Locus Map

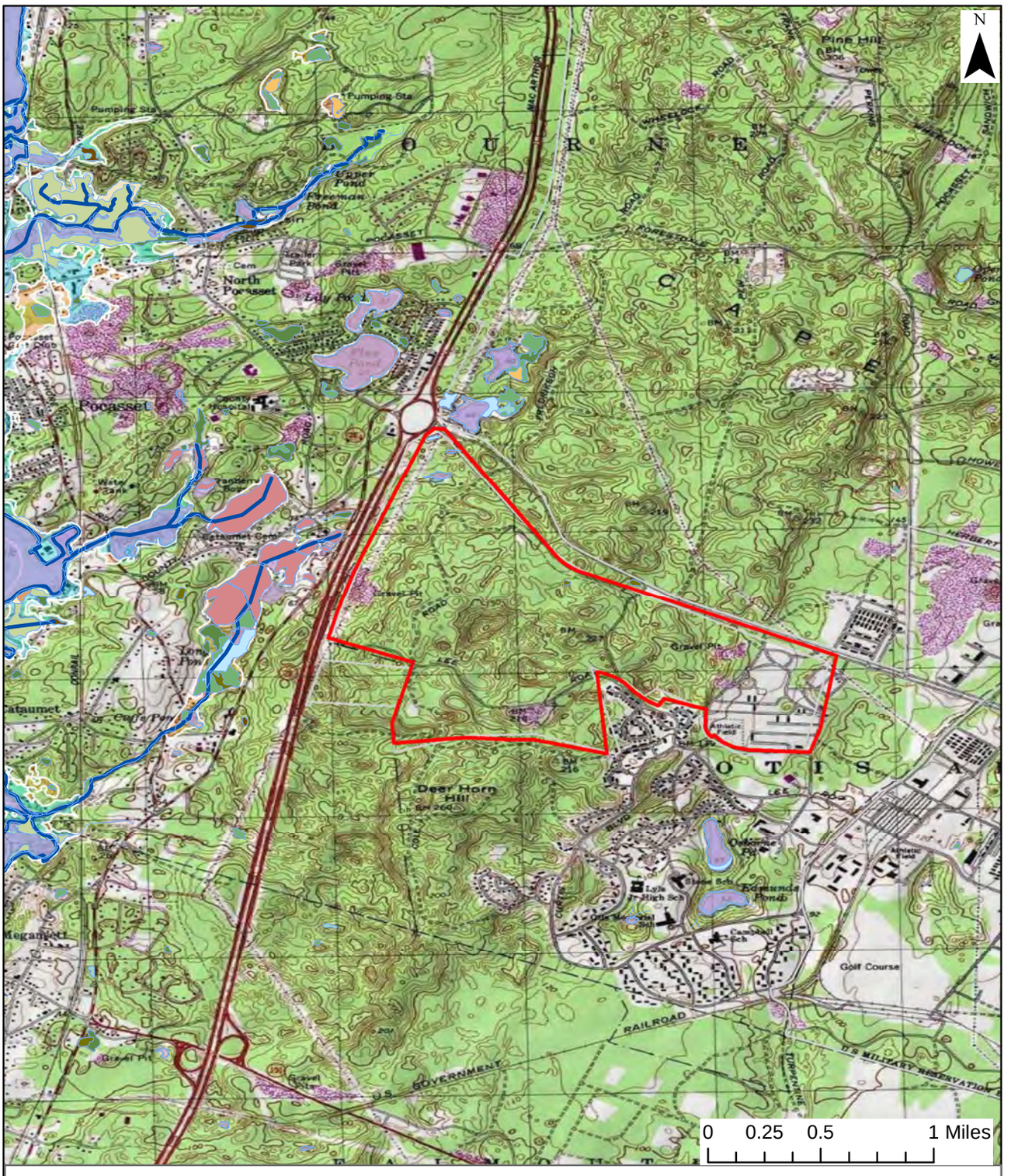

N
0 0.25 0.5 1 Miles
1% Annual Chance Flood Hazard
MassDEP Hydrologic Connections
NHD Streams
NWI Wetlands
MNC Property Boundary
MassDEP Wetland Categories
Barrier Beach System
Barrier Beach- Coastal Beach
Bog
Coastal Bank Bluff or Sea Cliff
Coastal Beach
Coastal Dune
Cranberry Bog
Deep Marsh
Open Water
Salt Marsh
Shallow Marsh Meadow or Fen
Shrub Swamp
Wooded Swamp Coniferous
Wooded Swamp Deciduous
Wooded Swamp Mixed Trees

