Appendix E Standard Operating Procedures (SOP) Introduction – Year 7

Standard Operating Procedures help guide the Town of Pelham towards safe processes and towards our goals. The SOPs in Appendix E have the overarching goal of reducing pollution in our local waterbodies due to storm water runoff. By having procedures in place to follow, the Town of Pelham can improve our practices and work to create a cleaner environment.

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storage. This SOP has one attachment for the street sweeping log and three images of places in Pelham that are of higher importance for street sweeping.

SOP HW-3: Winter Maintenance Procedures – Snow Removal and Ice Control – Page 40

SOP HW-3 lays out the goals and procedures for winter maintenance by the Town of Pelham Highway department. The SOP presents the equipment, different necessary materials, how many routes, priority routes, and snow storage amongst other topics. Anything having to do with winter maintenance is referred to in this SOP. This SOP has one attachment that provides the definitions of various winter maintenance vocabulary terms.

SOP HW-4: Inspection of Constructed Best Management Practices – Page 49

SOP HW-4 explains how major structural best management practices are inspected and the importance of doing so. The SOP details how often each best management practice should be inspected as well as if there are more optimal times in the year to do so. Maintenance procedures are described as well. Nine attachments accompany this SOP, each a different inspection form for the various best management practices that may be encountered in Pelham.

SOP PR-1: Stormwater Stakeholder Group – Page 68

SOP PR-1 discusses the role and operation of a Town Stormwater Stakeholder Group. The SOP informs of meeting frequency, member composition, and the purpose of holding a Stormwater Stakeholder Group.

SOP PR-2: Annual Public Comment Period for the SWMP – Page 70

SOP PR-2 describes how the Annual Public Comment Period runs and the methods for collecting and reviewing public comments pertaining to the SWMP.

SOP PR-3: Advising Public Comments in the Stormwater Stakeholder Group – Page 72

SOP PR-3 explains the role of the Stormwater Stakeholder Group when evaluating public comments received during the Annual Public Comment Period. This SOP also discusses the process of reviewing comments by the Stormwater Stakeholder Group.

Notes regarding Regulations versus Municipal Standard Operating Procedures (SOPs)

Ordinance/Legal Authority: PUBLIC laws that are codified by constituents. These apply to everyone.

Regulations: PUBLIC directives that are established by the Town without constituent codification. These apply to everyone.

Guides/guidelines: A written document that provides guidance/assistance for the PUBLIC. May include useful checklists. (None specifically required for MS4 Permit but may be part of public education materials.)

Internal Town Procedures (SOPs): A written document that describes how the Town performs and manages specific task(s) internally by Town staff. This is for the Town's Use only. May include checklists for Town staff. (Required by MS4 Permit for specific Tasks: *Site Plan Review/Construction Inspections AND Enforcement*.)

For MCM4 *Erosion and Sedimentation Control for Construction Sites* (ESC), as it relates to stormwater management, the Permit requires written SOPs for inspection and enforcement at construction sites. This also includes inspection documentation through forms, reports, and/or checklists.

Construction Site Stormwater Runoff Control Program

2.3.5.1 – Permittees shall implement and enforce a program to reduce pollutants in any stormwater runoff discharged to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre... … or disturbances less than one acre if that disturbance is part of a larger common plan of development or sale that would disturb one acre or more.

2.3.5.3 - The construction site stormwater runoff control program shall include:

a. A **PUBLIC ordinance or other regulatory mechanism** that requires:
    - the use of sediment and erosion control practices at construction sites;
    - management of construction site demolition debris, litter, and sanitary wastes; and
    - sanctions for escalation and fines described in a PUBLIC document.

b. **Written** procedures **(Town SOPs,** more than one**)** for:
    - site plan review;
    - site inspections and enforcement; and
    - a requirement and means to track the number of site reviews, inspections, and enforcement actions.

        1. **Principals of ESC** to be established for ALL (contractors, reviewers, inspectors):
            - minimize the amount of disturbed area and protect natural resources;
            - stabilize sites when projects are complete, or operations have temporarily ceased;
            - protect slopes on the construction sites;

- protect all storm drain inlets and armor all newly constructed outlets;
- use perimeter controls at the site;
- stabilize construction site entrances and exits to prevent off-site tracking;
- control wastes that may be discharged, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes (these wastes may not be discharged to the MS4); and
- inspect stormwater controls at consistent intervals.

2. **Site Plan Review SOP (Town internal procedure)** include at a minimum:
   - review of the site design per Town regulations;
     - statement of goal/intent of the SOP,
     - documents and regulations that are to be used in reviewing the site plans,
     - who is responsible for reviewing the site plans,
     - what is acceptable and/or not acceptable,
     - what is the timeframe for reviews, and
     - what are actions/outcomes.
   - what are the minimum items to be reviewed;
     - review of planned operations at the construction site,
     - review of planned BMPs during the construction phase,
     - review of planned permanent post-development BMPs,
     - consideration of potential water quality impacts, and
     - evaluation of the incorporation of Low Impact Development (LID) site planning and design strategies unless such practices are infeasible.
   - procedures for receipt and consideration of information submitted by the public; and
   - how each step of this procedure will be documented (and reported, documentation saved for a minimum of 5 years).

3. **Site Inspection and Enforcement SOP (Town internal procedure)** shall include:
   - statement of goal/intent of the SOP;
   - documents and regulations that are to be used in reviewing the site plans;
   - Town staff or department that is responsible for site inspections;
   - who has authority to implement enforcement;
   - enforcement escalation (within the Town);
   - inspection forms to be used at sites; and
   - how each step of this procedure will be documented (and reported, documentation saved for a minimum of 5 years).

SOP PL-1: CONSTRUCTION EROSION AND SEDIMENTATION CONTROL PROGRAM

Erosion and sedimentation from land-disturbing activities, and specifically construction sites, can be a significant source of stormwater pollution. The objective of an effective construction stormwater runoff control (ESC) program is to minimize or eliminate erosion and maintain sediment on construction sites so that it is not transported in stormwater and allowed to discharge to a receiving water.

This Standard Operating Procedure (SOP) outlines the Town's ESC program that describes the principals of maintenance and inspection of construction site Best Management Practices (BMPs) aiming to reduce or eliminate pollutant loading generated from land-disturbance activities into local receiving waters.

This SOP relies on the Town's authority as described within its Land Use Regulations to require sediment and erosion control at construction sites. The Town's land use regulations include the requirement for applicants proposing land-disturbance activities to prepare a comprehensive Stormwater Management Plan (SWMP) for each construction site.

At a minimum, the SWMP is required to include:

- a proposed plan showing proposed erosion and sediment control measures (BMPs),
- limits of disturbance,
- phased installation of BMPs (as applicable), and
- temporary and permanent soil stabilization measures in accordance with the NHDES Stormwater Manual (most recent version).

The SWMP must also include construction and permanent site inspection and maintenance plans identifying responsible parties and provisions for final inspection by the Town upon completion of construction.

The key elements of the Town's ESC program include:

- the Town's land use regulations (available on Town website);
- ESC education materials related to construction site stormwater management available at and distributed by the Town (refer to the Planning Department);
- Town land use permit applications including required submissions of proposed development plans and a site-specific SWMP (applications available on Town website);
- Town Site Plan Review of the application package (see SOP PL-2);
- regular construction site inspections by the Town (see SOP PL-3);
- enforcement of the Town's land use regulations; and
- long-term inspections and maintenance of permanent stormwater BMPs (See SOP HW-4).

Controlling Erosion and Sediment through Regulation and Education

The Town's land use regulations were adopted by the Planning Board. Under these regulations, stormwater management of construction sites must include implementation and maintenance of BMPs appropriate for the site conditions that minimize site erosion and controls sediment on the project site. Additionally, all waste, including sanitary waste, is to be contained and controlled on-site. The land use regulations also provide for the authority for the Town to inspect sites and impose enforcement.

The Town provides public education materials related to stormwater management on a variety of topics that may be available in print or electronically. Public education is aimed to provide information on the impact of stormwater discharges to waterbodies, increase general stormwater management knowledge, and to affect change so that pollutants in stormwater are reduced.

Educational materials and information related to public education messaging are available through the Town's Planning office.

Controlling Erosion and Sediment through Design and Planning

Prevention of erosion and sedimentation is preferable to installing treatment devices. Consistent application and implementation of the following guidelines during the Planning Board review process can limit erosion and sedimentation.

Minimum focus areas of appropriate sediment and erosion control measures for construction sites include:

- minimizing the amount of disturbed area and protection of natural resources to the maximum extent practical (MEP);
- use of perimeter controls at the site;
- protecting storm drain inlets and armor all newly constructed outlets;
- protecting slopes on the construction site;
- providing construction site entrances and exits to prevent off-site tracking;
- control wastes that may be discharged, including but not limited to, construction materials and sanitary wastes;
- inspecting stormwater controls at consistent intervals; and
- stabilization of sites when projects are complete, or operations have temporarily ceased.

Submitted application packages must be reviewed for compliance with federal, state, and local requirements including the protection of water quality. The Town will provide Land Use Permit applicants with guidance on the selection of stormwater BMPs during Site Plan Review. This ESC program also provides an opportunity for the public to comment on applications and projects. Comments from and information provided by the public must be considered as part of the Site Plan Review.

To achieve these goals, at a minimum, the design review should evaluate for the:

1. avoidance of sensitive areas, steep slopes, and highly erodible soils MEP.
2. identification of potential problem areas before the development plans are finalized and approved.
3. use of sediment barriers along contour lines, with a focus on areas where short-circuiting (i.e., flow around the barrier) may occur.
4. use of berms at the top of steep slopes to divert runoff away from the slope edge.
5. use of erosion control blankets on seeded slopes steeper than 3 horizontals to 1 vertical (3H:1V).
6. design of trapezoidal or parabolic vegetated drainage channels, not triangular.
7. design of vegetated channels with riprap check dams to reduce the water velocity of runoff instead of impervious pavement or concrete.
8. use of check dams and sediment forebays designed with a level spreader outlet to reduce velocity of the discharge and trap sediments.
9. use of turf reinforcement matting to stabilize vegetated channels, encourage vegetation establishment, and withstand flow velocities without scouring the channel.
10. design of open channels to follow land contours so natural drainage is not disrupted.
11. use of organic matting for temporary slope stabilization and synthetic matting for permanent stabilization.
12. design of stabilized channels, flumes, or sloped drains where it is necessary to carry water down slopes.

Controlling Erosion and Sediment on Construction Sites and Inspections

During the construction phase, it is important to inspect active sites regularly to ensure that practices are consistent with approved plans and the site's SWMP (or another document). The following on-site guidelines shall apply:

1. erosion and sediment control features must be constructed before initiating activities that remove vegetated cover or otherwise disturb the site. These shall be installed consistent with the approved plans.
2. in the SWMP (or other document), the site operator shall clearly identify the responsible party for maintaining erosion and sediment control devices.
3. existing vegetation should be maintained on site as long as possible.
4. construction should proceed progressively on the site in order to minimize exposed soil, and disturbed areas should be restored as soon as possible after work has been completed.
5. stockpiles shall be stabilized by seeding or mulching if they are to remain disturbed for more than 14-days.
6. disturbed areas shall be protected from stormwater runoff.

7. clean runoff shall be diverted away from disturbed areas on construction sites to prevent erosion and sedimentation.
8. sediment traps and sediment barriers should be cleaned out regularly to reduce clogging and maintain design function.
9. vegetated and wooded buffers shall be marked and protected.
10. soil shall be stabilized by mulching and/or seeding when they are to be exposed for more than 7-days.
11. vegetation shall be allowed to establish before introducing flows into channels.
12. regular light watering shall be used for dust control.
13. excessive soil compaction with heavy machinery shall be avoided, to the extent possible.
14. construction activities during months with higher runoff rates shall be limited, to the extent possible.
15. erosion and sediment control devices shall be inspected by the site operator regularly and maintained as needed to ensure proper function.
16. the Town completes routine inspections at active construction sites to check the compliance of erosion and sedimentation controls with the approved plans and the Town's land use regulations. Refer to SOP PL-3, "*Construction Site Inspection Program*", for construction site stormwater inspection procedures.

Controlling Erosion and Sediment by Proper Maintenance of Permanent BMPs

Construction BMPs may be integrated into the final site design, but ongoing inspection and maintenance are required to ensure long-term function of any permanent BMP. SOP HW-4, "*Inspection of Constructed Best Management Practices*" outlines the procedures for inspecting permanent stormwater BMPs. The project SWMP must include a long-term (permanent) Inspection and Maintenance Plan in the Land Use Permit application submission package.

