



**CITY OF MEDFORD, MASSACHUSETTS**

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**STORMWATER MANAGEMENT  
RULES AND REGULATIONS**

**DECEMBER 2022**

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## **PART I: GENERAL**

### **SECTION 1. PURPOSE**

These Regulations may be referred to as the City of Medford Stormwater Management Regulations. These regulations are promulgated to clarify the provisions of Chapter 82, Article V: Stormwater System of the City's Ordinances, as well as provide guidance for project design, construction and post-construction stormwater management.

The City operates under a NPDES General Permit for Stormwater Discharges, a jointly-issued permit from the EPA and MassDEP. The permit allows the City to discharge its stormwater to federal waters, mainly the Malden and Mystic Rivers. Medford lies within the Mystic River Watershed—the EPA has identified certain impairments for the Mystic, such as bacteria, nutrients (primarily phosphorus) and total suspended solids, among others. The City has to meet to requirements of the permit by implementing programs and practices to control and reduce polluted stormwater runoff discharges that ultimately reduce adverse impacts to water quality and aquatic habitat.

The purpose of the City's stormwater rules and regulations is to address discharges to the municipal stormwater system for the protection of the City's water bodies and groundwater, and to safeguard the public health, safety, welfare, and the environment. Increased and contaminated stormwater runoff associated with developed land uses and the accompanying increase in impervious surface are major causes of impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater. Increase in impervious surfaces, regrading, and other land use changes, result in increased stormwater runoff rates and volumes, that cause increase in flooding. In addition, land disturbances can cause harmful impacts due to soil erosion and sedimentation.

### **SECTION 2. DEFINITIONS**

**ABUTTER:** The owner(s) of land abutting the land the activity is located on.

**ALIQUOT:** A divisor or factor of a quantity, constituting a sample.

**APPLICANT:** A 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 ordinance requesting a Stormwater Permit for proposed land disturbance.

**APPLICANT'S TECHNICAL REPRESENTATIVE:** A Registered Professional Civil Engineer (P.E.) of the State of Massachusetts hired by the Applicant to certify that design and construction are completed in accordance with the applicable local, state, and federal stormwater requirements.

**AUTHORIZED ENFORCEMENT AGENCY:** The Department of Public Works, its employees, officers, or agents are designated to enforce these Regulations.

**BACKWATER VALVE** (also referred to as a backflow valve, check valve or backflow preventer): A device installed in a building drain, water or sewer pipe to prevent reverse (backwards) flow into basement fixtures.

**BEST MANAGEMENT PRACTICE (BMP):** Any device, practice, or procedure that has demonstrated to effectively control either the quality and/or quantity of stormwater runoff while maintaining compatibility with the planned land use.

**BUILDING DRAIN:** The lowest horizontal piping of a plumbing or stormwater system which extends from inside or outside the walls of a building to a point ending 10 feet (3.048 meters) outside the inner face of the building foundation wall. The building drain conveying stormwater and other drainage shall discharge to a stormwater BMP, the ground, or a building stormwater drain lateral.

**BUILDING STORMWATER DRAIN LATERAL:** The pipe, which connects a building drain conveying stormwater to a stormwater drain or other place of disposal. The building stormwater drain lateral begins 10 feet outside the inner face of the building foundation wall and extends to and includes the connection to the City's stormwater drain or private stormwater drain.

**CATCH BASIN:** A structure used to collect runoff and divert it to the stormwater system.

**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.

**CITY:** The City of Medford, Massachusetts.

**CITY ENGINEER:** The City Engineer of the City of Medford or their designee.

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

**CLEANOUT:** A device or structure designed to provide access to a building stormwater drain lateral for the purpose of eliminating blockages and removing deposited or accumulated materials.

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

**COLLECTION SYSTEM:** The pipes, conduits, pumping stations, and appurtenances involved in the collection and transport of stormwater. Access to this system by entry of a person or equipment shall be authorized only pursuant to written approval by the DPW.

**COMMISSIONER:** The Commissioner of the Department of Public Works (DPW), also known as Director of Public Works.

**COMMONWEALTH:** The Commonwealth of Massachusetts.

**COMPOSITE SAMPLE:** A combination of individual samples of stormwater taken at predetermined intervals to represent the integrated composition of the sample source.

**CONNECTION:** The point where a stormwater drain is joined to another drain.

**CONSTRUCTION AND WASTE 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.

**CONSTRUCTION SITE DEWATERING:** Any water that is directly or indirectly discharged to the City of Medford stormwater system and receiving waters, including groundwater, from a construction site.

**CONVENTIONAL POLLUTANT:** As specified under the Clean Water Act, conventional pollutants include solids, coliform bacteria, high biochemical oxygen demand, pH, oil and grease.

**COOLING WATER:** The water discharged from any system of condensation, air conditioning, cooling, refrigeration, or other system of heat transfer.

**CROSS CONNECTION:** Any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain or other unapproved sources.

**DCR:** The Massachusetts Department of Conservation and Recreation [formerly known as the Metropolitan District Commission (MDC)].

**DECORATIVE FOUNTAIN:** An indoor or outdoor fountain that is designed and constructed for aesthetic purposes and is not intended for human contact recreation or for providing drinking water.

**DEMOLITION:** Any dismantling, intentional destruction or removal of structures, utilities, public or private right-of-way surfaces, or similar property.

**DEP:** The Massachusetts Department of Environmental Protection.

**DEWATERING DRAINAGE:** Groundwater or surface water, which is removed from a site and discharged beyond the limits of the site by means of gravity or pumping.

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

**DIRECT CONNECTION:** The new connection to the municipal stormwater system or modification, reconnection or repair of an existing connection to the municipal stormwater system.

**DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA):** The portion of impervious area with a direct hydraulic connection to the City's stormwater system or to a waterbody via continuous paved surfaces, gutters, drain pipes, or other conventional conveyance and detention structures that do not reduce runoff volume.

**DISCHARGE:** Flow from a canal, conduit, sewer, drain, outfall, pump, stack, tank or treatment process, or any emission, intentional or unintentional, including but not limited to, flow resulting from spilling, leaking, seeping, pumping, pouring, emitting, emptying, depositing, dumping, releasing, injecting, escaping, leaching or infiltrating, whether direct or indirect.

**DISCHARGE OF POLLUTANTS:** The addition from any source of any pollutant or combination of pollutants into the municipal stormwater system or into the receiving waters.

**DOWNSPOUT:** A pipe, which conveys stormwater from the roof of a building into a stormwater drain or into or onto the ground. Also called a roof drain or roof leader.

**DPW:** The City of Medford Department of Public Works.

**DRAIN:** A horizontal pipe that carries stormwater in a stormwater system or a horizontal stormwater conveyance channel, whether natural or artificially constructed, enclosed or open.

**DRAINAGE FACILITY:** Any system of artificially constructed drains, including open channels, whether lined or unlined, and separate stormwater drains used to convey stormwater, surface water or groundwater. A drainage facility may also convey effluent discharged pursuant to a NPDES permit when such use is approved by the DPW.

**DRY WEATHER FLOW:** Any flow in a stormwater system in dry weather conditions. Dry weather conditions are defined as no more than 0.1 inches of rainfall has occurred in the previous 24-hour period and no significant snow melt is occurring.

**DRYWELL:** A pit or underground cavity installed to drain surface water and stormwater drainage into underground strata.

**EASEMENT:** An acquired legal right for the specific use of land owned and maintained by others.

**ENFORCEMENT OFFICER:** The City of Medford's authorized agent to enforce construction and post construction runoff controls.

**ENGINEER OF RECORD:** A Registered Professional Civil Engineer of the State of Massachusetts.

**EPA:** The United States Environmental Protection Agency.

**EPA SITE DEWATERING PERMIT:** The written approval of EPA to owners and/or operators of sites that discharge groundwater and/or stormwater from construction dewatering activities discharging to receiving waters. Owners and/or operators will be required to submit a Notice of Intent (NOI) to EPA-New England to be covered by the appropriate general permit and will receive a written notification from EPA-New England of permit coverage and authorization to discharge under the general permit.

**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 SEDIMENT CONTROL PLAN:** A document containing narrative, drawings, and details developed by a Registered Professional Engineer (P.E.) or a Certified Professional in Erosion and Sediment Control (CPESC), which includes BMPs, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction and construction related land disturbances. The plan is required as part of the application for a Stormwater Permit.



**EXCESSIVE:** More than the limits established in these Regulations, directly or by reference, or more than limits determined by the DPW, the MWRA, or other federal, state or local agency to be acceptable.

**FLOOR DRAIN:** An intended drainage point in an otherwise impervious floor, which serves as the point of entry into any subsurface drainage, treatment, disposal, containment, or other plumbing system.

**GARBAGE:** The animal and vegetable wastes resulting from the domestic or commercial handling, storage, sale, preparation, cooking, or dispensing of food, excluding rubbish.

**GPM:** Gallons per minute.

**GRAB SAMPLE:** An individual aliquot collected over a period of time not exceeding 15 minutes.

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

**GROUNDWATER:** A supply of water under the earth's surface contained within or flowing through a geological formation.

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

**HAZARDOUS WASTE:** A waste, or combination of wastes, that at the time of discharge:

- (a) Is identified as a hazardous waste by EPA pursuant to the *Resource Conservation and Recovery Act, 42 USC 6901, et seq.*, and is listed in *40 CFR Part 261*, as amended from time to time;
- (b) Has any of the hazardous waste characteristics identified by EPA in *40 CFR Part 261* as amended from time to time;
- (c) Has been identified by DEP as a hazardous waste pursuant to *M.G.L. c. 21C* and is listed in *310 CMR 30.000*; as amended from time to time; or
- (d) Has any of the hazardous waste characteristics identified by DEP in *310 CMR 30.000*, as amended from time to time.

**ILLICIT CONNECTION:** A surface or subsurface drain or conveyance, which allows an illicit discharge into the municipal stormwater system or surface waters, 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 System Ordinance.

**ILLCIT DISCHARGE:** A direct or indirect discharge to the municipal stormwater system that is not composed entirely of stormwater, except as exempted in Part 2 Section 6. The term does not include a discharge in compliance with a NPDES Stormwater Discharge Permit or a Surface Water Discharge Permit, or activities exempted pursuant to Part 2 Section 6.

**INDUSTRIAL WASTE:** The liquid wastes resulting from the processes employed in industrial, commercial, manufacturing, trade or business establishments as distinct from domestic wastes.

**INFILTRATION:** The process by which water on the ground surface enters the soil.

**INFLOW:** Precipitation or surface runoff that enters a sanitary sewer through such means as downspouts and roof leaders, foundation drains, yard drains and area drains, sump pumps, catch basins, interconnections between stormwater drains and sanitary sewers, and defective manhole covers and frames and common manholes.

**INTERCONNECTION:** A physical connection between a sanitary and stormwater drain which allows the flows to intermix.

**IMPERVIOUS AREA:** The number of square feet of impervious surface(s).

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

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

**LARGER COMMON PLAN OF DEVELOPMENT OR SALE:** A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

**LATERAL:** A building sewer lateral or a building drain. Including but not limited to all the piping from the building to the connection to a City Structure or Main.

**LEACHATE:** The water that collects contaminates as it percolates through wastes, pesticides, or fertilizers, and may result in hazardous substances entering surface water, groundwater or soil.

**LICENSED DRAIN LAYER:** A person authorized in writing by the DPW to install, maintain and repair stormwater drains and building stormwater drain laterals within the City of Medford.

**LOW IMPACT DESIGN (LID):** Systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.

**MAIN:** A stormwater drain that collects and conveys flows from other stormwater drains.

**MANHOLE:** A structure allowing access to stormwater systems.

**MASSACHUSETTS ENDANGERED SPECIES ACT:** MGL 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 as outlined in the Massachusetts Stormwater Handbook 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 MGL c. 131A, § 40 and Massachusetts Clean Waters Act MGL c. 21, § 23-56. These 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.

**MINIMUM CONTROL MEASURES:** Structures or activities which operators of regulated stormwater systems are required to implement under the Clean Water Act.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or MUNICIPAL STORMWATER SYSTEM:** The system of conveyances designed or used for collecting or conveying stormwater, including any road with a stormwater system, street, curb, inlet, piped stormwater drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the stormwater system owned or operated by the City.

