

SASSAQUIN POND PROTECTION ORDINANCE

1.0 PURPOSE AND INTENT

A) The purpose of this Ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of stormwater runoff and nonpoint source pollution on water quality in Sassaquin Pond. Utilizing better site design and proper management of post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the health, safety, environment and general welfare of the public, protect water and aquatic resources, and promote groundwater recharge to protect Sassaquin Pond. This Ordinance seeks to meet that purpose through the following objectives:

1. Establish decision-making processes surrounding land alteration activities that protect the integrity of the Sassaquin Pond Watershed (the Watershed) and preserve the health of water resources;
2. Require that new development, redevelopment and all land conversion activities within the Watershed to maintain or, to the maximum extent technically feasible, restore the natural hydrologic characteristics of the land in order to reduce flooding, siltation, nonpoint source pollution, property damage, and to improve the integrity of aquatic habitats;
3. Establish minimum post-development stormwater management standards and design criteria to control stormwater runoff quantity and quality;
4. Establish minimum design criteria for the protection of properties and aquatic and groundwater resources within the watershed;
5. Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development Stormwater Management Standards, as established in the latest edition of *Massachusetts Stormwater Management Handbook* and section **7.0 PERFORMANCE STANDARDS**.
6. Encourage the use of practices that reduce runoff volume such as reducing impervious cover and the preservation of greenspace and other natural areas; and
7. Establish administrative procedures for the submission, review, approval or disapproval of stormwater management plans and for the inspection of approved active projects; and long-term follow up; Establish certain administrative procedures and fees for the submission, review, approval, or disapproval of stormwater plans, and the inspection of approved project.

B) **Compatibility with Other Permit and Ordinance Requirements:** This Ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. The requirements of this ordinance shall be considered minimum requirements and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

2.0 ADMINISTRATION

- A) Conservation Commission. The Conservation Commission is hereby designated as the permitting authority. The Conservation Commission shall administer, implement and enforce this Ordinance. Any powers granted to or duties imposed upon the Commission may be delegated in writing by the Commission to their employees or agents.
- B) Stormwater Regulations. The Conservation Commission may adopt and periodically amend rules and regulations relating to the terms, conditions, definitions, enforcement, fees (including application, inspection, and/or consultant fees), procedures, and administration of this Ordinance after conducting a public hearing to receive comments on any proposed revisions. Such hearing dates shall be advertised in a newspaper of general local circulation at least seven (7) days prior to the hearing date. After public notice and public hearing, the Conservation Commission may promulgate rules and regulations to effectuate the purposes of this Ordinance. Failure of the Conservation Commission to promulgate such rules and regulations or a legal declaration of their invalidity by a court shall not act to suspend or invalidate the effect of this Ordinance.
- C) Stormwater Management Manual. The Conservation Commission will utilize the policies, criteria and information, including specifications and standards of the latest edition of Massachusetts *Stormwater Management Handbook* for the execution of the provisions of this Ordinance, unless noted within the Ordinance or Regulations. Unless specifically provided for in this Ordinance or the Regulations, stormwater management practices that are designed, constructed, and maintained in accordance with the Massachusetts *Stormwater Management Handbook* design and sizing criteria will be presumed to be protective of Massachusetts water quality standards and the requirements of this Ordinance.
- D) Actions by the Conservation Commission. The Conservation Commission may take any of the following actions as a result of an application for a Stormwater Permit: Approval, Approval with Conditions, Disapproval, or Disapproval without Prejudice. These actions are specifically defined as part of the Stormwater Regulations promulgated as part of this Ordinance.
- E) Appeals of Action by the Conservation Commission. A decision of the Conservation Commission shall be final. Further relief of a decision by the Conservation Commission made under this Ordinance shall be reviewable in the Superior Court in an action filed within 60 days thereof, in accordance with M.G.L. Ch 29 49 § 4.

3.0 DEFINITIONS

The definitions contained herein apply to the interpretation and implementation of this Ordinance. Terms not defined in this section shall be construed according to their customary and usual meaning unless the context indicates a special or technical meaning. Additional definitions may be adopted by separate regulation.