Figure 1 – Wetland Review Area

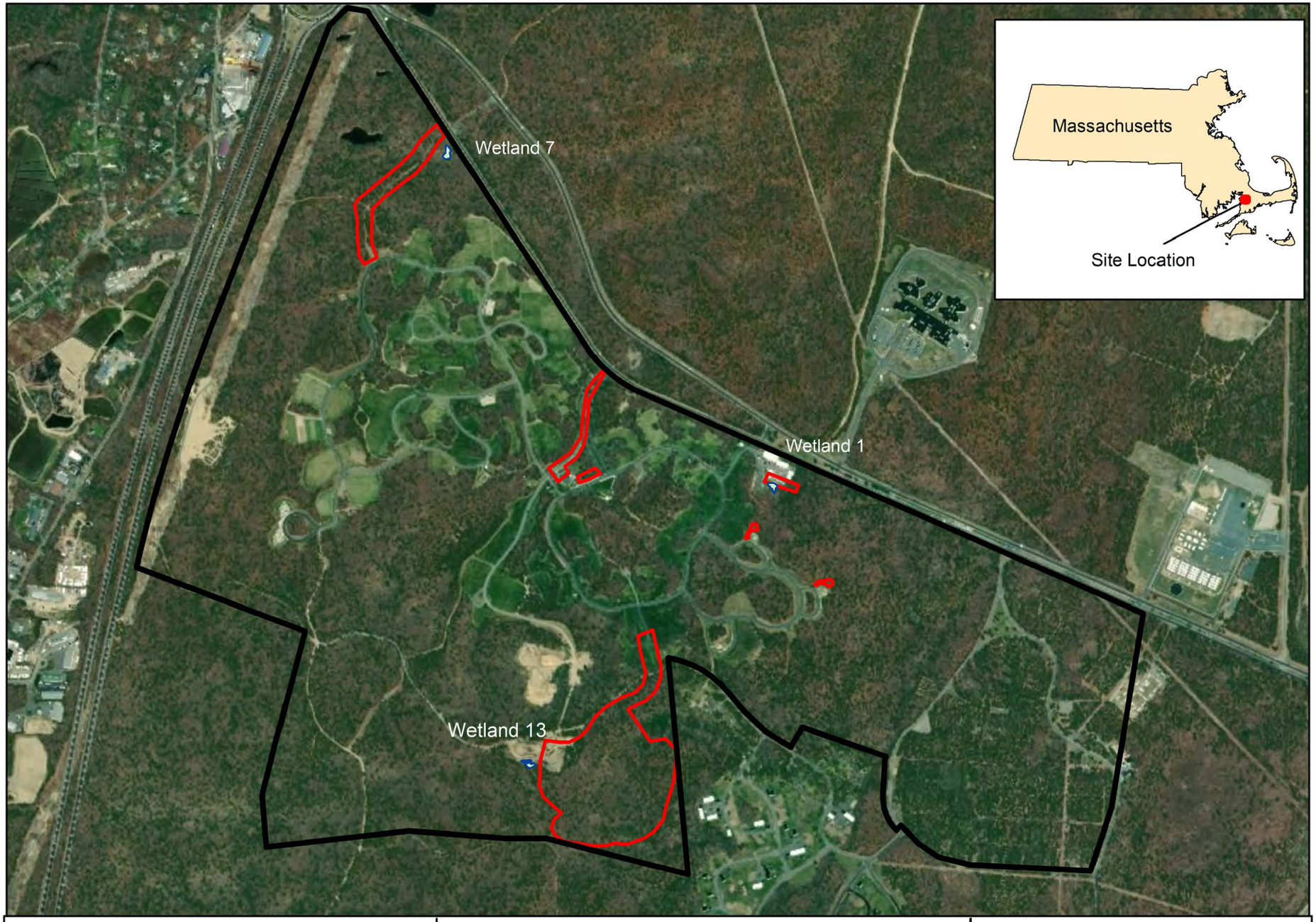


Figure 1. Wetland Review Area

