



Town of Bellingham

STORMWATER MANAGEMENT AND EROSION CONTROL HANDBOOK

Prepared by:

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December 2007

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INTRODUCTION

Over the past several years, the Bellingham Planning Board, the Department of Public Works, the Water Resources Committee and the Conservation Commission, have worked toward updating our stormwater regulations and policies consistent with State and Federal guidelines and protecting our natural water resources through improved stormwater and erosion control guidelines. This handbook, in which we eventually hope to include stormwater design guidelines, contains our current stormwater policies (also available in the Planning Board Procedural Rules), as well the application form, checklists and operation and maintenance plan agreement.

Stormwater Management Plan Guidelines

(Excerpt from Bellingham Planning Board Procedural Rules)

7.0 SECTION SEVEN: STORMWATER MANAGEMENT PLAN FOR NEW DEVELOPMENTS AND REDEVELOPMENTS

7.1 Purpose. Regulation of discharges to the municipal separate storm sewer system (hereinafter MS4) is necessary for the protection of the water bodies and groundwater located in Bellingham, and to safeguard the public health, safety, welfare and the environment. Increased and contaminated stormwater runoff associated with developed land uses and the accompanying increase in impervious surfaces are major causes of impairment of water quality in lakes, ponds, streams, rivers, wetlands and groundwater, contamination of drinking water supplies, erosion of stream channels; alteration or destruction of aquatic and wildlife habitat; and flooding.

Therefore, these regulations establish stormwater management standards for the conditions that result from development and redevelopment projects to minimize adverse impacts offsite and downstream which would be borne by abutters, townspeople and the general public.

The objectives of these regulations are:

- To require practices to control the flow of stormwater from new and redeveloped sites into the town storm drainage system in order to prevent flooding and erosion;
- To protect groundwater and surface water from degradation;
- To promote groundwater recharge;
- To prevent pollutants from entering the Bellingham municipal separate storm sewer system (MS4) and to minimize discharge of pollutants from the MS4;
- To ensure adequate long-term operation and maintenance of structural stormwater best management practices so that they work as designed;
- To comply with state and federal statutes and regulations relating to stormwater discharges; and
- To establish the town's legal authority to ensure compliance with the provisions of these regulations through inspection, monitoring, and enforcement.

7.2 Definitions

ALTERATION OF DRAINAGE CHARACTERISTICS: Any activity on an area of land that changes the water quality, force, direction, timing or location of runoff flowing from the area. Such changes include: change from distributed runoff to confined, discrete discharge, change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area.

BEST MANAGEMENT PRACTICE (BMP): An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff.

THE BOARD: Shall be the Bellingham Planning Board.

CLEARING: Any activity that removes the vegetative surface cover.

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

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

EROSION AND SEDIMENTATION CONTROL PLAN: A document containing narrative, drawings and details developed by a qualified professional engineer (PE) or a public land surveyor (PLS), which includes best management practices, or equivalent measures designed to control surface runoff, erosion and sedimentation during preconstruction and construction related land disturbance activities.

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

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

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

LOW IMPACT SITE DESIGN: Site design approaches and techniques that can reduce a site's impact on the watershed through the use of nonstructural Stormwater Management practices. Low impact site design includes conserving and protecting natural areas and greenspace, reducing impervious cover, and using natural features for Stormwater Management.

MASSACHUSETTS STORMWATER MANAGEMENT POLICY: The Policy issued by the Department of Environmental Protection, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act G.L. c. 131 § 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56. The Policy addresses stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or 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 Town of Bellingham.

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

OUTFALL: The point at which stormwater flows out 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 into any Water Resource.

OUTSTANDING RESOURCE WATERS (ORWs): Waters designated by Massachusetts Department of Environmental Protection as ORWs. These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards (314 CMR 4.00), and the Massachusetts Stormwater Management Standards as it exists at the time these regulations are accepted. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated.

OWNER: A person with a legal or equitable interest in property.

PERSON: A person, firm, or corporation

PRE-CONSTRUCTION: All activity in preparation for construction.