**MWRA:** The Massachusetts Water Resources Authority.

**NPDES:** The National Pollutant Discharge Elimination System.

**NPDES EXCLUSION:** A written determination from EPA that a discharge does not require a NPDES permit.

**NPDES GENERAL PERMIT:** The permit issued by EPA that authorizes a class of discharges, such as stormwater associated with industrial activity, non-contact cooling water, construction dewatering, and water treatment backwash.

**NPDES GENERAL PERMIT FOR CONSTRUCTION DEWATERING:** The written approval of EPA to owners and/or operators of sites that discharge groundwater and/or stormwater from construction dewatering activities discharging to receiving waters. Owners and/or operators will be required to submit a Notice of Intent (NOI) to EPA-New England to be covered by the appropriate general permit and will receive a written notification from EPA-New England of permit coverage and authorization to discharge under the general permit. Owners and operators may be granted authorization to discharge groundwater and stormwater generated wastewaters into waters of Massachusetts. Discharges authorized under this general permit must be treated in a settling basin or other treatment system designed to remove total suspended solids unless the DEP specifically waives that requirement for individual applicant. Construction dewatering activity under this permit is defined as pumped or drained discharges of groundwater and/or stormwater from excavations or other points of accumulation of association with a construction activity. A copy of the EPA-issued discharge permit shall be submitted to the City of Medford.

**NPDES NOTICE OF INTENT (NOI):** The form completed and submitted to the EPA by a person seeking to include a discharge under an NPDES General Permit.

**NPDES PERMIT:** The permit required and issued by EPA to control point source discharges of pollutants to receiving waters or separate stormwater systems. It shall also mean the permit issued to the City by the EPA for its stormwater discharges.

**NPDES STORMWATER DISCHARGE PERMIT:** The permit issued by United States Environmental Protection Agency or jointly with the State that authorizes the discharge of pollutants to waters of the United States.

**NPDES GENERAL PERMIT FOR DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES:** A permit required by the EPA for construction activities that disturb one (1) acre or more of land, either by itself or as part of a larger development. Permit requires a Notice of Intent (NOI) to be filed with the EPA and the development of a Stormwater Pollution Prevention Plan (SWPPP). A Notice of Termination (NOT) is filed with the EPA when the construction project is complete.

**NON-CONTACT COOLING WATER:** Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product or finished product.

**NON-CONTACT INDUSTRIAL PROCESS WATER:** Water used in an industrial or manufacturing process, or in the development, recovery, or processing of natural resources that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

**NON-POINT SOURCE POLLUTION (NPS):** Pollution which occurs when water runs over land or through the ground and picks up natural and human-made pollutants, and discharges them in surface waters or introduces them into groundwater.

**NON-STORMWATER DISCHARGE:** A discharge to the municipal stormwater system not composed entirely of stormwater.

**OIL/WATER SEPARATOR:** A receptacle designed to separate petroleum-based oil and grease from water. Also called a trap or interceptor.

**ORDINANCE:** Chapter 82, Article V: Stormwater System, of the City's Ordinances.

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

**OUTFALL:** The point of discharge from a stormwater drain to a water body, wetland or land surface. Also called an outlet.

**OUTSTANDING RESOURCE WATERS (ORWs):** Waters designated by the 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 with their bordering vegetated wetlands, and other waters specifically designated.

**OWNER:** A person who alone or jointly or severally with others has the legal title to any premises or has care, charge, or control of any premises as agent, executor, administrator, trustee, lessee or guardian of the estate of the holder of legal title.

**PARTICLE SEPARATOR:** A receptacle designed and installed to separate sand, grit, sediment, and oil from water. Also called a solids separator/interceptor.

**PERMITTEE:** The owner of the site.

**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.

**pH:** A measure of the acidity or alkalinity of a substance expressed as standard units, and calculated as the logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

**POINT SOURCE POLLUTION:** Pollution caused by any discernible, confined, and discrete conveyance to surface water or groundwater, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, vessel or other floating craft and container.

**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.

**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 receiving waters. 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;
- J. Construction wastes and residues; and
- K. Noxious or offensive matter of any kind.

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

**PREMISES:** A parcel of real estate or portion thereof, including any improvements thereon, which is determined by the City to be a single user for purposes of receiving, using and paying for service.

**PRIVATE STORMWATER DRAIN:** A stormwater drain that is not owned by the City. Private stormwater drains include, but are not limited to, building drains (stormwater), building stormwater drain laterals, catch basins and manholes located on private property and not located within an easement held by the City and other public agencies. The owner of the private stormwater drain is also responsible for the connection from a private stormwater drain to the main of the public stormwater system.

**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 pre-product.

**PUBLIC RECORD:** A "public record" as defined by M.G.L. c. 4 section 7(26).

**PUBLIC STORMWATER DRAIN:** A stormwater drain that is owned by the City or other public agencies, such as the DCR, or MassDOT.

**PUBLIC WAY:** Any and all portions of the street and sidewalk in the City of Medford and other public lands, which are open for use by the public.

**RECEIVING WATER:** Any watercourse, river, pond, wetland, ditch, lake, aquifer, ocean, stream, spring, impoundment, estuary, coastal water, or other body of surface water or groundwater that receives a discharge of wastewater, stormwater or effluent.

**RECREATIONAL SPRAY OR SPRINKLER POOL OR RECREATIONAL FOUNTAIN:** An outdoor spray or sprinkler pool, which is designed and constructed for the purpose of human contact recreation.

**REDEVELOPMENT:** Development, rehabilitation, expansion, demolition, or phased projects on previously developed sites that results in no net increase in impervious area.

**REQUIREMENTS FOR SITE PLANS:** The document, which describes the information, which must be included in site plans submitted to the DPW. A Site Plan is required by the DPW for review and approval of a proposed connection, or reconstruction, repair or modification of an existing building stormwater drain lateral which connects to the City's stormwater system.

ROOF DRAIN OR ROOF LEADER - See Downspout.

RUNOFF: The part of precipitation, snow melt, or irrigation water, which is not absorbed into the ground. Instead, it flows over the land into streams, other surface bearing water or drainage structures.

SANITARY SEWER: A sewer designed to carry sewage.

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 disturbances are, were, or will be performed, including creation of new impervious cover and improvement of existing impervious cover.

SITE PLAN: A plan of land indicating the general location and boundaries of the lot, major anticipated changes in natural features, existing and proposed buildings, pervious and impervious surfaces, existing and proposed curb cuts, infrastructure, topographic, intended changes and external utilities that will be utilized.

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

SLUG LOAD: Any discharge of a non-routine, episodic nature, including but not limited to, an accidental spill or noncustomary batch discharge.

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: Any water resulting from rainfall or other precipitation that runs off surfaces during or after a storm.

STORMWATER DISCHARGE: The discharge of stormwater to the City's stormwater system and shall be authorized only pursuant to written approval by the DPW.

STORMWATER DRAIN: A pipe or conduit that carries surface water, stormwater, groundwater or runoff and is exclusive of sewage.

STORMWATER GUIDELINES: The City of Medford Stormwater Guidance Document, a guidance manual issued by the Department of Public Works pursuant to these



Regulations, which is intended to assist in effectively implementing stormwater management, erosion and sediment controls, promotion of infiltration, operation & maintenance standards, and provides requirements for plan submittals.

**STORMWATER MANAGEMENT:** Regulatory, structural, administrative, managerial, maintenance, physical and chemical measures or devices designed to prevent the discharge of point and non-point pollutants to stormwater systems. Also, regulates the rate and quantity of stormwater discharge from point and non-point sources to receiving bodies of water. Non-structural measures and structural devices are often referred to as best management practices (BMPs).

**STORMWATER MANAGEMENT PLAN:** A plan to prevent and reduce the release of pollutants from a site overall. This plan is required as part of the application for a Stormwater Permit.

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP):** A plan required for permit coverage under the NPDES General Permit for Discharges from Large and Small Construction Activities. The SWPPP is a detailed plan describing how erosion and sediment controls and other best management practices (BMPs) will be implemented on a construction site.

**STORMWATER SYSTEM:** Pipes, conduits, open channels, pumping stations and appurtenances, including tidegates, catch basins, and manholes used in the collection and transport of stormwater, groundwater and runoff.

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

**SUBSTANTIAL REHABILITATION:** Shall mean 1) repairs, replacement, improvements (including major movable equipment) and additions, the cost of which exceeds 15% of the after-rehabilitation value of the property; or 2) replacement of two or more major building components.

**SURFACE WATER:** All water appearing on the earth's surface exposed to the atmosphere, such as rivers, lakes, streams, and oceans.

**SURFACE WATER DISCHARGE PERMIT:** A permit issued by the Department of Environmental Protection (DEP) pursuant to 314 CMR 3.00 that authorizes the discharge of pollutants to receiving waters.

**SUSPENDED SOLIDS:** Solids that either float on the surface or are in suspension in water, waste or other liquids and are removable by laboratory filtering procedures as described in *Standard Methods*.

**TOTAL MAXIMUM DAILY LOAD (TMDL):** The highest concentration for any pollutant allowed in a water body, while maintaining the water quality standard of said water body.

**TOTAL SUSPENDED SOLIDS (TSS):** The weight of solids remaining after a well-mixed sample is filtered through a standard glass filter and the suspended portion is dried to a constant weight at 103-105 deg C.

**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 G.L. Ch.21C and Ch.21E, and the regulations at 310 CMR 30.000 and 310 CMR 40.0000.

**TREATMENT SYSTEM OR PRETREATMENT SYSTEM:** Any and all devices, equipment, or works used in the pumping, storing, treating, recycling, and reclaiming of sewage, industrial waste or groundwater.

**TRENCH PERMIT:** The written approval issued by DPW to excavate or dig or make a hole or cavity in or under municipal property or interests. Activities include without limitation excavation in the public right of way, within a municipal park, or within a municipal easement, and all work requiring a Trench Permit (even on private property), and shall be authorized only pursuant to written approval by the DPW or its designees.

**TSS:** Total Suspended Solids.

**UPSET:** An exceptional incident in which there is unintentional and temporary noncompliance with the discharge standards of these Regulations, or any permit thereunder, due to factors beyond the reasonable control of the person responsible for the discharge. An upset does not include the following; noncompliance to the extent caused by operational error, an improperly or inadequately designed treatment facility, lack of preventive maintenance, or careless or improper operation.

**USER:** Any person including other MS4s that discharge waste or stormwater directly or indirectly into the City's sanitary sewers, stormwater drain, or MWRA interceptors within the City.

**VERNAL POOLS:** Temporary bodies of freshwater which provide critical habitat for several vertebrate and invertebrate wildlife species. Certified vernal pools are for

use with the Wetlands Protection Act Regulations (310 CMR 10.00) and the Forest Cutting Practices Act Regulations (304 CMR 11.00).

**WASTE:** Wastewater and any and all other waste substances whether liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any production, manufacturing or processing operation.

**WASTE OIL:** Used and/or reprocessed, but not subsequently re-refined, oil that has served its original intended purpose. Waste oil includes, but is not limited to, used and/or reprocessed fuel oil, engine oil, gear oil, cutting oil, and transmission fluid and dielectric fluid. Waste oil does not include oils used in food preparation.

**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, byproduct or waste product.

**WASTEWATER SYSTEM:** Totality of the devices, equipment or works used in transportation, pumping, storage, treatment, recycling, or reclamation of Waste or in the disposal of the effluent.

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

**WATERBODY** shall mean oceans, estuaries, ponds, lakes, rivers, and streams.

**WETLAND RESOURCE AREA:** Areas specified in the Massachusetts Wetlands Protection Act MGL c. 131, § 40 and in the City's General Wetland Protection Rules and Regulations.

**WETLANDS:** 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, as defined and determined pursuant to G.L. c. 131, § 40 and 310 CMR 10.00 et seq., including freshwater marshes around ponds and channels (rivers and streams), brackish and salt marshes; common names include marshes, swamps and bogs.

