

CHAPTER W

By-law for the Control of Post Construction Stormwater Runoff

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Section 1. General Provisions

1.1. Findings of Fact

It is hereby determined that:

Land development projects and associated increases in impervious cover alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition;

This stormwater runoff contributes to increased quantities of water-borne pollutants, and;

Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from development sites.

The Town of Acton is required to take appropriate regulatory and management measures to address these stormwater runoff consequence under the Town of Acton National Pollutant Discharge Elimination System (NPDES) Permit, issued by the US Environmental Protection Agency (EPA).

Therefore, the **Town of Acton** establishes this set of water quality and quantity policies applicable to all surface waters to provide reasonable guidance for the regulation of stormwater runoff for the purpose of protecting local water resources from degradation. It is determined that the regulation of stormwater runoff discharges from land development projects and other construction activities in order to control and minimize increases in stormwater runoff rates and

volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will prevent threats to public health and safety.

1.2. Purpose

The purpose of this by-law is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within this jurisdiction. This seeks to meet that purpose through the following objectives:

- (1). Achieve zero increase whenever possible, in stormwater runoff from any development or re-development in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion, maintain the integrity of stream channels, and maintain quality and quantity of zones 1 and 2 recharge areas.
- (2). Minimize increases in nonpoint source pollution caused by stormwater runoff from development which would otherwise degrade local water quality.
- (3). Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practicable.
- (4). Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.
- (5) Take all appropriate measures towards playing Acton's role in meeting the mandated reduction in nonpoint source pollutant contributions to exceeding phosphorus limits for the Assabet River TMDL established by the Massachusetts DEP and any future related State and Federal mandates related to target water bodies.
(<http://www.mass.gov/dep/water/resources/tmdls.htm#suasco>).

Section 2. Definitions Question for Roland – Are there other definitions in zoning that these definitions may be different from? Goal is to have uniform definitions to create modified definitions if needed

"Accelerated Erosion" means erosion caused by development activities that exceeds the natural processes by which the surface of the land is worn away by the action of water, wind, or chemical action.

"Administrative Authority" is as defined in section 3.0.

"Authorized Enforcement Agency" to be determined.

"Applicant" means a property owner or agent of a property owner (for example a contractor or A-E-C consulting company) who has filed an application for a stormwater management permit.

"Building" means any structure, either temporary or permanent, occupying more than 100 square feet of area, typically having a roof and floor, designed for the shelter of any person, animal, or property, inclusive of garages, parking structures and decks.

"Channel" means a natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

"Detention" means the temporary storage of storm runoff defined by a stormwater management practice with the goals of controlling peak discharge rates and providing gravity settling of pollutants.

"Detention Facility" means a detention basin or alternative structure designed for the purpose of temporary storage of stormwater flow or surface runoff and gradual release of stored water at controlled rates.

"Developer" means a person who undertakes land disturbance activities.

"Drainage Easement" means a legal right granted by a landowner allowing the use of private land for stormwater management purposes.

"Erosion and Sediment Control Plan" means a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.

"Footprint" –means the area of ground covered by permittable structures and/or impervious surfaces.

"Hydrologic Soil Group (HSG)" means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from A soils, with high permeability and little runoff production, to D soils, which have low permeability rates and produce much more runoff.

"Impervious Cover" and **"Impervious Surface"** both mean those surfaces that cannot effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, compacted soils, etc.).

"Industrial Stormwater Permit" means an National Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

"Infiltration" means the process of percolating stormwater into the subsoil.

"Infiltration Facility" means any structure or device designed to infiltrate retained water to the subsurface. These facilities may be above grade or below grade.

"**Jurisdictional Wetland**" is as defined in the Town of Acton's Wetland Bylaw (Chapter F) and Commonwealth of Massachusetts, Wetland Protection Act Regulations (310CMR 10.00, 2005 revisions or their successors.)

"**Land Disturbance Activity**" means any activity which changes the expected volume or expected peak flow discharge rate of rainfall runoff from the land surface. This may include the grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse. **Question for Rob Bukowski – is expected the right term in the first two lines?**

"**Maintenance Agreement**" means a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices.

