

Construction Site Stormwater Runoff Control Program Summary

Town of Sandwich

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INSPECTION REPORT**

1 Introduction

This Construction Site Stormwater Runoff Control Program Summary has been prepared by Town of Sandwich to address requirements of the United States Environmental Protection Agency's (USEPA's) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as the "2016 Massachusetts MS4 Permit" or "MS4 Permit."

This Program addresses Minimum Control Measure 4, Construction Site Stormwater Runoff Control, by describing the activities and procedures the Town of Sandwich implements to mitigate impacts from construction site stormwater runoff to adjacent water bodies. The Program describes the regulatory framework that has been established requiring erosion, sediment, and waste controls at construction sites and the Town's site plan review process, inspection, and enforcement provisions. This Program applies to construction activities that may discharge to the MS4 that involve land disturbance within the MS4 area of greater than or equal to one acre, and areas less than one acre if part of a larger activity that would disturb more than one acre within the MS4 in the aggregate.

2 Regulatory Framework

Section 2.3.5 of the MS4 Permit requires, in part, that the Town maintain an ordinance or regulatory mechanism that requires the use of sediment and erosion control practices as well as waste controls at applicable construction sites. This is addressed through numerous stormwater runoff and erosion control laws and regulations have been adopted and are included in the Town By-Laws, Protective Zoning By-Laws and the Subdivision Rules and Regulations. The stormwater laws and regulations are enforced by the Building Department, Zoning Board of Appeals, Planning Board Health Department, and the Conservation Commission and inspected by the Building Department, Engineering Department, Health Department, and the Department of Natural Resources. While too extensive to list, below is a description of some of the current laws and regulations directly or indirectly related to stormwater impacts. More detailed information on these laws and regulations may be found on the Town's website at: www.SandwichMass.org

Town By-Laws

The Town Bylaws include the following laws related to stormwater impacts:

- *Illegal Disposal (Section 4.00)* – Prohibits the dumping of materials and wastes on Town-owned properties and lists fines for such violations.
- *Excavations (Section 6.25)* - Addresses illegal removal of soil, loam and gravel and covers permit requirements.
- *Wetland Protection (Chapter 7)* – Details the wetlands protection laws and the requirements of the Conservation Commission.
- *Boat Operations and Use of Waterways (Pollution - Section 9.07 and 9.09)* – Addresses discharge or disposal of pollutants on, into or near water bodies in Sandwich.
- *Driveway Regulations (Bylaw Appendix)* – Requires temporary driveway apron of crushed stone to minimize erosion and runoff onto adjacent streets.

These provisions are administered and enforced by various Town Departments.

Protective Zoning By-Laws

The Zoning By-law is administered and enforced by the Zoning Board of Appeals and the Building Commissioner.

- *Enforcement and Fines (1240 and 1250)* – Covers enforcements and fines related to violations of the Zoning ByLaw, including erosion control standards.
- *Performance Bonds for Erosion Control (1260)* – Requires performance bond or deposit as security against possible costs due to erosion or damage on town streets.
- *Minimum Lot Requirements (2600.1)* – Minimum lot sizes for new subdivisions must be 2 acres within the Water Resource District.
- *On-Site Waste Disposal (3430 & 3431)* – Addresses control of wastes and required permits.
- *Landscaping (3500)* – Regulates lot coverage areas and requires re-vegetation.
- *Erosion Control (3530)* – Lists regulations for erosion control during construction.
- *Site Requirements (3853)* – Stormwater runoff shall be contained on-site.
- *Earth Moving Regulations (4200)* – Regulates earthwork and requires permits from the ZBA.
- *Water Protection Districts (5000)* – A Water Resource Overlay District and Surface Water Protection District have been established to preserve the quality and quantity of the Town's groundwater resources in order to ensure a safe and healthy public water supply. The Water Resource Overlay District can be seen in Figure 3-2. The Surface Water District includes surface water bodies. Section 5000 includes regulations and performance standards dealing issues such as stormwater runoff, limits on fertilizer applications and nutrient loading.
- *Water Quality Review Committee (5050)* – A Water Quality Review Committee (WQRC) was established to enforce the regulations of the Water Resource Overlay District. The committee comprises of one member each from the Board of Selectman, Board of Health, Planning Board, Conservation Commission, Water District and the Health Agent. Certificates of Water Quality Compliance shall be obtained from the WQRC for new construction within the District.
- *Three Ponds District (7000)* - The Three Ponds District was established to preserve the environmental, scenic and natural qualities of this sensitive area, including the protection of surface and groundwater resources. The District, including Lawrence Pond, Triangle Pond and Spectacle Pond can be seen on the Three Ponds District map (Figure 4-1). The District includes 692 acres of land and 313 acres of pond surface. Regulations address issues such as land use, stormwater, septic systems, pesticides, and fertilizers to protect this sensitive environment.

