# NEW ENGLAND POWER COMPANY
# 339/349 Line Asset Condition Refurbishment Project

## Notice of Intent

**Reading, MA**
**Conservation Commission**
**May 2024**

Prepared for:
New England Power Company
170 Data Drive
Waltham, MA 02451

BSC Project No. 89599.12

BSC GROUP

BSC GROUP
BUILD | SUPPORT | CONNECT

Engineers
Environmental Scientists
Software Developers
Landscape Architects
Planners
Surveyors

www.bscgroup.com

JUNE 11, 2024

Reading Conservation Commission
C/O Charles Tirone,
Town Hall, 16 Lowell St
Reading, MA 01867

**RE: Notice of Intent**
**339/349 Line Asset Condition Refurbishment Project**
**Reading, Massachusetts**
**New England Power Company**

Dear Members of the Reading Conservation Commission:

BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) on behalf of the New England Power Company (NEP) for maintenance and improvement activities associated with the 339/349 Line Asset Condition Refurbishment Project in Reading, Massachusetts (the Project). The 339/349 Line right-of-way (ROW) runs for approximately 17.25 miles between the Tewksbury #22A Substation in Tewksbury, MA, to the Golden Hills Substation in Saugus, MA. Maintenance activities are necessary to allow NEP to continue to provide reliable and safe electrical service across the region. This NOI is being submitted in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch.131, S.40) (WPA), implementing regulations (310 CMR 10.00), and the Town of Reading Wetland Protection By-law (Section 7.1).

Activities proposed as part of the Project in Reading will require work within Bordering Vegetated Wetlands (BVW) and NHESP Rare Species Habitat. Activities are limited to the replacement and relocation of one existing structure, and selective tree removals for the realignment of a section of the transmission line. The proposed activities are necessary to maintain electrical service provided by the line, extend asset life, and adapt existing circuits to provide high speed communications between substations.

This Project qualifies as a Limited Project in accordance with the WPA regulations (310 CMR 10.53(3)(d)) which allows for the "*construction, reconstruction, operation and maintenance of… overhead public utilities…*" provided there are no alternatives, best available measures are used to minimize adverse effects during construction, and that vegetation and existing grades are restored. Best Management Practices (BMPs), including sediment and erosion controls, will be implemented during construction. NEP has performed an analysis of all possible alternatives and the Project has been designed to avoid and minimize the potential for adverse impacts to wetland resource areas to the greatest extent practicable.

We recognize that the Reading Conservation Commission maintains a Tree Replacement Policy that requires approval through the Conservation Commission and replacement of trees for all removal

within resource areas. Because tree replacement is infeasible within the utility ROW, NEP is proposing compliance with this policy through a contribution to the Reading Shade Tree Fund following a stump count to accurately account for trees removed. We have performed a pre-construction survey to assess the total number of trees within the proposed removal area to provide a conservative estimate of potential removals. Because NEP will remove only trees in conflict with the realigned transmission line, we propose a post-removal count to ensure accuracy and provide the actual number of trees removed.

In addition to the proposed contribution to the Tree Replacement Fund, NEP is proposing an in-lieu fee contribution for permanent loss of BVW associated with the proposed larger structure foundation of the one replacement structure in Reading. There are no opportunities to provide a replication area in Reading due to the extensive wetlands along the transmission line corridor. NEP is proposing a contribution of $11,400 to offset the permanent loss. Details of NEP's proposed compensatory mitigation are within section 5.2 and 5.3 of the attached narrative.

We respectfully request that this matter be heard at the next scheduled Conservation Commission hearing. A copy of this application has also been sent to the Northeast Regional Office of the Department of Environmental Protection. BSC also requests a waiver from the stamped plan requirement, as the proposed work does not require the level of engineering that is typical of a stamped plan. If you have any questions regarding the enclosed information, please contact me at (617) 896-4317 or Andrew Cole of National Grid at 781-907-4768. Thank you for your consideration in this matter.

Truly yours,
BSC Group, Inc.

Sióna Patisteas
Project Manager

cc: Andrew Cole, National Grid
MassDEP Northeast Regional Office

WPA Form 3 – Notice of Intent, NOI Fee Transmittal Form
**Attachment A** Detailed Project Narrative
**Attachment B** USGS Site Locus Map, Environmental Resources Map
**Attachment C** Site Photographs and Wetland Data Forms
**Attachment D** Abutters Notification Letter and Certified List of Abutters
**Attachment E** National Grid's Best Management Practices Manual (EG-303)

# Table of Contents

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

# Forms

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

WPA FORM 3 – NOTICE OF INTENT

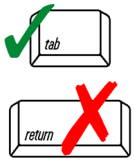
**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Reading
City/Town

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.




Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

## A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

339/349 Line Asset Condition Refurbishment Project
Reading — b. City/Town
01867 — c. Zip Code

Latitude and Longitude:
From:42.556267 To: 42.554196
From: -71.076085 To: -71.071398

54 — f. Assessors Map/Plat Number
0000-0001.0 — g. Parcel /Lot Number

2. Applicant:

Andrew — a. First Name
Cole — b. Last Name
New England Power Company (NEP) — c. Organization
170 Data Drive — d. Street Address
Waltham — e. City/Town
MA — f. State
02451 — g. Zip Code
(508) 948-9376 — h. Phone Number
i. Fax Number
Andrew.Cole@nationalgrid.com — j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

NEP has easement rights — a. First Name
b. Last Name
c. Organization
d. Street Address
e. City/Town
f. State
g. Zip Code
h. Phone Number
i. Fax Number
j. Email address

4. Representative (if any):

Siona — a. First Name
Patisteas — b. Last Name
BSC Group, Inc — c. Company
One Mercantile St, Suite 610 — d. Street Address
Worcester — e. City/Town
MA — f. State
01608 — g. Zip Code
(617) 896-4317 — h. Phone Number
i. Fax Number
spatisteas@bscgroup.com — j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

$500 — a. Total Fee Paid
$237.50 — b. State Fee Paid
$262.50 — c. City/Town Fee Paid

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## A. General Information (continued)

6. General Project Description:

NEP is proposing to conduct general maintenance activities & improvements along the 339/349 Transmission Line. In Reading, these will include the replacement and relocation of one caisson-supported structure, and tree removals within BVW.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☒ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☐ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☒ Yes ☐ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

310 CMR 10.53(3)(d) which allows the "...construction, reconstruction, operation and maintenance of underground and overhead public utilities..."

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Middlesex North - ROW
a. County

b. Certificate # (if registered land)

Easement rights
c. Book

d. Page Number

## B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| a. ☐ Bank | 1. linear feet | 2. linear feet |
| b. ☒ Bordering Vegetated Wetland | 57 (fill) + 43,283 (tree removals) 2. square feet | 0 2. square feet |
| c. ☐ Land Under Waterbodies and Waterways | 1. square feet<br>3. cubic yards dredged | 2. square feet |

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| d. ☐ Bordering Land Subject to Flooding | 1. square feet | 2. square feet |
| | 3. cubic feet of flood storage lost | 4. cubic feet replaced |
| e. ☐ Isolated Land Subject to Flooding | 1. square feet | |
| | 2. cubic feet of flood storage lost | 3. cubic feet replaced |
| f. ☐ Riverfront Area | 1. Name of Waterway (if available) - **specify coastal or inland** | |

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

**Note:** for coastal riverfront areas, please complete **Section B.2.f**. above.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| a. ☐ Designated Port Areas | Indicate size under Land Under the Ocean, below | |
| b. ☐ Land Under the Ocean | 1. square feet<br>2. cubic yards dredged | |
| c. ☐ Barrier Beach | Indicate size under Coastal Beaches and/or Coastal Dunes below | |
| d. ☐ Coastal Beaches | 1. square feet | 2. cubic yards beach nourishment |
| e. ☐ Coastal Dunes | 1. square feet | 2. cubic yards dune nourishment |

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| f. ☐ Coastal Banks | 1. linear feet | |
| g. ☐ Rocky Intertidal Shores | 1. square feet | |
| h. ☐ Salt Marshes | 1. square feet | 2. sq ft restoration, rehab., creation |
| i. ☐ Land Under Salt Ponds | 1. square feet<br>2. cubic yards dredged | |
| j. ☐ Land Containing Shellfish | 1. square feet | |
| k. ☐ Fish Runs | Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above<br>1. cubic yards dredged | |
| l. ☐ Land Subject to Coastal Storm Flowage | 1. square feet | |

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands
# WPA Form 3 – Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Reading
City/Town

## C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☒ Yes ☐ No

**If yes, include proof of mailing or hand delivery of NOI to:**

**Natural Heritage and Endangered Species Program**
**Division of Fisheries and Wildlife**
**1 Rabbit Hill Road**
**Westborough, MA 01581**

August 2021
b. Date of map

If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.
** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands
# WPA Form 3 – Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Reading
City/Town

## C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☒ Separate MESA review ongoing. 22-41435 (a. NHESP Tracking #) 10/24/2022 (b. Date submitted to NHESP)

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## C. Other Applicable Standards and Requirements (cont'd)

**Online Users:** Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

      2. ☐ A portion of the site constitutes redevelopment

      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☒ No. Check why the project is exempt:

      1. ☐ Single-family house

      2. ☐ Emergency road repair

      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

## D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Environmental Resrouces Map
a. Plan Title

BSC Group, Inc
b. Prepared By

N/A
c. Signed and Stamped by

03/29/2024
d. Final Revision Date

1"=100'
e. Scale

USGS Site Locus Map
f. Additional Plan or Document Title

01/26/2024
g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☒ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☐ Attach Stormwater Report, if needed.

## E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

TBD
2. Municipal Check Number

TBD
3. Check date

N/A - eDEP payment
4. State Check Number

N/A
5. Check date

BSC Companies, Inc
6. Payor name on check: First Name

7. Payor name on check: Last Name

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Reading
City/Town

## F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

| | |
|---|---|
| 1. Signature of Applicant | 2. Date: 5/17/24 |
| 3. Signature of Property Owner (if different) | 4. Date |
| 5. Signature of Representative (if any) | 6. Date: 5/17/24 |

**For Conservation Commission:**
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

**For MassDEP:**
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

**Other:**
If the applicant has checked the “yes” box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

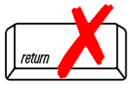
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.


## A. Applicant Information

1. Location of Project:

| | |
|---|---|
| 339/349 Line ROW | Reading |
| a. Street Address | b. City/Town |
| N/A - eDEP payment | $237.50 |
| c. Check number | d. Fee amount |

2. Applicant Mailing Address:

| | | |
|---|---|---|
| Andrew | Cole | |
| a. First Name | b. Last Name | |
| New England Power Company | | |
| c. Organization | | |
| 170 Data Drive | | |
| d. Mailing Address | | |
| Waltham | MA | 02451 |
| e. City/Town | f. State | g. Zip Code |
| (508) 948-9376 | | Andrew.Cole@nationalgrid.com |
| h. Phone Number | i. Fax Number | j. Email Address |

3. Property Owner (if different):

| | | |
|---|---|---|
| NEP has easement rights | | |
| a. First Name | b. Last Name | |
| | | |
| c. Organization | | |
| | | |
| d. Mailing Address | | |
| | | |
| e. City/Town | f. State | g. Zip Code |
| | | |
| h. Phone Number | i. Fax Number | j. Email Address |

## B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

**Step 1/Type of Activity:** Describe each type of activity that will occur in wetland resource area and buffer zone.

**Step 2/Number of Activities**: Identify the number of each type of activity.

**Step 3/Individual Activity Fee:** Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

**Step 5/Total Project Fee:** Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## B. Fees (continued)

| Step 1/Type of Activity | Step 2/Number of Activities | Step 3/Individual Activity Fee | Step 4/Subtotal Activity Fee |
|---|---|---|---|
| Category 2e | 1 | $500 | $500 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Step 5/Total Project Fee:**

**Step 6/Fee Payments:**

| | |
|---|---|
| Total Project Fee: | $500<br>a. Total Fee from Step 5 |
| State share of filing Fee: | $237.50<br>b. 1/2 Total Fee **less $**12.50 |
| City/Town share of filling Fee: | $262.50<br>c. 1/2 Total Fee **plus** $12.50 |

## C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

# Attachment A

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

PROJECT NARRATIVE

# 1 INTRODUCTION

BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) on behalf of the New England Power Company (NEP) for maintenance and improvement activities associated with the 339/349 Transmission Line Right-of-Way (ROW) in Reading, Massachusetts (the Project). The 339/349 Line is an overhead electrical transmission line within an existing right-of-way (ROW) that runs for approximately 17.25 miles between the Tewksbury #22A Substation off Power Company Road in Tewksbury to the Golden Hills Substation in Saugus, Massachusetts. Please refer to the Site Locus Map in **Attachment B** for a depiction of the Project route. NEP is proposing to refurbish and replace all structures along the length of the Project Route. NEP is submitting this NOI in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch.131, S.40) (WPA), implementing regulations (310 CMR 10.00), and the Town of Reading Wetland Protection Bylaw (Chapter 196).

Within Reading, the Project spans from the North Reading/Reading town line to the Reading/Lynnfield town line, a linear distance of approximately 1,100 feet. The Project is entirely within the Cedar Swamp Conservation Area. NEP is proposing maintenance and improvement activities at two existing structures, both of which are located within Bordering Vegetated Wetland (BVW) and Natural Heritage and Endangered Species Program (NHESP) Rare Species Habitat. Specifically, NEP is proposing to replace one structure, relocate one structure, and realign a portion of the overhead line, which will require removal of trees.

Portions of the proposed Project qualify as exempt maintenance activities in accordance with the WPA Regulations at *310 CMR 10.02(2)(a)(2)* and the Reading Wetland Protection Bylaw (Article 7.1.3). As such, this NOI serves as notice to the Conservation Commission of the following **jurisdictional activities**, and as notice for **exempt maintenance activities**. Proposed work exempted under this provision includes the temporary matting used for removal of one structure on the town line with North Reading (Structure 94). The relocation of Structure 95 and enlargement of the structure foundation is not an exempt activity and is the subject of this NOI. Additionally, the removal of trees required to realign this section of the line in the ROW is not an exempt activity.