APPLICANT: A property owner or duly designated agent who has filed an application for a

Stormwater Management Permit with the Conservation Commission.

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.

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

EMERGENCY REPAIR: A condition that poses a threat to public health and/or safety. Such conditions include, but are not limited to, a utility gas leak, electric problem, blocked drain, water leak, etc.

IMPERVIOUS COVER: Any material or structure on or above the ground that prevents water from infiltrating through the underlying soil. Impervious cover includes, without limitation, paved parking lots, sidewalks, rooftops, driveways, patios, and paved, gravel, and compacted dirt surfaced roads.

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

Maximum Extent Technically Feasible:

Determination of Maximum Extent Technically Feasible

Compliance with this Ordinance requires that Section 7.0 B) is implemented to the maximum extent technically feasible (METF) to infiltrate the runoff from the 1.7 inch storm.

Technical Infeasibility

For projects where technical infeasibility exists, the applicant document and quantify that stormwater strategies, such as infiltration, evapotranspiration, and harvesting and use have been used to the METF, and that full employment of these types of controls are infeasible due to site constraints. Documentation of technical infeasibility should include, but may not be limited to, engineering calculations, geologic reports, hydrologic analyses, and site maps. A determination that the performance design goals cannot be met on site should include analyses that rule out the use of an adequate combination of infiltration, evapotranspiration, and use measures. Examples of where site conditions may prevent the full employment of appropriate management techniques to the METF include a combination of:

- The conditions on the site preclude the use of infiltration practices due to the presence of shallow bedrock, contaminated soils, near surface ground water or other factors such as underground facilities or utilities.
- The design of the site precludes the use of soil amendments, plantings of vegetation or other designs that can be used to infiltrate and evapotranspire runoff.

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- Water harvesting and use are not practical or possible because the volume of water used for irrigation, toilet flushing, industrial make-up water, wash-waters, etc. is not significant enough to warrant the design and use of water harvesting and use systems.
- Modifications to an existing building to manage stormwater are not feasible due to structural or plumbing constraints or other factors as identified by the facility owner/operator.
- Small project sites where the lot is too small to accommodate infiltration practices adequately sized to infiltrate the volume of runoff from impervious surfaces,
- Soils that cannot be sufficiently amended to provide for the requisite infiltration rates,
- Situations where site use is inconsistent with the capture and use of stormwater or other physical conditions on site that preclude the use of plants for evapotranspiration or bioinfiltration.
- Retention and/or use of stormwater onsite or discharge of stormwater onsite via infiltration has a significant adverse effect on the site or the down gradient water balance of surface waters, ground waters or receiving watershed ecological processes.

Please note that a single one of these characteristics is very unlikely to preclude meeting the performance standard, but a combination of factors may. In cases where the facility has a defensible showing of technical infeasibility and can provide adequate documentation of site conditions or other factors that preclude full implementation of the performance design goal, the facility should still install stormwater practices to infiltrate, evapotranspire and/or harvest and use onsite the maximum amount of stormwater technically feasible.

Limits on Technical Infeasibility

No new project shall be determined Technically Infeasible.

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

NON-STORMWATER DISCHARGE: Discharge to the City of New Bedford municipal storm drain system not composed entirely of stormwater.

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

PERSON/PARTY: Includes any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to City ordinances, administrative agency, public or quasi-public corporation or body, the City of New Bedford, and any other legal entity, its legal representatives, agents, or assigns.

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

PRE-DEVELOPMENT: The conditions that exist at the time that plans for the land development of a tract of land are submitted to the Conservation Commission. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time prior to the first plan submission shall establish pre-development conditions.

POST-DEVELOPMENT: The condition that reasonably may be expected or anticipated to exist after completion of the land development activity on a specific site or tract of land. Post-development refers to the phase of a new development or redevelopment project after completion, and does not refer to the construction phase of a project.

RECORD 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 Stormwater Management Permit; otherwise known as an “as-built” plan.

