

STORMWATER AND EROSION CONTROL REGULATIONS

City of Gardner Department of Public Works

Adopted: August 16, 2024

1.0 Purpose

The United States Environmental Protection Agency (EPA) has identified sedimentation and polluted stormwater runoff from land disturbance, land development and redevelopment activities as major sources of water pollution. To address the impact of these sources of water pollution, the City of Gardner has adopted a local Stormwater Management Ordinance (Ordinance). The Ordinance is necessary to protect the City of Gardner waterbodies and groundwater resources, to safeguard the health, safety, and welfare of the general public and protect the natural resources of the City.

Section 6 of the City of Gardner Stormwater Management Ordinance (Chapter 565) authorizes the stormwater authority to adopt regulations to effectuate the purposes of the Ordinance. The purpose of these regulations is to clearly set forth administrative procedures and design criteria necessary to achieve the objectives of the City of Gardner Stormwater Management Ordinance: to control the adverse effects of soil erosion and sedimentation, construction site runoff, increased post-development stormwater runoff and nonpoint source pollution associated with new development and redevelopment.

2.0 Authority

2.1. The Regulations contained herein have been adopted by the Department of Public Works (DPW) in accordance with Chapter 565 “Stormwater Management” of the Code of the City of Gardner, §565-6.

2.2. The DPW may periodically amend the Regulations in accordance with §565-6 of the Stormwater Management Ordinance. Failure of the stormwater authority to promulgate the Regulations or a legal declaration of their invalidity by a court shall not act to suspend or invalidate the effect of the Ordinance.

3.0 Administration

The DPW is hereby designated as the stormwater authority. The stormwater authority, or his/her agent, shall administer, implement, and enforce this ordinance. The DPW may delegate in writing approval authority under these Stormwater Regulations to another city department, commission or board who issues permits and/or approvals for projects and/or activities under their specific jurisdiction and in accordance with their specific jurisdictional requirements regarding public notice and hearings.

4.0 Definitions

4.1. For the purposes of these Regulations, the following shall mean:

- (1) **ABUTTER:** The owner(s) of land abutting the site on which the activity occurs as defined by a certified abutter list issued by the City of Gardner assessor's office.
- (2) **ALTER:** Any activity that will measurably change the ability of a ground surface area to absorb water, will change existing surface drainage patterns, or will increase or decrease the rate or volume of flow from a site. Alter may be similarly represented as "alteration of drainage characteristics," and "conducting land-disturbing activities".
- (3) **APPLICANT:** Any person, individual, partnership, association, firm, company, corporation, trust, authority, agency, department, or political subdivision of the Commonwealth of Massachusetts or the federal government, to the extent permitted by law, any office, employee, or agent of such person who has filed an application for a stormwater permit.
- (4) **BEST MANAGEMENT PRACTICE (BMP):** A structural or non-structural technique for managing stormwater to prevent or reduce nonpoint source pollutants from entering surface waters or ground waters, as defined in 310 CMR 10. A structural stormwater best management practice includes a basin, discharge outlet, swale, rain garden, filter, or other stormwater treatment practice or measure either alone or in combination including, without limitation, any overflow pipe, conduit, weir control structure that:
 - (a) Is not naturally occurring;
 - (b) Is not designed as a wetland replication area; and
 - (c) Has been designated, constructed, and installed for the purpose of conveying, collecting, storing, discharging, recharging or treating stormwater.

Nonstructural stormwater best management practices include source control and pollution prevention measures.

- (5) **CERTIFICATE OF COMPLETION:** A document issued by the City of Gardner Permit Granting Authority (stormwater authority), its employees, or authorized agents upon receipt of a final inspection report and certification by the Applicant's Massachusetts registered Professional Engineer (P.E.) that all conditions of the Stormwater Management Permit have been satisfactorily completed.
- (6) **CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC):** A certified specialist in soil erosion and sediment control. This certification program, sponsored by the Soil and Water Conservation Society in

cooperation with the American Society of Agronomy, provides the public with evidence of professional qualifications.