REDEVELOPMENT: Development, rehabilitation, expansion, demolition or phased projects that disturb the ground surface or increase the impervious area on previously developed sites.

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

STORMWATER MANAGEMENT PLAN: A plan required as part of the application for a Stormwater Management Permit. See Section 3307.

STORMWATER: Storm water runoff, snowmelt runoff, and surface water runoff and drainage.

TSS: Total Suspended Solids.

WATER RESOURCE: The MS4 and all public and private receiving surface and ground waters including: all waters within the jurisdiction of the Commonwealth of Massachusetts, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, costal waters, and groundwater.

7.3 Authority. These regulations are adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34.

7.4 Applicability.

7.4.1 No person may cause an Alteration of Drainage Characteristics or undertake a construction activity, including clearing, grading and excavation that results in a land disturbance that will disturb an area equal to or greater than one acre of land or will disturb less than one acre of land but is part of a larger common plan of development or redevelopment that will ultimately disturb an area equal to or greater than one acre of land draining to the Bellingham MS4 without a permit from the Board. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity or the original purpose of the site.

7.4.2 Exemptions

- (A) Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04;
- (B) Maintenance of existing landscaping, gardens or lawn areas associated with a single family dwelling;

- (C) The construction of fencing that will not substantially alter existing terrain or drainage patterns;
- (D) Construction of utilities other than drainage (gas, water, wastewater, electric, telephone, etc.), which will not alter terrain or drainage patterns.

7.5 Administration

- 7.5.1 The Board, shall administer, implement and enforce these regulations. Any powers granted to or duties imposed upon the Board may be delegated in writing by the Board to its employees, representatives, or agents.
- 7.5.2 Rules and Regulations. The Board may adopt, and periodically amend, these rules and regulations relating to the procedures and administration of these Stormwater Management regulations, by majority vote of the Board, but no less than three members voting in the affirmative. Vote to be taken 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.

7.6 Permits and Procedures

- 7.6.1 Filing Application. The site owner or his agent shall file with the Board, a completed application package for a Stormwater Management Permit (hereinafter SM Permit) as part of the Development Plan Review, Definitive Subdivision, or any application that is submitted to the Board, which includes the disturbance of one acre of earth. SM Permit issuance is required prior to commencement of any site altering activity. The applicant for a SM Permit must be either the site owner or a representative of the site owner. All projects requiring a Stormwater Permit shall submit a Stormwater Management Plan as specified in this section, and shall meet the Performance Standards in Section 7.7 of these regulations. A Stormwater Management Plan shall include Erosion and Sediment Control Plan and an Operation and Maintenance Plan as specified in this section.
- 7.6.2 Entry. Filing an application for a permit grants the Board, or its agent, permission to enter the site to verify the information in the application and to inspect for compliance with the resulting permit.
- 7.6.3 Fee Structure. Section 3.5 of these Procedural Rules explains the fees and charges.
- 7.6.4 Public Hearing. The Board shall hold a public hearing for the SW Permit concurrent with the required hearing for a Development Plan Review,

Definitive Subdivision, or any application that is submitted to the Board, which includes the disturbance of one acre of earth.

- 7.6.5 Actions. The Board's action, rendered in writing, shall consist of either:
- (A) Approval of the Stormwater Management Permit Application based upon determination that the proposed plan meets the Standards in Section 7.7 and will adequately protect the water resources of the community and is in compliance with the requirements set forth in these regulations;
 - (B) Approval of the Stormwater Management Permit Application subject to any conditions, modifications or restrictions required by the Board which will ensure that the project meets the Standards in Section 7.7 and adequately protect water resources, set forth in these regulations;
 - (C) Disapproval of the Stormwater Management Permit Application based upon a determination that the proposed plan, as submitted, does not meet the Standards in Section 7.7 or adequately protect water resources, as set forth in these regulations.
- 7.6.6 Plan Changes. The Applicant must notify the Board in writing of any drainage change or alteration in the system authorized in a SM Permit before any change or alteration is made. If the Board determines that the change or alteration is significant, based on the Stormwater Management Standards in Section 7.7.2. and accepted construction practices, the Board may require that an amended application be filed and a public hearing held.
- 7.6.7 Project Completion. At completion of the project, the Applicant shall submit to the Board as-built record drawings of all structural stormwater controls and treatment best management practices required for the site. The as-built drawing shall show deviations from the approved plans, if any, and be certified by a Registered Professional Engineer.