REDEVELOPMENT: Any construction, alteration, or improvement on existing land that contains impervious cover and provided that the activity does not involve an increase in the net amount of impervious cover.

SASSAQUIN POND STORMWATER MANAGEMENT PERMIT (SMP): A permit issued by the Conservation Commission, after review of an application, plans, calculations, and other supporting documents, which is designed to protect Sassaquin Pond from the deleterious effects of uncontrolled and untreated stormwater runoff.

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

STOP WORK ORDER: An order issued by the Conservation Commission that requires that all construction activity on a site be stopped until further notice.

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

Water Quality Volume: The volume generated by the first 1.70 inches of stormwater runoff. This first flush of runoff carries the majority of accumulated pollutants from impervious surfaces.

4.0 SCOPE AND APPLICABILITY

- A) No person shall alter land within the Watershed without having obtained a Stormwater Permit. Said activities that alter land are:

1. All new development and redevelopment projects, including, but not limited to, any activities requiring a Site Plan application or Subdivision application;
2. Any activity that will result in an increased amount of stormwater runoff or pollutants flowing from a parcel of land;
3. Any land alterations, including, excavation, paving, or any activity that will alter the drainage characteristics of a parcel of land unless exempt pursuant to Section 2.B of this Ordinance;
4. Any activity that requires a curb cutting or street opening permit;
5. Any increase in impervious area on a parcel of land that is currently greater than or equal to 15% impervious cover, or that will result in a total of 15% impervious cover or greater upon completion of the proposed project; and/or
5. An alteration, redevelopment, or conversion of land use to a hotspot, patio, retaining wall, tennis court or basketball court.

B) Exemptions

No person shall alter land within the Watershed without having obtained a Stormwater Permit with the following exceptions:

1. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act 310 CMR 10.04 and MGL Chapter 40A Section 3;
2. Any work or projects for which all necessary approvals and permits have been issued before the effective date of this Ordinance;
3. Repair or replacement of an existing roof;
4. The construction or repair of any fence or wall that will not alter the existing terrain or drainage patterns;
5. Construction of utilities (gas, water, electric, telephone, etc.) other than drainage, which will not permanently alter terrain, ground cover, or drainage patterns;
6. Emergency repairs that pose a threat to public health, safety, the environment, or as deemed necessary by the City of New Bedford; provided that the original design location, size, and technology of such facility remain the same;
7. Work performed by the City of New Bedford;
8. Residential driveways that are not impervious; and
9. Existing decks and driveways in compliance with other City permits.
10. Redevelopment projects are presumed to meet the specified Stormwater requirements described in the Stormwater Regulations of the City of New Bedford if one of the following criteria is met:
 - a) The total impervious cover is reduced by 30% from existing conditions;
 - b) Where site conditions prevent the reduction in impervious cover, stormwater practices are implemented to provide stormwater controls for at least 30% of the site's impervious area; or
 - c) When a combination of impervious area reduction and implementation of stormwater management practices is used for redevelopment projects, the combination of impervious area reduction and the area controlled by a stormwater management practice is equal or exceed.

5.0 FEES

At the time of an application, the applicant shall pay a filing fee.

Pursuant to G.L. Ch. 44 §53G and regulations promulgated by the Conservation Commission, reasonable fees may be imposed upon applicants for the purpose of securing outside consultants including engineers or other experts in order to aid in the review of proposed projects. Such funds shall be deposited with the City treasurer, who shall create an account specifically for this purpose. Additional consultant fees may be requested where the requisite review is more expensive than originally calculated or where new information requires additional consultant services.

Only costs relating to consultant work done in connection with a project for which a consultant fee has been collected shall be paid from this account and expenditures may be made at the sole discretion of the Conservation Commission. Any consultant hired under this provision shall be selected by and report exclusively to the Conservation Commission. The Conservation Commission shall provide applicants with written notice of the selection of a consultant, identifying the consultant, the amount of the fee to be charged to the applicant, and a request for payment of that fee. Notice shall be deemed to have been given on the date it is mailed or delivered. The applicant may withdraw the application or request within five (5) business days of the date notice is given without incurring any costs or expenses.

