

July 2, 2012

Fort Hill Infrastructure
Attn: Ken Fields
One Walnut Street
Boston, Massachusetts 02108

Re: Wetland Site Investigation –
Map 25A Parcel 48
New Bedford, Massachusetts

Dear Mr. Fields,

A Professional Wetland Scientist (PWS) from Lucas Environmental, LLC conducted a site investigation of the property identified as Map 25A Parcel 48 in New Bedford, Massachusetts on June 28, 2012. The purpose of the site investigation was to determine if federally regulated wetland resources were present within the property. The wetland investigation was performed in accordance with the U.S. Army Corp of Engineers (USACE) Wetland Delineation Manual (1987) and the Northcentral and Northeast Regional Supplement v 2.0 (2012). Wetland resource areas regulated under the Massachusetts Protection Act (310 CMR 10.00) were not identified or delineated. The following data sources were examined prior to the site investigation:

- USGS Topographic Quadrangle
- MassGIS MassDEP Wetland Datalayers
- Plan titled “New Bedford Marine Commerce Terminal Federal Resource Area Assessment”, prepared by Apex Companies, LLC, dated 3/24/10 last revised 6/8/12.

An isolated wetland was delineated along the southern portion of Map 25A Parcel 48.

Existing Conditions

The property is located along the western coastline of New Bedford Harbor, north of Gifford Street (See Figure 1 – USGS Map and Figure 2 – Aerial Map). The property is currently undeveloped but shows evidence of previous land use and development. Representative photographs of the site and surrounding areas have been included in this report.

The parcel is vegetated with a mix of early successional open field/scrubland species such as quaking aspen (*Populus tremuloides*), Autumn olive (*Elaeagnus umbellata*), multiflora rose (*Rosa multiflora*), common reed (*Phragmites australis*), common ragweed (*Ambrosia artemisiifolia*), goldenrod (*Solidago* spp.), thistle (*Cirsium arvense*), and common milkweed (*Asclepis syriaca*).

Wetland Resource Area Description

One isolated vegetated wetland, LE-1, was delineated on Parcel 48. Wetland Determination Field Forms were completed and are included with this report. This wetland resource area is described below.

LE1 – is an isolated vegetated wetland located on Parcel 48 and was delineated using survey flagging numbered sequentially from LE1-1 to LE1-36. The area is highly disturbed and impacted from its

previous use as a racecourse but has since developed wetland conditions. The wetland is best characterized as a scrub shrub and emergent wetland vegetated with a dense mix of pussy willow (*Salix discolor*), common reed, soft rush (*Juncus effuses*), broom sedge (*Carex scoparia*), and fox sedge (*Carex vulpinoidea*). Soils within the wetland are highly disturbed and consist of compacted urban fill however redoximorphic features (concentrations and reductions) can be observed at or near the surface. There is no apparent hydrologic connection to another wetland. The upland fringe area is vegetated with a dense mix of autumn olive, Norway maple, quaking aspen and ragweed.

If you have any questions please do not hesitate to contact me at 617.405.4053.