7.7 Stormwater Management Plan

- 7.7.1 Erosion and Sediment Control Plan Standards. The Erosion and Sediment Control Plan shall be designed to ensure compliance with the SM Permit, these Regulations. The Board shall make the final decision of what erosion and sediment control option(s) are appropriate in a given situation. The Board will consider natural features, proximity of site to water bodies and wetlands.
- 7.7.2 Stormwater Management Plan Standards. The Stormwater Management Plan shall be designed to ensure compliance with the SM Permit, and

these Regulations. The Board will consider natural features, proximity of site to water bodies and wetlands, extent of impervious surfaces proposed, size of the site, and the types of stormwater management structures proposed.

- 7.7.3 Operation and Maintenance Plan Standards. The Operation and Maintenance Plan shall be designed to ensure compliance with the SM Permit, these regulations. The Board shall make the final decision of what maintenance option is appropriate in a given situation. The Board will consider natural features, proximity of site to water bodies and wetlands, extent of impervious surfaces, size of the site, the types of stormwater management structures, and potential need for ongoing maintenance activities when making this decision.

7.8 Plan Specific Requirements and Contents

- 7.8.1 Erosion and Sediment Control Plan. An Erosion and Sediment Control Plan is required at the time of application for all projects. Plan Approval by the Board is required prior to any site altering activity. The Erosion and Sediment Control Plan shall remain on file with the Board.

If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NPDES General Permit for Storm Water Discharges from Construction Activities, then the applicant is required to submit a complete copy of the SWPPP (including the signed Notice of Intent and approval letter). If the SWPPP meets the requirements of Section 3 of the General Permit, it will be considered equivalent to the Erosion and Sediment Control Plan described in this section.

The Erosion and Sediment Control Plan shall contain sufficient information to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sedimentation controls. The applicant shall submit such material as is necessary to show that the proposed development will comply with the design standards and contain the information listed below.

The Erosion and Sediment Control Plan shall contain the following information:

- (A) Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan.
- (B) Title, date, north arrow, names of abutters, scale (1"=20' or 1"=40'), legend, and locus map (1"=800').
- (C) Location and description of natural features including:

1. Watercourses and water bodies, wetland resource areas, riparian zones and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by a professional engineer for areas not assessed on these maps;
 2. Existing vegetation of various kinds including tree lines, shrub layer, ground cover and herbaceous vegetation, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities;
 3. Habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, Potential Vernal Pools, and Priority Habitats of Rare Species within five hundred (500) feet of any construction activity.
- (D) Lines of existing abutting streets showing drainage and driveway locations and curb cuts.
- (E) Existing soils (type, hydrologic group, potential for soil to erode (i.e. Erodibility)) and the volume and nature of imported soil materials.
- (F) Topographical features including existing and proposed contours at intervals no greater than two (2) feet with spot elevations provided when needed.
- (G) Steep slopes for pre-development and post-development conditions, delineated by 0%-15%, 15%-25%, and over 25%.
- (H) Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed.
- (I) Drainage patterns, watersheds and sub-watersheds, with calculations of proposed land disturbance within each sub-watershed and areas of soil to be disturbed in each watershed throughout the duration of the proposed land disturbance activity.
- (J) Location and details of erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, and material stockpiling areas.
- (K) Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable.

- (L) Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other temporary and final stabilization measures.
- (M) A description of construction and waste materials expected to be stored on-site. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
- (N) A description of provisions for phasing the project where 40,000 square feet of contiguous area or greater is to be altered or disturbed.
- (O) Plans, reports, and calculations must be stamped and certified by a qualified professional engineer (PE) or a professional public land surveyor (PLS).
- (P) Such other information as is required by the Board.

