Maple Street Stub Pole Installation Project

Request for Determination of Applicability

Town of Franklin Conservation Commission July 2022

Prepared for: Massachusetts Electric Company 40 Sylvan Road Waltham, MA 02451

BSC Project No. 89820.11





Engineers
Environmental Scientists
Software Developers
Landscape Architects
Planners
Surveyors

www.bscgroup.com

JULY 1, 2022

Franklin Conservation Commission Franklin Town Hall 355 E. Central Street Franklin, MA 02038

RE: Request for Determination of Applicability
Maple Street Stub Pole Installation Project
Maple St., Franklin, MA
Massachusetts Electric Company (MECO)

Dear Members of the Franklin Conservation Commission:

On behalf of the Massachusetts Electric Company (MECO), BSC Group, Inc. (BSC) is pleased to submit this Request for Determination of Applicability (RDA) under the Town of Franklin Wetlands Protection Bylaw (Chapter 181) and the Massachusetts Wetlands Protection Act (WPA) and implementing regulations, for the proposed installation and replacement of utility poles along Maple Street (the Project). Project activities are proposed within Bordering Vegetated Wetlands (BVW), the 100-ft Buffer Zone to BVW, the locally regulated 25-ft No Disturb Zone and 50-ft No Build Zone to Wetlands. Please refer to the USGS Site Locus Map and Environmental Resources Map in **Attachment B** for a depiction of the Project location.

The proposed activities are necessary to allow MECO to provide safe and reliable electrical service across the region. The removal of the push brace is due to structural failure. The stub pole installation opposite the street is proposed as an alternative to replacing the push brace currently located within BVW. Throughout the Project, Best Management Practices (BMPs) will be implemented to avoid adverse impacts to any Resource Areas, and disturbed areas will be restored to their existing condition upon completion of work. Therefore, this letter serves as a Request for a Negative Determination.

Exempt Maintenance Activities under the WPA

The replacement of Pole 49 and removal of its push brace 49-89 within BVW, and the replacement of Pole 50 within the 100-ft Buffer Zone to BVW, are considered exempt utility maintenance activities under the MA WPA (M.G.L. Ch. 131, S.40) and implementing regulations 310 CMR 10.02(2)(a)(2). This work qualifies as "Activities conducted to maintain, repair or replace, but not substantially change or enlarge an existing and lawfully located structure or facility used in the service of the public and used to provide electric, gas and other communication services within resource areas".



Subject of RDA under the Local Bylaw and WPA

The installation of Pole 49-90 on Maple Street is proposed within the 100-ft Buffer Zone to BVW and will require tree removals. Therefore, this installation is not considered an exempt minor buffer zone activity, and is submitted for review under the MA WPA and Franklin Wetland Bylaw.

The replacement of Pole 49 and removal of its push brace 49-89 are proposed within BVW, and the replacement of Pole 50 is proposed within the 100-ft Buffer Zone to BVW. Vegetation maintenance will also be conducted around these existing facilities. Replacement and removal activities are being submitted for review under the Franklin Wetlands Bylaw only.

Existing Conditions

A desktop analysis of Environmental Resource Areas was performed using MassGIS datalayers and other available mapping. In addition, a site visit was conducted on May 20, 2022. Based on this assessment, the replacement of Pole 49 and the removal of its push-brace (Pole 49-89) are within BVW. This BVW system is mapped as containing a Potential Vernal Pool in the northern ponded portion of the wetland. The remaining activities are proposed within the 100-ft Buffer Zone to BVW as well as locally regulated 25-ft No Disturb and 50-ft No Build Zones. No other resource areas were identified in proximity to the Project area, including FEMA 100-Year Floodplain/Bordering Land Subject to Flooding (BLSF), 200-ft Riverfront Area (RFA), Natural Heritage and Endangered Species Program (NHESP) Priority or Estimated Habitat, Certified Vernal Pools, Areas of Critical Environmental Concern, or Surface Water Protection Areas.

The work area is proposed along the public way on Maple Street, and equipment will access the poles from the paved roadway. Please refer to the Environmental Resources Map in **Attachment B** to view the Resource Areas in relation to Project activities. Representative site photographs are provided in **Attachment C**.