### **SECTION 3. APPLICABILITY**

- A. These Rules and Regulations apply to all activities that are subject to the City of Medford Stormwater System Ordinance, Chapter 82, Article V.
- B. Every user of the City's stormwater system shall be subject to these Regulations, as they apply, and to any charges, rates, fees, and assessments which are or may

be established by the City. Every user of the City's stormwater system shall also be subject to applicable federal, state, and local regulations. In instances where various regulations contain different requirements, the most stringent requirements shall apply.

C. Every person seeking to connect to the City's stormwater system.

D. Every person who undertakes a project or construction activity, including clearing, grading, and excavation that meets one or more of the following thresholds:

- (a) disturbs 500 square feet of land or more, including smaller sites in a larger common plan of development or sale,
- (b) adds 200 square feet or more of impervious area,
- (c) requires a Special Permit or Site Plan Review from the Community Development Board, or Zoning Board of Appeals, or
- (d) in the opinion of the City Engineer the project may result in an adverse impact of the municipal wastewater or stormwater systems or receiving waters.

#### **SECTION 4. AUTHORITY**

These Rules and Regulations are promulgated by the Medford Stormwater Board under Chapter 82 of the City of Medford Ordinances.

#### **SECTION 5. ADMINISTRATION**

The Commissioner, or their designees or authorized agents (DPW), shall administer, implement, and enforce these Rules and Regulations. Any powers granted to or duties imposed upon the Commissioner may be delegated by the Commissioner to their employees, agents, or other City Departments.

#### **SECTION 6. RIGHT TO AMEND REGULATIONS.**

The City reserves the right to amend these Regulations, with notice to the public, in any manner and to establish additional limitations or requirements as are deemed necessary or appropriate.

#### **SECTION 7. FEDERAL, STATE, AND LOCAL REGULATIONS.**

No provision of these Regulations shall be deemed to contravene or render ineffective any valid federal, state or local regulation.

## SECTION 8. ENFORCEMENT

A. The Commissioner or an authorized agent of the Commissioner shall enforce these Rules and Regulations, the Stormwater System Ordinance, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

### B. Violations

Any person who fails to comply with the requirements of these Regulations or the terms and conditions of any permit issued thereunder or the requirements of any federal, state or local laws, rules or regulations governing use of the City's stormwater system shall be subject to enforcement actions by the DPW.

(a) Each day a violation occurs or continues may be considered a separate violation.

(b) For violations of discharge limits, each parameter that exceeds a discharge limit may be considered a separate violation except as provided elsewhere in these Regulations adopted hereunder.

### C. Administrative Orders.

The DPW may issue the following administrative orders at any time it deems such action appropriate to address violations of or to secure timely and effective compliance with these Regulations or the terms and conditions of any permit issued thereunder or the requirements of any federal, state or local laws, rules or regulations governing use of the City's stormwater system, whether or not any previous notifications of violation have been provided to the User.

(a) Cease and Desist Order. The DPW may issue an order to cease and desist a violation or an action or inaction which threatens a violation and to direct the user to comply forthwith or to take such appropriate remedial or preventive action as may be needed to properly address the violation or threatened violation, including halting operations and terminating the discharge.

(b) Compliance Order. The DPW or its representative may issue an order requiring a User to provide within a specified period of time, such treatment, pretreatment or discharge control facilities or related appurtenances as are necessary to correct a violation or to prevent a threatened violation. A compliance order may also direct that a User provide improved operation and maintenance of existing discharge facilities, conduct additional self-monitoring or submit appropriate reports or operation and maintenance logs.

(c) Show Cause Order. The DPW may issue an order to show cause why a proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for a meeting, the proposed enforcement action and the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. Whether or not a duly notified User appears as noticed, additional enforcement action may be initiated.

(d) Consent Order. The DPW may enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with a User. Such orders shall include specific actions to be taken by the User and specific time frames to correct a violation or to remove the threat of a violation. Consent orders are allowed when:

- (i) User agrees to return to compliance promptly, and remedy any adverse impacts of noncompliance within a reasonable period of time; and
- (ii) Noncompliance has not caused actual harm to public health, safety or welfare, or the environment, or otherwise presented a significant threat;
- (iii) Noncompliance does not involve criminal conduct;
- (iv) User demonstrates a good faith intention to maintain future compliance with all applicable environmental requirements; and
- (v) Where applicable, User agrees to investigate pollution prevention, source reduction and resource conservation opportunities, and implement them, as established to be feasible by the User and agreed to by DPW.

#### D. Emergency Action.

When a User has failed to take action within the time established in an administrative notice or order to eliminate an imminent threat to humans or to the environment or to the effective operation of the City's stormwater system, the DPW may take such action as deemed necessary, including work by City personnel to eliminate the threat or to mitigate the impact on the City's stormwater system or the environment. The DPW shall attempt to notify the User of the intended action, but if unable to do so within a reasonable period of time, shall proceed with the action.

#### E. Penalties.

(a) Criminal Penalty Any person who shall continue any violation beyond the time limit provided for, shall be guilty of a misdemeanor, and on conviction

thereof, shall be fined in the amount not exceeding five thousand dollars (\$5,000.00) for each violation. Each day in which any such violation continues shall be deemed a separate offense.

- (b) Civil Penalty Authorized enforcement personnel may issue citations, pursuant to G.L., c. 40, § 21D, for violations of these provisions assessing fines of \$50.00 for first offense, \$200.00 for second offense and \$300.00 for a third and any subsequent offense for each day such violation is committed or permitted to continue.
- (c) Injunction. As an additional remedy a violation of these Regulations may be subject to a restraining order or injunction issued by a court of competent jurisdiction.

#### F. Termination or Prevention of a Discharge.

- (a) Notwithstanding any other provision of these Regulations, the DPW may terminate or prevent a discharge into the City's stormwater systems if:
  - (i) the discharge or threatened discharge presents or may present an endangerment to human health or the environment, or threatens to interfere with the operation of the City's stormwater system; or
  - (ii) a permit was obtained by misrepresentation of any material fact or lack of full disclosure; or
  - (iii) the discharger violates any requirement of these Regulations or the terms and conditions of any permit issued thereunder or the requirements of any federal, state or local laws, rules or regulations governing use of the City's stormwater system; or
  - (iv) such action is directed by a court of competent jurisdiction.
- (b) Notice of termination or prevention of discharge or permit revocation shall be provided to the discharger or posted on the subject property prior to terminating or preventing discharge.
  - (i) In situations that do not represent an imminent danger to human health or the environment or an imminent threat of interference to the City's stormwater systems, the notice shall be in writing, shall contain the reasons for the termination or prevention of discharge, the effective date, duration and the name, address and telephone number of a City contact, shall be signed by the Commissioner, and shall be received at the business address of the discharger no fewer than 30 days prior to the effective date.
  - (ii) In situations where there is an imminent endangerment to human health or the environment or imminent threat of interference with the

operations of the City's stormwater systems, the DPW may immediately terminate an existing discharge or prevent a new discharge from commencing after providing informal notice to the discharger or after posting such notice on the subject property. Informal notice may be verbal or written and shall include the effective date and time and a brief description of the reason. Within 3 working days following the informal notice, a written formal notice containing the reasons for the termination or prevention of discharge, the effective date, duration and the name, address and telephone number of the City contact, signed by the Commissioner, and shall be provided to the discharger.

- (c) The DPW shall reinstate discharge privileges upon clear and convincing proof by the discharger of the elimination of the noncomplying discharge or conditions creating the threat of endangerment or interference as set forth in these Regulations.

#### G. Cost Recovery

- (a) The DPW may recover all reasonable costs incurred by the City which are attributable to or associated with violations of these Regulations, including but not limited to the costs of administration, investigation, sampling and monitoring, legal and enforcement activities, damage to the City's stormwater systems, contracts and health studies, and any fines and penalties assessed to the City which result from a discharge not in compliance with these Regulations or rules adopted thereunder.
- (b) All such costs shall be documented by the City and shall be served upon the discharger by certified or registered mail, return receipt requested. Such documentation shall itemize the costs the DPW has determined are attributable to the violations.
- (c) Such costs are due and payable to the City upon the receipt of the letter documenting such costs. All such costs shall be paid to the City Treasurer. Nonpayment or dispute regarding the amount shall be referred for appropriate action to the City Solicitor. The City Solicitor may initiate appropriate action against the discharger to recover costs under this Article.
- (d) The DPW may terminate a discharge for nonpayment of costs after 30 days notice to the discharger.

#### **SECTION 9. SEVERABILITY.**

The provisions of this regulation are hereby declared to be severable. If any provision, paragraph, sentence, or clause, of this regulation or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this regulation.



## **SECTION 10. TRANSITIONAL PROVISIONS**

Current applications for permits that are under the Engineering Review process, shall have 90 days from the effective date of the Stormwater System Ordinance to comply with its provisions provided good cause is shown for the failure to comply with the Stormwater System Ordinance during that period.

## **PART II: STORMWATER SYSTEM USE**

### **SECTION 1. PROHIBITED ACTIVITIES**

- A. Illicit Discharges. No person shall dump, discharge, cause or allow to be discharged any pollutant or non-stormwater discharge into the municipal separate storm sewer system (MS4), into a watercourse, or into the receiving waters.
- B. Illicit Connections. No person shall construct, use, allow, maintain or continue any illicit connection to the municipal stormwater system, regardless of whether the connection was permissible under applicable law, regulation or custom at the time of connection.
- C. Obstruction of Municipal Stormwater System. No person shall obstruct or interfere with the normal flow of stormwater into or out of the municipal stormwater system without prior written approval from the Authorized Enforcement Agency.

### **SECTION 2. USE OF STORMWATER SYSTEM**

- A. Public Stormwater System. The use of all public stormwater systems in the City shall be controlled by the DPW. No person shall, without prior authorization from the DPW, uncover, excavate over, block access to, make any connection with or opening into, alter, or disturb the City's stormwater system. No person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance, or equipment, which is part of the City's stormwater system.
- B. Private Stormwater Systems.
  - (a) All Private Stormwater Drains and appurtenant structures that connect to the City's stormwater system shall be controlled as to discharge by the DPW, but constructed, installed, maintained, repaired, and operated by their Owners, at the Owner's expense. All Private Stormwater Drains that connect to the City's stormwater system shall be constructed, installed, maintained, repaired, and operated to the satisfaction of the DPW.
  - (b) Repairs to Private Stormwater Drains and appurtenant structures in the City, including repairs required to comply with these Regulations, shall be made by a licensed drain layer.
- C. Permission to Enter City's Stormwater Systems. No person shall enter or install equipment into the City's stormwater systems without first obtaining from the

DPW written permission to enter City stormwater systems in accordance with Part II, Section 2 of these Regulations.

- D. Stormwater Drainage Connections. Connection to the City's stormwater system shall be made when required by the DPW. Such connections shall be required whenever the DPW determines they are necessary to prevent the endangerment of the public health, the creation of a public nuisance, or the impairment of water quality or the environment, and in such other circumstances as the DPW reasonably deems appropriate. Connections to the City's stormwater system shall be made in compliance with all federal, state and local rules, regulations and specifications and at the Owner's expense.
- E. Special Facilities. When required by the DPW a User shall design, construct, install, operate and maintain special facilities, which will provide for the regulation and control of the rate, volume and characteristics of Stormwater to the City's stormwater system. The design of such special facilities shall be subject to the approval of the DPW. Such special facilities shall be designed, constructed operated and maintained at the Owner's expense. The DPW shall have the right to inspect such special facilities in accordance with Part II, Section 5 to ascertain compliance with these Regulations.
- F. Ownership and Maintenance of Building Drains and Building Stormwater Drain Laterals
  - (a) Building Drains and Building Stormwater Drain Laterals, whether located on public or private property are the responsibility of and shall be installed and maintained by the Owner of the premises served. In the case where more than one premise is connected to the same Building Drain or Building Stormwater Drain Lateral, the Owners of the respective premises shall be jointly and severally responsible for the maintenance and repair of the Building Drain or Building Stormwater Drain Lateral.
  - (b) The Owner shall at all times keep such Laterals and Drains clean and in good repair in order not to cause excessive infiltration, exfiltration or inflow, depletion of Groundwater, damage to property, odor, or harm to the City's stormwater system.
  - (c) The Owner shall maintain, repair, modify or replace an existing Building Drain or Building Stormwater Drain Lateral whenever it is determined by the DPW that such stormwater systems may endanger public health, create a public nuisance, result in public or private property damage, harm the City's stormwater system, result in excessive infiltration, exfiltration or inflow or impair water quality or the environment and in such other circumstances as the DPW deems appropriate.