"**Nonpoint Source Pollution**" means pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources

"**Off-Site Facility**" means a stormwater management measure located outside the subject property boundary described in the permit application for land development activity.

"**On-Site Facility**" means a stormwater management measure located within the subject property boundary described in the permit application for land development activity.

"**Person**" shall mean an individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person

"**Property owner**" means the legal or beneficial owner of land and any real property, including those holding the right to purchase or lease the land or property, or any other person holding proprietary rights in the land or property.

"**Recharge**" means the replenishment of underground water reserves.

"**Redevelopment**" means any construction, alteration or improvement exceeding [100] square feet

"**Stop Work Order**" means an order issued which requires that all construction and land disturbance activity on a site be stopped.

"**Storm Water Management**" means the use of structural or non-structural practices that are designed to reduce storm water runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat.

"Storm Water Retrofit" means a stormwater management practice designed for an existing development site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.

"Stormwater Runoff" means flow on the surface of the ground, resulting from precipitation.

"Stormwater Treatment Practices (STPs)" means measures, either structural or nonstructural, that are determined to prevent or reduce point source or nonpoint source pollution inputs to stormwater runoff, water bodies, and infiltration.

"Water Quality Volume (WQ_v)" means the storage needed to capture and treat 90% of the average annual stormwater runoff volume. Numerically (WQ_v) will vary as a function of long term rainfall statistical data.

"Watershed Plan" means local or regional watershed, water resources or pollution protection plans for protection or management of streams and water bodies in Acton as adopted by an agency recognized by the Town of Acton.

"Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

"Zone A" means the (a) the land area between the surface water source and the upper boundary of the bank;

(b) the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source, as defined in 314 CMR 4.05(3)(a); and

(c) the land area within a 200 foot lateral distance from the upper boundary of the bank of a tributary or associated surface water body.

"Zones One, Two, Three and Four" mean the respective Town of Acton Groundwater Protection Zone land areas as defined in Section 4.3.2 of the Town of Acton Zoning Bylaw. Any property crossing two or more zones shall be, for purposes of this Bylaw, be classified as belonging to the lowest zone number it contacts.

Section 3: Authority and Applicability

3.0. Administrative Authority

This Bylaw shall be administered by the Water Resources Advisory Committee ("administrative body.") This committee shall consist of five or seven citizens and two voting alternates appointed by the Board of Selectmen.

All development and post construction storm water permit decisions of this Committee have as their appeal route the Zoning Board of Appeals.

3.1. Applicability

3.1.1. A storm water management permit shall be required for any of the following, except for an activity exempt per Section 3.2 as follows:

MINOR PERMIT (A minor permit is mainly for notification purposes and will generally be granted on submission of permit application):

- In Groundwater Zone Two, all projects involving additions to impervious surface when after completion of the project, the impervious surface is less than 15% of the lot.
- In Groundwater Zone Three or Four, all projects involving additions to impervious surface when after completion of the project, the impervious surface is less than 25% of the lot but in excess of 15% of the lot.
- Any other projects involving paving or re-paving of driveways, parking lots or other surfaces except for the Town of Acton Highway Department and the Water Supply District of Acton, who may obtain one blanket permit on an annual basis for all paving activities.

MAJOR PERMIT (A major permit must be submitted for review and action by the Administrative Authority, as laid out in the Stormwater Manual):

- In designated Groundwater Zone One, all projects involving any expansion of impervious surface except for projects undertaken by the Water Supply District of Acton that are reviewed and approved in advance by the Administrative Authority.
- In Groundwater Zone Two, all projects involving additions to impervious surface when after completion of the project, the impervious surface is greater than 15% of the lot.
- In Groundwater Zone Three or Four, all projects involving additions to impervious surface when after completion of the project, the impervious surface is greater than 25% of the lot.
- Any land disturbance within 200 feet of a surface water body or wetland, or if not within 200 feet, when the disturbance impacts the lesser of 20% of the lot size or 5000 square feet
- Paving within 200 feet of a surface water body or wetland, in Zone 1 or 2 or in a Village District
- Any Subdivisions

The permitting requirements are summarized in section 4.1.