The following summarizes the long-term (permanent) Inspection and Maintenance Plan requirements for permanent BMPs:

1. identification of the entity responsibility for inspecting and maintaining the BMP(s).
2. BMPs shall be inspected annually at a minimum and following heavy rainfall events to ensure they continue to function properly.
3. sedimentation basins shall be cleaned out when sediment reaches 50% of the basin's design depth.
4. snow shall not be plowed into, or stored within, retention basins, rain gardens, or other permanent stormwater BMPs.
5. easements and service routes shall be identified and maintained to enable maintenance equipment to access BMPs for regular inspection and maintenance.
6. runoff shall not be diverted into a sensitive area unless specifically approved.

Attachments

Related Standard Operating Procedures

1. SOP PL-2 *Site Plan Review for Stormwater Management*
2. SOP PL-3 *Construction Site Inspection Program*
3. SOP HW-4 *Inspection of Constructed Best Management Practices*

Approval Date: June 30, 2025
Revisions:

Source: *Central Massachusetts Regional Stormwater Coalition; MCM 4 Construction Site Stormwater Runoff Control, Manchester & Nashua Regional Stormwater Coalition, June 6, 2019; Southeast Watershed Alliance Post Construction Stormwater Management Standards, Draft: November 2017; Model Stormwater Standards for Coastal Watershed Communities, UNH Stormwater Center andRockingham Planning Commission, December 2012.*

SOP PL-2: SITE PLAN REVIEW FOR STORMWATER MANAGEMENT

Purpose

Review of land use applications (i.e., Site Plan Review) is expected to ensure that sites proposing land disturbance activities and development, or redevelopment projects meet minimum requirements per Town regulations. This Site Plan Review SOP is specifically focused on stormwater management requirements as defined in the Town's Land Use Regulations and the US EPA Clean Water Act.

The sections identified below are the minimum that must be evaluated during land use application reviews (Review). The Town must keep documentation and/or log for all Reviews that include the:

- project name;
- location;
- total acreage to be disturbed;
- owner and applicant of the proposed construction activity, and/or development; and
- any stormwater related notes used to approve or deny the project.

Applicability

It shall be unlawful for any owner or person to erect, construct, reconstruct, convert, or alter a structure or change the use, disturb existing lands, increase the intensity of use, or extend the use of any building, sign, other structure, or lot without first applying for and receiving application approval from the Town. When any change is made to a plot plan as originally submitted, an application shall be submitted.

The Town's regulations require and enforce on-site stormwater management for all land use applications that disturb a minimum of one or more acre(s) or including any projects less than one acre if the project is part of a larger common plan of development or redevelopment which disturbs one or more acre.

Land Use Regulations

Pelham's Land Use Regulations are divided into 3 sections:

1. General Provisions (Section 100)

   These provisions apply to both subdivision regulations and site plan regulations as described below.

2. Subdivision Regulations (Section 200)

   201-2 *Subdivision: The division of a lot, tract, or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance or building development. It includes re-subdivision and, when appropriate to the context, relates to process of subdividing or to the land or territory subdivided.*

3. Site Plan Review Regulations (Section 300)

   300-4 *These Site Plan Regulations shall apply to all planned: non-residential development; multifamily residential development; and/or an expansion or change of use for any existing nonresidential or multi-family residential site or structure.*

4. Stormwater Regulations

   Each of the land use regulations above contains requirements relative to stormwater regulations, erosion controls, etc.

Administration

The Town will receive and review preliminary plans and final application packages for review and approval. Reviews will evaluate each application to determine if they meet the requirements of the current Pelham Zoning and Land Use Regulations, and the Town may also make recommendations to the applicant(s). The Town and when so designated, the Town's consulting engineering firm may also be charged with physically inspecting the site as part of the Review process.

Overview of Land Use Application Process

1. Receiving Land Use Applications. All land use applications are to be received and catalogued by Town staff. Applications do not have to be submitted in person. Town staff, when available, will process the applications and applicable related information in the order in which they are received. Applications may then be forwarded to the Town's consulting engineer for review on behalf of the Town.

2. Application Completeness Review. Following an applicant's submission of a land use application, Town staff and/or the Town's designated consulting engineer will review the application for completeness.

   The official 'filing date' for a Subdivision application package shall be the last date upon which information necessary to determine completeness was last received by the Town. It shall not be the date upon which the information was first filed or any date in between. The Town shall not find an application complete unless all required information has been filed.

3. Additional Town Review. The Town may send applications and copies of the application to additional Town departments, boards, or committees for review and comment.

4. Acceptance of the Land Use application. Upon submittal of the application package to the Town, the application is placed on the next available Town agenda for consideration. By State law, there is a minimum lead-time of twenty-one (21) days. The application may only be accepted as complete at a public hearing where notice has been given to the abutters. If public notice is provided for both acceptance and review, the application may be reviewed by the Town at the same hearing.

5. Waivers. All waiver requests must be submitted in writing at the time of filing of the application. The Town will first rule on waivers following acceptance of the application.

6. Determination of Scattered & Premature / Regional Impact. The Town may make certain initial findings that a proposed development is 'scattered & premature' or is a development of 'regional impact'. Such a finding may require that the applicant make modifications to the application package or provide additional information, or the finding could result in a denial.

7. Determination of Adverse Impact. Any development that may have a substantial negative impact on the Town's infrastructure, including stormwater management and/or potential pollutant loading will require special consideration by the Town. Such findings shall be noted in writing in the Review documentation.

8. Concept Road Layout and Drainage Design Consultation. The Town may require extra meetings to discuss road layout and drainage design before accepting or reviewing final design plans. This allows critical infrastructure issues to be discussed conceptually before the final details are developed.

9. Stormwater Management Plan. The Town will review all applications to confirm that an appropriate construction Stormwater Management Plan (SWMP) is included as part of the proposed project. The goal of the SWMP is to provide details regarding:

   a. the use of appropriate construction site erosion and sediment controls to ensure that sediments and wastes in stormwater are not transported and allowed to discharge into surface waters; and

   b. proposed post-construction stormwater management is designed to minimize water quality impacts from new development and redevelopment projects.

   The SWMP must also include both construction phase and long-term inspection and maintenance plans for all proposed stormwater BMPs.
   The SWMP required as part of Town land use application package is separate from EPA's Construction General Permit (CGP). Construction site operators are required to comply with EPA permit requirements for land disturbing activities more than one acre. If applicable, aspects of the CGP may be used in the SWMP submitted to the Town. (*https://www.epa.gov/npdes/2017-construction-general-permit-cgp*)

10. Public Hearing. All submitted applications will have at least one public hearing for the public to ask questions about the application, to raise issues, offer suggestions, or indicate their support or opposition. The hearing may be interspersed with periods of deliberation by the Town and may be continued to future dates.

11. Decision. The Town must decide whether to approve or deny the application. Where approval is warranted, the Town may vote to approve the application with conditions, which means that there may be additional administrative or technical requirements to be satisfied to obtain full approval, or that the application package must be changed in some significant way to receive final approval and Town endorsement. The Town has sixty-five (65) days from the time they accept the application for consideration to render a decision

(RSA 676:4,I,c) unless a time waiver or a request for continuance beyond the 65-days is requested by the applicant and approved by the Town.

Procedure for Receiving Land Use Applications by the Town

1. Assign a preliminary date for public hearing and notify applicant.
2. File the Application:
   - date of initial application receipt
   - preliminary date of public hearing
   - name of receiver
   - applicant name
   - applicant address
   - applicant contact information
   - list all submitted documents
   - project name
   - project address
   - project Map and Lot
   - applicant's rep./agent name
   - applicant's rep./agent address
   - applicant's rep./agent contact info
   - total acreage to be disturbed
3. Preliminary determination of submittal completeness:
   - ☐ application fully completed and signed
   - ☐ all applicable application fees included
   - ☐ correct number of copies
   - ☐ written waivers included
   - ☐ abutters notified
   - ☐ applicant designated representative with contact information
   - ☐ submission includes plans and reports sealed by appropriate professionals
     - ☐ NH Licensed Land Surveyor
     - ☐ NH Licensed Professional Engineer
     - ☐ NH Licensed Septic Designer
     - ☐ NH Certified Wetlands Scientist
     - ☐ NH Certified Soils Scientist
     - ☐ Other
   - ☐ submission includes Stormwater Management Plan
     - ☐ Erosion and sediment control (ESC) plans and details
     - ☐ Post-development stormwater management design plans and report
     - ☐ Construction ESC BMP Inspection & Maintenance Plan
     - ☐ Post-development stormwater management Inspection & Maintenance Plan
4. Forward application and supporting attachments to the Town planning/engineering consultant and others, as applicable. Note date forwarded to each entity.
5. Continue to update the catalog with pertinent administrative information regarding the

application such as additional information received, continued, or rescheduled hearing dates, etc.

Procedure for Town Review and Acceptance of Land Use Applications

1. Completeness review by Town staff or Town consulting engineer. The review shall include input on the following as applicable:
   - ☐ comment from additional Town departments, boards, or committees;
   - ☐ waivers;
   - ☐ determination of Scattered & Premature / Regional Impact;
   - ☐ determination of Adverse Impacts;
   - ☐ Stormwater management Plan; and
   - ☐ concept road layout and drainage design consultations.

2. Document review with a written recommendation to include, at a minimum:
   - ☐ a recommendation to the Town to accept, deny, or request more information from the applicant.
   - ☐ if the recommendation is to deny the application, an explanation of the decision and list of deficiencies.
   - ☐ a list of requested additional information, as applicable.

3. Confirm public hearing date for the application and notify the applicant.

4. During the public hearing(s):
   a. vote to accept or deny the application as complete with discussion, as applicable.
   b. if the application is accepted and time allows, open the hearing to the public and receive public comment. Document public comments in writing.
   c. close the public session and discuss the project and public comments as time allows.
   d. vote to approve or deny the project or continue the public hearing to a future meeting.

5. Provide the applicant with written documentation of the outcome of the meeting including a list of changes that must be made to the application package and/or additional information requested.

6. If the project is approved, the Town will endorse and record the plans, as applicable.

Attachments

SOP PL-1 *Site Plan Review for Stormwater Management Checklist*

Related Standard Operating Procedures

1. SOP PL-1 *Construction Erosion and Sedimentation Control Program*
2. SOP PL-3 *Construction Site Inspection Program*

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SOP PL-3: CONSTRUCTION SITE INSPECTION PROGRAM

Construction sites that lack adequate stormwater controls can contribute a significant amount of sediment to nearby bodies of water. A stormwater Construction Site Inspection Program is a program developed to track, inspect, and enforce local stormwater requirements at construction sites. This Standard Operating Procedure (SOP) describes the major components of the Town's Construction Site Inspection Program, establishes a written procedure for site inspections and enforcement of erosion and sediment control (ESC) practices at construction sites, and provides procedures for evaluating compliance of stormwater controls at construction sites.

This Construction Site Inspection Program includes a schedule for inspection of all erosion and sediment control BMPs on the construction site: **monthly** and after each rainfall event greater than 0.25-inches in a 24-hour period, the Town will inspect all active construction sites. The inspected condition and type of maintenance (such as cleaning, repair, replacement, regrading, restabilizing, etc.) for each of the BMPs must be included in each inspection report. Report templates and inspection checklists are included as part of this program.

Stormwater Construction Inspection Plan

The Town has legal authority to require sediment and erosion control at construction sites through the Land Use Regulations. This legal authority requires construction site operators to implement a sediment and erosion control program which includes Best Management Practices (BMPs) that are appropriate for the conditions at the construction site, including efforts to minimize the area of the land disturbance. This legal authority also gives Town inspectors the authority to enter the site and enforce the regulations.

This Construction Site Inspection Program includes the following:

1. Documentation of the observations and results of each inspection, and prioritization of sites based on factors such as proximity to waterbodies, overall impact size of the project, on-site slopes, and history of past violations.
2. Identification of the entity responsible for erosion and sediment control and BMPs for each site.
3. Monthly inspections.
4. Enforcement Procedures:
    - The Town has a written progressive enforcement policy to ensure construction sites are following local, state, and federal regulations and requirements, including the Town's regulations.
    - Fines may be assessed to ensure compliance.

Conducting Stormwater Inspections at Construction Sites

The role of the construction inspector is to ensure that site operations match the approved plans and the Stormwater Management Plan (SWMP) for each project, and that all precautions are

taken to prevent pollutants and sediment on the construction site from impacting local waterbodies. The inspector is also expected to determine the adequacy of construction site stormwater quality control measures and BMPs.

A written site inspection report shall be used by the inspector during site visits. Construction site inspectors should abide by the following general guidelines.

