

Gas Main Installation Project 145 High Street, Newburyport, Massachusetts

# REQUEST FOR DETERMINATION OF APPLICABILITY

Boston Gas Company d/b/a National Grid July 2020







WO# 1328131 N5068-006 June 26, 2020

Julia Godtfredsen, Conservation Administrator Newburyport Conservation Commission 60 Pleasant Street Newburyport, MA 01950

Re: Request for Determination of Applicability
Gas Main Installation Project, Boston Gas Company d/b/a National Grid
145 High Street, Newburyport, Massachusetts

Dear Ms. Godtfredsen and Members of the Newburyport Conservation Commission:

On behalf of the Boston Gas Company d/b/a National Grid, Tighe & Bond respectfully submits this Request for Determination of Applicability (RDA) for a proposed gas service line installation at 145 High Street in Newburyport, Massachusetts. The proposed gas service line will be installed for approximately 159 linear feet (If) from the existing gas main within High Street to the Essex County Superior Courthouse, located at 145 High Street. High Street is a paved two-way road that serves commercial and residential areas. The project area is located approximately 2,000 If south of the Merrimack River.

This RDA is being filed because the proposed work will occur within the 100-foot Buffer Zone to inland Bank. In addition, work will occur within the locally-regulated 25-foot No Disturbance Zone. These areas are regulated under the Massachusetts Wetlands Protection Act (WPA, M.G.L. c. 131 § 40) and the City of Newburyport Wetlands Protection Ordinance (Article II) and implementing regulations. All of the proposed work will occur in previously disturbed areas with no anticipated impacts to the surrounding wetland resources.

Please note, a portion of the proposed work is considered an exempt buffer zone minor activity under 310 CMR 10.02(2)(b)(2)(i), as it consists of "Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday." These activities are not afforded exemptions under Article II.

Tighe & Bond respectfully requests that the Newburyport Conservation Commission make a Negative Determination confirming that the proposed work does not require the filing of a Notice of Intent under the WPA or the Newburyport Wetlands Protection Ordinance and Regulations.

This RDA application includes the following items:

- Attachment A WPA Form 1 and Copy of Check for Filing Fee
- Attachment B Figures
- Attachment C Site Photographs
- Attachment D National Grid Best Management Practice Details

The following text discusses the wetland resource areas, proposed activities, and proposed protective measures.



## **Wetland Resource Areas**

Site reconnaissance and wetland resource area investigations of the project area were conducted on June 18, 2020. The reconnaissance was conducted in accordance with the Massachusetts Department of Environmental Protection (MassDEP) guidelines, 310 CMR 10.00, and Article II. The resource area boundaries were surveyed using a Global Positioning System (GPS) unit with submeter accuracy. Wetland resource areas are depicted on Figure 4 in Attachment B.

#### **Inland Bank**

Frog Pond is a manmade pond located south of High Street, behind the Essex County Superior Courthouse. Regulatory inland Bank confines Frog Pond. The Bank is vegetated with maintained grasses and occurs along the edge of an unpaved foot path.

## Land Subject to Flooding

The Federal Emergency Management Agency (FEMA) flood map (Panel No. 25009C0136G, effective July 16, 2014) was consulted to evaluate the presence of jurisdictional Land Subject to Flooding on the property. The project area does not fall within an area subject to flooding and/or inundation by the 100-year flood and therefore is not regulated as Land subject to Flooding.

# **Rare Species**

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (14th edition, effective August 2017) and MassGIS online mapping data (August 2017), were reviewed during the preparation of this RDA. According to these sources, the project area does not fall within Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife (Figure 2).

# **Proposed Activities**

The proposed project consists of the installation of a new gas service line from the existing gas main within High Street for approximately 159 If to the Essex County Superior Courthouse. The gas service line will consist of a four-inch diameter plastic pipe.

