

— DRAFT STORMWATER REGULATIONS —
For the Issuance of Stormwater Management Permits

Section 1. PURPOSE:

The purpose of these Stormwater Regulations is to address the administration, implementation, and enforcement of Stormwater Management Permits pursuant to the Stormwater Management Bylaw, Chapter XIX of the General Bylaws of the Town of Ipswich.

Section 2. DEFINITIONS:

The definitions contained herein apply to the issuance of a Stormwater Management Permit (SMP) established by the Town of Ipswich Stormwater Bylaw and implemented through these Stormwater Regulations. Terms not defined in this section or in the Ipswich shall be construed according to their customary and usual meaning, unless the context indicates a special or technical meaning.

BYLAW: The Town of Ipswich Stormwater Management Bylaw (Chapter XIX of the BYLAWS OF THE TOWN OF IPSWICH), and any revisions thereto.

CERTIFICATE OF COMPLETION: A document issued by the Department of Public Works (hereinafter "the DPW") after all construction activities have been completed which states that all conditions of an issued SMP have been met and that a project has been completed in compliance with the conditions set forth in the SMP.

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

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

EROSION AND SEDIMENT CONTROL (ESC): The prevention or reduction of surface runoff, erosion, sedimentation, and pollution, and the improvement of recharge of groundwater during pre-construction and construction related land disturbance activities.

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

HOTSPOT: Land uses or activities with higher potential pollutant loadings, including, but not limited to, auto salvage yards, auto fueling facilities, fleet storage yards, commercial parking lots with high intensity use, road salt storage areas, commercial nurseries and landscaping, outdoor storage and loading areas of hazardous substances, or marinas. Hotspots are also referred to as Land Uses with Higher Potential Pollutant Loads (LUHPPLs) in the Massachusetts Stormwater Management Standards.

IPSWICH MUNICIPAL SEPARATE STORM DRAIN SYSTEM (Ipswich Storm Drain System): The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility,

retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the Town of Ipswich.

LOT: An individual tract of land as shown on the current Assessor's Map for which an individual tax assessment is made. For the purposes of these regulations, a lot also refers to an area of a leasehold on a larger parcel of land, as defined in the lease agreement and shown by approximation on the Assessor's Map.

NONPOINT SOURCE POLLUTION: Pollution from many diffuse sources caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and man-made pollutants, finally depositing them into water resource areas.

OPERATION AND MAINTENANCE PLAN (O&M Plan): A plan that defines the functional, financial, and organizational mechanisms for the ongoing operation and maintenance of a stormwater management system to ensure that it continues to function as designed and permitted.

OWNER: A person with a legal or equitable interest in property, including a contract purchaser with a valid purchase and sales agreement.

PARCEL: An individual tract of land as shown on the current Assessor's Map for which an individual tax assessment is made.

POINT SOURCE POLLUTION: Pollution from 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.

RECORD (AS-BUILT) DRAWING: Drawings that completely record and document applicable aspects and features of the conditions of a project following construction using Stormwater Management Plans derived from a SMP.

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

STOP WORK ORDER: An order issued by the DPW that requires that all land disturbance activity on a site be stopped until further notice.

STORMWATER MANAGEMENT PERMIT (SMP): Written authorization by the DPW pursuant to Section 5A and 7 of the Bylaw for stormwater management at and for construction/development sites during and subsequent to alteration and construction.

Section 3. AUTHORITY:

- A) The regulations contained herein have been adopted by the Board of Selectmen in accordance with the Bylaw and other relevant provisions of the General Bylaws of the Town of Ipswich.
- B) These regulations may be periodically amended by Board of Selectmen in accordance with Section

7D of the Bylaw and other relevant provisions of the General Bylaws of the Town of Ipswich. Prior to a public hearing thereon, the Board of Selectmen shall provide a draft copy of the proposed revisions to the Public Works Department, Code Enforcement Officer, Conservation Commission, and Planning Board, which shall each have forty-five (45) days from the date of receipt to provide written comment.

