed use is listed as a land use of higher potential pollutant loads as defined in the Massachusetts Stormwater Management Standards. A Land Disturbance Permit is required for all commercial developments. The Land Disturbance Permit Application package shall be submitted via hand delivery or certified mail to the Building Department and addressed to the Stormwater Authority and shall include:

- 1) A completed Application Form (two copies) with original signatures of all owners;
- 2) Five full size (24"x36"), one half size (12"x18") and one electronic (PDF) copies of the plan that includes the:
  - (a) Stormwater Management Plan (See §8.C)
  - (b) Erosion and Sediment Control Plan (See §9.E)
  - (c) Operation and Maintenance Plan (See §10.B)
  - (d) Illicit discharge compliance statement signed by the Owner and Registered Professional Engineer certifying that there are no existing or new illicit discharges from this property
- 3) Payment of the application, review and advertising fees; and,
- 4) A copy of the certified abutters list, affidavit, and letter mailed to abutters (see

Section D. below).

- B. 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 permit conditions.
- C. Information requests. The applicant shall submit all additional information requested by the Stormwater Authority to issue a decision on the application. If in the Stormwater Authority's opinion, additional time or information is required for review of an application, the Stormwater Authority may continue a hearing to a certain date announced at the meeting. In the event the applicant objects to a continuance, or fails to provide requested information, the application shall be denied.
- D. Abutter Notification: Any person filing a Land Disturbance Permit with the Stormwater Authority shall obtain an abutters list from the Assessors Department, which shall be included in the application. This list shall include the mailing addresses shown on the most recent applicable tax list from the municipal assessor and shall include abutters within 100 feet of the property line. If the project is in a public right of way, then properties within 100 feet of the work area shall be notified. The applicant is responsible for providing written notice by certified mail (return receipt requested) or certificates of mailing to all abutters. The notice shall state a brief description of the project and the date of any public hearing, if known. Mailing at least 7 days prior to the public hearing shall constitute timely notice. The Authority shall provide the local newspaper with an affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Stormwater Authority. No hearing shall be opened without proof of mailing being provided to the Authority.
- E. Fee Structure. Each application must be accompanied by the appropriate application fee as established by the Stormwater Authority. Applicants shall pay review fees as determined by the Stormwater Authority to cover any expenses, administrative and otherwise, connected with the review of the Land Disturbance Permit Application before the review process commences. The Stormwater Authority is authorized to retain a Registered Professional Engineer or other professional consultant to advise the Stormwater Authority on any or all aspects of the Application; applicants are responsible for the cost of such a professional. The filing fee shall not be used for the engineering review.
- F. Determination of Completeness: The Stormwater Authority or its designated agent shall make a determination as to the completeness of the application and adequacy of the materials submitted. No review or hearing shall take place until the application has been found to be complete.
- G. Applications shall be available for review, by appointment with the Building Department.
- H. Action by the Stormwater Authority.

A public hearing shall be held by the Stormwater Authority within 21 days of receipt of a **complete** application (see Section 6F: Determination of Completeness). Within 21 days of the close of the public hearing, the Stormwater Authority shall either:

- 1) Approve the Land Disturbance Permit Application and issue a permit if it finds that the proposed plan will protect water resources and meets the objectives and requirements of the bylaw and these regulations;

- 2) Approve the Land Disturbance Permit Application and issue a permit with conditions, modifications or restrictions that the Stormwater Authority determines are required to ensure that the project will protect water resources and meets the objectives and requirements of these regulations;
  - 3) Disapprove the Land Disturbance Permit Application and deny the permit if it finds that the proposed plan will not protect water resources or fails to meet the objectives and requirements of the bylaw and these regulations.
  - 4) Disapprove the Land Disturbance Permit Application “without prejudice” where an applicant fails to provide requested additional information or review fees that in the Stormwater Authority’s opinion is needed to adequately describe or review the proposed project.
- I. Final Approval. Final approval, if granted, shall be endorsed on the Stormwater Management Permit by the Stormwater Authority (or by the signature of the person officially authorized by the Stormwater Authority).
- J. Approval Time Length. Permits are valid for three years from the date of issuance unless an Extension (outlined in Section 6L of these Regulations) is granted.
- K. Project Changes. The applicant, or their agent, must notify the Stormwater Authority in writing of any change or alteration of a land-disturbing activity authorized in a Land Disturbance Permit before any change or alteration occurs. If the Stormwater Authority determines that the change or alteration is significant, based on the design requirements listed in Section 6L of these Regulations and accepted construction practices, the Stormwater Authority may require that an amended Land Disturbance Permit application be filed. If any change or alteration from the Land Disturbance Permit occurs during any land disturbing activities, the Stormwater Authority may require the installation of interim erosion and sedimentation control measures before approving the change or alteration.
- L. Extensions. The Stormwater Authority may extend a Permit for one or more periods of up to three years each. The applicant is responsible for making a request for extension in writing and shall be made to the Authority at least 30 days prior to expiration of the permit. The Authority may deny the request for an extension and require the filing of a new Land Disturbance Permit in the following circumstances:
- a. Where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals, in the obtaining of other necessary permits;
  - b. Where new information, not available at the time the Permit was issued, has become available and indicates that the Permit is not adequate to protect the interests identified in the Bylaw; or
  - c. Where incomplete work is causing damage to the interests identified in the Bylaw.
  - d. Where work has been done in violation of the Permit

If issued by the Authority, the Permit Extension shall be signed by a majority of the Authority. The applicant is then responsible for recording the Extension in the Land Court or the Registry of Deeds, whichever is appropriate. Certification of recording shall

be sent to the Authority. If work is undertaken without the applicant so recording the Extension Permit, the Authority may issue a violation, or may itself record the Extension Permit and bill the applicant.