3.1.2 Additionally, this by-law shall be applicable to ALL subdivision or site plan applications, unless eligible for an exemption or granted a waiver by the Administrative Authority under the specifications of Section 5.1 of this by-law. **Question for Roland – does this definition capture special permits reviewed by BoS or do we need to specifically address in this section?**

3.1.3 The by-law also applies to land development activities that are smaller than the minimum applicability criteria if such activities are part of a larger common plan of development that meets the following applicability criteria, even though multiple separate and distinct land development activities may take place at different times on different schedules.

3.1.4 In addition, all plans must also be reviewed by Acton Health Department officials to ensure that established water quality standards will be maintained during and after development of the site and that post construction runoff levels are consistent with any local and regional watershed plans.

3.2. Exempted Activities

The following activities may be exempt from the requirement to demonstrate that they meet storm water performance criteria:

3.2.1 Any logging and agricultural activity which is consistent with an approved soil conservation plan or a timber management plan prepared or approved by the (**appropriate agency**) **Question for Roland – what is the appropriate agency**, as applicable.

3.2.2 Additions or modifications to existing single family structures in a Zone Three or Four and in which the total parcel's impervious surface area is not increased by more than 15%.

3.2.3 Any work or projects for which all necessary approvals and permits were issued before the effective date of this Bylaw.

3.2.4 Construction of any fence that will not alter existing terrain or drainage patterns.

3.2.5 Construction of utilities (gas, water, sanitary sewer, electric, telephone, cable television etc.) other than drainage which will not alter the terrain, ground cover, or drainage patterns, so long as State of Massachusetts accepted BMP's are used to prevent erosion, sedimentation and release of pollutants.

3.2.6 Emergency repairs to existing utilities (gas, water, sanitary sewer, electric, telephone, cable television etc)

3.2.7 Repairs to any storm water treatment practice deemed necessary by the Administrative Authority.

3.3. Compatibility with Other Permit and By-law Requirements

This by-law is not intended to interfere with, abrogate, or annul any other by-law, rule or regulation, statute, or other provision of law. The requirements of this by-law should be considered minimum requirements, and where any provision of this by-law imposes restrictions different from those imposed by any other by-law, rule or 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.

3.4. Severability

If the provisions of any article, section, subsection, paragraph, subdivision or clause of this by-law shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this by-law.

3.5. Development of a Stormwater Design Manual

The Administrative Authority will utilize the policy, criteria and information including specifications and standards of the most recent edition of the Massachusetts Stormwater Handbook for execution of provisions of this By-Law. An Acton Stormwater Management Manual will be developed to provide operational guidance on the application of the Bylaw. Unless otherwise specified in this Bylaw, stormwater management practices that are designed constructed and maintained in accordance with these design and sizing criteria as defined by the Massachusetts Stormwater Handbook and are put into operation in accordance with the Acton Stormwater Management Manual will be presumed to be protective of Massachusetts water quality standards and the NPDES Municipal Separate Storm Sewer System (MSSSS) permit.

This Acton Stormwater Management Manual will include the operational standards of the acceptable stormwater treatment and maintenance requirements for each stormwater practice which is deemed acceptable under the requirements of this by-law. The manual may be updated and expanded from time to time, at the discretion of the local review authority, based on improvements in engineering, science, monitoring and local maintenance experience. The initial version of this manual is mandated to be promulgated within twelve months of this Bylaw passing into law. Stormwater treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards

3.6. Review of Existing Stormwater Criteria

The 80% removal level of total suspended solids (TSS) that is in the Massachusetts Stormwater Handbook is mandated by this Bylaw to be reviewed within 15 years of the date of passage of this by-law, by the Administrative Authority, and brought to the Acton Town Meeting for renewal or modification of this removal level, based on best practical removal standards at that future date.