This Project qualifies as a Limited Project in accordance with the WPA regulations (310 CMR 10.53(3)(d)) which allows for the "*construction, reconstruction, operation and maintenance of… overhead public utilities…*" provided there are no alternatives, best available measures are used to minimize adverse effects during construction, and that vegetation and existing grades are substantially restored. Best Management Practices (BMPs), including sediment and erosion controls, will be implemented during construction, further minimizing the likelihood of adverse impacts to resource areas. NEP has performed an analysis of all possible alternatives, and the Project has been designed to avoid and minimize the potential for adverse impacts to wetland resource areas to the greatest extent practicable. Therefore, NEP is requesting the Reading Conservation Commission issue an Order of Conditions to allow the proposed Project activities to proceed as described herein.

NEP will access structures within or across BVW using temporary construction mats. Construction mats associated with utility maintenance projects are exempt from the WPA and authorized under the Individual Water Quality Certification issued on March 5, 2024, by the Massachusetts Department of Environmental Protection (MassDEP; Transmittal #23-WW10-

0022. As such, construction mats are not included in the attached WPA Form 3. The approximate square footage of temporary impacts from construction matting within BVW is, however, included for reference within this narrative description. Please refer to **Attachment B** Environmental Resource Mapping for a depiction of the proposed maintenance and improvement activities, including the location and square footage of construction matting within BVW.

The Project will result in approximately 57 square feet (sf) of permanent impacts within BVW associated with the replacement of one directly embedded structure with a steel structure supported on a concrete caisson foundation with a larger structure footprint. Mitigation for structure fill within BVW will be provided at the required 2:1 ratio of replacement wetland to wetland lost, as described in more detail in Section 5 of this narrative.

NEP is re-aligning a portion of the 339/349 Line between Structures 91 – 98 in North Reading, Reading, and Lynnfield due to the growth of a large number of tall Eastern white pine trees (*Pinus strobus*) along the northeast side of the ROW in this location and identified structures that have surpassed their life expectancy. The height, location and topographical position of these trees pose a significant hazard to the existing line. These trees are outside of NEP's easement in an area where NEP does not have jurisdiction to trim or remove them. As such, NEP is proposing to re-locate this short section (~0.6 miles) of the 339/349 Line to the southwest, which will require tree removals within a forest fragment between the 339/349 Line and the adjacent S145/T146 Line ROWs (also within NEP's easement). NEP will selectively remove trees within the realignment area and only target tall growing species which pose a hazard to the lines.

Refer to **Table 3-1** (in **Section 3** of this narrative), for a break-down of Project impacts by resource area. All work is proposed within the existing disturbed ROW and no new ROW will be required for this Project. Overall, the proposed activities are necessary to maintain reliable electric service, extend asset life, and adapt existing circuits to provide high speed communications between substations. Due to the nature and purpose of the proposed activities, there are no practicable alternatives to the Project. NEP will use Best Management Practices (BMPs) during the construction phase of the Project to avoid and minimize impacts to resource areas and will restore disturbed areas to meet pre-construction conditions to the extent practicable.

# 2 EXISTING CONDITIONS

The Project will be constructed entirely within an existing, actively maintained utility ROW, with work proposed in a small area in the northeast of Reading near the town boundaries with North Reading and Lynnfield. Vegetation within the ROW is regularly maintained for compatibility with the facilities. The work is entirely within a single large wetland complex. Dominant land uses adjacent to the ROW primarily include forested open space and a National Guard Reservation.

## *2.1 Resource Area Summary*

BSC conducted both a desktop analysis (using MassGIS data layers and publicly available data) and field investigations of the proposed Project area to assess permitting requirements pursuant to the WPA and Reading By-Law. BSC wetland scientists delineated wetlands in July 2019, and

re-delineated them in January 2020 (prior to conducting soil borings). Wetlands were delineated in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, ed. J.S. Wakely, R.W. Lichvar, and C. C. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center (Version 2.0) and methodology described in the Massachusetts Department of Environmental Protection's (MassDEP) *Handbook on Delineating Bordering Vegetated Wetlands* (Published in March 1995). A description of each wetland where permanent impacts are proposed is provided in the following sections.

Existing conditions, wetland resource areas, and buffer zones in relation to the proposed activities are shown on the Environmental Resources Map in **Attachment B**. Wetland Delineation Forms and Representative Photographs are provided in **Attachment C.** The following sections describe the identified wetland resource areas.

### *2.1.1 Bordering Vegetated Wetlands*

BSC Wetland Scientists identified a single, expansive wetland within the Project area in Reading, identified as **NR- W27**. This is a predominantly emergent (PEM) and scrub/shrub (PSS) wetland, within dominant species including grey alder (*Alnus incana*), woolgrass (*Scirpus cyperinus*), cinnamon fern (*Osmundastrum cinnamomeum*), and common reed (*Phragmites australis*).

### *2.1.2 Bordering Land Subject to Flooding (BLSF)*

According to FEMA Firmette 25017C0284E, eff. 6/4/2010, 100-year floodplain within the Project area is designated as Zone AE, with elevation of ~77 feet. Floodplain is associated with wetland NR-W27. However, because Project ROW within Reading is entirely within BVW, there is no BLSF within Reading. BLSF extends from the banks of waterways and waterbodies, but "*where a bordering vegetated wetland occurs, it extends from said wetland*."

### *2.1.3 Other Resource Areas*

Project activities within Reading are located within NHESP rare species priority/estimated habitat (PH 1691 / EH 1142), for an amphibian species. NEP has consulted with NHESP and has received a "No Take" determination letter for proposed construction activities along the entire Project corridor.

No other resource areas were identified within or near the Project area, including Perennial or Intermittent Streams, Riverfront Area, 100-ft Buffer Zone, Outstanding Resource Waters (ORW), Surface Water Protection Zones, Areas of Critical Environmental Concern (ACEC), or Certified Vernal Pools (CVP).

# 3 PROPOSED ACTIVITIES

## *3.1 Project Need*

The Project is needed to address the declining condition of existing infrastructure along the 339/349 Line that poses a threat to electrical reliability. Existing transmission structures have surpassed or are near their life expectancy. Based on aerial photography, visual, and desktop inspections of the existing overhead line assets, NEP has identified deteriorated wood poles along the length of the line. The Project will result in a more reliable, climate-ready, and resilient transmission system that can withstand more extreme weather events.

The Project scope includes replacing wood pole structures with direct-embed light duty (LD) steel pole structures. In some locations, such as where there is a turn or angle in the line, or where the line crosses highways or large streams, NEP will replace these structures with engineered steel poles on concrete caisson foundations. All replacement structures will be weathering steel.

## *3.2 Proposed Project Activities*

Project activities are expected to commence in the fall of 2024, pending the receipt of all necessary permits and approvals. The anticipated construction sequence will occur as follows:

- Refreshing of wetland flagging by an environmental scientist;
- Vegetation management;
- Installation of soil erosion and sediment controls;
- Installation of construction mats for access and work pads;
- Access road and work pad maintenance and improvements;
- Replacement of structures;
- Installation of OPGW;
- Completion of construction activities at structures;
- Removal of construction matting and erosion/sediment controls;
- Restoration of the ROW.

The following activities are proposed to address the Project need and to extend asset life:

- **Tree removals:** Removal of trees within the realigned section of the ROW (***jurisdictional activity***).

- **Structure Relocation / Replacement:** Relocation of Structure 95, and replacement with a caisson-supported steel structure (***jurisdictional activity***).

- **Overhead Maintenance**: Replacement of existing shield wire with OPGW to provide high speed communications between substations (***exempt maintenance activity***).

Permanent impacts are associated with the enlarged footprint of replacement caisson-supported structures. Temporary impacts are associated with the placement of construction matting within

resource areas and in-kind replacement of structures. These temporary impacts are associated with exempt maintenance under the WPA and Reading Bylaw. The total amount of construction matting within wetlands is 38,556 sf. The locations of temporary and permanent activities within wetland resource areas are shown on the Environmental Resources Map provided in **Attachment B.** Permanent Project Impacts are summarized in Table 3-1, below.

***Table 3-1****: Summary of Jurisdictional Project Impacts*

| Wetland Resource Area | Impacts (SF) | |
|---|---|---|
| | Permanent | |
| | Tree removals | Structure foundations |
| BVW | 43,283 | 57 |
| NHESP PH/EH | 28,636 | 57 |

All work within Reading is within BVW and within NHESP mapped habitats of rare species. Due to the nature of the Project and location of existing utility infrastructure, it is not possible to completely avoid work within these resource areas. However, NEP has consulted with NHESP

**Sections 6 & 7** of this narrative provide a discussion of the Project's conformance with the performance standards established by the WPA and the Reading By-law, respectively. The sections below provide a detailed description of proposed work and resulting anticipated impact within resource areas.

### *3.2.1 Tree Removals*

NEP will remove trees within wetlands to re-align a portion of the transmission line. The total amount of tree removal within resource areas is presented in Table 3-2, below.

***Table 3-2*** *Total Tree Removal within Resource Areas*

| Resource Area / Land use | Acre of Tree Removal | SF of Tree Removal |
|---|---|---|
| Wetland | 0.99 | 43,283 |
| BLSF | 0.00 | 0 |
| Bank | 0.00 | 0 |
| Riverfront Area | 0.00 | 0 |
| 100-ft Buffer Zone | 0.00 | 0 |
| NHESP | 0.66 | 28,636 |
| Other Upland (no other designation) | 0.00 | 0 |

Prior to construction, NEP will identify "target trees" (those which grow tall enough to interfere with the overhead lines, or which are directly obstructing access to the ROW) using a

combination of aerial imagery and field surveys. NEP does not anticipate clearing all woody vegetation and will limit tree removals to target trees only. Crews will cut trees at stump, leaving root balls left intact and reducing ground disturbance while facilitating the regrowth (via suckering) of some compatible tree species. Crews will leave understory shrubs and herbaceous vegetation intact, as feasible based on field conditions and access requirements. Tree removal techniques will vary with site topography, sensitive resource areas, and accessibility, but may include hand cutting or the use of machinery such as feller bunchers or tree handlers. NEP will select tree removal techniques to minimize environmental impacts to the extent practicable. During tree removal activities, crews will employ BMPs to minimize the disturbance of soil and potential for Project-related erosion.

In June 2024, BSC scientists conducted field visits to the site to conduct an estimation of the number of trees with greater than 6 inches diameter at breast height (dbh) within the tree removal area. Scientists collected seven "quadrat" plots representative of conditions throughout the approximately 1,275 long area. Quadrats measured 20-foot by 20-foot plot, based on the average width of the removal area of 20 feet wide. Within each quadrat, BSC scientists collected species and dbh data for each tree. The average of the quadrat data applied throughout the tree removal area will create an estimation to be used for planning purposes. Based on the average number of trees within all quadrat survey samples, we estimate 550 trees are within the area. NEP does not intend to "clear cut" the forested area and will only remove trees that will conflict with the re-built transmission line. Trees along the outer edge of the removal area may remain based on species, height, and location.

NEP may employ special vegetation maintenance methods in wetlands and other environmentally sensitive areas. In certain environmentally sensitive areas such as wetlands, leaving felled trees and snags can be necessary and desirable to allow them to decompose in place rather than to disturb soft organic substrates. These deadwood features also provide important habitat for many species, from fungi to birds.

### *3.2.2 Structure Replacements*

The existing 339/349 Line primarily consists of direct embed structures. In several locations, such as where engineering or field conditions necessitate a stronger structure foundation, NEP will replace existing structures with steel structures supported by concrete caisson foundations and installed using the "Self-Supporting" construction method. NEP will replace all other structures in-kind with steel direct embed structures, using the "Direct Embed" construction method. While the like-for-like replacement of wood pole for steel pole direct embed structures is a routine maintenance activity, the replacement of existing direct embed structures with caisson supported structures will result in an increase in structure footprint and is therefore not an exempt utility maintenance activity under the WPA.

NEP will build caisson foundations by drilling a vertical shaft and installing a temporary casing shaft, installing a steel reinforced bar cage, placing anchor bolts clusters, pouring concrete casing (also called a caisson foundation), and backfilling as needed around the permanent foundation while removing the temporary casing. Crews will assemble poles in the field and lift the assembled poles by cranes, placing them on the anchor bolts and into the embedded corrugated metal pipe. Proposed concrete caisson foundations are between six and eight feet in diameter, resulting in approximately 28 sf to 50 sf of fill per caisson.

In general, crews will temporarily store excavated material next to the excavation. Once the direct embedded structure has been properly positioned and plumbed within the hole, crews will backfill and tamp the excavation with clean three-quarter inch minus gravel to provide structural integrity. Following the backfilling operation, final restoration will be achieved through re-use of the excavated material and excess material will spread over upland areas or remove from the site.

Dewatering may be necessary during excavations for foundations within wetland areas. At all times, crews will dewater in compliance with National Grid's Environmental Guidance: Access, Maintenance and Construction Best Management Practices (EG-303NE) guidelines and BMPs (see **Attachment D**). If there is adequate vegetation in upland areas to function as a filter medium, NEP generally will discharge water to the vegetated area. Where vegetation is absent or where slope prohibits, crews will pump water into a hay bale or silt fence settling basin which will be in an upland area where feasible. The pump intake will not rest on the bottom of the excavation throughout dewatering. NEP will remove any basins and all accumulated sediment following dewatering operations and will restore disturbed surface as necessary.

Permanent impacts from structure replacement activities are associated with the replacement of existing direct embed structures with caisson supported structures, which have a larger footprint. Within Reading, this is limited to the replacement of Structures 95 within BVW, resulting in an increase of structure footprint to ~57-sf.

NEP has completed consultation with NHESP regarding the Project, and based on a determination for the Project (dated 02/15/23 and 03/27/2024, NHESP file# 22-41435), NEP has designed Project staging and construction to comply with the conditions outlined within the determination letter, and anticipates that the Project will avoid a "Take" of rare species or their habitats.