- (7) **CERTIFIED VERNAL POOLS:** Temporary bodies of freshwater that provide critical habitat for a number of vertebrate and invertebrate wildlife species, certified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP).
- (8) **CLEARING:** Any activity that removes vegetative surface cover.
- (9) **CONSTRUCTION WASTE AND MATERIALS:** Excess or discarded 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.
- (10) **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 Commonwealth of Massachusetts from any source.
- (11) **DISTURBANCE OF LAND:** Any action that causes removal of vegetation (including tree cutting) or that causes a change in the position, or arrangement of soil, sand, rock, gravel or similar earth material. See also “alter”.
- (12) **DPW:** City of Gardner DPW, its employees, or authorized agents designated to enforce these Regulations.
- (13) **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.
- (14) **ESTIMATED HABITAT OF RARE WILDLIFE:** Habitats delineated by the NHESP 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).
- (15) **GRADING:** Changing the level or shape of the ground surface.
- (16) **GROUNDWATER:** Water beneath the surface of the ground including confined or unconfined aquifers.
- (17) **IMPERVIOUS SURFACE:** Any surface that prevents or significantly impedes the infiltration of water into the underlying soil. Also referred to as impervious cover (IC) and impervious area (IA). This can include, without limitation: roads, paved surfaces (parking lots, sidewalks, and driveways), concrete, brick, stone, and roof tops.
- (18) **INFEASIBLE:** means not technologically possible, or not economically practicable and achievable in light of best industry practices.
- (19) **LAND-DISTURBING ACTIVITY:** Any action that causes a change in the existing soil cover which includes the position or location of soil, sand, rock, gravel, or similar earth material. Land-disturbing activities include, but are not limited to, clearing, clearing of trees, grubbing, filling and excavation.

- (20) **LOW IMPACT DEVELOPMENT (LID):** An approach to land development design and stormwater management that attempts to mimic the natural hydrology of the site by avoiding, reducing, and mitigating impacts with natural, non-structural, and structural measures.
- (21) **MASSACHUSETTS ENDANGERED SPECIES ACT (MESA):** (G.L. c. 131A) and its implementing regulations at (321 CMR 10.00). This Act prohibits the "taking" of any rare plant or animal species listed as "Endangered", "Threatened", or of "Special Concern".
- (22) **MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS:** The latest version as may be amended from time to time of the stormwater management standards and accompanying Stormwater Handbook issued by the Massachusetts Department of Environmental Protection Agency pursuant to authority under the Wetlands Protection Act, M.G.L.A. c. 131, § 40, and the Massachusetts Clean Waters Act, M.G.L.A. c. 21, § 26-53. The Stormwater Management Standards are incorporated in the Wetlands Protection Act Regulations, 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a). The Stormwater Management Standards address stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and to control the quantity of runoff from a site.
- (23) **MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or MUNICIPAL STORM DRAIN SYSTEM:** The conveyance or system of conveyances designed or used for collecting or conveying stormwater, which is not a combined sewer, including any road with a drainage system, municipal street, catch basins, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, ditch, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the City of Gardner.
- (24) **NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT:** A permit issued by the United States Environmental Protection Agency (EPA) or jointly with the Commonwealth of Massachusetts that authorizes the discharge of stormwater to Waters of the Commonwealth.
- (25) **NEW DEVELOPMENT:** 1. Any construction activities or land alteration resulting in total Disturbance of Land equal to or greater than 10,000 square feet; or 2. Any construction activities or land alteration that are part of a larger common plan of development resulting in Disturbance of Land equal to or greater than 10,000 square feet.
- (26) **NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP):** The Commonwealth of Massachusetts' program for implementing MESA requirements.