- M. Appeals. As provided for in the Stormwater Management Bylaw, the decisions or orders of the Stormwater Authority or their designee shall be final. Further relief shall be to a court of competent jurisdiction. Such relief can only be sought within 21 days after the date of issuance of the decision or order by 1) the applicant, 2) the owner if not the applicant, 3) any person aggrieved by the decision or order, 4) any owner of land abutting the land on which the work is to be done, 5) any ten residents of the city or town where the land is located.

## **SECTION 7. Stormwater Management Plan**

- A. The application for a Land Disturbance Permit shall include the submittal of a Stormwater Management Plan to the Stormwater Authority. This Stormwater Management Plan shall contain sufficient information for the Stormwater Authority to evaluate the environmental impact, effectiveness, and acceptability of the site planning process and the measures proposed by the applicant to reduce adverse impacts from stormwater runoff during construction, and on a long-term basis.
- B. The Plan shall be designed to meet the Massachusetts Stormwater Management Standards as further defined in the Massachusetts Stormwater Handbook and any additional standards required by these regulations or regulations adopted hereunder. To the extent that any project within the jurisdiction of these regulations is located in an area subject to one or more pollutant-specific Total Maximum Daily Loads (TMDLs), such project is required to implement structural and non-structural stormwater best management practices (BMPs) that are consistent with each such TMDL and its associated Waste Load Allocation (for point sources) and Load Allocation (for nonpoint sources). The U.S. EPA/MassDEP or Stormwater Authority may develop, publish and periodically revise one or more pollutant-specific guidance documents describing the geographic applicability of each TMDL and identifying BMPs that individually or in combination are considered to be consistent with the TMDL(s).
- C. The Stormwater Management Plan shall fully describe the project in narrative, drawings, and calculations. It shall at a minimum include:
1. 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;
  2. Narrative describing:
    - i. Purpose
    - ii. Methodologies and assumptions
    - iii. Existing and proposed uses and conditions
    - iv. Project impacts and mitigation techniques including:
      1. Summary of proposed land area to be cleared, proposed impervious area, work within of regulated wetland resources areas,

- aquifer protection zones, earthwork within 4 feet of seasonal high groundwater elevations, and other sensitive environmental areas.
2. Low impact development (LID) techniques considered for this project and an explanation as to why they were included or excluded from the project.
  3. Best management practices proposed for this project.
  4. Identifying the immediate down gradient waterbody(s) that stormwater runoff from the project site discharges to, EPA's waterbody assessment and TMDL status of the waterbody(s), <http://www.epa.gov/region1/npdes/stormwater/ma.html> and the LIDs and BMPs included in the project to address the pollutant(s) of concern
3. Summary of pre and post development peak rates and volumes of stormwater runoff to show no adverse impacts to down-gradient properties, stormwater management systems and wetland resources.
  4. Plans
    - (a) Portion of the USGS Map indicating the site locus and properties within a minimum of 500 feet of project property line
    - (b) Existing conditions and proposed design plans showing:
      - i. Buildings and/or structures including materials, approximate height and
      - ii. Utilities including size, material and invert data
      - iii. Regulated wetland resource areas within proximity of the site
    - (c) Stormwater management design plan(s) and details showing:
      - i. Location, size, material, invert data and details for all existing and proposed stormwater management system components including structures, pipes, swales, detention, retention, and infiltration systems and any other LID techniques or BMPs.
      - ii. Profiles of drainage trunk lines
      - iii. Drainage easements
    - (d) Separate pre and post condition watershed plans indicating:
      - i. Structures, pavements, surface vegetation and other ground cover materials
      - ii. Topography to delineate watershed areas and cut and fill areas
      - iii. Point(s) of analysis
      - iv. Watershed areas including upgradient and /or offsite areas that contribute stormwater flow onto the project site, labeled to be easily identified in calculations. Total pre and post watershed areas must be equivalent.

- v. Breakdown summary of various surface conditions by soil hydrologic group rating and cover type
  - vi. Flow path for time of concentration (Tc) calculation
- 5. Calculations
  - (a) Hydrologic calculation to determine pre and post peak rates and volumes of stormwater runoff for 2, 10, 25 and 100-year 24 hour storm events
  - (b) Groundwater recharge calculations and BMP drawdown (time to empty)
  - (c) Water quality calculations including (if applicable):
    - i. TSS removal calculation for each watershed
    - ii. Specific BMPs utilized in critical areas
    - iii. Specific BMPs utilized for land uses of higher potential pollutant loads
    - iv. Specific treatment for pollutants causing impairment of down-gradient waterbody(s), identified by EPA and MassDEP
  - (d) Hydraulic calculations to size drainage pipes, swales and culverts
  - (e) Supplemental calculations for sizing LID and BMPs and addressing impairments to waterbodies
- 5) Soil mapping and test data
- 6) MassDEP Checklist for Stormwater Report completed, stamped and signed by a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the MassDEP Stormwater Management Standards, Hull Stormwater Management By-law and these Regulations.
- 7) Any other information requested by the Stormwater Authority.