Sincerely,
LUCAS ENVIRONMENTAL, LLC



Thomas E. Liddy, PWS
Senior Wetland Scientist
Land Development & Permitting

Enclosures

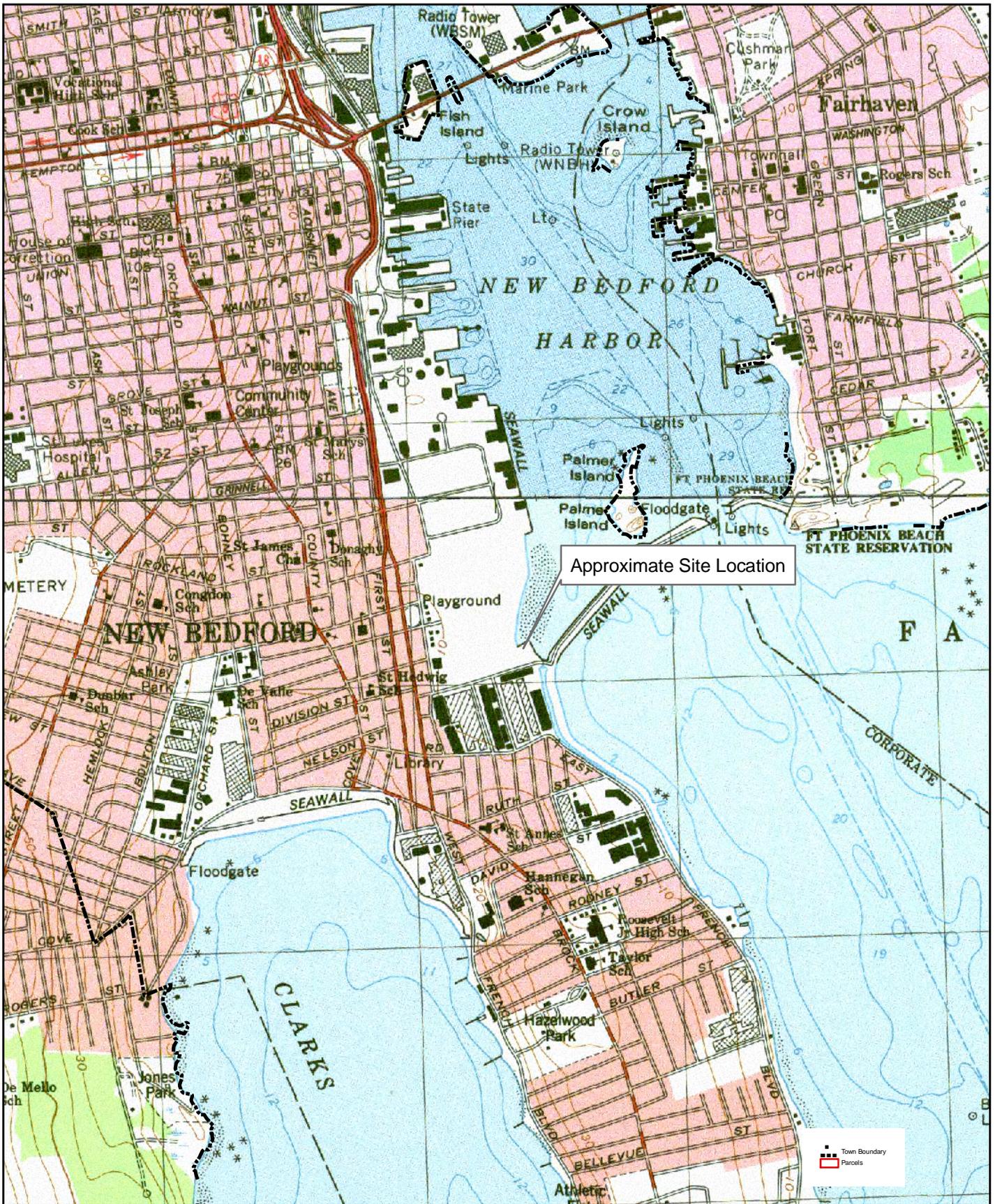
Figure 1 – USGS Map

Figure 2 – Aerial Map

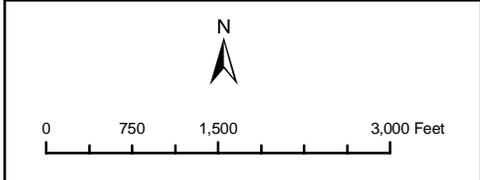
Photographic Documentation

Wetland Determination Field Forms

Figures



Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Color Ortho Imagery 30cm (2008/2009)

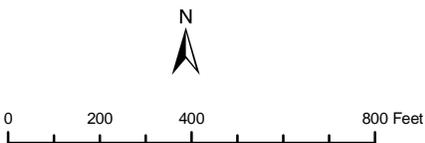


USGS Map
Wetland Report
Land North of Gifford Street
New Bedford, MA

FIGURE 1
LUCAS ENVIRONMENTAL, LLC
 LAND DEVELOPMENT & PERMITTING



Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Color Ortho Imagery 30cm (2008/2009)



Aerial Map
Wetland Report
Land North of Gifford Street
New Bedford, MA

FIGURE 2

LUCAS ENVIRONMENTAL, LLC
 LAND DEVELOPMENT & PERMITTING

Photographic Documentation



Photograph 1: Isolated Vegetated Wetland LE-1 on Parcel 48.