Massachusetts National Cemetery

Wetland_Area

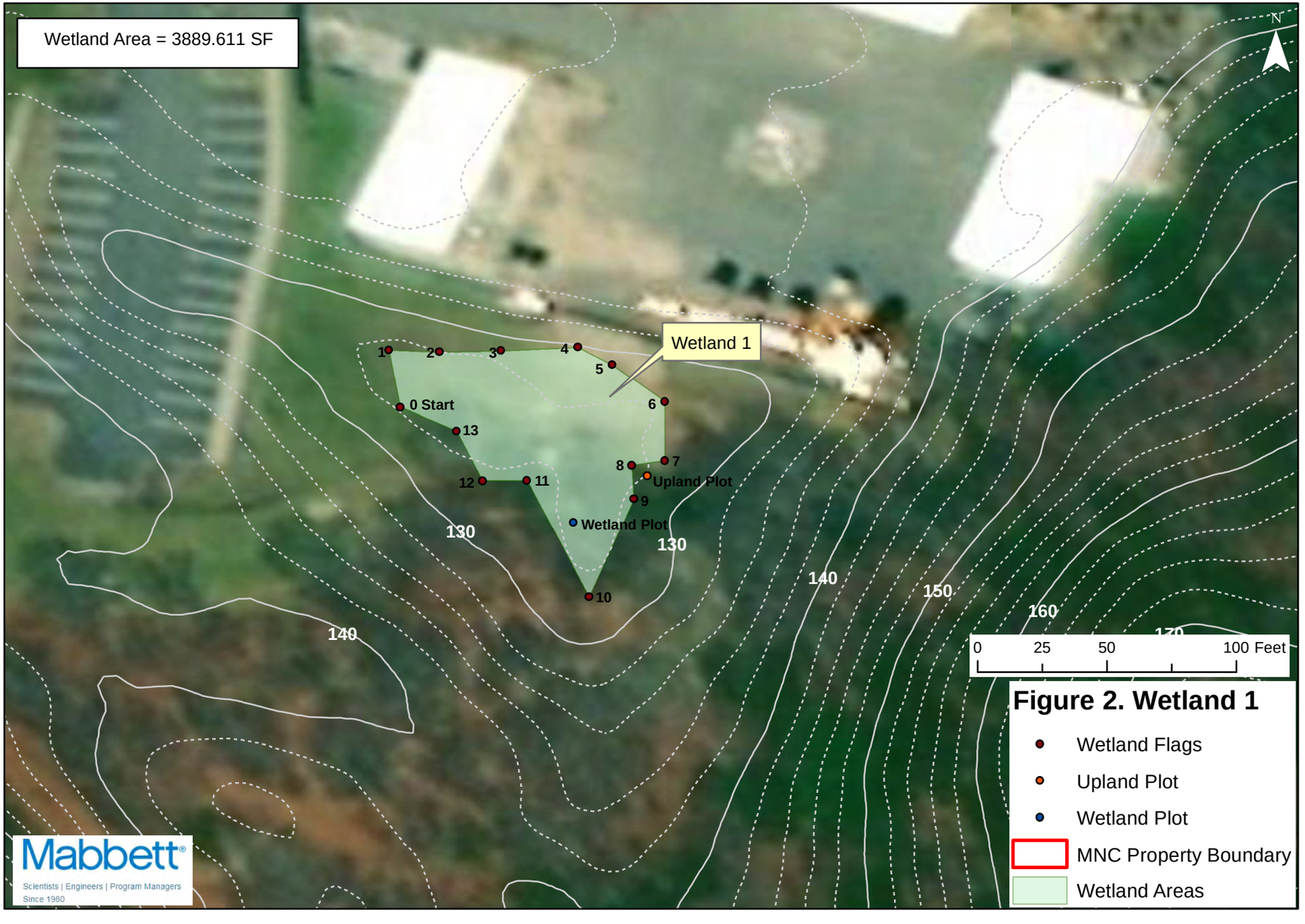
Massachusetts National Cemetery Boundary