### *3.2.3 Optical Ground Wire (OPGW) Installation*

Following structure upgrades, NEP installed OPGW wire. No ground disturbance is associated with OPGW installation; however, to install OPGW along the full length of the lines, crews will access every structure. Access to every structure will require the use of temporary construction matting in wetlands or spanning streams throughout the ROW.

# 4 ALTERNATIVES ANALYSIS

NEP considered several Alternatives for the Project including a No-Build Alternative, Critical Asset Repair Alternative, and the Project. Since the No-Build Alternative would not achieve the Project goals and would affect NEP's ability to provide reliable electrical service to members of the public, NEP rejected this option.

Under the Critical Asset Repair Alternative, NEP considered addressing only the most critical asset related issues identified in 2021. However, this would require returning to the lines repeatedly to complete less critical maintenance over the next ten (10) years. Due to the quantity of asset concerns, inefficiencies in revisiting the same ROW within a short time-span, and repeated impacts to BVW, other wetland resource areas and adjacent land uses, NEP did not

select this alternative.

Under the proposed alternative (the Project) NEP will complete a comprehensive refurbishment of the 339/349 Line to address all known inadequacies in a single construction phase with the appropriate access and infrastructure to complete all repairs and improvements. Throughout design and permitting NEP has made extensive efforts to comprehensively assess constructability and avoid impacts, wherever feasible. Where impacts cannot be avoided, NEP will implement appropriate BMPs to minimize impacts. These efforts are referenced throughout this document, particularly in Section 7 and in **Attachment E.**

Upon selection of the Project, the next key evaluation criterion of the alternatives analyses was to minimize adverse impacts to environmental resources where impacts could not be avoided. This evaluation included reviewing the engineering design to determine where structure relocations were feasible and would avoid resource areas, and a field assessment of access road and work area locations. Due to the existing configuration of the transmission line infrastructure, there is little alternative to the location or scope of the proposed activities. However, NEP has designed the Project to avoid or minimize impacts to the extent feasible. The Project provides the best solution for maintaining and improving existing transmission line assets while avoiding and/or minimizing adverse environmental impacts.

Finally, the Project Team assessed available options for line clearances where off-ROW trees are a hazard to the existing lines. Obtaining a new easement to remove trees within the upland area to the NE of the ROW, rather than the mixed upland/wetland area to the SW, is infeasible, as this would require an Article 97 land transfer. This would result in substantial project delays and costs, which would put the deteriorated electrical infrastructure at increased risk of failure. In order to perform the entire ACR Project on schedule, and within the limits of existing easements, tree removal to the SW of the lines (within the fragmented strip of forest in between two existing ROWs), is the only viable option.

In sum, there is no practicable alternative to the Project that would have less adverse impacts on the aquatic environment.

# 5 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

In an effort to avoid resource area impact, NEP conducted an extensive field review of available and feasible access roads, work pads, and construction requirements for the Project. Once NEP's Engineering Team identified the complete list of repair or replacements needs at each structure, NEP and their consultants reviewed the structure locations and subsequently proposed shifts or reconfigurations to some of the work pads to avoid wetland resource areas. Wherever feasible, and in accordance with engineering and safety requirements, NEP made these shifts to avoid or reduce resource area impacts. However, due to the short span within Reading and the existing configuration of the transmission line infrastructure within a large wetland complex, there is no opportunity to avoid wetland crossings in Reading.

Although resource area impacts could not be avoided, NEP implemented design alternatives to reduce impacts to the extent practicable, such as removing Structure 94 entirely, which reduces

the total number of structures within wetlands. In many locations, the footprint of the proposed work reflects the maximum amount of space needed to create the work area. Thus, in some locations, the actual impact area will be much less than what is depicted.

In additional to preliminary planning and construction efforts, NEP implements construction-phase avoidance and minimization measures, as identified in the sections below.

## *5.1 Avoidance and Minimization Measures*

NEP has established procedures that are to be followed by all employees and its contractors for accessing sites and performing construction activities on transmission line ROWs. These procedures ensure that NEP's projects are completed in accordance with all applicable environmental laws and regulations as well as with NEP policies and compliance objectives. NEP has an Environmental Department with full-time staff responsible to ensure company procedures are implemented in the field. The following sections provide a summary of BMPs that will be implemented for this Project. See **Attachment E** for an excerpt of National Grid's Environmental Guidance Document, Access, Maintenance and Construction Best Management Practices.

### *5.1.1 Sediment and Erosion Controls*

Erosion and sediment control measures will be installed prior to the commencement of work. These controls will function to mitigate work-related erosion and sedimentation, and to serve as a physical boundary to delineate work areas to contain construction activities within approved locations.

Erosion and sediment controls will be inspected on a regular basis and maintained in working order until all disturbed areas are stabilized. Please refer to **Attachment E** for erosion and sediment control details. The locations of proposed sediment controls are depicted on the Environmental Constraints Map in **Attachment B.**

### *5.1.2 Construction Access*

Existing and historically utilized access routes are present within the ROW, and these will be used to the greatest extent practicable, as shown on the Environmental Resources Map in **Attachment B**. Temporary construction mats will be used to provide for a work platform and access within BVW. Construction mats are a typical BMP used by NEP to protect the wetland substrate from impacts and to protect the root systems/seed bank of existing vegetation. Construction mats will be placed on top of existing vegetation and will be removed upon completion of work. If necessary, the wetland area will be restored through seeding and stabilization.

### *5.1.3 Vehicle and Equipment Refueling and Maintenance*

To prevent impacts from hazardous materials, if refueling and maintenance in the field are necessary, vehicles and equipment will be brought to an access area greater than 100 feet away from sensitive environmental features and all reasonable environmental precautions will be taken. A paved area, such as a parking lot or roadway, is preferred to minimize the possibility of

spill or release to the environment. Refueling precautions will include frequent checks for fuel spills, drips or seeps during the refueling operation. Vehicles are also equipped with spill kits to provide immediate response action, if needed. If it is not feasible to move equipment to a suitable area, special precautions will be employed to prevent oil or hazardous material release to the environment. These precautions include, but are not limited to, deployment of portable basins or similar secondary containment devices, use of ground covers such as plastic tarpaulins, and precautionary placement of floating booms on nearby surface water bodies.

### *5.1.4 Mowing and Invasive Species Management*

Prior to the commencement of work, vegetation within the ROW will be mowed, as necessary, to provide access for construction vehicles and personnel. During field investigations, it was noted that invasive plant species are currently present within the ROW. In order to prevent the spread of invasive species, mowed vegetation will be left on-site in its existing location to the extent practicable rather than removed where the seeds may be prone to spread. For safety purposes, any large woody debris will be chipped and removed from the site for disposal.

### *5.1.5 Materials Stockpiling*

Excavated material will be stockpiled near the work area and used as backfill where possible. Materials will be stored in upland areas to the extent feasible. Soils will be stored on geotextile fabric or in a material handling bin and surrounded with sediment controls to prevent any sediment migration when in resource areas to avoid an inadvertent discharge into resource areas. Should materials need to be stored for an extended period stockpiles will be covered if its safe to do so protect stockpiles from erosion. Should materials need to be stored for an extended period of time stockpiles will be covered with tarps Excavated materials will not be stored on construction matting unless geotextile fabric is used, and the soils are planned to immediately restore an area. Following the backfilling operation, any remaining excavation spoils will be spread over upland areas or removed from the site.

### *5.1.6 Dewatering*

Where dewatering is necessary for structure replacements or caisson installation, discharge water will be pumped through a filter bag located in an upland area, surrounded with additional sediment filtration such as fiber rolls, bales, or other appropriate containment as necessary. Water will be discharged to an upland area and allowed to infiltrate. Under no circumstances will untreated water be pumped directly to a wetland. Dewatering will be conducted at a rate so that the discharge water does not cause scouring or erosion to upland areas, and any dewatering will be always monitored by the contractor performing the work.

### *5.1.7 Concrete Washout*

Where concrete is being used, designated concrete washout areas will be provided in upland areas. Concrete washout water will not be deposited or discharged directly on the ground, in wetlands or waterbodies, or in catch basins. Concrete washouts will be located as far away from the resource areas as possible (exact location to be determined during construction). Following the completion of concrete pouring operations, the washouts will be disposed of off-site.

### *5.1.8 Restoration of Disturbed Areas*

Disturbed areas will be returned to pre-construction elevations and conditions to the extent practicable. In areas of vegetated ground, disturbed areas will be seeded with an appropriate conservation seed mixture and/or mulched and allowed to re-vegetate. Seed mix specifications for wetland and upland areas are provided in **Attachment E.**

Temporary soil erosion and sediment control devices will be removed following stabilization of disturbed areas. Temporary construction mats will be removed from wetlands. In addition, construction debris and non-biodegradable controls will be removed from the site following construction and site stabilization.

## *5.2 Compensatory Mitigation for Permanent Wetland Loss*

In total, the Project will result in approximately 57-sf of fill within BVW. Given the difficulties associated with successfully replicating such a small area of BVW, the extent of existing BVW within NEP's ROW, and the risk of causing more disturbance to existing BVW in order to hydrologically connect a new replication area, NEP is not proposing wetland replication to compensate for wetland loss.

NEP proposes to contribute an in-lieu fee in an amount commensurate to the costs associated with the construction of a wetland replication area at the 2:1 ratio required by Reading's Bylaw. A replication area for 57-sf of fill would need to be 114-sf. Based on the costs associated with recently constructed replication areas, NEP assumes the costs to construct a 114-sf replication area to be approximately $100 per square foot. NEP is proposing to contribute $11,400 in lieu of constructing a replication area.

## *5.3 Wetland Restoration/Forest Conversion*

Where NEP is proposing to remove trees in wetlands, the resulting alteration is a conversion of vegetation cover type within the narrow strip between adjacent utility corridors from forested wetland to primarily shrub-scrub wetlands. There is no loss of BVW. As such, NEP is not proposing compensatory replication under the WPA for a conversion of vegetation cover type. NEP will minimize impacts to wetlands during the construction phase of the Project and will restore temporary impacts through in-situ restoration.

Due to the nature of the Project, it is not possible to allow areas altered by tree removal to return to forested conditions, as this would be incompatible with the overhead transmission lines. NEP's proposed mitigation involves the restoration of impacted wetlands with the aim of creating scrub-shrub or emergent habitats. During selective tree removals crews will protect and retain existing understory or ground vegetation wherever feasible. Measures to protect non-target vegetation may include hand cutting of trees, or the use of reaching equipment such as feller bunchers or tree handlers to reduce ground disturbance within wetlands. Where construction matting is required to access wetlands and perform tree removals, crews will place matting on top of understory vegetation to protect root balls and reduce ground disturbance. Depending on the extent of understory/ground cover vegetation present, NEP will either leave the wetland to restore naturally or will seed bare soils with an appropriate wetland conservation seed mix and stabilize the seeded area with mulch or straw. Because there is an existing understory within the forested strip, NEP fully anticipates that the area will fully re-establish as a scrub-shrub community from the existing seed and root stock.

NEP recognizes that the Reading Conservation Commission enforces a Tree Replacement Policy which requires replacement of trees removed. Because replacement of trees underneath the realigned utility line is infeasible, NEP anticipates contributing to Reading's Shade Tree Fund in lieu of planting replacement trees. To get an accurate figure based on actual tree removals, NEP proposes conducting a field assessment after the matting has been installed and NEP has selectively removed trees , and counting actual trees removed by stump. The total contribution will be calculated using the $250 per tree fee as defined in the Tree Replacement Policy.

# 6 CONFORMANCE WITH PERFORMANCE STANDARDS OF THE WPA

## *6.1 Limited Project Status*

The Project meets the criteria to be considered a Limited Project, as outlined in *310 CMR 10.53(3)(d)* which allows for the construction, reconstruction, operation and maintenance of overhead public utilities that may, under certain circumstances, be permitted without meeting the performance standards of the WPA. However, the Reading Wetlands Protection Bylaw does not appear to recognize the Limited Project provisions of the WPA. As demonstrated below, NEP has designed the Project to fully meet the performance standards of the WPA and the North Reading Bylaw.

In accordance with general condition *310 CMR 10.53(3)(d)2*, NEP will implement BMPs to ensure the adjacent resource areas are adequately protected, and impacts to the surrounding area are reduced, minimized, and restored to the maximum extent practicable. Project-specific BMPs are discussed in **Section 5**.

## *6.2 Bordering Vegetated Wetland*

*[310 CMR 10.55(4)(a)] – Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a BVW shall not destroy or otherwise impair any portion of said area.*

> Permanent alteration of BVW is associated with 43,283-sf of tree removals, and 57-sf of permanent loss associated with structure foundations. Due to the small area of loss, the location of work within a large BVW complex, and no opportunities within ROW in Reading to construct a replication area, NEP is not proposing wetland replication. In lieu of replication, NEP anticipates contributing to the Town of Readings Tree Fund to provide compensatory mitigation, as described in Section 5.2.
>
> The removal of trees from wetlands NR-W27, while an alteration of BVW, does not destroy or impair the ability of the BVW to provide the functions as identified in the Statutory Interests of the WPA. The conversion of vegetation cover type primarily will alter wildlife habitat by changing the habitat type but will not reduce the available habitat. Restoration measures for tree removals in BVW are described in Section 5.3, and include preservation of existing compatible vegetation, and stabilization of emergent and scrub-shrub vegetation. These more open habitat areas will not fragment the available habitat, as the existing cover is a strip of taller, woody vegetation between existing utility corridors and will remain a strip of woody vegetation but managed to lower-growing species.

*[310 CMR 10.55(4)(b)] – Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5,000 square feet of BVW when said area is replaced (in accordance with 310 CMR 10.55(4)(b)).*

As stated above, the proposed work in Reading will result in approximately 57-sf of permanent loss within a large BVW complex, which is well below the allowable threshold. As described in Section 5.2, NEP proposes to provide compensatory mitigation through a voluntary contribution deposited into Reading's Shade Tree Fun. NEP anticipates consulting with the Conservation Commission to determine the appropriate contribution for the loss of BVW.

*[310 CMR 10.55(4)(c)] – Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of BVW when said portion has a surface area less than 500 square feet; said portion extends in a distinct linear configuration ("finger like") into adjacent uplands; and in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.*

The impacted BVW areas within the Project ROW are not "finger like" wetlands. This standard is not applicable.

