



**TOWN OF CHARLTON, Massachusetts**

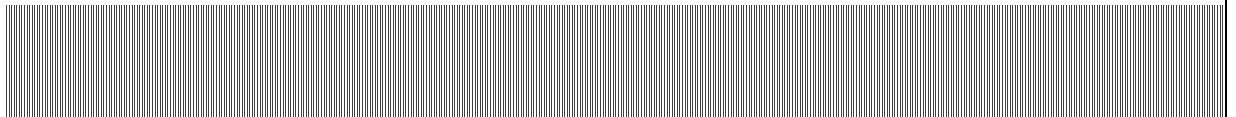
**Conservation Department**

37 Main Street • Charlton, MA 01507

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# **LAND DISTURBANCE/ STORMWATER MANAGEMENT PERMIT Guidance Documents**

June 2021





## Land Disturbance/Stormwater Management Permit – Guidance Documents

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Land Disturbance Permit and Fact Sheet:

- **Land Disturbance Permit Application** – to be prepared and submitted along with all Land Disturbance Permit checklists below.
- **Land Disturbance Permit Fact Sheet** – a brief introduction to the Land Disturbance Permit and the permit application process.

Land Disturbance Permit Checklists:

- **Land Disturbance Permit Checklist** – to be used in the preparation of and submitted along with the Land Disturbance Permit Application package.
  - **Flowcharts** – to be used as handouts for reference.
- **Stormwater Management Plan Checklist** – to be used in the preparation of and submitted along with the Stormwater Management Plan.
- **Erosion and Sediment Control Plan (including O&M Plan for Temporary BMPs) Checklist** – to be used in the preparation of and submitted along with the Erosion and Sediment Control Plan.
- **Operation and Maintenance Plan Checklist** – to be used in the preparation of and submitted along with the Operation and Maintenance Plan. This checklist can also be used to assist with periodic updates to the O&M Plan.

**Town of Charlton, MA  
Conservation Commission  
37 Main Street  
Charlton, MA 01507**

**LAND DISTURBANCE PERMIT**

Today's Date	<input type="text"/>	Permit #	<input type="text"/>
Effective Date	<input type="text"/>	Expiration/Renewal Date	<input type="text"/>
Owner of Record	<input type="text"/>	Project Name	<input type="text"/>
Owner Address	<input type="text"/>	Project Address	<input type="text"/>
City/Town	<input type="text"/>	Project Zip	<input type="text"/>
State	<input type="text"/>	Zip	<input type="text"/>
Telephone	<input type="text"/>	Parcel Number(s)	<input type="text"/>
			*Area Code
Deed/Title Book & Page	<input type="text"/>		
Owner Signature	<input type="text"/>		Date <input type="text"/>
Applicant (if not Owner)	<input type="text"/>		
Address	<input type="text"/>		
City/Town	<input type="text"/>		
State	<input type="text"/>	Zip	<input type="text"/>
Telephone	<input type="text"/>	*Area Code Required	

This permit authorizes the Owner to conduct construction activities that meet the thresholds specified in the Stormwater Management Rules and Regulations. The Conservation Commission may amend this permit at any time during the term of the permit and failure to comply with the requirements set forth in Part I is a violation of this permit and is subject to enforcement actions. Compliance with this permit does not relieve the Owner of its obligation to comply with the Stormwater Management Rules and Regulations, standards or requirements under local, State, and Federal laws,

including any such regulations, standards, requirements or laws that may become effective during the term of this permit. Non-compliance with any term or condition of this permit constitutes a violation of the Stormwater Management Rules and Regulations.

**PART I – Basic Information**

1. Identify which thresholds the project meets.

MINOR PERMIT

land disturbance is undertaken on a single family home construction that results in a total cumulative disturbance of land that meets or exceeds 1 acre of area:

MAJOR PERMIT

land disturbance is undertaken on a single property or is part of a larger common plan of development or sale that results in a total cumulative disturbance of land that meets or exceeds 1 acre of area.

2. Give a brief summary of the project.

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3. The property (building) is currently used for the following purpose.

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4. The property (building) will be used for the following purpose.

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**PART II – Permit Application Requirements**

The issuance of this permit is based in part on submission of the following requirements for a Major Permit:

Stormwater Management Plan and corresponding checklist

Erosion and Sediment Control Plan and corresponding checklist

- Operation and Maintenance Plan and corresponding checklist
- If applicable, the NPDES General Permit for Discharges from Large and Small Construction Activities

**Please submit the permit package above.**

- Other Permits, Plans, or requested information as specified here (e.g., copy of bond, letter, credit, or other guarantee):

- Permit Fee of \_\_\_\_\_.