Section 4. Permit Procedures and Requirements

4.1. Permit Required

No property owner or property operator shall commence any land disturbance activities, paving or other activities that would increase impervious surface area without first meeting the requirements of this by-law and obtaining any permits prior to commencing the proposed activity, irrespective of having receive any of the other building, grading or other land development permits required for their proposed development.

The size, type and location of activities that trigger permit application requirements are enumerated in Table 1

TABLE 1 STORMWATER PERMIT REQUIREMENTS TABLE

| Regulated Item | No Permit | Minor Permit | Regular Permit |
|---------------------|--|---|---|
| Land Disturbance | Not within 200 feet of surface water and disturbance of less than the lesser of 20% of lot size or 5,000 square feet | No minor required | Within 200 feet of surface water, or if the lesser of 20% of lot size or 5,000 square feet disturbed |
| Impervious Surfaces | | | In Zone 1 and Zone A |
| | | In Zone 2 and impervious surfaces are less than 15% of lot size after modifications made | In Zone 2 and impervious surfaces are greater than 15% of lot size after modifications made |
| | In Zone 3 or Zone 4 and impervious surfaces are less than 15% of lot size after modifications made | In Zone 3 or Zone 4 and impervious surfaces are less than 25% but greater than 15% of lot size after modifications made | In Zone 3 or Zone 4 and impervious surfaces are greater than 25% of lot size after modifications made |
| Paving | Repair only | All new paving (replace or add paving) | If in Zone 1, A or 2 or Village district or if proximity to surface water is within 200 feet |
| Subdivision | N/A | N/A | Always required as part of any subdivision approval |

4.2. Application Requirements

Unless specifically excluded by this by-law, any land owner or operator desiring a permit for a land disturbance activity shall submit to the Administrative Authority a permit application on a form provided for that purpose as follows:

MINOR PERMITS: Minor permits applications will be accepted online only, by filling in the online form at the Acton MA website (www.acton.ma.gov/) and paying the required fee online. For minor permits, the only required action is the online form.

Such minor permit shall be considered approved automatically upon successful submission.

However, if the project does not qualify for a minor permit, as specified in Table 1, above, then there is no automatic approval by submitting a minor permit form, and a major permit application must be submitted.

MAJOR PERMITS: Unless otherwise exempted by this by-law, a major permit application must in general be accompanied by the following in order that the permit application be considered: a stormwater management concept plan and associated engineering analysis; a maintenance plan and agreement; and a non-refundable permit review fee. The applicant is encouraged to review a preliminary plan with the Administrative Authority to determine which of the above documents will be required for the permit review.

The stormwater management plan shall be prepared to meet the requirements of Section 6 of this by-law, the maintenance agreement shall be prepared to meet the requirements of Section 9 of this by-law, and fees shall be those established by the Administrative Authority.

4.3. Application Review Fees

The fee structure for review of any land development application shall be established by the Administrative Authority. All of the monetary contributions shall be credited to a local budgetary category to support local plan review, inspection and program administration, and shall be made prior to the issuance of any building permit for the project.

4.4. Application Procedure

The following will apply:

- Applications for land disturbance activity permits must be filed via an online form available on the Town of Acton website, or if being filed as part of a subdivision development plan, may be filed with the Planning Department.
- As a part of the online process or in-person process, a copy of this permit application shall be forwarded to Administrative Authority for review
- Permit applications shall include the following: two copies of the stormwater management concept plan, two copies of the maintenance agreement, and any required review fees (or electronic copy if filed online).

- Within sixty [60] business days of the receipt of a complete permit application, including all documents as required by this by-law, the Administrative Authority shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved unless an extension is required or requested. Any application for a major permit that is being submitted as part of a subdivision plan shall be governed by the rules, time periods, and review process for the subdivision plan, under the purview of the Planning Board.
- If the permit application, stormwater management plan or maintenance agreement are disapproved, the applicant may revise the stormwater management plan or agreement and resubmit it within ninety [90] days. If additional information is submitted, the Administrative Authority shall have thirty [30] business days from the date the additional information is received to inform the applicant that the plan and maintenance agreement are either approved or disapproved.
- If the permit application, final stormwater management plan and maintenance agreement are approved by the Administrative Authority, all appropriate land disturbance activity permits shall be issued.