Section 4. ADMINISTRATION:

- A) The Board of Selectmen by vote on January 4, 2010 has designated the DPW as the Permitting Authority under Section 7C of the Bylaw and delegated to him the authority for the administration, implementation and enforcement of the SMP, as described in the Bylaw. The Board of Selectmen retain the authority to periodically revise the regulations and the permit application fees. Decisions of the DPW pursuant to Section 6 C “Waivers” and Section 7H “Stormwater Buyouts” shall not be final until approved by the Board of Selectmen. This policy will be revisited after one year from the effective date of the regulations.

Section 5. APPLICABILITY:

These regulations apply to all activities subject to Sections 5A, 6A, and 6C of the Bylaw and as further described in this section. Projects and/or activities within the jurisdiction of the Bylaw must obtain a SMP from the DPW in accordance with the permit application procedures and performance standards defined in Sections 6 and 7 of these regulations.

- A) Except as expressly provided herein, stormwater runoff from all industrial, commercial, institutional, office, residential, roadway, and transportation projects including site preparation, construction, and additions/expansions that result in a land disturbance exceeding an area of 10,000 square feet or an area of more than 50% of a parcel or lot, whichever is less, and all point source and non-point source stormwater discharges from said projects shall be managed according to these regulations and must secure a SMP. In the case of a single land alteration project, whether or not phased, involving more than one contiguous parcel or lot whether or not under common ownership, the entire area of the project shall be considered a lot or parcel under the these regulations.
- B) Project Categories. Projects requiring a SMP are divided into major and minor project categories, pursuant to Section 7E of the Bylaw.
- 1) Major Projects. Major projects are projects in which the area of land alteration is greater than or equal to 10,000 square feet of area. The calculation of area of land alteration shall take into account any land alteration on a single parcel or lot together with any related land alteration on adjacent parcels or lots that is part of the same general land alteration project within a 3-year time frame or within a planned phased project of longer duration.
 - 2) Minor Projects. Minor projects are projects in which the area of land alteration is more than 50% of a parcel or lot, but less than 10,000 square feet of area. The calculation of area of land alteration shall take into account any land alteration on a single parcel or lot together with any related land alteration on adjacent parcels or lots that is part of the same general land alteration project within a 3-year time frame or within a planned phased project of longer duration. In

addition, a Minor Project includes any alteration of land that otherwise meets the definition of Major Project but is associated only with and located fully on the same lot as an existing or proposed single or two-family residence.

The DPW may designate a Minor Project as a Major Project in order to require a higher standard of stormwater management due to unusual site conditions or project conditions that render the Minor Project Performance Standards inadequate for the protection of the public health, safety, or environment in accordance with the Purpose of the Bylaw and regulations.

- 3) Redevelopment Projects. Redevelopment Projects can be either Major or Minor Projects. Redevelopment is defined in Section 3 of the Bylaw.
- 4) Exemptions.
 - a) Any project for which the management of all stormwater runoff resulting from the entire land alteration area has been reviewed in accordance with and has received an Order of Conditions from the Ipswich Conservation Commission or a Site Plan Review, Special Permit, or Definitive Subdivision Approval from the Ipswich Planning Board does not require a SMP.
 - b) Any project that meets the exemptions listed in Section 6A of the Bylaw.

Section 6. APPLICATION PROCEDURES

- A) Projects requiring a SMP shall be required to submit the materials as specified in this section and are required to meet the stormwater management performance standards as specified in Section 7 of these regulations.
- B) Permit Required
 - 1) Any land owner or land operator whose proposed activity is not exempt according to Section 6 of the Bylaw or Section 5.B)4) of these regulations shall not receive any building, grading, or other land development permits required for land disturbance activities without first obtaining a SMP.
 - 2) A SMP shall expire three (3) years from the date of issuance, except for any continuing conditions issued as part of the permit. The applicant has the right to request up to a 1-year extension of time for the SMP, provided that the request is submitted in writing 30 days prior to the expiration date. When an extension of time is requested, the DPW reserves the right to evaluate the existing SMP to determine whether the plan still satisfies the regulatory requirements and to verify that all design factors are still valid.
- C) Filing Application
 - 1) The applicant shall file with the DPW an original and three (3) copies of a completed application package for a SMP. While the applicant can be a representative, the permittee must be the property owner. The applicant must certify that the application is complete. If a submitted

application does not include all of the required information as listed in the plan checklists, the application will be deemed incomplete and will not be processed.