- (d) Building Drains and Building Stormwater Drain Laterals shall be maintained, repaired, modified or replaced at the Owner's expense.

### **SECTION 3. BUILDING STORMWATER DRAIN LATERALS, CONNECTIONS AND APPURTENANCES**

- A. Separate Building Sewer Laterals and Building Stormwater Drain Laterals. Separate and independent Building Sewer Laterals and Building Stormwater Drain Laterals may be provided for all new or Substantially Rehabilitated buildings with approval of the Engineering Division. The City will encourage on-site infiltration when possible over direct connecting to the City's system.
- B. Existing Building Stormwater Drain Laterals. If the DPW approves, and the Owner obtains all necessary permits, existing Building Stormwater Drain Laterals may be used to accommodate new stormwater. The costs of any examination and testing required by the DPW as a precondition to such approval shall be at the Owner's expense.
- C. Wastewater-Stormwater Separation.
  - (a) The plumbing of any new or substantially rehabilitated building shall be so constructed as to keep all stormwater, surface water, groundwater, roof and surface runoff, subsurface drainage, uncontaminated cooling water, and non-contact industrial process water separate from sanitary sewage and industrial wastes, and from the Building Sewer Lateral.
  - (b) The building drain conveying sewerage from plumbing fixtures within the building shall discharge to a building sewer lateral, while the building drain conveying stormwater and other drainage shall discharge to a building stormwater drain lateral.
  - (c) Where the DPW has agreed that on-site retainage of stormwater is not possible, Building Stormwater Drain Laterals shall be connected to a Stormwater Drain. Connection of a Building Stormwater Drain Lateral to a Sanitary Sewer is prohibited.
  - (d) All Building Sewer Laterals shall be connected to a Sanitary Sewer. Connection of a Building Sewer Lateral to a Stormwater Drain is prohibited.
- D. Connections to Catch Basins. Private drains, including but not limited to, Building Stormwater Drain Laterals for new or existing buildings, and drains from irrigation systems shall not be connected directly to catch basins unless specifically authorized in writing by the DPW.

- E. Particle Separators. An Owner of a building or business requiring a particle separator pursuant to these regulations shall be required to obtain written approval from the DPW, which shall comply with the following:
- (a) Particle separators shall be required on all newly constructed stormwater drains which connect directly or indirectly to the City's stormwater system, or which discharge to receiving waters, from existing and new outdoor parking or paved areas. Particle separators shall be required on existing stormwater drains from existing or expanded outdoor parking lots or paved areas whenever appropriate as determined by the DPW. Particle separators shall be designed, installed, and maintained in accordance with the *Massachusetts Stormwater Handbook*. The DPW shall have the right to inspect such facilities in accordance with Part II, Section 4 of these Regulations.
  - (b) The Owner of the particle separator shall maintain a log describing the date and type of all service and maintenance performed in connection with the particle separator, the identity of the person who performed the service or maintenance, the amount of residue removed from the particle separator, and the method of disposal of the residue. The log entries shall be maintained for six years and shall be made available for inspection and copying by the DPW. The schedule for service and maintenance of a particle separator shall be subject to approval by the DPW.

#### **SECTION 4. REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF FACILITIES**

- A. Design and Construction Standards. New building stormwater drain laterals, stormwater drains, particle separators, appurtenances, and other stormwater facilities tributary to the City's stormwater system shall be designed and constructed in conformance with current DPW standards and specifications. In the absence of such specifications, the materials and procedures set forth in *the American Society for Testing and Materials*, the *WEF Manual of Practice No. 9, Design and Construction of Urban Stormwater Management Systems and Gravity Sanitary Sewer Design and Construction*, *New England Interstate Water Pollution Control Commission Guides for the Design of Wastewater Treatment Works, Title V of the State Environmental Code* and the *Uniform State Plumbing Code, 248 CMR 2.00* or their amendments shall apply, subject to the prior written approval of DPW.
- B. Bonding Requirements. The DPW shall have the right to require that any person proposing to construct, repair or modify a building drain, building stormwater drain lateral, and other facility tributary to the City's stormwater system post a bond in a form satisfactory to the City and in an amount and for a period of time that the DPW deems sufficient to guarantee construction quality and operating performance.

C. Licensed Drain Layer. All building stormwater drain lateral installation, repair or maintenance work shall be performed by a drain layer who possesses a valid Drain Layers License issued by the DPW. A drain layer's bond, using the City's standard bond form as then in effect, must be submitted to and approved by the DPW in advance of installation, repair or maintenance.

D. Violations to be Reported. All licensed drain layers are required to give a full written report to the DPW within 24 hours if, in the course of performing their work:

(a) prohibited substances are found in a building drain, building sewer lateral, building stormwater drain lateral, or plumbing is found that would allow discharges of such substances to a building drain, building sewer lateral, or building stormwater drain lateral;

(b) interconnections or illicit connections are observed;

(c) a defect or deterioration of the building drain, building sewer lateral, or building stormwater drain lateral is observed; or

(d) a defect or deterioration of the City's sanitary sewer or stormwater drain is observed.

Failure to provide such reports may lead to license suspension or in the case of repeated violations, to license revocation.

E. Right to Inspect During Construction. The DPW shall have the right to inspect all building drains, building stormwater drain laterals, and other private stormwater drains, particle separators and other facilities, at any reasonable time while such construction is underway. The owner shall notify the DPW when such facility is installed and ready for final inspection and before the facility is connected to the City's stormwater system. Connection to the City's stormwater system shall be made in the presence of a City Engineer or approved City representative. No facility shall be covered over until approval has been given by the DPW inspector.

F. Fuel Dispensing Areas. Any area which is used to dispense fuel and is covered by a canopy or other type of roof or enclosure shall drain into an approved oil/water separator and then into a sanitary sewer. As an alternative, it is permissible to contain all runoff within the fuel dispensing area so that it is not drained off. The owner shall be responsible for the removal and disposal of any runoff, which is contained in such a manner. The fuel dispensing area shall be graded so as to prevent any runoff to surrounding areas, which drain into a stormwater drain. Runoff from canopies of gas stations and from fuel dispensing areas not in a building or covered by a canopy shall be drained according to the

*Medford Stormwater Management Rules and Regulations* or, in the absence of such guidelines, as prescribed by the City Engineer.

- G. Stormwater Management. On-site retainage of stormwater and implementation of other stormwater management measures to control the rate, volume and characteristics of stormwater discharged to the City's stormwater systems shall be required whenever appropriate, as determined by the DPW. Every person seeking to establish a new connection to the City's stormwater system or to reconstruct, repair or modify an existing connection for a facility undergoing expansion or rehabilitation shall be required to obtain a written approval from the DPW and may be required to prepare and implement a stormwater management plan. Such a plan may include non-structural and structural measures to manage stormwater during and after construction of the new or expanded facility. The design and maintenance of such facilities shall be subject to the approval of the DPW in accordance with the *Medford Stormwater Guidelines* and shall meet all current state and federal regulations. The design, installation and maintenance of such facilities shall be at the facility Owner's expense. The DPW shall have the right to inspect such facilities in accordance with these Regulations.
- H. Decorative Fountains. New or substantially rehabilitated decorative fountains shall be equipped with a shut off mechanism and shall be designed and constructed so as to re-circulate water. Decorative fountains shall discharge to a stormwater drain.
- I. Recreational Spray and Sprinkler Pools. New or substantially rehabilitated recreational spray and sprinkler pools or recreational fountains, shall be equipped with a shut off mechanism and shall be designed and constructed so as to be nonrecirculating. Recreational spray and sprinkler pools shall discharge to a stormwater drain.
- J. Termination of Service. Every person seeking to obtain a Demolition Permit from the City to demolish part or all of a structure shall also seek written approval from the by DPW. Prior to demolition of any building, the Owner shall cut and cap all building stormwater drain laterals at the connection to the stormwater drain, and have the DPW inspect all building stormwater drain laterals to ensure that they are properly cut and capped prior to back-filling.
- K. Expenses Borne by the Owner. All costs and expenses incident to the application for the design, construction, installation, connection, repair, and maintenance of a building stormwater drain lateral, other private stormwater drains, special facilities, particle separators, or other stormwater drainage facilities shall be borne by the Owner. Notwithstanding the forgoing the City may, in its discretion, bear part or all of such costs and expenses pursuant to Medford Ordinances. The Owner shall indemnify the City from, and shall reimburse the

City for, any loss or damage directly or indirectly occasioned by the installation, use or operation of any building stormwater drain lateral, private stormwater drain, special facility, particle separator, or other stormwater facility.

- L. Extension, Replacement or Relocation of Stormwater Drains. Any person may propose an extension, replacement or relocation of a City stormwater drain to serve a new or rehabilitated building. Every person who proposes to extend, replace or relocate a City stormwater drain shall prepare and submit for review and approval by the DPW a construction plan, and such other permits, plans, specifications, and any other information the DPW deems necessary to determine whether to approve the request. Extension, replacement or relocation of a City stormwater drain shall not commence without the DPW's prior written approval and the approval of any other state agency that governs the approval of such extensions. Every extension, replacement or relocation of a City stormwater drain shall be designed and constructed in accordance with the DPW's design requirements, specifications and standard details. Any tests, studies, investigations and inspections required for design and construction shall be conducted in accordance with the City's requirements. All expenses incurred pursuant to the extension, replacement or relocation of a City stormwater drain including but not limited to, application, engineering, legal permitting, construction and inspection costs shall be borne by the applicant. The Owner shall indemnify the City from, and shall reimburse the City for, any loss or damage directly or indirectly occasioned by the extension, replacement or relocation of a City stormwater drain including but not limited to, application, engineering, legal permitting, and construction and inspection costs.
- M. Bonding Requirements for Stormwater Drain Extensions. Before extending, replacing or relocating a public stormwater drain the contractor shall (a) be approved in writing by the City, and (b) post a performance bond with the DPW in an amount and form acceptable to the City.
- N. Transfer Agreement. After constructing a DPW approved public stormwater drain extension, replacement or relocation, the Owner shall transfer ownership of the stormwater drains to the City through a Transfer Agreement in a form prescribed by the City. The Transfer Agreement shall be accompanied with as-built plans and easements if required for the extended, replaced or relocated stormwater drain and any other conditions or information required by the DPW. Until such time as the Transfer Agreement is signed by the City, the extended, replaced or relocated stormwater drain shall be considered to be privately owned by the applicant and shall be subject to the requirements pertaining to private stormwater drains contained in these Regulations.
- O. DPW Denial of Modification of Proposal. The DPW may deny a request to extend, replace or relocate a public stormwater drain, or the DPW determines that proposed construction is incompatible with the DPW's stormwater systems, the



DPW's design requirements, or these Regulations. The DPW may condition its approval of a request to extend, replace or relocate a public stormwater drain. Such conditions may include, but are not limited to, the requirement to install a pipe larger than the size required to serve the applicant.

## **SECTION 5. DISCHARGE REQUIREMENTS, PROHIBITIONS AND RESTRICTIONS**

### **A. General Requirements**

(a) **Compliance with Discharge Limits.** Every User who directly or indirectly discharges stormwater to the City's stormwater systems shall comply with the strictest of the following discharge limits applicable to the discharge: the NPDES Permit conditions, state limits, local or permit limits, limits contained in these Regulations, and limits in a permit or order issued under these Regulations.

(b) **Dilution Prohibited.** No User shall achieve, or attempt to achieve, compliance with these Regulations by diluting a discharge instead of using proper pretreatment. The increased use of process water in place of proper treatment shall be considered dilution and is prohibited by these Regulations.

### **(c) Inspection**

(i) The DPW or their approved representative may inspect the facilities of any User to the City's stormwater system to determine compliance with the requirements of these Regulations. The User shall allow the DPW to enter upon the premises of the User for the purposes of inspection, sampling, photographic documentation or record examination and copying. The DPW shall also have the right to install or to have installed on the User's property at the property owner's expense such devices as are necessary to conduct sampling, inspection, compliance monitoring and metering operations as referenced in these Regulations.

