# Stormwater Pollution Prevention & Erosion and Sediment Control Plan for:

## Owner(s):

Eversource Energy located at:
50 Duchaine Boulevard
New Bedford, MA 02740

## Contractor(s):

Farland Corp.
401 County Street
New Bedford, MA 02740
Phone: (508) 717-3479 Fax: (508) 717-3481

## SWPPP Contact(s):

Christian Farland
Farland Corp.
401 County Street
New Bedford, MA 02740
Phone: (508) 717-3479 Fax: (508) 717-3481

## SWPPP Preparation Date:

**April 2017**

*Estimated Project Dates:*
**Project Start Date: 04/2017**
**Project Completion Date: 10/2017**

## Prepared by:


(MAIN OFFICE) 401 COUNTY STREET, NEW BEDFORD, MA 02740 P 508.717.3479 F 508.717.3481 WWW.FARLANDCORP.COM

# Contents

# SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

## 1.1 Project/Site Information

Project/Site Name: Eversource Energy

Project Street/Location: 50 Duchaine Boulevard

City: New Bedford State: MA ZIP Code: 02745

County or Similar Subdivision: Bristol County

Latitude/Longitude (Use **one** of three possible formats, and specify method)

| Latitude: | Longitude: |
|---|---|
| 1. 41 º 42 ' 49'' N (degrees, minutes, seconds) | 1. 70 º 57 ' 05'' W (degrees, minutes, seconds) |
| 2. _ _ º _ _ . _ _' N (degrees, minutes, decimal) | 2. _ _ º _ _ . _ _' W (degrees, minutes, decimal) |
| 3. _ _ . _ _ _ _ º N (decimal) | 3. _ _ . _ _ _ _ º W (decimal) |

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____) ☐ EPA Web site ☐ GPS

☒ Other (please specify): Google Earth

Is the project located in Indian country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable."_____

Is this project considered a federal facility? ☐ Yes ☒ No

NPDES project or permit tracking number*:_____

**(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit.)*

## 1.2 Contact Information/Responsable Parties

**CONSTRUCTION PHASE (ALL AREAS)**

**Project Manager(s) or Site Supervisor(s):**

Christian A. Farland, P.E.
*President & Principal Engineer*
Farland Corp.
401 County Street
New Bedford, MA 02740
Phone: (508) 717-3479
Fax: (508) 717-3481

Michael Atkinson
*Director of Field Operations*
Farland Corp.
Phone: (401) 318-1184

**SWPPP Contact(s):**

Christian Farland
Farland Corp.
401 County Street
New Bedford, MA 02740
Phone: (508) 717-3479
Fax: (508) 717-3481

**Emergency 24-Hour Contact:**

Christian Farland
Farland Corp.
Phone: (508) 717-3481

**POST-CONSTRUCTION (ALL AREAS)**

**Owner(s) / Operators(s):**

Eversource Energy
50 Duchaine Boulevard
New Bedford, MA 02745
Phone: (508) 441-5832

## 1.3 Nature and Sequence of Construction Activity

General Description:

**Farland Corp.** is contracted to provide parking, loading, and drainage improvements to the property at #50 Duchaine Boulevard. Construction will consist of installing three loading docks on the north side of the existing building, six overhead garage doors on the western side of the building, one overhead door on the south side of the building, and providing an additional two hundred eight paved employee and customer vehicle parking spaces throughout the site. Site improvements also include seventy-four new paved employee parking spaces. Additional pavement is also proposed on the south side of the building in the vicinity of the existing loading docks. In order to attenuate the increased stormwater runoff generated by the proposed impervious site coverage and to provide the appropriate level of water quality treatment, additional stormwater management practices will be constructed, including four on-site stormwater infiltration basins with associated sediment forebays.

Construction Support Activities:

The contractor shall be responsible for keeping supporting construction activities within the rules and guidelines outlined within the Construction General Permit of 2017 (CGP). These activities will be limited to the following:

*On-site Activities:*

- Stockpile Areas for Fill, Loam, Gravel and demolition debris
    - Areas will be located adjacent to proposed grading to minimize movement
    - Material to be screened for contaminated and/or hazardous elements
    - Stockpiles will be surrounded by erosion control practices
- Stockpile Areas for Construction Materials to be used for improvements
    - Areas to be concentrated to a central location on the site
    - Materials stored in these areas will be used in a timely manner
- Equipment storage areas
    - Equipment currently being used for construction will be stored during the non-operational hours within a central location on site
    - No additional equipment to what is currently being used will be stored on site

*Off-site Activities:*

- There are no off-site supporting activates being proposed at this time

Construction Sequence:

The contractor shall ensure specified erosion and sedimentation controls are in place and functional prior to commencement of anticipated work associated with construction of the pavement, drainage improvements and utilities as shown on the approved plans. Similar

erosion and sedimentation control measures shall be deployed prior to commencement of all incidental and unanticipated tasks to complete the work.

Minimum erosion and sedimentation control standards for the work shall be as outlined in the Massachusetts Erosion and Sedimentation Control Guidelines for urban and suburban areas, this document, and the approved Site Plans.

At a minimum, the contractors construction schedule shall meet the following constraints and other measures listed in this document:

1. Install erosion control measures as specified on the Site Plans prior to earth disturbance.
2. Clear and grub, strip top soil and subsoil, and install Construction Entrance prior to clearing and grubbing beyond the Construction Entrance limits. Clear and Grub and construct temporary stockpiling areas, contractor parking, equipment storage, and construction staging thereafter.
3. Install temporary sediment traps, and temporary swales as soon as possible in the construction sequence. All sediment trap and swale side slopes must be stabilized prior to the introduction of stormwater runoff. Do not introduce any stormwater runoff to the infiltration basin without pre-treatment in-place to remove suspended soilds.
4. Install catch basin haybale dikes and silt sacks as soon as possible.
5. Maintain construction entrance, haybale dikes, and silt sacks until binder pavement is placed and site is stabilized.
6. Installation of stabilization measures must be installed immediately in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days.
7. Stabilization measures must be completely installed as soon as practicable, but no later than seven calendar days after stabilization has been initiated.
8. Maintain erosion control measures until project is complete.

What is the function of the construction activity?

☐ Residential ☐ Commercial ☒ Industrial ☐ Road Construction ☐ Linear Utility

☐ Other (please specify): _____

| | |
|---|---|
| Estimated Project Start Date: | 04/2017 |
| Estimated Project Completion Date: | 10/2017 |
| Estimated Project Hours of Operation: | Mon-Sat 6AM-4PM |

❖ *For full Construction Sequence Schedule, including hours of operation, see Appendix A*

## 1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Soil type(s):

According to the USDA Soil Survey of Plymouth County, MA and on-site soil examinations, site soils consist of Deerfield Loamy Sand (256B), Scarboro mucky fine sandy loam, Swansea muck, and Udorthents. Per on-site soil evaluations performed by Farland Corp. in November 2015, the subsurface conditions at the proposed infiltration basin locations generally consist of a sandy substrate, overlain by naturally occurring sandy loam, or fill. Estimated seasonal high groundwater was generally encountered between 2-4.5 feet below the surface.

Slopes:

The land on the north side of the existing building is generally flat, sloping gently (1-3%) toward existing driveway culverts to the east and west. Excepting approximate 3:1 grades at the shoulders of the existing driveway, the natural grades on the outside of the looped driveway continue to slope toward wetland areas to the east and west. At the rear (south) of the building, two distinct depressions have been created as a result of the looped driveway being elevated above natural grade, and the existing building being elevated above grade, along with the existing driveway access to the loading docks. Generally, 3:1 slopes are found along the shoulders of the existing driveway, and at the southeast corner of the building. The remainder of the area slopes toward the depressions at a lesser slope.