Proposed Work Description

The purpose of the proposed project is to address a failed push brace that is currently located within BVW. A new stub pole (49-90) and guy will be installed across the street from existing pole P49 to enable the removal of the push brace entirely and avoid needing to re-install within BVW. Pole P49 will be replaced and the replacement of pole P50 will also be conducted. In addition, vegetation management will be necessary to provide the required clearances to support the activities and maintain reliable electric service. This includes the removal of fifteen (15) trees within the Buffer Zone. In summary, the following activities will be conducted:

- Installation of stub pole P49-90 and replacement of pole P50 within 100-foot Buffer zone.
- Replacement of pole P49 and removal of P49-89 (push brace) within BVW.
- Removal of fifteen (15) trees within Buffer Zone.

The proposed poles will be installed by auguring a hole to a depth of approximately six (6) feet. The poles will be directly embedded into the ground, and excavated soils will be used to backfill the hole. Any excess spoils will be removed from resource areas and buffer zones and disposed of properly. Permanent impacts within Buffer Zone will be approximately 2 sq ft. Temporary impacts within the wetland are anticipated to be approximately 6 sq ft for the replacement of P49 and removal of the push brace. No access within the wetland itself is necessary to conduct the activities. Disturbed



areas resulting from the Project will be restored and stabilized to pre-construction conditions upon completion of work. Throughout the Project, BMPs will be implemented to avoid impacts to resource areas as described below.

CONSTRUCTION METHODS AND PROPOSED MITIGATION TECHNIQUES

MECO has established procedures that are to be followed by all employees performing construction and maintenance activities on distribution lines. These procedures, also known as BMPs, are outlined in National Grid's Environmental Guidance document (EG-303NE) to ensure that all MECO projects are completed in accordance with all applicable environmental laws and regulations, as well as company policies and compliance objectives. Please see **Attachment D** for examples of these BMPs that may be used during the Project.

<u>Erosion and Sediment Controls</u>: Ground disturbance associated with the Project will be minimal and limited to the removal of the push brace and augering a hole for the replacement of two (2) utility poles and the installation of one (1) stub pole. Sediment controls will be installed prior to construction. Displaced soil from the pole installations will be managed away from resource areas and will be disposed of properly.

<u>Vegetation Management</u>: The removal of fifteen (15) trees are proposed as part of the Project. Vegetation management will be conducted entirely within the existing public way. It may be necessary to chip larger woody shrubs. If chipping is necessary, wood chips will not be placed within Wetland Resource Areas, or within the inner 25-ft of the Buffer Zone (minimum No Disturbance Zone). Tree Stumps will be left in place; therefore no ground disturbance is anticipated

<u>Stormwater Management</u>: There will be no change in grade or surface type as a result of this Project. Therefore, additional stormwater management will not be required.

<u>Restoration</u>: Disturbed areas will be stabilized, and the construction site will be returned to preexisting conditions upon completion of the Project. All construction materials, vehicles, and nonbiodegradable sediment controls will be removed from the site upon completion of work.

CONCLUSION

Project activities within BVW and the 100-ft Buffer Zone to BVW are limited to the existing disturbed public way. No permanent impacts or new fill are proposed within BVW. In addition, BMPs will be implemented, as appropriate, to avoid impacts to BVW and minimize impacts to upland resource areas, and disturbed areas will be restored upon completion of construction.

Since the Project is not expected to adversely impact resource areas, MECO is seeking a Negative Determination under the WPA and Franklin Wetlands Protection Bylaw and Regulations to allow the Project to proceed as described herein.

Enclosed, please find two (2) copies of the Request for Determination of Applicability and attachments. An electronic copy of the application will also be submitted to the Commission and DEP Central Regional Office. We respectfully request that this matter be heard at the next scheduled Conservation Commission hearing. The work may be scheduled to begin as soon as permissible.

If you have any questions regarding the enclosed information, please contact me at (508) 561-7000 or James Rynes of MECO at (978) 337-6988. Thank you for your consideration in this matter.



Sincerely,

BSC Group, Inc.