## **SECTION 8. Erosion and Sedimentation Control Plan**

- A. The Erosion and Sediment Control Plan shall be designed to ensure compliance with these Regulations and if applicable (for projects disturbing in excess of one acre of land), the NPDES General Permit for Storm Water Discharges From Construction Activities. In addition, the plan shall ensure that the Massachusetts Surface Water Quality Standards (314 CMR 4.00) are met in all seasons. Refer to the latest version of the *Massachusetts Erosion and Sediment Control Guidelines for Urban & Suburban Areas* for detailed guidance.
- B. If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NPDES General Permit for Storm Water Discharges From Construction Activities (and as amended), then the applicant is required to submit a complete electronic copy of the SWPPP (including the signed Notice of Intent and approval letter) for approval by the Stormwater Authority. If the SWPPP meets the requirements of the General Permit, it will be considered equivalent to the Erosion and Sediment Control Plan described in this section.
- C. The Owner and / or Contractor shall maintain a copy on site of the Erosion and Sediment Control Plan and / or SWPPP and all other permit documents submitted by the Storm

Water Authority. It is the property owner's responsibility to ensure compliance with all rules and regulations. Upon request by the Town, copies maintenance documents and or inspection reports shall be provided to the Town to show compliance with the Erosion and Sediment Control Plan and / or SWPPP.

- D. The Erosion and Sediment Control Plan shall contain sufficient information to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sedimentation controls. The plan shall also describe measures to control construction wastes including but not limited to construction materials, concrete truck wash out and chemicals. The applicant shall submit such material as is necessary to show that the proposed development will comply with the design requirements listed in Section 7.B. below.
- E. Erosion and Sedimentation Control Plan Content. The Plan shall contain the following information:
- 1) Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan;
  - 2) Title, date, north arrow, names of abutters, scale, legend, and locus map;
  - 3) Location and description of natural features including:
    - (a) All wetlands resource areas as designated by the MA Wetlands Protection Act (approximate delineations will not be accepted) and all floodplain information, including the location of all FEMA approved flood zones on the subject property and the Limit of Moderate Wave Action (LiMWA);
    - (b) Existing vegetation including tree lines, canopy layer, shrub layer, and ground cover, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities; and
    - (c) 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.
  - 4) Lines of existing abutting streets showing drainage and driveway locations and curb cuts;
  - 5) Existing soils, volume and nature of imported soil materials;
  - 6) Topographical features including existing and proposed contours at intervals no greater than two (2) feet with spot elevations provided where needed;
  - 7) Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed;
  - 8) Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans);
  - 9) 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;
- 10) Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable;
  - 11) Location and description of industrial discharges to be covered by this permit;
  - 12) Stormwater runoff calculations in accordance with the Department of Environmental Protection's Stormwater Management Policy;
  - 13) Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures;
  - 14) 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;
  - 15) A description of provisions for phasing the project where one acre of area or greater is to be altered or disturbed;
  - 16) Plans must be stamped and certified by a qualified Professional Engineer registered in Massachusetts or a Certified Professional in Erosion and Sediment Control; and
  - 17) Such other information as is required by the Stormwater Authority.

## **SECTION 9. Operation and Maintenance Plan**

- A. A standalone Operation and Maintenance Plan (O&M Plan) is required at the time of application for all projects with constructed stormwater BMPs and stormwater management practices. The O&M Plan shall be designed to ensure compliance with the Permit and these Regulations and ensure that the Massachusetts Surface Water Quality Standards (314 CMR 4.00) are met in all seasons and throughout the life of the system. The Owner and / or Contractor shall maintain a copy on site of the Operation and Maintenance Plan and all other permit documents submitted by the Authority. Upon request by the Town copies maintenance documents and or inspection reports shall be provided to the Town to show compliance with the Operation and Maintenance Plan. The Applicant shall provide copies of the Operation and Maintenance Plan to all persons responsible for maintenance and repairs and the Town upon request.
- B. 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 all structural and nonstructural stormwater best management practices (BMPs), catch basins, manholes/access lids, pipes, and other stormwater devices. The plan showing such systems and facilities to be privately maintained, including associated easements shall be recorded with the Plymouth County Registry of Deeds prior to issuance of a Certificate of Compliance by the Stormwater Authority.



- 3) Maintenance Agreement with the Stormwater Authority that specifies:
  - (a) The names, phone number, email address, and mailing addresses of the person(s) responsible for operation and maintenance;
  - (b) The person(s) financially responsible for 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. Where applicable, this schedule shall refer to the Maintenance Criteria provided in the Stormwater Handbook or the E.P.A. National Menu of Stormwater Best Management Practices or equivalent;
  - (d) Instructions for routine and long-term operation and maintenance shall have sufficient detail for responsible parties to perform necessary maintenance activities and prevent actions that may adversely affect the performance of each structural and/or nonstructural stormwater BMP.
  - (e) A list of easements with the purpose and location of each; and
  - (f) The signature(s) of the owner(s) and all persons responsible for operation and maintenance, financing, and emergency repairs, as defined in the Maintenance Agreement, if maintenance is to be performed by an entity other than the owner.
- 4) Stormwater Management Easement(s)
  - (a) Stormwater Management easements shall be provided by the property owner(s) to Town and Homeowner Association as necessary for:
    - i. Access for facility inspections and maintenance;
    - ii. Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood ways for the 100-year storm event; and
    - iii. Direct maintenance access by heavy equipment to structures requiring maintenance a minimum of 20 feet wide or as directed by the Town.
  - (b) The purpose of each easement shall be specified in the Maintenance Agreement signed by the property owner and approved by Stormwater Authority or Town Counsel.
  - (c) Stormwater Management easements are required for all areas used for permanent stormwater control, unless a waiver is granted by the Stormwater Authority.
  - (d) Easements shall be recorded with the Bristol Registry of Deeds prior to issuance of a Certificate of Compliance by the Stormwater Authority.
- 5) Changes to Operation and Maintenance Plans
  - (a) The owner(s) of record of the Stormwater Management system must notify the Stormwater Authority of changes in ownership, assignment of Operation and Maintenance responsibilities, or assignment of financial responsibility within 30 days of the change in ownership. The owner of record shall be responsible for Operation and Maintenance activities until a copy of the