Soil Stabilization:

In accordance with Section 2.2.9 of the CGP all areas where final vegetative stabilization will occur, or where infiltration practices will be installed the soil compaction will be minimized to allow for proper function and stormwater runoff. Once final grading has been completed there will be no vehicle or heavy equipment access that would increase the compaction within the soils to an unacceptable range. In addition, before any seeding or plantings will occur in these areas, techniques will be performed to enhance the condition of the soils as well as to improve support of vegetative growth.

Drainage Patterns:

### Pre –development Watershed Analysis

A number of depressions located inside the looped site driveway, which discharge runoff through culverts either directly toward the BVW or toward an existing stormwater “wet basin” at the south end of the site via a piped drainage system, have been incorporated into the existing drainage model. The northern portions of the existing driveway shed runoff toward catch basin inlets installed over box culvert structures intended to drain runoff from the pervious areas inside the driveway toward the wetland areas surrounding the site driveway. The runoff from the rear (southern) portion of the driveway is captured by catch basin structures and discharged via a piped drainage system into an existing stormwater basin resource area. Runoff from the existing roof is also discharged directly to the basin. Pervious

areas inside the looped driveway on the south side of the building drain toward two depressions, each of which have piped outlets which discharge into the drainage system which empties into the existing stormwater basin.

***Post-Development Watershed Analysis***

New paved areas behind (south of) the existing building sheds runoff overland toward two proposed infiltration basins, located between the existing driveway and the proposed paved area. Pretreatment is achieved through two sediment forebays at each basin. The new paved areas in front (north) of the existing building, where the proposed loading docks and additional parking are located, shed runoff toward two proposed infiltration basins, located between the existing roadway and the proposed paved areas. Each of these basins are pretreated through two sediment forebays. A series of drain pipes fed by existing and proposed catch basins located to the east and west of the existing building collect stormwater runoff and directs it to deep sump manhole structures, which discharge runoff toward the two infiltration basins between the road and the paved areas. Each of these infiltration basins will then discharge toward another proposed infiltration basin, located between the existing driveway and the bordering vegetated wetland surrounding the site. Each of these basins are also designed to collect runoff from direct runoff from portions of the proposed paved surface.

The proposed infiltration basins have been designed in accordance with the DEP Stormwater Handbook. In accordance with the Stormwater Handbook, the rate mitigation facilities have been engineered to reduce post-development runoff rates from pre-development conditions.

## 1.5 Construction Site Estimates

The following are estimates of the construction site:

| | |
|---|---|
| Total project area: | 58.1 acres |
| Construction site area to be disturbed: | 7.5 acres |
| Percentage impervious area before construction: | 10% |
| Percentage impervious area after construction: | 17% |

## 1.6 Receiving Waters

Description of receiving waters:

Treated stormwater will discharge toward BVW surrounding the existing paved driveway, eventually discharging toward un-named tributaries of the Acushnet Cedar Swamp.

Description of natural buffers and erosion controls:

The site currently consists of a large, previously disturbed and developed area that is surrounded by heavy tree cover and the vegetated areas beyond that are mentioned above. However, this project does propose disturbance within the natural 50-Ft buffer that had not been previously disturbed. In accordance with Compliance Alternative 2 of Section 2.1 in

Appendix G within the 2017 CGP, an undisturbed natural buffer of less than 50 Ft supplemented by erosion and sediment controls shall be maintained to achieve an acceptable sediment load reduction that would be equivalent to a 50-Ft undisturbed natural buffer. The following measures have been proposed and will be carried out before, during and after construction as a means of treating stormwater discharge before release:

- The width of the natural buffer that will be maintained between earth disturbance and the waters of the U.S. will be 30 Feet.
- All areas of previously existing natural vegetation will be left alone if they do not fall within any proposed work to ensure the natural flow and infiltration qualities remain.
- The borders of the above named BVWs have been flagged for easy location, and will be re-flagged should the status of said flags be deemed unusable or unreadable.
- For erosion and sediment control at the edge of the limit of work, a staked straw wattle will be implemented along the entire length of disturbance. If the performance of the erosion and sediment control is ever in question it will be replaced immediately to avoid any unwanted contamination.
- All areas that will include erosion and sediment controls mentioned above have been graded to allow the appropriate velocity of stormwater flow prior to reaching the buffer.

The Compliance Alternative chosen for this site requires the Sediment Removal Efficiency to match that of an undisturbed 50-Ft Buffer. By using a buffer width of 30 Ft, and given the Site's Sediment Risk Level of Low, we are able to provide an erosion control measure, in this case a staked straw wattle, with no additional requirements necessary. According to Table G-9 in Attachment 1 of Appendix G for a soil profile consisting predominantly of loamy sand, and a buffer vegetation type of mostly Tall Fescue Grass and Medium-Density Weeds, the sediment removal percentage can be approximated as 80%. With the addition of the staked straw wattle, we believe the percent removal of sediment will exceed the required 90% that a true undisturbed 50-Ft natural buffer would provide.

Description of storm sewer systems:

During construction stormwater runoff will be directed either to silt fence or straw wattles via sheet flow, or into temporary sediment traps by concentrated overland flow or through temporary swales prior to discharge from the site. Once constructed, the drainage system will consist of permanent infiltration basins with sediment forebays.

Description of impaired waters or waters subject to TMDLs:

The unnamed tributaries of the Acushnet Cedar Swamp are not impaired waters subject to TMDL according to the DEP Massachusetts Year 2012 Integrated List of Waters. Regardless, construction activities fully and properly implementing the requirements of the CGP shall be deemed to be meeting the requirements and assumptions of any TMDL.

## 1.7 Site Features and Sensitive Areas to be Protected

Description of unique features that are to be preserved:
No disturbance is permitted beyond the proposed erosion control measures to be installed prior to construction. These barriers represent the limit of work permitted within the buffer zone to the surrounding BVW.

Describe measures to protect these features:
Straw wattles and/or hay bale barriers will be installed at locations shown on the plans. Dedicated construction entrances are to be utilized during construction. The existing on-site drainage system will be protected by erosion controls throughout construction.

## 1.8 Potential Sources of Pollution

Potential sources of sediment to stormwater runoff:

- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscape operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Areas – small fueling activities, minor equipment maintenance, sanitary facilities and hazardous waste storage.
- Materials Storage Areas – general construction materials, solvents, adhesives, paving materials, paints, aggregates, trash, etc….
- Construction Activity – paving, curb/gutter installation, concrete pouring/mortar, etc…
- Concrete Washout Area (if necessary).

Aside from the above mentioned potential pollutants, there will be no treatment chemicals used for the means of reducing or treating stormwater runoff. The procedures outlined in the erosion control and natural buffers section above will sufficiently handle the stormwater runoff produced by this project, so no additional chemicals will be needed at this time. All other chemicals that may be encountered on site are listed below, and all have been chosen to be as minimally harmful as possible given the site conditions and soils.

| Trade Name Material | Stormwater Pollutants | Location |
|---|---|---|
| Pesticides (insecticides, fungicides, herbicides, rodenticides) | Chlorinated hydrocarbons, organophosphates, carbamates, arsenic | Herbicides used for noxious weed control |
| Fertilizer | Nitrogen, phosphorous | Newly seeded areas |

| | | |
|---|---|---|
| Cleaning solvents | Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates | No equipment cleaning allowed in project limits |
| Asphalt | Oil, petroleum distillates | Parking area |
| Concrete | Limestone, sand, pH, chromium | Curb and gutter |
| Glue, adhesives | Polymers, epoxies | Drainage construction |
| Paints | Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic | Parking striping |
| Curing compounds | Naphtha | Curb and gutter |
| Hydraulic oil/fluids | Mineral oil | Leaks or broken hoses from equipment |
| Gasoline | Benzene, ethyl benzene, toluene, xylene, MTBE | Secondary containment/staging area |
| Diesel fuel | Petroleum, distillate, oil & grease, naphthalene, xxylenes | Secondary containment/staging area |
| Kerosene | Coal oil, petroleum distillates | Secondary containment/staging area |
| Antifreeze/coolant | Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc) | Leaks or broken hoses from equipment |
| Sanitary toilets | Bacteria, parasites, and viruses | Staging area |
| | | |

## 1.9 Endangered Species Certification

Are endangered or threatened species and critical habitats on or near the project area?