Signature and Title \_\_\_\_\_ Print Name \_\_\_\_\_

Approved By \_\_\_\_\_ Date of Approval \_\_\_\_\_

Payment Amount Received  Check  Cash

### Application for Land Disturbance Permit Approval

This permit will only be issued for land disturbance activities which meet the Land Disturbance permit thresholds listed in the Town of Charlton Stormwater Bylaw Chapter 175. Outstanding issues must be addressed by the applicant prior to issuance of this permit by the Conservation Commission



**CONSERVATION DEPARTMENT USE ONLY**

\_\_\_\_\_ Application Approved                      \_\_\_\_\_ Application Denied

Comments \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_



## Charlton, MA

### Land Disturbance Permit Fact Sheet

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1. **What is Land Disturbance?**

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

2. **What is a Land Disturbance Permit?**

A Land Disturbance Permit is required under the Stormwater Management Rules and Regulations for any activity where land disturbance is undertaken on a single property or is part of a larger common plan of development or sale that results in a total cumulative disturbance of land that meets or exceeds 1 acre of area.

3. **What are the application requirements?**

The Stormwater Management Rules and Regulations require an Owner who applied for a Land Disturbance Permit to file with the Conservation Commission a copy of a completed application package. While the Applicant can be a representative, the permittee must be the owner of the site. The Land Disturbance Permit application package shall include:

1. A completed Application Form with original signatures of all owners;
2. Stormwater Management Plan and project description as specified in Section 3.3 of the Stormwater Management Rules and Regulations for the Town of Charlton;
3. Project Narrative addressing how the Permittee is in compliance and with and/or meeting the Standards set forth in Section 1.7 Design and Construction Standards of the Stormwater Management Rules and Regulations for the Town of Charlton or to the best of their ability. Include with this Narrative a copy of the calculations performed to ensure compliance as defined in Section 3.3.C.1.(b) of the Stormwater Management Rules and Regulations for the Town of Charlton.
4. Erosion and Sediment Control Plan as specified in Section 3.4 of the Stormwater Management Rules and Regulations for the Town of Charlton;
5. Operation and Maintenance Plan as specified in Section 3.5 of the Stormwater Management Rules and Regulations for the Town of Charlton;
6. If required by the EPA, NPDES General Permit for Discharges from Large and Small Construction Activities application, including the NPDES Construction General Permit Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP);
7. Application form, Stormwater Management Plan, Erosion and Sediment Plan, and Operation and Maintenance Plan must be filed with the Conservation Commission. The date of receipt by the Conservation Commission shall be the official filing date; and
8. Payment of the application and review fee. The Stormwater Committee shall obtain with each submission an Application Fee stated in section 3.2 of the Stormwater Rules and Regulations. The Conservation Commission may require higher fees if deemed necessary.
9. The Conservation Commission is authorized to require additional fees for the following:
  - a. Specific engineering and consultant services. Services may include, but are not limited to hydrologic and drainage analysis, stormwater quantity and quality analysis, design review, site inspections, as-built plan review, and legal issues. Fees are determined at the time of project review based on a specific scope of work.
  - b. Re-inspection services as detailed in Section 3.7 of Stormwater Management Rules and Regulations for the Town of Charlton



## Charlton, MA

### Land Disturbance Permit Fact Sheet

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- **Stormwater Management Plan:** Overall Plan to prevent and reduce the release of pollutants from a site. Plan includes techniques to control the quality and quantity of stormwater. *(Refer to Stormwater Management Rules and Regulations)*
  - **Erosion and Sediment Control Plan:** Plan containing narrative, drawings, and details developed by a qualified professional (a Massachusetts Registered Professional Engineer (P.E.), Massachusetts Registered Landscape Architect, Certified Professional in Erosion and Sediment Control (CPESC), or professional with relevant experience deemed satisfactory to the Authorized Enforcement Agency), which includes best management practices (BMPs), or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction, and construction related land disturbance activities. This plan also includes an Operation and Maintenance Plan for temporary BMPs installed and operated during construction activities. *(Refer to Stormwater Management Rules and Regulations)*
  - **Operation and Maintenance Plan (for Permanent BMPs):** Plan setting up the functional, financial, and organizational mechanisms for the long-term operation and maintenance of a stormwater management system to ensure that it continues to function as designed. *(Refer to Stormwater Management Rules and Regulations)*
  - **NPDES Construction General Permit:** EPA requires permit coverage under the most recent Construction General Permit (CGP) for land disturbances  $\geq 1$  Acre. Requirements include submission of a Notice of Intent (NOI) and preparation of a Stormwater Pollution Prevention Plan prior to any land disturbance. **The approved NOI must be submitted to Conservation Commission before a Stormwater Management Permit can be obtained.** Refer to EPA's website for more information and for the most recent CGP.
4. **What is a Best Management Practice (BMP)?**  
A BMP is an activity, procedure, restraint, structural or non-structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff. The Massachusetts Stormwater Handbook and Stormwater Standards contain guidance and BMPs for each of the 3 Plans.
5. **What are requirements prior to construction (before any land disturbance takes place) and during construction?**  
The Owner must schedule the following site inspections with the Conservation Commission:
1. **Initial Site Inspection:** prior to approval of any Plan.
  2. **Project Progress Inspections:** observe and document project progress at certain milestones.
    - (a) **Erosion and sediment control measures are in place and stabilized;**
    - (b) **Site Clearing has been substantially completed;**
    - (c) **Rough Grading has been substantially completed;**
    - (d) **Final Grading has been substantially completed;**
    - (e) **Close of the Construction Season;**
    - (f) **Final Landscaping (permanent stabilization)**
    - (g) **Project final completion.**
  3. **Owner Inspections:** weekly inspections and prior to and following any storm events with over 0.25" of precipitation.