1. Inspections to monitor stormwater compliance should be performed at least once per month at each active construction site, with priority placed on sites that require coverage under the EPA Construction General Permit (i.e., that disturb one or more acres), and sites that are located within the watershed of any impaired waterbody as identified in the current EPA-approved 303(d) and 305(b) lists.
2. The inspection shall begin at a low point on the site and work uphill, observing all discharge points and any off-site support activities.
3. Written (and photographic records of observed violations) shall be completed for each site visit.
4. During the inspection, the inspector should ask questions of the site operator. Understanding the selection, implementation, and maintenance of BMPs is an important goal of the inspection process and requires site-specific input.
5. The inspector should not recommend or endorse solutions or specific products. The inspector may offer appropriate advice, but all product selections must be made by the site operator.
6. The inspector shall always wear personal protective equipment appropriate for the site.
7. The inspector shall abide by the site operator's site-specific safety requirements.
8. The Town's inspector has legal authority to enter the site. However, if denied permission to enter the site, the inspector should never force entry but instead should notify the Planning Director.

Prior to planning a site visit, the inspector shall determine if the project is subject to the current EPA Construction General Permit (CGP) for projects that disturb one or more acres. If the site requires this coverage, the inspector shall visit the EPA Region 1 CGP Notice of Intent (NOI) webpage (https://permitsearch.epa.gov/epermit-search/ui/search) to determine if the site operator filed for CGP coverage through submission (and acceptance) of an NOI. Print a copy of the available NOI.

If the project disturbs one or more acres and is under construction but is not identified in the EPA database as having an accepted NOI, the project is in violation of the CGP. Call the site operator to determine if the NOI process has been started. If not, notify the site operator verbally of this requirement and the violation, and that all work must cease until an NOI has been accepted by the EPA. The inspector may choose to print instructions on how to file an NOI

and meet with the site operator to review these. The inspector must issue a written Stop Work Order until the NOI has been accepted by the EPA.

If the project disturbs one or more acres and it has been determined that the site is in compliance with the current CGP, the site inspection process can continue.

The Construction Site Inspection process shall include the following elements and steps.

1. Plan the inspection before visiting the construction site:
    a. obtain and review permits, plans, previous inspection reports, and any other applicable information for the project and site.
    b. print the approved NOI for the file from the EPA CGP NOI webpage.
2. Meet with the site operator:
    a. review the project SWMP and/or CGP SWPPP (if the site includes over one acre of disturbance). Compare SWPPP BMPs with the approved SWMP, as applicable.
    b. if applicable, review the project's approved NOI and confirm that the information shown continues to be accurate.
    c. get a general overview and status of the project from the site operator.
    d. review inspections done by the site operator.
    e. review the status of any issues or corrective actions noted in previous inspection reports.
    f. discuss any complaints or incidents since the last inspection.
3. Compare on-site BMPs with the approved plans and construction site conditions:
    a. determine whether BMPs are in place as specified in the plans, and if the BMPs have been adequately installed and maintained.
    b. for each structural BMP, check structural integrity to determine if any portion of the BMP needs to be replaced or requires maintenance.
    c. note any areas where additional BMPs may be needed but are not specified in the site plans.
4. Inspect perimeter controls:
    a. examine perimeter controls to determine if they are adequate, properly installed, and properly maintained.
    b. Measure the depth of accumulated sediments to determine if cleaning or removal is needed.
5. Inspect slopes and temporary stockpiles:
    a. determine if sediment and erosion controls are effective.

   b. look for slumps, rills, and tracking of stockpiled materials around the site.

6. Inspect site entrances/exits:
   a. determine if there has been excessive tracking of sediment off-site.
   b. look for evidence of additional entrances/exits being used that are not identified on the plans and are not properly stabilized.
7. Inspect sediment basins:
   a. look for signs that sediment has accumulated beyond 50% of the capacity of the basin.
   b. look for evidence of overtopping or breakouts.
8. Inspect pollution prevention and good housekeeping practices:
   a. inspect trash areas and material storage/staging areas to ensure that materials are properly stored and maintained and that pollutant sources are not exposed to rainfall or runoff.
   b. inspect vehicle/equipment fueling and maintenance areas for the presence of spill control measures and for evidence of leaks or spills.
9. Inspect discharge points and downstream/downslope off-site areas;
   a. walk down the street(s) and/or in other directions off-site to determine if erosion and sedimentation control measures are effective in preventing off-site impacts.
   b. inspect downslope and off-site catch basins to determine if they are protected and identify whether sediment buildup has occurred.
10. Meet with the contactor again prior to leaving the site:
    a. discuss the effectiveness of current controls and whether modifications are needed.
    b. discuss possible violations or concerns noted during the site inspection, including discrepancies between approved plans, the SWMP, the SWPPP (if applicable), and/or the implementation of stormwater controls.
11. Provide a written copy of the inspection report to the site operator within 3 days.
12. Follow up, as scheduled, and provide a copy of subsequent inspections to the site operator.
13. Use Stop Work Orders, as needed, until compliance is achieved.

Attachments

SOP PL-3 *Erosion and Sedimentation Control Site Inspection Report*

Related Standard Operating Procedures

1. SOP PL-1 *Construction Erosion and Sedimentation Control Program*
2. SOP PL-2 *Site Plan Review for Stormwater Management*
3. SOP HW-4 Inspection *of Constructed Best Management Practices*

Approval Date: June 30, 2025
Revisions:

Source: *Central Massachusetts Regional Stormwater Coalition; MCM 4 Construction Site Stormwater Runoff Control, Manchester & Nashua Regional Stormwater Coalition, June 6, 2019; Southeast Watershed Alliance Post Construction Stormwater Management Standards, Draft: November 2017; Model Stormwater Standards for Coastal Watershed Communities, UNH Stormwater Center andRockingham Planning Commission, December 2012.*

General Information

Project Name			
Project Location			
Inspector's Name			
Site Operator			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Subject to USEPA Construction General Permit? Yes ☐ No ☐ If yes, has NOI been approved? Yes ☐ No ☐ If yes, attach approved NOI to this report. **If no NOI, contact contractor immediately to determine status of NOI.**			
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			
Describe the current phase of construction			

Erosion and Sediment Control (ESC) on Construction Sites

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 ☐ No ☐	
Is the contractor inspecting and maintaining ESC devices regularly?	Yes ☐ No ☐	
Is existing vegetation maintained on the site as long as possible?	Yes ☐ No ☐	
Is construction staged to minimize exposed soil and disturbed areas?	Yes ☐ No ☐	
Are disturbed areas restored as soon as possible after work is completed?	Yes ☐ No ☐	
Is clean water being diverted away from the construction site?	Yes ☐ No ☐	
Are sediment traps and sediment barriers cleaned regularly?	Yes ☐ No ☐	
Are vegetated and wooded buffers protected and left undisturbed?	Yes ☐ No ☐	
Are soils stabilized by mulching and/or seeding when they are exposed for a long time?	Yes ☐ No ☐	
Has vegetation been allowed to establish itself before flows are introduced to channels?	Yes ☐ No ☐	
Is regular, light watering used for dust control?	Yes ☐ No ☐	

Issue	Status	Corrective Action Needed
Is excessive soil compaction with heavy machinery avoided, to the extent possible?	Yes ☐ No ☐	
Are erosion control blankets used when seeding slopes?	Yes ☐ No ☐	
Are trees and vegetation that are to be retained during construction adequately protected?	Yes ☐ No ☐	
Are areas designated as off-limits to construction equipment flagged or easily distinguishable?	Yes ☐ No ☐	
If excavated topsoil has been salvaged and stockpiled for later use on the project, are stockpiles adequately protected?	Yes ☐ No ☐	
Are temporary slope drains or chutes used to transport water down steep slopes?	Yes ☐ No ☐	
Do all entrances to the storm sewer system have adequate protection?	Yes ☐ No ☐	

Non-Compliance Actions

The Town 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 curative action of the violation.

Source: *Central Massachusetts Regional Stormwater Coalition*

PELHAM SOP PL-3 CONSTRUCTION SITE INSPECTION PROGRAM

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SITE INSPECTION REPORT

Inspection Date _____

Inspection Time _____

Site Supervisor _____

Field Office Phone # _____

Prime Contractor _____

Subcontractor _____

PROJECT ID	
PROJECT NAME	
LOCATION	
DESCRIPTION	
INSPECTOR	

Reason for Inspection: Weekly 0.25-in. Rainfall Follow-up Other _____

Weather _____ Date of Last Precip. _____ Amount Precip. Last 48hr (in) _____

Estimated percent of exposed (not vegetated) project area: _____

ON-SITE		Modifications Required? YES	NO	N/A	ON-SITE		Modifications Required? YES	NO	N/A
☐	Construction Site Exit	☐	☐	☐	☐	Erosion Mat/ Slope Stabilization	☐	☐	☐
☐	Silt Fence/ Perimeter Controls	☐	☐	☐	☐	Temporary Seeding	☐	☐	☐
☐	Inlet Protection	☐	☐	☐	☐	Permanent Seeding	☐	☐	☐
☐	Silt Screen	☐	☐	☐	☐	Sod	☐	☐	☐
☐	Temp. Settling Basin	☐	☐	☐	☐	Mulch	☐	☐	☐
☐	Riprap /Outlet Protection	☐	☐	☐	☐	Town Approved Project Plans	☐	☐	☐
☐	Temp. Diversion Channel	☐	☐	☐	☐	Other _____	☐	☐	☐
☐	Turbidity Barrier	☐	☐	☐	☐	Other _____	☐	☐	☐
☐	Grading Practices	☐	☐	☐	☐	Other _____	☐	☐	☐

PELHAM SOP PL-3 CONSTRUCTION SITE INSPECTION PROGRAM

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SITE INSPECTION REPORT

Inspection Date	_____
Inspection Time	_____
Site Supervisor	_____
Field Office Phone #	_____
Prime Contractor	_____
Subcontractor	_____

PROJECT ID	
PROJECT NAME	
LOCATION	
DESCRIPTION	
INSPECTOR	

Note: Any boxes checked "YES" must have comments and recommendations.

Describe them below.

Comments/Recommendations concerning the effectiveness, and any reasonable corrections needed to maintain or increase the effectiveness of in-place erosion control and stormwater management measures are described below by the individual erosion control item or other general erosion control measures.

EROSION CONTROL ITEM	COMMENTS / RECOMMENDATIONS

INSPECTION COMMUNICATION NOTES:

To Whom	Type of Communication (circle one)				Comments
	Direct	E-mail	Phone	Written Order	
	Direct	E-mail	Phone	Written Order	

SIGNATURES

Inspector _____ **Date** _____

Site Contractor _____ **Date** _____

Project Engineer _____ **Date** _____

PELHAM SOP PL-3 CONSTRUCTION SITE INSPECTION PROGRAM

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SITE INSPECTION REPORT

Inspection Date	_____	PROJECT ID	
Inspection Time	_____	PROJECT NAME	
Site Supervisor	_____	LOCATION	
Field Office Phone #	_____	DESCRIPTION	
Prime Contractor	_____	INSPECTOR	
Subcontractor	_____		

Description of Erosion Control Site Inspection Report

This form must be printed and used in the field for notes and/or electronically as a record of erosion control inspection. Contractor follow-up is required of this inspection report. If the contractor fails to accomplish the required corrective actions enforcement is required.

General Information

- Provide date of inspection, inspector(s), general construction project information, project staff, and contractors involved including appropriate phone numbers.

Best Management Practices Evaluation

- Include specific comments regarding erosion and sediment control BMPs throughout the project.
  - Are the BMPs implemented and installed correctly?
  - Are they adequately installed for site conditions?
  - Are they functioning properly?
- For each applicable BMP, list detailed information not only regarding specific failures and deficiencies, but also successes and improvements. It is usually helpful to reference location.
- Mark appropriate check boxes.
- If corrective actions are needed, indicate what should be done to remedy deficiencies in the “Required Corrective Actions” column.
- When the contractor has taken corrective action, record the date it was implemented and/or accepted (satisfactory installation).
- Utilize “Other” and “Comments” sections as needed.

Mobilizations

- Note whether the corrective actions will require mobilization (substantial replacements/additions, heavy equipment, extensive labor force, etc., or normal, small-scale maintenance). If mobilization is required, describe what is expected.

Signature Lines

- Sign and date the inspection and also when this form was submitted to the contractor. Also record the type of contact (direct, e-mail, phone call, etc.).
- For routine maintenance, the contractor is required to respond within 24 hours of receiving notification. When the required corrective actions have been completed, the contractor should sign and date the form and submit it to the project engineer (or another responsible person).
- The corrective actions taken by the contractor must be properly installed and inspected and accepted by the project engineer (or another responsible person). This acceptance is indicated by the project engineer’s signature on the final line.

SOP PL-4: CONSTRUCTION SITE EROSION CONTROL ENFORCEMENT

Purpose and Applicability

This Standard Operating Procedure (SOP) PL-4, *Construction Site Erosion Control Enforcement* documents the Town's process of progressive and consistent enforcement of the Town's Erosion Control requirements as described within the Town of Pelham's Land Use Regulations for construction sites involving land disturbing activities.