☐ Yes ☒ No

Describe how this determination was made:

Massachusetts Natural Heritage data layers on the MassGIS online viewer (OLIVER) was used to determine if there were any endangered or threatened species or critical habitats on or near the project area.

Because no such areas were found, Criterion A will be reported on the NOI form.

If yes, describe the species and/or critical habitat:

**N/A**

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

**N/A**

## 1.10 Historic Preservation

Are there any historic sites on or near the construction site?

☐ Yes ☒ No

Describe how this determination was made:

**Online research at Massachusetts Cultural Resource Information System and New Bedford Historical Commission**

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact.

## 1.11 Applicable Federal, Tribal, State or Local Programs

**N/A**

## 1.12 Maps *(See Appendix B)*

- Attachment 1 - General Locus Map
- Attachment 2 - Construction Phasing Map
- Attachment 3 - Waters of the U.S. & Critical Habitat Map
- Attachment 4 - Site Plans

# SECTION 2: EROSION AND SEDIMENT CONTROL BMP'S

## 2.1 Minimize Disturbed Area and Protect Natural Features and Soil

**Topsoil**

**BMP Description:** Top soil stripped from the immediate construction area will be stockpiled on-site. The stockpile will be in an area that will not interfere with construction and will be at least 15 feet away from areas of concentrated flows or pavement, and will be located within the limit of work as shown on Site Plans. Where possible, stockpile areas are to be located outside of the 100 ft buffer zone to the BVW, and in no case shall be closer located within 50 feet of the BVW. The slopes of the stockpile will not exceed 2:1 to prevent erosion. A silt fence will be installed around the perimeter of the stockpile, in accordance with the Site Plans. The stockpiles will be temporarily stabilized with erosion controls as described in Section 2, Part 2.4.

| | |
|---|---|
| **Installation Schedule:** | Topsoil stockpiles will be established during grading activities. Temporary stabilization will be applied immediately after the slopes of the stockpile have been graded and construction equipment transverses the slopes. |
| **Maintenance and Inspection** | The area will be inspected weekly for erosion and immediately after storm events that produce 0.25" of precipitation or more. Areas on or around the stockpile that have eroded will be stabilized immediately with erosion controls. Maintenance and inspection procedures for the silt fence are described in Section 2, Part 2.7 |
| **Responsible Staff:** | General Contractor |

## 2.2 Phase Construction Activity

**BMP Description:**

This will include installation of all proposed erosion control measures as shown on the site plans. The contractor shall install the construction entrance prior to earth moving operations beyond the construction entrance limits. Next, the contractor shall install the temporary sediment traps, temporary swales, and the infiltration systems as soon as possible. Untreated stormwater shall not be discharged into the sub-surface infiltration chamber system. After that, the contractor shall install the necessary utilities and provide haybale dikes and silt sacks as soon as possible.

Other pertinent information:

To minimize erosion during grading activities, grading and site work should take place during periods of predicted dry weather. The areas of the site that will remain vegetated after construction will be graded lastly right before construction activities are complete. All other areas of the construction site will be stabilized if site work is not planned for more than 14 days, or if construction activities have permanently ceased. Installation of stabilization measures shall be completed as soon as practicable, but no later than seven calendar days after stabilization has been initiated.

| | |
|---|---|
| **Installation Schedule:** | For a construction sequence, see Section 1.3 and/or Appendix A |
| **Responsible Staff:** | General Contractor |

## 2.3 Control Stormwater Flowing onto and through the Project

**Temporary Swales**

BMP Description: Stabilized swales (either stoned or grassed) shall be used along the perimeter of the proposed work where the contractor deems necessary. The swales will have positive pitch to convey stormwater to a temporary sediment trap. All side slopes shall be no steeper than 2:1 and shall be stabilized with rip rap, mulch, or grass. The bottom of the swales and sediment trap shall be two above the water table or sealed with 6" clay if the separation is less.

| **BMP Description**: Temporary Swales | |
|---|---|
| **Installation Schedule**: | The temporary swales will be installed on an as needed basis as determined by the general contractor. |
| **Maintenance and Inspection**: | The swales will be inspected for erosion and structural failures weekly and immediately after storm events that produce 0.25" of precipitation or more. Remove debris, sediment, and repair erosion embankments immediately. |
| **Responsible Staff**: | General Contractor |

## 2.4 Stabilize Soils

**Temporary Stabilization**

**BMP Description:** For slopes less than 2:1, straw mulch will provide immediate protection to exposed soils where construction will cease for more than 14 days and over the winter months if the project is not completed before then. Straw mulch and wood fiber will be applied by hand

with an application rate of 90-100 pounds (2-3 bales) per 1,000 square feet. If necessary, winter stabilization will occur between November 15 and March 15. See Section 2.5 for slopes greater than 2:1.

| ☐ **Permanent** | ☒ **Temporary** |
|---|---|
| **Installation Schedule:** | Portions of the site where construction will cease for more than 14 days will be stabilized with straw mulch. Winter stabilization will occur between November 15 and March 15. |
| **Maintenance and Inspection:** | Mulched areas will be inspected weekly and after storm events that produce 0.25" of precipitation or more to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, the surface will be repaired, and new mulch will be applied to the damage area. |
| **Responsible Staff:** | General Contractor |

**Permanent Stabilization**

**BMP Description:** Permanent stabilization will occur immediately after the final design grades are achieved but no later than 7 days after construction ceases. Native species of plants will be used to establish vegetative cover on exposed soils along with grass planting. Permanent stabilization will be completed in accordance with the final stabilization procedures in Section 2.2.14.a.ii in the 2017 CGP for Land Disturbance of more than 5 Acres.

| ☒ **Permanent** | ☐ **Temporary** |
|---|---|
| **Installation Schedule:** | Portions of the site where construction activities have permanently ceased will be stabilized as soon as possible but no later than 14 days after construction ceases. |
| **Maintenance and Inspection:** | All seeded areas will be inspected weekly during construction activities for failure and after storm events that produce 0.25" of precipitation or more until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is achieved. |
| **Responsible Staff:** | General Contractor |

**Dust Control**

**BMP Description:** Dust from the site will controlled by using a mobile pressure-type distributor truck to apply potable water to disturbed areas. The mobile unit will apply water at a rate of 300 gallons per acre and minimized as necessary to prevent runoff and ponding.

| ☐ **Permanent** | ☒ **Temporary** |
|---|---|
| **Installation Schedule:** | Dust control will be implemented as needed once site grading has been initiated and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water will be performed no more than three times a day during the months of May- September and once per day during the months of October-April or whenever the dryness of the soil warrants it. |
| **Maintenance and Inspection:** | At least one mobile unit will be available at all times to distribute potable water to control dust on the project area. Each mobile unit will be equipped with a positive shutoff valve to prevent over watering of the disturbed area. For vehicle and equipment maintenance practices, see Section 3, Part 3.4. |
| **Responsible Staff:** | General Contractor |

## 2.5 Protect Slopes

**BMP Description:** Grassed, rip rap slopes, and geotextile erosion control mats shall be installed as required according to the Site Plans (see Appendix C). All slopes on site shall be stabilized with grass.