updated Operation and Maintenance Plan has been furnished to the Stormwater Authority signed by the new owner or any new responsible person.

- (b) The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of the Stormwater Management By-law 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, and persons with operational and/or maintenance responsibility.

## **SECTION 10. Performance and Design Standards**

### **A. Design of stormwater management system(s) and components**

- 1) Developments are to be designed to provide for adequate collection and disposal of stormwater runoff from the project site in accordance with MassDEP Stormwater Management Standards and Details, HullBest Management Practices and regulations and standards established by the Town of Hull.
- 2) Stormwater management systems for New Development projects are also to meet minimum requirements of the *General Permit for Stormwater Discharges From Small Municipal Separate Storm Sewer Systems in Massachusetts* (MS4 Permit) including the following:
  - (a) Retain the volume of runoff equivalent to, or greater than, one (1.0) inch multiplied by the total post-construction impervious surface area on the site AND/OR
  - (b) Remove 90% of the average annual (not per storm) load of Total Suspended Solids (TSS) generated from the total post-construction impervious area on the site AND 60% of the average annual (not per storm) load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site. Pollutant removal shall be calculated consistent with EPA Region 1's BMP Performance Extrapolation Tool or other BMP performance evaluation tool provided by EPA Region 1, where available. If EPA Region 1 tools do not address the planned or installed BMP performance any federally or State approved BMP design guidance or performance standards (e.g. State stormwater handbooks and design guidance manuals) may be used to calculate BMP performance.
- 3) Stormwater management systems for Redevelopment projects are to meet the minimum requirement of the *General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts* (MS4 Permit) including the following:

- (a) Retain the volume of runoff equivalent to, or greater than, 0.80 inch multiplied by the total post-construction impervious surface area on the site AND/OR
  - (b) Remove 80% of the average annual (not per storm) post-construction load of Total Suspended Solids (TSS) generated from the total post-construction impervious area on the site AND 50% of the average annual (not per storm) load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site. Pollutant removal shall be calculated consistent with EPA Region 1's BMP Performance Extrapolation Tool or other BMP performance evaluation tool provided by EPA Region 1 where available. If EPA Region 1 tools do not address the planned or installed BMP performance any federally or State approved BMP design guidance or performance standards (e.g. State stormwater handbooks and design guidance manuals) may be used to calculate BMP
  - (c) Stormwater management systems on redevelopment sites may utilize offsite mitigation within the same watershed as the redevelopment site to meet the equivalent retention or pollutant removal requirements in §11.A.(3).
  - (d) Redevelopment activities that are exclusively limited to maintenance and improvement of existing roadways, (including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving projects) shall improve existing conditions where feasible and are exempt from §11.A.(3)(a), §11.A.(3)(b), §11.A.(3)(c). Roadway widening or improvements that increase the amount of impervious area on the redevelopment site by greater than or equal to a single lane width shall meet the requirements of §11.A.(3)(a) – (c) fully.
- 4) Structural BMPs and LID techniques suitable to address TMDLs and/or impairments as listed on MassDEP's most recent *Integrated List of Waters Map* are to be utilized to the maximum extent feasible. Provide evaluation process narrative with supporting calculations in the stormwater report. Innovative or alternative technologies may be considered on a case by case / site by site basis.
  - 5) Provisions are to be made for the adequate disposal of surface runoff so that no flow is conducted over Town ways, or over land not owned by or controlled by the Applicant unless an easement in proper form is obtained permitting such discharge.
  - 6) LID techniques are to be used where adequate soil, groundwater and topographic conditions allow. These may include but not be limited to reduction in impervious surfaces, disconnection of impervious surfaces, bioretention (rain gardens) and infiltration systems