Administration

Primary construction site inspections and enforcement are the responsibility of the Town's Planning Department. In cases of enforcement escalation, as described in this SOP, the Board of Selectmen, the Town's legal counsel, the Town's Code Compliance Officer, and other law enforcement (as permitted by law) may also administer enforcement of the Town's erosion control and Stormwater regulations.

Construction Site Enforcement Procedures

The following matrix represents the normal path of enforcement measures the Town will take as needed to ensure proper adherence of the Town's Stormwater regulations on construction sites.

Enforcement Escalation Matrix			
1	verbal warning	Inspector/planning /zoning inspector in consultation with town counsel	48 hours to correct the problem.
2	written "**Correction Notice**" issued	inspector/planning /zoning office in consultation with town counsel	48 hours to correct the problem. Deficiencies and corrective actions are itemized on written inspection forms provided to the property owner.
3	written "**Stop Work Order**" issued	Inspector/planning /zoning office in consultation with town counsel	No grace periods. Other town departments, regulatory agencies, and bonding companies may be notified. Daily fines may apply, and begin at $100/day per violation.
4	written "**Notice of Violation**" issued	Inspector/planning /zoning office in consultation with town counsel	No grace periods. Other town departments, regulatory agencies, and bonding companies will be notified. Property owner will be served with legal documents. Daily fines may apply, and are increased to $500/day/violation.

Attachments

Related Standard Operating Procedures

4. SOP PL-1 *Construction Erosion and Sedimentation Control Program*
5. SOP PL-3 *Construction Site Inspection Program*

Approval Date: June 30, 2025
Revisions:
References:

City of Destin Erosion and Sedimentation Control Inspections Program Manual, November 2019, *https://www.cityofdestin.com/DocumentCenter/View/12670/Erosion-and-Sediment-Control-Inspection-Manual-2019-Update*

Sarasota County Standard Operating Procedure Construction Site Inspections Part III.A.9.b, 5/28/15, *https://www.sarasota.wateratlas.usf.edu/upload/documents/SOP-Part-III.A.9.b-Construction-Inspections-05282015.pdf*

SOP HW-1: CATCH BASIN INSPECTION AND CLEANING

Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving water.

During regular cleaning and inspection procedures, data can be gathered related to the condition of the physical basin structure and its frame, grate, and the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear "blocky". Bacterial sheen is not a pollutant but should be noted.

Observations such as the following can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge.

- Indications of sanitary sewage, including fecal matter or sewage odors;
- Foaming, such as from detergent; and/or
- Optical enhancers, fluorescent dye added to laundry detergent.

Each catch basin should be cleaned and inspected annually at a minimum, and at any time when the structure has reached 50% of capacity. When a catch basin exceeds 50% sump depth capacity of sediment, it can decrease the efficiency and overall function of the catch basin. The goal should be to prevent catch basins from exceeding the 50% threshold. Catch basins in high-use areas may require more frequent cleaning. If a catch basin is found to have more than 50% of the sump filled with sediment, then the frequency of cleaning that catch basin needs to increase. Performing street sweeping on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which structures need to be cleaned.

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached) including the depth of sediment and the full depth of the sump to help identify problematic structures that may require more frequent cleaning.

Catch basin inspection and cleaning procedures include the following:

1. Work upstream to downstream within each system.
2. Clean sediment and trash off grate.
3. Visually inspect the outside of the grate.
4. Visually inspect the inside of the catch basin to determine cleaning needs.
5. Inspect catch basin for structural integrity.
6. Remove material with Town's clam shell catch basin cleaning truck.
7. If contamination is suspected, chemical analysis will be required to determine if the materials comply with the New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Regulations, RSA 147-A (http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-X-147-A.htm). Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label and note sample collection on the Catch Basin Inspection Form.
8. Properly dispose of collected sediments. See following section for guidance.
9. If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
10. If illicit discharges are observed or suspected, notify the appropriate department (see "*SOP ID-3: Addressing Illicit Discharges*").
11. At the end of each day, document location and number of catch basins cleaned, volume of waste collected, and disposal method for all screenings.
12. Report additional maintenance or repair needs.

Storage of Screenings

Screenings from catch basin cleaning are to be stored in a manner so as not to allow resuspension of the screenings in stormwater or flow into the local stormwater system or surface waters, including roadside ditches and swales.

Disposal of Screenings

The Town has a local lab perform grit analysis on catch basin cleanings from stormwater drainage systems if necessary. NHDES does not routinely require stormwater-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal and reduce tipping fees. In this case, ensure that the screenings are managed to prevent pollution.

Attachments

1. SOP HW-1: Catch Basin Inspection Form

Related Standard Operating Procedures

1. SOP ID-3: Addressing Illicit Discharges
2. SOP ID-4: Water Quality Screening in the Field
3. SOP HW-2: Street Sweeping Procedures

Governing Laws

40 CFR 122.26

2017 NH Small MS4 Permit Part 2.3.7.1.d.ii & iv

Approval Date: June 30, 2025

Source: Central Massachusetts Regional Stormwater Coalition

Town of Pelham, New Hampshire – Highway Department

Catch Basin Inspection Form

Inspector(s): _____ **Date:** _____

Catch Basin Location: _____

Weather Conditions: ☐ Dry >24 hours ☐ Storm event in last 24 hours ☐ During storm event

Catch Basin Label: ☐ Paint Marking ☐ Delineator Post ☐ None Other _____

Grate Type: ☐ Light weight ☐ Regular bar ☐ High speed ☐ Bubble/dome Other _____

Basin Material: ☐ Block ☐ Concrete ☐ Brick ☐ Block and Concrete Other _____

Pipe Material and Number of That Kind:

Concrete _____ Plastic _____ Metal _____ Steel _____ Other _____

Sediment Buildup Estimate: ☐ None ☐ 0-6 inches ☐ 7-12 inches ☐ 13+ inches

Description of Water Flow: ☐ None ☐ Trickling ☐ Slight ☐ Moderate ☐ Heavy

Pipe(s) Submerged in Water? ☐ Yes ☐ No ☐ Partially

Observations of Water (if no water or unusual conditions, leave blank):

Color: _____ **Odor:** _____

Check all that apply: ☐ Foam ☐ Oil Sheen ☐ Pet Waste ☐ Sanitary Waste ☐ Bacterial Sheen

Catch Basin Condition: ☐ Good ☐ Fair ☐ Poor ☐ Crumbling

Required Maintenance/Problems (check all that apply): ☐ New grate needed ☐ Pipe blocked ☐ Frame maintenance ☐ Excess accumulated sediment ☐ Pipe maintenance ☐ Sinkhole ☐ Cannot remove cover Other _____

Repairs/Maintenance Completed Today: _____

Other Comments:

_____

_____

_____

SOP HW-2: STREET SWEEPING PROCEDURES

Introduction

Street sweeping is necessary for vehicle and pedestrian safety, street maintenance, surface water quality, and environmental concerns. The Town will provide such service in a cost-effective manner, keeping in mind safety, budget, personnel, and environmental concerns. The Town will use private contractors, equipment, and Town employees to provide this service. Completion dates are dependent on weather conditions, personnel, and equipment availability. The Highway Director or their designee will be responsible for scheduling.

Operations

The Town of Pelham uses private contractors for street sweeping. Street sweeping will begin when streets are significantly clear of snow and ice, usually in April, after the significant risk of later snowfall and freezing of the water from the sweepers has passed. Street sweeping operations generally take about 170 hours over 40 days, collect roughly 305 cubic yards of material, and typically are completed by June.

Priorities

- **Stormwater Management:** Priority will be given to areas draining into the higher priority water bodies as determined by the Town's Stormwater Management Program. These areas will be swept on a priority basis twice a year to comply with the EPA National Pollutant Discharge Elimination System (NPDES) Phase II New Hampshire Small Municipal Separate Storm Sewer System (MS4) General Permit.
- **Downtown:** The core of the downtown and municipal parking lots inclusive in this area are swept once per year. Areas within the Long Pond MS4 area must be swept at least twice per year, once in the spring following winter maintenance activities, and once in the fall after the leaf drop is over.
- **Arterial Streets:** The streets in the remainder of the town outside of the downtown district are swept once per year. This takes several months and concludes approximately at the end of June. Second sweeps are conducted if severe weather events require or the Highway Director or their designee determines it is necessary.
- **School Parking Lots:** School parking lots are swept by private contractors during Spring Break in April.
- **Citizens Request:** Citizens requests for sweeping will be evaluated and the Highway Director will determine the necessity and priority.
- **Construction Debris:** Erosion/siltation, dirt, and debris cleanup from construction projects is the responsibility of the developer, contractor, or property owner. Except in cases of emergency the streets shall be cleaned and swept by the developer, contractor, or owner within twenty-four (24) hours of notification. If the streets are not swept within the specified time allowed, or in the case of an emergency, then the Town may sweep the street and the responsible party will reimburse the Town for all associated costs.
- **Porous Sidewalks:** Porous sidewalks should be swept twice a year in the spring and fall.

- **Sidewalks:** The Town identifies sidewalks in the downtown and arterial streets requiring sweeping and sweeps once after the risk of snow has passed on an as needed basis.

Procedures

Sweeping is a slow process with average gutter line speeds for the first sweeping in spring that can be as slow as 2 to 3 miles per hour. The Town utilizes private contractors. Normally center lines are swept after gutter lines are cleaned. Equipment may include mechanical, vacuum, or regenerative air sweepers.

Sweeping operations will be conducted when weather conditions permit. Factors that may delay sweeping operations include temperatures below 32-degrees Fahrenheit, wind, rain, snow, and frozen gutter lines.

Sweeping operations are performed in conjunction with and can be impacted by other maintenance operations. Sweeping operations will normally be conducted Monday through Friday, from 7:00am to 3:00pm. Extended workdays and shift changes may be utilized for spring cleanup or emergency sweeping to provide maximum efficiency.

In areas where outfalls discharge to phosphorus impaired waters, street sweeping will occur twice a year. The only current phosphorus impaired waterbody in Pelham is Long Pond.

Storage of Screenings

Screenings from street sweeping are to be stored in a manner so as not to allow resuspension of the screenings in stormwater or flow into the local stormwater system or surface waters, including roadside ditches and swales.

Disposal of Screenings

Screenings from street sweeping may be disposed at any landfill that is permitted by NHDES to accept solid waste or may be used as a road base or for other uses allowed by NHDES. NHDES does not routinely require street sweeping cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings from street sweeping may be reused if there is no visual evidence of litter, animal waste, or petroleum contamination.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal and reduce tipping fees. In this case, ensure that the screenings are managed to prevent pollution.

Catch Basins and Surface Waters

Street sweeping may not be purposefully swept into or directed toward catch basins or surface waters. Cleaning of catch basins should follow local street sweeping operations.

Yard Waste

It is the responsibility of residents to keep their neighborhood streets free of excessive yard waste and other debris. The Town does not provide street sweeping of leaves left in the gutter. Residents are not to sweep their leaves into the gutter in the expectation of the sweepers collecting them. Leaving yard waste and other debris in the street can clog the storm water system during heavy rains, degrade water quality, cause flooding problems, and possibly damage homes.