7.8.2 Stormwater Management Plan. The application for a SM Permit shall consist of submittal of a Stormwater Management Plan to the Board. This Stormwater Management Plan shall contain sufficient information for the Board to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Applicant for reducing adverse impacts from stormwater.

The Stormwater Management Plan shall fully describe the project in drawings, and narrative. It shall include:

- (A) The name, address, and telephone number of the proposed SM System Manager;
- (B) A locus map;
- (C) The existing zoning, and land use at the site;
- (D) The proposed land use;
- (E) The location(s) of existing and proposed easements;
- (F) The location of existing and proposed utilities;
- (G) The site's existing & proposed topography with contours at 2 foot intervals;
- (H) The existing site hydrology;
- (I) A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows;
- (J) A delineation of 100-year flood plains, if applicable;

- (K) Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration;
- (L) The existing and proposed vegetation and ground surfaces with runoff coefficient for each;
- (M) A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths;
- (N) A description and drawings of all components of the proposed drainage system including:
 - 1. locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization,
 - 2. all measures for the detention, retention or infiltration of water,
 - 3. all measures for the protection of water quality,
 - 4. the structural details for all components of the proposed drainage systems and stormwater management facilities,
 - 5. notes on drawings specifying materials to be used, construction specifications, and
 - 6. expected hydrology with supporting calculations.
- (O) Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable,
- (P) Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization,
- (Q) A maintenance schedule for the period of construction, and
- (R) Any other information requested by the Board.

7.8.3 Operation and Maintenance Plans. An Operation and Maintenance plan (O&M Plan) is required at the time of application for all projects. The O&M Plan shall remain on file with the Board and shall be an ongoing requirement.

The O&M Plan shall include:

- (A) The name(s) of the owner(s) for all components of the system;
- (B) Maintenance agreements that specify:
 - 1. The name, address, and phone number of the Stormwater Management System Manager;

2. The person(s) responsible for financing maintenance and emergency repairs;
 3. A Maintenance Schedule for all drainage structures, including swales and ponds;
 4. A list of easements with the purpose and location of each;
 5. The signature(s) of the owner(s).
- (C) Stormwater Management Easement(s) – (The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.) Stormwater management easements shall be provided by the property owner(s) as necessary for:
1. Access for facility inspections and maintenance;
 2. Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event;
 3. Direct maintenance access by heavy equipment to structures requiring regular cleanout.
- (D) Stormwater management easements granting the Town or the Stormwater Management System Manager sufficient access are required for all areas used for off-site stormwater control, unless the Board grants a waiver.
- (E) Prior to issuance of a Certificate of Completion the Board, easements shall be recorded with the Norfolk County Registry of Deeds.

7.8.4 Changes to Operation and Maintenance Plans.

- (A) The Stormwater Management System Manager must notify the Board of changes in ownership or assignment of financial responsibility;
- (B) The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of these regulations by mutual agreement of the Board 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 Stormwater Management System Manager.

7.9 Guaranty. The Board shall utilize whatever means necessary to insure that all construction, maintenance, and operations measures, hereinafter call SW Permit Requirements, approved as part of the SW Permit are fully implemented. In general the guaranty shall be in the following form for various types of projects:

- **Subdivision of Land.** The value of any SW Permit Requirements shall be included in the routine security and Form J Price Guaranty utilized for subdivision security. The security, and any related covenants, shall be in place prior to the release of lots for construction within a phase of the subdivisions. The Board shall be the sole judge as to what portions of any SW Permit tasks are part of any phase.
- **Site Development.** It is required as a condition of the issuance certificates of occupancy that all SW Permit Requirements be completed. No certificate of occupancy for any building in the project will be issued until a SM Permit Final Acceptance letter is issued to the SW System Manager.
- **Other Project or Redevelopment.** The Board will required the Applicant for any redevelopment project, or other such project for which certificates of occupancy will not be required, to post a surety bond, irrevocable letter of credit, cash, or other acceptable security, before the start of land disturbance or construction activity. Said security shall ensure that the work will be completed in accordance with the SM Permit Requirements. The form of the bond shall be approved by town counsel, and be in an amount deemed sufficient by the Board.
- **Surety Release.** If the project is phased, the Board may release buildings for occupancy or part of the bond as each phase is completed in compliance with the SW Permit but the bond may not be fully released until the Board has received the final inspection report as required by Section 7.10 and issued a SM Permit final acceptance letter.