## Charlton, MA Land Disturbance Permit Fact Sheet

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4. **Bury Inspection:** prior to backfilling of drainage piping or stormwater conveyance structures.
5. **Final Inspection:** after construction is completed.
  
6. **What are requirements for project completion?**  
The Owner must submit a final report with as-built drawings certified by a from a Qualified Professional. Once approved, a certification letter is issued to the owner; Owner submits letter to the Inspectional Services Department to obtain a Certificate of Occupancy.
  
7. **Are there any requirements after construction is complete?**  
The O&M Plan (for Permanent BMPs) must be evaluated and updated annually. A log that includes a record of all inspections and copies of maintenance work orders must be maintained.
  
8. **Where do I pick up copies of the Stormwater Management Permit Application and additional guidance documents?**  
Conservation Commission located at 37 Main Street, Charlton Ma 01507 maintains copies. Copies are also available online at: <https://www.townofcharlton.net/287/Forms-Documents-Links>
  
9. **Any Questions? Please contact the Conservation Commission at (508) 248-2247**



# Land Disturbance Permit Checklist

You must sign and date this checklist and enclose with completed application package for submittal.

**Review History – FOR TOWN USE ONLY. All required plans must be approved before land disturbance activities can begin.**

### First Review

Permit Application Received on: \_\_\_\_\_

Review Completed on: \_\_\_\_\_

### Second Review

Permit Application Received on: \_\_\_\_\_

Review Completed on: \_\_\_\_\_

### Third Review

Permit Application Received on: \_\_\_\_\_

Review Completed on: \_\_\_\_\_

- Land Development Permit Application requires revisions. See comments.
- Land Development Permit Application approved.

Reviewer Name: \_\_\_\_\_

Reviewer Contact Information: \_\_\_\_\_

Reviewer Signature and Date: \_\_\_\_\_

Comments:

## **Drawing and Map Standards**

*The following standards shall guide the preparation of all site plans, elevations, and cross sections. Variations from these standards are permissible where special circumstances warrant for the purposes of greater clarity or ease of handling.*

- Sheet Size:**
  - The sheet size should be uniform for all submitted documents.
  - Dimensions of 24" by 36" are preferred although the size may be adjusted to reflect lots or parcels of unusual size or shape.
- Scale:** The following scales are suggested:
  - Area maps: 1" = 100'
  - Site Maps: 1" = 10' to 1" = 40'
  - Floor Plans and Sections: 1/16" = 1' to 1/8" = 1'
  - Elevations: 1/8" = 1'
  - Standard contours should be at most 2' intervals with spot elevations as necessary (must be NAVD 88).
- Title Block:** The title block on each sheet shall contain the following information:
  - Name of development
  - Name of Owner
  - Address of development
  - Land Development Permit Number (leave space for DPW to fill in permit number once assigned)
  - Scale of map or plan
  - North arrow
  - Date of preparation of the map and date of any revisions
  - Signature and seal of Qualified Professional required for all drawings

## **Submission Requirements**

- Application Form:**
  - Must be signed by all owners (original signatures required).
- Plans:**
  - Stormwater Management Plan and Stormwater Management Plan checklist with original signature.
  - Erosion and Sediment Control Plan (including O&M Plan for temporary BMPs) and Erosion and Sediment Control Plan checklist with original signature.
  - Operation and Maintenance Plan and Operation and Maintenance Plan checklist with original signature.
  - NPDES General Permit for Discharges from Large and Small Construction Activities (where applicable)
- Payment of Application and Review Fees**