Attachments

Related Standard Operating Procedures

1. SOP HW-1: Catch Basin Inspection and Cleaning
2. SOP HW-3: Winter Maintenance Procedures – Snow Removal and Ice Control

Governing Laws

2017 NH Small MS4 Permit Part 2.3.7.1.d.iii & iv

Approval Date: June 30, 2025

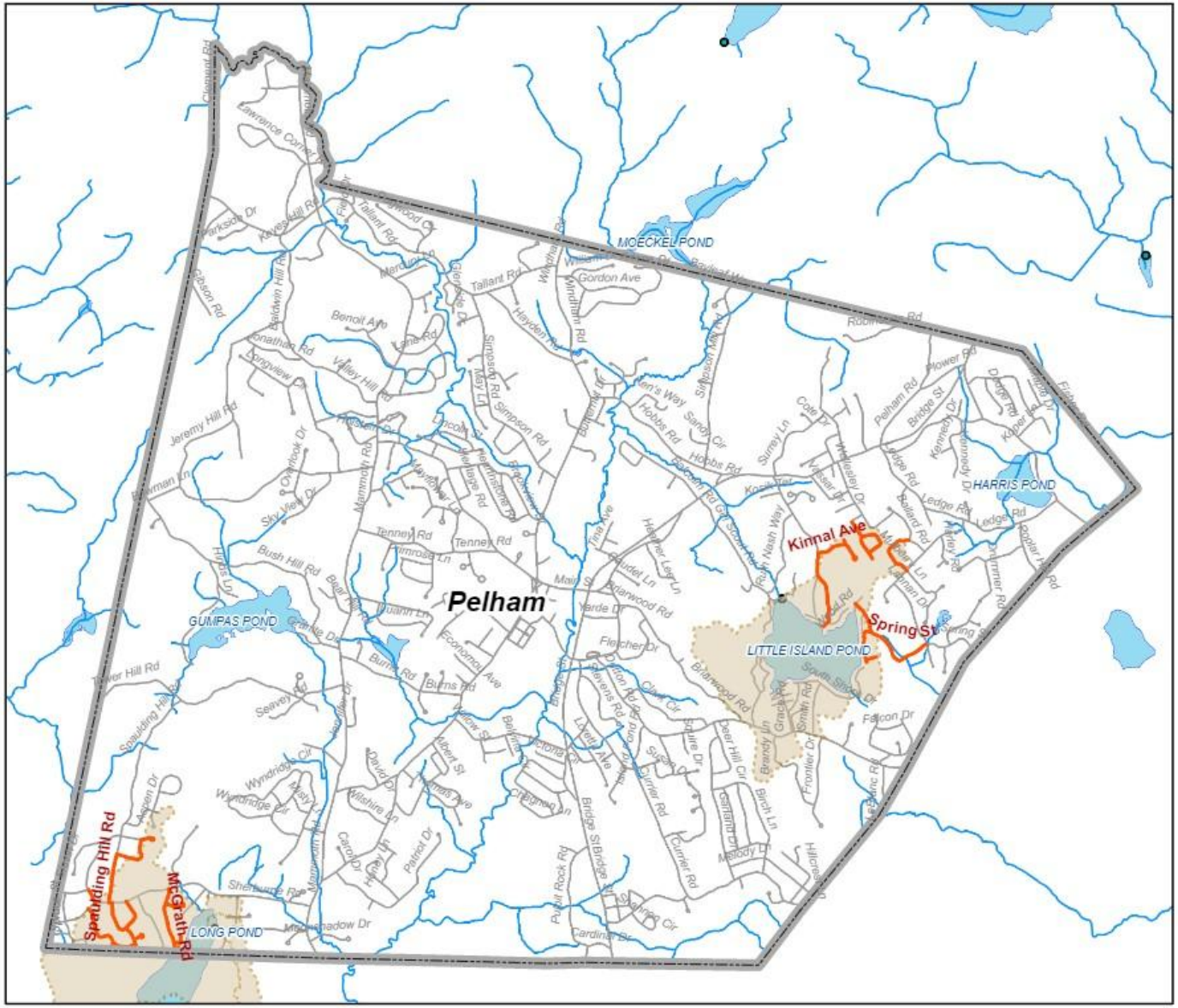
Source: Town of Andover, MA, Street Sweeping Standard Operating Procedure, 2009

Guidelines and Standard Operating Procedures, Illicit Discharge Detection and Pollution Prevention/Elimination and Good Housekeeping for Stormwater Phase II Communities in New Hampshire. New Hampshire Estuaries Project, November 2006.

Street Sweeping Log

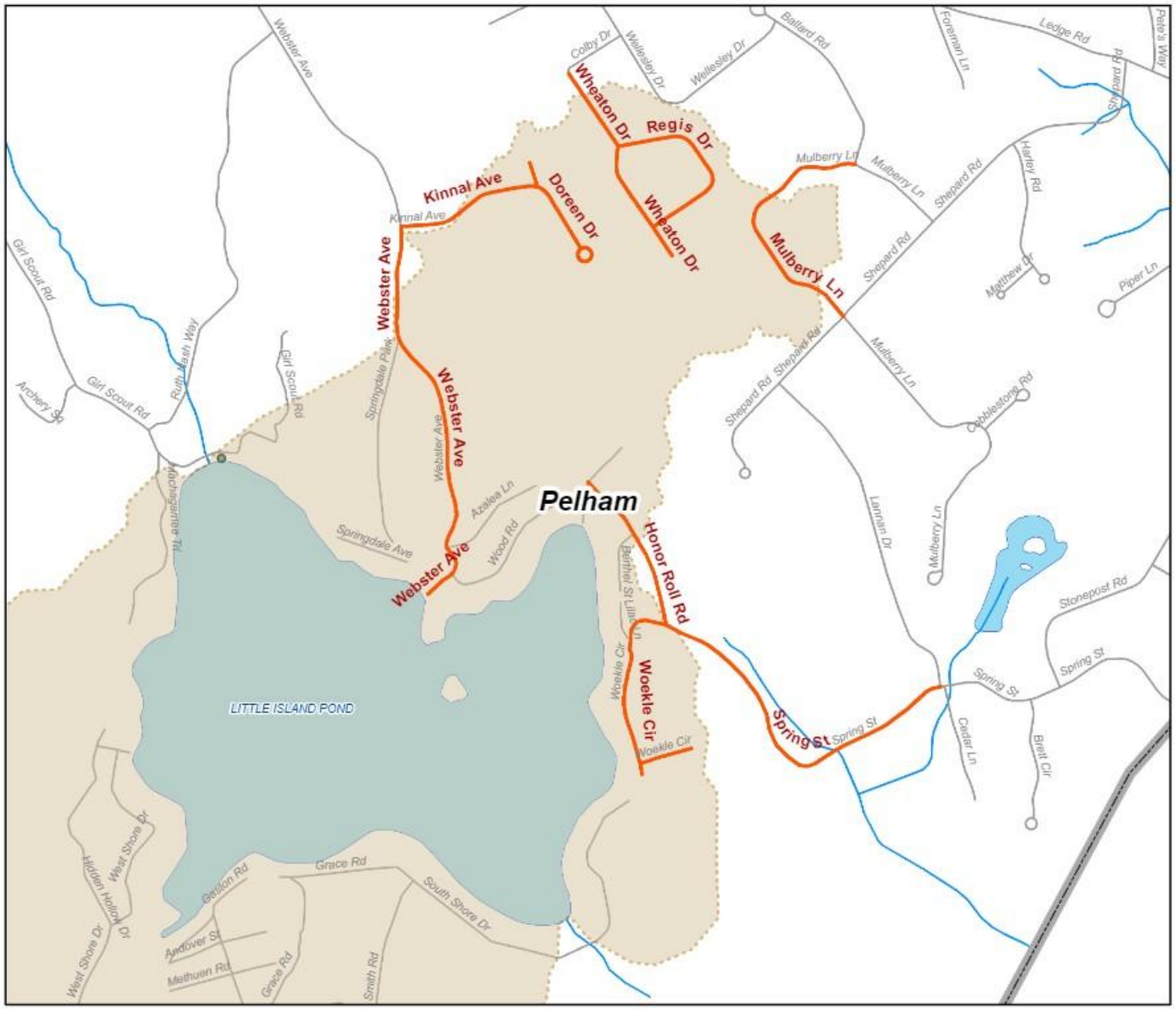
PELHAM, NH

Date	Operator	Weather Conditions	Streets/Parking Lots Swept	Number of Miles Swept	Volume/Mass of Material Removed	Corrective Action Taken/Recommended



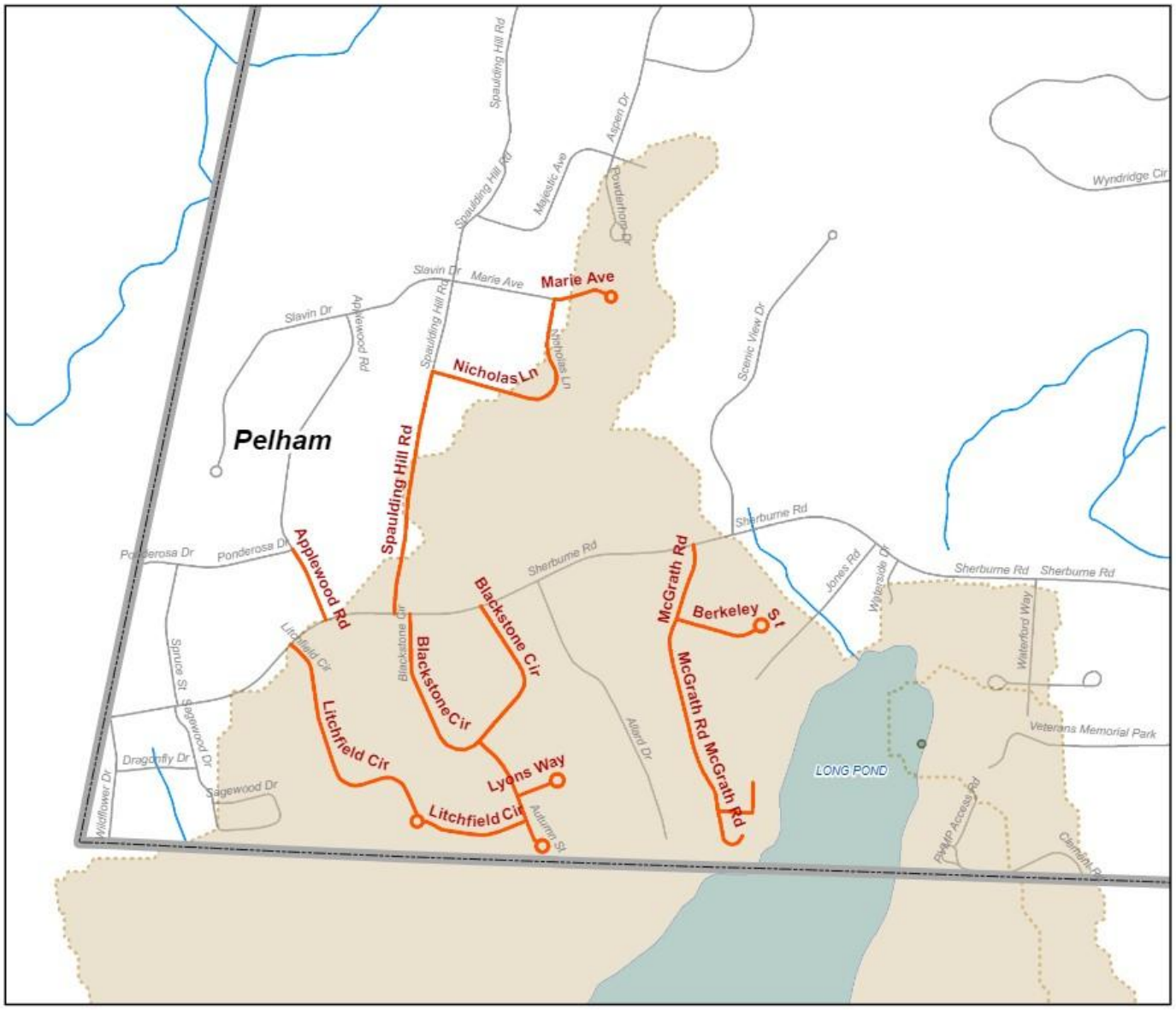
ROAD NAME (2021)
APPLEWOOD RD
AUTUMN ST
BERKELEY ST
BLACKSTONE CIR
DAVIS WAY
DOREEN DR
HONOR ROLL RD
KINNAL AVE
LITCHFIELD CIR
LYONS WAY
MARIE AVE
MCGRATH RD
MULBERRY LN
NICHOLAS LN
REGIS DR
SPAULDING HILL RD
SPRING ST
WEBSTER AVE
WHEATON DR
WOEKLE CIR

Phosphorus Impaired Watersheds and Areas Requiring Additional Street Sweeping
April 2021 **Sheet 1 of 3**



ROAD NAME (2021)
APPLEWOOD RD
AUTUMN ST
BERKELEY ST
BLACKSTONE CIR
DAVIS WAY
DOREEN DR
HONOR ROLL RD
KINNAL AVE
LITCHFIELD CIR
LYONS WAY
MARIE AVE
MCGRATH RD
MULBERRY LN
NICHOLAS LN
REGIS DR
SPAULDING HILL RD
SPRING ST
WEBSTER AVE
WHEATON DR
WOEKLE CIR

Phosphorus Impaired Watersheds and Areas Requiring Additional Street Sweeping
April 2021 **Sheet 2 of 3**



ROAD NAME (2021)
APPLEWOOD RD
AUTUMN ST
BERKELEY ST
BLACKSTONE CIR
DAVIS WAY
DOREEN DR
HONOR ROLL RD
KINNAL AVE
LITCHFIELD CIR
LYONS WAY
MARIE AVE
MCGRATH RD
MULBERRY LN
NICHOLAS LN
REGIS DR
SPAULDING HILL RD
SPRING ST
WEBSTER AVE
WHEATON DR
WOEKLE CIR

Phosphorus Impaired Watersheds and Areas Requiring Additional Street Sweeping
April 2021 **Sheet 3 of 3**

SOP HW-3: WINTER MAINTENANCE PROCEDURES – SNOW REMOVAL AND ICE CONTROL

Introduction

It is the goal and intent of the Town of Pelham to provide timely, efficient, and cost-effective winter maintenance, snow removal, and ice control on the roadways for the safety and benefit of the Town's residents and the general motoring public. These procedures address the requirements of the New Hampshire MS4 General Permit (Permit) that fall under MCM #6, page 53 of 67, section 2.3.7.1.d.v, regarding Winter Road Maintenance Procedures. All NH MS4 permittees are required to establish and implement Winter Road Maintenance Procedures regardless of whether they fall under the requirements of Appendix F (TMDL) or Appendix H (Water Quality Limited Waterbodies) for chloride impaired surface waters. The goal of these procedures is to provide guidance to permittees and their employees on winter maintenance activities and procedures. If services are contracted, it is the responsibility of the permittee to relay all winter maintenance procedures and expectations to their contractor(s).