Where slopes exceed 2:1 or greater, erosion control mats shall be used to provide stabilization for the slopes. Erosion control mats should be used for the side slopes of any temporary side slopes to the sediment traps, swales, and the detention basin. The blanket will cover the entire area of the graded slope and bottom channel. The bottom and side slopes will be seeded and mulched before the blanket is applied. The blanket will be installed by the manufactures' specifications but at a minimum by digging a small trench on the upside of the slope, 12" wide by 6" deep, and stapling the leading edge of the blanket in the trench. The blanket shall be rolled down the slope slowly to maintain soil contact and stapled in 12" intervals. If the blanket cannot cover the entire slope, the blankets will be overlapped 2" and stapled at the overlapped edge. The erosion control mat proposed in this design for all application is Curlex 11 for slopes up to 1:5 to 1. "Approved equal" mats can be presented to the engineer and city for approval.

| | |
|---|---|
| **Installation Schedule:** | Grassed slopes will be installed immediately after final design grades are achieved. Erosion control mats shall be installed immediately after construction of a slope which equals 2:1 or greater. |

| | |
|---|---|
| **Maintenance and Inspection:** | All grassed slopes will be inspected weekly during construction activities for failure and after storm events that produce 0.25" of precipitation or more until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded, fertilized, and mulched immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is achieved. Rip rap areas shall be replaced when sediment is 1' deep. All rip rap areas that are utilized in post construction shall be replaced with clean rip rap after construction and installed per the Site Plans. |
| **Responsible Staff:** | General Contractor |

## 2.6 Protect Storm Drain Inlets

**BMP Description:** Storm drain inlets will be protected from sediment by commercially available silt sack inserts. The catch basin silt sack inlets will be removed once the construction site has been permanently stabilized or per manufacturers specifications.

| | |
|---|---|
| **Installation Schedule:** | Catch basin silt sack inserts will be installed in existing as needed and in all new drainage structures installed on-site. |
| **Maintenance and Inspection:** | The catch basin silt sack inserts will be inspected weekly and after storm events that produce 0.25" of precipitation or more. If the insert becomes clogged with sediment, the insert will be removed and cleaned or replaced per manufacturer's recommendations. |
| **Responsible Staff:** | General Contractor |

**BMP Description:** Hay bale dikes shall be installed, in addition to the silt sacks, around all catch basin grates. The dikes shall be constructed of hay bales to create a closed barrier around the structure covers.

| | |
|---|---|
| **Installation Schedule:** | Hay bale dikes will be installed against existing inlets and around all new drainage structures installed on-site. |
| **Maintenance and Inspection:** | The hay bale dikes will be inspected weekly and after storm events that produce 0.25" of precipitation or more. If the dike becomes clogged, damaged or significant sediment builds up obstructing flow, the hay bales will be removed and replaced with new ones. |
| **Responsible Staff:** | General Contractor |

## 2.7 Establish Perimeter Controls and Sediment Barriers

**Silt Fence & Straw Wattle and Haybale Barriers**

**BMP Description:** Silt fences and straw wattle or haybale barriers will be installed along all topsoil stockpiles and at the down-gradient extents of earth disturbance. Silt fences will be installed by excavating a 6-inch deep trench along the line of proposed installation. Wooden posts supporting the silt fence will be spaced 4 to 6 feet apart and driven securely into the ground. The silt fence will be fastened securely to the wooden posts with wire ties spaced every 24 inches at the top, mid section, and bottom of the wooden posts. The bottom edge of the silt fence will extend across the bottom of the trench and the trench will be backfilled and compacted to prevent stormwater and sediment from discharging underneath the silt fence. For design specifications see the Detail Plan located in the Site Plans.

| | |
|---|---|
| **Installation Schedule:** | The silt fences & straw wattle or haybale barriers will be installed before construction begins at the site and around topsoil stockpiles once they have been established. Silt fence barrier shall be installed along the perimeter of all the proposed site work. |
| **Maintenance and Inspection:** | Silt fences and Erosion Control measures will be inspected weekly and immediately after storm events that produce 0.25" of precipitation or more to insure it is intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If gaps or tears are found during the inspection, the fabric will be repaired or replaced immediately. Accumulated sediment will be removed from the Erosion Control Measure base if it reaches one half the height of the silt fence, straw wattle or haybale barrier and hauled off-site. If accumulated sediment is creating noticeable strain on the fabric and the fence might fail from a sudden storm event, the sediment will be removed more frequently. Before the fence is removed from the project area, the sediment will be removed. The anticipated life span of the fence is 6 months and will likely need to be replaced after this period. |
| **Responsible Staff:** | General Contractor |

## 2.8 Establish Stabilized Construction Exits

**Stabilized Construction Exits**

**BMP Description:** Anti-tracking pads consisting of crushed stone will be installed at the exit of the site located off of Hathaway Street, to prevent the off-site transport of sediment by construction vehicles. The anti-tracking pads will be at least 75 feet long, a minimum of 24' feet

wide, flared at the end closest to the paved road and will consist of an 8-inch thick layer of crushed stone (2 inches in diameter). The crushed stone will be placed over a layer of geotextile filter fabric to reduce the mitigation of sediment from the underlying soil. Orange colored plastic mesh fence will be installed along the length of the construction exit to keep construction vehicles and equipment on the anti-tracking pads.

| | |
|---|---|
| **Installation Schedule:** | The stabilized exits will be installed before construction begins on the site. The stone will remain in place until the subgrade of pavement is installed at the site. |
| **Maintenance and Inspection:** | The exits will be inspected weekly, after storm events that produce 0.25" of precipitation or more or heavy use. The exits will be maintained in a condition that will prevent tracking or flowing of sediment. This could require adding additional crushed stone to the exit. All sediment tracked, spilled, dropped or washed onto adjacent streets will be swept up immediately and hauled off-site. Sediment will be swept from the tracking pad at least weekly, or more often if necessary. If excess sediment has clogged the pad, the exit will be topdressed with new crushed stone. Replacement of the entire pad might be necessary when the pad becomes completely filled with sediment. The pad will be reshaped as needed for drainage and runoff control. Broken road pavement as a result of construction activities on roadways immediately adjacent to the project site will be repaired immediately. The stone anti-tracking pad will be removed before the subgrade of pavement is applied to the parking lot. The removed stone and sediment from the pad will be hauled off-site and disposed of. |
| **Responsible Staff:** | General Contractor |

# SECTION 3: GOOD HOUSEKEEPING BMP'S

## 3.1 Material Handling and Waste Management

***Construction & Domestic Waste Materials***

**BMP Description:** All waste materials will be collected and disposed of into metal trash dumpsters in the materials storage area. Dumpsters will have a secure water tight lid, be placed away from stormwater conveyances and drains and meet all federal, state and municipal regulations. Only trash and construction debris from the site will be deposited in the dumpster. No construction materials will be buried on-site. All personnel will be instructed regarding the correct disposal of trash and construction debris. Notices that state these practices will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

| | |
|---|---|
| **Installation Schedule:** | Trash dumpsters will be installed once the materials storage area has been established. Install where feasible and outside the 100' buffer zone to the wetlands. |
| **Maintenance and Inspection:** | The dumpsters will be inspected weekly and immediately after storm events that produce 0.25" or precipitation or more. The dumpsters will be emptied weekly. If trash and construction debris are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently. Waste container lids will be kept closed when not in use and lids are to be closed at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either 1.) A cover such as a tarp, plastic sheeting or temporary roof to minimize exposure of wastes to precipitation OR 2.) A similarly effective means designed to minimize the discharge of pollutants. On business days, clean up and dispose of waste in designated waste containers, and clean up immediately if containers overflow. |
| **Responsible Staff:** | General Contractor |