The following are the application filing requirements:

- a) A completed current *SMP Application Form* (available from the DPW or the Town of Ipswich web site) with original signatures of all owners;
- b) Stormwater Management Plan and supporting information in accordance with the current “Checklist for Stormwater Management Plan” (available from the DPW or the Town of Ipswich web site);
- c) Operation and Maintenance Plan;
- d) Payment of the application fee per these regulations;
- e) Inspection and Maintenance Agreement; and
- f) Erosion and Sediment Control Plan.

D) Entry

Filing an application for a SMP grants the DPW or its designated agent permission to enter the site to verify the information in the application prior to issuance of a SMP or to verify that permit conditions are being met following issuance of a SMP.

E) Fees

The DPW shall obtain with each submission an Application Fee established by the Board of Selectmen to cover expenses connected with the review of the SMP.

1) Rules

- a) Application Fees are payable at the time of application and are non-refundable.
- b) Application Fees shall be calculated by the DPW in accordance with Section 6E2 of these regulations.
- c) These fees are in addition to any other local or State fees that may be charged under any other law or local bylaw.
- d) The fee schedule may be revised from time to time.

2) Application Fees

- a) SMP for a Minor Project: A non-refundable application fee of \$300.00 shall be due and payable to the Town of Ipswich at the time an application is filed.
- b) SMP for a Major Project: A non-refundable application fee of \$300.00 shall be due and payable to the Town of Ipswich at the time an application is filed.

3) Consultant Services Fees for Major Projects

- a) As provided by MGL Ch. 44 §53G, and Section 7B of the Bylaw, the DPW may charge reasonable fees for consulting services engaged by the DPW in the review of SMP applications for major projects and for inspections of stormwater management systems during construction and post-construction for major projects.
- b) Funds received by the DPW pursuant to these regulations shall be deposited with the Town Treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the DPW without further appropriation. Expenditures from this account shall be made only in connection with the review and inspections of a specific project or projects for which a Consultant Services Fee has been collected from an applicant. Specific consultant services may include, but are not limited to hydrogeologic and drainage analysis, general compliance with the stormwater management requirements of these regulations, and construction and post-construction inspection services.
- c) The consultant shall be chosen by, and report only to, the DPW and/or its agent. The DPW shall give written notice to the applicant of the selection of an outside consultant, which notice shall state the identity of the consultant, the amount of the fee to be charged to the applicant, and a request for payment of said fee in its entirety. Such notice shall be deemed to have been given on the date it is mailed or delivered. No such costs or expenses shall be incurred by the applicant if the application or request is withdrawn within five (5) days of the date notice is given. The Consultant Services Fee must be received in its entirety prior to the initiation of consulting services.
- d) The DPW may request additional Consultant Services Fees if the necessary review or inspection requires a larger expenditure than originally anticipated or if new information requires additional consultant services. Failure by the applicant to pay the Consultant Services Fee specified by the DPW within ten (10) business days of the request for payment shall be cause for the DPW to determine that the application is administratively incomplete.
- e) Subject to applicable law, any unused portion of any fees collected shall be returned by the DPW to the applicant within forty-five (45) calendar days of a written request by the applicant, unless the DPW decides in a public meeting that other action is necessary.

F) Stormwater Management Plan Contents

- 1) Stormwater Management Plans shall contain sufficient information for the DPW to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the applicant for reducing adverse impacts from stormwater runoff. These plans shall be in accordance with

the criteria established in these regulations. Plans for Major Projects only must be submitted with the stamps and signatures of a Professional Engineer who must be licensed in the Commonwealth of Massachusetts.

- 2) The Stormwater Management Plan shall include each item specified in the current “Checklist for Stormwater Management Plan.” All items must be submitted at the time of filing to be considered a complete application.

G) Erosion and Sediment Control Plan

The Erosion and Sediment Control (ESC) Plan shall be designed to ensure compliance with the SMP and these regulations. The ESC Plan shall show the location of and describe the construction best management practices (BMPs) to be used on the site and the required maintenance, as well as other relevant information, as more specifically described below.