6.0 PERMIT PROCEDURES

Permit Procedures and Requirements, including right-of-entry, fee schedule, shall be defined and included as part of the Regulations.

7.0 PERFORMANCE STANDARDS

The control of stormwater runoff shall meet the design requirements for both flood (volume and peak discharge) control and non-point source pollution as indicated the Plan and in Volume 3 of the Massachusetts Stormwater Design Requirements of the Handbook with the following exceptions and additions:

- A) Standard 4 – Water Quality: Water Quality Depth (D_{wq}) as described in Volume 3, Chapter 1, page 32, shall be 1.70 inches for all projects. Prior to discharge into all treatment SMSs, for compliance with Standard 11, the removal of a minimum of 44% TSS is required.
- B) Standard 11 – Volume Control: The runoff from the 1.70 inch storm shall be shall be retained onsite to the Maximum Extent Technically Feasible (METF).
- C) Low Impact Development (LID) Credits: LID credits as stipulated in the Handbook are not recognized by this Ordinance. The Commission encourages reduction of impervious areas and the disconnecting of impervious surfaces, both of which are recognized in TR-55 and TR-20 modeling. For some LID practices, research is ongoing and use of Runoff Curve Numbers (“RCN”) not listed below should be reviewed by the Buzzards Bay National Estuary Program (“BBNEP”) (i.e. practices such as block pavers). The review

of the proposed RCN by the BBNEP should be submitted with the Plan. For the LID land uses listed below, use the RCN provided:

D) New Runoff Curve Numbers (not currently found in TR-55 or TR-20)

Treatment	Runoff Curve Number (RCN)
Green roofs	88 ¹
Paved areas w/ tree canopy	92 ²
Gravel road or parking lot	95
Gravel road or parking lot w/ tree canopy	89
Water	100
Bioretention facility	80 ³
Bioretention facility with tree canopy	74
Pervious pavers	75 ⁴
Lawn, no soil amendment	80
Lawn w/ 4" compost soil amendment ⁵	
HSG A	36
HSG B	58
HSG C	72
HSG D	77

E) Treatment Train Calculations: To achieve the water quality discharge limits, treatment trains are permitted. Calculations as to the additive nature of specific BMP strategies must be documented using the Handbook, but street sweeping shall receive no credit.

F) Prohibited Practices: The following practices are prohibited

1. Pervious pavements for road surfaces.
2. Below grade infiltration structures in residential settings for the treatment and/or control of road runoff.

G) Inspection and Maintenance for Commercial Sites:

1. All SMS shall be inspected and maintained by the owner(s) in accordance with these specifications. The applicant shall post acceptable surety to cover the cost of maintenance of the selected SMS. The cost shall cover anticipated maintenance costs (including full or partial replacement, if necessary) and will be determined by the

C)

¹ The RCN of 88 is based on study by Amy Moran with 4 inches of growth medium. Curve numbers for differing depths may be accepted by the Board provided proper documentation is provided to and approved by the Buzzards Bay National Estuary Program.

² Tree canopy may be determined by documentation of species canopy size at ten years growth. For more information on the effect of trees on the RCN use CITYgreen software from American Rivers.

³ North Carolina State University is performing extensive research on this subject. Visit their website for the latest research results. Biofilters treat pollutants but also reduce volume through evapotranspiration.

⁴ See the North Carolina State University Urban Waterways fact sheet "Permeable Pavement: Research Update and Design Implications" available at <http://www.bae.ncsu.edu/stormwater/PublicationFiles/PermPave2008.pdf>

⁵ Installed pursuant to "Hydrologic Response on Residential Scale Lawns on Till Containing Various Amounts of Soil Amendment."

Commission. The surety mechanism shall be structured to allow the City to draw funds as necessary to conduct maintenance activities.