7.10 Inspections. The Board or its authorized agent(s) shall inspect the project site at the following stages:

- **Initial Site Inspection.** Prior to approval of any plan.
- **Erosion Control Inspection.** Shall be continuously performed during construction operations and to ensure erosion control practices are in accord with the filed plan until construction work is complete to the point that the Stormwater Management and Operations and Maintenance Plans go into effect.
- **Bury Inspection.** Prior to backfilling of any underground drainage or stormwater conveyance structures.
- **Final Inspection.** After the stormwater management system has been constructed and before the surety has been released, the Applicant must

submit a record plan detailing the actual stormwater management system as installed. The Board shall inspect the system to confirm its "as-built" features. This inspector shall 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 Board. 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 SM Permit, the Applicant shall correct it before the performance guarantee is released. If the Applicant fails to act the Board may use the surety bond to complete the work.

Examples of inadequacy shall be limited to: errors in the infiltrative capability, errors in the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges from basins.

7.11 Waivers. The Board may waive strict compliance with any requirement of their rules and regulations promulgated hereunder, where:

- Such action is allowed by federal, state and local statutes and/or regulations,;
- Is in the public interest, and;
- Is not inconsistent with the purpose and intent of these regulations.

Any Applicant may submit a written request to be granted such a waiver. Such a request shall be accompanied by an explanation or documentation supporting the waiver request and demonstrating that strict application of these regulations does not further the purposes or objectives of these regulations.

All waiver requests shall be discussed and voted on at the public hearing for the project.

If in the Board opinion, additional time or information is required for review of a waiver request, the Board may continue a hearing to a date certain announced at the meeting. In the event the Applicant objects to a continuance, or fails to provide requested information, the waiver request shall be denied.

7.12 Construction Completion and Final Acceptance of Stormwater Plan. The Board will issue a SM Permit Final Acceptance letter to the SM System Manager upon completion of the construction, and approval of the final inspection reports and/or upon otherwise determining that all work has been satisfactorily completed in conformance with the SM Permit. SM Permit Final Acceptance letter shall signify acceptance of the O&M Plan. Security noted in Section 7.9, shall not be released until the SM Permit Final Acceptance letter has been issued.

7.13 Enforcement. The Board or an authorized agent of the Board shall enforce these regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

7.13.1 Orders

- (A) The Board may issue a written order to enforce the provisions of these regulations or the regulations there under, which may include requirements to:
1. cease and desist from construction or land disturbing activity until there is compliance with these regulations and the stormwater management permit;
 2. repair, maintain; or replace the stormwater management system or portions thereof in accordance with the operation and maintenance plan;
 3. perform monitoring, analyses, and reporting;
 4. remediate adverse impact resulting directly or indirectly from malfunction of the stormwater management system.
- (B) If the Board determines that abatement or remediation of adverse impacts 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 Board may, at its option, undertake such work, and the property owner shall reimburse the Board expenses.
- (C) Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner shall be notified of the costs incurred by the Board, including administrative costs. The violator or property owner may file a written protest objecting to the 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 from a final decision of a court of competent jurisdiction, the costs 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, as it exists at the time these regulations were accepted, after the thirty-first day at which the costs first become due.

7.14 APPEALS. The decisions or orders of the Board shall be final. Further relief shall be to a court of competent jurisdiction.

7.15 REMEDIES NOT EXCLUSIVE. The remedies listed in these regulations are not exclusive of any other remedies available under any applicable federal, state or local law.

7.16 SEVERABILITY. If any provision, paragraph, sentence, or clause of these regulations shall be held invalid for any reason, all other provisions shall continue in full force and effect.