4.5. Permit Duration

Permits issued under this section shall be valid for 36 months or through the date the **Administrative Authority** notifies the permit holder that all stormwater management practices have passed the final inspection required under permit condition(s), whichever comes sooner.

- If the permitted development is not begun within 18 months of permit issuance, the permit lapses and must be resubmitted in order to commence the proposed activity.
- Subdivision permit duration should follow the subdivision special permit conditions.

A request for extension may be granted at the discretion of the committee

Section 5. Stormwater Management Waivers and Variances

5.1. Waivers for Providing Stormwater Management

Every applicant shall provide for stormwater management as required by this by-law, unless a written request is filed to waive this requirement. Requests to waive the stormwater management plan requirements shall be submitted to the **Administrative Authority** for approval.

The minimum requirements for stormwater management may be waived in whole or in part (i.e., provide for a variance) upon written request of the applicant, provided that at least one of the following conditions applies:

- It can be demonstrated that the proposed development is not likely to impair the attainment of the objectives of this by-law.
- Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the Administrative Authority and the implementation of the plan is required by local bylaw
- Provisions are made to manage storm water by an off-site facility. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of stormwater control that is equal to or greater than that which would be afforded by on-site practices and there is a legally obligated entity responsible for long-term operation and maintenance of the storm water practice. The applicant will pay for an expert consultant to be engaged by Administrative Authority to review the adequacy of the plan.
- The Administrative Authority finds that meeting the minimum on-site management requirements is not feasible due to the natural or existing physical characteristics of a site and the applicant agrees to pay a fee in lieu of management.

In instances where one of the conditions above applies, the Administrative Authority may grant a variance with these stormwater management provisions, as long as acceptable and corresponding mitigation measures, as enumerated below, are provided.

The guidelines to be followed by the Administrative Authority should be to require mitigation that achieves equivalent overall stormwater mitigation as would be required onsite.

Applicant must pay any costs required for an outside consultant to demonstrate appropriateness of the proposed variance criteria

To be eligible for a variance, the applicant must demonstrate to the satisfaction of the Administrative Authority that the variance will not result in the following impacts to downstream waterways and groundwater:

- Deterioration of existing culverts, bridges, dams, and other structures;
- Degradation of biological functions or habitat;
- Accelerated streambank or streambed erosion or siltation;
- Increased threat of flood damage to public health, life, or property;
- Degradation of groundwater quality

Furthermore, where compliance with minimum requirements for stormwater management is waived, the applicant will satisfy the minimum requirements by meeting one of the mitigation measures selected by the jurisdictional stormwater authority. Mitigation measures may include, but are not limited to, the following:

- The purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or reforestation. These lands should be located adjacent to

the stream corridor in order to provide permanent buffer areas to protect water quality and aquatic habitat,

- The purchase and donation of privately owned lands for the purpose of construction of an off-site stormwater management facility. The creation of a stormwater management facility or other drainage improvements on previously developed properties, public or private, that currently lack stormwater management facilities designed and constructed in accordance with the purposes and standards of this by-law,
- Monetary contributions (Fee-in-Lieu) to fund stormwater management activities such as management practices, monitoring and public education (e.g., regional wetland delineation studies, stream and groundwater monitoring studies for water quality and macro-invertebrates, stream flow monitoring, threatened and endangered species studies, hydrologic studies, and construction, maintenance and monitoring of stormwater management practices).

Section 6. General Performance Criteria for Stormwater Management

Unless judged by the Administrative Authority to be exempt or granted a waiver or variance, the performance criteria from the standards in the Massachusetts Stormwater Handbook shall be met in the designs for stormwater management at all sites which fall under the permitting criteria and subject to the following adjustments to those standards and additional requirements:

6.1.1. In determining if the minimum requirement that, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type, applicant must demonstrate that stormwater for recharge will not include measurable pollutant components, or that stormwater to be recharged be pre-treated to remove any regulated pollutants to the levels of TBD standards (input from Rob). Additionally, subsurface sewage disposal system infiltration volume shall not be counted towards recharge flow calculations.