- (27) **OPERATION AND MAINTENANCE PLAN (OMP):** 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.
- (28) **OUTFALL:** The point where stormwater flows out from a point source which is a discernible, confined, and discrete conveyance into Waters of the Commonwealth.
- (29) **OWNER:** A person with a legal or equitable interest in property.
- (30) **PERSON:** An individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth of Massachusetts or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.
- (31) **PLANNING BOARD:** City of Gardner Planning Board.
- (32) **POINT SOURCE:** Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.
- (33) **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 non-point source, that is or may be introduced into any sewage treatment works or Waters of the Commonwealth. Pollutants shall include, without limitation:
- (a) Paints, varnishes, and solvents;
 - (b) Oil and other automotive fluids;
 - (c) Non-hazardous liquid and solid wastes and yard wastes;
 - (d) Refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnances, 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, with the exception of winter salting and sanding in quantities that will not clog or otherwise impair the performance of the MS4 and stormwater management systems;
 - (j) Construction wastes, demolition debris, and discarded building materials; and,
 - (k) Noxious or offensive matter of any kind.
- (34) **PRIORITY HABITAT OF RARE SPECIES:** Habitats delineated for rare plant and animal populations protected pursuant to the MESA and its regulations.

- (35) RECHARGE: The process by which groundwater is replenished by precipitation through the percolation of runoff and surface water through soil.
- (36) REDEVELOPMENT: 1. any construction, land alteration, or improvement of impervious surfaces resulting in total Disturbance of Land equal to or greater than 10,000 square feet; or 2. Activities that are part of a larger common plan of development resulting in a Disturbance of Land equal to 10,000 square feet or more that does not meet the definition of New Development.
- (37) RUNOFF: Rainfall, snow melt, or irrigation water flowing over the ground surface.
- (38) SEDIMENT: Mineral or organic soil material that is transported by wind or water from its origin to another location; the product of erosion processes.
- (39) SEDIMENTATION: The process or act of deposition of sediment.
- (40) SITE: Any lot, parcel of land, or area of property where land-disturbing activities are, were, or will be performed.
- (41) SLOPE: The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.
- (42) SOIL: Any earth, sand, rock, gravel, or similar material.
- (43) STABILIZATION: The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or minimize erosion.
- (44) STORMWATER: Stormwater, snow melt, and surface water runoff and drainage.
- (45) 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 city from the deleterious effects of uncontrolled and untreated stormwater runoff.
- (46) STORMWATER MANAGEMENT PLAN: A plan required as part of the Application for a Stormwater Management Permit.
- (47) SURFACE WATERS: All water other than groundwater within the jurisdiction of the commonwealth including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, and coastal waters, as defined in 310 CMR 10.00.
- (48) 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 or organic chemical, petroleum product, heavy metal, radioactive, biological, or infectious waste, acid and

alkali, and any substance defined as Toxic or Hazardous under G.L. Ch.21C and Ch.21E, and the regulations at 310 CMR 30.000 and 310 CMR 40.0000.

- (49) TOTAL SUSPENDED SOLIDS (TSS): Sediment being carried in stormwater.
- (50) WATERCOURSE: A natural or man-man channel through which water flows, or a stream of water, including a river, brook, or underground stream.
- (51) WATERS OF THE COMMONWEALTH: All waters within the jurisdiction of the Commonwealth of Massachusetts, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters, groundwaters, and vernal pools.
- (52) WETLAND RESOURCE AREAS: Areas specified in the Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00, as amended, and in Chapter 650 “Wetlands Protection” of the General Legislation of the City of Gardner, as amended.

5.0 Applicability

These Regulations apply to all projects meeting the applicability criteria of the Stormwater Management Ordinance (Chapter 565 of the Code of the City of Gardner). New Development and Redevelopment projects must comply with the Regulations contained herein unless expressly waived by the stormwater authority.

6.0 Procedures and Requirements

6.1. Application Requirements.

- (1) An application shall be made in the form and containing information as specified in these Regulations.
- (2) Coordination with Other City Permits. The DPW shall be the permitting authority for the Stormwater Management Permit, except that:
 - (a) if subdivision, site plan, or special permit approval from the Planning Board, is required, Stormwater Management Permits shall be reviewed and issued by the Planning Board as a component of those other permits, including the fees, regulations, timing, notice and hearing requirements of those other permits.
 - (b) if the full extents of the land disturbance activities are subject to Conservation Commission jurisdiction under the Wetland Protection Act or the City’s Wetland Protection Bylaw, and there are no activities subject to any Planning Board permits, the Stormwater Management Permit shall be reviewed and issued by the Conservation Commission including the fees, regulations, timing, notice and hearing requirements of those other permits.