Carolyn Gorss, PWS Associate Project Manager

cc: James Rynes, Massachusetts Electric Company

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ATTACHMENT A WPA FORM 1

ATTACHMENT B USGS SITE LOCUS MAP

ENVIRONMENTAL RESOURCES MAP

ATTACHMENT C SITE PHOTOGRAPHS

ATTACHMENT D BEST MANAGEMENT PRACTICES



Attachment A

Maple Street Stub Pole Installation Project Franklin, Massachusetts Request for Determination of Applicability

WPA FORM 1





Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Franklin City/Town

WPA Form 1- Request for Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

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



1.	Applicant:					
٠.			_			
	Massachusetts Electric Company			s@nationalgrid.com		
	Name		E-Mail Addres	SS		
	40 Sylvan Road					
	Mailing Address					
	Waltham		MA	02451		
	City/Town		State	Zip Code		
	(978) 337-6988					
	Phone Number		Fax Number (if applicable)		
2.	Representative (if any):					
	BSC Group, Inc.					
	Firm					
	Carolyn Gorss		cgorss@bs	scgroup.com		
	Contact Name		E-Mail Addres			
	1 Mercantile St.					
	Mailing Address					
	Worcester		MA	01608		
	City/Town		State	Zip Code		
	(508) 561-7000		Olale	Zip code		
	Phone Number		Fax Number (if applicable)		
	THORE NUMBER		i ax i valiibci (i	п аррпсавіс)		
_						
В.	Determinations					
1.	I request the Franklin	make the following d	atermination(s). Check any that apply:		
١.	Conservation Commission	make the following d	eterrimation (s). Check any that apply.		
	Conscivation Commission					
	a. whether the area depicted on plan(s) and/or map(s) referenced below is an area subject to					
	jurisdiction of the Wetlands Protection Act.					
	januarian. Si dio froducido i fotostioni fichi					
b. whether the boundaries of resource area(s) depicted on plan(s) and/or map(s) refere below are accurately delineated.				or map(s) referenced		
	c. whether the work depicted on plan(s) referenced below is subject to the Wetlands Protection Act.					
		work depicted on plan(s) referenced below is subject to the jurisdiction				
	of any municipal wetlands ordina n	nce or bylaw of:				
	Franklin					
	Franklin					
	Name of Municipality					
	e. whether the following scope of al	Itarnativas is adaguata	for work in th	ne Riverfront Area as		
	depicted on referenced plan(s).	nemanves is adequate	IOI WOIK III U	ie Nivellioni Alea as		



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Franklin City/Town

WPA Form 1- Request for Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description	C.	Pro	ject	Des	cri	ptior	1
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	Maple Street	Franklin	
	Street Address	City/Town	
	242	N/A Public Roadway	
	Assessors Map/Plat Number	Parcel/Lot Number	
	b. Area Description (use additional paper, if neces	sary):	
	Existing distribution utility off Maple St, Franklin. Se	e attached cover letter for f	urther details.
	c. Plan and/or Map Reference(s):		
	USGS Locus Map		5/17/2022
	Title		Date
	Environmental Resources Map		05/17/2022
			Doto
	Title		Date
			Date
	Title		Date
<u>)</u>		provide plan(s) of work, if ne	Date
2.	Title a. Work Description (use additional paper and/or page)	,	Date ecessary):
	Title	als, within BVW and the 10	Date ecessary): 0-ft Buffer Zone to
Bor	Title a. Work Description (use additional paper and/or publication) Install and replace utility poles, involving tree removed dering Vegetated Wetlands. The installation of Pole auffer Zone to BVW and will require tree removals. The	rals, within BVW and the 10 49-90 on Maple Street is proper replacement of Pole 49 a	Date ecessary): 0-ft Buffer Zone to posed within the 100-and removal of its push
Bor t B	a. Work Description (use additional paper and/or publication and replace utility poles, involving tree removed dering Vegetated Wetlands. The installation of Pole auffer Zone to BVW and will require tree removals. The toe 49-89 are proposed within BVW, and the replaced	vals, within BVW and the 10 49-90 on Maple Street is proper replacement of Pole 49 ament of Pole 50 is proposed	Date ecessary): 0-ft Buffer Zone to opposed within the 100-and removal of its push the within the 100-ft
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Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Franklin City/Town

WPA Form 1- Request for Determination of Applicability

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

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

In accordance with 310 CMR 10.02(2)(a) pole replacements and removals qualify as "activities conducted to maintain, repair or replace, but not substantially change or enlarge an existing and lawfully located structure or facility used in the service of the public and used to provide electric, gas, water, sewer, telephone, telegraph and other communication services, provided said work utilizes the best practical measures to avoid or minimize impacts to wetland resource areas outside the footprint of said structure or facility" and do not require the filing of an NOI.