***Hazardous Waste Materials***

**BMP Description:** All hazardous waste materials such as oil filters, petroleum products, and paint and equipment maintenance fluids will be stored in structurally sound and sealed shipping containers, within the hazardous materials storage area. Hazardous waste materials will be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment will be provided for all waste materials in the

hazardous materials storage area and will consist of commercially available spill pallets. Additionally, all hazardous waste materials will be disposed of in accordance with federal, state and municipal regulations. Hazardous waste materials will not be disposed of into the on-site dumpsters. All personnel will be instructed regarding proper procedures for hazardous waste disposal. Notices that state these practices will be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

| | |
|---|---|
| **Installation Schedule:** | Shipping containers used to store hazardous waste materials will be installed once the site materials storage area has been installed. |
| **Maintenance and Inspection:** | The hazardous waste material storage areas will be inspected weekly and after storm events that produce 0.25" of precipitation or more. The storage areas will be kept clean, well organized and equipped with ample cleanup supplies as appropriate for the materials being stored. Material safety data sheets, material inventory and emergency contact numbers will be maintained in the office trailer. |
| **Responsible Staff:** | General Contractor |

***Sanitary Waste***

**BMP Description:** Two temporary sanitary facilities (portable toilets) will be provided at the site throughout the construction phase. The toilets will be in the staging area. The portable toilets will be located away from a concentrated flow path and traffic flow and will have collection pans underneath as secondary containment.

| | |
|---|---|
| **Installation Schedule:** | The portable toilets will be brought to the site once the staging area has been established. |
| **Maintenance and Inspection:** | All sanitary waste will be collected from the portable facilities a minimum of three times per week. The portable toilets will be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets. |
| **Responsible Staff:** | General Contractor |

***Recycling***

**BMP Description:** Wood pallets, cardboard boxes and other recycleable construction scraps will be disposed of in a designated dumpster for recycling. The dumpster will have a secure watertight lid, be placed away from stormwater conveyances and drains and meet all local and state soild-waste management regulations. Only solid recycleable construction scraps from the site will be disposed in the dumpster. All personnel will be instructed regarding the correct procedure for disposal of recycleable construction scraps. Notices that state these practices will

be posted in the office trailer and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

| | |
|---|---|
| **Installation Schedule:** | Designated recycling dumpsters will be installed once the combined staging area has been established. |
| **Maintenance and Inspection:** | The recycling dumpster will be inspected weekly and immediately after storm events that produce 0.25" of precipitation or more. The recycling dumpster will be emptied weekly and taken to an approved recycling center. If recycleable construction wastes are exceeding the dumpster's capacity, the dumpsters will be emptied more frequently. |
| **Responsible Staff:** | General Contractor |

## 3.2 Designate Washout Areas

**Concrete Washout**

**BMP Description:** If necessary, a designated temporary, above-grade concrete washout area will be constructed outside any proposed locations of stormwater management areas. The temporary concrete washout area will be constructed with a recommended minimum length and width of 10 feet but with significant quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area will be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Signs will be posted marking the location of the washout area to ensure that concrete equipment operators use the proper facility. Concrete pours will not be conducted during or before an anticipated storm event. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be disposed of off-site. When the temporary washout area is no longer needed for the construction project, the hardened concrete and materials used to construct the area will be removed and disposed of according to the maintenance schedule below and the area will be stabilized.

| | |
|---|---|
| **Installation Schedule:** | The washout area will be constructed before concrete pours occur at the site. |
| **Maintenance and Inspection:** | The washout area will be inspected daily to ensure that all concrete washing is being discharged into the washout area, no leaks or tears are present and to identify when concrete wastes need to be removed. The washout areas will be cleaned out when once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes will be allowed to harden, the concrete will be broken up, removed and disposed of off-site. The plastic sheeting will be replaced if tears occur during removal of concrete wastes from the washout area. |

| | |
|---|---|
| **Responsible Staff:** | General Contractor |

## 3.3 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

**BMP Description:** Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. All major equipment/ vehicle fueling and maintenance will be performed off-site. A small, 20 gallon pickup bed fuel tank can be kept on-site in the staging area. Only minor equipment maintenance will occur on-site. All equipment fluids generated from maintenance activities will be disposed of into designated drums stored on spill pallets. Absorbent, spill cleanup materials and spill kits will be available at the combined staging and materials storage area. Drip pans will be placed under all equipment receiving maintenance and vehicles and equipment parked overnight.

| | |
|---|---|
| **Installation Schedule:** | BMP's implemented for equipment and vehicle maintenance and fueling activities will begin at the start of the project. |
| **Maintenance and Inspection:** | Inspect equipment/ vehicle storage areas and fuel tank weekly and after storm events that produce 0.25" of precipitation or more. Vehicles and equipment will be inspected on each day of use. Leaks will be repaired immediately, or the problem vehicle will be removed from the site. Keep ample supply of spill-clean up materials on-site and immediately clean up spills and dispose of materials properly. |
| **Responsible Staff:** | General Contractor |

## 3.4 Control Equipment/ Vehicle Washing

**BMP Description:** All equipment and vehicle washing will be performed off-site.

| | |
|---|---|
| **Installation Schedule:** | N/A |
| **Maintenance and Inspection:** | N/A |
| **Responsible Staff:** | General Contractor |

## 3.5 Spill Prevention and Control Plan

Spill Prevention and Control Procedures:

1. Employee training: all employees will be trained via biweekly tailgate sessions, as detailed in Section 6, part 6.3.

2. Vehicle Maintenance: Vehicles and equipment will be maintained off-site. All vehicles and equipment including subcontractor vehicles will be checked for leaking oil and fluids. Vehicle

leaking fluids will not be allowed on-site. Drip pans will be placed under all vehicles and equipment that are parked overnight.

3. Hazardous Material Storage: Hazardous materials will be stored in accordance with Section 3, part 1 and federal and state requirements.

4. Spill Kits: Spill kits will be within the materials storage area and concrete washout areas.

5. Spills: All spills will be cleaned up immediately upon discovery. Spent absorbent materials and rags will be hauled off-site immediately after the spill is cleaned up for disposal at the local landfill. Spills large enough to discharge to surface water will be reported to the National Response Center at 1-800-424-8802.

6. Material safety sheets, a material inventory, and emergency contact information will be maintained at the on-site project trailer.

7. If a spill occurs and the drainage system is constructed, there shall be steel plates larger than the catch basin grates placed over the catch basin grates or drain basin immediately. The plates shall be kept on site at all times. Additionally, the spill prevention device on the detention basin outlet shall be closed immediately.

| | |
|---|---|
| **Installation Schedule:** | The spill prevention and control procedures will be implemented once construction begins on-site. |
| **Maintenance and Inspection:** | All personnel will be instructed, during tailgate training sessions, regarding the correct procedures for spill prevention and control. Notices that state these practices will be posted in the office trailer and the individual who manages day to day site operations will be responsible for seeing that these procedures are followed. |
| **Responsible Staff:** | General Contractor |

## 3.6 Allowable Non-Stormwater Discharge Management

Any changes in construction activities that produce other allowable non-stormwater discharges will be identified and the SWPPP will be amended and the appropriate erosion and sediment control will be implemented.

**Water Used to Control Dust**

**BMP Description:** Dust control will be implemented as needed once site grading has begun and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water at a rate of 300 gallons per acre or less will be performed by a mobile pressure-type distributor truck no more than three times a day during the months of May-September and once per day during the months of October-April or whenever the dryness of the soil warrants it.

| | |
|---|---|
| **Responsible Staff:** | General Contractor |

**Uncontaminated Excavation Dewatering**

**BMP Description:** Because construction for this site is being conducted during the dry season, dewatering activities are not expected to occur at the project site. If dewatering is necessary, the SWPPP will be revised to address the need for appropriate BMP's.

| | |
|---|---|
| **Responsible Staff:** | General Contractor |

**Landscape Irrigation**

**BMP Description:** Irrigation waters will not be sprayed onto impermeable surfaces such as paved parking areas or roads. Waters will be directed onto soil and lawns by using hoses and correctly sized sprinklers with adjustable spray patterns. To avoid discharge of irrigation waters, the sprinklers will have low-flow rates and increased watering time. The irrigated area will be inspected for excess watering and to adjust watering times and schedules.

| | |
|---|---|
| **Responsible Staff:** | General Contractor |

# SECTION 4: POST-CONSTRUCTION BMP'S

## See the attached *Overall Long Term Operation & Maintenance Program for Stormwater Management Areas in Appendix M*

# SECTION 5: INSPECTIONS

## *5.1 Inspections*

1. **Inspection Personnel:** Identify the person(s) who will be responsible for conducting inspections and describe their qualifications:

   - ___Michael Atkinson____ is the stormwater compliance officer for Farland Corp., and is responsible for the day-to-day site compliance with the SWPPP and EPA's Construction General Permit. ____Matthew J. White, E.I.T.____ will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points and construction exits.