Permit Language (Page 53, section 2.3.7.1.d.v): *The permittee shall establish and implement procedures for winter road maintenance including the use and storage of salt and sand; minimize the use of sodium chloride and other salts and evaluate opportunities for use of alternative materials; and ensure that snow disposal activities do not result in disposal of snow into waters of the United States. See NHDES, Fact Sheet WMB-3 Snow Disposal, for guidance as to selection and maintenance of snow disposal areas. For purposes of this MS4 Permit, salt shall mean any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.*

Procedure

The objective stated above will be achieved by implementation and execution of the procedures and tasks outlined in the Town of Pelham Winter Operations Snow Removal and Ice Control Procedures. Due to the many variables that are inherent in New England weather, each storm and/or weather event will require slightly different effort and/or emphasis on any number or maintenance tasks, which together, determine the overall winter maintenance, snow removal, or ice control strategy. The Town of Pelham will implement the following winter maintenance procedures to reduce the discharge of pollutants from the MS4 while maintaining public safety.

Level of Service

It is not possible to maintain a snow and ice-free black road or sidewalk during a storm. It is the intention of the Town of Pelham to provide practical, safe access to homes, business and municipal facilities during winter storms within the confines of physical and budget limitations.

It is our policy to start snow removal operations upon accumulation of 1-inch snowfall. The Highway Director or their designee may, at their discretion, based on weather information reports, elect to not remove snow until a greater or lesser accumulation.

Pre-treatment and ice control may be addressed prior to the actual snow beginning, during the actual storms as seen effective, and after the storm. It should be noted that salt has a much slower effect on melting snow and ice at temperatures below 19-degrees Fahrenheit, and may not be applied without additives until it is warmer.

Sidewalk snow clearance will be conducted as soon as possible following winter storms. Personnel availability and the needs to maintain roadways will take priority.

Snow is removed as much as possible with mechanical means like plowing, blowing, or shoveling before deicing to reduce the need for road salt or other deicing chemicals. Salt is only applied when pavement temperature is above 15° F.

Command

Direction of all winter maintenance activities for the Town of Pelham is vested with the Highway Director, the Lead Foreman, or their designee.

Execution

The policy outlined above is intended to serve as the normal operation precedures for winter maintenance, snow removal, and/or ice control for the Town of Pelham. One or more of the following, which may delay or prevent the implementation of this policy, may affect all or any part of this policy.

1. Equipment breakdown
2. Snow accumulation in excess of 1-inch per hour
3. Traffic congestion
4. Emergencies
5. Personnel illness
6. Extensive long drawn out storm, with an exhausted crew

Equipment

The Highway Department utilizes all the assets needed to address snow emergencies. A list of the current rolling stock assets is available from the Highway Department. Equipment is calibrated to reduce and optimize salt use and ensure deicing agents are being used efficiently. Employees are provided with training on proper calibration procedures. Eqipment is regularly inspected and maintained to reduce the potential for leaks. Calcium chloride is used as an alternative deicer.

Routes

Currently, the town is divided into 17 plow routes. The town owns five 6-wheel dump trucks with wings, one 10-wheel dump truck with wings, two 1-ton dump trucks, all with mounted power sanders and front plows. Three town pickups, specialty equipment, and hired equipment when necessary complete the snow and ice fighting equipment. The Town of Pelham uses the

following apparatus to dispense salt or salt alternative: ground speed oriented spreader, standard spreader hydraulic-run, and an electric spreader.

Manpower

The town has eight full-time employees assigned to its winter maintenance operations. In addition, private contractors are also used to plow town roads and parking lots. Employees are trained multiple times/year on BMPs pertaining to winter maintenance activities. Employees received training as part of an overall employee training in conjuction with stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures. The Town of Pelham keeps employee training records on file for SWPPPs and IDDE for 5 years. Contractors who perform winter road maintenance are trained by their employers on BMPs pertaining to winter maintenance activities.

Materials

In an average winter, the department uses approximately 3,000 tons of salt and 1,900 tons of sand each season. The sand is used as an abrasive for dirt roads and is applied to improve the public's motor vehicle traction. On paved roads sand is mixed with salt and tightly spread as close to the middle of the road as traffic allows, creating liquid super salt brine. The Department employs salt and calcium chloride as de-icing agents. In "no salt zones" sand is directly sprayed onto the road. The sand supply is bid each year and is trucked to the storage area following bid requirements throughout the winter season. Rock salt is purchased from a supplier as needed and the storage facility can store approximately 600 tons of salt and 600 tons of salt/sand mix. All salt and sand (and mixed material) is stored inside a building under cover.

Unless weather conditions require a different approach, winter maintenance routes are usually treated with salt or a mixture of sand and salt. The mixture is maintained at minimum of one-part salt to three-parts sand. The mixture is applied as close to the center of roadway where traffic can work the mix traveling either way. The mixture, in conjunction with traffic action, creates a watery brine melting snow and/or ice, and reducing snow and ice packing on the roadway. The road crown further assists with the spreading of the mixture brine. Sand/salt is only effective to approximately 20-degrees Fahrenheit.

LOW SALT USE: The Town has established certain roadways or portions of roadways as low-salt use areas to protect drinking water resources or other natural resources. A low salt area is one in which the municipality has determined it will use a lower concentrate of salt as part of its ice control efforts for winter maintenance. The Town posts such areas as to warn traveling motorists that they are in a low-salt area.

SALT FREE AREAS: The Town has established certain roadways or portions of roadways as "salt free" areas to protect drinking water resources or other natural resources which is believed to have been damaged in the past due to roadway salt. A "salt free" area is one in which the municipality has determined it will not use salt as part of its ice control efforts for winter

maintenance. The Town posts such areas as to warn traveling motorists that they are in a "salt free" area. Gravel roads will not be treated with salt at any time. This is to prevent the frozen gravel from melting.

Only enough deicer is applied so that plows can remove the snow and ice. The application rate of deicers is adjusted based on the type of storm, the type of agent used, and anti-icing techniques used.

Communications

The Highway Department rolling stock is equipped with two-way radios capable of transmitting and receiving. Each vehicle is assigned a unique call number. Most private contractors working for the town communicate with the Highway Department using cell phones. The Highway Department maintains communications both from the garage and Pelham Communications during winter emergencies.

Snow Emergencies

Snow emergency may be instituted by the Town Administrator in consultation with the Highway Director and concurrence of the Police Chief in the event of a predicted or on-going severe winter snowstorm.

1. Contact Police Chief for concurrence with implementing the emergency.
2. Notify the Town Administrator.
3. Draft News Release on public works stationary.
4. Fax copies to:
    a. Town Office
    b. Town cable channel
    c. Town website
    d. Police Department
    e. WMUR Channel 9 News
    f. Chamber of Commerce

Sample News Release

NEWS RELEASE – DATE
The Town of Pelham has instituted a SNOW EMERGENCY and PARKING BAN which will begin 9:00pm on Friday, January 3rd and remain in effect until 9:00am on Saturday, January 4th. Vehicles parked on or alongside town streets during this period will be towed at the owner's expense.

Schools

The school district manages snow removal and winter surface treatments directly using private contractors. The school superintendent or designated official representative along with the

school bus company's representative confers with the Highway Department to discuss the condition of the municipality's roads in order to determine the safety of students using buses. This is done prior to 5:30am. The school representative shall make the decision to cancel or delay school opening for the day.

Parking

The town has enacted a winter parking ban effective from December 1st to April 1st of each year. This ban prohibits parking in or on the town's roads or right of way. The Town has the right to tow at the owner's expense. The purpose of the winter parking ban is to allow winter maintenance crews unobstructed snow removal and ice control routes, as much as possible, to maintain the maximum effectiveness of their efforts.

Plow Route Priorities

With a total of approximately 110 miles of town roads from which to remove snow and ice and 20 pieces of equipment to handle this responsibility, the Highway Department has to assign priorities for winter maintenance route activity in order to maximize the effectiveness of their efforts for the motoring public.

School bus routes will be given the first priority during school days. Each plow route will ensure that the best possible snow clearance will be completed within one half hour of bus route time.

Public parking areas at the Town Office, Town Hall, Library, Police Station, and Fire Station will be maintained by plowing during the winter storm. The application of slip resistant materials will be applied after the storm as determined by the Highway Department or their designee.

Roads and Other Areas not Receiving Winter Maintenance

The Town of Pelham does not maintain a number of roadways and other areas as part of the ongoing winter maintenance activities. The areas not maintained by the Town include:

- Town roads classified as Class VI roads
- Private roads
- State roads

Transfer Station/Recycling Center

Transfer station personnel may be required to assist with the town's general winter maintenance operations. If the facility is open during the snow or ice storm, personnel will plow this area prior to opening for public use. Public areas shall be kept as clear as possible to provide as safe access as is reasonably possible. Sand and other slip resistant materials shall be used in public areas.

Snow Storage (Banks and/or Piles)

Snow shall not be piled or plowed into surface water or stormwater devices (swales, detention ponds, catch basins etc.). If removed/plowed snow is placed adjacent to a surface water, a

double row or haybales should be placed at the downstream toe of the bank/pile to filter snow melt. Haybales should be inspected regularly and replaced as needed. To the maximum extent practical, snow storage areas should not be located on impervious surfaces or in vegetated buffers.

The following guidelines should be overseen relative to the storing and/or banking of removed/plowed. No snow should be stored or banked within:

- 25-feet of a surface water
- 75-feet of a private water supply
- 200-feet from community water supply
- 400-feet from municipal wells

Snow storage areas should be kept free of trash and debris. At a minimum, trash and debris should be removed from planned snow storage areas prior to the winter season and following snow melt in the spring. Snow is not stored in areas that are unstable, areas of potential erosion, or high points where snow may melt and collect debris as runoff before it enters the stormwater system.

Salt and Sand Storage

The Highway Department yard houses a large covered shed for storing salt and sand in two separate piles. The shed has a lip at the entrance to prevent stormwater runoff. Sand that has not been mixed with salt is stored outside in large piles. When it gets mixed, it is stored in the shed. The shed prevents exposure of deicing product(s) (salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implements good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Piles of salt and/or sand are stored in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells. Materials stored under cover are on impervious surfaces. Salt is not stored near drinking water supplies, surface water resources, groundwater resources, recharge areas, and/or wells.

Loading/Unloading

The salt and sand mixes are loaded onto the trucks with a loader machine. The trucks are mostly outside of the shed when loaded. Spills are pushed back into the shed when loading. Mixes and salt are unloaded directly inside the shed. Trucks are not overfilled with deicing materials to prevent spills. Loading/unloading of trucks are completed on impervious surfaces. These areas are frequently cleaned and swept to reduce the tracking and runoff of salt and to capture any spills. Adequate drainage controls are in storage areas to prevent runoff from entering the stormwater system. Storage areas are frequently scraped to reduce the amount of salt, sand, or other materials that are tracked out. Appropriate loading/unloading procedures are followed.

Damage to Private Property

It should be noted that the municipality isn't held responsible for damage to private property that is located within the public right of way. The right of way (ROW) is often 50-feet wide and is often confused by property owners as their own property. In most cases, the ROW extends 10-20 feet on either side of paved or gravel roads. Homeowners cultivate extensions of their lawns, place mailboxes, erect fences or stonewalls in these areas. This is obstructive to some maintenance needed to be conducted on the roadway.

Homeowners should not put bark mulch, crushed rock, stone walls, fences (visible and invisible), irrigation systems, trees or lawns in the town right of way. The town is not liable for damage that may occur to property in its right of way. Many items interfere with heavy equipment and become a hazard for vehicles and pedestrians. They can also cause drainage failures, and thereby road deterioration.

Location of Mailboxes

Mail and newspaper boxes are allowed, at the owner's risk, within the right of way for the purposes of convenience. United States Postal bulletin 22102 states; *"The Postal Service suggests using a semi-arch or extended arm support which allows snow plows to sweep near or under mailboxes without damaging supports and provides easy access to the mailboxes by carriers and customers."*. Please refer to the town's recommended policy on mailbox placement.

The following suggestions are for reducing the possibility of damage and liability:

- Whenever possible, mailboxes should be installed at least 3-feet from the edge of the pavement; and
- Installation should be sufficiently sturdy to withstand the weight of heavy snow resulting from plowing operations.