3.	If this application is a Request for Determination of Scope of Alternatives for work in the erfront Area, indicate the one classification below that best describes the project.
	Single family house on a lot recorded on or before 8/1/96
	Single family house on a lot recorded after 8/1/96
	Expansion of an existing structure on a lot recorded after 8/1/96
	Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
	New agriculture or aquaculture project
	Public project where funds were appropriated prior to 8/7/96
	Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
	Residential subdivision; institutional, industrial, or commercial project
	Municipal project
	District, county, state, or federal government project
	Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
	Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification ove (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Name and address of the property owner:

Franklin City/Town

WPA Form 1- Request for Determination of Applicability

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

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

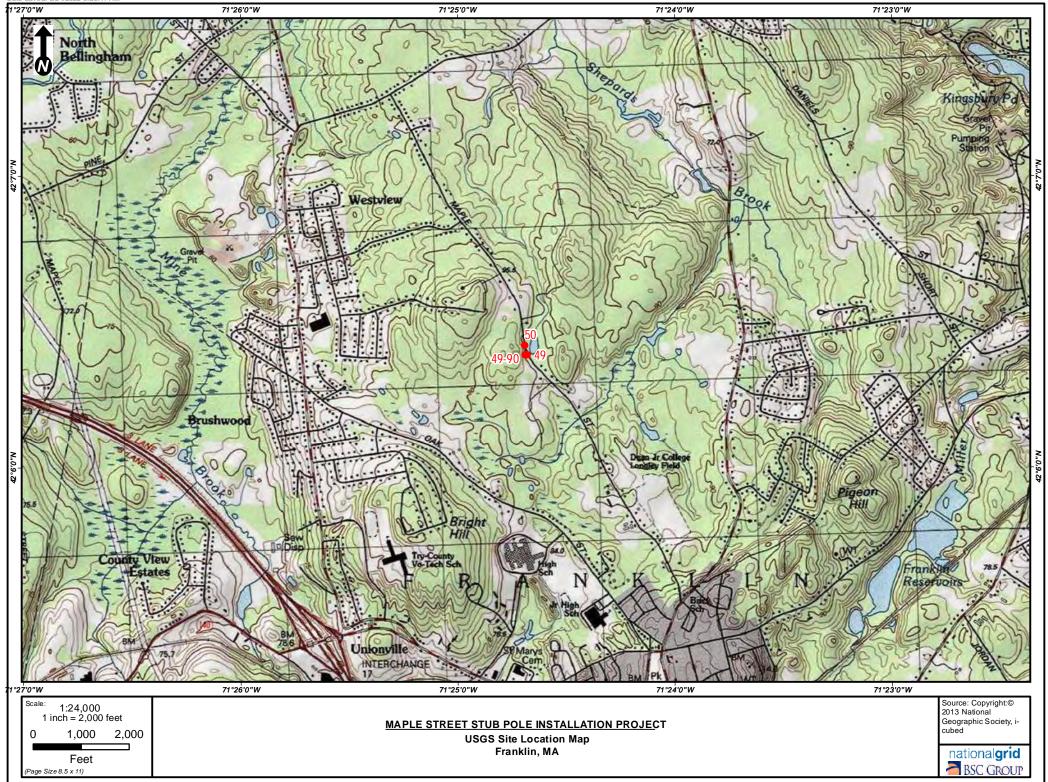
Name	
Mailing Address	
City/Town	
State	Zip Code
natures:	
so understand that notification of this Request accordance with Section 10.05(3)(b)(1) of the	st will be placed in a local newspaper at my expense Wetlands Protection Act regulations.
	Wetlands Protection Act regulations.
accordance with Section 10.05(3)(b)(1) of the	e Wetlands Protection Act regulations. 6/30/2022