Subdivision Rules and Regulations

The Subdivision Rules and Regulations address erosion control and stormwater runoff during construction and post-development.

- *Contents (Section 3.0)* – Requires plan and profile of drainage system and calculations from a registered Professional Engineer. Requires an erosion control plan and a landscape plan including methods of slope stabilization. Requires a Subdivision Maintenance Plan detailing inspection and maintenance practices for the street pavement, drainage facilities, landscaped areas, open spaces, and other common features.
- *Design Requirements (Drainage, Section 4.C)* – Established standards requiring compliance with MassDEP standards and design up to the 100-year storm for all subdivisions. No stormwater flow shall be conveyed over or under town ways.
- *Construction Specifications (Drainage, Section 5.C)* – Addresses drainage requirements during construction.

- *Construction Specifications (Erosion, Section 5T)* – Erosion shall be controlled as approved by the Planning Board.
- *Maintenance (Section 5R)* – Requires maintenance of the drainage facilities during construction activities. Subdivision inspections are typically performed by the Engineering Department and enforcement is in conjunction with the Planning Board and Building Department.

Conservation Commission – Wetland Protection

The State wetland protection laws are incorporated in the Town Bylaws and enforced by the Conservation Commission. The Department of Natural Resources has developed a guideline, pursuant to the Wetlands Bylaw and Conservation Commission Regulations that establishes criteria and standards for the submission of filings and information to the Commission. Together, these set stringent rules and enforcement procedures governing runoff flowing into wetlands and other resource areas. These include provisions for erosion and sediment controls and waste controls.

Board of Health Regulations

The Health Department administers and enforces various state and local laws and regulations. These include the State Sanitary Code Title V and Board of Health Regulations governing installation and use of on-site septic systems, as well as regulations pertaining to waste hauling and disposal, floor drains, and other issues affecting stormwater runoff quality.

3 Site Plan Review, Inspection, and Enforcement

The Town offers Site Plan Review processes for the various types of construction permitted. These processes differ depending on the type and complexity of the work proposed and the legal framework that regulates the activities. Each process includes review of erosion and sedimentation controls and waste controls as well as drainage and other elements. Generally, construction activities disturbing an acre or more of land, whether on a single site or part of a common plan, require permits through the Town. There are various permits required depending on the activities proposed. Activities involving a single lot or a single facility on several lots require either a Special Permit or a “By-right” permit. Division of land into multiple lots and construction of associated roads and infrastructure requires subdivision approval. Other permits through the Conservation Commission and Board of Health may be required depending on the facilities proposed and proximity to nearby resources.

Special Permits

Many types of major construction projects require Special Permit approval under the Zoning Bylaw. Under this, the Special Permit Granting Authority (SPGA), which is typically the Zoning Board of Appeals or the Planning Board depending on the specific zoning provision, conducts a formal review of the site plan and other application materials through a public hearing process. As noted above, erosion controls, waste controls, and other elements are required by the Zoning Bylaw. The SPGA checks for compliance and conditions the resulting permits as appropriate to ensure compliance. Town staff from Building, Planning, Health, Conservation, Engineering, and others assist with review of the plan and application. The specific process is detailed in Section 1330 and elsewhere in the Protective Zoning Bylaw. Inspection and enforcement is conducted by qualified Building Department staff.

“By-right” Permits

The Protective Zoning Bylaw allows for some types of construction projects to be permitted through a streamlined “By-right” process directly through the Building Department. In this, review through a public hearing conducted by the SPGA is not required. Instead, the Building Department and other Town staff review submitted site plans and associated materials for compliance with the Zoning Bylaw and applicable codes. This applies to select uses as detailed in the Use Regulations Section 2200 of the Zoning Bylaw. Compliance with the erosion and sediment control and waste control provisions of the Zoning Bylaw is required. Compliant applications are granted permits directly by the Building Commissioner. Inspection and enforcement is conducted by qualified Building Department staff.

Subdivision Approvals

Subdivision of land and associated road and infrastructure construction is regulated by the Planning Board through the Subdivision Approval process. This process is detailed in the Planning Board’s Subdivision Rules and Regulations. The process involves formal plan submittal and review procedures through a public hearing process conducted by the Planning Board. The Engineering Department, Planning Department, as well as other Town staff provide technical review of the plan elements and advise the Board during plan review and construction phases. As noted above, the Subdivision Rules and Regulations and Protective Zoning Bylaw require erosion and sediment controls as well as controls of waste and other nuisances. Inspection and enforcement is provided by qualified Engineering Department staff.