6.1.2. For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Administrative Authority to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

6.1.3. Stormwater discharges within the Town of Acton Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific

structural stormwater best management practices determined by the Authority to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A “storm water discharge” as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Town of Acton Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

6.1.4. A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

6.1.5. A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

6.1.6. With respect to the long-term operation and maintenance plan to be developed and implemented to ensure that stormwater management systems function as designed, the operators of approved stormwater management systems are required to submit to the Administrative Authority an annual request for permit renewal. Such renewal request is to incorporate a Certification of Performance of and compliance with the terms of the operation and maintenance plan for the prior year.

6.1.7. Limits are placed on impervious surfaces which should not exceed the following:

Town of Acton Zone 1 or Zone A of (400 feet from a surface water reservoir) and 100 feet from its tributaries, the percentage of impervious surface cannot exceed 10%

- Town of Acton Zone 2, percentage of impervious surface cannot exceed 25% and cannot exceed 15% unless the performance standards are met at a **yet to be defined level (e.g., must meet performance standards as if had only 15% impervious surface) Question for Rob Bukowski – any recommendations on what added standard we might impose in addition to the requirement in the next sentence.** The maximum dissolved chemical content of the water discharged may not exceed or must be treated on-site not to exceed, prior to discharge to the disturbed parcel, the TBD requirements (e.g., standards for water quality-based effluent limitations (WQBELs) from EPA's November 22, 2002 memorandum from Robert H. Wayland, III, Director of the Office of Wetlands, Oceans and Watersheds,

and James A. Hanlon, Director of the Office of Wastewater Management, on the subject of "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stann Water Sources and NPDES Permit Requirements Based on Those WLAs" (hereafter "2002 memorandum"). **Question for Matt and Ron – what was the standard you mentioned at our last meeting – car washes?**

Section 7. Basic Stormwater Management Design Criteria and Requirements for Stormwater Management Plan Approval

7.1 Design Criteria and Approval

The basic stormwater management design criteria and requirements for stormwater management plan approval shall follow those criteria and requirements as prescribed by the Massachusetts Stormwater Handbook and to the extent an Acton Stormwater Management Manual is developed, as supplemented by the Acton Stormwater Management Manual.

7.2 Other Environmental Permits

The applicant shall assure that all other applicable environmental permits have been acquired for the site prior to approval of the final stormwater design plan.

7.3 Performance Bond/Security

The Administrative Authority may, at its discretion, require the submittal of a performance security or bond prior to issuance of a permit in order to insure that the stormwater practices are installed by the permit holder as required by the approved stormwater management plan. The amount of the installation performance security shall be the total estimated construction cost of the stormwater management practices approved under the permit, plus 25%. The performance security shall contain forfeiture provisions for failure to complete work specified in the stormwater management plan.

The installation performance security shall be released in full only upon submission of "as built plans" and written certification by a registered professional engineer that the stormwater practice has been installed in accordance with the approved plan and other applicable provisions of this by-law. The Administrative Authority will make a final inspection of the stormwater practice to ensure that it is in compliance with the approved plan and the provisions of this by-law. Provisions for a partial pro-rata release of the performance security based on the completion of various development stages can be done at the discretion of the Administrative Authority.

Section 8. Construction Inspection Provisions

8.1. Notice of Construction Commencement

The applicant must notify the Administrative Authority in advance before the commencement of construction. Regular inspections of the stormwater management system construction shall be

conducted by the staff of the Administrative Authority or certified by a professional engineer or their designee who has been approved by the jurisdictional stormwater authority. All inspections shall be documented and written reports prepared that contain the following information:

- The date and location of the inspection;
- Whether construction is in compliance with the approved stormwater management plan
- Variations from the approved construction specifications
- Any violations that exist

If any violations are found, the property owner shall be notified in writing of the nature of the violation and the required corrective actions. No added work shall proceed until any violations are corrected and all work previously completed has received approval by the Administrative Authority.