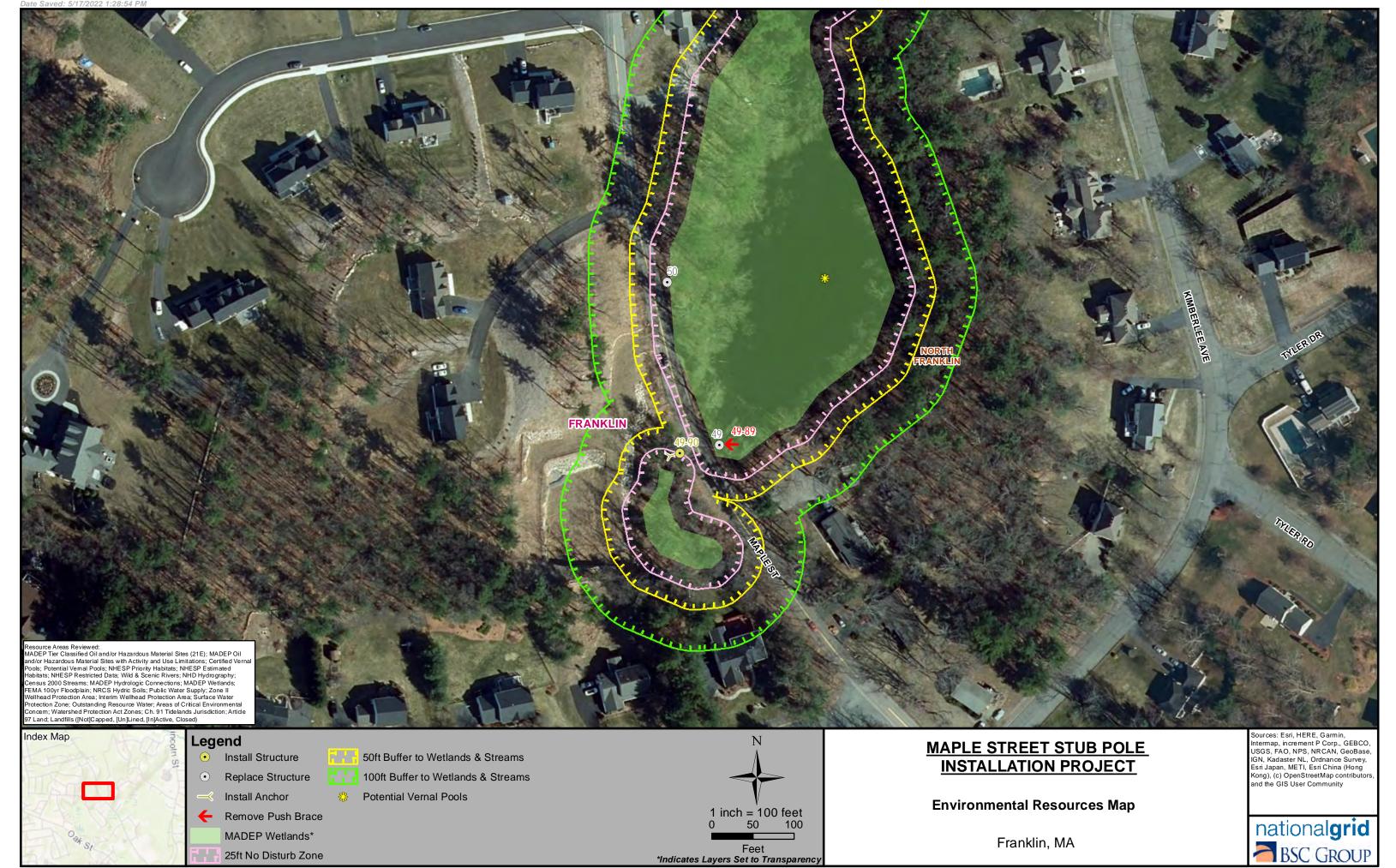
Attachment B

Maple Street Stub Pole Installation Project Franklin, Massachusetts Request for Determination of Applicability

USGS SITE LOCUS MAP ENVIRONMENTAL RESOURCES MAP







Attachment C

Maple Street Stub Pole Installation Project Franklin, Massachusetts Request for Determination of Applicability

SITE PHOTOGRAPHS





Photo #1: View of existing P49 and push-brace within BVW. The pole is proposed to be replaced in-kind, and the push-brace permanently removed. *Facing northeast*.