- 7) Hydrologic calculations, to document that there is no increase in the peak rate and volume of runoff from predevelopment to post development condition, are to be completed utilizing TR-55 and TR-20 methodologies.
- 8) Watershed area for hydrologic analysis and BMP sizing calculations are to include at a minimum the site area and all upgradient areas from which stormwater runoff flows onto the site.
- 9) For purposes of computing runoff, all pervious lands on the site are assumed prior to development to be in “good hydrologic condition” regardless of the conditions existing at the time of the computation.
- 10) Length of sheet flow used for times of concentration is to be no more the 50 feet.
- 11) Utilize most current 24 hour rainfall data from NOAA or better quality data from a reputable source. At the time of adoption of these regulations this was determined to be NOAA Atlas 14  
([https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html))
- 12) Soils tests in accordance with MassDEP Stormwater Handbook to be conducted by a Registered Professional Engineer or Massachusetts Soil Evaluator, performed at the location of all proposed infiltration BMPs and LID techniques, to identify soil descriptions, depth to estimated seasonal high groundwater, depth to bedrock, and soil texture. Evaluate sites for any know contamination issues identified in MassDEP database  
(<http://public.dep.state.ma.us/SearchableSites2/Search.aspx>).
- 13) The design infiltration rate shall be determined from the on-site soil texture and published Rawls rates or saturated hydraulic conductivity tests.
- 14) Size drainage pipes to accommodate the 25-year storm event and maintain velocities between 3 and 10 feet per second using the Rational Method.
- 15) Size drainage swales to accommodate the 25-year storm event and velocities below 4 feet per second
- 16) Size culverts (passing natural streams or brooks across roadways) to accommodate the 50-year storm event and design adequate erosion protection. Design stream crossing culverts in accordance with the Massachusetts Stream Crossing Standards as promulgated by the Wetlands Protection Act Regulations.
- 17) Size stormwater basins to accommodate the 100-storm event with a minimum of one foot of freeboard
- 18) All drainage structures are to be able to accommodate HS-20 loading.
- 19) Catch basins structures are to be as detailed in Hull DPW Standard Details and spaced a maximum of 300 feet apart in roadways.

- 20) Catch basins adjacent to curbing are to be built with a granite curb inlet as shown in Hull DPW Standard Details.
- 21) Catch basins at low points of road and on roads with profile grades greater than 5% are to be fitted with double grates (parallel with curb) as detailed in Hull DPW (and/or MassDOT's Standard Details at the discretion of the Authority) Standard Details. Additional catchbasins may be needed based on flow rates.
- 22) Catch basins are to be routed to drain manhole, water quality structures or outfalls, catch basin to catch basin pipe connections are prohibited.
- 23) All drainpipes within right of way are to be reinforced concrete pipe (RCP) and have a minimum diameter of 12 inches. HDPE pipe on private property should be set a no less than 1% slope and special care should be used in handling, bedding and backfill of pipe to prevent UV breakdown and deformation
- 24) Proposed drainage pipes under buildings are prohibited. Existing pipes under buildings are to be relocated.
- 25) Proposed pipe to be reused is to be inspected for passable condition/material and replaced or lined if necessary. Provide CCTV/testing report for reuse of existing pipe.
- 26) Drainage pipes are to be installed with a minimum of 2.5 feet of cover and O-rings as detailed in Hull DPW Standard Details.
- 27) Drainage manholes structures are to be as detailed in Hull DPW Standard Details and spaced at a maximum of every 300 feet.
- 28) Outfalls are to be designed to prevent erosion of soils and pipes 15 inches or larger are to be fitted with grates or bars to prevent ingress.
- 29) Drainage easements are to provide sufficient access for maintenance and repairs of system components and be at least 20feet wide.
- 30) Recommend minimizing permanently dewatering soils by:
  - (a) Limiting grading within 4 feet of seasonal high groundwater elevation (SHGWE);
  - (b) Raising roadways to keep the bottom of roadway section above SHGWE; and
  - (c) Setting bottom floor elevation of building(s) a minimum of 2 feet above SHGWE.

B. Design of erosion controls(s) to include the following:

- (1) Minimize total area of disturbance;
- (2) Sequence activities to minimize simultaneous areas of disturbance;

- (3) Minimize peak rate of runoff in accordance with the MassDEP Stormwater Standards;
- (4) Minimize soil erosion and control sedimentation during construction;
- (5) Divert uncontaminated water around disturbed areas;
- (6) Maximize groundwater recharge;
- (7) Design, install and maintain all Erosion and Sediment Control measures in accordance with the latest edition of the *Massachusetts Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas*, manufacturer's specifications and good engineering practices;
- (8) Prevent off-site transport and vehicle tracking of sediment;
- (9) Protect and manage on and off-site material storage areas (overburden and stockpiles of dirt, borrow areas, or other areas used solely by the permitted project are considered a part of the project);
- (10) Comply with applicable Federal, State and local laws and regulations including waste disposal, sanitary sewer or septic system regulations, and air quality requirements, including dust control;
- (11) Avoid or minimize alteration of habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or Of Special Concern, Estimated Habitats of Rare Wildlife and Vernal Pools, and Priority Habitats of Rare Species from the proposed activities;
- (12) Institute interim and permanent stabilization measures, which shall be instituted on a disturbed area as soon as practicable but no more than fourteen (14) days after construction activity has temporarily or permanently ceased on that portion of the site;
- (13) Properly manage on-site construction and waste materials, including truck washing and cement concrete washout facilities; and
- (14) Inspect stormwater controls at consistent intervals in accordance with Section 12.
- (15) Erosion and sediment controls shall be maintained until site is fully stabilized and authorization for removal is granted by Stormwater Authority.

## **SECTION 11. Inspection and Site Supervision**

- A. Pre-construction Meeting. Prior to starting the clearing, excavation, construction, redevelopment or land disturbing activity, the applicant, the applicant's technical representative, the general contractor or any other person with authority to make changes to the project, may be required to meet with the Stormwater Authority or their designee, to review the approved plans and their implementation. The need for a pre-construction meeting shall be determined by the Stormwater Authority based on the project scope.