***Owner's Certification***

I, the undersigned, hereby certify that the attached Land Disturbance Permit application submittal includes all items required by the Town of Charlton Stormwater Management Rules and Regulations. I understand that if any of the items required are found to be missing from the submittal, the Land Disturbance Permit application will not be acceptable for review and will be returned as incomplete. I, the Owner, or approved applicant is aware of these criteria and will accept all responsibility for delays due to incomplete submittals. I am enclosing an explanation for each item which I feel is not required and, therefore, have not been included in this submittal package.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Stormwater Management Plan Checklist

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Please prepare the Stormwater Management Plan to be included in the Application Package. Adhere to the Drawing and Map standards described in the Land Disturbance Permit Checklist and use this checklist to be sure Plan is complete.

**You must sign and date this checklist and attach to completed Plan for submittal.**

### ***Plan Cover Sheet***

- Title - *Stormwater Management Plan*
- Project Name
- Project Location
- Assessor Parcel Number
- Stormwater Management Permit Number
- Designer or Other Firm Name and Contact Information
- Owner Name
- Owner Address, Phone Number, E-mail Address
- Technical Representative Name (if applicable)
- Technical Representative Address, Phone Number, E-mail Address (if applicable)
- Pre- and Post-Development Site Imperviousness

### ***Submission Requirements***

*Unless otherwise noted or waived by the Conservation Commission, all items listed below are required to be submitted as part of this Plan for the application package to be considered complete.*

#### **Narrative:**

#### **Provide description of the following:**

- The nature and purpose of the land disturbing activity, and the area (square feet) to be disturbed. Clearly identify the impact on all thresholds outlined in the Stormwater Management Rules and Regulations.
- Identify the watershed in which the site is located, the receiving waters to which the site stormwater drains, and pollutants of concern (consult the most recent Massachusetts Integrated List of Waters which can be found at <http://mass.gov/dep/water/resources/tmdls.htm>).
- The existing topography, vegetation, site use, drainage pattern(s), and outfall(s)/discharge points.
- Provide current site impervious area measurements and describe any changes in impervious area. Identify Low Impact Development Techniques and non-structural stormwater controls to be used.
- Neighboring areas such as streams, lakes, residential areas, roads, etc. which might be affected by the land disturbance. Describe how adjacent properties and the Town right of way will be impacted by runoff from the site.
- Provide boring logs with profiles, groundwater elevation, and infiltration tests to determine on-site infiltration.
- Describe methods that will be used to maximize groundwater recharge.

- Provide research results for the site addressing previous use, history of spills, hazardous wastes, etc.). Include information on any Activity and Use Limitation (AUL) that precludes inducing runoff to the groundwater pursuant to MGL Chapter 21E and the Massachusetts Contingency Plan, 310 CMR 40.0000. Resources include the MassDEP's webpage for site locations of cleanup and spills: <http://www.mass.gov/dep/cleanup/sitesloc.htm> and two regulated areas MassGIS layers - *MassDEP Tier Classified Chapter 21E sites* layer and *MassDEP Oil and/or Hazardous Material Sites with Activity and Use Limitation (AUL)*. MassGIS layer list webpage: <https://www.mass.gov/service-details/massgis-data-layers>
- The proposed site conditions with regard to site use, drainage design and peak runoff rates, and proposed outfalls/discharge points.
- Identify all source controls that will be used to mitigate pollutant parameters. Label and individually reference each source control on site.
- Identify the prescribed treatment train(s) and the proposed BMPs to be used on site. Provide an overview of the stormwater's path through the on-site BMPs. Provide specific information on how pathogens, nutrients, and other priority pollutants will be mitigated. Provide a description as to where BMPs will be located.
- Also include any site uses the proponent wishes to be allowed to accommodate within the project at any time in the future.

**Site Locus Map:**

- An accurately scaled boundary map of the development lot or parcel(s) which is subject of the permit application, and all receiving waters that parcel(s) and its stormwater runoff drain to.