Photograph 2: View of Isolated Vegetated Wetland LE-1 – wetland dominated by willow and common reed.

Wetland Determination Field Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: New Bedford Harbor City/County: New Bedford Sampling Date: 6/28/2012

Applicant/Owner: New Bedford State: MA Sampling Point: Wetland LE 1

Investigator(s): Thomas Liddy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave

Slope (%): 3 Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI Classification: PSS

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances present? Yes No

Are Vegetation , Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<table style="width:100%; border: none;"> <tr> <td style="border: none;">Is the Sampled Area</td> <td style="border: none; text-align: right;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">within a Wetland?</td> <td style="border: none;"></td> </tr> <tr> <td style="border: none;">If yes, optional Wetland Site ID: _____</td> <td style="border: none;"></td> </tr> </table>	Is the Sampled Area	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	within a Wetland?		If yes, optional Wetland Site ID: _____	
Is the Sampled Area	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
within a Wetland?							
If yes, optional Wetland Site ID: _____							
Remarks: (explain alternative procedures here or in separate report) Plot located in wetland near wetland flag LE 1-7. Area highly disturbed due to previous land uses. Vegetation and hydrology appear to be reliable indicators of wetland conditions.							

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input checked="" type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches) Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches) Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches) (include capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Water staining and drainage patterns observable in areas of wetland. Wetland is isolated and does not drain to another Water of the US.

VEGETATION – Use scientific names of plants

Sampling Point: 1 - WET

	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Dominance Test worksheet:																
<p><u>Tree Stratum</u> (Plot size:30 ft)</p> <p>1. None</p> <p>2.</p> <p>3.</p> <p>4.</p> <p>5.</p> <p>6.</p> <p>7.</p>				<p>Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)</p> <p>Total Number of Dominant Species Across All Strata: 2 (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (C)</p>																
<p style="text-align: center;">= Total Cover</p>				<p>Prevalence Index worksheet:</p> <table style="width:100%; border:none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species</td> <td style="text-align: right;">x 1 =</td> </tr> <tr> <td>FACW species</td> <td style="text-align: right;">x 2 =</td> </tr> <tr> <td>FAC species</td> <td style="text-align: right;">x 3 =</td> </tr> <tr> <td>FACU species</td> <td style="text-align: right;">x 4 =</td> </tr> <tr> <td>UPL species</td> <td style="text-align: right;">x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: right;">(A) (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A =</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)	Prevalence Index = B/A =	
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OBL species	x 1 =																			
FACW species	x 2 =																			
FAC species	x 3 =																			
FACU species	x 4 =																			
UPL species	x 5 =																			
Column Totals:	(A) (B)																			
Prevalence Index = B/A =																				
<p><u>Sapling/Shrub Stratum</u> (Plot size:15 ft)</p> <p>1. Pussy Willow (Salix discolor) 85% Yes FACW</p> <p>2. Autumn Olive (Elaeagnus umbellata) 5% No FACU</p> <p>3.</p> <p>4.</p> <p>5.</p> <p>6.</p> <p>7.</p> <p>8.</p>				<p>Hydrophytic Vegetation Indicators:</p> <p><input type="checkbox"/> Rapid Test for Hydrophytic Vegetation</p> <p><input checked="" type="checkbox"/> Dominance Test is >50%</p> <p><input type="checkbox"/> Prevalence Index is ≤3.01</p> <p><input checked="" type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p>																
<p style="text-align: center;">= Total Cover</p>				<p>Definitions of Vegetation Strata:</p> <p>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vines – All woody vines greater than 3.28 ft in height</p>																
<p><u>Herb Stratum</u> (Plot size:5 ft)</p> <p>1. Common Reed (Phragmites australis) 95% Yes FACW</p> <p>2. Soft Rush (Juncus effuses) 10% No OBL</p> <p>3.</p> <p>4.</p> <p>5.</p> <p>6.</p> <p>7.</p> <p>8.</p> <p>9.</p> <p>10.</p> <p>11.</p> <p>12.</p>				<p>Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>																
<p style="text-align: center;">= Total Cover</p>																				
<p><u>Woody Vine Stratum</u> (Plot size:15 ft)</p> <p>1. None</p> <p>2.</p> <p>3.</p> <p>4.</p>																				
<p style="text-align: center;">= Total Cover</p>																				
<p>Remarks: (Include photo numbers here or on a separate sheet.)</p> <p>Willow roots appear to be buttressed.</p>																				