2. After the SMS has been constructed and before the Performance Guarantee for the development has been released, the applicant shall submit an "as-built" plan detailing the actual SMS as installed. The consulting engineer for the Conservation Commission shall inspect the SMS to confirm its as-built features. This engineer shall also evaluate the effectiveness of the SMS in an actual storm. 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 Plan, it shall be corrected before the performance guarantee is released. Cases of inadequacy shall be limited to: errors in the infiltrative capability, errors in the maximum ground water elevation, failure to properly define or construct flow paths, or erosive discharges from basins.
3. All SMS must undergo inspections to document maintenance and repair needs and ensure compliance with the requirements of this section and accomplishment of its purposes as specified in the O&M Plan. A maintenance agreement between the owner and the City shall be executed for privately-owned SMS that specifies the responsible party for conducting long term inspections. At a minimum, inspections shall occur during the first year of operation and at least once every three (3) years thereafter.
4. Inspection reports shall be submitted to and maintained by the Conservation Commission for all SMS. Inspection reports for SMS shall include the name of the inspector, the date of inspection; and the condition of the following:
 - Pretreatment devices
 - Vegetation or filter media
 - Fences or other safety devices
 - Spillways, valves, or other control structures
 - Embankments, slopes, and safety benches
 - Reservoir or treatment areas
 - Inlet and outlet channels and structures
 - Underground drainage
 - Sediment and debris accumulation in storage and fore bay areas (including catch basins)
 - Any nonstructural practices
 - Any other item that could affect the proper function of the SMS
5. Parties responsible for the operation and maintenance of a SMS shall provide records of all maintenance and repairs to the Conservation Commission upon request. Parties responsible for the operation and maintenance of a SMS shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five (5) years. These records shall be made available to the Conservation Commission during inspection of the facility and at other reasonable times upon request.
6. If a responsible person fails or refuses to meet the requirements of the inspection and maintenance agreement, the Conservation Commission, after thirty (30) days written

notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, twenty-four (24) hours notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. The Conservation Commission may assess the owner(s) of the facility for the cost of repair work, which shall be a lien on the property.

7. After notification is provided to the person responsible for carrying out the maintenance plan of any deficiencies discovered from an inspection of a SMS, the person responsible for carrying out the maintenance plan shall have 30 days or other time frame mutually agreed to between the Board and the person responsible for carrying out the maintenance plan to correct the deficiencies. The Conservation Commission shall then conduct a subsequent inspection to ensure completion of repairs.

8.0 PERFORMANCE GUARANTEE

The Conservation Commission may require the applicant to post a surety bond, cash, or other acceptable security, approved by the Commission.

9.0 ENFORCEMENT

No person shall alter land within the Watershed without having obtained a Stormwater Permit, or cause, suffer, or allow such activity, or otherwise fail to restore illegally altered land to its original condition, or fail to comply with a permit or an enforcement order issued pursuant to this ordinance.

The Conservation Commission, its agents, officers, and employees shall have authority to enter upon privately owned land for the purpose of performing their duties under this ordinance and may make or cause to be made such examinations, surveys, or sampling as the Conservation Commission deems necessary, subject to the constitutions and laws of the United States and the Commonwealth.

The Conservation Commission shall have authority to enforce this ordinance, its regulations, and permits issued there under by letters, phone calls, electronic communication and other informal methods, violation notices, non-criminal citations under G.L. Ch. 40 §21D, and civil and criminal court actions. Any person who violates provisions of this bylaw may be ordered to restore the property to its original condition and take other action deemed necessary to remedy such violations, or may be fined, or both.

Any person who violates any provision of this Ordinance, regulations, permits, or administrative orders issued there under, shall be punished by a fine of not more than \$300. Each day during which a violation continues or other alteration remains in place, shall constitute a separate offense, and each provision of the ordinance, regulations, permits, or administrative orders violated shall constitute a separate offense.

As an alternative to criminal prosecution in a specific case, the Conservation Commission may issue citations with specific penalties pursuant to the non-criminal disposition procedure set forth in G.L. Ch. 40 sec. 21D.

11.0 SEVERABILITY

The invalidity of any section, provision, paragraph, sentence, or clause of this Ordinance shall not invalidate any other section, provision, sentence, or clause thereof, nor shall it invalidate any permit or determination that previously has been issued.