### **(ii) Conditions for entry:**

1. The DPW shall present appropriate credentials at the time of entry.
2. The purpose of the entry shall be for inspection, observation, measurement, sampling, testing, photographic documentation, or record examination and copying in accordance with the provisions of these Regulations.
3. Any entry shall be made at reasonable times during normal operating hours unless an emergency situation exists which

endangers the public health, safety and welfare of the community as determined by the DPW, in which case the DPW may make an emergency entry and provide notice of entry to the discharger as soon as reasonably practicable.

- (iii) If the DPW is refused access to any part of the premises from which stormwater is discharged, and DPW believes that there may be a violation of these Regulations, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with these Regulations or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the DPW shall, with the assistance of the City Solicitor, seek any and all remedies available under federal, state and local laws or regulations, and the User and/or Owner of the premises shall be liable for all fines, fees, penalties, and all costs of enforcement, including but not limited to attorneys and any associated court fees.

(d) Monitoring Facility Requirements.

- (i) When required by the DPW, a User shall install and maintain at the Owner's expense suitable control or measuring devices, together with manholes, chambers, meters, sampling ports, and other appurtenances in its building stormwater drain laterals, including those from pumps, to facilitate discharge observation, monitoring, sampling and measurement.
- (ii) Such manholes, chambers or meters shall be safely accessible and shall be located and constructed in accordance with site plans approved by the DPW, shall be installed by and at the expense of the Owner, and shall be maintained by the Owner in good operating condition at all times.
- (iii) All such meters and other measuring devices shall be approved by the DPW prior to installation and use. All such meters and measuring devices shall be calibrated by the Owner so as to ensure accurate measurement. The facilities shall be constructed in accordance with all applicable construction standards. Construction shall be completed in compliance with a time schedule established by the DPW.
- (iv) The DPW requires permittees to keep and retain all records associated with meters, measuring devices and samplers. These records shall include data on volumes, water quality and maintenance.
- (v) All records from meters, measuring devices and samplers, whether required by DPW or not, shall be kept for at least six years and

furnished to the DPW upon request. During construction and after installation, the DPW shall have the right to inspect the facilities in accordance with this Article.

(e) Sampling and Analysis.

- (i) All measurements, tests and analyses of the characteristics of stormwater required to conform to these Regulations shall be performed in accordance with the most recent edition of *Standard Methods for the Examination of Water and Wastewater*, unless otherwise authorized or required by the DPW, MWRA, EPA or DEP.
- (ii) Sample analysis required by these Regulations, or any permit issued hereunder, shall be performed by an independent laboratory currently certified by the DEP for the parameters being analyzed. The use of a laboratory with provisional DEP certification is prohibited.
- (iii) Samples analyzed shall be collected at locations designated by the DPW and by methods acceptable to, and at a frequency determined by, the DPW. The DPW will stipulate whether a composite or grab sample should be taken and whether composite samples will be time or flow weighted.
- (iv) The DPW may require a permittee to submit a complete data package, including chain of custody records, raw data, and quality assurance/quality control related results, with a report required by the DPW. The DPW may require that discharge monitoring reports be submitted on paper copy, or by electronic means.

(f) Compliance Measurement Location. All limitations imposed by these Regulations shall be applied at the end of the pretreatment process line, or at the end of the process line if there is not pretreatment. The Owner or User shall not introduce a Pollutant into a stormwater stream after the compliance measurement location without prior approval of DPW.

(g) Notification of Changed Discharge. Every User who directly or indirectly discharges to the City's stormwater system shall notify the DPW within 24 hours in advance of (a) any substantial change in the volume or character of pollutants in the discharge; and (b) any change in the location of the discharge to a different stormwater drain connection.

(h) Notification of Violations and Remediation Actions.

- (i) Users shall notify the City Engineer immediately upon discharging stormwater in violation of these Regulations or their permits, and of

any Upset, Slug load, or spill that may reasonably be expected to discharge to the stormwater system.

- (ii) Each notification shall be followed within 15 days of the date of occurrence by a detailed written statement addressed to the City Engineer describing the causes of the discharge and the remediation measures being taken to prevent a recurrence. Such notification will not relieve Users of liability for any expense, loss or damage to the City's stormwater system, or for any fines imposed on the City due to such discharge.
- (iii) In the case where a discharge to the stormwater system violates these Regulations or a permit, the User shall also notify DEP and EPA immediately. Such notification shall be followed by any additional actions required by the DEP or EPA.
- (i) Preventative Measures. Each User shall provide reasonable and appropriate protection from any discharge, including accidental discharges or potential to discharge in violation of these Regulations.
- (j) Confidentiality of Data and Documents. All information and data regarding any User, whether obtained from reports, questionnaires, permit applications, permits, monitoring programs, or inspections shall be maintained in accordance with the Massachusetts Public Records Law.

B. Discharge Prohibitions and Restrictions Applicable to the Stormwater System.

- (a) Prohibited Discharges into Stormwater Drains. No person shall directly or indirectly discharge or cause or allow to be discharged any Illicit Discharge or any other waters not composed entirely of stormwater into a building stormwater drain, lateral connection to a City stormwater drain or to a City stormwater drain except as provided in Section 6 below.
- (b) Prohibited Connections to Stormwater Drains. The construction, use, maintenance or continued existence of illicit connections to the stormwater system is prohibited.
- (c) Wastewater System Connections. Any wastewater system which is or has been connected to the stormwater system, or which is or has been connected to the stormwater system as a result of a false application, misrepresentation, or non-disclosure on a construction permit, or which was connected to the stormwater system by way of obtaining a wastewater system connection and plumbing permits through any means which circumvented the limitations created by this Article, shall be disconnected,

from the stormwater system by the Owner or by the City at the Owner's expense.

(d) Flow Obstructions Prohibited.

- (i) No person shall place any dam or other flow restricting structure or device in any stormwater facility or watercourse without first having obtained a WRITTEN APPROVAL (Collection System Access) approval from the DPW.
- (ii) No person shall place or deposit into any outfall, drainage facility, stormwater drain or watercourse within the City any garbage, yard waste, soil, rock or similar material, or any other substance which obstructs flow in the stormwater system or damages the system or interferes with the proper operation of the system or which constitutes a nuisance or a hazard to the public. In the event that such an obstruction occurs, the DPW may cause such obstruction to be removed or cause such damage to be repaired and to recover applicable costs pursuant to the provisions of Article VII of these Regulations.

**SECTION 6. EXEMPTIONS**

- A. Discharge or flow resulting from fire fighting activities.
- B. The following non-stormwater discharges or flows are exempt from the prohibition of non-stormwaters provided that the source is not a significant contributor of a pollutant to the municipal stormwater system:
  - (a) Water line flushing;
  - (b) Landscape irrigation or lawn watering;
  - (c) Diverted stream flows;
  - (d) Springs;
  - (e) Natural flow from riparian habitats and wetlands;
  - (f) Rising groundwater;
  - (g) Uncontaminated groundwater infiltration as defined in 40 CFR 35.2005(20), or uncontaminated pumped groundwater;

- (h) Water from exterior foundation drains, footing drains (not including active groundwater dewatering systems), crawl space pumps, or air conditioning condensation;
- (i) Discharge from potable water sources;
- (j) Water from individual residential car washing;
- (k) Residential building wash waters without detergents;
- (l) Street wash waters;
- (m) Discharge from dechlorinated swimming pool water (less than one ppm chlorine) provided the water is allowed to stand for one week prior to draining and the pool is drained in such a way as not to cause a nuisance;
- (n) Non-toxic dye testing, provided verbal notification is given to the Authorized Enforcement Agency prior to the time of the test;
- (o) Non-stormwater discharge permitted under a NPDES Permit or a Surface Water Discharge Permit, waiver, or waste discharge order administered under the authority of the United States Environmental Protection Agency or the Department of Environmental Protection, provided that the discharge is in full compliance with the requirements of the permit, waiver, or order and applicable laws and regulations; and
- (p) Discharge for which advanced written approval is received from the Authorized Enforcement Agency as necessary to protect public health, safety, welfare or the environment. C. Stormwater Discharges.
- (q) With the exception of discharges authorized under Section 6 above, no person shall cause or allow any non-stormwater discharges to the City's stormwater system without having first obtained written approval from the DPW. Discharges to stormwater drains that require written approval from the DPW include, but are not limited to, dewatering drainage, subsurface drainage, non-contact cooling water, non-contact industrial process waters, uncontaminated cooling water, uncontaminated industrial process water, or water associated with the excavation of a foundation or trench, hydrological testing, groundwater treatment/remediation, removal or installation of an underground storage tank, foundation drains, crawl space pumps, footing drains or utility access chamber discharges. The decision to issue written approval rests entirely with the DPW. Such discharges shall comply with all other applicable requirements.
- (r) Persons seeking to discharge stormwater pursuant to a written approval

from the DPW shall also obtain an NPDES Permit, coverage under an NPDES General Permit or an NPDES Exclusion for the discharge, where applicable, a copy of which shall be provided to the DPW.

- (s) Approval by DPW issued to the user may stipulate special conditions and terms as deemed necessary or appropriate by the DPW.
- (t) Approval by DPW shall be denied, revoked, suspended or reissued if the DPW determines that the discharge, whether singly or in combination with others, is or may cause or contribute to a water quality problem, or may cause or contribute to a violation of the City's NPDES Permit.
- (u) In the case of construction site dewatering, the duration of the permit shall not exceed the time period necessary to keep a site dewatered during construction. A permittee may apply to the DPW for an extension of written approval by DPW for construction site dewatering if so approved by the appropriate state or federal agency. Such application shall be submitted to the DPW a minimum of fourteen 14 days prior to the expiration of the existing permit.

#### D. NPDES Notice of Intent and Permit.

- (a) Every person who is required to be covered under an NPDES Permit for a Stormwater Discharge associated with Industrial Activity or for construction purposes shall submit to the City Engineer a copy of the completed Notice of Intent or individual application as submitted to EPA, and the information identified in items (a) through (h) below, as applicable:
  - (b) Address of the building (or premises) where the discharge will take place and the name and address of the building (or premises) owner;
  - (c) Name of a contact person, title and phone number;
  - (d) A site plan or sketch which shows the location of the connection of the building stormwater drain or the point(s) of discharge to the City's stormwater system, including the street name, size of the stormwater drain to which the stormwater will discharge and the outfall to which the discharge will be conveyed and discharged;
  - (e) Standard Industrial Code (SIC Code) of the facility;
  - (f) A description of the product or services provided by the facility;
  - (g) A description of the nature of the discharge;

- (h) Existing NPDES permit, if any;
- (i) Facility's City water service account number.

## **SECTION 7. OTHER DISCHARGE PROHIBITIONS AND RESTRICTIONS.**

- (a) **Dumping to Catch Basins.** No person shall directly or indirectly dump, discharge or cause or allow to be discharged into any catch basin, any solid waste, construction debris, paint or painting product, antifreeze, hazardous waste, oil, gasoline, grease and all other automotive and petroleum products, solvents and degreasers, drain cleaners, commercial and household cleaners, soap, detergent, cleaning or wash waters ammonia, food and food waste, fats, wax, oil and grease, grass or waste, leaves, animal feces, dirt, sand, gravel or other pollutant. Any person determined by the City to be responsible for the direct or indirect discharge of any of the above substances to a catch basin may be responsible for all clean-up costs and for paying any penalties assessed by the City or other federal state or local agencies.
- (b) **Disposal of Septage Prohibited.** No person shall discharge or cause or allow to be discharged any septage into a City stormwater drain or into any stormwater drain tributary thereto.
- (c) **Notification of Spills.** Notwithstanding other requirements of federal, state or local laws, rules or regulations, as soon as a person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of or suspects a release of materials at that facility or operation resulting in or which may result in discharge of pollutants to the City's stormwater system or receiving waters, the person shall take all necessary steps to ensure containment, and cleanup of the release. In the event of a release of oil or hazardous waste to the City's stormwater system, the person shall immediately notify the City's fire, police, and public works departments. In the event of a release of a non-hazardous pollutant to the City's stormwater system, the reporting person shall notify the DPW within twenty-four (24) hours. The reporting person shall provide to the DPW written confirmation of all telephone, facsimile or in-person notifications within three business days thereafter. If the discharge of prohibited materials is from a commercial or industrial facility, the facility owner or operator of the facility shall retain on-site a written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained in accordance with the Massachusetts Public Records Law.