- (3) Permit issuance is required prior to any applicable site-altering activity. While the Applicant may be a representative of the Owner of the site, the Stormwater Management Permit must be issued to the Owner of the site.
- (4) All applications shall include a comprehensive Stormwater Management Plan (SMP). The SMP shall include:
 - (a) A narrative description and an Existing Conditions Site Plan showing all pre-development impervious surfaces, buildings and structures; surface water bodies and wetlands; slopes of greater than or equal to 15 percent; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers, locations of various hydrologic group soil types, mature vegetation, land topographic contours with minimum 2-foot intervals and spot grades where necessary for sites that are flat.
 - (b) A narrative description and a Proposed Conditions Site Plan showing all post-development proposed impervious surfaces, buildings and structures; temporary and permanent stormwater management elements and best management practices (BMP), including BMP GIS coordinates and GIS files; important hydrologic features created or preserved on the site; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers; proposed tree clearing and topographic contours with minimum 2-foot intervals. The plans shall provide calculations and identification of the total area of disturbance proposed on the site (and off site if applicable) and on slopes greater than or equal to 15 percent and total area of new impervious surface created. A summary of the drainage analysis showing a comparison of the estimated peak flow and volumes for various design storms at each of the outlet locations shall be included.
 - (c) A description of the general approach and strategies implemented, and the facts relied upon, to meet the performance standards in Section 7. The SMP shall include design plans and/or graphical sketch(es) of all proposed LID practices. The applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater.
 - (d) Calculations of the change in impervious area, removal rates for each best management practice, and GIS files containing the coordinates of all stormwater infrastructure elements (e.g., catch basins, swales, detention/bioretenion areas, piping).
 - (e) A description and a proposed Site Plan showing proposed erosion and sediment control measures, limits of disturbance, temporary and permanent soil stabilization measures as well as a construction site inspection plan including temporary water quality measures, phased installation of best management practices and final inspection upon completion of construction. The applicant may submit a SWPPP developed under EPA's Construction General Permit to meet this requirement to the extent it is consistent with the requirements of this regulation.

- (f) A long-term stormwater management agreement and Operation & Maintenance (OMP) Plan (see Section 8), as applicable, that describes the responsible parties and contact information for the qualified individuals who will perform future BMP inspections and maintenance and/or future inspection and maintenance of steep slopes for stability. A long-term OMP will not be required for sites with slopes less than 15% and with no drainage infrastructure or structural stormwater treatment/control BMPs.
 - (g) A description of construction and waste materials, chemicals, and fuels expected to be stored and used on-site and controls to reduce pollutants from these materials.
- 6.2. Entry. To the extent permitted by state law, and as authorized by the Owner at the time of the Application or other party in control of the property, the stormwater authority, and its agents, may enter upon privately owned property for the purpose of performing their duties under the Stormwater Management Ordinance (Chapter 565 of the Code of the City of Gardner) and these Regulations and may make or cause to be made such examinations, surveys, or sampling as the stormwater authority deems necessary to determine compliance with the Stormwater Management Permit.
- 6.3. Information Requests. The stormwater authority may request, and the Applicant shall submit additional information and/or documentation at any time prior to the issuance of the Certificate of Completion.
- 6.4. Consent of Property Owner. When the Applicant does not own the property shown on a plan filed with an Application pursuant to these Regulations, the Applicant shall state the nature of his or her interest in the property and shall submit the written consent of the property Owner by having the property Owner appropriately sign the Application for the Stormwater Management Permit as the Applicant. An Application shall not be considered complete unless the property Owner has signed the application form. Where the Owner is a partnership, trust or corporation, documents must be submitted indicating who has signing authority to enter into agreement on behalf of the partnership, trust or corporation. If the property Owner subsequently withdraws consent to the Application after the Application is filed, the stormwater authority may deny the Application for this lack of consent of the Owner.
- 6.5. Appeals. A decision of the stormwater authority shall be final. The Applicant may appeal the decision to a court of competent jurisdictions in the time allowed by law.
- 6.6. Plan Changes. The Applicant must notify the stormwater authority in writing of any drainage change or alteration in the system authorized in the Stormwater Management Permit before any change or alteration is made. If the stormwater authority determines that the change or alteration is significant, based on the requirements set forth in these Regulations, or accepted construction practices, the stormwater authority may require that an amended Application be filed. If any change or alteration from the Stormwater Management 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.