The following information is required for all projects:

- 1) Locations of the proposed limits of land disturbance on the site, with provisions that the limits must be marked with tape, signs, or orange construction fence by the developer at the site prior to commencing any land disturbance activities, and location and technical description of appropriate erosion and sediment control measures proposed to be installed, all of which shall be inspected by the DPW or its designee prior to soil disturbance in accordance with the approved plans;
- 2) A program for monitoring and maintenance of erosion and sediment control measures throughout the course of construction shall be required as part of the Operation and Maintenance Plan described in these regulations;
- 3) Provisions to ensure that temporary sediment trapping devices are not removed until permanent stabilization is established in all contributory drainage areas, as well as provisions to ensure that stabilization is established prior to converting sediment traps/basins into permanent (post-construction) stormwater management facilities;
- 4) Provisions to ensure that all facilities used as temporary measures shall be cleaned prior to being put into final operation and are inspected by the DPW or its designee, and indicating that areas to be used as post-construction infiltration practices should be protected during construction to prevent compaction;
- 5) A program for vegetative stabilization of exposed soil through the establishment of permanently growing vegetation;
- 6) The Plan must demonstrate that areas of disturbance shall be kept to a minimum and that contiguous disturbed areas greater than 10,000 square feet remaining idle for more than 30 days shall be stabilized with hydroseeding or other appropriate stabilization measure(s);

- 7) The Plan must specify that permanent seeding be undertaken in the spring (from March through June) or in the late summer and early fall (from August 1st to October 15th). During the peak summer months and in the fall after October 15th when seeding is found to be impractical, an appropriate temporary mulch or sod shall be applied. Permanent seeding may be undertaken during the summer if plans provide for adequate mulching and irrigation; and
- 8) The Plan must specify that all slopes steeper than 3:1, as well as perimeter dikes, sediment basins or traps, and embankments must, upon completion, be immediately stabilized with sod, seed, anchored straw mulch, or other approved stabilization measures; areas outside of the perimeter sediment control system must not be disturbed.

In addition, the following is required for Major Projects only, or if specifically required by the Department of Public Works:

- 10) Location and technical description of the perimeter sediment control system that shall be installed and maintained around active construction areas such as, but not limited to, borrow or stockpile areas, roadway improvements, and areas within 50 feet of a building under construction, to be inspected by the Department of Public Works or its designee prior to initial disturbance;
- 11) Location and means of diversion of offsite runoff from highly erodible soils and steep slopes to more stable areas;
- 12) A Sequence of Construction is required for all land disturbance activities exceeding one (1) acre in size (including lot development) that requires stormwater controls to be installed and the soil stabilized, as disturbance beyond the one (1) acre continues. Mass clearing and grading for sites greater than 5 acres in size shall not be permitted without prior written approval from the Department of Public Works;
- 13) The location of soil stockpiles and provision to stabilize exposed soils within five (5) business days of completion of construction of a given area. Stockpile side slopes shall not be greater than 2:1;
- 14) The location and description of vehicle tracking pad(s) to be constructed at all entrance/exit points of the site to reduce the amount of soil carried onto roadways and off the site;
- 15) The location and description of proposed dust controls to be employed on the site, minimizing soil disturbance through applying mulch and establishing vegetation, water spraying, surface roughening, and/or applying polymers, spray-on tackifiers, chlorides, and barriers; and
- 16) The Plan must specify that the cut side of roads and ditches shall be stabilized immediately with rock rip-rap or other non-erodible erosion control liners, or where appropriate, vegetative measures such as sod.

H) Operation and Maintenance Plan Contents

An Operation and Maintenance Plan (O&M Plan) is required at the time of application. The O&M Plan shall be designed to ensure compliance with the SMP and these regulations. The O&M Plan

shall remain on file with the Department of Public Works. The contents of the O&M Plan shall be an ongoing requirement.