- B. Stormwater Authority Inspection. The Stormwater Authority or its designated agent, which may include the Town's outside consulting engineer shall make inspections as hereinafter required. If an outside consulting engineer is used, the applicant is responsible for covering the fee. The inspector shall either approve that portion of the work completed or shall notify the applicant wherein the work fails to comply with the Erosion and Sedimentation Control Plan or the Stormwater Management Plan as approved. The Erosion and Sedimentation Control Plan approved by the Stormwater Authority and associated plans for grading, stripping, excavating, and filling work shall be maintained at the site during the progress of the work. In order to obtain inspections, the applicant shall notify the Stormwater Authority at least two (2) working days before each of the following events:
- 1) Erosion and sedimentation control measures are in place and stabilized;
  - 2) Site clearing has been substantially completed;
  - 3) Rough grading has been substantially completed;
  - 4) Final grading has been substantially completed;
  - 5) Subgrade prior to construction of BMP
  - 6) During construction of BMPs
  - 7) After construction of BMPs
  - 8) Close of the construction season; and,
  - 9) Final landscaping (permanent stabilization) and project final completion.
- C. Applicant Inspections. The applicant or their agent shall conduct and document inspections of all control measures no less than weekly or as specified in the permit, and prior to and following anticipated storm events. The purpose of such inspections will be to determine the overall effectiveness of the Erosion and Sedimentation Control Plan, and the need for maintenance or additional control measures as well as verifying compliance with the Stormwater Management Plan. The applicant or their agent shall submit weekly reports to the Stormwater Authority or designated agent in a format approved by the Stormwater Authority.
- D. All expenses associated with inspections shall be paid by the Applicant in accordance with the Stormwater Authority policy and procedures.

## **SECTION 12. Surety**

The Stormwater Authority may require the permittee to post before the start of land disturbance activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by Stormwater Authority and be in an amount deemed sufficient by Stormwater Authority to ensure that the work will be completed in accordance with the permit. If the project is phased, the Stormwater Authority may release part of the bond as each phase is completed in compliance with the permit but the bond may not be fully released until the Stormwater Authority has received the final report as required by Section 10 and issued a certificate of completion.

## **SECTION 13. Final Reports**

Upon completion of the work described in the Land Disturbance Permit, the permittee shall submit a Final Report, including a letter and topographic as-built plan (PDF and DWG) stamped a MA Professional Land Surveyor (PLS) and/or MA Registered Professional Engineer (P.E.) as applicable, certifying that the site has been developed in substantial compliance with the approved plan including all permanent erosion control devices, stormwater management facilities and, any approved changes and modifications. Any discrepancies from the approved plan should be noted in the cover letter. The final report shall also include documentation to verify the Stormwater Management System has been properly operated and maintained in accordance with the approved O&M Plan.

#### **SECTION 14. Certificate of Completion**

The Long-Term Operation and Maintenance Plan including the map showing stormwater system components and facilities to be privately maintained, including associated easements shall be recorded with the Plymouth Registry of Deeds prior to issuance of a Certificate of Completion by the Stormwater Authority.

The issuing authority will issue a letter certifying completion upon receipt and approval of the final reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with these regulations. The property owner shall maintain copies in their files/records.

#### **SECTION 15. Application and Review Fee Schedule**

The following fee schedules are minimum fees. The Stormwater Authority may require higher fees if deemed necessary for proper review of an application or to ensure compliance.

<u>Proposed Disturbance Requires</u>	<u>Application Fee</u>	<u>Engineering Review</u>
Land Disturbance Permit	\$500	TBD per project*

\*Review fees include engineering review, legal review, and clerical fees associated with the permit processing. A fee estimate may be provided by the Stormwater Authority, its agent, or consulting engineer. An initial fee of \$5,000 retainer is typical.

#### **GENERAL**

1. Any application not accompanied by the appropriate fee shall be deemed incomplete. Payment must be made to the Stormwater Authority in cash, money order, bank or certified check payable to the Town of Hull.
2. An Applicant's failure to pay any additional review or inspection fee within five (5) business days of receipt of the notice that further fees are required shall be grounds for disapproval.
3. Stormwater Authority will publish the public notice in the local newspaper on the applicants behalf. The applicant shall be responsible for providing written notification to the abutters (see above Section 6D). Abutter notification shall be by certified mail, return receipt requested. The applicant shall pay all costs associated with the publication and notification requirements. These costs shall not be imposed on the applicant if the



applicant completes the public notice and abutter notification requirements and provides Stormwater Authority with copies of the public notices and the return receipt cards.

4. The Application Fee shall be used by the Town to cover administrative costs associated with the Authority.

DRAFT



# Town of Hull

**STORMWATER AUTHORITY**

TEL: (781) 925-1330

**253 ATLANTIC AVE**

HULL, MASSACHUSETTS 02045

## STORMWATER MANAGEMENT APPLICATION

(Please print legibly)

**Applicant:****Property Owner (or write "same"):**

Name

Name

Street Address

Street Address

City

State

Zip

City

State

Zip

Contact Phone Number

Contact Phone Number

Email Address

Email Address

Signature

Signature

Property location / Address: \_\_\_\_\_ Assessors Map # \_\_\_\_\_ Lot # \_\_\_\_\_

Total Property size: \_\_\_\_\_ sq. feet Proposed area of disturbance: \_\_\_\_\_ sq. feet

Plymouth Registry of deeds Information: Book: \_\_\_\_\_ Page: \_\_\_\_\_ and/or Certificate Number (if applicable) \_\_\_\_\_

Project Title &amp; Description: \_\_\_\_\_

Include narrative describing the proposed work including existing site conditions, proposed work and methods to mitigate any stormwater impacts. The application should contain sufficient information for the Stormwater Authority or their designee to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the applicant for reducing and/or negating any adverse impacts from stormwater runoff.