- 6.7. Waiver. The stormwater authority may waive strict compliance with any requirements of these Regulations where such action is in the public interest and is not inconsistent with the purpose and intent of 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 these Regulations does not further the purposes or objectives of these regulations. If in the stormwater authority’s opinion, additional information is required for a review of a waiver request and the 30-day timeframe for action is approached, the waiver shall be denied.

7.0 Performance Standards

7.1. Stormwater Management Performance Standards. Projects shall meet the following standards:

- (1) No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or Waters of the Commonwealth;
- (2) Stormwater management system design shall be consistent with, or more stringent than, the requirements of the latest version of the Massachusetts DEP Stormwater Handbook and City Specifications;
- (3) LID site planning and design strategies shall be used to the maximum extent practicable (MEP) to reduce stormwater runoff volumes, protect water quality, and maintain predevelopment site hydrology. These strategies may include disconnection of rooftop and non-rooftop runoff, vegetated bioretention systems, tree box filters, infiltration edges, dividers, or islands, planters, and raingardens. Capture and reuse of stormwater is strongly encouraged. The applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater;
- (4) Stormwater management systems shall be designed to remove a percentage of the average annual load of total suspended solids (TSS) and total phosphorus (TP) from the total post-construction impervious surface area on the site, as follows:

Pollutant	Removal from New Development Sites	Removal from Redevelopment Sites
Total Suspended Solids (TSS)	90%	80%
Total Phosphorus (TP)	60%	50%

- (a) Average annual pollutant removal requirements in 8.1.(4) are achieved through one of the following methods:
- i. Installing BMPs that meet the pollutant removal percentages based on calculations developed consistent with US EPA Region 1's BMP Accounting and Tracking Tool (2016) or other BMP performance evaluation tool provided by US EPA Region 1, where available. If US EPA Region 1 tools do not address the planned or installed BMP performance, then any federally or State-approved BMP design guidance or performance standards (e.g., State stormwater handbooks and design guidance manuals) may be used to calculate BMP performance; or
 - ii. Retaining the volume of runoff equivalent to, or greater than (1) 1.0 inch multiplied by the total post-construction impervious surface area on the new development site, and (2) 0.8 inch multiplied by the total post-construction impervious surface area on the redevelopment site; or
 - iii. Meeting a combination of retention and treatment that achieves the above standards; or
 - iv. Utilizing offsite mitigation that meets the above standards within the same USGS HUC12 as the new development or redevelopment site.
- (b) 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 Section 7.1.(4)(a). 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 Section 7.1.(4)(a).
- (c) Discharges to water bodies subject to one or more approved Total Maximum Daily Loads (TMDLs) or impaired waterbodies and their tributaries, listed as Category 4a or 5 in the current Massachusetts Integrated List of Waters listed pursuant to the Federal Clean Water Act Sections 303(d) and 305(b) without an EPA approved TMDL shall:
- i. For nitrogen and phosphorus impaired waters, stormwater management systems shall be designed using BMPs optimized for nitrogen and/or phosphorus removal, whichever applies.
 - ii. For chloride impaired waters, the required Operation and Maintenance Plan (OMP) shall outline measures to minimize salt usage or use alternative deicing materials and practices. The Applicant shall consult with the Gardner DPW to develop these OMP provisions.
 - iii. For waters impaired due to solids (turbidity), metals, or oil and grease (hydrocarbons), commercial or industrial land use development/redevelopments shall design stormwater management

systems to allow shutdown and containment in the event of an emergency spill or other unexpected event. Systems designed to infiltrate shall provide the level of pollutant removal equal to or greater than the level of pollutant removal provided through the use of biofiltration of the same volume of runoff to be infiltrated, prior to infiltration.