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
APPLICATION**

Date Received by Planning Board _____

To the Town of Bellingham Planning Board I, the undersigned wish to submit a Stormwater Management Permit Application as defined in the Zoning Bylaws of the Town of Bellingham Paragraph 3280, Town General Bylaw 19.08, and Section 7 of the Planning Board Procedural rules and requests a review and determination by Planning Board of the Stormwater Erosion and Sedimentation Control Plan, Stormwater Management Plan, and Operations and Maintenance Plan subitted herewith.

Filing Application. The site owner or appointed agent shall file with the Board, a completed application package for a Stormwater Management Permit (hereinafter SM Permit) as part of the Development Plan Review, Definitive Subdivision, or any application that is submitted to the Board, which includes the disturbance of one acre of earth. SM Permit issuance is required prior to commencement of any site altering activity. The applicant for a SM Permit must be either the site owner or a representative of the site owner. All projects requiring a Stormwater Permit shall submit a Stormwater Management Plan as specified in this section, and shall meet the Performance Standards in Section 7.7 of these regulations. A Stormwater Management Plan shall include Erosion and Sediment Control Plan and an Operation and Maintenance Plan as specified in this section.

Project Name _____

Project Address _____

Name of Applicant

Name	_____
Address	_____
Phone	_____
Email	_____
Applicant's Signature	_____

Property Owner

Name	_____
Address	_____
Phone	_____
Email	_____
Owner's Signature	_____

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
APPLICATION**

Engineer

Name	_____
Address	_____
Phone	_____
Email	_____

Stormwater System Manager

Name	_____
Address	_____
Phone	_____
Email	_____

The Stormwater Management Plan involves property where the owner's title to the land is derived from a deed recorded at the Norfolk Registry of Deeds with the following references:

Book	_____	Page	_____	Land Court Cert of Title No.	_____
		Assessors Map No.	_____	Parcel No.	_____
Existing Zoning	_____				

Plans and Drawings

Title	_____
Dated	_____

Brief summary of the nature of the project.

The property (building) is currently used as:	_____

The changes proposed to be made are:	_____

The land area that will be disturbed is:	_____

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST**

STORMWATER MANAGEMENT PLAN

Date Received _____

The application for a SM Permit shall consist of the submittal of a Stormwater Management Plan to the Board. This Stormwater Management Plan shall contain sufficient information for the Board to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Applicant for reducing adverse impacts from stormwater.

Project Name _____

Project Address _____

Applicant _____

The Stormwater Management Plan shall fully describe the project in drawings, and narrative all should appear on the project Plans. Information that appears on the plan shall include:

- | | | |
|---------------------------------|--------------------------------|--|
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | The location(s) of existing and proposed easements; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | The location of existing and proposed utilities; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | The site's existing & proposed topography with contours at 2 foot intervals; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | Existing vegetation of various kinds including tree lines, shrub layer, ground cover and herbaceous vegetation, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | The existing site hydrology; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows; |
| Yes
<input type="checkbox"/> | No
<input type="checkbox"/> | A delineation of 100-year flood plains, if applicable; |

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST**

STORMWATER MANAGEMENT PLAN

Yes <input type="checkbox"/>	No <input type="checkbox"/>	Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or
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Yes <input type="checkbox"/>	No <input type="checkbox"/>	The existing and proposed vegetation and ground surfaces with runoff coefficient for each;
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Yes <input type="checkbox"/>	No <input type="checkbox"/>	A description and drawings of all components of the proposed drainage system including:
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Yes <input type="checkbox"/>	No <input type="checkbox"/>	A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths;
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A description and drawings of all components of the proposed drainage system including:

Yes <input type="checkbox"/>	No <input type="checkbox"/>	Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization,
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Yes <input type="checkbox"/>	No <input type="checkbox"/>	All measures for the detention, retention or infiltration of water,
---------------------------------	--------------------------------	---

Yes <input type="checkbox"/>	No <input type="checkbox"/>	All measures for the protection of water quality,
---------------------------------	--------------------------------	---