- 1) The O&M Plan for Minor Projects shall include an inspection and maintenance schedule for all temporary erosion and sediment control practices and permanent stormwater management facilities, including routine and non-routine maintenance tasks to be performed, and must be signed by the acknowledgement of ongoing responsibility for the operation and maintenance of all BMPs included in the project.
- 2) The O&M Plan for Major Projects shall include:
 - a) The name(s) of the owner(s) for all components of the system;
 - b) A map showing the location of the systems and facilities including, but not limited to, catch basins, manholes/access lids, drain pipes, and stormwater devices;
 - c) Maintenance agreements 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, including repairs that may be undertaken directly by the Town;
 - iii) An Inspection and Maintenance Schedule for all temporary erosion and sediment control practices and permanent stormwater management facilities, including routine and non-routine maintenance tasks to be performed;
 - iv) A list of easements with the purpose and location of each; and
 - v) The signature(s) of the owner(s).
 - d) Drainage Easement(s)
 - i) Drainage easements shall be provided by the property owner(s) to the Town of Ipswich as necessary for:
 - 1) Access for facility inspections and maintenance;
 - 2) Preservation of stormwater runoff conveyance, infiltration, and treatment areas and facilities, including flood routes for the 100-year storm event; and
 - 3) Direct maintenance access by heavy equipment to structures requiring regular maintenance.
 - ii) The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
 - iii) The provision of a drainage easement to the Town shall in no way relinquish the owner of

primary responsibility for construction, operation and maintenance of any stormwater management practice in accordance with the SMP.

iv) Drainage easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Department of Public Works.

v) Drainage easements shall be recorded with the Essex County Registry of Deeds prior to issuance of a Certificate of Completion by the Department of Public Works.

e) Changes to Operation and Maintenance Plans

i) The owner(s) of the stormwater management system must notify the DPW in writing of changes in ownership or assignment of financial responsibility.

ii) The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of these regulations by mutual agreement of the DPW 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.

I) Actions

The DPW's action on a permit application for the issuance of a SMP, rendered in writing, shall consist of either:

1) Approval of the SMP application based upon determination that the proposed project meets the Standards in Section 7 of these regulations, will adequately protect the water resources of the community, and is in compliance with the requirements set forth in these regulations, subject to any conditions, modifications, or restrictions required by the DPW. Any SMP issued pursuant to the Bylaw shall run with the land and be binding upon the original owner and any successors and assigns.

2) Denial of the SMP application based upon a determination that the proposed plan does not meet the Standards in Section 7 of these regulations or does not adequately protect water resources, as set forth in these regulations.

J) Failure of the DPW to take final action upon an application within 30 calendar days of receipt of a complete application shall be deemed to be an approval of said application. Upon certification by the Town Clerk that the allowed time has lapsed without action by the DPW, the DPW must issue a SMP.

K) Plan Modifications

The applicant must notify the DPW in writing of any proposed drainage change or alteration in the system authorized in a SMP before any change or alteration is made. If the DPW determines that the proposed change or alteration is significant, he may require that an application to amend the SMP be

filed and an amendment fee of \$50 for Minor Projects and \$100 for Major Projects be paid. No work associated with the proposed modification shall be performed until the DPW approves the modifications and notifies the applicant in writing as such.

L) Appeals of Actions of the DPW

A decision of the DPW shall be final. Further relief of a decision by the DPW made under these regulations shall be reviewable in the Superior Court in an action filed within sixty (60) days thereof, in accordance with M.G.L. Ch 249 §4. An appeal of an action by a Town of Ipswich board, commission, or department that has current regulatory authority for a project and/or activity shall be conducted under the applicable appeal provisions of said board, commission, and/or department of the Town of Ipswich.

M) Project Completion

The DPW has the authority to require, at the completion of the project, the submission of Record Drawing(s) of all structural stormwater controls and treatment BMPs required for the site as required in Section 10 of these regulations. The Record Drawing(s) shall show any deviations from the approved plans, if any, and be stamped and certified for substantial compliance by a Massachusetts-licensed Professional Engineer.

Section 7. PERFORMANCE STANDARDS

A) Construction-Phase Stormwater Management Criteria:

- 1) At a minimum, the Erosion and Sediment Control Plan shall comply with the performance standards of the most recent version of the *Massachusetts Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials* published by the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), as well as the following:
- 2) General Criteria

The following general performance criteria shall be applicable to all Erosion and Sediment Control Plans, unless otherwise provided for in these regulations:

- a) Measures shall be taken to control erosion within the project area.
- b) The removal of existing trees and ground cover is to be kept at a minimum.
- c) Wetland areas and surface waters shall be protected from sedimentation.
- d) Sediment in runoff water shall be trapped and retained within the project area. All temporary sediment trapping devices for Major Projects shall be designed to retain 1 inch of runoff from the contributing drainage area.

- e) All construction site measures for Major Projects shall be designed to accommodate (safely convey without creating erosive conditions) the 10-year, 24-hour return frequency storm event.