- (5) The calculations of runoff volumes and peak rates required under the Massachusetts Stormwater Management Standards shall be based on precipitation data provided in National Oceanic and Atmospheric Administration (NOAA) – National Weather Service “NOAA Atlas 14” unless otherwise authorized by the stormwater authority.

7.2. Erosion Control Performance Standards. The Applicant shall submit such material as is necessary to show that the proposed development will comply with the design requirements as follows:

- (1) Minimize total area of disturbance;
- (2) Sequence activities to minimize simultaneous areas of disturbance;
- (3) Install erosion and sediment controls prior to the commencement of any construction activity;
- (4) Minimize soil erosion and control sedimentation during construction, provided that prevention of erosion is preferred over sedimentation control;
- (5) Divert uncontaminated water around disturbed areas;
- (6) Maximize infiltration and groundwater recharge;
- (7) Install, inspect, and maintain all Erosion and Sediment Control measures in accordance with the manufacturer’s specifications and good engineering practices;
- (8) Prevent off-site transport of sediment and wastes;
- (9) Protect all storm drain inlets and armor all newly constructed outlets;
- (10) 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);
- (11) 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;
- (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 waste and materials;

- (14) Stabilize construction site entrances and exits and prevent off-site vehicle tracking of sediments; and,
- (15) Ensure that any stormwater BMP (for post-construction stormwater management) installed during construction will be protected from compaction, siltation, and erosion or will be restored or replaced such that the BMP will be capable of functioning as designed in accordance with these stormwater regulations.

8.0 Operation and Maintenance Plan (OMP)

8.1. A stand-alone Operation and Maintenance Plan (OMP) is required at the time of the application for all projects and shall be designed to ensure ongoing compliance with the Stormwater Management Permit and these Regulations. The stormwater authority shall make the final determination of what maintenance option is appropriate in any given situation. The stormwater authority will consider natural features, proximity of the site to MS4 infrastructure, proximity of the site to waterbodies and wetlands, extent of impervious surfaces, size of the site, the types of stormwater management structures, and potential need for ongoing maintenance activities when making this decision. The OMP shall remain on file with the stormwater authority and shall be an ongoing requirement. The OMP shall include:

- (1) The name(s) of the Owner(s) of all components of the system;
- (2) Maintenance agreements that specify:
 - (a) Names, addresses, telephone numbers, and email addresses of the person(s) responsible for operation and maintenance.
 - (b) The person(s) and their contact information responsible for financing maintenance and emergency repairs.
 - (c) A Maintenance Schedule that includes routine inspection along with routine and non-routine maintenance tasks for each BMP.
 - (d) A list of easements, if applicable, with the purpose and location of each.
 - (e) The signature(s) of the Owner(s).
 - (f) Estimated operation and maintenance budget.
 - (g) The responsible party shall:
 - i. Maintain a log of all operation and maintenance activities for the last three years including inspections, repair, replacement, and disposal (the log shall indicate the type of material and the disposal location);
 - ii. Make this log available to the stormwater authority and/or the Commonwealth of Massachusetts upon request; and,
 - iii. Allow the City of Gardner to inspect each BMP to determine whether the responsible party is implementing the OMP.
- (3) Stormwater Management Easement(s).
 - (a) Stormwater management easements shall be provided by the property Owner(s) if the stormwater authority deems 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; and,
 - iii. Direct maintenance access by heavy equipment to structures requiring regular cleanout.
 - (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 shall be recorded by the Owner with the Worcester Registry of Deeds prior to issuance of a Certificate of Completion.
 - (4) 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 OMP may be amended to achieve the purposes of these Regulations 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 responsibility during future years. Once the amended plan is signed, the stormwater authority shall file it at the Registry of Deeds at the expense of the current Owner(s).
 - (5) Annual Report Submittal

The responsible parties must submit an annual report by June 1st to the stormwater authority documenting the inspection and maintenance that has been performed over the last 12 months of the BMPs for which they are responsible. The stormwater authority, at its discretion and depending on the complexity of the BMP, may require the Annual Report submittal be prepared by a Massachusetts registered Professional Engineer (P.E.). The reports must include the following:

 - (a) Descriptions of the condition of the BMPs,
 - (b) Descriptions of the maintenance performed,
 - (c) Signature of the responsible party,
 - (d) Signature of the Professional Engineer (P.E.), where applicable, and,
 - (e) Receipts showing payment for maintenance performed.
- 8.2. Stormwater Management operation and maintenance duties shall be recorded with the deed for each lot in a subdivision. The Applicant may elect to set up a homeowner's association (HOA) or other means to ensure all BMPs are inspected and maintained as required.