*[310 CMR 10.55(4)(d)] – Notwithstanding the provisions of 310 CMR 10.55(4)(a), (b) or (c), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.*

Within Reading, impacted areas of BVW overlap entirely with NHESP rare species habitat. Based on an initial determination for the Project (dated 02/15/23, NHESP file# 22-41435 and 03/27/2024, NHESP file# 23-1185), NEP anticipates that the Project can avoid a "Take" of rare species or their habitats, provided that the conditions outlined within the determination letter are followed.

*310 CMR 10.55(4)(e)] – Any proposed work shall not destroy or otherwise impair any portion of BVW that is within an Area of Critical Environmental Concern designated by the Secretary of Environmental Affairs under M.G.L. c.21A, s.2(7) and 301 CMR 12.00.*

There are no ACECs within the Project corridor in Reading. This standard is not applicable.

# 7 CONFORMANCE WITH THE PERFORMANCE STANDARDS OF THE READING WETLAND PROTECTION REGULATIONS

Due to the nature and purpose of the proposed activities, there are no practicable alternatives to the Project. However, NEP does not anticipate that the Project will result in significant adverse impacts to wetland resource areas, or their values as protected by the Reading Bylaw. NEP will implement BMPs to protect resource areas and following the completion of work crews will restore wetland areas to pre-construction conditions to the extent practicable (as further described in **Section 5**). NEP has designed the Project to meet the performance standards of the Reading Bylaw to the extent practicable.

The Bylaw Performance Standards for Freshwater Wetlands (Article 7, Section 3.C – Freshwater Wetlands) require that Projects must result in no net loss of wetlands and that wetland loss must be replicated at a 2:1 ratio. Due to the small area of loss, the extent of wetlands on the site, and the lack of a suitable and available replication area under NEP's ROW within the same area as the loss, NEP is not proposing wetland replication. NEP is proposing a contribution to Reading's Shade Tree Fund. Per Section 7.02.E. Variance from Regulations, the Conservation Commission may grant a variance from strict compliance with these regulations for a proposed activity when the Commission finds that (a) *There are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the performance standards in these Regulations; and (b) Mitigating measures are proposed that will allow the project to be conditioned so as to have no adverse impact upon the wetland values set forth in Section 7.1 of the Reading General Bylaws; and (c) The variance is necessary to accommodate an overriding community, regional, state, or national public interest.*

The proposed activities are within an actively managed utility ROW and activities are necessary to continue to provide reliable electric service to the region. There are no alternatives to the Project that would result in fewer resource area impacts and NEP is proposing to employ both construction phase BMPs to minimize impacts and proposing to compensate for wetland loss through and established fund. NEP respectfully requests a variance from the Regulations per Section 7.02.E to allow NEP to compensate for loss of wetlands through this Fund.

## *7.1 Reading Tree Cutting Policy and Regulations*

The Reading Conservation Commission maintains a Tree Cutting Policy and Tree Replacement Policy that requires approval through the Conservation commission and replacement of trees for all removal of trees within one hundred feet of a wetland and 200 feet of a river. Because tree replacement is infeasible within the utility ROW, NEP is proposing compliance with this policy through a contribution to the Reading Shade Tree Fund following a stump count to accurately account for trees removed.

# 8 CONCLUSION

Although portions of the Project will occur within wetland resource areas, NEP is proposing to:

- Minimize disturbance by utilizing an existing disturbed ROW.
- Utilize appropriate BMPs to protect wetland resource areas from sedimentation and soil disturbance during Project activities.
- Provide appropriate mitigation for impacts to BVW as allowable under the WPA and the Reading Wetlands Protection By-law.

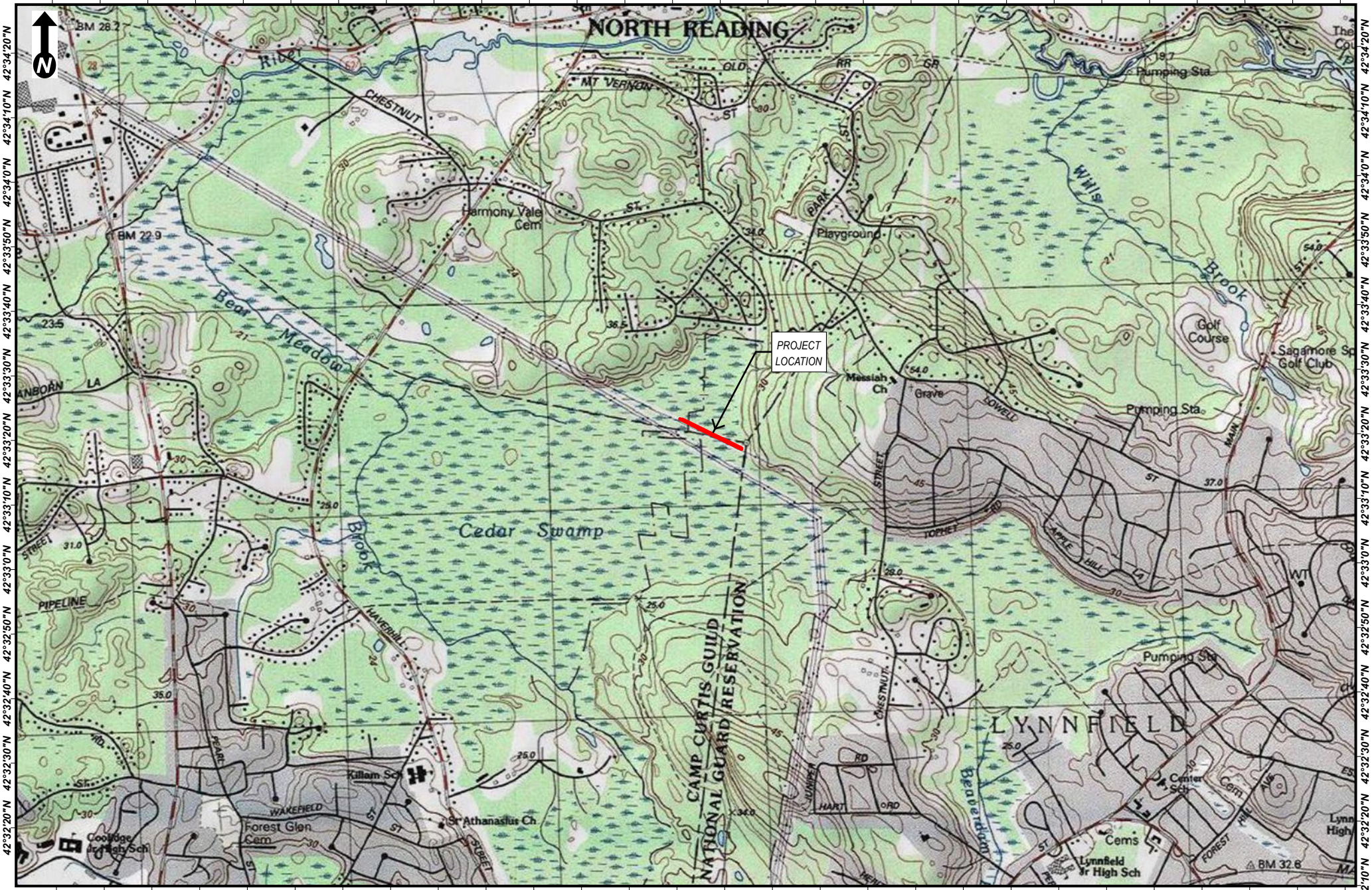
Therefore, NEP respectfully requests the Reading Conservation Commission find the proposed project adequately protective of the public interests of the WPA and Reading Bylaw and Issue an Order of Conditions for the Proposed Project as currently designed with a variance from the Regulations per Section 7.02.E.

# Attachment B

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

USGS SITE LOCUS MAP
ENVIRONMENTAL RESOURCES MAP

File Location: G:\GISPrj\8959912\Output\Maps\APRX\Line339349_USGSLocusMaps_20240126\Line339349_USGSLocusMaps_20240126.aprx
Date Saved: 1/26/2024 9:56 AM




Scale:
1:24,000
1 inch =2,000 feet
0 1,000 2,000
Feet
(Page Size 8.5 x 11)

**339/349 LINE ACR**
**USGS Site Location Map**
**Reading, MA**

Source:
USA_Topo_Maps:
Copyright:© 2013
National Geographic

nationalgrid
BSC GROUP

*THIS DOCUMENT IS INTENDED FOR GENERAL PLANNING & INFORMATION PURPOSES ONLY. ALL MEASUREMENTS & LOCATIONS ARE APPROXIMATE.*

DRAFT

057-0000-0093
057-0000-0016
Article 97 Lands: Cedar Swamp Conservation Area
NORTH READING
057-0000-0092
0018 0000 2582
LYNNFIELD
80'
Camp Curtis Guild National Guard Reservation
057-0000-0015
SLEEVES IN BOTH SHIELD WIRES
Article 97 Lands: Cedar Swamp Conservation Area
NO GRADING
TEMPORARY WETLAND MATTING 10,000 SF
Amphibian
339 LINE
94 (94)
95 (95)
2460540000000020
057-0000-0014
TEMPORARY WETLAND MATTING 7,975 SF
TEMPORARY WETLAND MATTING 5,418 SF
TEMPORARY WETLAND MATTING 1,254 SF
TEMPORARY WETLAND MATTING 8,880 SF
057-0000-0013
2460470000000150
Article 97 Lands: Cedar Swamp
NR-W27
READING
LINE T146
LINE S145
2460540000000010
Camp Curtis Guild National Guard Reservation
2460300000000020

Index Map

**Legend**

- Structure Number Label (NEW/OLD)
- Existing Structure
- Install Structure (2 Caissons)
- Remove Structure
- Existing Overhead Line
- Install Overhead Line
- Work Envelope*
- Construction Matting
- Field Delineated Wetland Line
- Field Delineated Wetland*
- MADEP Wetlands*
- FEMA 100yr Floodplain*
- 100ft Buffer to Wetlands & Streams
- NHESP Restricted Data
- NHESP Priority & Estimated Habitats
- National Guard Property*
- Parcel Boundaries
- Approx. Edge of ROW
- Culvert
- Catch Basin
- Tree to be Removed
- Proposed Tree Removal Area
- 10ft Contours
- 2ft Contours
- Line 339 349 SAPP Sensitive Resource Areas

**Article 97 Lands**

- Municipal

1 inch = 100 feet
0 50 100
Feet
*Indicates Layers Set to Transparency

# 339/349 LINE ACR

## NOI Application

Reading, MA
Page of 2

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

nationalgrid
BSC GROUP

# Attachment C

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

SITE PHOTOGRAPHS
WETLAND DATA FORMS

**Photo #1:** View of Structure 95, located within BVW. Activities within this wetland will include structure replacement and tree removals. *Facing west.*

# MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: New England Power Company Prepared by: BSC Group, Inc. Project location: 339 Transmission Line ROW, Reading Access off Lowell St
DEP File #: Structure 95 - Wetland 1 (wetland data)

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ❑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

## Section I.

| Vegetation | Observation Plot Number: | | Transect Number: | Date of Delineation: |
|---|---|---|---|---|
| A. Sample Layer & Plant Species (by common/scientific name) | B. Percent Cover (or basal Area) | C. Percent Dominance | D. Dominant Plant (yes or no) | E. Wetland Indicator Category* |
| Trees | | | | |
| Absent | | | | |
| *Total Percent Cover 0* | | | | |
| Shrubs/ Saplings | | | | |
| *Alnus incana* | 15 | 100.0% | Yes | FACW* |
| *Total Percent Cover 15* | | | | |
| Herbaceous | | | | |
| *Scirpus cyperinus* | 15 | 30% | Yes | OBL* |
| *Osmundastrum cinnamomeum* | 15 | 30% | Yes | FACW* |
| *Phragmites australis* | 10 | 20% | Yes | FACW* |
| *Carex typhina* | 5 | 10% | No | OBL* |
| *Sphagnum* | 5 | 10% | No | NL (not listed)* |
| *Total Percent Cover 50* | | | | |
| Vines | | | | |
| Absent | | | | |
| *Total Percent Cover 0* | | | | |

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.*

## Vegetation conclusion:

Number of dominant wetland indicator plants: 4 Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? (yes) no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

## Section II. Indicators of Hydrology

### *Hydric Soil Interpretation*

**1. Soil Survey**

Is there a published soil survey for this site? (yes) no
title/date: WebSoil Survey/ 2019
map number: 52A
soil type mapped: Freetown muck
hydric soil inclusions: Soil is hydric

Are field observations consistent with soil survey? (yes) no
Remarks:

**2. Soil Description**

| Horizon | Depth | Matrix Color | Mottles Color |
|---|---|---|---|
| A | 0-9” | 10YR 2/1 | Concentrations 5YR 4/6<br>Depletions 2.5Y 5/3 |
| B | 9-20” | GLY1 5/5GY | Concentrations 10YR 6/8 |

Remarks: soils saturated at surface

**3. Other**:

Conclusion: Is soil hydric? (yes) no

**Other Indicators of Hydrology: (check all that apply & describe)**

- (❑) Site Inundated: __Standing water present_____
- ❑ Depth to free water in observation hole: 0.5”
- (❑) Depth to soil saturation in observation hole:_0”_____
- ❑ Water marks: _____
- ❑ Drift lines: _____
- ❑ Sediment Deposits: _____
- ❑ Drainage patterns in BVW: _____
- ❑ Oxidized rhizospheres: _____
- (❑) Water-stained leaves: _____
- ❑ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- (❑) Other: Micro topographic relief

### Vegetation and Hydrology Conclusion

| | Yes | No |
|---|---|---|
| Number of wetland indicator plants ≥ # of non-wetland indicator plants | Yes | |
| **Wetland hydrology present:** | | |
| Hydric soil present | Yes | |
| Other indicators of hydrology present | Yes | |
| **Sample location is in a BVW** | Yes | |

*Submit this form with the Request for Determination of Applicability or Notice of Intent.*

# MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: New England Power Company Prepared by: BSC Group, Inc. Project location: 339 Transmission Line ROW, Reading Access off Lowell St
DEP File #: Structure 95 - Wetland 1 (upland data)

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ❑ Vegetation and other indicators of hydrology usedto delineateBVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

## Section I.

| Vegetation | Observation Plot Number: | | Transect Number: | Date of Delineation: |
|---|---|---|---|---|
| A. Sample Layer & Plant Species (by common/scientific name) | B. Percent Cover (or basal Area) | C. Percent Dominance | D. Dominant Plant (yes or no) | E. Wetland Indicator Category* |
| Trees | | | | |
| *Pinus strobus* | 10 | 50% | Yes | FACU |
| *Quercus rubra* | 5 | 25% | Yes | FACU |
| *Juniperus virginiana* | 5 | 25% | Yes | FACU |
| *Total Percent Cover 20* | | | | |
| Shrubs/ Saplings | | | | |
| *Comptonia peregrina* | 20 | 57.1% | Yes | NL (not listed) |
| *Quercus rubra* | 10 | 28.6% | Yes | FACU |
| *Alnus incana* | 5 | 14.3% | No | FACW* |
| *Total Percent Cover 35* | | | | |
| Herbaceous | | | | |
| Grass Spp. | 10 | 66.7% | Yes | NIS (not identified to species) |
| *Rubus flagellaris* | 5 | 33.3% | Yes | FACU |
| *Total Percent Cover 15* | | | | |
| Vines | | | | |
| Absent | | | | |
| *Total Percent Cover 0* | | | | |

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to*

*physiological or morphological adaptations, describe the adaptation next to the asterisk.*

## Vegetation conclusion:

Number of dominant wetland indicator plants: 0 Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes (no)

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

## Section II. Indicators of Hydrology

### *Hydric Soil Interpretation*

**1. Soil Survey**

Is there a published soil survey for this site? (yes) no
title/date: WebSoil Survey/ 2019
map number: 317B
soil type mapped: Scituate fine sandy loam
hydric soil inclusions: Soil is not hydric

Are field observations consistent with soil survey? (yes) no
Remarks:

**2. Soil Description**

| Horizon | Depth | Matrix Color | Mottles Color |
|---|---|---|---|
| B | 0-18” | 10YR 3/3 | none |

Remarks:

**3. Other**:

Conclusion: Is soil hydric? yes (no)

**Other Indicators of Hydrology: (check all that apply & describe)**

- ❑ Site Inundated: _____
- ❑ Depth to free water in observation hole: _____
- ❑ Depth to soil saturation in observation hole:_____
- ❑ Water marks: _____
- ❑ Drift lines: _____
- ❑ Sediment Deposits: _____
- ❑ Drainage patterns in BVW: _____
- ❑ Oxidized rhizospheres: _____
- ❑ Water-stained leaves: _____
- ❑ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
  _____
  _____
  _____
- ❑ Other:

**Vegetation and Hydrology Conclusion**

| | Yes | No |
|---|---|---|
| Number of wetland indicator plants ≥ # of non-wetland indicator plants | | No |
| **Wetland hydrology present:** | | |
| Hydric soil present | | No |
| Other indicators of hydrology present | | No |
| **Sample location is in a BVW** | | No |

*Submit this form with the Request for Determination of Applicability or Notice of Intent.*

# Attachment D

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

CERTIFIED ABUTTERS LIST
ABUTTERS NOTIFICATION LETTER
AFFIDAVIT OF SERVICE

# TOWN OF READING
## 16 LOWELL STREET
## READING, MA 01867-2693

**BOARD OF ASSESSORS**
**781-942-9027**
**FAX: 781-942-9037**


# ABUTTERS LIST

# CERTIFICATION

# FOR BOARD OF ASSESSORS

**VICTOR P. SANTANIELLO, CHIEF APPRAISER** **DATE**

**PHILIP CANNIFF, ASSISTANT APPRAISER** **DATE** 5/13/2024

TOWN OF READING
16 LOWELL STREET
READING, MA 01867-2693

BOARD OF ASSESSORS
TEL.: 781-942-9027
FAX: 781-942-9037

December 5, 2023

To whom it may concern;

In an effort to streamline our business practices and desire to decrease turnaround time for taxpayers and other municipal departments, please be advised that effective this date, we the Board of Assessors for the Town of Reading Hereby delegate to the Town Appraiser of the Assessing Department signatory authority of all Certified Abutter's Lists as compiled by the department.

Sincerely,

Reading Board of Assessors

Cheryl Moschella

Michael E. Golden

Brendan Zarechian

*Patriot Properties*

# Reading

05/13/2024

1:04:12PM

## Abutters List

**Filter Used:** DataProperty.AccountNumber in (8415,6027,8414,8069)

# Reading
## Abutters List



***Subject Parcel ID:*** ***0 CEDAR SWAMP***

***Subject Property Location:***

| ParcelID | Location | Owner | Co-Owner | Mailing Address | City | State | Zip |
|---|---|---|---|---|---|---|---|
| 030.0-0000-0002.0 | HAVERHILL ST | COMM OF MASS CAMPCURTIS GU | | 25 HAVERHILL ST | READING | MA | 01867 |
| 047.0-0000-0015.0 | HAVERHILL ST | TOWN OF READING | CONS. | 16 LOWELL STREET | READING | MA | 01867 |
| 054.0-0000-0001.0 | CEDAR SWAMP | NEW ENGLAND POWER CO | PROPERTY TAX DEPT | 40 SYLVAN RD | WALTHAM | MA | 02451 |
| 054.0-0000-0002.0 | CEDAR SWAMP | COMM OF MASS CAMPCURTIS GU | | CEDAR SWAMP | READING | MA | 01867 |

Parcel Count: **4**

***End of Report***

| MAP 10 LOT 234 | SITE ADDRESS | OWNER | MAILING ADDRESS | CITY | ST | ZIP |
|---|---|---|---|---|---|---|
| | | NEIGHBORING TOWNS ALSO NEED TO BE NOTIFIED: | | | | |
| | | STONEHAM PLANNING BOARD | 35 CENTRAL ST | STONEHAM | MA | 02180 |
| | | WAKEFIELD PLANNING BOARD | 1 LAFAYETTE STREET | WAKEFIELD | MA | 01880 |
| | | LYNNFIELD PLANNING BOARD | 55 SUMMER STREET | LYNNFIELD | MA | 01940 |
| | | MASS DEPT OF HOUSING & COM. DEV. | 100 CAMBRIDGE STREET, SUITE 300 | BOSTON | MA | 02114 |
| | | WILMINGTON PLANNING BOARD | 121 GLEN ROAD | WILMINGTON | MA | 01887 |
| | | NORTH READING PLANNING BOARD | 235 NORTH STREET | NORTH READING | MA | 01864 |
| | | WOBURN PLANNING BOARD | 10 COMMON STREET | WOBURN | MA | 01801 |
| | | METRO AREA PLANNING COUNCIL | 60 TEMPLE PLACE | BOSTON | MA | 02111 |

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act, M.G.L., c.131, s.40 and Reading General Bylaws, Section 7.1

(To be submitted to the Conservation Commission when filing a Notice of Intent or Abbreviated Notice of Resource Area Delineation or Request for Determination of Applicability)

I, Siona Patisteas (Name), hereby certify under the pains and penalties of perjury that on 5/25/2024 (Date), I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws, c.131, s.40, and the **DEP Guide to Abutter Notification** dated April 8, 1994, and Reading General Bylaws, Section 7.1 in connection with the following matter:

(Check the applicable form.)

- ☑ Notice of Intent
- ☐ Abbreviated Notice of Resource Area Delineation
- ☐ Request for Determination of Applicability

filed under M.G.L., c.131, s.40 and R.G.B., s.7.1 by New England Power Company (Applicant) with the Town of Reading Conservation Commission on 5/24/2024 (Date) for property located at 0 Cedar Swamp (Location).

The form of the notification and list of abutters to whom it was given and their addresses are attached to this Affidavit of Service.

Siona Patisteas

Name

5/17/24

Date

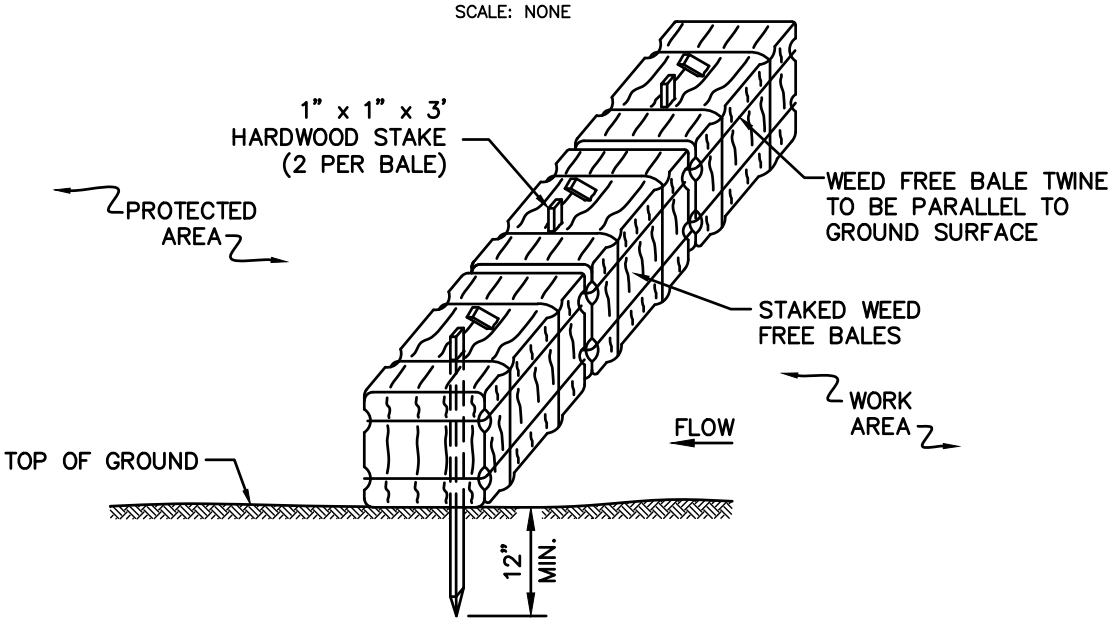
# Attachment E

339/349 Line Asset Condition Refurbishment Project
Reading, Massachusetts
Notice of Intent

NATIONAL GRID'S BEST MANAGEMENT PRACTICES

# BMP DETAIL

SCALE: NONE




NOTES:

1. THE GROUND SHALL BE PREPARED TO PROVIDE COMPLETE CONTACT WITH THE BALES.

# BMP PICTURE

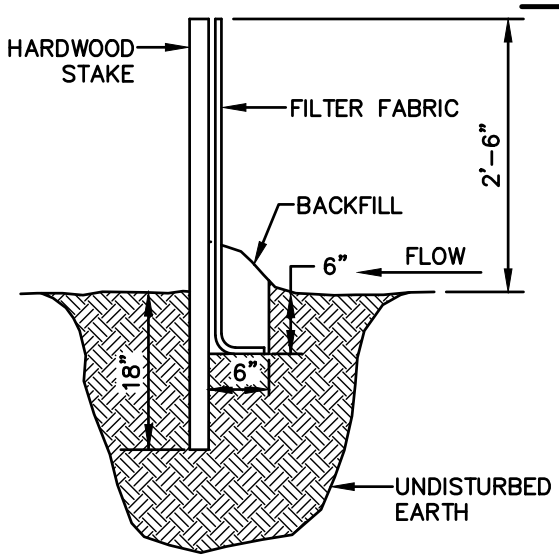
**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