Parking Ban

Pursuant to the provisions of RSA 41:11 and RSA 47:17, the following regulation has been adopted by the Town of Pelham. It shall be unlawful for any vehicle to be parked upon or adjacent to the street of the Town of Pelham so as to obstruct snow plowing and or snow removal operations between December 1st and the following April 1st. Any vehicle obstructing such snow plowing and or snow removal operations may be towed by the Town of Pelham without notice to the owner, and at the expense of the vehicle owner, unless exempt by the Town of Pelham Highway Department.

Post Storm Operations

As determined by the Highway Agent or their designee, the snowbanks resulting from previous accumulations shall be pushed back, or shelved, using the plow and wings of dump trucks, grader, or other suitable equipment to make space for future snowstorms.

Sidewalk Snow Removal

Sidewalk snow plowing will be done as soon as possible within the limitations of manpower, equipment, and storm size. If there are insufficient personnel available to conduct sidewalk snow removal operations, as well as street and road clearance, the streets and roads shall take priority. The sidewalks will be treated with sand as quickly as possible after the storm if it is slick. Sidewalks are generally plowed in one sweep taking one day for typical snow events.

Obstructing Roads and Sidewalks

This is prohibited by law and can cause a serious hazard. No person, firm, or corporation engaged in the operation of snow plowing, blowing, or removing shall allow or cause any accumulation of snow to obstruct or impair any town-maintained street, roadway, sidewalk, parking lot, or right of way, unless such operations are approved by the Highway Director.

Enforcement

Any person who violates the provisions of this will be guilty of a violation and subject to a $100.00 fine. Subsequent offenses shall be subject to a fine of up to $500.00.

Attachments

Related Standard Operating Procedures

Governing Laws

RSA 41:11, RSA 47:17, RSA 231:92-a, and RSA 507-B:2-b

2017 NH Small MS4 Permit Part 2.3.7.1.d.v

Approval Date: June 30, 2025

Sources: *Snow Removal and Ice Control – Standard Operating Procedure, Town of Amherst, New Hampshire 2017*

Snow Plowing and Snow Removal, Standard Operating Procedures, Exeter, New Hampshire 2011

Standard Operating Procedures, Weare, New Hampshire, Snow Removal and Ice Control, 2004

Guidelines and Standard Operating Procedures, Illicit Discharge Detection and Pollution Prevention/Elimination and Good Housekeeping for Stormwater Phase II Communities in New Hampshire. New Hampshire Estuaries Project, November 2006.

APPENDIX A

Definitions

To avoid confusion, the following standardized terminology is established. When directed to do so, operators will perform winter maintenance tasks in accordance with these definitions.

Across Town Roads: Pushing snow from one side to the other where snow would be deposited within the Right of Way of any road.

Cleanup: Cleanup and push back all roads. Cleanup intersections, turn arounds, routes, and cul-de-sacs. Some areas may require more than one pass.

Drags: May be requested to do side streets.

Open: Keeping the center of roads open; not spending a lot of time clearing route intersections or turn arounds. This normally will be requested while snow is falling and there is a need to finish the drivers' routes in as short a time as possible. (One inch per hour would result in three to four inches of snow at the beginning of routes before a truck gets back to it.)

Open Full: Making extra passes at routes/intersections to allow vehicle traffic to flow better. This is also aimed at getting the whole route done in as short a time as possible.

Push/Back: After several large storms it may be necessary to send a truck or the grader out to shelf or back snow wind rows. A loader will normally go along to clean up intersections.

Sand Roads: Roads will be spread with "straight" sand over the travel width of a gravel road. It may be necessary to spread in both directions to get complete coverage.

Slush Off: Scrape off any snow/ice that has loosened up from treating with salt. Normally it will require one pass each way unless advised to slush off and clean up.

Traveled Portion: Any part of the roadway in which vehicles would travel or within the shoulders of said roadway.

Treat Mains: The treating of just the high traffic volume roads. Depending on conditions and drivers.

Treat Roads: Roads spread with salt or a mixture of salt and sand. The proportion of the sand/salt mixture will be determined by the Road Agent or their designee. Mixtures will be spread along the centerline of the roadway in a width of two to four feet.

Treat Route: The spreading of salt and or a salt/sand mix on all roads, in such a manner that one backtracks as little as possible.

SOP HW-4: INSPECTION OF CONSTRUCTED BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are policies, procedures, and structures designed to reduce stormwater pollution, prevent contaminant discharges to natural water bodies, and reduce stormwater maintenance costs. Constructed BMPs are permanent site features designed to treat stormwater before infiltrating subsurface soils or discharging to a surface water body.

This Standard Operating Procedure provides a general summary of inspection procedures for eight common constructed BMPs:

1. Bioretention Areas and Rain Gardens
2. Constructed Stormwater Wetlands
3. Extended Dry Detention Basins
4. Proprietary Media Filters
5. Sand and Organic Filters
6. Wet Basins
7. Dry Wells
8. Infiltration Basins

Bioretention Areas and Rain Gardens

Bioretention areas and rain gardens are shallow depressions filled with sandy soil, topped with a thick layer of mulch, and planted with dense native vegetation. There are two types of bioretention cells:

1. Filtering bioretention area: areas that are designed solely as an organic filter; and
2. Exfiltration bioretention area: areas that are configured to recharge groundwater in addition to acting as a filter.

Inspection & Maintenance

The Highway Department shall adopt a rotating list of structural BMPs for inspection so that all structures are inspected no less than every 2 years or as needed. Regular inspection and maintenance are important to prevent premature failure of bioretention areas or rain gardens. Regular inspection and maintenance of pretreatment devices and bioretention cells for sediment buildup, structural damage, and standing water can extend the life of the soil media.

When failure of a bioretention area is identified, excavate the failed or full area, scarify the bottom and sides, replace the filter fabric, filter media and soil, replant vegetation, and mulch the surface.

Never store snow within a bioretention area or rain garden. This would prevent water quality treatment and the recharge of groundwater.

Maintenance Schedule: Bioretention Areas and Rain Gardens

Activity	Time of Year	Frequency
Inspect for soil erosion and repair	Year round	Annually
Inspect for invasive species and remove if present	Year round	Annually
Remove trash	Year round	As Needed
Mulch void areas	Spring	As Needed
Remove dead vegetation	Fall and Spring	Annually
Replace dead vegetation	Spring	As Needed
Prune	Spring or Fall	As Needed
Replace all media and vegetation	Late Spring/Early Summer	As Needed

Constructed Stormwater Wetlands

Constructed stormwater wetlands maximize the pollutant removal from stormwater using wetland vegetation uptake, retention, and settling. Constructed stormwater wetlands must be used in conjunction with other BMPs, such as sediment forebays.

Inspection & Maintenance

Regular inspection and maintenance are important to prevent premature failure of constructed stormwater wetlands. Regular inspection and maintenance of pretreatment areas and constructed wetlands for sediment buildup, structural damage, and standing water can extend the life of the BMP.

If failure of a constructed stormwater wetland area is identified, excavate the area, scarify the bottom and sides, replace the filter fabric, filter media and soil, and replant vegetation. Remove invasive species that occur immediately.

Never store snow within a constructed stormwater wetland. This would prevent required water quality treatment and the recharge of groundwater.

Maintenance Schedule, Constructed Stormwater Wetlands: Years 0-3

Activity	Time of Year	Frequency
Inspect for invasive species and remove if present	Year round	Annually
Record and Map:	Year round	As Needed
Types and distribution of dominant wetland plants	Year round	As Needed
Presence and distribution of planted wetland species	Spring	As Needed
Presence and distribution of invasive species	Fall and Spring	As Needed
Indications other species are replacing planted wetland species	Spring	As Needed
Percent of standing water that is not vegetated	Spring or Fall	As Needed
Replace all media and vegetation	Late Spring/Early Summer	As Needed
Stability of original depth zones and micro-topographic features		As Needed
Accumulation of sediment in the forebay and micropool and survival rate of plants		As Needed

Maintenance Schedule, Constructed Stormwater Wetlands: Years 4-Lifetime

Activity	Time of Year	Frequency
Inspect for invasive species and remove if present	Year round	As Needed
Clean forebays	Year round	As Needed
Clean sediment in basin/wetland system	Year round	Once every 10 years
Remove dead vegetation	Fall and Spring	As Needed
Replace dead vegetation	Spring	As Needed
Prune	Spring or Fall	As Needed
Replace all media and vegetation	Late Spring/Early Summer	As Needed

Extended Dry Detention Basins

Extended dry detention basins are designed to control both stormwater quantity and quality. These BMPs are designed to hold stormwater for at least 24 hours, allowing solids to settle, and to reduce local and downstream flooding. Pretreatment is required to reduce the potential for overflow clogging. The outflow may be designed as either fixed or adjustable. Additional nutrient removal may be achieved with a micro pool or shallow marsh.

Inspection & Maintenance

Annual inspection of extended dry detention basins is required to ensure that the basins are operating properly. Potential problems include erosion within the basin and banks, tree growth on the embankment, damage to the emergency spillway, and sediment accumulation around the outlet. Should any of these problems be encountered, necessary repairs should be made immediately.

Maintenance Schedule: Extended Dry Detention Basins

Activity	Time of Year	Frequency
Inspect basins	Spring	Annually
Examine outlet structure for clogging or high outflow release velocities	Spring	Annually
Mow upper stage, side slopes, embankment, and emergency spillway	Spring through Fall	As Needed
Remove trash and debris	Year round	As Needed
Remove sediment from basin	Late Summer	As Needed

Proprietary Media Filters

Media Filters are designed to reduce total suspended solids and other target pollutants, such as organics, heavy metals, or nutrients which are adsorbed onto the filter media contained in a structural device. The substrate used as filter media depends on the target pollutants, and may consist of leaf compost, pleated fabric, activated charcoal, perlite, amended sand in combination with perlite, and zeolite. Two types of Media Filters are manufactured: dry Media Filters, which are designed to dewater within 72-hours; and wet Media Filters, which maintain a permanent pool of water as part of the treatment system.

Inspection & Maintenance

Maintenance in accordance with the manufacturer's requirements is necessary to ensure functional stormwater treatment. Inspection or maintenance of the structure may require OSHA confined space training. Dry Media Filters are required to dewater in 72-hours, thus preventing mosquito and other insect breeding. Proper maintenance is essential to prevent clogging. Wet Media Filters require tight fitting seals to keep mosquitoes and other insects from entering and breeding in the permanent pools. Required maintenance includes routine inspection and treatment.

Maintenance Schedule: Proprietary Media Filters

Activity	Time of Year	Frequency
Inspect for standing water, trash, sediment, and clogging	Per manufacturer's schedule	Per manufacturer's schedule
Remove trash and debris	Year round	As Needed
Examine to determine if system drains in 72-hours (dry systems)	Spring, after large storm	As Needed
Inspect filtering media for clogging	Per manufacturer's schedule	Per manufacturer's schedule

Sand and Organic Filters

Sand and organic filters, also known as filtration basins, are intended for quality control rather than quantity control. These filters improve water quality by removing pollutants through a filtering media and settling pollutants on top of the sand bed and/or in a pretreatment basin. Pretreatment is required to prevent filter media from clogging. Runoff from the filter is often discharged to another BMP for additional treatment.

Inspection & Maintenance

If properly maintained, sand and organic filters have a long design life. Maintenance requirements include raking the sand and removing sediment, trash, and debris from the surface of the BMP. Over time, fine sediments will penetrate deep into the sand requiring replacement of several inches or the entire sand layer. Discolored sand is an indicator of the presence of fine sediments, suggesting that replacement of the sand should be completed.

Maintenance Schedule: Proprietary Media Filters

Activity	Frequency
Inspect filter layer and remove debris	As Needed

Wet Basins

Wet basins are intended to treat stormwater quality through the removal of sediments and soluble pollutants. A permanent pool of water allows sediments to settle the soluble pollutants, including metals and nutrients. Additional dry storage may be required to control peak discharges during large storm events, and if properly designed and maintained, wet basins can add fire protection, wildlife habitat, and aesthetic value to the landscape.

Inspection & Maintenance

To ensure proper operation, wet basin outfalls should be inspected for evidence of clogging or excessive outfall releases or velocities. Potential problems to investigate include erosion within

the basin and banks, damage to the emergency spillway, tree growth on the embankment, sediment accumulation around the outlet, and the emergence of invasive species. Should any of these problems be encountered, perform repairs immediately. An on-site sediment disposal area will reduce sediment removal costs.

Maintenance Schedule: Wet Basins

Activity	Time of Year	Frequency
Inspect wet basins	Spring and/or Fall	Annually
Mow upper stage, side slopes, embankment, and emergency spillway	Spring through Fall	As Needed
Remove sediment, trash, and debris	Year round	Annually
Remove sediment from basin	Year round	As required, but at least once every 10 years

Dry Wells

Dry wells are used to infiltrate uncontaminated stormwater runoff. These BMPs should never be used to infiltrate stormwater that has the potential to be contaminated with excess sediment or other pollutants. Dry wells provide groundwater recharge and can help to reduce the size and cost of required downstream BMPs or storm drains. However, they are only applicable in smaller drainage areas of less than one acre, must be installed above the seasonal highwater table, and may experience more frequent failure rates due to clogging.