     In absence of ___Matthew J. White, E.I.T.____ Associate Compliance Officer for _____Farland Corp._____ will conduct inspections.

   - As directed by the General Contractor, the local Conservation Agent will be notified of any erosion or sediment issues which occur on-site, as well as conducting erosion control inspections after storm events that produce 0.25" of precipitation or more.

   - For all storm event information, rather than have a mounted rain gauge, observations will be taken from the following weather station:

     *Station Name* – Pine Hill Acres

     *Station ID* – KMANEWBE6

     *Latitude & Longitude* – N 41° 42' 42" ; W -70° 56' 47"

     *Elevation* – 99 Ft from Sea Level

     *City & State* – New Bedford, MA 02745

2. **Inspection Schedule and Procedures:**

   - Inspections of the site will be performed once every 7 days and within 24 hours of the end of a storm event of one-quarter inch or greater. The inspections will verify that all BMP's required in Sections 2 and 3 are implemented, maintained and effectively minimizing erosion and preventing stormwater contamination from construction materials. For detailed inspection procedures, see Sections 2 and 3.

   - All inspections will be coordinated with the General Contractor.

For any corrective action triggering conditions while performing inspections outlined above, all reasonable steps must immediately be undertaken to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events. When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day. When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven calendar days. You must document in your records why is it infeasible to complete the installation or repair within the 7-day timeframe, and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within seven calendar days of completing this work.

For a copy of the inspection report see Appendix G.

## 5.2 Delegation of Authority

**Duly Authorized Representative(s) or Position(s) (to be complete by General Contractor):**

Insert Company or Organization Name: **Farland Corp.**
Insert Name: **Christian A. Farland, P.E.; Michael Atkinson; Matthew J. White, E.I.T.**
Insert Position: **CAF - President & Principal Engineer; MA - Director of Field Operations; MJW - Project Engineer**
Insert Address: **401 County Street**
Insert City, State, Zip Code: **New Bedford, MA 02745**
Insert Telephone Number: **(508) 717-3479**
Insert Fax/Email: **cfarland@farlandcorp.com; matkinson@farlandcorp.com; mwhite@farlandcorp.com**

****All corrective actions will be carried out by the General Contractor(s) listed above, and overseen by Director of Field Operations, Michael Atkinson or an approved officer****

Attach a copy of the signed delegation of authority form in Appendix L.

## 5.3 Corrective Action Log

Corrective Action Log:
See Appendix G

# SECTION 6: RECORDKEEPING AND TRAINING

## 6.1 Recordkeeping

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Date(s) when major grading activities occur:
See Appendix J
Date(s) when construction activities temporarily or permanently cease on a portion of the site:
See Appendix J
Date(s) when an area is either temporarily or permanently stabilized:
See Appendix J

## 6.2 Log of Changes to the SWPPP

Log of changes and updates to the SWPPP

See Appendix H-SWPPP Amendment Log

## 6.3 Training

Individual(s) Responsible for Training:

General Contractor

Describe Training Conducted:

- General stormwater and BMP awareness training for staff and subcontractors:

  The General Contractor will conduct informal training for all staff, including subcontractors, on the site. The training will be conducted primarily via tailgate sessions and will focus on avoiding damage to stormwater BMP's and preventing illicit discharges. The tailgate sessions will be conducted biweekly and address the following topics: Erosion Control BMP's, Sediment Control BMP's, Non-Stormwater BMP's, Waste Management and Materials Storage BMP's, and Emergency Procedures specific to the construction site. (see Appendix K-SWPPP Training Log)

- Detailed training for staff and subcontractors with specific stormwater responsibilities:

The General Contractor will provide formal training to all staff and subcontractors with specific stormwater responsibilities, such as installing and maintaining BMP's. The formal training will cover all design and construction specifications for installing the BMP's and proper procedures for maintaining each BMP. Formal training will occur before any BMP's are installed on the site. (see Appendix K-SWPPP Training Log)

# SECTION 7: FINAL STABILIZATION

**Permanent Seeding**

**BMP Description:** Permanent seeding will be applied immediately after the design grades are achieved on portions of the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled off-site for disposal. Construction debris, trash and temporary BMP's (including silt fences, material storage areas, sanitary toilets and inlet protection) will also be removed and any areas disturbed during removal will be seeded immediately.

- **Seedbed Preparation**
    a. In areas where disturbance results in subsoil being the final grade surface, topsoil will be spread over the finished area at a minimum depth of 2 to 6 inches.
    b. The seedbed will be free of large clods, rocks, woody debris and other objectionable material.
    c. Fertilizer and lime will be applied to the seedbed according to the manufacturer's recommendations.
    d. The top layer of soil will be loosened to a depth of 3-5 inches by raking, tilling, disking or other suitable means.

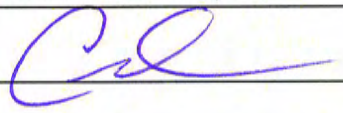
- **Grass Application**
    a. Seed will be applied uniformly by hydroseeding or broadcasting. Where broadcasting is used, the seed will be covered with .25 inch of soil or less, by cultipacking or raking.

| | |
|---|---|
| **Installation Schedule:** | Portions of the site where construction activities have permanently ceased will be stabilized, as soon as possible, but no later than 14 days after construction ceases. |
| **Maintenance and Inspection:** | All seeded areas will be inspected weekly during construction activities for failure and after storm events that produce 0.25" of precipitation or more until a dense cover of vegetation has been established. If failure is noticed at the seeded area, the area will be reseeded and fertilized immediately. After construction is completed at the site, permanently stabilized areas will be monitored until final stabilization is reached. |
| **Responsible Staff:** | General Contractor |

# SECTION 8: CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations

Name: Christian A. Farland, P.E. Title: President & Principal Engineer

Signature:  Date: 4/28/17

# SWPPP APPENDICES

Attach the following documentation to the SWPPP:

***Appendix A – Construction Sequence Schedule***

***Appendix B – General Location Map***

***Appendix C – Site Plans***

***Appendix D – Construction General Permit***

***Appendix E – NOI and Acknowledgement Letter from EPA/State***

***Appendix F – Inspection & Corrective Action Reports***

***Appendix G – Corrective Action Log***

***Appendix H – SWPPP Amendment Log***

***Appendix I – Subcontractor Certifications/Agreements***

***Appendix J – Grading and Stabilization Activities Log (or in Part 6.1)***

***Appendix K – Training Log***

***Appendix L – Delegation of Authority***

***Appendix M – Overall Long Term Operation Maintenance Plan***

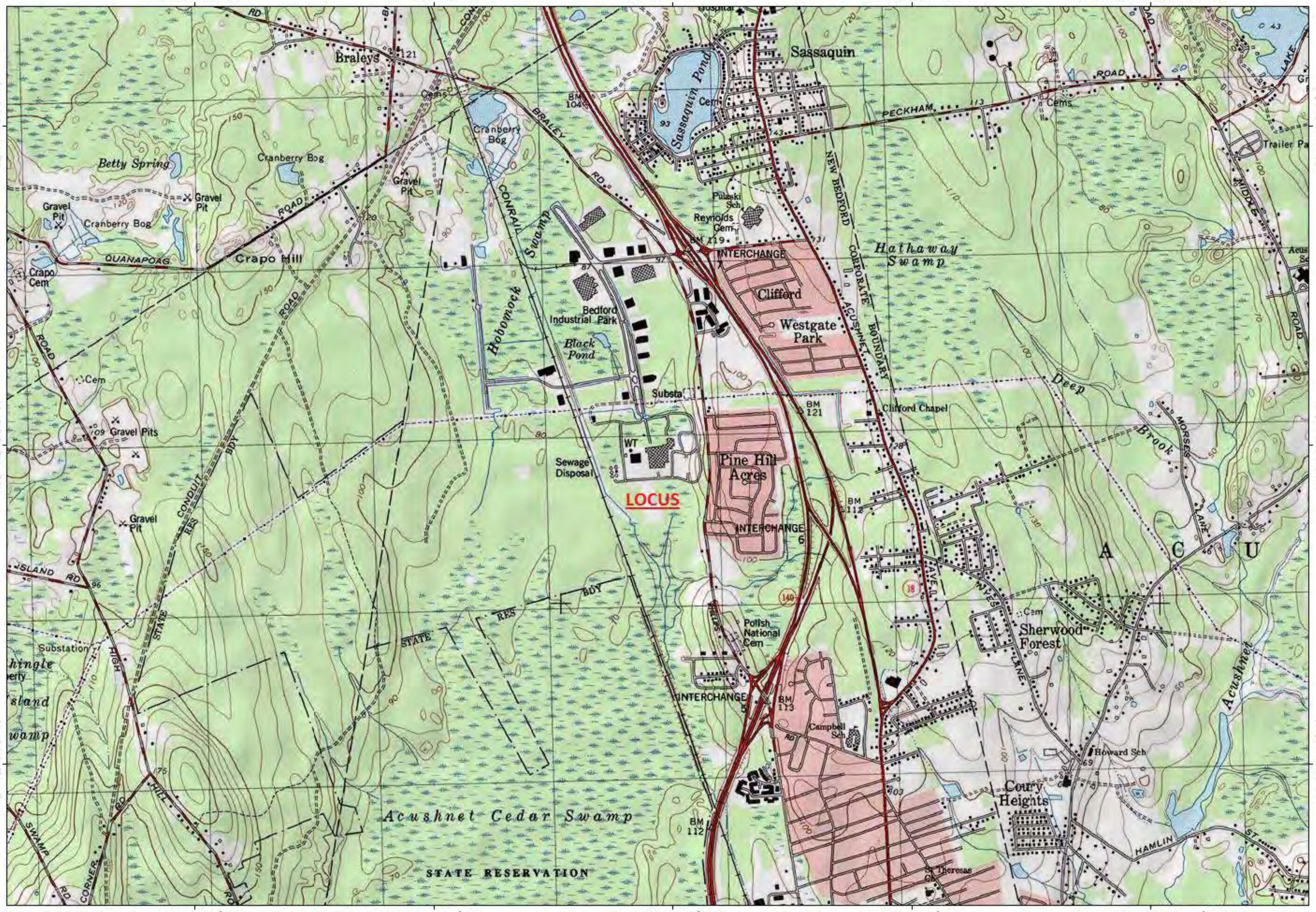
# Appendix A – Construction Sequence Schedule

# Appendix B – General Location Map

TOPO! map printed on 08/24/15 from "Untitled.tpo"

70°59.000' W 70°58.000' W 70°57.000' W 70°56.000' W WGS84 70°55.000' W

41°44.000' N 41°43.000' N 41°42.000' N




70°59.000' W 70°58.000' W 70°57.000' W 70°56.000' W WGS84 70°55.000' W

MN 15° TN

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS


PH 1349
WS1
WS1
WS1
WS1
WS1
WS1
WS1
WS1
WS1
WS3
WS3
WS3
WS1
WS1
WS3
WS3
WS3
WS3
SS
M


VEHICLE
EXIT/ENTER
OFF-SITE
STOCKPILE &
EQUIPMENT
STORAGE
AREA
EQUIPMENT
STORAGE
AREA
STOCKPILE
AREA
STOCKPILE
AREA
EQUIPMENT
STORAGE
AREA
STOCKPILE
AREA
Phillips Rd
Phillips Rd
Phillips Rd

# Appendix C - Site Plans
(see attached plans)

# Appendix D- Construction General Permit (attach prior to construction)

# Appendix E – NOI and Acknowledgement Letter from EPA/ State

Permit Information

**NPDES ID:** MAR10006G

**State where your construction site is located:** MA

**Is your construction site located on Indian Country Lands?** No

**Are you requesting coverage under this NOI as a "*Federal Operator*" as defined in Appendix A (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_a_-_definitions_508.pdf)?**

No

**Have stormwater discharges from your current construction site been covered previously under an NPDES permit?**

No

**Will you use polymers, flocculants, or other treatment chemicals at your construction site?**

No

**Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required?**

Yes

**Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?**

Yes

**Have you completed the screening process in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) relating to the protection of historic properties?**

Yes

**By Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, Including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an Inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.**

Yes

Operator Information

## Operator Name

**Operator Name:** Farland Corporation

## Operator Mailing Address

**Address:** 401 County Street

**City:** New Bedford **State:** MA **Zip:** 02740

**County:** BRISTOL

## Operator Point of Contact

**Name:** Christian A. Farland

**Title:** President & Principal Engineer

**Phone:** 508-717-3479

**Email:** cfarland@farlandcorp.com

Project/Site Information

**Project/Site Name:** Eversource Energy

## Project/Site Address

**Address:** 50 Duchaine Boulevard

**City:** New Bedford **State:** MA **Zip:** 02745

**County:** BRISTOL



## Latitude and Longitude

**Latitude/Longitude:** 41.7139°N, 70.9516°W

**Latitude/Longitude Data Source:** Map **Horizontal Reference Datum:** WGS 84

| Project Start Date: | Estimated Project End Date: | Estimated Area to be Disturbed: |
|---|---|---|
| 04/26/2017 | 10/31/2017 | 7.5 |

**Types of Construction Site:**

- Commercial
- Industrial

**Will there be demolition of any structure built or renovated before January 1, 1980?** No

**Was the pre-development land use used for agriculture?** No

**Have earth-disturbing activities commenced on your project/site?** No

**Is your project located on a property of religious or cultural significance to an Indian tribe?**

No

Discharge Information

**Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?**

No

**Are there any waters of the U.S. within 50 feet of your project's earth disturbances?**

Yes

**Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Appendix F (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_f_-_tier_3_tier_2_and_tier_2.5_waters_508.pdf)**

No

# Discharges

## 001: Bordering Vegetated Wetlands BVW bordering un-named tributary of Acushnet Cedar Swamp

**Tier Designation:** N/A

**Is this receiving water impaired (on the CWA 303(d) list)?** No

**Has a TMDL been completed for this receiving waterbody?** No

Stormwater Pollution Prevention Plan

**Name:** Christian A. Farland

**Title:** President & Principal Engineer

**Phone:** 508-717-3479

**Email:** cfarland@farlandcorp.com

## Endangered Species Protection

**Using the Instructions in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) of the CGP, under which criterion listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) are you eligible for coverage under this permit?**

Criterion A

**Provide a brief summary of the basis for criterion selection listed above [the necessary content for a supportive basis statement is provided under the criterion you selected.]:**

> MassGIS OLIVER program used to identify areas mapped by the Natural Heritage and Endangered Species Program as Priority or Estimated Habitats