**Site Plan:**

- Adhere to the following datum standards: Horizontal – NAD 1983 State Plane Massachusetts Mainland (feet). Vertical – NAVD 88 (feet).
- A site plan of the development parcel or lots, drawn to scale, and differentiate between existing and proposed items.
- Existing conditions on the subject parcel or lot and on lots abutting or directly across the street from the subject parcel or lot.
- Existing zoning, and land use at the site,
- Critical area boundaries at the site,
- Proposed land use.
- Location(s) of existing and proposed easements.
- Existing and proposed utilities (above and below ground).
- Site's existing and proposed topography with contours at 2-foot (NAVD 88) intervals.
- Existing site hydrology.
- A description and delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows,
- Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration,
- Include all existing BMPs and contours.
- Location of proposed buildings and any existing buildings to remain, proposed vegetation and existing vegetation to be retained, as well as existing and proposed vegetation and ground surfaces with runoff coefficient for each.
- Location of parking spaces, driveways, proposed or altered curb cuts and walkways.
- Proposed treatment of the perimeter of the site including techniques and materials to be used (e.g. screens, fences, walls, landscaping, etc.).

- Show location of proposed permanent structural and non-structural BMPs with identification. Label BMPs or use an identification system which corresponds with the narrative section.
- Location of required open space and the location of any easements or rights of way. [*The location of all proposed open space shall be specifically identified on the plan through distinctive shading or other appropriate technique.*]

**Permits and Owner of Record:**

- A list of all permits (local, state, and federal), including any special permits and variances, obtained for this project (include permit numbers).
- Completion of the Owner of Record information on the Land Disturbance Permit Application, a copy of the recorded deed for the applicable lot or parcel,.

**Flood Plain Plans (if applicable):**

- Plans, elevations, cross sections showing new building construction, proposed flood water retention systems, and other flood control systems. [Suggested scale of 1" = 20']
- Plans must include existing and proposed contours (at two foot intervals) and spot elevations with those areas proposed to be filled, excavated, or otherwise physically altered within the 100 year flood line as determined by the regulated flood elevation for the 100 year flood plain, Zone A as determined by the relevant Flood Insurance Flood Map.

**Massachusetts Stormwater Standards & Site Drainage:**

- Include calculations which illustrate compliance with the Stormwater Standards outlined in the most recent revision of the Massachusetts Stormwater Handbook and Stormwater Standards, which can be accessed at <https://www.mass.gov/guides/massachusetts-stormwater-handbook-and-stormwater-standards>.
- Include calculations and hydrographs for pre- and post-development runoff.
- Include calculations supporting the design of the proposed BMPs and any flood control systems.

**Drainage Area Map including:**

- Pre and post construction watershed boundaries, drainage area and stormwater flow paths, type of cover (including area and CN number), NRCS hydrologic soil group boundaries (A, B, C, and D soil groups), flow paths for time of concentration, points of analysis and location of soil tests.
- A description and drawings of all components of the proposed drainage system – Notes on drawings specifying materials to be used, construction specifications, and typicals.
- Expected hydrology with supporting calculations.
- Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable.
- Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization.
- A maintenance schedule for the period of construction.
- WSPA DCR LAYER (Wachusett Reservoir) and Zone A layer.
- Any other information requested by the Conservation Commission.

**Wetland Protection Act (if applicable):**

- Completion of the NOI filed with the Town’s Conservation Commission and a copy of completed NOI.

**Summary of Non-Applicable Items:**

- Clearly identify and explain any items which are not applicable to the project. Owner should cite references.

**Project Changes**

- The Owner, or their agent, shall notify the Conservation Commission in writing of any change or alteration of a land disturbance authorized in a Major Land Disturbance Permit before any change or alteration occurs. If the Conservation Commission determines that the change or alteration is significant, based on the design requirements listed in these Regulations and accepted construction practices, the Conservation Commission may require that an amended Major Land Disturbance Permit application be filed and/or a public hearing held. If any change or deviation from the Major Land Disturbance Permit occurs during a project, the Conservation Commission may require the installation of interim measures before approving the change.

***Owner's Certification***

I, the undersigned, hereby certify that the attached Stormwater Management Plan submittal includes all items required by the Town of Charlton Stormwater Management Rules and Regulations. I understand that if any of the items required are found to be missing from the submittal, the Stormwater Management Plan will not be acceptable for review and will be returned as incomplete. I, the Owner, or approved applicant is aware of these criteria and will accept all responsibility for delays due to incomplete submittals. I am enclosing an explanation for each item which I feel is not required and, therefore, have not been included in this submittal package.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Erosion and Sediment Control Plan (including O&M Plan for Temporary BMPs) Checklist

Please prepare the Erosion and Sediment Control Plan to be included in Application Packages. Please adhere to the standards described in the Land Disturbance Permit Checklist and use this checklist to be sure Plan is complete. You must sign and date this checklist and attach to completed Plan for submittal.