## **PART III: CONSTRUCTION AND POST-CONSTRUCTION STORMWATER MANAGEMENT**

### **SECTION 1. PERMITS and PROCEDURES**

- A. Filing Application. Refer to Part I Section 3 for when a project requires a Stormwater Permit.

The site owner or his/her representative shall file with the DPW an electronic copy on USB or approved electronic transfer device of a completed application package for a Stormwater Permit. Permit issuance is required prior to any land disturbing activity. While the applicant can be a representative, the permittee must be the owner of the site.

- B. The Stormwater Permit Application package shall include:

- (a) completed Application Form with original signatures of all owners;
- (b) the Stormwater Management Plan as specified in Part III, Section 2;
- (c) the Erosion and Sediment Control Plan as specified in Part III, Section 3;
- (d) the Operation and Maintenance Plan as specified in Part III, Section 4;
- (e) the NPDES General Permit for Discharges from Large and Small Construction Activities, as applicable;
- (f) payment of the application and review fees.

- C. Entry. Filing an application for a permit grants the DPW or its agent permission to enter the site to verify the information in the application and to inspect for compliance with the resulting permit.

- D. Engineer of Record. The Stormwater Management Plan, Erosion and Sediment Control Plan, and Operation and Maintenance Plan (permit plans) that are incidental to the overall ongoing site design shall be prepared, certified, and stamped/sealed by the Applicant's Technical Representative, the Engineer of Record (registered in MA) named with the initial application who certifies all reports and record drawings. Should the original Engineer of Record be prevented from completing the project, the Applicant shall employ another Professional Engineer, notify the City Engineer immediately, and send a formal change of the Engineer of Record to the City's Building Department. In addition, the Applicant's Technical Representative must verify that the required permit

plans have been designed in accordance with these Rules and Regulations and the standards and criteria stated or referred to in these Rules and Regulations.

E. Fees

**(a) Application Fee:** \$200

**(b) Review Fees** (based on area of land disturbance)

<b><u>(Acres)</u></b>	<b><u>Fee</u></b>
0 to 0.24	\$0
0.25 to 0.99	\$1,000
1.00 to 4.99	\$2,000
5.00 to 9.99	\$4,000
10.00+	\$6,000

**(c) Resubmittal/Amendment Application and Review Fees:** Same as Application Fee and Review Fees.

**(d) Engineering and Consultant Services (Peer Review):** At the City Engineer's discretion, the applicant may be required to fund the cost of a peer review by an outside consultant, who shall be selected by the City Engineer. The purposes for which peer review may be required include, but are not limited to, hydrologic and drainage analysis, stormwater quality analysis, as-built plan review, and legal issues. The selected consultant shall provide the applicant with a scope of work and the applicant shall enter into an agreement to pay the consultant directly for the cost of the consultant's services.

**(e) Inspection Fees:**

Initial Visit: \$100

Subsequent Visits: \$150 per visit

**(f) Annual Fees for Operation and Maintenance Certification:** \$50 (Refer to Part III, Section 4N)

F. Prior to beginning land disturbance, applicant shall submit to the DPW two (2) copies of the NPDES General Permit for Discharges from Large and Small Construction Activities application, including the Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP). The Applicant is not required to submit the NPDES General Permit for Discharges from Large and Small Construction Activities as part of the review process, but shall submit before any land disturbance takes place. **Land disturbance activities cannot begin until the City has issued the Stormwater Permit and has received copies of the accepted Construction NOI from EPA.**

- G. The City Engineer has ninety (90) days to complete the review of the application.
- H. Other Departments. The City Engineer shall notify the Department of Public Works, Building Department, Community Development, Conservation Commission, and the Health Department of receipt of the application, and shall keep two copies of the application package on file for the applicable City departments to review. Filing a stormwater permit does not relieve the applicant from the responsibility of filing required permits from other City Departments
- I. Information requests. The Applicant shall submit all additional information requested by the City Engineer to issue a decision on the application. Failure to submit requested information shall be grounds for disapproval of the Stormwater Permit Application.
- J. Actions. The City Engineer's action, rendered in writing, shall consist of either:
- (a) Approval of the Stormwater Permit application based upon determination that the proposed Stormwater Management Plan, Erosion and Sediment Control Plan, and Operation and Maintenance Plan (permit plans) meet the requirements and standards in Part III, Sections 2, 3, 4, and 5; and will adequately protect the receiving waters of the community; and are in compliance with the requirements set forth in these Rules and Regulations.
  - (b) Approval of the Stormwater Permit application subject to any conditions, modifications, or restrictions required by the City Engineer which will ensure that the project meets the requirements and standards in Part III, Sections 2, 3, 4, and 5 and adequately protects receiving waters set forth in these Rules and Regulations.
  - (c) Disapproval of the Stormwater Permit application based upon a determination that the proposed Stormwater Management Plan, Erosion and Sediment Control Plan, and Operation and Maintenance Plan (permit plans) as submitted, does not meet the requirements and standards in Part III, Sections 2, 3, 4, and 5 or adequately protect receiving waters, as set forth in these Rules and Regulations, or for failure to submit requested information.
- K. Issuance of the Stormwater Permit is subject to the following:
- (a) No Stormwater Permit shall be issued until the required Construction NOI under EPA's jurisdiction has been approved, if applicable.
  - (b) As a condition of permit issuance, the Applicant shall agree to allow any inspections to be conducted.

- (c) Where a surety is required, the Stormwater Permit shall not be issued until the surety has been obtained and approved. See Part III, Section 6.
- L. Failure of the City Engineer to take final action. Failure of the City Engineer to take final action upon an application within ninety (90) days, or such further time as may be agreed upon at the written request of the Applicant, shall be deemed to be approval of said application.
- M. Plan Changes. The permittee shall notify the City Engineer in writing of any drainage change or alteration in the system authorized in a Stormwater Permit before any change or alteration is made. If the City Engineer determines that the change or alteration is significant, based on the Stormwater Management requirements in Part III, Sections 2, 3, and 4 and accepted construction practices, the City Engineer may require that an amended application be filed and/or a public hearing held. If any change or alteration from the Stormwater Permit occurs, the City Engineer may require the installation of interim measures before approving the change or alteration.
- N. Project Completion. At completion of the project the permittee shall submit as-built record drawings of all structural stormwater controls and structural and nonstructural best management practices (BMPs) required for the site. The as-built drawings shall show deviations from the approved plans, if any, and be certified by the Applicant's Technical Representative. The permittee shall also submit the Final Report (see Part III, Section 8).
- O. A Stormwater Permit shall expire three (3) years from the date of issuance. Any permit may be renewed once for an additional one-year period, provided that a request for renewal is received in writing to the City Engineer at least thirty (30) days prior to expiration. The Operation and Maintenance Plan shall remain in effect and be an on-going requirement.

## **SECTION 2. STORMWATER MANAGEMENT PLAN**

- A. The application for a Stormwater Permit shall include a Stormwater Management Plan to the City Engineer. This Stormwater Management Plan shall fully describe the project in drawings and narrative and contain sufficient information for the City Engineer and relevant City Departments to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Applicant for reducing adverse impacts from stormwater. When projects are up for bid, the City will show preference for plans implementing "on-site infiltration of stormwater runoff when possible. The plan shall be designed to meet the standards as set forth in Part III, Section 2. Drawing plans must be stamped by a registered professional with the state and certified by the Applicant's Technical Representative. The Stormwater Management Plan shall include:

- (a) Name, address, telephone number, and email address of the Owner(s), Applicant, and person(s) preparing the plan.
- (b) Project description – A brief description of the project’s purpose, including proposed land use, and location, including a locus map.
- (c) Existing and proposed site conditions – A description of:
- i. Existing zoning and land use at the site,
  - ii. Existing and proposed vegetation and ground surfaces with runoff coefficients for each,
  - iii. Existing and proposed topography with contours at 2 ft intervals, and
  - iv. Existing and proposed utilities.
- (d) Adjacent areas – A description of the location(s) of existing and proposed easements.
- (e) Receiving waters – A description that includes:
- i. The name, size, and type of immediate receiving waters and location of any outfalls,
  - ii. The name of existing storm sewer system, if applicable, and
  - iii. The destination receiving waters.
- (f) Existing hydrology and soils – A description of:
- i. Existing site hydrology,
  - ii. A drainage area map showing pre- and post-construction watershed boundaries, drainage area and stormwater flow paths,
  - iii. Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration,
  - iv. A delineation of 100-year flood plains, if applicable
  - v. Soil characteristics based on test pits or borings performed at the location of the proposed stormwater management system, and
  - vi. A description and delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows.
- (g) Stormwater system - A description and drawings of all components of the proposed stormwater system including:
- i. The structural details for all components of the proposed stormwater systems and stormwater management facilities,
  - ii. Notes on drawings specifying materials to be used, construction specifications, and typical details,
  - iii. Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization,
  - iv. All measures for the detention, retention, or infiltration of water,

- v. Description of potential pollutants and measures for the protection of water quality,
- vi. Expected hydrology with supporting calculations, and
- vii. Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable.

(h) Construction and Maintenance– A description of:

- i. Timing, schedule, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization,
- ii. A maintenance schedule for the period of construction, and
- iii. Any other information requested by the City Engineer.

B. Standards. Projects shall meet the design standards identified in Part III, Section 5 as currently in effect. Projects shall also meet the following additional standards of the City outlined in this Section and any applicable sections in the *Medford Stormwater Management Rules and Regulations*.

(a) Project proponents seeking to demonstrate compliance with the Stormwater Management Standards shall demonstrate that:

- (i) They have made all reasonable efforts to meet each of the Standards;
- (ii) They have made a complete evaluation of possible stormwater management measures, including environmentally sensitive site design, low impact development techniques that minimize land disturbance and impervious surfaces, structural stormwater best management practices, pollution prevention, erosion and sedimentation control, and proper operation and maintenance of stormwater best management practices; and
- (iii) If full compliance with Standards cannot be achieved, they are implementing the highest practicable level of stormwater management.

(b) To the extent consistent with the Massachusetts Stormwater Management Policy and the City of Medford’s MS4 requirements, stormwater system calculations shall be based on the following:

- (i) Peak flows and runoff at the boundaries of the project shall be no higher following development than before development, for the 2-, 10-, 25- and 100-year storm events using either the SCS TR-55 or TR-20 methods. Stormwater infiltration and recharge to groundwater is encouraged on site where practicable prior to connecting to City drainage systems.

- (ii) Hydrologic calculations are to utilize the 24 hour rainfall data taken from the Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada <http://precip.eas.cornell.edu/>
- (iii) Capacity of stormwater systems shall be adequate to carry all stormwater runoff presently flowing from the proposed project area, as well as to dispose of any additional runoff generated by the proposed project up to and including the runoff from a 100-year storm using the following methods:
  - (1) The flow from storms of up to a 25-year frequency and 24-hour duration shall be conveyed through the stormwater system on the developed site. Stormwater drain piping and grate inlets shall be designed for a 25-year storm event;
  - (2) Detention/retention facilities and culverts shall be provided to accommodate all runoff, up to and including the runoff generated by the 100-year, 24- hour storm. As a minimum, detention/retention basin routing calculations shall be prepared for the 2, 10, 25 and 100-year storm events.
  - (3) 1-inch of all stormwater runoff from all impervious surfaces will be captured and treated on-site.
  - (4) Detention/Retention systems shall be designed with infiltration rates no greater than 3.00in/hr unless supported by percolation testing (i.e. falling head or double ring infiltrometer) at the location(s) of the system(s).
- (iv) Stormwater pipe systems shall be designed to provide self-cleaning flow velocities.
- (v) The combination of storage and design release rate shall not result in a storage duration of greater than seventy-two (72) hours.
- (vi) Maximum total depth of detention/retention area shall be six feet (6') as measured from the lowest outlet point to the lowest point of the emergency overflow.
- (vii) Outlet control structures shall be designed to minimize required maintenance for proper operation.
- (viii) Each stormwater detention/retention area shall be provided with a method of emergency overflow in the event of a storm in excess of the 100-year frequency type.