SEC-1
WEED FREE BALE BARRIER

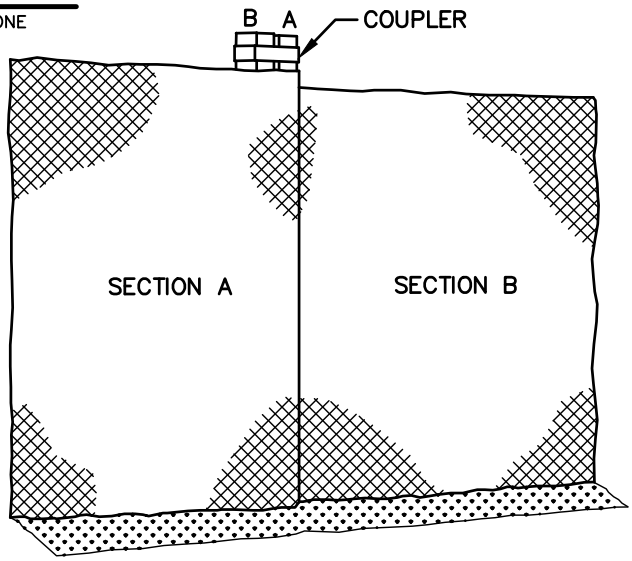
File: BALE_BARRIER.DWG

# BMP DETAIL

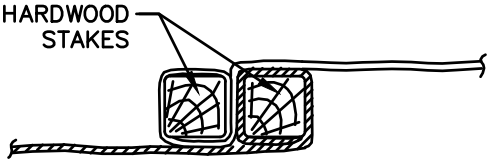
SCALE: NONE




PROFILE




SECTION




PLAN

# BMP PICTURE

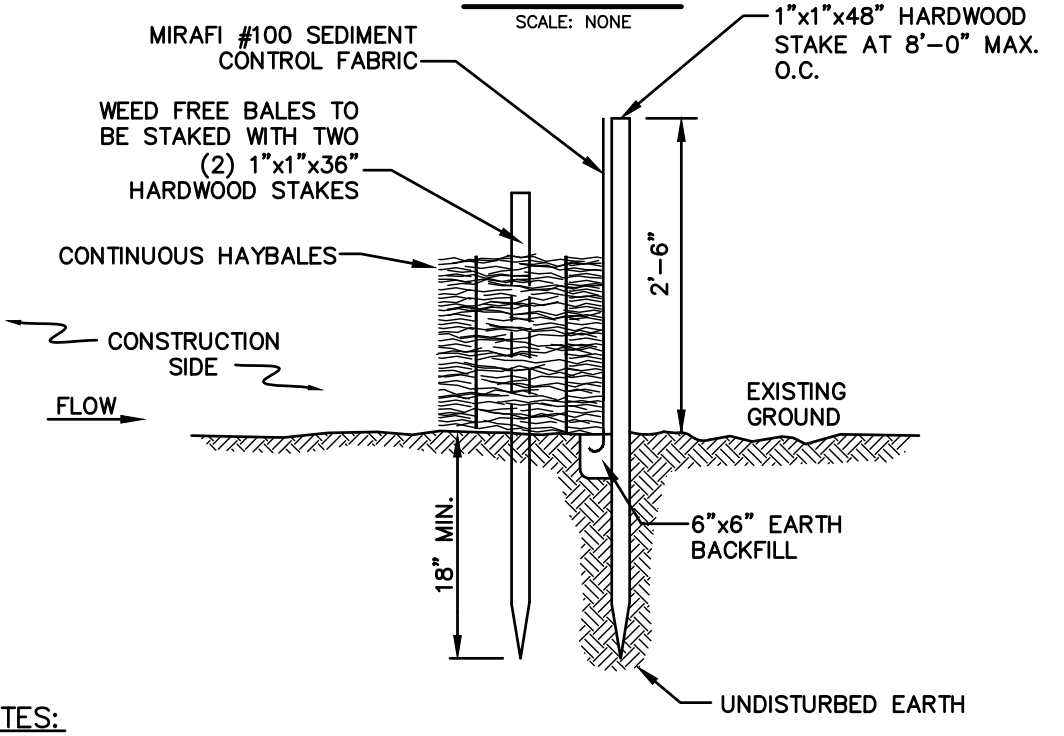


SEC-2
SEDIMENT CONTROL FENCE

File: Sediment_Fence.dwg

# BMP DETAIL

SCALE: NONE



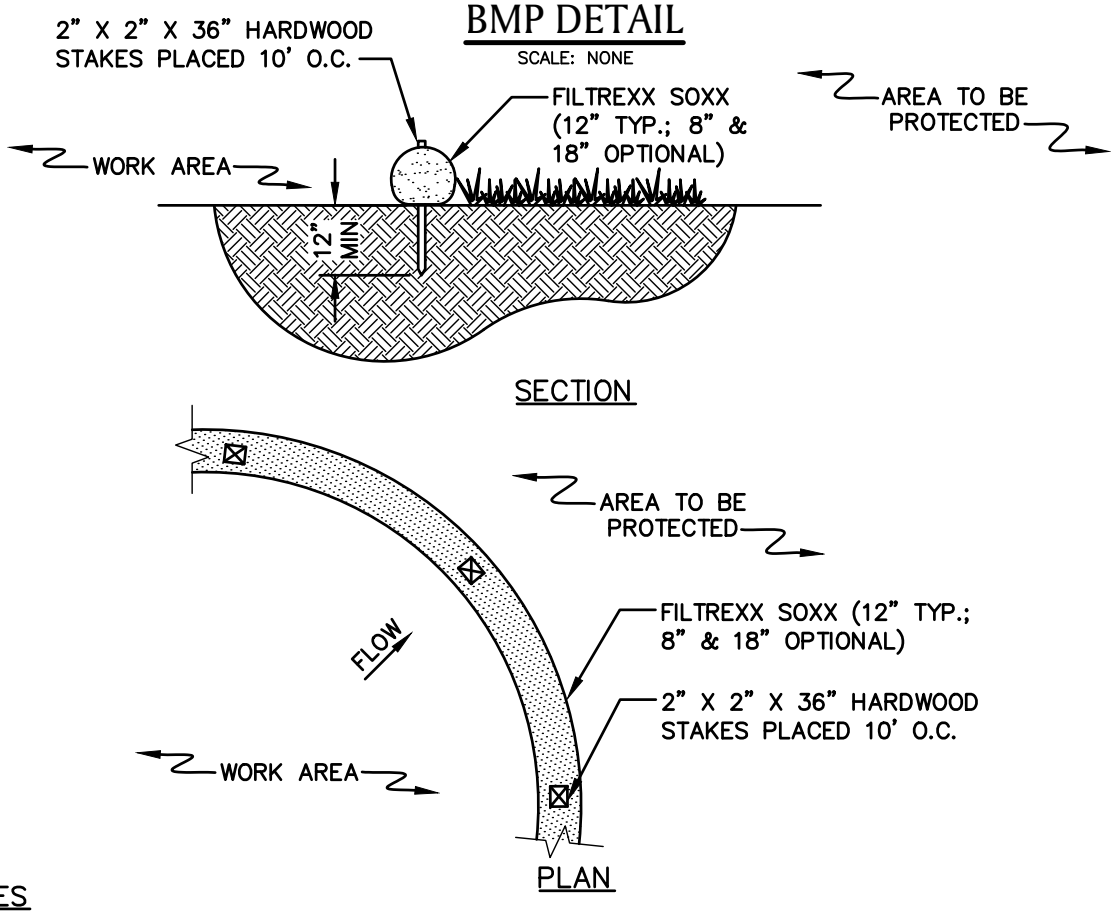

## NOTES:

1. BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO (2) 1"X1"X36" HARDWOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. BALES SHALL BE REMOVED AND REPLACED WHEN THEY BECOME FILLED WITH SEDIMENT AND BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
5. BALES SHALL BE REMOVED WHEN THE EMBANKMENTS STABILIZE.
6. BALES TO BE TWINE BOUND.

# BMP PICTURE

# BMP DETAIL

SCALE: NONE




## NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. MESH CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 3/8".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

# BMP PICTURE

*** PICTURE AND DETAIL PROVIDED BY FILTREXX LAND IMPROVEMENT SYSTEMS**

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**

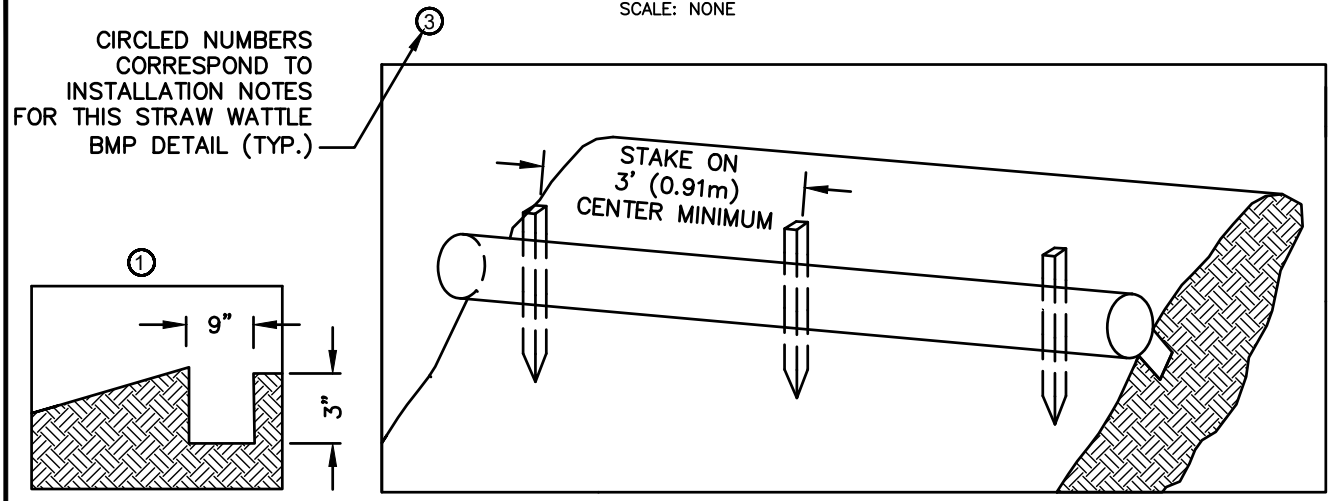
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

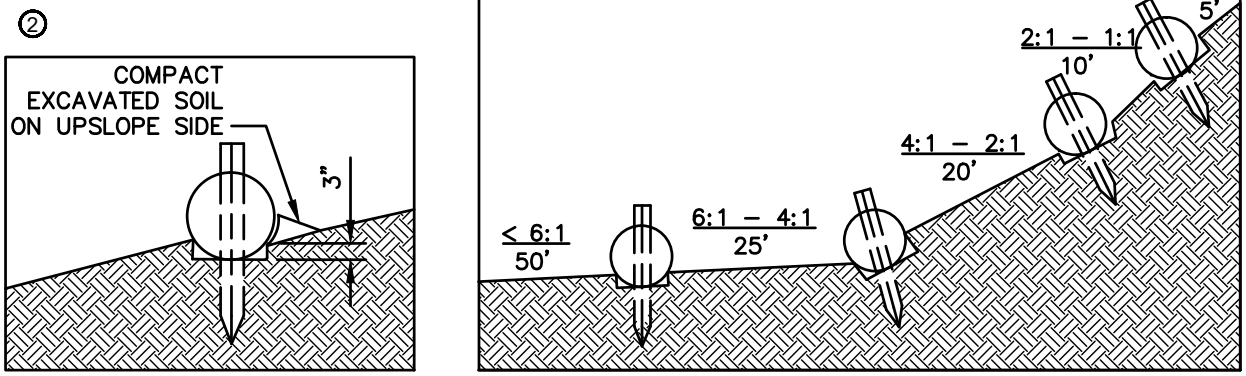
SEC-4
SILT SOXX *

File: SiltSOXX.dwg

# BMP DETAIL

SCALE: NONE




TYPICAL WATTLE SPACING DETAIL

## NOTES:

1. PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
3. MINIMUM 12" DIAMETER WATTLES SHOULD BE USED FOR HIGHLY DISTURBED AREAS (I.E., HEAVILY USED ACCESS ROAD WITH ADJACENT WETLAND) AND MINIMUM 9–10" WATTLES SHOULD BE USED FOR LESS DISTURBED SOILS.

## INSTALLATION NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2–3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18–24" HARDWOOD STAKES EVERY 3–4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2–3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

*** DETAIL AND PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN**

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**



SEC-5

STRAW WATTLE * (1 OF 2)

File: Straw_Wattle.dwg

# BMP PICTURE

STRAW WATTLE – SHALLOW SLOPE (≤4:1)
(ALTERNATE STAKING)

## ALTERNATE STAKING INSTALLATION NOTES:

1. ON SHALLOW SLOPES (≤4:1), STRAW WATTLE MAY BE SECURED WITH 18–24" HARDWOOD STAKES DRIVEN AGAINST THE SIDES OF THE WATTLE INSTEAD OF THROUGH. STAKES SHALL ALTERNATE SIDES, AND BE SPACED 3–4' MAX.
2. TWINE SHALL BE TIED FROM STAKE TO STAKE, CRISS–CROSSING THE STRAW WATTLE. TIE TWINE TO STAKES BELOW THE HEIGHT OF THE WATTLE.

# BMP

## Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

## Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

## Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

## Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

NOTE:

1. PICTURE DEPICTS STRAW MULCH APPLICATION (FROM MULCH SPREADER) ON STEEP SLOPE WITH AN IMPROVED DRAINAGE SWALE.
2. COORDINATE MULCH MATERIALS AND RATES WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html



SEC-9
MULCH MATERIALS, RATES AND USES (FROM NY) *

File: Mulch_Materials.dwg

## UPLAND ROW RESTORATION MIX – GENERAL

Species Composition Options:

- Andropogon gerardii; Niagra Big Bluestem
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Elymus virginicus; Virginia Wildrye
- Lolium multiflorum; Annual Ryegrass
- Sorghastrum nutans; Indiangrass
- Chamaecrista fasciculate; Partridge Pea
- Desmodium canadense; Showy Tick Trefoil
- Helioposis helianthoides; Ox–Eye Sunflower
- Panicum virgatum; Switchgrass
- Rudbeckia hirta; Black Eyed Susan
- Poa palustris; Fowl Bluegrass
- Agrostis perennans; Upland Bentgrass
- Agrostis alba; Redtop
- Festuca rubra; Red Fescue
- Lotus corniculatus; Birds–Foot Trefoil
- Chrysanthemum leucanthem; Ox–Eye Daisy
- Aster novae–angliae; New England Aster

Example Seed Mixes:

1. Native Upland wildlife forage and Cover Meadow Mix – Ernst Conservation Seeds (ERNMX–123)
2. Eastern Ecotype Native Grass Mix– Ernst Conservation Seeds (ERNMX–177)
3. New England Native Warm Season Grass Mix – New England Wetland Plants, Inc.
4. New England Logging Road Mix – New England Wetland Plants, Inc.
5. Northeast Upland Wildflower/Restoration Erosion Mix – Southern Tier Consulting (STCMX–2)

## UPLAND ROW RESTORATION MIX – DRY/ROCKY SITES

Species Composition Options:

- Festuca rubra; Red Fescue
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Bouteloua gracillis; Blue Grama
- Lolium multiflorum; Annual Ryegrass
- Lolium perenne; Perennial Ryegrass
- Agrostics scabra; Rough Bentgrass
- Agrostis perennans; Upland Bentgrass
- Sorghastrum nutans; Indiangrass

Example Seed Mixes:

1. New England Erosion Control/ Restoration Mix for Dry Sites – New England Wetland Plants, Inc.
2. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

## WETLAND ROW RESTORATION MIX

Species Composition Options:

- Agrostis stolonifera; Creeping Bentgrass
- Poa trivialis; Rough Bluegrass
- Alopecurus arundinaceus; Creeping Meadow Foxtail
- Lolium multiflorum; Annual Ryegrass
- Festuca rubra; Creeping Red Fescue
- Elymus virginicus; Virginia Wildrye
- Schizachyrium scoparium; Little Bluestem
- Andropogon gerardii; Niagra Big Bluestem
- Carex vulpinoidea; Fox sedge
- Panicum virgatum; Switchgrass
- Agrostis scabra; Rough Bentgrass
- Aster novae–angliae; New England Aster
- Eupatorium perfoliatum; Boneset
- Euthamia graminifolia; Grass Leaved Goldenrod
- Scirpus atrovirens; Green Bulrush
- Verbene hastate; Blue Vervain
- Juncus effusus; Soft Rush
- Scirpus cyperinus; Wool Grass
- Panicum clandestinum; Deertongue