Yes <input type="checkbox"/>	No <input type="checkbox"/>	The structural details for all components of the proposed drainage systems and stormwater management facilities,
---------------------------------	--------------------------------	--

Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes on drawings specifying materials to be used, construction specifications
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Yes <input type="checkbox"/>	No <input type="checkbox"/>	Expected hydrology with supporting calculations. (Attach extra pages as necessary)
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**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST**

STORMWATER MANAGEMENT PLAN

Yes No

Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable,

Yes No

Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization,

Narrative:

Yes No

A maintenance schedule for the period of construction,

Narrative:

Yes No

Such other information as is required by the Board.
(to be attached prior to permit issuance)

BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST

EROSION AND SEDIMENTATION PLAN

Date Received _____

The application for a SM Permit shall consist of submittal of a Stormwater Erosion and Sedimentation Control Plan to the Board. This Erosion and Sedimentation Plan and Drawings shall contain sufficient information for the Board to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the Applicant for reducing adverse impacts from stormwater.

Project Name _____

Project Address _____

Applicant _____

Yes No

Locus Map (1" = 800' Maximum)

Yes No

North Arrow(s)

Yes No

List of Abutters (Attach List)

Location and description of natural features including:

Yes No

Watercourses and water bodies, wetland resource areas, riparian zones and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by a professional engineer for areas not assessed on these maps;

Yes No

Existing vegetation of various kinds including tree lines, shrub layer, ground cover and herbaceous vegetation, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities;

Yes No

Habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, Potential Vernal Pools, and Priority Habitats of Rare Species within five hundred (500) feet of any construction activity.

Yes No

Lines of existing abutting streets showing drainage and driveway locations and curb cuts.

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST**

EROSION AND SEDIMENTATION PLAN

Yes No
 Existing soils (type, hydrologic group, potential for soil to erode (i.e. Erodibility)) and the volume and nature of imported soil materials.

Yes No
 Topographical features including existing and proposed contours at intervals no greater than two (2) feet with spot elevations provided when needed

Yes No
 Steep slopes for pre-development and post-development conditions, delineated by 0%-15%, 15%-25%, and over 25%.

Yes No
 Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed.

Yes No
 Drainage patterns, watersheds and sub-watersheds, with calculations of proposed land disturbance within each sub-watershed and areas of soil to be disturbed in each watershed throughout the duration of the proposed land disturbance activity. (Attach extra sheets as needed.)

Yes No
 Location and details of erosion and sediment control measures

Narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, and material stockpiling areas.

Yes No
 Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable.

**BELLINGHAM PLANNING BOARD
STORMWATER MANAGEMENT PERMIT
SUBMITTAL CHECKLIST**

EROSION AND SEDIMENTATION PLAN

Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other temporary and final stabilization measures.

A description of construction and waste materials expected to be stored on-site. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.

A description of provisions for phasing the project where 40,000 square feet of contiguous area or greater is to be altered or disturbed.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Plans, reports, and calculations must be stamped and certified by a qualified professional engineer (PE) or a professional public land surveyor (PLS).

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Such other information as is required by the Board.
(to be attached prior to permit issuance)

BELLINGHAM PLANNING BOARD

2 Mechanic Street
BELLINGHAM, MASSACHUSETTS 02019
(508)-657-2892; FAX (508) 966-2317
PlanningBoard@bellinghamma.org

STORMWATER MANAGEMENT SYSTEM OPERATIONS AND MAINTENANCE PLAN AND AGREEMENT

An Operation and Maintenance plan (O&M Plan) is required at the time of application for all projects. The O&M Plan shall remain on file with the Planning Board and shall be an ongoing requirement.

Date Approved _____

Project Name _____

Project Address _____

Name of Owners of All Components

Attach sheets if more than one owner

Name	_____
Address	_____
Phone	_____
Email	_____
Owner's Signature	_____

Storm Water System Manager

Name	_____
Address	_____
Phone	_____
Email	_____

Maintenance Financing Contact

Name	_____
Address	_____
Phone	_____
Email	_____

Emergency Repair Contact

Name	_____
Address	_____
Phone	_____
Email	_____