B) Post-Construction Stormwater Management Criteria:

1) Major Projects.

- a) All major projects must comply with the Massachusetts Stormwater Management Standards (MASWMS), with the following addition: The runoff from the post developed condition during a 1-year, 24-hour return frequency storm event must be detained for a minimum of 24-hours to further address the peak discharge rate standard (Standard 2 in the 2008 Standards) in order to better manage potentially erosive flows and to provide enhanced channel protection for downstream receiving bodies from the proposed site. Other peak discharge rate controls in Standard 2 of the 2008 Standards must be met. Since there are practical limitations on minimum orifice or weir sizes needed to control this channel protection volume, as well as flow and receiving water considerations, this specific requirement shall be waived for:

- i) Small sites (i.e., sites with a post-development discharge that would require less than a 1-inch orifice, regardless of the type of outlet actually used);
- ii) Sites with post-development unattenuated discharges less than 2 cfs (i.e., sites with post development conditions that result in discharges of less than 2 cfs prior to the incorporation of stormwater management practices);
- iii) Direct discharges to lakes, ponds, reservoirs, and 4th order or greater streams (e.g., the Ipswich River) where the development area is less than 5% of the watershed area upstream of the development site. Stream order is defined by the number of tributaries that join together to form the main stem; and
- iv) Indirect discharges to an existing drainage network with adequate capacity to accommodate the flows from the site where the ultimate discharge is to a 4th order or greater stream, lake, or reservoir.

- b) The Massachusetts Stormwater Handbook (MA DEP, 2008, or latest revision) shall serve as a primary source of technical guidance for compliance with the MASWMS but may be supplemented by field-tested and defensible design guidance from other sources, at the discretion of the DPW or its agent.

- c) In addition, the use of LID site design and techniques must be incorporated into the project design to the maximum extent practicable, as more fully described in the Massachusetts Stormwater Handbook (Volume 1, Chapter 1, Page 4, and Volume 2, Chapter 1).

- 2) Minor Projects. Minor projects shall comply with Standards 8, 9 and 10 of the MASWMS and shall utilize LID techniques to the maximum extent practicable, in accordance with the following design criteria:

- a) The creation of new impervious surface on the site shall be minimized, and this effort shall be documented in a narrative in the permit application.
- b) The preservation of natural vegetative cover and creation of vegetated surfaces on the site shall be maximized, and this effort shall be documented in the permit application.
- c) Runoff from roofs shall be directed into downspouts and recharged into the ground via bioretention systems or dry wells, or directed overland across at least 50 feet of grass. Bioretention systems and dry wells shall be designed in accordance with the guidance provided in the Massachusetts Stormwater Handbook (MA DEP, 2008, or latest revision). Runoff from galvanized steel or copper roofs shall be pretreated if runoff will be discharged within a Zone II or Interim Wellhead Protection Area of a public water supply or within an industrial site. Pretreatment shall be provided by a stormwater BMP capable of removing metals, such as a sand filter, organic filter, filtering bioretention area or equivalent.
- d) All driveway runoff shall be directed to a dry swale or bioretention system, or other approved stormwater practice, to the maximum extent practicable, such that up to one half inch of runoff from a given storm will be diverted and infiltrated into the ground.
- e) Runoff from other impervious surfaces, such as patios and walkways, shall be hydraulically disconnected from rooftop runoff and driveway runoff and diverted across vegetated areas to the maximum extent possible.
- f) Alternatively, Minor Projects may choose to comply fully with the MASWMS.

3) Hotspots

Stormwater discharges from land uses or activities with higher potential pollutant loadings, known as “hotspots,” as defined in the most recent version of the MASWMS and in these regulations, require the use of specific stormwater management BMPs as specified in the most recent version of the MASWMS. The use of infiltration practices without adequate pretreatment is prohibited.

Section 8. SURETY

Prior to the start of land disturbance or construction activity requiring a SMP, the DPW may require the applicant to post a surety bond, irrevocable letter of credit, cash, or other acceptable security, when deemed appropriate. The form of the surety shall be approved by the Town Treasurer, and be in an amount deemed sufficient by the DPW to ensure that the work will be completed in accordance with the SMP. If the project is phased, the DPW may release part of the surety as each phase is completed in compliance with the SMP, but the surety may not be fully released until the DPW has received the final inspection report as required by Section 9 of these regulations and has issued a Certificate of Completion.