Example Seed Mixes

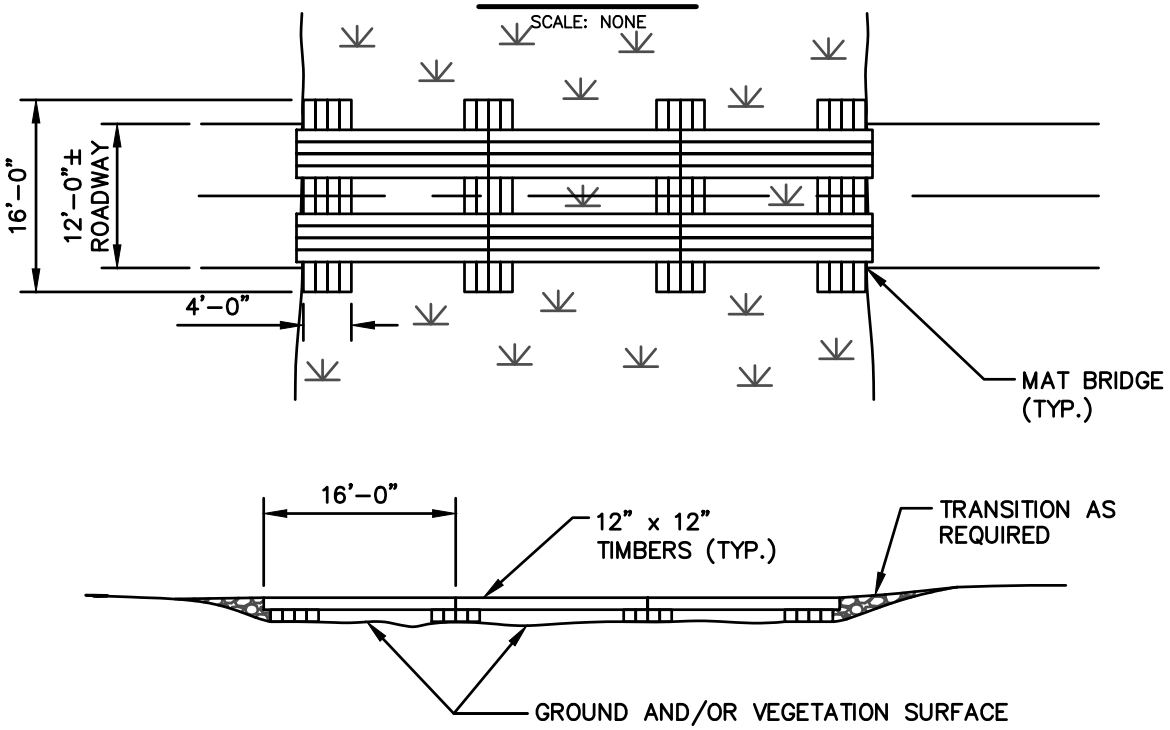
1. New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites – New England Wetland Plants, Inc.
2. Northeast Wetland Grass Seed Mix – Southern Tier Consulting (STCMX–7)
3. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

## GERNERAL NOTES:

1. Seed mixes described herein are intended to cover a variety of typical new england landscapes. However, site specific seed mixes will need to be evaluated in coastal or mountainous regions.
2. Seed mixes described herein are intended for general ROW restoration. Site specific wetland seed mixes may be required by local, state and/or federal regulators for certain impacts to wetlands.
3. All seed mixes are to be approved by National Grid Environmental Scientist prior to construction and must conform with all project permits.
4. Seedbed preparation and maintenance as well as temporary erosion and sediment controls are crucial to the establishment of newly seeded areas. Coordinate with National Grid Environmental Scientist on seed bed preparation and maintenance as well as temporary erosion and sediment controls prior to construction.

# BMP DETAIL

SCALE: NONE




NOTES:

1. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

# BMP PICTURE

CM-2
CONSTRUCTION MAT BRIDGE
(1 OF 2)



File: Mat_Bridge.dwg

# BMP PICTURE - SINGLE SPAN

SCALE: NONE


## NOTES:

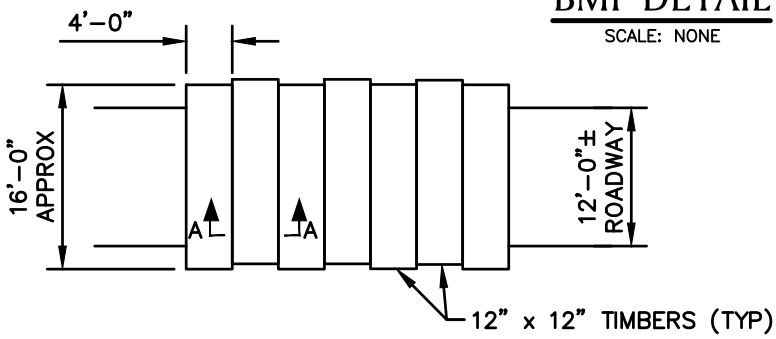
1. WHERE STREAM WIDTH ALLOWS, INSTALL CONSTRUCTION MATS TO SPAN THE WATERCOURSE IN ITS ENTIRETY WITHOUT STRINGER PLACEMENT IN THE WATER OR ANY RESTRICTION OF STREAM FLOW.

2. INSTALLATION OF THE CONSTRUCTION MAT BRIDGE SHALL NOT DAMAGE THE STREAM BED AND BANKS. WHERE POSSIBLE, FOOTERS SHALL BE PLACED PARALLEL TO THE TOP OF THE STREAM BANKS, WITH ACCESS MATTING PLACED ACROSS THE TOP OF THE STRINGERS DISTRIBUTING THE WEIGHT OF THE CONSTRUCTION EQUIPMENT.

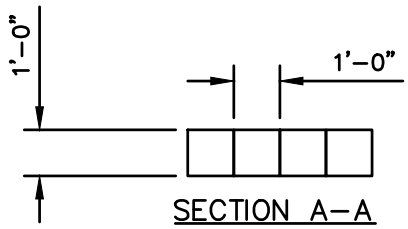
3. AT STREAM CROSSINGS THAT CANNOT BE SPANNED BY A SINGLE SECTION OF CONSTRUCTION MATTING, AND WHERE PERMITS ALLOW, STRINGERS SHALL BE PLACED ATOP THE STREAM BED PARALLEL TO THE FLOW OF WATER.

# BMP DETAIL

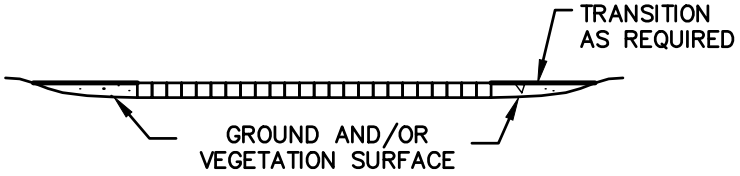
SCALE: NONE




TYPICAL PLAN VIEW




SECTION A–A
TYPICAL MAT SECTION
BOLTED TOGETHER




TYPICAL SECTION VIEW

NOTES:

1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING, TO ACCESS STRUCTURES.
2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTOR'S CONSTRUCTION MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF CONSTRUCTION MATS MAY BE INSTALLED.

# BMP PICTURE

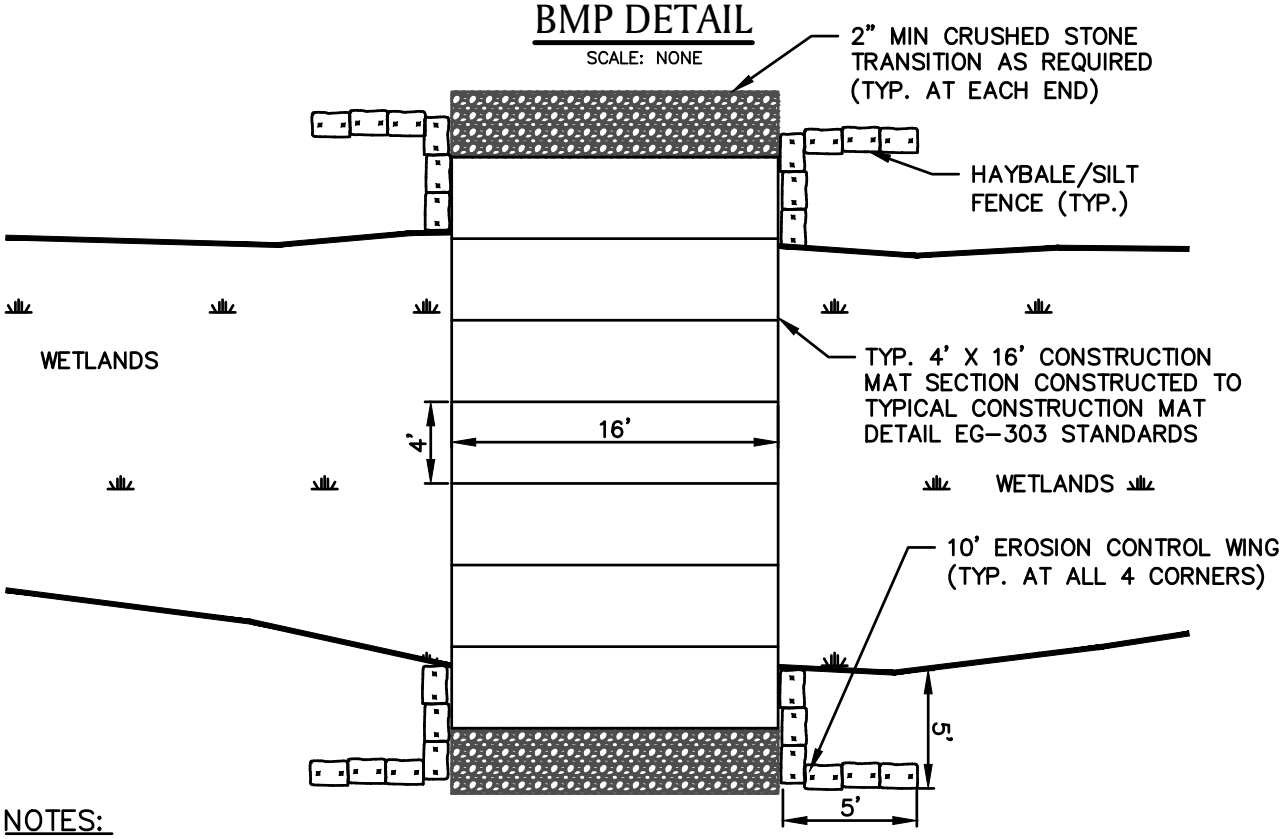
CM-3
CONSTRUCTION MAT LAYOUT
(WITH TRANSITION)



File: Swamp_Mat_Layout.dwg

## BMP DETAIL

SCALE: NONE




NOTES:

1. ADD FILTER FABRIC AS NEEDED UNDER STONE TRANSITION RAMPS.
2. ALL MEASUREMENTS AND LOCATIONS ARE APPROXIMATE.

## BMP PICTURE

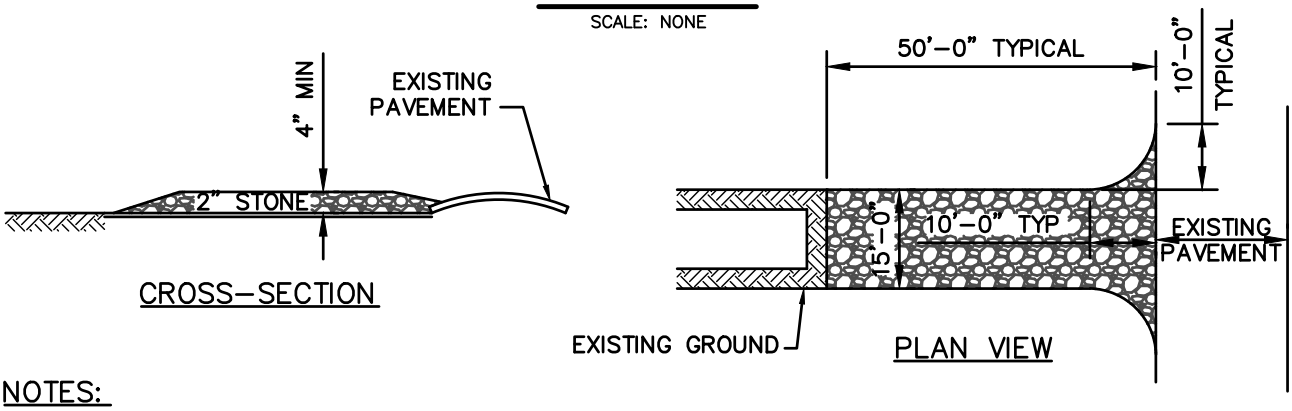
**CM-4**
CONSTRUCTION MAT LAYOUT
(WITH TRANSITION AND BMPs)



File: Swamp_Mat_Transition and BMPs.dwg

# BMP DETAIL

SCALE: NONE




## NOTES:

1. STONE SIZE – USE 2" STONE (MINIMUM) TO 6" STONE (MAXIMUM)
2. LENGTH – GREATER THAN OR EQUAL TO 50 FEET
3. THICKNESS – 4"
4. WIDTH – FIFTEEN (15) FOOT TYP., BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS ENTRANCE. IF PIPING IS IMPRACTICAL, MOUNTABLE BERM SHALL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.
8. THE CLEAN STONE SHOULD BE INSTALLED OVER A GEOTEXTILE FABRIC. GEOTEXTILE FABRIC MAY BE OMITTED FOR PERMANENT CONSTRUCTION ENTRANCES/EXITS ON A CASE–BY–CASE BASIS WITH THE APPROVAL OF THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.
9. FOLLOWING CONSTRUCTION, THE CONSTRUCTION ENTRANCE/EXIT SHALL BE REMOVED AND THE AREA GRADED, SEEDED, AND MULCHED AS NEEDED. ENTRANCE/EXITS MAY REMAIN DEPENDING UPON FUTURE ACCESS NEEDS AND/OR PROJECT–SPECIFIC APPROVALS BUT REQUIRES APPROVALS FROM THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND PROPERTY LEGAL.