9.0 Review and Approval Procedure

- 9.1. When the Stormwater Management Application is filed with another permit through the Planning Board or Conservation Commission, the review process will follow the requirements of those other permits.
- 9.2. When the Stormwater Management Application is filed with the DPW, the review process will include:
 - (1) Evaluation of Application for Completeness. The DPW shall issue a written notice of administrative completeness or deficiencies to an applicant for an application within 30 calendar days of receiving the application. If the DPW issues a written notice of deficiencies within 30 calendar days, the administrative review time frame and the overall time frame are suspended from the date the notice is issued until the date that the DPW receives the missing information from the applicant. If the DPW does not issue a written notice of administrative completeness or deficiencies within 30 calendar days of receipt of application, the application is deemed administratively complete. If the DPW issues a timely written notice of deficiencies, an application shall not be complete until all requested information has been received by the DPW.
 - (2) Approval. Once the application is determined to be administratively complete, the DPW will review each stormwater management permit application to determine its conformance with the provisions of these Regulations. Within sixty-five (65) days of issuing a written notice of administrative completeness, the DPW shall provide one of the following responses in writing:
 - (a) “Approval” of the Stormwater Management Permit Application based upon determination that the proposed Stormwater Management Plan meets the performance standards, as set forth in Section 7 herein, and will adequately protect the water resources of the community and complies with the requirements set forth in these Regulations;
 - (b) “Approval with Conditions” of the Stormwater Management Permit Application subject to any conditions, modifications, or restrictions required by the stormwater authority that will ensure the proposed Stormwater Management Plan meets the performance standards and will adequately protect the water resources of the community and complies with the requirements set forth in these Regulations;
 - (c) “Disapproval” of the Stormwater Management Permit Application based upon determination that the proposed Stormwater Management Plan, as submitted, does not meet the performance standards, or will not adequately protect the water resources of the community and does not comply with the requirements set forth in these Regulations.

- 9.3. Application for Public Viewing. Application materials will be made available for viewing by the public during normal business hours in the DPW.
- 9.4. Digital Filing. Prior to the start of construction, the Applicant shall provide a USB flash drive or equivalent electronic storage media to the stormwater authority containing a digital AutoCAD file of the plan including all information required in these Regulations. The digital data shall be delivered in the Massachusetts Coordinate System, North American Datum 1983 and North American Vertical Datum 1988, in U.S. Survey Feet. The file formats required are AutoCAD DWG (or ASCII DXF) using the most recent version and Adobe PDF of each sheet in the Application package. The digital file shall be reviewed by the DPW prior to the start of construction.
- 9.5. Surety. Before the start of construction, the stormwater authority, Planning Board, Conservation Commission, or other designee may require the Applicant to post an acceptable surety to ensure that the work will be completed in accordance with the permit and these Regulations. The form of the surety shall be approved by City Council and shall be in an amount deemed sufficient by the approving authority.
- 9.6. City Clerk Verification. Prior to the start of construction, the Applicant must obtain written verification from the City Clerk that no appeals of the stormwater authority's decision are pending.