Construction of the new gas line will require the excavation of an approximately two-foot wide trench for safe installation. The trench bottom will be excavated and graded so that the pipe will be supported for its entire length on undisturbed bottom at a depth of approximately three feet below surface grade. The trench will be excavated within the existing paved roadway, maintained lawn, and paved sidewalk. Upon the completion of work, the trench will be backfilled and the site will be restored to pre-existing conditions. Work will be conducted by conventional construction equipment mobilized on the existing roadway and lawn.

The proposed work will result in approximately 248 square feet (sf) of temporary impacts to the 100-foot Buffer Zone to inland Bank. Of these buffer zone impacts, 78 sf occur within the locally-regulated 25-foot No Disturbance Zone. The areas where the work is proposed consist of existing paved roadway, lawn, and sidewalk. The proposed work will not change the general characteristics of the area, as the entire project is contained within previously disturbed areas.

## **Protective Measures**

Prior to the commencement of work, appropriate erosion control measures will be installed at the downgradient limit-of-work as deemed necessary. The erosion controls will be maintained throughout the duration of work and will be removed after disturbed areas have been stabilized. Where access is required on the existing maintained lawn, prefabricated mats will be used to minimize vegetation and soil disturbance. Following the completion of construction activities, any disturbed areas will be restored to pre-existing conditions. Attachment D of this submittal includes details of standard Best Management Practices that have been used in past projects of similar scope.

# **Application Requirements**

As required under Article II, a check made payable to the City of Newburyport for the application filing fee (\$100) and the legal advertisement fee (\$150) has been enclosed. A copy of the check has been included in Attachment A.

# **Summary**

We look forward to having the opportunity to discuss this project with the Newburyport Conservation Commission at the public hearing on July 21, 2020. We anticipate these materials are sufficient for the Commission to issue a Negative Determination confirming the proposed project may proceed without the filing of a Notice of Intent. Should you have any questions regarding this application or require any additional information, please do not hesitate to contact me at (508) 304-6354 or via email at AJHoule@tighebond.com.

Thank you in advance for your attention to this matter.

Respectfully,

Amanda J. Houle, PWS, CERP Senior Environmental Scientist

**Enclosures** 

Copy: MassDEP NERO

Andrew Shelby, National Grid

City of Newburyport, property owner

# **ATTACHMENT A**

WPA FORM 1

COPY OF CHECK FOR FILING FEE



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

Newburyport 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 key.

1.





1.	Applicant:			
	Boston Gas Company d/b/a National Grid		Drew.Shelby@nationalgrid.com	
	(c/o Andrew Shelby)	E-Mail Address		
	40 Sylvan Road Mailing Address			
	Waltham	MA	02451	
	City/Town	State	Zip Code	
	(781) 907-1867		p	
	Phone Number	Fax Number (if	applicable)	
2.	Representative (if any):			
	Tighe & Bond, Inc.			
	Firm Amanda J. Houle, PWS	AJHoule@tic	ghebond.com	
	Contact Name	E-Mail Address		
	4 Barlows Landing Road, Unit #15			
	Mailing Address			
	Pocasset	MA	02559	
	City/Town	State	Zip Code	
	(508) 304-6354       (508) 564-4298         Phone Number       Fax Number (if applicable)			
_				
В.	Determinations			
1.	I request the Newburyport make the following determination(s). Check any that apply:			
	<u> </u>	iowina aetemmationts	1. CHECK ALLY THAT ADDIV.	
	Conservation Commission	lowing determination(s	л. Спеск апу тат арріу.	
	a. whether the <b>area</b> depicted on plan(s) and/or ma			
	<ul> <li>a. whether the area depicted on plan(s) and/or may jurisdiction of the Wetlands Protection Act.</li> <li>b. whether the boundaries of resource area(s) depicted on plan(s) and/or may jurisdiction of the Wetlands Protection Act.</li> </ul>	o(s) referenced below i	s an area subject to	
	<ul> <li>a. whether the area depicted on plan(s) and/or may jurisdiction of the Wetlands Protection Act.</li> <li>b. whether the boundaries of resource area(s) dependence are accurately delineated.</li> </ul>	o(s) referenced below i	s an area subject to map(s) referenced	
	<ul> <li>a. whether the area depicted on plan(s) and/or may jurisdiction of the Wetlands Protection Act.</li> <li>b. whether the boundaries of resource area(s) depicted area accurately delineated.</li> <li>c. whether the work depicted on plan(s) referenced</li> </ul>	o(s) referenced below in picted on plan(s) and/or below is subject to the	s an area subject to  map(s) referenced  Wetlands Protection Act.	
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	<ul> <li>a. whether the area depicted on plan(s) and/or may jurisdiction of the Wetlands Protection Act.</li> <li>b. whether the boundaries of resource area(s) depicted ware accurately delineated.</li> <li>c. whether the work depicted on plan(s) referenced</li> <li>d. whether the area and/or work depicted on plan(s) of any municipal wetlands ordinance or bylaw on Newburyport</li> </ul>	b(s) referenced below in picted on plan(s) and/or below is subject to the s) referenced below is significant.	s an area subject to  map(s) referenced  Wetlands Protection Act.  subject to the jurisdiction	
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# **Massachusetts Department of Environmental Protection**Bureau of Resource Protection - Wetlands