## Plan Cover Sheet

- Title – *Erosion and Sediment Control Plan*
- Project Name
- Project Location
- Assessor Parcel Number
- Land Disturbance Permit Number
- Contractor or Other Firm Name and Contact Information
- Owner Name
- Owner Address, Phone Number, E-mail Address
- Technical Representative Name (if applicable)
- Technical Representative Address, Phone Number, E-mail Address (if applicable)

## Submission Requirements

*Unless otherwise noted or waived by Conservation Commission, all items listed below are required to be submitted as part of this Plan for the application package to be considered complete.*

### Narrative:

#### Provide descriptions of the following:

- Nature and purpose of the land disturbing activity, and the area (acres) to be disturbed.
- Existing conditions and adjacent areas which might be affected by the land disturbance.
- Any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Describe any other areas to be disturbed.
- Soils on site giving such information as soil name, National Resources Conservation Service map unit, erodibility, permeability, depth, texture and soil structure.
- If applicable, describe standards which will be followed for dewatering activities.
- Describe any critical areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/underground springs, etc.).
- BMPs (with IDs) which will be used to control erosion and sedimentation on the site. Include discussion of any storm drain inlet protection provided to prevent sediment laden water from entering (if applicable).
- How the site will be stabilized after construction is completed (include specifications).
- Provide detailed construction activity schedule – show anticipated starting and completion dates for project events, include vegetation and mulching timeline.
- Any construction and waste materials expected to be stored on-site and intended disposal methods. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
- Any provisions for phasing the project where one acre of area or greater is to be altered or disturbed.



## Site Plan:

- Include title, date, north arrow, names of abutters, scale, legend, and locus map.
- A small vicinity map locating the site in relation to the surrounding area.
- Include property boundaries/lot lines.
- Include lines of existing abutting streets showing drainage and driveway locations and curb cuts.
- Include existing utilities, contours, vegetation, and drainage patterns.
- Location and description of natural features including:
  - (a) Watercourses and water bodies, Outstanding Resource Waters (ORWs), wetland resource areas, jurisdictional buffers, no-disturb zones, vernal pools, and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by the Owner's Technical Representative for areas not assessed on these maps,
  - (b) Existing vegetation including tree lines, canopy layer, shrub layer, and ground cover, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities,
  - (c) The 25-foot No Disturb Zone and the 100-foot buffer to all Bordering Vegetated Wetlands, and
  - (d) Habitats mapped by the Massachusetts Natural Heritage and Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife, Potential Vernal Pools, Certified Vernal Pools, and Priority Habitats of Rare Species within five hundred 500 feet (500') of any construction activity.
- Existing soils, volume and nature of imported soil materials.
- Topographical features including existing and proposed contours at intervals no greater than two 2 feet (2') with spot elevations provided when needed.
- Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed
- Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans)
- Location and details of erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, sizing of sedimentation basins, and construction and waste material stockpiling areas.
- The outline of any areas, including drainage ways, steep slopes and proposed stockpile of topsoil that shall be restored and/or seeded immediately.
- Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable.
- Location and description of industrial discharges, including stormwater discharges from dedicated asphalt plants and dedicated concrete plants, which are intended to be covered by an industrial NPDES permit.
- Stormwater runoff calculations in accordance with the Massachusetts Stormwater Management Policy
- Include areas which are to be cleared and graded.
- If a subdivision, a general note indicating the responsibility to maintain erosion/sedimentation controls during construction and, until sale of the lots involved, including the frequency of maintenance and that temporary ground cover or erosion/siltation control shall be established on any unbuilt lots where required by the Authorized Enforcement Agency,
- Show and detail stabilized construction areas for trucks and other equipment to enter and leave property without tracking onto the public street.

## Erosion and Sediment Control Plan Checklist

- Locate and ID erosion and sediment control BMPs used on the site, include detail(s) for each BMP.
- Identify any off-site land-disturbing activities and show location of erosion controls off-site.
- Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures.
- Plans must be stamped and/or certified by the Owner's Technical Representative.
- Such other information as is required by the Authorized Enforcement Agency.

**Operation and Maintenance Plan during Construction:**

- List the individual who will serve as the O&M point of contact. Include 24-hour contact information (phone number required).
- List the individual(s) who will serve as the Environmental Site Monitor for this project. Include phone number and proof of qualification.
- Describe how the site is to be managed and kept clean each day. Provide a description on how adjacent public and private roadways will be kept clean (tracking control).
- Provide the inspection and maintenance schedules for each BMP.
- Include inspection checklists (weekly and after rain events), and blank inspection forms. Indicate where inspection logbook will be kept on site.