Inspection & Maintenance

Proper dry well function depends on regular inspection. Clogging has the potential to cause device failure. The water depth in the observation well should be measured at 24- and 48-hour intervals after a storm and the clearance rate calculated. The clearance rate is calculated by dividing the drop-in water level (inches) by the time elapsed (hours). Dry wells should completely drain within 48 to 72-hours.

Maintenance Schedule: Dry Wells

Activity	Frequency
Inspect dry wells	Annually

Infiltration Basins

Infiltration basins are designed to contain stormwater quantity and provide groundwater recharge. Pollution prevention and pretreatment are required to ensure that contaminated stormwater is not infiltrated. Infiltration basins reduce local flooding and preserve the natural

water balance of a site, however higher failure rates often occur due to improper siting, inadequate pretreatment, and lack of maintenance.

Inspection & Maintenance

Regular maintenance is required to prevent clogging that results in reduced infiltration rates. Clogging may be due to upland sediment erosion, excessive soil compaction, or low spots that keep the sediments from being evenly distributed. Inspections should include signs of differential settlement, embankment cracking, erosion, leakage in the embankments, tree growth on the embankments, riprap condition, sediment accumulation and turf health.

Maintenance Schedule: Infiltration Basins

Activity	Time of Year	Frequency
Preventative maintenance	Spring through Fall	As Needed
Inspection	Spring through Fall	Annually
Mow/rake buffer area, side slopes and basin bottom	Spring through Fall	As Needed
Remove trash, debris, and organic matter	Year round	Annually

Attachments
SOP HW-4 Constructed *BMP Inspection Forms*

Related Standard Operating Procedures
SOP PL-3 Construction *Site Inspection Program*

Approval Date: June 30, 2025
Revisions:

Source: *Central Massachusetts Regional Stormwater Coalition*
Massachusetts Stormwater Handbook

INSPECTION OF BIORETENTION AREAS AND RAIN GARDENS

General Information

BMP Description	Bioretention Areas and Rain Gardens		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Inspect for soil erosion and repair	Annually	Yes ☐ No ☐	
Inspect for invasive species and remove if present	As Needed	Yes ☐ No ☐	
Remove trash	As Needed	Yes ☐ No ☐	
Remove dead/obstructive vegetation	Annually	Yes ☐ No ☐	
Prune	As Needed	Yes ☐ No ☐	

Replace vegetation	As Needed	Yes ☐ No ☐	
Notes:			

INSPECTION OF CONSTRUCTED STORMWATER WETLANDS

General Information

BMP Description	Constructed Stormwater Wetland		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Inspect for invasive species and remove if present	Annually	Yes ☐ No ☐	
Replace all media and vegetation	As Needed	Yes ☐ No ☐	

In addition, the following information should be recorded and mapped at least once per year:

- Types and distribution of dominant wetland plants
- Presence and distribution of planted wetland species
- Presence and distribution of invasive species
- Indications other species are replacing planted wetland species
- Percent of standing water that is not vegetated
- Replace all media and vegetation
- Stability of original depth zones and micro-topographic features
- Accumulation of sediment in the forebay and micropool and survival rate of plants

INSPECTION OF CONSTRUCTED STORMWATER WETLANDS

Year 4 - Lifetime of Operation

General Information

BMP Description	Constructed Stormwater Wetland		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Inspect for invasive species and remove if present	Annually	Yes ☐ No ☐	
Clean forebays	As Needed	Yes ☐ No ☐	
Clean sediment in basin/wetland system	Once every 10 years	Yes ☐ No ☐	
Mulch void areas	As Needed	Yes ☐ No ☐	

Remove dead vegetation	As Needed	Yes ☐ No ☐	
Replace dead vegetation	As Needed	Yes ☐ No ☐	
Prune	As Needed	Yes ☐ No ☐	
Replace all media and vegetation	As Needed	Yes ☐ No ☐	
Notes:			

INSPECTION OF EXTENDED DRY DETENTION BASINS

Inspections should be conducted annually, and during and after major storm events.

General Information

BMP Description	Extended Dry Detention Basin		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Examine outlet structure for clogging or high outflow release velocities	Annually	Yes ☐ No ☐	
Mow upper stage, side slopes, embankment, and emergency spillway	As Needed	Yes ☐ No ☐	
Remove trash and debris	Annually	Yes ☐ No ☐	
Remove sediment from basin	At least once every 10 years	Yes ☐ No ☐	

INSPECTION OF SWALES

General Information

BMP Description	Swale (circle if riprap or vegetated/grassy)		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Rake back leaves	Annually	Yes ☐ No ☐	
Remove trash and debris	Annually	Yes ☐ No ☐	
Remove woody vegetation/roots	As Needed	Yes ☐ No ☐	
Clear out pipes	As Needed	Yes ☐ No ☐	
Notes:			

INSPECTION OF SAND AND ORGANIC FILTERS

General Information

BMP Description	Sand/Organic Filter		
BMP Location			
Media Type			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Remove sediment, trash, and debris	Annually	Yes ☐ No ☐	
Rake sand	As Needed	Yes ☐ No ☐	

INSPECTION OF DRY WELLS

General Information

BMP Description	Dry Well		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			
Describe condition of dry well at time of inspection			

After a major storm event, the water depth in the observation well should be measured at 24- and 48-hour intervals and the clearance rate calculated.

INSPECTION OF WET BASINS

General Information

BMP Description	Wet Basin		
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Describe the weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspections Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
Preventative maintenance	Annually	Yes ☐ No ☐	
Mow/rake buffer area, side slopes and basin bottom	As Needed	Yes ☐ No ☐	
Remove trash, debris, and organic matter	Annually	Yes ☐ No ☐	
Inspect and clean pretreatment devices	As Needed	Yes ☐ No ☐	
Notes:			

INSPECTION OF OTHER BMP

General Information

BMP Description			
BMP Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Weather conditions at time of inspection			

Specific Information

Maintenance Activity	Inspection Frequency	Is Status of BMP Satisfactory?	Corrective Action Needed
		Yes ☐ No ☐	
		Yes ☐ No ☐	
		Yes ☐ No ☐	
		Yes ☐ No ☐	
Notes:			

SOP PR-1: Stormwater Stakeholder Group

In section 2.3.3.3. of the NH Small MS4 Permit, public participation in the SWMP is required. One way to encourage participation is through the creation of a local, volunteer-advisory committee. This Standard Operating Procedure describes the Town of Pelham's advisory committee called the Stormwater Stakeholder Group (SSG).

Group Representation

The Stormwater Stakeholder Group will aim to have representation from the following groups that have a vested interest in stormwater runoff and matters of the MS4 Permit.

1. Long Pond Association
2. Little Island Pond Association
3. Gumpas Pond Association
4. Conservation Commission
5. Pelham Planning Board
6. Forestry Committee
7. Highway Department

In addition, the Town encourages other members of the public who are interested in joining to attend as well. If the Town has an environmental consultant, they may also be asked to be involved in the advisory committee. The group will aim to have a maximum of 20 members at any given time.

Frequency of Meetings

The Stormwater Stakeholder Group will meet as needed. If any issues arise that call for an additional meeting, it will be reviewed by the Environmental Regulation Compliance Specialist and the Planning Director before scheduling an additional meeting. The meeting will always be reserved specifically during the review period of the annual public comment period if any are submitted (See SOP PR-3).

Group Roles

The Stormwater Stakeholder Group will be chaired by the Town Environmental Regulation Compliance Specialist. If for any reason the Environmental Regulation Compliance Specialist cannot chair the group, the Planning Director will serve as the chair. If neither can attend the meeting as scheduled, the meeting will be cancelled and rescheduled.

The Town Environmental Regulation Compliance Specialist will consider all input from the SSG. Members of the SSG will be able to voice their opinions and give meaningful input, however, the group is strictly advisory and does not have voting rights or decision-making authority.

Related Standard Operating Procedures

1. SOP PR-2: Annual Public Comment Period for the SWMP
2. SOP PR-3: Advising Public Comments in the Stormwater Stakeholder Group

Approval Date: June 30, 2025

SOP PR-2: Annual Public Comment Period for the SWMP

The Annual Public Comment Period is required by the EPA in section 2.3.3.2. of the MS4 Permit to provide the public an opportunity to participate in the review and implementation of the Stormwater Management Plan (SWMP). This Standard Operating Procedure describes the methods for collecting and reviewing public comments submitted during the public comment period.

Submission of Comments

Comments can be submitted through the Pelham Stormwater website under the tab on the left dark blue column titled, "Comments on Stormwater Plan". The public is asked to provide their name, their email address, and to write their comment in the text box. This option is open year-round, and comments can be submitted at any time. The comment box will be advertised annually in April to remind the public of its purpose.

Comments can also be sent directly to the Environmental Regulation Compliance Specialist through mail/email, through a phone call, or through a physical visit to the Planning Department. These comments will be recorded and kept for 5 years after their submission.

Recording Public Comments

The Environmental Regulation Compliance Specialist will collect the public comments and keep a record of them. The record will include the date submitted, the format of comment submittal, and the comment itself.

Review

The Stormwater Stakeholder Group will first meet to review the public comments, discuss, hold an informal vote as to how to address the comment, and make a recommendation to the Town Planning Department.

The Town Environmental Regulation Compliance Specialist, the Planning Director, and the Environmental Consultant will next meet to review the comments and the SSG recommendations and consider them for the SWMP annual edits. A written record of the discussions and final decision on how to address each comment will be made.

All comments will be considered, however, not all comments may be added to the next edition of the SWMP. All comments and meeting minutes will be kept in the records for at least 5 years after their submission.

Related Standard Operating Procedures

1. SOP PR-1: Stormwater Stakeholder Group
2. SOP PR-3: Advising Public Comments in the Stormwater Stakeholder Group

Approval Date: June 30, 2025

SOP PR-3: Advising Public Comments in the Stormwater Stakeholder Group

The Annual Public Comment Period is required by the EPA in section 2.3.3.2. of the MS4 Permit to provide the public an opportunity to participate in the review and implementation of the SWMP. This Standard Operating Procedure describes the methods for the Stormwater Stakeholder Group (SSG) in reviewing public comments submitted during the public comment period.

Timing of the Public Comment Period Review

The review process plays an important role in releasing a new edition of the SWMP to the public at the end of each permit year.

1. The advertised public comment period will end at 12pm on the day of the Stormwater Stakeholder Group annual comment review meeting.
2. Comment review will occur during the annual Stormwater Stakeholder Group meeting.

Received Comments Formatting

The public may submit their comments for the SWMP in 4 different manners. If another format becomes relevant or is more easily accessible, it will be added to the list and advertised as well.

1. Comments will be accepted through email to the Town Environmental Regulation Compliance Specialist between 12am of the starting day of the advertised comment period through 12pm of the final day of the comment period.

2. Comments will be accepted through a phone call directly to the Town Planning Department or the Environmental Regulation Compliance Specialist directly during Town Hall hours (8am-4pm) Monday through Friday of the comment period.

3. Comments will be recorded during in-person visits to the Planning Department during Town Hall hours (8am-4pm) Monday through Friday within the timeframe of the comment period.

4. Comments may be received at any time of day or any day of the year though the "Comments on Stormwater Plan" comment box on pelhamweb.com. This link is available 24/7, 365 days a year for the public to access and submit their thoughts.

5. All comments will be given to and compiled by the Town Environmental Regulation Compliance Specialist.

Review Procedure

The Stormwater Stakeholder Group will review comments received by the Town Environmental Regulation Compliance Specialist during their meeting. The comments will be recorded in a spreadsheet that detail the date of the submission, the format of the submission, and the comment itself. All comments will be stored for at least 5 years after their submission.

1. The Stormwater Stakeholders will review each comment in chronological order of when they were received.
2. The Town Environmental Regulation Compliance Specialist will read each comment out loud and provide a paper copy of all comments for the members to read.
3. After each comment is read, the comment will be open for discussion on whether it is an effective edit or suggestion to make to the SWMP.
4. The discussion will last for no longer than 5-10 minutes for each comment.
5. An informal vote will be taken regarding a recommendation to be made to the Town Planning Department on how to address the comment.
6. The group will move on to the next comment in chronological order and will repeat steps 2-5.
7. Minutes will be taken that summarize the discussion and the SSG recommendation to the Town Planning Department.

Related Standard Operating Procedures

1. SOP PR-1: Stormwater Stakeholder Group
2. SOP PR-2: Public Comment Period

Approval Date: June 30, 2025