Newburyport City/Town

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

# C. Project Description

145 High Street	Newburyport		
Street Address	City/Town		
35	160		
Assessors Map/Plat Number	Parcel/Lot Number		
b. Area Description (use additional pap	b. Area Description (use additional paper, if necessary):		
High Street is a paved two-way road that serves commercial and residential areas. The project area is located approximately 2,000 lf south of the Merrimack River. Please refer to the attached cover letter and figures for more information.			
c. Plan and/or Map Reference(s):			
Figure 4 - Site Plan (Tighe & Bond, Inc.)	June 2020		
Title	Date		
Title	Date		
Title	Date		
	a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):		
The proposed project consists of the installation of a new gas service line from the existing gas mair within High Street for approximately 159 linear feet to the Essex County Superior Courthouse, located at 145 High Street. The gas service line will consist of a four-inch diameter plastic pipe. Please refe to the attached cover letter for additional details.			

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

Newburyport City/Town

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

٠.	Troject Becompain (com.)
	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).
	310 CMR 10.02(2)(b)(2)(i): "Installation of underground utilities (e.g., electric, gas, water) within existing paved or unpaved roadways and private roadways/driveways, provided that all work is conducted within the roadway or driveway and that all trenches are closed at the completion of each workday."
3.	a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront 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
	☐ 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.
	b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

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# **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

Name and address of the property owner:

Newburyport 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.

City of Newburyport Name 145 High Street Mailing Address Newburyport City/Town MA 01950 Zip Code State Signatures: I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations. June 25, 2020 Signature of Applicant Date June 25, 2020 Signature of Representative (if any Date