**Spill Prevention Plan (for construction activities):** Plan for use in the event of a spill on site.

- Describe the facility, address, activities and materials involved. Include a facility map identifying the key locations of areas, activities, materials, and BMPs.
- Include spill reporting procedures and identify key spill response personnel and hospital contacts.
- Identify the potential spill areas or operations prone to spills/leaks and identify which areas should be or already are "containment" areas.
- Include material handling procedures and safety measures for each kind of waste and spill response procedures including proper record keeping procedures.
- Include a plan to protect all storm drains in the event of a spill.

**Project Changes**

- The Owner, or their agent, shall notify the Conservation Commission in writing of any change or alteration of a land disturbance authorized in a Land Disturbance Permit before any change or alteration occurs. If Conservation Commission determines that the change or alteration is significant, based on the design requirements listed in these Regulations and accepted construction practices, Conservation Commission may require that an amended Land Disturbance Permit application be filed and/or a public hearing held. If any change or deviation from the Land Disturbance Permit occurs during a project, the Conservation Commission may require the installation of interim measures before approving the change.

**Calculations:**

- Include detailed calculations for the design of temporary BMPs.

<b><i>Owner's Certification</i></b>
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I, the undersigned, hereby certify that the attached Erosion and Sediment Control Plan submittal includes all items required by the Town of Charlton Stormwater Management Rules and Regulations. I understand Erosion and Sediment Control Plan Checklist

that if any of the items required are found to be missing from the submittal, the Erosion and Sediment Control Plan will not be acceptable for review and will be returned as incomplete. I, the Owner, or approved applicant is aware of these criteria and will accept all responsibility for delays due to incomplete submittals. I am enclosing an explanation for each item which I feel is not required and, therefore, have not been included in this submittal package.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Operation and Maintenance Plan (Permanent BMPs) Checklist

Please prepare the Operation and Maintenance Plan to be included in Application Package. Please adhere to the standards described in the Land Disturbance Permit Checklist and use this checklist to be sure Plan is complete. You must sign and date this checklist and attach to completed Plan for submittal.

### Plan Cover Sheet

- Title – *Operation and Maintenance Plan*
- Project Name
- Project Location
- Assessor Parcel Number
- Land Disturbance Permit Number
- Applicant Name
- Applicant Address, Phone Number, E-mail Address
- Owner Name
- Owner Address, Phone Number, E-mail Address

### Submission Requirements

*Unless otherwise noted or waived by the Conservation Commission, all items listed below are required to be submitted as part of this Plan for the application package to be considered complete.*

Your Operation and Maintenance Plan will be a living document. Please prepare the O&M Plan with appropriately labeled tabs for each of the Town of Charlton's standard sections. One copy must be submitted to the Conservation Commission and at least one copy kept on-site. Please include revision date in the footer on each page.

#### **Section 1:**

##### **Narrative:**

- Provide an overview of the stormwater's path through the on-site BMPs.
- Discuss the specific inspection and maintenance regimen for each BMP including source controls – provide an O&M sheet for each BMP. O&M sheets should serve as a checklist for design elements that require inspection, the frequency of inspections, and conditions that indicate that maintenance is needed.
- The general requirements listed in the Massachusetts Stormwater Handbook and Stormwater Standards should be reviewed and incorporated into the inspection and maintenance regimen for each BMP.
- Note any particular characteristics or circumstances that could require attention in the future, and include any troubleshooting advice.
- Include manufacturer's data, operating manuals, and maintenance requirements for pumps or other mechanical equipment and any proprietary devices used as BMPs. (Refer to these data in text and attach manufacturers' publications to plan).
- Provide a description on how responsible employees will be trained to perform O&M and how your organization will ensure ongoing training as needed in response to staff changes.

- Include a description of source control implementation procedures, schedules, and inspections. Refer to the Massachusetts Stormwater Handbook and Stormwater Standards.

**Responsibilities List:**

- The name(s) of the owner(s) for all components of the system.
- Maintenance agreements that specify:
  - The names and addresses of the person(s) responsible for operation and maintenance,
  - The person(s) responsible for financing maintenance and emergency repairs,
  - A Maintenance Schedule for all drainage structures, including swales and ponds,
  - A list of easements with the purpose and location of each, and
  - The signature(s) of the owner(s).
- Stormwater Management Easement(s)
  - Access for facility inspections and maintenance,
  - Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event; and
  - Direct maintenance access by heavy equipment to structures requiring regular cleanout.
- The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
- Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Authorized Enforcement Agency.
- Easements shall be recorded with the Worcester County Registry of Deeds prior to issuance of a Certificate of Occupancy.

**Site Plan:** This site plan should include information from the record drawings.

- Include property boundaries/lot lines.
- Map showing locations of all stormwater facilities including but not limited to catch basins, manholes, drainage piping, and stormwater devices.
- Show drainage patterns and stormwater runoff flow direction arrows.
- Detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspection and copies of all maintenance-related work orders.
- Show and ID all BMPs that will be present permanently. Include plans, elevations, and details for each BMP.
- Show structural and non-structural controls used to control stormwater flows.
- Show and designate pervious and impervious areas on site.