10.0 Site Inspections, Supervision, and Final Reports

- 10.1. Pre-Construction Meeting. Prior to the commencement of any clearing, excavation, construction, or disturbance of land, the Applicant, the Applicant's Massachusetts registered Professional Engineer (P.E.), the general contractor, the City's third-party expert engineer, or any other person with authority to make changes to the project, shall meet with the stormwater authority or its designee to review the permitted Stormwater Management and Operation and Maintenance Plans and their implementation. The need for a pre-construction meeting shall be determined by the stormwater authority based on the project scope.
- 10.2. Erosion and Sediment Control Inspections. The Applicant or his/her agent shall conduct and document inspections of all erosion and sediment control measures no less than weekly or as specified in the Stormwater Management Permit, and prior to and within 24 hours of the end of a storm event of 0.25 inch or greater, from the start of construction until the site is permanently stabilized. Inspection frequency may be reduced to at least once a month if the site is determined by the stormwater authority to be temporarily stabilized, such as runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or if construction is occurring during seasonal dry periods. The Applicant is required to notify the Stormwater Agency or its designee of any change in inspection frequency, including termination of inspections due to site stabilization.

The Applicant shall submit monthly erosion and sediment control reports to the stormwater authority in a format approved by the stormwater authority.

10.3. Milestone Inspections. Milestone inspections shall be performed by the Applicant or his/her agent as follows:

- (1) Initial Site Inspection: prior to approval of any permit/plan (note, an inspection will also be completed by the stormwater authority or its representative);
- (2) Erosion and Sediment Control Inspection prior to the commencement of any construction activity: to ensure erosion and sediment control measures are in place and stabilized, and to ensure erosion control practices are in accordance with the filed plan (note, an inspection will also be completed by the stormwater authority or its representative);
- (3) Site Clearing has been substantially completed;
- (4) Rough Grading has been substantially completed;
- (5) Final Grading has been substantially completed;
- (6) Bury Inspections: prior to backfilling of any underground drainage or stormwater structures;
- (7) Close of the Construction Season; and,
- (8) Final Landscaping (permanent stabilization).

10.4. Final Inspection.

- (1) After the stormwater management system has been constructed and before the surety has been released, the Applicant must submit a record as-built plan detailing the actual stormwater management system as installed. Such plans shall show compliance with the final approved plans by the stormwater authority.
- (2) The stormwater authority or their designee shall inspect the system to confirm its "as-built" features match those depicted on the project plans.
- (3) The Applicant must submit an explanation detailing any differences between the approved plans and the as-built plans. The explanation must be stamped by a Massachusetts registered Professional Engineer (P.E.).
- (4) If the inspector finds the system to be adequate, the inspector shall report to stormwater authority which will issue a Certificate of Completion.
- (5) If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built as called for in the Stormwater Management Plan, it shall be corrected by the Applicant to the satisfaction of the stormwater authority before the Certificate of Completion is issued.

- (6) If the Applicant fails to act, the City of Gardner may withhold the Certificate of Completion and pursue Enforcement as outlined in the Stormwater Management Ordinance (Chapter 565 of the City's General Legislation). Examples of inadequacy are: errors in the infiltrative capability, errors in the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges from basins.
- 10.5. Inspector Qualifications. Inspections shall be performed by a Massachusetts registered Professional Engineer (P.E.) or Certified Professional in Erosion and Sediment Control (CPESC) as hired by the Applicant.
- 10.6. Final Reports. Upon completion of the work, the Applicant shall submit a report (including certified as-built construction plans) from the Applicant's Massachusetts registered P.E. or CPESC. As-built drawings shall be submitted to the stormwater authority prior to the issuance of a Certificate of Completion. The as-built drawings must depict all on site controls, both structural and non-structural, designed to manage the stormwater associated with the completed site (post-construction stormwater management). The report shall certify that all permitted construction, plans, and approved changes and modifications, were completed in accordance with the conditions of the approved Stormwater Management Permit. Any discrepancies should be noted in the report.

11.0 Certification of Completion

Upon receipt of a final inspection report and certification by the Applicant's Massachusetts registered Professional Engineer (P.E.), the stormwater authority will issue a Certificate of Completion determining that all work of the Stormwater Management Permit has been satisfactorily completed in conformance with these Regulations. The stormwater authority may, in addition to certifying satisfactory completion of the project, require ongoing maintenance procedures as outlined in the OMP and/or work deemed necessary by the stormwater authority. The Certification of Completion shall be recorded at the Registry of Deeds by the stormwater authority at the Owner's expense.

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