8.2. As Built Plans

All applicants are required to submit actual "as built" plans for any stormwater management practices located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a professional engineer. A final inspection by the Administrative Authority is required before the release of any performance securities can occur.

8.3. Landscaping and Stabilization Requirements

Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be revegetated within ten (10) days from the substantial completion of such clearing and construction. The following criteria shall apply to revegetation efforts:

Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.

Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what

practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape architect or by the soil conservation district, and must be approved prior to receiving a permit.

Section 9. Maintenance and Repair of Stormwater Facilities

9.1. Maintenance Easement

Prior to the issuance of any permit that has an stormwater management facility as one of the requirements of the permit, the applicant or owner of the site must execute a maintenance easement agreement that shall be binding on all subsequent owners of land served by the stormwater management facility. The agreement shall provide for access to the facility at reasonable times for periodic inspection by the Administrative Authority, or their contractor or agent, and for regular or special assessments of property owners to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this by-law. The easement agreement shall be recorded by the Administrative Authority in the land records.

9.2. Maintenance Covenants

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the Administrative Authority and recorded into the land record prior to final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the stormwater management facility. The covenant shall also include plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts.

The Administrative Authority, in lieu of a maintenance covenant, may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this chapter and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

9.3. Requirements for Maintenance Covenants

All stormwater management facilities must undergo, at the minimum, an annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this by-law and accomplishment of its purposes. These needs may include; removal of silt, litter and other debris from all catch basins, inlets and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance needs found must be addressed in a timely manner, as determined by the **Administrative Authority**, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater management facility.

9.4. Inspection of Stormwater Facilities

Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other stormwater treatment practices.

9.5. Right-of-Entry for Inspection

When any new drainage control facility is installed on private property, or when any new connection is made between private property and a public drainage control system, sanitary sewer or combined sewer, the property owner shall grant to the **Administrative Authority** the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this by-law is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this by-law.

9.6. Records of Installation and Maintenance Activities

Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least 15 years. These records shall be made available to the Administrative Authority during inspection of the facility and at other reasonable times upon request. **Question for legal counsel – is 15 years a reasonable period?**

9.7 Failure to Maintain Practices

If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the Administrative Authority, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the Administrative Authority shall notify the party responsible for maintenance of the stormwater management facility in writing. Upon receipt of that notice, the responsible person shall have the lesser of 15 calendar days or the number of days specified in the notice to effect maintenance and repair of the facility in an approved manner. After proper notice, the Administrative Authority may assess the owner(s) of the facility for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by the Town.

9.8 Annual Request for Permit Renewal

With respect to the long-term operation and maintenance plan to be developed and implemented to ensure that stormwater management systems function as designed, the operators of approved stormwater management systems are required to submit to the Administrative Authority an annual request for permit renewal. Such renewal request is to incorporate a Certification of Performance of and compliance with the terms of the operation and maintenance plan for the prior year.

Section 10. Enforcement and Penalties.

10.1. Violations

10.1.1 The Authorized Enforcement Agency shall enforce this bylaw, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

10.1.2 Civil Relief. If a Person violates the provisions of this bylaw or any regulations, permits, notices, or orders issued thereunder, the Authorized Enforcement Agency may seek injunctive relief in a court of competent jurisdiction restraining the Person from activities which would create further violations or compelling the Person to perform abatement or remediation of the violation.

10.2. Notice of Violation

When the Administrative Authority determines that an activity is not being carried out in accordance with the requirements of this By-law, it shall issue a written notice of violation to the owner of the property. The notice of violation shall contain:

- (1) the name and address of the owner or applicant;
- (2) the address when available or a description of the building, structure or land upon which the violation is occurring;
- (3) a statement specifying the nature of the violation;
- (4) a description of the remedial measures necessary to bring the development activity into compliance with this By-law and a time schedule for the completion of such remedial action;
- (5) a statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed;
- (6) a statement that the determination of violation may be appealed to the municipality by filing a written notice of appeal within fifteen (15) days of service of notice of violation.