wpaform1.doc Page 4 of 4

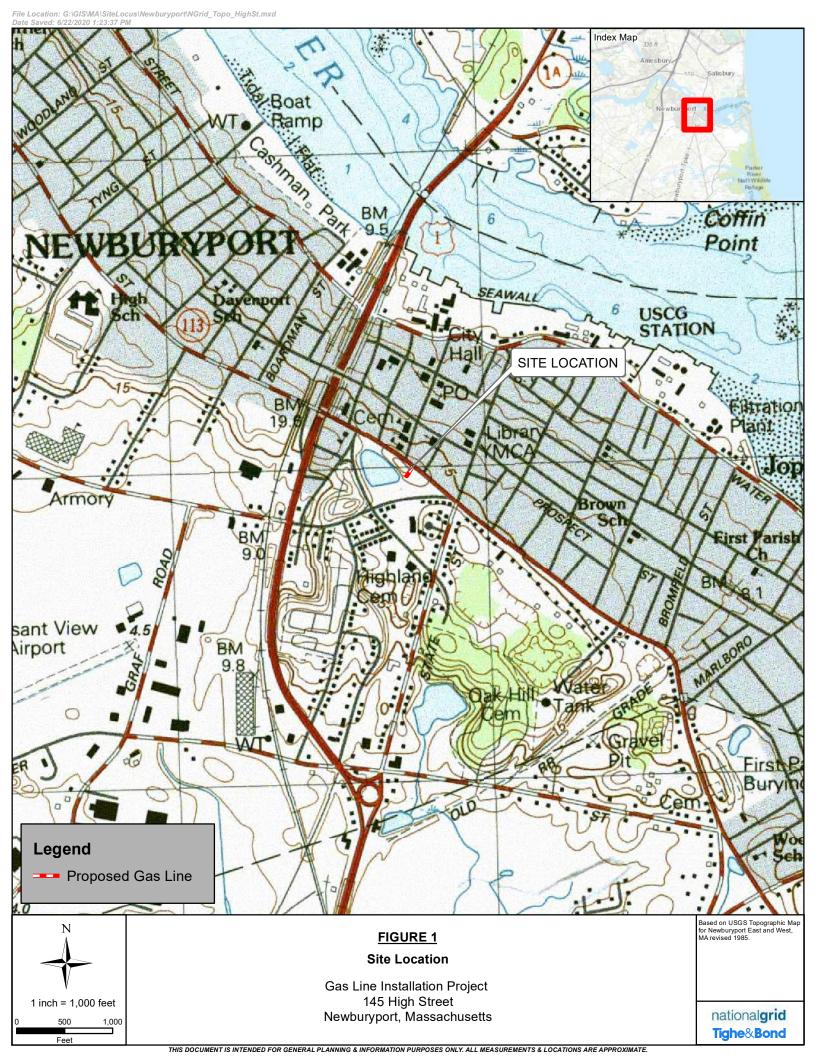


FILE COPY

FILE COPY

# **ATTACHMENT B**

**FIGURES** 



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



# 1 inch = 200 feet

#### Orthophotograph

Gas Line Installation Project 145 High Street Newburyport, Massachusetts

nationalgrid Tighe&Bond



# **ATTACHMENT C**

SITE PHOTOGRAPHS

# **Attachment C - Photographic Log**



Client: National Grid

Job Number: N-5068-006

Site: 145 High Street, Newburyport, Massachusetts

Photograph No: 1 Date: 6/18/2020 Direction Taken: Southwest

**Description:** View of the Essex County Superior Courthouse located at 145 High Street. The approximate location of the proposed gas line is depicted by the red line.



**Description:** The approximate location of the proposed gas line is depicted by the red line.



# **Attachment C - Photographic Log**



Client: National Grid

Job Number: N-5068-006

**Site:** 145 High Street, Newburyport, Massachusetts

Photograph No: 3 Date: 6/18/2020 Direction Taken: Northwest

**Description:** The approximate location of the gas line is depicted by the red line.



Photograph No: 4 Date: 6/18/2020 Direction Taken: Northeast

**Description:** A view of Frog Pond and the Essex County Superior Courthouse.



# **ATTACHMENT D**

NATIONAL GRID BEST MANAGEMENT PRACTICES

#### **ENVIRONMENTAL GUIDANCE**

Doc. No.	EG-303NE
Page: 7-48	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 DETAIL
SCALE: NONE
OPTIONAL INSERT 1" REBAR FOR BAG OVERFLOW REMOVAL FROM INLET
OVERFLOW — REMOVAL FROM INLET (REBAR NOT INCLUDED)
SILT SACK
EXPANSION RESTRAINT
DEPTH=D DUMP LOOPS (REBAR
NOT INCLUDED)
WIDTH=W
LENGTH=L
SIZE: L" X W" X D"
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**