**Spill Prevention Plan (long-term):** Plan for use in the event of a spill on site.

- Describe the facility, address, activities and materials involved. Include a facility map identifying the key locations of areas, activities, materials, and BMPs.
- Include spill reporting procedures and identify key spill response personnel and hospital contacts.
- Identify the potential spill areas or operations prone to spills/leaks and identify which areas should be or already are “containment” areas.
- Include material handling procedures and safety measures for each kind of waste and spill response procedures including proper record keeping procedures.
- Include a plan to protect all storm drains in the event of a spill.

## **Section 2:**

### **Inspection and Maintenance Logs: Owner must keep the past seven (7) years of records on site.**

- Provide the inspection and maintenance (preventative and corrective) schedules for each BMP. Schedules for two or more similar BMPs on the same site may be combined.
- Include inspection checklists for each BMP (routine, annual, and after major storms). See Appendix A for inspection considerations for each BMP.
- Include blank inspection forms for each BMP. At a minimum, forms must contain:
  - Inspection date and weather conditions
  - Type of inspection (routine, post-storm, annual, or in response to a problem/complaint)
  - Name of inspector
  - BMP ID and corresponding inspection checklist items
  - Inspection results including exceptions noted and corrective actions needed
- Include blank maintenance log form. At a minimum, record the date maintenance was performed, type of maintenance performed, staff member or contractor who performed the maintenance, and any issues for follow-up. Include copies of any maintenance-related work orders.
- A copy of the O&M Plan must remain on site at all times, inspection and maintenance logs must be kept in this Section and must be submitted to DPW for review upon request.

## **Section 3:**

**Updates:** Administrative or clerical updates to the Operation and Maintenance Plan can be made at any time and should be placed in reverse chronological order (most recent on top) in a Section called O&M Plan Updates prior to Section 1. No BMP or site changes can be made without prior approval and recertification by the Holden DPW. At a minimum, an annual update is required.

- Prior to substantial completion or receipt of a signed Certificate of Occupancy, the initial Operation and Maintenance Plan will be reviewed by the Holden DPW and must be updated and finalized. The updated/finalized O&M Plan will become the first update of the Plan. The first update should include design information or calculations submitted in the detailed design phase (i.e., not included in the Stormwater Management Plan).
- Include a blank update form. At a minimum, this form must include:
  - Date of update
  - Date of last update to plan
  - Sections out of date and updates needed: Contact information for site personnel, Information on BMPs including Source Controls, Records of previous inspections
  - Review of maintenance logs: Comparison to maintenance schedule. Note exceptions.
  - Employee and contractor training: New employees/contractor training events, Refresher training events for existing staff/contractors
  - Annual site inspection and update: Overall condition of site and any exceptional circumstances (e.g. sediment deposition, erosion, compromised BMPs, flooding). Inspection results including exceptions noted and corrective actions needed. Overall evaluation of the effectiveness of the O&M Plan. Note certification of its effectiveness or provide DPW with a proposed revised plan for approval.

***Owner's Certification***

I, the undersigned, hereby certify that the attached Operation and Maintenance Plan submittal includes all items required by the Town of Charlton's Stormwater Management Rules and Regulations. I understand that if any of the items required are found to be missing from the submittal, the Operation and Maintenance Plan will not be acceptable for review and will be returned as incomplete. I, the Owner, or approved applicant is aware of these criteria and will accept all responsibility for delays due to incomplete submittals. I am enclosing an explanation for each item which I feel is not required and, therefore, have not been included in this submittal package.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

***Owner's Certification***

I, the undersigned, hereby certify that I understand and accept the terms specified in the Town of Charlton's Stormwater Management Rules and Regulations which include:

1. I am responsible for the maintenance of permanent BMPs on this site.
2. During a transfer of ownership, I am responsible for informing prospective new owner(s) of the requirements of the existing O&M Plan and of the requirement to file a new O&M Plan upon transfer of ownership.
3. I am responsible for allocating and making funds available to perform the required O&M functions on site.
4. The Authorized Enforcement Agency or its authorized representative may conduct inspections whenever it is necessary to enforce any provision of the Stormwater Management Rules and Regulations to determine compliance with the regulation.

I understand that failure to comply with the requirements of the approved Operation and Maintenance Plan can result in fines and penalties in accordance with the Stormwater Bylaw and the Stormwater Management Rules and Regulations.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_