Section 9. INSPECTIONS

A) Construction Inspections for SMPs

1) Notice of Construction Commencement

The applicant must notify the DPW three (3) business days in advance of the commencement of construction.

2) At the discretion of the DPW, periodic inspections of the stormwater management system construction may be conducted by the DPW or its designee. All inspections shall document the following information:

- a) The date and location of the inspection;
- b) Whether construction is in compliance with the approved Stormwater Management Plan;
- c) Variations from the approved construction specifications; and
- d) Any other variations or violations of the conditions of the approved Stormwater Management Plan.

3) The DPW or its designee shall have the right to inspect the project site at the following stages, at a minimum:

- a) Initial Site Inspection: prior to approval of any plan;
- b) Erosion and Sediment Control Inspection: to ensure erosion and sediment control practices are in accord with the approved plan;
- c) Stormwater Management System Inspection: An inspection will be made of the completed stormwater management system, prior to backfilling of any underground drainage or stormwater conveyance structures; and
- d) Final Inspection:
 - i) After the stormwater management system has been constructed and before the surety has been released, applicants may be required to submit a Record Drawing(s) certified by a Massachusetts-licensed Professional Engineer for any stormwater management facilities or practices constructed in compliance with a SMP issued for the project. Record Drawings shall be full-size plans that reflect the conditions of a project following construction, including all final grades, developed by a Massachusetts-licensed Professional Engineer. All changes to the approved project design should be recorded in red ink and initialed by a Massachusetts-licensed Professional Engineer on plans to define changes made. All work deleted, corrections in elevations, and changes in materials should also be shown on the Record Drawings in red ink.
 - ii) The DPW or its designee shall have the right to inspect the system to confirm the features

in the Record Drawings. This inspector may also evaluate the effectiveness of the system in an actual storm. If the inspector finds the system to be adequate, he shall so report to the DPW, who will issue a Certificate of Completion.

4) System Requiring Corrective Actions

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

B) Post-Construction Inspection and Maintenance for SMPs

1) Maintenance Responsibility

- a) The Owner of stormwater management facilities and practices included in the Stormwater Management Plan is responsible for ensuring compliance with the requirements of the operation and maintenance agreement, the plan, and these regulations.
- b) The owner of the property on which work has been done pursuant to these regulations for private stormwater management facilities, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices. Such repairs or restoration and maintenance shall be in accordance with the approved plans.

2) Maintenance Inspections for Major Projects

The following applies to major projects only:

- a) All stormwater management facilities must undergo inspections to document maintenance and repair needs and ensure compliance with the requirements of these regulations and accomplishment of its purposes as specified in the O&M Plan and Maintenance Agreement described under Section 6.H) of these regulations.
- b) At a minimum, inspections shall occur during the first year of operation and at least once every two (2) years thereafter or more frequently as deemed necessary. In addition, a Maintenance Agreement as specified under Section 6.H) of these regulations shall be executed for privately-owned stormwater management systems and shall specify the Responsible Person for conducting long term inspections.
- c) Inspection reports shall be submitted to and maintained by the DPW for all stormwater

management systems within one (1) month following an inspection. Inspection reports for stormwater management systems shall include:

- i) The date of inspection;
- ii) Name of inspector;
- iii) The condition of (as applicable):
 - 1. Pretreatment devices
 - 2. Vegetation or filter media
 - 3. Fences or other safety devices
 - 4. Spillways, valves, or other control structures
 - 5. Embankments, slopes, and safety benches
 - 6. Reservoir or treatment areas
 - 7. Inlet and outlet channels and structures
 - 8. Underground drainage
 - 9. Sediment and debris accumulation in storage and forebay areas (including catch basins)
 - 10. Any nonstructural practices
 - 11. Any other item that could affect the proper function of the stormwater management system
- iv) Description of the need for maintenance

3) Right-of-Entry for Inspection

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

4) Records of Maintenance and Repair Activities

Parties responsible for the operation and maintenance of a stormwater management facility shall provide records of all maintenance and repairs to the DPW, upon request. Parties responsible for the operation and maintenance of a stormwater management facility shall make available all records of the installation and of all maintenance and repairs and shall retain the records for at least three (3) years following final inspections and/or repairs. These records shall be made available to the DPW during inspection of the facility and at other reasonable times upon request.