SOIL

Sampling Point: 1-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8"	10 YR 4/2	90	7.5YR 5/8	10%	C	M	fsl	
8"	R							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grain. ²Location: PL=Pore Lining M=Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR, R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):	
Type: Till	
Depth (inches): 10"	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks:
Soils consist of urban fill and are highly disturbed so do not give a reliable indicator of hydric soils. Soils considered hydric where redoximorphic features are developing above restrictive layer.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: New Bedford Harbor City/County: New Bedford Sampling Date: 6/28/2012

Applicant/Owner: New Bedford State: MA Sampling Point: Wetland LE 1

Investigator(s): Thomas Liddy Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave

Slope (%): 3 Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)

Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances present? Yes No

Are Vegetation , Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<p>Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> If yes, optional Wetland Site ID: _____
Remarks: (explain alternative procedures here or in separate report) Plot located in upland near wetland flag LE 1-7. Area highly disturbed due to previous land uses. Upland vegetation and lack of wetland hydrology appear to be reliable indicators of the wetland/upland boundary.	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width: 100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
<p>Remarks: No indicators of hydrology present.</p>																																

VEGETATION – Use scientific names of plants

Sampling Point: 1 - UPL

	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Dominance Test worksheet:																
<u>Tree Stratum</u> (Plot size:30 ft)				Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (C)																
1. None																				
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3.																				
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6.																				
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FAC species	x 3 =																			
FACU species	x 4 =																			
UPL species	x 5 =																			
Column Totals:	(A) (B)																			
Prevalence Index = B/A =																				
<u>Sapling/Shrub Stratum</u> (Plot size:15 ft)																				
1. Autumn Olive (<i>Elaeagnus umbellata</i>)	85%	Yes	FACU																	
2. Norway Maple (<i>Acer platanoides</i>)	10%	No																		
3. Pussy Willow (<i>Salix discolor</i>)	10%	No	FACW																	
4.																				
5.																				
6.																				
7.																				
8.																				
= Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.01 <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<u>Herb Stratum</u> (Plot size:5 ft)																				
1. Common Ragweed (<i>Ambrosia artemisiifolia</i>)	95%	Yes	FACU																	
2. Common Reed (<i>Phragmites australis</i>)	5%	No	OBL																	
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
= Total Cover																				
<u>Woody Vine Stratum</u> (Plot size:15 ft)																				
1. None																				
2.																				
3.																				
4.																				
= Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height																
= Total Cover																				
= Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: 1 - UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-3"	10 YR 4/3	100				fsl	
3-10"	101YR 5/3	100				fsl	No redox present

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grain. ²Location: PL=Pore Lining M=Matrix

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR, R, MLRA 149B)**

- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- Coast Prairie Redox (A16) **(LRR K, L, R)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Dark Surface (S7) **(LRR K, L)**
- Polyvalue Below Surface (S8) **(LRR K, L)**
- Thin Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12)
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: Till

Depth (inches): 10"

Hydric Soil Present? Yes No

Remarks:

Soils consist of urban fill and are highly disturbed so do not give a reliable indicator of hydric soils. Soils considered hydric where redoximorphic features are developing above restrictive layer. No redoximorphic features were observed in the plot.