- (ix) For rain events over 1-inch, stormwater system may discharge to an existing, adjacent City stormwater system if the Applicant can show that the City stormwater system provides sufficient excess capacity to accommodate both the existing runoff and the proposed additional runoff from the project during a 25-year and 100-year frequency and a 24-hour duration storm event.
- (x) Hydraulic calculations, prepared by a Registered Professional Engineer (P.E.) registered in MA, shall note the specific engineering and/or computer program to be used. Hydraulic calculations shall be submitted to substantiate all design features of any proposed or existing stormwater system utilized by the project. Computations for runoff shall be made in accordance with standard engineering practice. Hydraulic calculations shall include the following:
  - (1) Runoff area boundaries shown on a plan
  - (2) Methodology used
  - (3) Soil and land use characterization and design storm parameters
  - (4) Soil conditions and groundwater
  - (5) Pipe size calculation
  - (6) Detention and retention pond and outlet control calculations as applicable
  - (7) Total suspended solid (TSS) removal rates and calculations
  - (8) Phosphorus output rates and calculations
  - (8) Infiltration calculations as applicable
  - (9) Culvert analysis and calculation as applicable
- (xi) A continuous design element (i.e. railing or hedge) shall border any detention/retention basin area with interior side slopes greater than 3:1 and a depth greater than 30-inches. Drainage basins shall be designed to facilitate access for maintenance vehicles and personnel.
- (xii) If it is necessary to carry drainage across lots within the development, stormwater system easements shall be provided, of such width and construction as will be adequate to accommodate the volume and velocity of the runoff. However, no such easement shall be less than twenty feet (20') in width.
- (xiii) If a proposed stormwater system will carry water across land outside the development boundaries to an approved outfall, appropriate drainage rights shall be secured by the Applicant at the Applicant's expense.



- (xiv) Green infrastructure/LID design of retention/detention ponds and methods of overland flow may be used to retain, detain and treat any increased and accelerated runoff which the development may generate.
  - (xv) There shall be a minimum of two feet (2') of naturally occurring soils between the detention basin bottom and the maximum annual groundwater table;
  - (xvi) The top of the basin is to be at least one (1) foot (freeboard) above the computed 100 year storm elevation.
  - (xvii) New development stormwater management systems shall be designed to retain and treat 1-inch of runoff, and/or 90% of TSS and 60% of total phosphorus from impervious surfaces, such as rooftops and paved surfaces, and shall be treated in the site of the development.
  - (xviii) Intermittent surface water courses and such as swales, forebays, detention/retention basins shall be vegetated and appropriately reinforced along the low flow channel.
  - (xix) The use of green infrastructure/low impact design (LID) drainage facilities coordinated with landscaped buffers, open space and conservation areas is encouraged.
  - (xx) Neighboring properties shall not be negatively impacted by flooding due to excessive runoff caused by the development.
  - (xxi) Reverse salt water intrusion shall be prevented.
  - (xxii) When one or more of the requirements cannot be met, an Applicant may demonstrate that an equivalent level of environmental protection will be provided.
- (c) All projects must document compliance with the Massachusetts Stormwater Management Standards, the City of Medford's Stormwater Guidelines, and the City of Medford's MS4 permit requirements.
- (i) No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or receiving waters.
  - (ii) Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

- (iii) Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post-development site should approximate the annual recharge rate from the pre-development or existing site conditions, based on soil types. The stormwater runoff volume to be recharged to groundwater should be determined using the methods prescribed in the latest version of the Massachusetts DEP Stormwater Handbook.
- (iv) For new development, stormwater systems must be designed to retain and treat 1-inch of runoff, to remove 90 percent of the average annual load (post-development conditions) of Total Suspended Solids (TSS) and 60% of total phosphorus. It is presumed that this standard is met when:
  - (1) Suitable nonstructural practices for source control and pollution prevention are implemented;
  - (2) Structural stormwater management BMPs are sized to capture the prescribed runoff volume; and
  - (3) Stormwater management BMPs are maintained as designed.
  - (4) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.
- (v) Stormwater discharges from areas with higher potential pollutant loads require the use of specific stormwater management BMPs for the removal of TSS and phosphorus. The use of infiltration practices without pretreatment is prohibited. Refer to the Massachusetts Stormwater Handbook for appropriate BMPs.
- (vi) Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas. Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold water fisheries and recharge areas for public water supplies. Refer to the Massachusetts Stormwater Handbook for appropriate BMPs.
- (vii) Redevelopment of previously developed sites must meet MS4 Permit Standards to the maximum extent practicable. However, if it is not practicable to meet all the Standards, new (retrofitted or expanded) stormwater systems must be designed to improve existing conditions. Refer to the Massachusetts Stormwater Handbook for appropriate BMPs.

- (viii) Erosion and sediment controls approved by the DPW must be implemented to prevent impacts during land disturbance and construction activities.
- (ix) All stormwater systems must have an Operation and Maintenance Plan to ensure that systems function as designed.

(d) Landscaping and Nonstructural Stormwater Management Strategies

- (i) All open areas, including but not limited to commercial landscaping, and parking lot medians, exclusive of areas to remain in an existing natural state shall be landscaped utilizing both natural and man-made materials such as native plants, trees, shrubs, paving materials and outdoor furniture that are appropriate to the local climate and anticipated uses of the project.
- (ii) Deciduous street trees (typically growing to no more than 30 feet (30') in height) shall be placed along both sides of new drive lanes. All street trees along drive lanes or around parking lot perimeters shall be placed at a maximum spacing of 75 feet (75') on center. In parking lots with greater than six spaces, street trees shall be placed at parking lot perimeters and/or on parking lot islands, such that no parking space is more than 75 feet (75') from the nearest street tree.
- (iii) Landscaped buffer shall consist of natural or landscaped area at least ten feet (10') wide. Where natural or existing plantings are not present, new native plantings shall provide a visual screen that begins at or near ground level and, when mature, will provide a minimum height of at least eight feet (8'). At least fifty percent of the plantings shall consist of evergreens. Buffers may be interrupted to provide for the entrance and exit of vehicular and pedestrian traffic. New shrub plantings in buffer areas shall be a minimum of four feet (4') in height at time of planting. New evergreen trees shall be a minimum of six feet (6') in height at time of planting.
- (iv) All required landscaping shall be maintained in good condition at all times.
- (v) The Applicant shall identify the nonstructural measures incorporated into the design of the project. If the Applicant contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any nonstructural stormwater management measures identified in item (vi) below into the design of a particular project, the Applicant shall identify the strategy considered and provide a basis for the contention.

(vi) To the extent consistent with the Massachusetts Stormwater Management Policy, nonstructural stormwater management strategies incorporated into site design shall:

- (1) Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss,
- (2) Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces,
- (3) Maximize the protection of natural drainage features and vegetation,
- (4) Minimize the decrease in the "time of concentration" from pre-construction to post-construction,
- (5) Minimize land disturbance including clearing and grading,
- (6) Developers are required to rehabilitate soils that have been compacted by construction,
- (7) Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides,
- (8) Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas, and
- (9) Provide other source controls to prevent or minimize the use or exposure of pollutants at the site, in order to prevent or minimize the release of those pollutants into stormwater runoff. Such source controls include, but are not limited to:
  - a. Site design features that help to prevent accumulation of trash and debris in stormwater systems,
  - b. Site design features that help to prevent discharge of trash and debris from stormwater systems,
  - c. Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments, and
  - d. When establishing vegetation after land disturbance, applying fertilizer in accordance with standard best management practice (BMP) practices.

(vii) Offsite mitigation can be considered within the same USGS HUC10 watershed as the redevelopment site, complying with Section 4c of the MS4 Permit.

### **SECTION 3. EROSION AND SEDIMENT CONTROL PLAN**

A. The application for a Stormwater Permit shall include an Erosion and Sediment Control Plan to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sediment controls. The Applicant shall submit such material as is necessary

to show that the proposed development will comply with the design requirements listed in Section 3.B below. Drawing plans must be stamped and certified by the Applicant's Technical Representative. The Erosion and Sediment Control Plan shall include:

- (a) Names, addresses, and telephone numbers of the Owner, Applicant, and person(s) or firm(s) preparing the plan,
- (b) Title, date, north arrow, names of abutters, scale, legend, and locus map,
- (c) Location and description of natural features including:
  - (i) Watercourses and waterbodies, wetland resource areas and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by a Registered Professional Engineer (P.E.) for areas not assessed on these maps,
  - (ii) Existing vegetation including tree lines, canopy layer, shrub layer, and ground cover, and trees with a caliper twelve inches (12") or larger, noting specimen trees and forest communities, and
  - (iii) 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 (500') of any construction activity.
- (d) Lines of existing abutting streets showing drainage and driveway locations and curb cuts,
- (e) Existing soils, volume and nature of imported soil materials,
- (f) Topographical features including existing and proposed contours at intervals no greater than two feet (2') with spot elevations provided when needed,
- (g) 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,
- (h) Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans),

- (i) 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 construction and waste material stockpiling areas,
  - (j) Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable,
  - (k) Location and description of industrial discharges, including stormwater discharges from dedicated asphalt plants and dedicated concrete plants, which are covered by this permit,
  - (l) Stormwater runoff calculations in accordance with the Massachusetts Stormwater Management Policy and using either the SCS TR-55 or TR-20 methods,
  - (m) Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures,
  - (n) A description of construction building materials, concrete truck wash out, chemicals, litter, and sanitary wastes materials expected to be stored on-site and intended disposal methods. The plan shall include analyses of the potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas, and provide 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,
  - (o) A description of provisions for phasing the project where one (1) acre of area or greater is to be altered or disturbed, and
  - (p) Such other information as is required by the City Engineer.
- B. Standards. Projects shall meet the standards identified in Part III, Section 5. The Erosion and Sediment Control Plan will include the most appropriate erosion control practices and an adequate schedule to ensure compliance. Appropriate measures will include structural and nonstructural practices. The design requirements of the Erosion and Sediment Control Plan are:
- (a) Minimize total area of land disturbance and protect natural resources,
  - (b) Sequence activities to minimize simultaneous areas of land disturbance,

- (c) Peak rate of runoff shall not exceed pre-development runoff conditions during construction for the 2, 10, 25, and 100-year storm events using either the SCS TR-55 or TR-20 methods.
- (d) Minimize soil erosion and control sedimentation during construction, provided that prevention of erosion is preferred over sediment control, reduce stormwater runoff pollutants to the maximum extent possible,
- (e) Divert uncontaminated water around disturbed areas,
- (f) Maximize groundwater recharge,
- (g) Install and maintain all Erosion and Sediment Control measures in accordance with manufacturer specifications and good engineering practices or as directed by the City and or their approved representative,
- (h) Prevent off-site transport of sediment; depositing or washing soil into a waterbody or the stormwater system is prohibited,
- (i) Prevent off-site vehicle tracking of sediments. Graveled roads, access drives and parking areas of sufficient width and length are required to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by street cleaning (not flushing) before the end of each workday,
- (j) Install measures intended to keep soil on site or out of waterbodies, stormwater systems or the public right-of-way as the first step in any development. These measures shall be made functional prior to any upslope development taking place,
- (k) Protect stormwater inlets that are functioning during the course of the development by approved sediment control measures so that sediment-laden water cannot enter the inlets without first being filtered,
- (l) Protect and manage on and off-site construction and waste 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),
- (m) 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,
- (n) Prevent significant 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 Certified

Vernal Pools, and Priority Habitats of Rare Species from the proposed activities,

- (o) 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, and
- (p) Properly manage on-site construction and waste materials,
- (q) Apply permanent or temporary soil stabilization to denuded development site areas in conformance with the following schedule:
  - (i) Between October 1 and April 30, all denuded sites shall immediately be provided with either temporary or permanent soil stabilization.
  - (ii) Between May 1 and September 30, temporary erosion and sediment control measures to reduce dust and sediment transport shall be applied as soon as practicable, but in no case more than seven (7) days after land disturbing activity occurs.
  - (iii) Ground cover shall be installed on any portion of a site that is denuded for more than six (6) months. Sports fields or playgrounds surrounded by vegetative cover or permanently installed guttering are exempt from this requirement.
  - (iv) Temporary measures shall be maintained until permanent measures are established.
  - (v) Permanent non-permitted land disturbing activities may achieve compliance with the standards set out in Subsections (a) through (d) above, with the installation and maintenance of approved permanent best management practices (BMPs).
  - (vi) Secure or protect soil stockpiles throughout the project with temporary or permanent soil stabilization measures. The Applicant is accountable for the protection of all stockpiles on the site, and those transported from the site. Depositions of soil may be subject to additional regulations requiring permit, review, or erosion and sediment control.
  - (vii) Post signage on the site of the permitted land disturbance activity that identifies the City's Contact [insert appropriate title] and telephone number.