Photo #2: View of P50. The pole is about 18ft from wetland boundary within 100-ft Buffer Zone, 25-ft No Disturb and 50-ft No Build Zones. *Facing northeast*.







Photo #3: View of proposed location for stub P49-90 and anchor. The new pole will be located within 100-ft Buffer Zone, 25-ft No Disturb and 50-ft No Build Zones. *Facing south.*



Photo #4: View of existing P49 and stake for new stub pole P49-90. A guy will extend from P49 to P49-90 to support the removal of the existing push brace. *Facing north*.





Attachment D

Maple Street Stub Pole Installation Project Franklin, Massachusetts Request for Determination of Applicability

BEST MANAGEMENT PRACTICES

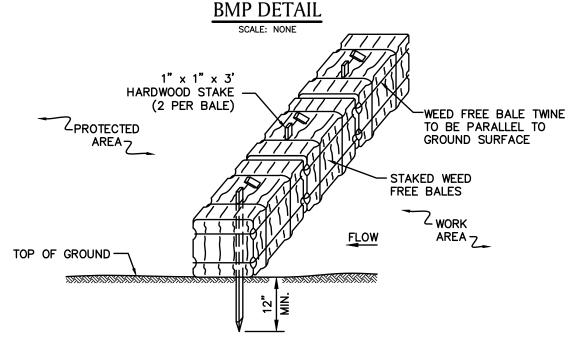


ENVIRONMENTAL GUIDANCE

Doc. No.	EG-303NE
Page: 7-1	Rev. No. 4
Date	02/20/18

SUBJECT

Access, Maintenance and Construction Best Management Practices Reference EP No. 3 - Natural Resource Protection (Chapter 6)



NOTES:

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

BMP PICTURE



ENVIRONMENTAL GUIDANCE

 Doc. No.
 EG-303NE

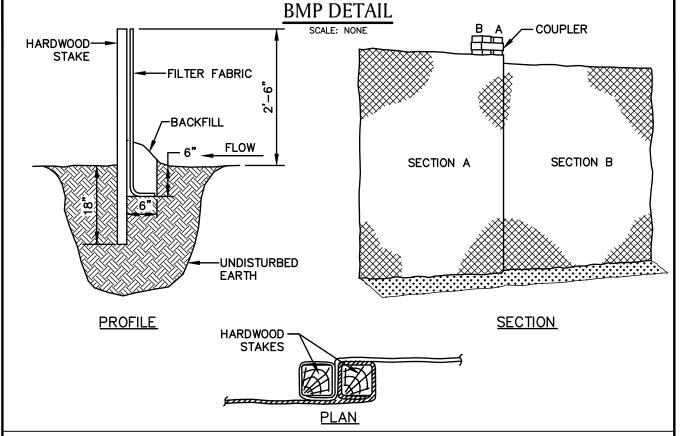
 Page: 7-2
 Rev. No. 4

 Date
 02/20/18

SUBJECT

Access, Maintenance and Construction Best Management Practices Reference

EP No. 3 - Natural Resource Protection (Chapter 6)



BMP PICTURE



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SEC-2
SEDIMENT CONTROL FENCE

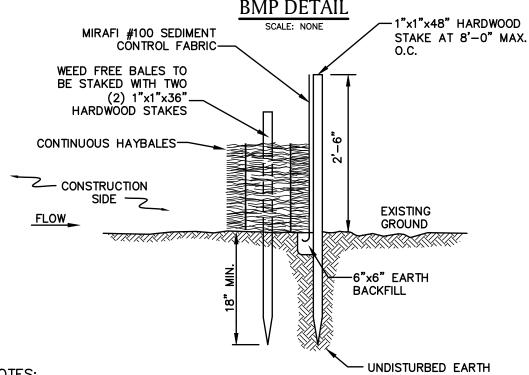
nationalgrid **ENVIRONMENTAL GUIDANCE**

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Date	02/20/18

Reference

EP No. 3 - Natural Resource Protection (Chapter 6)