**Application is for: (check one)**☐ New Land Disturbance Review Permit☐ Extension Request for Permit # \_\_\_\_\_☐ Modification of Permit # \_\_\_\_\_**Project Type (check all that apply):**☐ Single Family☐ Multi-Family☐ Commercial☐ Addition☐ New detached building☐ Landscaping☐ Driveway(s); Walkway(s)☐ Grading

Are there any steep slopes on the property (&gt;15%)?

☐ Yes☐ NoWill there be any fill brought to the site? ☐ Yes ☐ No If yes, how much fill? \_\_\_\_\_

Are there any wetlands within 100 feet of the proposed disturbed area?

☐ Yes☐ No

If yes, describe \_\_\_\_\_

**Are there any rivers, streams, and/or brooks within 200 feet of the proposed disturbed area?**

If yes, describe: \_\_\_\_\_

**Is the proposed disturbed area within any “Estimated or Priority Habitat of Endangered Species?”**

☐ Yes

☐ No

### Land Disturbance Permit Application Checklist

The Stormwater Authority shall make a determination as to the completeness of the application and adequacy of the materials submitted. No review shall take place until the application has been found to be complete. The Land Disturbance Permit Application package shall include but may not be limited to the following:

- A completed Application Form with original signatures of all owners (two copies);
- A certified list of abutters within 100 feet of the property;
- Payment of the application and review fees
- Stormwater Management Plan (One full size (24”x36”) and one electronic (PDF) copies) shall at a minimum include:
  - 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
  - Narrative describing project
  - Plan(s)
  - Calculations to show compliance with regulations
  - Soil mapping and test data
  - Completed MassDEP Checklist for Stormwater Report
- Erosion and Sedimentation Control Plan (One full size (24”x36”) and one electronic (PDF) copies) shall at a minimum include:
  - Names addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan;
  - Narrative describing existing and proposed conditions, construction sequencing and phasing and methods to control erosion and sedimentation during construction.
  - Plan(s)
  - Calculations to show compliance with regulations
- Operation and Maintenance Plan (One full size (24”x36”) and one electronic (PDF) copies) shall at a minimum include:
  - The name(s) of the owner(s) for all components of the system;
  - A map showing the location of the stormwater systems and facilities;
  - Maintenance Agreement with the Stormwater Authority; and
  - Stormwater Management Easement(s)
- Color Photographs of the site
- Authorization Form (if applicable)
- Land Disturbance Form
- Application Fee
- Public Hearing Notice Fee
- Abutters List obtained from the Assessors Department

\*see Stormwater Management Regulations for information regarding plan requirements

**The below section is to be filled out by the Stormwater Authority or their designee:**

**Date Received by the Stormwater Authority/designee:** \_\_\_\_\_

**Signed\*:** \_\_\_\_\_

*\*signature does not constitute a complete application.*



# Town of Hull

**STORMWATER AUTHORITY**

TEL: (781) 925-1330

**253 ATLANTIC AVE**

HULL, MASSACHUSETTS 02045

## AUTHORIZATION FORM To Represent Property Owner(s) (Please print legibly)

Date: \_\_\_\_\_

To: Town of Hull

I/we, the undersigned owner(s) grant full permission to:

**APPLICANT(S) / AUTHORIZED REPRESENTATIVE(S):**

Name

Name

Street Address

Street Address

City/State/Zip

City/State/Zip

Phone Number

Phone Number

Email

Email

to act as our agent and hereby authorize this representative to take any action, including but not limited to paying consultant fees, agreeing to conditions set by any applicable Board or Commission, signing agreements and/or extending deadlines. This agent has my/our full permission to submit applications, present plans, submit requirements and speak on my/our behalf with regard to:

**PROPERTY LOCATED AT:** \_\_\_\_\_, Hull, MA

Assessors ID Map # \_\_\_\_\_ Lot # \_\_\_\_\_

**OWNER(S)**

Name

Name

Street Address

Street Address

City/State/Zip

City/State/Zip

Phone Number

Phone Number

Email

Email

Signature of owner(s)

Signature of owner(s)

OWNER(S)



# Town of Hull

**STORMWATER AUTHORITY**

TEL: (781) 925-1330

**253 ATLANTIC AVE**

HULL, MASSACHUSETTS 02045

## LAND DISTURBANCE PERMIT Chapter xx: Stormwater Management Bylaw

**PERMIT # LD20:**

**Project Site:**

**ADDRESS**

**Map XX/Lot XXX**

**Applicant: NAME**  
**ADDRESS**  
**ADDRESS**

**Property Owner: NAME**  
**ADDRESS**  
**ADDRESS**

Description of Work: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date Application Submitted: \_\_\_\_\_

Date of hearing/s (if applicable): \_\_\_\_\_

Date of Issuance: \_\_\_\_\_

Activity level:

☐ Land Disturbance Review Permit

☐ Extension Request for Permit # \_\_\_\_\_

☐ Modification of Permit # \_\_\_\_\_

**Approved Plans:**

- (1)
- (2)
- (3)

**Findings of significance:**

The Stormwater Authority has established that the proposed project is significant to the interests stated in Ch. 354 §1 of the Stormwater Management Bylaw, including the determination that proper management of construction sites and post-development stormwater runoff will prevent damage to public and private property and infrastructure. It is in the public interest to protect, maintain, enhance and safeguard their health, safety, and general welfare, as well as that of the environment, by establishing minimum requirements and procedures to control the adverse effects of construction site stormwater runoff and post-construction stormwater discharges which, in turn, may increase flooding,

threaten property values, cause stream channel erosion, and result in non-point source pollution (sediment transport and deposition). Effective Stormwater Management will also serve to protect aquatic habitats and recreational resources, promote groundwater recharge to protect surface and groundwater drinking supplies, and encourage the appropriate use of land throughout the Town.