10.3 Orders.

Once a determination of violation has been made, the Authorized Enforcement Agency may issue a written order to enforce the provisions of this bylaw or the regulations thereunder, which may include but is not limited to the following requirements:

1. Cease and desist from land-disturbing activity until there is compliance with the By-Law or provisions of an approved Stormwater Management Permit;
2. Maintain, install or perform additional erosion and sediment control measures;
3. Perform monitoring, analyses, and reporting;
4. Remediate erosion and sedimentation resulting directly or indirectly from land-disturbing activity;
5. Comply with requirements in the Stormwater Management Permit for operation and maintenance of stormwater management systems; and,
6. Remediate adverse impacts resulting directly or indirectly from malfunction of the stormwater management systems.

Failure by the Authorized Enforcement Agency to issue a written order shall not relieve the violator of the Person's responsibilities under this bylaw.

Copies of all orders shall be made available for public inspection at the Office of the Town Clerk during normal business hours, beginning the next business day after issuance. Inspection and copying shall be permitted according to the provisions of Massachusetts law. These records shall be retained to the extent required by Massachusetts law.

10.3.1. If the Board or its designated agent determines that abatement or remediation of contamination is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town of Acton may, at its option, undertake such work, and expenses thereof shall be charged to the violator.

10.4. Costs for Services Performed by Town of Acton

After completion of all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be invoiced for the costs incurred by the Town of Acton, including administrative costs. The violator or property owner may file a written protest objecting to the invoice amount or basis of costs with the Board within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of the Board affirming or reducing the costs, or within thirty (30) days from a final decision of a court of competent jurisdiction, the invoice amounts shall become a special assessment against the property owner and shall constitute a lien on the owner's property for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. Ch. 59, § 57 after the thirty-first day at which the payment for the invoice first becomes due.

10.5. Stop Work Orders

Persons receiving a notice of violation will be required to halt all construction activities. This "stop work order" will be in effect until the Administrative Authority confirms that the development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a notice of violation in a timely manner can result in civil, criminal, or monetary penalties in accordance with the enforcement measures authorized in this by-law.

10.6. Civil and Criminal Penalties

10.6.1. Criminal Penalty. Any Person who violates any provision of this bylaw, regulation, order or permit issued thereunder, shall be punished by a fine of not more than \$ 300.00 per day, excluding the cost of damages. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

10.6.2. Non-Criminal Disposition. As an alternative to criminal prosecution or civil action, the Town of Acton may elect to utilize the non-criminal disposition procedure set forth in G.L. Ch. 40, §21D and the Town of Acton General Bylaws Chapter E 45 in which case the Board or its authorized agent or employee shall be the enforcing person. The penalty for the first violation shall be \$100.00 per day. The penalty for the second violation shall be \$200.00 per day. The penalty for the 3rd and subsequent violations shall be \$300.00 per day. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

10.7. Appeals. Appeals of orders of an Agent of the Board may be made in writing to the Board within seven business days from receipt of order and reviewed at the next regularly scheduled meeting of the Board. The decisions or orders of the Board may be appealed in writing to the Board of Selectmen within seven business days of the decision and reviewed at the next regularly scheduled meeting of the Board of Selectmen. Further relief shall be to a court of competent jurisdiction.

10.8. Remedies Not Exclusive. The remedies listed in this bylaw are not exclusive of any other remedies available under any applicable Federal, state or local law.

10.9. Restoration of Lands. Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the Administrative Authority may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

10.10. Holds on Occupation Permits. Occupation permits will not be granted until corrections to all stormwater practices have been made and accepted by the Administrative Authority.

10.11. Entry to Perform Duties under this Bylaw. To the extent permitted by State law, or if authorized by the owner or other party in control of the property, the Board, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this bylaw and regulations and may make or cause to be made such examinations, surveys or sampling as the Board deems reasonably necessary.

Approved by: _____ Date _____