SUBJECT Access, Maintenance and Construction **Best Management Practices**



NOTES:

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

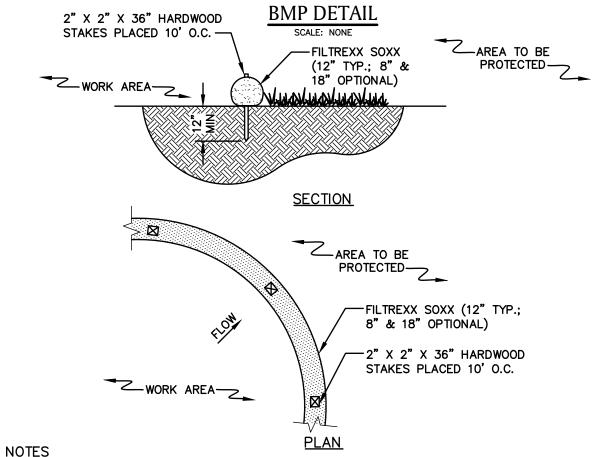
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SEC-3 SILT FENCE / WEED FREE BARRIER

Doc. No. EG-303NE nationalgrid Page: 7-4 Rev. No. 4 **ENVIRONMENTAL GUIDANCE** 02/20/18 Date SUBJECT Reference EP No. 3 - Natural Resource Access, Maintenance and Construction Protection (Chapter 6) **Best Management Practices**



- - 1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

 - ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS. 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

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SEC-4 SILT SOXX *

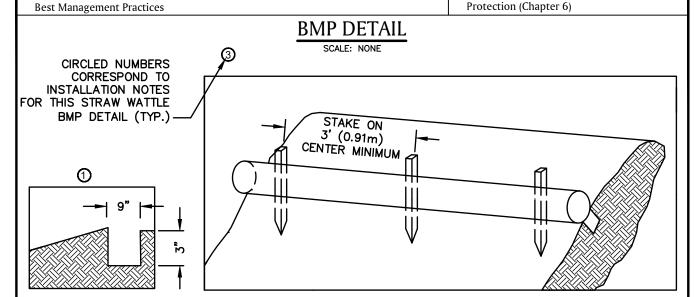
ENVIRONMENTAL GUIDANCE

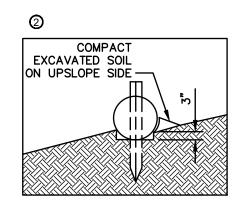
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Date	02/20/18

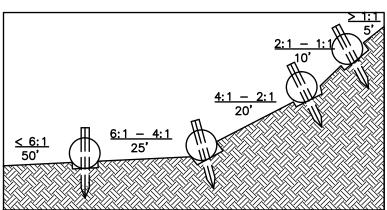
SUBJECT

Access, Maintenance and Construction **Best Management Practices**

Reference EP No. 3 - Natural Resource







TYPICAL WATTLE SPACING DETAIL

NOTES:

- PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
- TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
- 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:

- 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.
- 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

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SEC-5 STRAW WATTLE * (1 OF 2)

ENVIRONMENTAL GUIDANCE

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Access, Maintenance and Construction **Best Management Practices**

Reference EP No. 3 - Natural Resource Protection (Chapter 6)

BMP PICTURE



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

ALTERNATE STAKING INSTALLATION NOTES:

- ON SHALLOW SLOPES (\leq 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.

* DETAIL AND PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN APPROVED BY: VICE PRESIDENT, EM/RONMENTAL SERVICES
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SEC-5 STRAW WATTLE * (2 OF 2)

ENVIRONMENTAL GUIDANCE

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Reference	

SUBJECT

Access, Maintenance and Construction Best Management Practices Reference EP No. 3 - Natural Resource Protection (Chapter 6)

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 nongrowing 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:

- 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 VA WEBSITE: http://www.dec.ny.gov/chemical/29066.html
 APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES
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SEC-9 MULCH MATERIALS, RATES AND USES (FROM NY) *

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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.
- 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).

: Seeding Options, dwg

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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

- New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites New England Wetland Plants, Inc.
- 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:

- 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.
- 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.
- 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.