Informal Site Plan Review

The Town offers an informal site plan review process for interested parties to meet with various Town Departments and discuss potential development concepts prior to preparation of detailed site plans. This offers prospective applicants the opportunity to discuss their ideas and potential regulatory considerations prior to significant investment or commitment to a project. Topics including requirements for drainage, erosion controls, waste controls, etc. are typically highlighted and discussed. Applicants are encouraged to incorporate low impact design and green infrastructure into site designs. The discussions from these meetings often inform subsequent site plan development and formal site plan review and permitting processes.

Wetlands Protection Act and Local Wetlands Protection Bylaw Permitting

The Sandwich Conservation Commission administers permitting under the state Wetlands Protection Act and local Wetlands Protection Bylaw. This process is detailed in those codes, and involves formal review of site plans, typically through a public hearing process, with review of proposed erosion and sediment controls and waste controls. Inspection and enforcement is provided by Department of Natural Resources staff.

Board of Health Permitting

The Sandwich Board of Health administers permitting of various state and local sanitary and health codes. Processes are detailed in those codes, and many involve formal permitting and review of site plans, typically through a public hearing process, with review of proposed erosion and sediment controls and waste controls where applicable. Inspection and enforcement is provided by Health Department staff.

Appendix A

SAMPLE CONSTRUCTION SITE STORMWATER INSPECTION REPORT

This field report may be used to facilitate construction site inspections by Town staff and others as needed.

(continued)

| | BMP Description | Installed and Operating Properly? | Corrective Action Needed |
|----|------------------------|--|---------------------------------|
| 3 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 4 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 5 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 6 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 7 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 8 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 9 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 10 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 11 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 12 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 13 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 14 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 15 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 16 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 17 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 18 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 19 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| 20 | | Yes <input type="checkbox"/> No <input type="checkbox"/> | |

Erosion and Sedimentation Control

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

| Issue | Status | Corrective Action Needed |
|--|--|--------------------------|
| Have all ESC features been constructed before initiating other construction activities? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is the contractor inspecting and maintaining ESC devices regularly? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is existing vegetation maintained on the site as long as possible? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is construction staged so as to minimize exposed soil and disturbed areas? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are disturbed areas restored as soon as possible after work is completed? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is clean water being diverted away from the construction site? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are sediment traps and sediment barriers cleaned regularly? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are vegetated and wooded buffers protected and left undisturbed? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are soils stabilized by mulching and/or seeding when they are exposed for a long time? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Has vegetation been allowed to establish itself before flows are introduced to channels? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is regular, light watering used for dust control? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is excessive soil compaction with heavy machinery avoided, to the extent possible? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |

(continued)

| Issue | Status | Corrective Action Needed |
|--|--|--------------------------|
| Are erosion control blankets used when seeding slopes? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are trees and vegetation that are to be retained during construction adequately protected? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are areas designated as off-limits to construction equipment flagged or easily distinguishable? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| If excavated topsoil has been salvaged and stockpiled for later use on the project, are stockpiles adequately protected? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are temporary slope drains or chutes used to transport water down steep slopes? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Do all entrances to the storm sewer system have adequate protection? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |

Overall Site Conditions

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

| Issue | Status | Corrective Action Needed |
|---|--|--------------------------|
| Are slopes and disturbed areas not being actively worked properly stabilized? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are material stockpiles covered or protected when not in use? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are natural resource areas protected with sediment barriers or other BMPs? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are perimeter controls and sediment barriers installed and maintained? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |

(continued)

| Issue | Status | Corrective Action Needed |
|---|--|--------------------------|
| Are discharge points and receiving waters free of sediment deposits and turbidity? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are storm drain inlets properly protected? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is there evidence of sediment being tracked into streets? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is trash/litter from the construction site collected and placed in dumpsters? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are vehicle/equipment fueling and maintenance areas free of spills and leaks? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are potential stormwater contaminants protected inside or under cover? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is dewatering from site properly controlled? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are portable restroom facilities properly sited and maintained? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Are all hazardous materials and wastes stored in accordance with local regulations? | Yes <input type="checkbox"/> No <input type="checkbox"/> | |

Non-Compliance Actions

The municipality shall provide the site operator with a copy of this report, and notice of the corrective action(s) to be taken. The site operator shall have thirty days from the receipt of the notice to commence corrective action of the violation.