## **SECTION 4. OPERATION AND MAINTENANCE PLAN**

- A. Compliance with the Operation and Maintenance Plan is the continuing responsibility of the Owner except as provided in Part III, Section 4.0.
  
- B. An Operation and Maintenance Plan is required at the time of application for all projects. The Operation and Maintenance Plan shall be designed to ensure compliance with the Stormwater Permit, these Rules and Regulations, and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The Owner will consider natural features, proximity of 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 decisions as to what maintenance option is appropriate in a given situation. The Operation and Maintenance Plan shall remain on file with the City Engineer and shall be an ongoing requirement. It is the Owner's responsibility to submit updated plans to the City Engineer. The Operation and Maintenance Plan shall include:
  - (a) The name(s) of the owner(s) for all components of the system.
  
  - (b) Maintenance Agreement(s) that specify:
    - (i) The names and addresses of the person(s) responsible for operation and maintenance,
  
    - (ii) The person(s) responsible for financing maintenance and emergency repairs,
  
    - (iii) A Maintenance Schedule for all drainage structures, including swales and ponds, expected frequency of actions, instructions on how to access each component of the system, and equipment to be used (if unique)
  
    - (iv) A list of easements with the purpose and location of each, and
  
    - (v) The signature(s) of the owner(s).
  
  - (c) Map showing locations of all stormwater facilities including but not limited to outfalls, catch basins, manholes, drainage piping, and stormwater facilities.
  
  - (d) Detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspection and copies of all maintenance-related work orders.
  
  - (e) Record of annual updates.

- C. If the Operation and Maintenance Plan identifies a person other than the Owner (for example, a public agency or homeowners' association) as having the responsibility for maintenance, the plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management facility to such person.
- D. Responsibility for maintenance shall not be assigned or transferred to the Owner or tenant of an individual property in a residential development or project, unless such Owner or tenant owns or leases the entire residential development or project.
- E. If the person responsible for maintenance identified under item 4.D above is not a public agency, the operation and maintenance and any future revisions shall be recorded upon the deed of record for each property on which the maintenance described in the Operation and Maintenance Plan must be undertaken.
- F. Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of non-vegetated linings.
- G. The person responsible for maintenance identified under Section 4.C above shall maintain a detailed log as described in Section 4.B.
- H. The person responsible for maintenance identified under Section 4.C above shall evaluate the effectiveness of the Operation and Maintenance Plan at least once per year and adjust the plan and the deed as needed.
- I. The person responsible for maintenance identified under Section 4.C above shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the Operation and Maintenance Plan and the documentation required by Section 4.C.
- J. The requirements of Sections 4.C and 4.D do not apply to stormwater management facilities that are dedicated to and accepted by the City.
- K. In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the City Engineer shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to affect maintenance and repair of the facility in a manner that is approved by the City Engineer or their designee. The City Engineer, in its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the

responsible person fails or refuses to perform such maintenance and repair, the City may conduct enforcement proceedings (see Part I, Section 8).

L. Nothing in this Section 4 shall preclude the City Engineer in which the major development is located from requiring the posting of a performance or maintenance guarantee.

M. Stormwater Management Easement(s).

- (a) Stormwater management easements shall be provided by the property owner(s) as necessary for:
  - (i) Access for facility inspections and maintenance;
  - (ii) Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event; 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 City Engineer.
- (d) Easements shall be recorded with the Middlesex County Registry of Deeds prior to issuance of a Certificate of Occupancy by the City Engineer.

N. Changes to Operation and Maintenance Plan

- (a) The owner(s) of the stormwater system must notify the City Engineer of changes in ownership or assignment of financial responsibility.
- (b) The Maintenance Schedule in the Maintenance Agreement may be amended to achieve the purposes of these Rules and Regulations by mutual agreement of the City Engineer 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.

O. The Owner is required to obtain an annual certification from a Registered Professional Engineer (P.E.) that maintenance is being performed on structural best management practices (BMPs). The annual certification must be submitted

to the City with required administrative forms and an Operation and Maintenance fee.

P. Waivers

- (a) The City, including its departments and agencies, is waived of submitting an Operation and Maintenance Plan, but shall perform operation and maintenance of best management practices (BMPs).

**SECTION 5. DESIGN STANDARDS**

In order to complete the Stormwater Management Plan, Erosion and Sediment Control Plan, and Operation and Maintenance Plan (permit plans) as part of the permit requirements and ensure that developers and landowners meet Massachusetts standards, the Applicant shall use the most recent edition of the following references to aid in structural and non-structural best management practice (BMP) implementation:

- A. Massachusetts Stormwater Handbook.
- B. Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas.
- C. Massachusetts Department of Public Works “Highway Design Manual” Chapter 10, Drainage and Erosion Control.
- D. The City of Medford’s *Stormwater Management Rules and Regulations*.

**SECTION 6. SURETY**

- A. Performance Bond: Where deemed necessary by the City Engineer to ensure completion of the proposed stormwater management facilities, the Applicant shall be required, as a condition of obtaining the Stormwater Permit, to obtain a proper performance bond, issued by a surety company properly qualified and licensed to issue such a bond in the state of Massachusetts, sufficient in the opinion of the City Engineer to secure completion of the stormwater management facilities by the surety or its agent. The form of the bond, and the terms of an accompanying performance agreement among the Applicant, the surety, and the City Engineer, shall be subject to the review and approval of City Solicitor. In the alternative, and subject to the discretion of the City Engineer, the Applicant may be permitted to provide cash security in the same amount as would be required for a performance bond, to be held by a designated escrow agent approved by the City Engineer, pursuant to an agreement that authorizes the agent to complete the stormwater management facilities. Unless otherwise

authorized by the City Engineer, the bond or escrow security shall be provided prior to the commencement of any work allowed by the Stormwater Permit.

The DPW may require the permittee to post before the start of land disturbance or construction activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by City Solicitor, and be in an amount deemed sufficient by the Enforcement Officer to ensure that the work will be completed in accordance with the permit. If the project is phased, the Enforcement Officer 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 Enforcement Officer has received the final inspection report and the final inspection has been conducted as required by Part III, Section 7 and issued a Certificate of Occupancy.

## **SECTION 7. INSPECTION AND SITE SUPERVISION**

- A. Pre-construction Meeting. Prior to starting clearing, excavation, construction, or land disturbance, the Applicant, the Applicant's Technical Representative, the general contractor and any other person with authority to make changes to the project, shall meet with the City Engineer, to review the permitted plans and their implementation. At least two (2) copies of the application shall be kept on the project site once the pre-construction meeting takes place.
- B. The Applicant's Technical Representative shall inspect the project site and provide certification to the City of project completeness at the following stages:
  - (a) Initial Site Inspection: prior to approval of any plan.
  - (b) The Applicant's Technical Representative or its designated agent shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the Stormwater Permit as approved. The Stormwater Permit and associated plans for grading, stripping, excavating, and filling work, bearing the signature of approval of the City Engineer, shall be maintained at the site during the progress of the work. The permittee shall notify the City Engineer at least two (2) working days before each of the following events; the Applicant's Technical Representative shall be responsible to observe and assure the project progresses appropriately at the following events:
    - (i) Erosion and sediment control measures are in place and stabilized;
    - (ii) Site Clearing has been substantially completed;
    - (iii) Rough Grading has been substantially completed;
    - (iv) Final Grading has been substantially completed;
    - (v) Close of the Construction Season; and

- (vi) Final Landscaping (permanent stabilization) and project final completion.
- C. Permittee Inspections. The permittee or his/her 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 required plans and the need for maintenance or additional control measures. The permittee or his/her agent shall submit monthly reports to the City Engineer or designated agent in a format approved by the City Engineer.
- D. Bury Inspection: prior to backfilling of any underground drainage or stormwater conveyance structures.
- E. Final Inspection. After the stormwater system has been constructed, the Applicant must submit a stamped record plan signed by the Applicant's Technical Representative detailing the actual stormwater system as installed. The record plan will include a statement box on the plan certifying the site review was conducted in accordance with these Rules and Regulations and all items were constructed according to the approved permit. The permittee or Applicant's Technical Representative shall request a final inspection site meeting with the City Engineer. The City Engineer shall visit the site with the Applicant's Technical Representative to confirm its "as-built" features. As-Built drawings of structural best management practice (BMPs) shall be submitted to the Department of Public Works. The final inspection shall be completed and the Final Report (see Part III, Section 8) shall be submitted to the City Engineer before the surety has been released and prior to requesting the issuance of Certificate of Occupancy.
- F. Access Permission. To the extent permitted by state law, or if authorized by the Owner or other party in control of the property, the City Engineer, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under these Rules and Regulations and may make or cause to be made such examinations, surveys or sampling as the City Engineer deems reasonably necessary to determine compliance with the Stormwater Permit.

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 permittee before the performance guarantee is released. If the permittee fails to act the City may use the surety bond to complete the work. Examples of inadequacy shall be limited to: errors in the infiltrative capability, errors in the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges from basins.

- G. Inspection Fees. If necessary, the Enforcement Officer may require additional fees for site inspections conducted by City departments. Fees are calculated at a rate of \$100 per hour for review, inspection, and monitoring services that require an excess of two (2) hours of review, inspection, and monitoring time by a City department

## **SECTION 8. FINAL REPORT**

The Applicant's Technical Representative shall evaluate the effectiveness of the stormwater best management practices (BMPs) during an actual storm and document the findings. The Final Report will include certification from the Applicant's Technical Representative as to the effectiveness of the installed system during storm events.

Upon completion of the work, the permittee shall submit a report (including certified as-built construction plans) from the Applicant's Technical Representative certifying that all erosion and sediment control devices, and approved changes and modifications, have been completed in accordance with the conditions of the approved Stormwater Permit. Any discrepancies should be noted in the cover letter.

In addition, a copy of the Construction General Permit Notice of Termination (NOT) (required by the EPA within 30 days after land disturbance has ceased and the site is stabilized; with seventy percent (70%) permanent vegetation coverage or 70% permanent erosion and sediment controls installed) shall be submitted with the Final Report. The City may check EPA's website for verification that the NOT was submitted.

## **SECTION 9. WAIVERS**

- A. The Enforcement Officer may waive strict compliance with any requirement of these rules and regulations promulgated hereunder, where:
  - (a) Such action is allowed by federal, state and local statutes and/or regulations,
  - (b) Is in the public interest, and
  - (c) Is not inconsistent with the purpose and intent of these rules and regulations.
- B. 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 rules and regulations does not further the purposes or objectives of these rules and regulations.

- C. All waiver requests may be discussed with other City departments and/or voted on at a public hearing for the project.
- D. If in the Enforcement Officer's opinion, additional time or information is required for review of a waiver request, the Enforcement Officer may continue a hearing to a date certain 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 10. EXEMPTIONS**

- A. The provisions of this Regulation do not apply to those exempt as set forth in Chapter 82, Article V: Stormwater System of the City's Ordinances.

#### **SECTION 11. CERTIFICATE OF OCCUPANCY**

The City Engineer will issue a letter certifying completion upon receipt and approval of the final inspection reports and/or upon otherwise determining that all work of the Stormwater Permit has been satisfactorily completed in conformance with these Rules and Regulations.