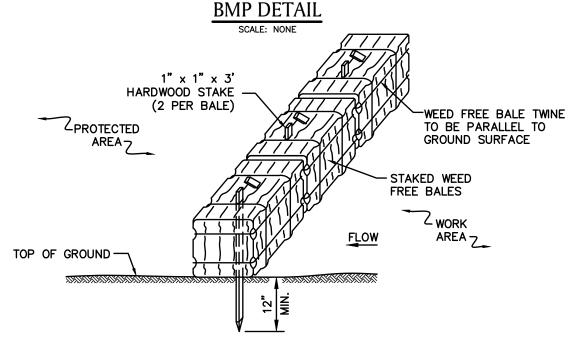
\* DETAIL PROVIDED BY ACF ENVIRONMENTAL APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE. AA-20 SILT SACK \*

#### **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)



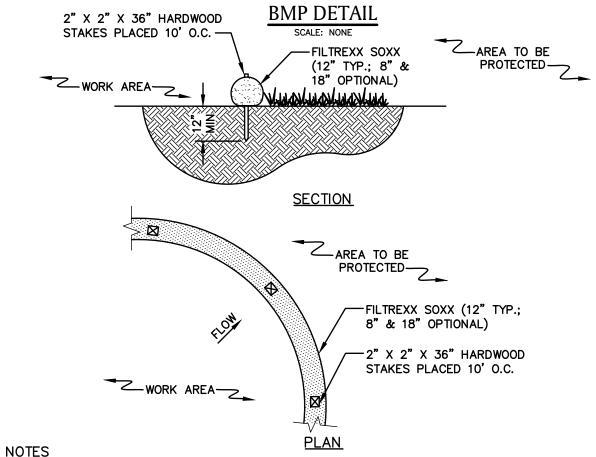
#### NOTES:

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

## **BMP PICTURE**



#### 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

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

SEC-4 SILT SOXX \*

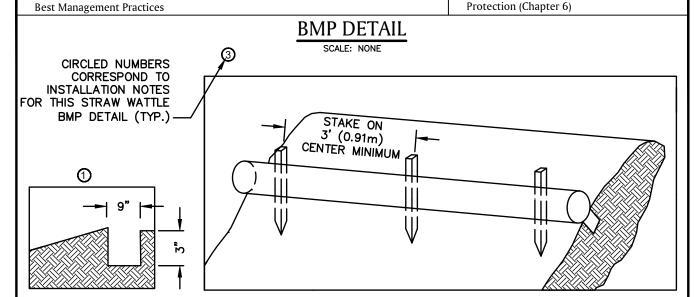
#### **ENVIRONMENTAL GUIDANCE**

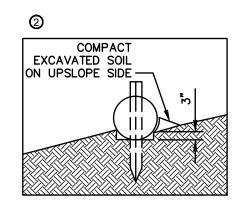
Doc. No.	EG-303NE
Page: 7-5	Rev. No. 4
Date	02/20/18

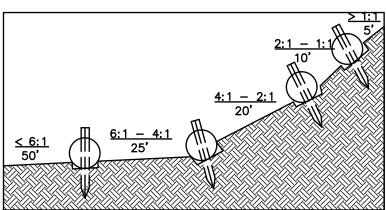
SUBJECT

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

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

SEC-5 STRAW WATTLE \* (1 OF 2)

#### **ENVIRONMENTAL GUIDANCE**

Doc. No	),	EG-303NE
Page: 7-	6	Rev. No. 4
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SUBJECT

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

SEC-5 STRAW WATTLE \* (2 OF 2)

#### **ENVIRONMENTAL GUIDANCE**

Doc. No.	EG-303NE
Page: 7-16	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** 

SCALE: NONE



#### NOTES:

- 1. PRODUCT TO BE ALTURNAMATS' PREFABRICATED MATS OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
- 2. PRODUCT AVAILABLE IN 4X8' UNITS.
- 3. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

#### **ENVIRONMENTAL GUIDANCE**

	Doc. No.	EG-303NE
	Page: 7-12	Rev. No. 4
	Date	02/20/18
Ī	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
  PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

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