# BMP PICTURE



CM-8
TEMPORARY CONSTRUCTION ENTRANCE/ EXIT

File: Temp_Construction_Ent.dwg

# BMP PICTURE

NOTE:

1. PICTURE SHOWS VIEW OF ACCESS WAY STABILIZATION ADJACENT TO A WETLAND.
2. COORDINATE STABILIZATION DESIGN AND PRODUCT WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

# BMP PICTURE

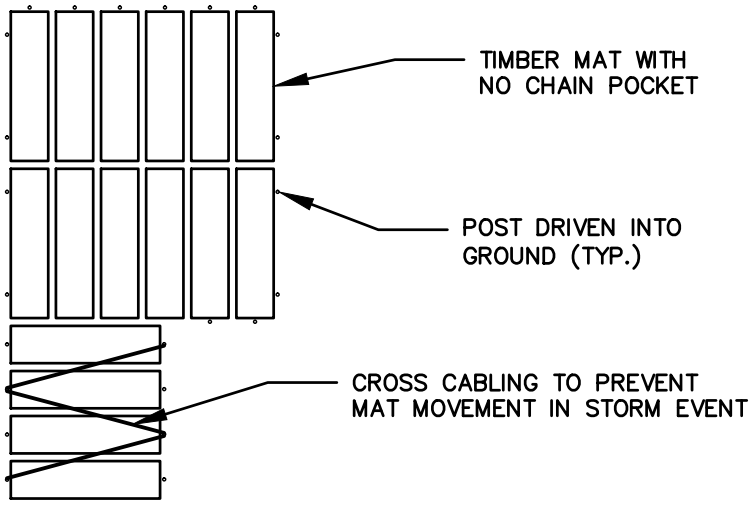

NO ACCESS – WETLAND/STREAM CROSSING MATS REQUIRED

NO ACCESS – A.) PROJECT LIMITS E.G. ROW LIMITS
B.) HISTORICAL/CULTURAL
C.) ENVIRONMENTALLY SENSITIVE E.G. THREATENED & ENDANGERED
D.) OTHER


APPROVED ACCESS

# BMP DETAIL 1

SCALE: NONE




TYPICAL PLAN VIEW

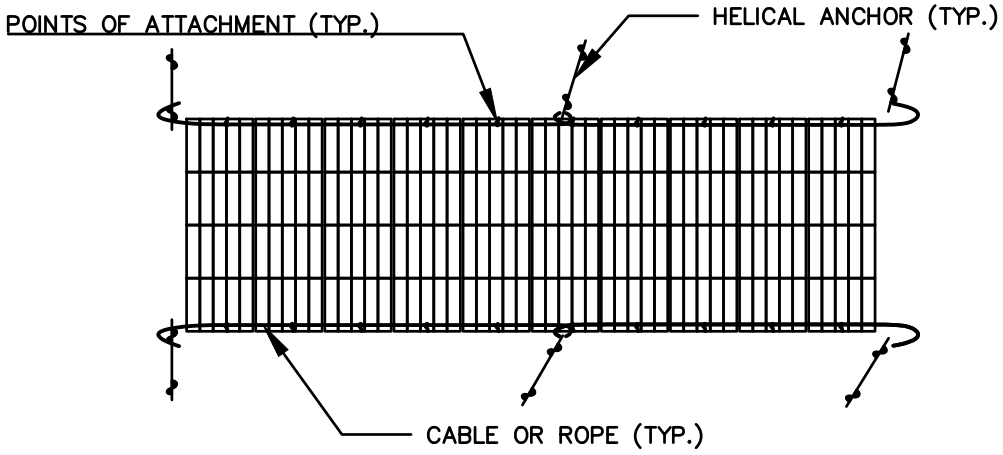
NOTES:

1. EXAMPLES OF ANCHORING ONLY. MATTING CONTRACTOR SHALL PROPOSE THE METHOD OF ANCHORING BASED ON FIELD CONDITIONS.
2. ANCHORING METHOD TO BE APPROVED BY THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND TRANSMISSION LINE CONSTRUCTION SUPERVISOR.

# BMP DETAIL 2

NOTES:

1. TYPICAL HELICAL ANCHOR AND CABLE CONFIGURATION FOR MAT CONTAINMENT IN FLOODPLAINS/LAND SUBJECT TO FLOODING.
2. TYPICAL POINTS OF ATTACHMENT HEAVY STAPLES, EYE BOLTS OR OTHER SUITABLE HARDWARE TO SECURE ATTACHMENT OF MAT TO LINEAR CABLE. IF CHAIN POCKETS ARE PRESENT IN THE MATS CABLE OR ROPE CAN BE LOOPED THROUGH RODS.



## BMP PICTURE 1

## BMP PICTURE 2



CM-12
EXAMPLE OF CONSTRUCTION MAT ANCHORING (2 OF 2)

File: Const_Mat_Anchoring.dwg

## BMP DETAIL

SCALE: NONE

# WIRE BACKED SILT FENCE

MUTUAL INDUSTRIES WIRE BACKED SILT FENCE
PART # 1776-14-24
36" X 100'
36" MISF 1776 FABRIC
24" 14GA WIRE MESH
OPENING OF MESH 2" X 4"
FABRIC HOG RINGED EVERY 12"-18" ALONG THE TOP OF THE FENCE

ROLL WEIGHT 40 LBS

32 ROLLS PER PALLET

NOTES:

1. PRODUCT TO BE MUTUAL INDUSTRIES' WIRE BACKED SILT FENCE OR APPROVED EQUAL BY NATIONAL ENVIRONMENTAL SCIENTIST.
2. COORDINATE INSTALLATION METHOD AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

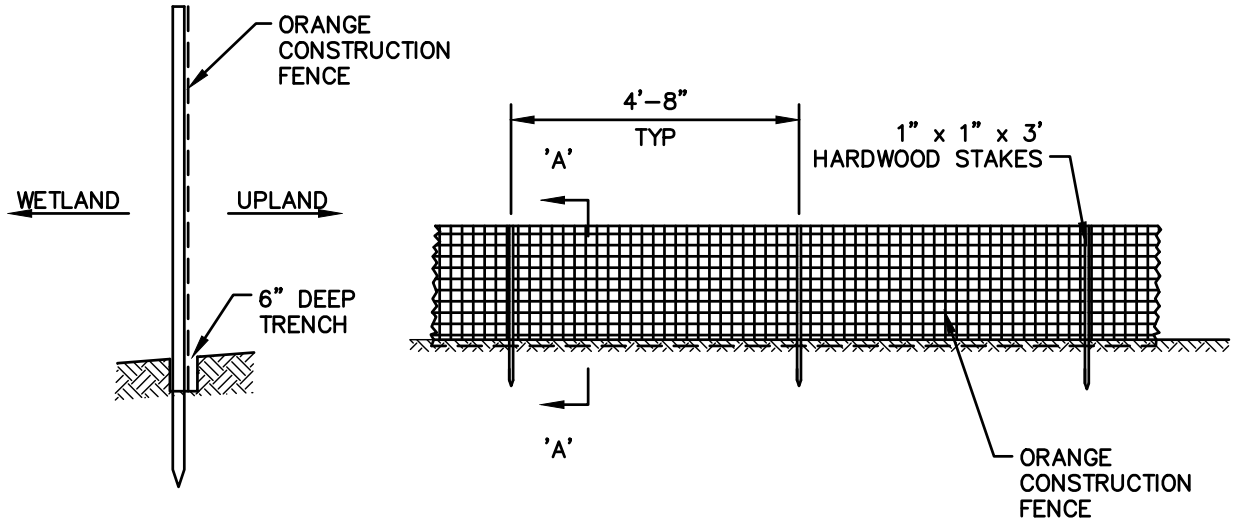
# BMP PICTURE

NOTE:

1. PICTURE SHOWS SEDIMENT FILTER WITHIN A WETLAND.

# BMP DETAIL

SCALE: NONE




SECTION A-A

# BMP PICTURE

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

AA-15
BARRIER FENCE
(CONSTRUCTION FENCE)

File: Barrier_Fence.dwg

# BMP

## Definition

The control of dust resulting from land-disturbing activities.

## Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

## Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

## Design Criteria

**Construction operations should be scheduled to minimize the amount of area disturbed at one time.** Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

## Construction Specifications

**A. Non-driving Areas** – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

**Vegetative Cover** – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

**Mulch** (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

**Spray adhesives** – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

**B. Driving Areas** – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

**Sprinkling** – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

**Polymer Additives** – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

**Barriers** – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

**Windbreak** – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html

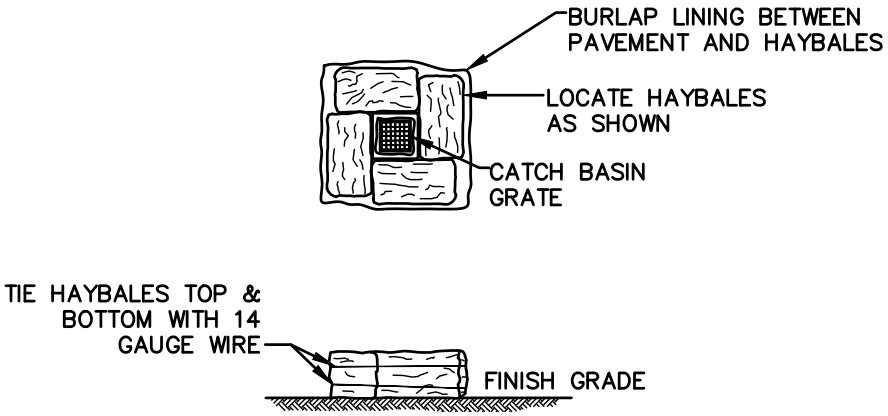


AA-18
DUST CONTROL (FROM NY) *

File: Dust_Control.dwg

# BMP DETAIL

SCALE: NONE



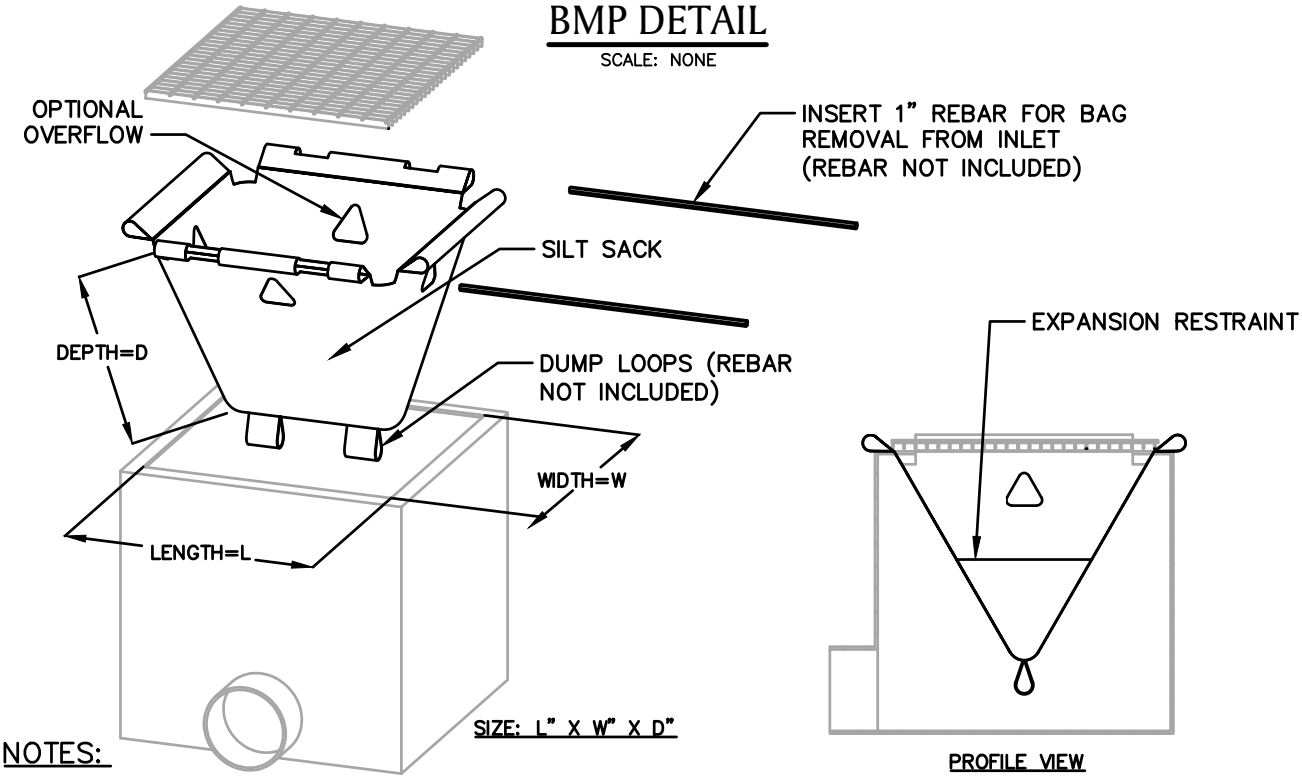

NOTES:

1. SURROUND STREET DRAINAGE STRUCTURE INLET WITH HAY BALES PRIOR TO CONSTRUCTION AND MAINTAIN UNTIL CONSTRUCTION IS COMPLETED. ACCUMULATED SEDIMENTS SHALL BE REMOVED.
2. HAYBALES PLACED ON PAVEMENT SHALL HAVE BURLAP PLACED BETWEEN PAVEMENT AND HAYBALE

# BMP PICTURE

# BMP DETAIL

SCALE: NONE




NOTES:

1. PRODUCT TO BE SILT SACK OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE USE OF A SILT SACK OPTIONAL OVERFLOW AND OVERALL DIMENSIONS ARE TO BE COORDINATED WITH A NATIONAL GRID ENVIRONMENTAL SCIENTIST.

# BMP PICTURE


*** DETAIL PROVIDED BY ACF ENVIRONMENTAL**

**APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES**



AA-20
SILT SACK *

File: SILT SACK.dwg