## Historic Preservation

**Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 1)**

Yes

- **Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 2)**

  Yes

## Certification Information

**Certified By:** Christian Farland (CAFERS221)

**Certified On:** 04/12/2017 3:56 PM

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Return to Home

# Appendix F – Inspection Reports

## Stormwater Construction Site Inspection Report

| General Information | | | |
|---|---|---|---|
| Project Name: | | | |
| Date of Inspection: | | Time of Day: | |
| Inspector(s) Name(s) & Contact Info: | | | |
| Present Phase of Construction: | | | |
| Type of Inspection: | ☐ Routine | ☐ Pre-Storm Event | ☐ Post-Storm Event |

| Weather Information | | | |
|---|---|---|---|
| Has a storm event occurred since the last inspection? | | ☐ Yes | ☐ No |
| If yes, provide date of Storm: | Duration of Storm: | Approx. Rainfall (in.): | |
| Weather at time of inspection: | | | |
| Do you suspect that discharges may have occurred since last inspection? If so, describe location on site. | | | |
| Are there any discharges at the time of the inspection? If so, describe location on site. | | | |

| | BMP Description | BMP Operational Status | Corrective Action Needed |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

# Appendix G – Corrective Action Log

**Project Name:**
**SWPPP Contact**:

| Inspection Date | Inspector Name(s) | Description of BMP Deficiency | Corrective Action Needed (including planned date/responsible person) | Date Action Taken/Responsible person |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# Appendix H – SWPPP Amendment Log

**Project Name:**
**SWPPP Contact:**

| Amendment No. | Description of the Amendment | Date of Amendment | Amendment Prepared by [Name(s) and Title] |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Appendix I – Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.**

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

# Appendix J – Grading and Stabilization Activities Log

**Project Name:**
**SWPPP Contact:**

| Date Grading Activity Initiated | Description of Grading Activity | Date Grading Activity Ceased (Indicate Temporary or Permanent) | Date When Stabilization Measures are Initiated | Description of Stabilization Measure and Location |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# Appendix K – SWPPP Training Log

## Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ **Erosion Control BMPs**
- ❑ **Emergency Procedures**
- ❑ **Sediment Control BMPs**
- ❑ **Good Housekeeping BMPs**
- ❑ **Non-Stormwater BMPs**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

| No. | Name of Attendee | Company |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

# Appendix L – Delegation of Authority Form

## Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix G, Subsection 11.A of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix G, Subsection 11.B (1-3).

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

**Name:** _____

**Company:** _____

**Title:** _____

**Signature:** _____

**Date:** _____

# Delegation of Authority

I, Christian A. Farland, P.E. (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the Eversource Energy – 50 Duchaine Blvd., New Bedford, MA 02745 construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

| | |
|---|---|
| Matthew J. White, E.I.T. | (name of person or position) |
| Farland Corp. | (company) |
| 401 County Street | (address) |
| New Bedford, MA 02740 | (city, state, zip) |
| (508) 717-3479 | (phone) |

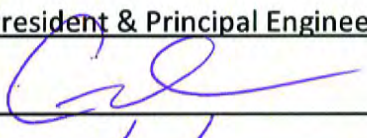
By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix G, Subsection 11.A of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix G, Subsection 11.B (1-3).

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

**Name:** Christian A. Farland

**Company:** Farland Corp.

**Title:** President & Principal Engineer

**Signature:** 

**Date:** 4/28/17

# Appendix M – Overall Long Term Operation and Maintenance Plan

FARLAND CORP.

ENGINEERING A BETTER TOMORROW

ENGINEERING | SITE WORK | LAND SURVEYING

# Long Term Operation and Maintenance Plan

## Proposed "Site Plan"
## 50 Duchaine Boulevard
## New Bedford, MA

**February 14, 2017**

**Prepared For:**

Eversource Energy
P.O. Box 1000085 – N2
Duluth, GA 30096

**Prepared By:**

Christian A. Farland, P.E.
Farland Corporation, Inc.
Project No. 15-500

## Street Sweeping

The parking lot will be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect sediment deposit accumulations on the parking lots quarterly.

Maintenance:

Sweep parking lots at least annually.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## Stone/ Rip Rap Areas

The owner of the rip rap areas shall:

The rip rap areas are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect the rip rapped areas quarterly.

Maintenance:

Remove accumulated sediment, trash, leaves and debris at least annually. Check for signs of erosion and repair as need. Replace any damaged areas with new rip rap of the same size.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## Infiltration Basin

The owner of the basins shall:

The basins are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect to basins quarterly and after major storms (>3.2” of rain in 24 hours)

Inspect fore-bay quarterly.

Inspect basins for settlement, subsidence, erosion, cracking or tree growth on the embankment, condition of stone; sediment accumulation around the outlet or within the basin; and erosion within the basin and banks.

Inspect outlet structures and/ or outlet pipes for evidence of clogging, sediment deposits or signs of erosion around the structure/ pipe.

Ensure that the basins are operating as designed. If inspection shows that a basin fails to fully drain within 72 hours following a storm event, then the responsible party shall retain a Registered Professional Civil Engineer licensed in the state of Massachusetts to assess the reason for infiltration/ detention failure and recommend corrective action for restoring the intended functions. For a wet pond, fully drained means that the ponding level in the basin is at or below the lowest elevation of the outlet structure. For an infiltration basin, fully drained means that there is no ponding occurring in the infiltration basin.

Inspect emergency spillways for signs of erosion.

Maintenance:

When mowing the basin and forebay, mow the buffer area, side slopes, and basin bottom. Remove grass clippings and accumulated debris. Mow three times per year in May, July and September.

Remove accumulated trash, leaves, debris in basin and forebay every month between April and November of each year. Inspect areas in February of each year, if possible, to determine whether the aforementioned services are required.

If the infiltration basin is ponding in areas or not infiltrating as designed, use deep tilling to break up clogged surfaces, and re-vegetate immediately.

Replace stone in forebay and at all pipe ends once every five (5) years or when sediment depth is excessive.

Do not store snow in basin area.

Remove sediment from the basin and forebay as necessary and at least once every 5 years but wait until the floor of the basin is thoroughly dry. After removing sediment, replace any vegetation damaged during clean-out by either re-seeding or re-sodding.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## Drain Lines

After construction, the drain lines shall be inspected after every major storm for the first few months to ensure proper functions. Presence of accumulated sand and silt would indicate more frequent maintenance of the pre-treatment devices is required. Thereafter, the drain lines shall be inspected at least once per year. Accumulated silt shall be removed by a vactor truck or other method preferred.

## Deep Sump Catch Basins

The owner of the catch basins and manholes shall:

The catch basins and manholes are to be inspected and maintained by the owner. It shall be the responsibility of the owner to:

Inspections:

Inspect the catch basins and manholes quarterly.

Maintenance:

Remove accumulated sediment, trash, leaves and debris when the depth of deposits is greater than or equal to one half the depth from the bottom invert of the lowest pipe in the basin and/or manhole to the bottom elevation of the basin or manhole.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## Water Quality Units

The owner of the units shall:

The units are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect the units quarterly.

Prepare inspection reports as part of each inspection and include the following information:

1. Date of inspection
2. Maintenance personnel
3. Location of unit (GPS coordinates if possible)
4. Time since last rainfall
5. Installation deficiencies (missing parts, incorrect installation of parts)
6. Structural Deficiencies (concrete cracks, broken parts)
7. Operational deficiencies (leaks, blockages)
8. Presence of oil sheen of depth of oil layer
9. Estimate of depth/ volume of floatables (trash, leaves) captured
10. Sediment depth measured
11. Recommendations for any repairs and/ or maintenance for the units
12. Estimation of time before maintenance is required if not required at time of inspection.

Maintenance:

Typically, the unit is maintained using a vaccuum truck or clam shell bucket.

The Stormceptor Unit shall be cleaned once the sediment depth reaches 15% of the storage capacity.

To remove oil and other hydrocarbons that accumulate, it may be preferable to use adsorbent pads.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.