**Standard Conditions:**

At its regular meeting on \_\_\_\_\_ or following review by its representative on \_\_\_\_\_, the Stormwater Authority hereby grants the permit with the following conditions:

1. Construction shall be done in accordance with the above-referenced plans/documents and construction sequencing.
2. The construction entrance shall be stabilized for a minimum distance of 50ft. as shown on the "Construction Entrance" detail from the "Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas." The crushed stone shall be replenished as needed to prevent tracking sediment on the public way.
3. All work shall be done in compliance with the "Massachusetts Department of Environmental Protection-Stormwater Management, Volumes One & Two," or in accordance with the most currently revised version.
4. It is the owner's responsibility to prevent the products of erosion and sedimentation from causing a safety hazard on any public or private way (s). There shall be no net increase in runoff or erosion to public ways, municipal storm drain system(s), abutting properties, or wetland resource areas
5. The limits of disturbance shown on the plan shall be well delineated in the field with erosion control measures in the locations shown on the above-referenced plan. The limit of work not delineated by erosion control measures shall be delineated with orange snow fence to prevent disturbance. These barriers and flagging shall be maintained throughout the duration of construction to prevent any disturbance to the vegetation or topography beyond the limits of the work area.
6. During construction, no slope shall be any steeper than 2:1, including any open cellar holes, to prevent any potential public safety hazard. All excavations are to be done in accordance with the latest version of the U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1926, Safety and Health Regulations for Construction, Subpart P-Excavations.
7. Catch basins shall be protected with erosion control devices during construction to prevent the basins from becoming clogged with sand and silt. Catch basins shall be cleaned out whenever necessary, or as determined by the Stormwater Authority or their designee upon inspection.
8. All disturbed areas and topsoil shall be stockpiled on the site and properly stabilized with erosion control measures installed around the base of the stockpile. The stockpiles shall be covered or seeded to prevent dust and wind-blown erosion. A supply of erosion control materials shall be kept on site to stabilize disturbed areas. The owner shall take effective measures to control dust and windblown erosion at all times.
9. The owner and any future landowner shall comply with the O & M Plan approved by the Stormwater Authority in perpetuity.

- 10. The land owner shall notify the Stormwater Authority immediately of any proposed changes to plans or property ownership prior to project completion.
- 11. The removal of any excess earth material not exempted in § 95-1 of the Code of the Town of Hull shall require a permit issued by the building inspector. If the subject property falls within a resource area under the jurisdiction of the Wetlands Protection Act, such action shall also require a permit through the Conservation Commission.
- 12. The owner is responsible for obtaining any other permits including, but not limited to, those required by the Board of Selectmen, Board of Health, Conservation Commission, Building Inspector, Highway Superintendent, Planning Board and Zoning Board of Appeals.
- 13. The owner shall submit a copy of the EPA's National Pollution Discharge Elimination System (NPDES) Construction General Permit to the Stormwater Authority. The Erosion and Sedimentation Control and O & M Plans shall be appended to any Definitive Plan and/or Special Permit approved by the Planning Board.
- 14. It is the owner's responsibility to contact DigSafe prior to the commencement of any work at the site.
- 15. Prior to clearing, excavation, construction, or any land disturbing activity requiring a permit, the applicant, their engineer, the general contractor, and/or pertinent subcontractors shall meet at the site with a representative of the Stormwater Authority. Additionally, the applicant shall provide the Stormwater Authority with emergency contact information for all site contractors.
- 16. If the project is not completed within three (3) years from the date the permit is issued, it is the owner's responsibility to request an extension. The Stormwater Authority may grant extensions for additional time provided the owner submits a written request at least thirty (30) days prior to expiration. An expired permit cannot be extended and a new filing will be required. Each extension shall be limited to a maximum of three (3) years.
- 17. The owner or representative shall submit Monthly Inspection Reports on Form SM8 during the construction phase to the Stormwater Authority.

This permit runs with the land and applies to any successor in interest or successor in control.

Special Conditions

STORMWATERAUTHORITY:

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OR:

STORMWATER REPRESENTATIVE:

ISSUE DATE:

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Cc:  
Applicant  
Landowner  
Landowner's Representative  
Planning Board  
Board of Selectmen  
Board of Health  
Building Commissioner  
Stormwater Authority  
Conservation Commission  
DPW Director  
Zoning Board of Appeals  
Water Department  
Town Clerk

**Land Disturbance Project:**

RECORDED:

Plymouth County Registry of Deeds:

Book: \_\_\_\_\_

Page: \_\_\_\_\_

Certificate: \_\_\_\_\_

Return a copy of the recorded permit to the Stormwater Authority.