5) Failure to Maintain

If a responsible person fails or refuses to meet the requirements of the O&M Plan, the DPW or its designee, after sixty (60) days written notice (except, that in the event the violation constitutes

an immediate danger to public health or public safety, 24 hours notice shall be sufficient), may correct a violation of the approved plans or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. All reasonable costs associated with this work, including but not limited to equipment use, labor and materials, may be charged to the owner.

After notification is provided to the owner, the parties responsible for carrying out the maintenance plan shall have thirty (30) days or other time frame mutually agreed to between the DPW or its designee and the parties responsible for carrying out the maintenance plan to correct the deficiencies. The DPW or its designee shall then conduct a subsequent inspection to ensure completion of repairs.

Section 10. CERTIFICATE OF COMPLETION FOR STORMWATER MANAGEMENT PERMITS

- A) Major Projects: Within ninety (90) days of completion of construction, the DPW may require the submission of Record Drawing(s) prepared by a Massachusetts-licensed Professional Engineer, certifying that the completed project is in accordance with the approved plans and specifications. Furthermore, the DPW may require construction inspection reports sufficient to adequately document compliance, when necessary.
- B) Minor Projects: Within ninety (90) days of completion of construction, the DPW may require the submission of a letter signed by the property owner certifying that the completed project is in accordance with the approved plans and specifications.
- C) The DPW will issue a Certificate of Completion upon determining that all work of the SMP has been satisfactorily completed in conformance with the approved plan.

Section 11. VIOLATIONS AND ENFORCEMENT

A) Introduction

The following section outlines what acts the DPW may consider a violation of the Bylaw and outlines actions the DPW may employ in response to violations or apparent violations of the Bylaw.

B) Powers of the DPW

The DPW or its agents shall enforce the Bylaw, these regulations, orders, violation notices, and enforcement orders, as they pertain to the issuance or withholding of the SMP, and may pursue all civil, criminal and non-criminal remedies for such violations.

C) Violations Defined

Each day a violation exists constitutes a separate violation. Violations include, but are not limited to:

- Refusal or failure to comply with a SMP;
- Refusal or failure to observe a particular condition or time specified in a SMP;
- Refusal or failure to complete work described in a SMP, whether or not such failure causes

- damage to the interests protected by the Bylaw and these regulations;
- Refusal or failure to maintain a stormwater management facility covered by a SMP; and
- Refusal or failure to obtain a valid SMP prior to conducting an activity subject to these regulations under the Bylaw.

Section 12. STORMWATER “BUY-OUT.”

The DPW may allow the applicant to contribute to the construction of a public or shared stormwater facility upon a finding that the applicant cannot feasibly meet the above standards because there is not sufficient space for onsite stormwater BMPs. (Note 1). However, this option is not the preferred option, and the DPW is not obligated to allow for such a “buy-out.” Any contribution to a public stormwater facility must be approved by the DPW as the operator of the Ipswich Storm Drain System. The cost of such a buy-out will be based upon the costs of design, permitting, construction, and maintenance of a public stormwater management system and the relative volume and quality of stormwater being directed to the public stormwater management system. The public or shared stormwater management system shall be designed such that its use will bring the altered area into compliance with the required performance standards. This buy-out option can only be applied if the public or shared stormwater facility directly or indirectly addresses runoff from the project site and is reasonably likely to be constructed within 3 years of the issuance of the stormwater management permit under which the Stormwater Buy-out is approved.

Note 1. See Section 4 above. Decisions of the DPW pursuant to this section are not final until approved by the Board of Selectmen. This policy will be reviewed after one year from the effective date of the regulations.

Section 13. SEVERABILITY

The invalidity of any section or provision of these regulations shall not invalidate any other section or portion thereof, nor shall it invalidate any permit or determination that previously has been issued.

Section 14. EFFECTIVE DATE

These Regulations shall be effective after adoption by the Ipswich Board of Selectmen on **DATE**. Permits and fees shall be required in accordance with the Bylaw and these regulations immediately upon the effective date of these regulations.

END