Phase 4 Development Area (Limit of Work)

N

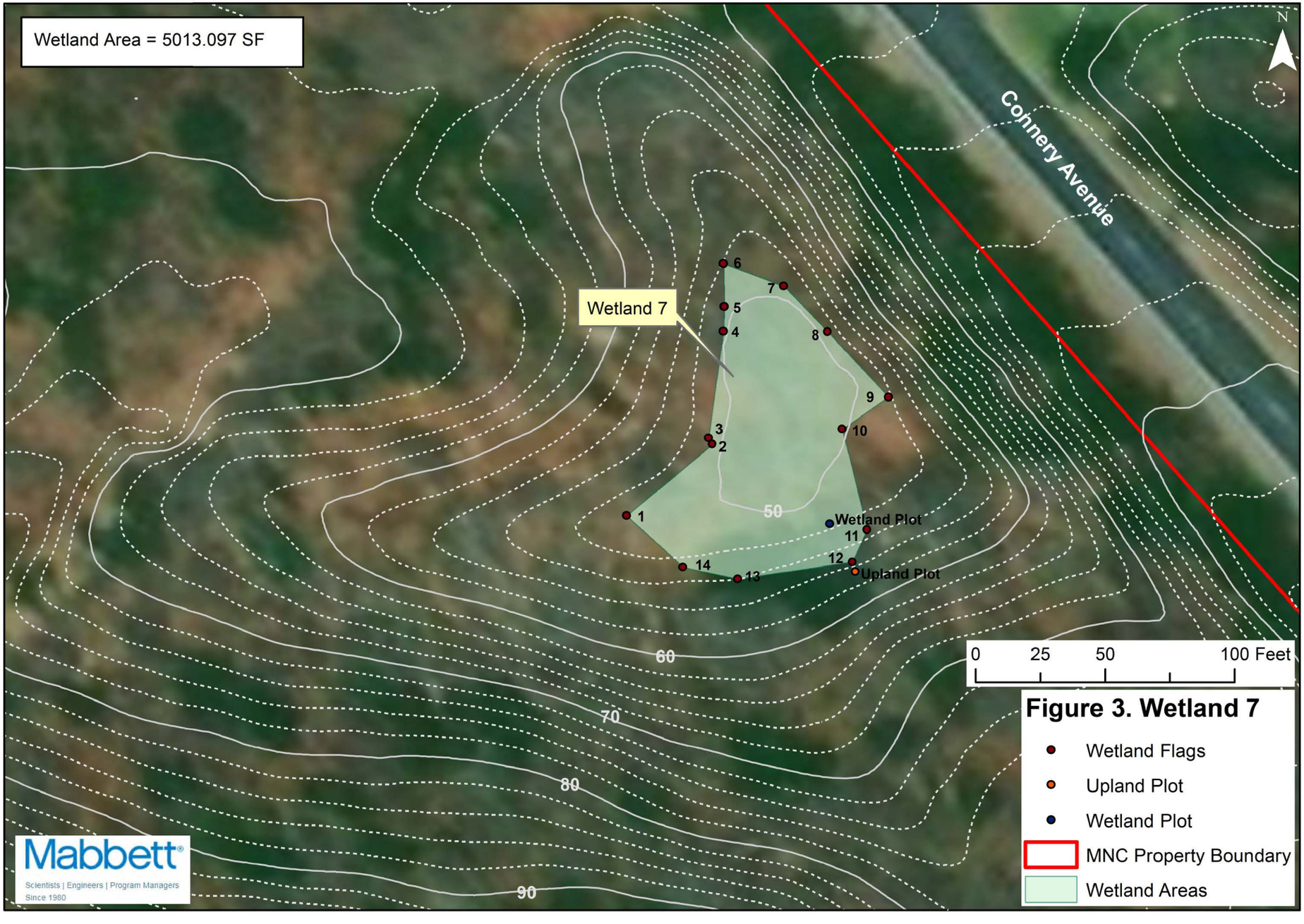
0 0.1 0.2 0.4 Miles

Figure 2 – Wetland 1 Site Specific



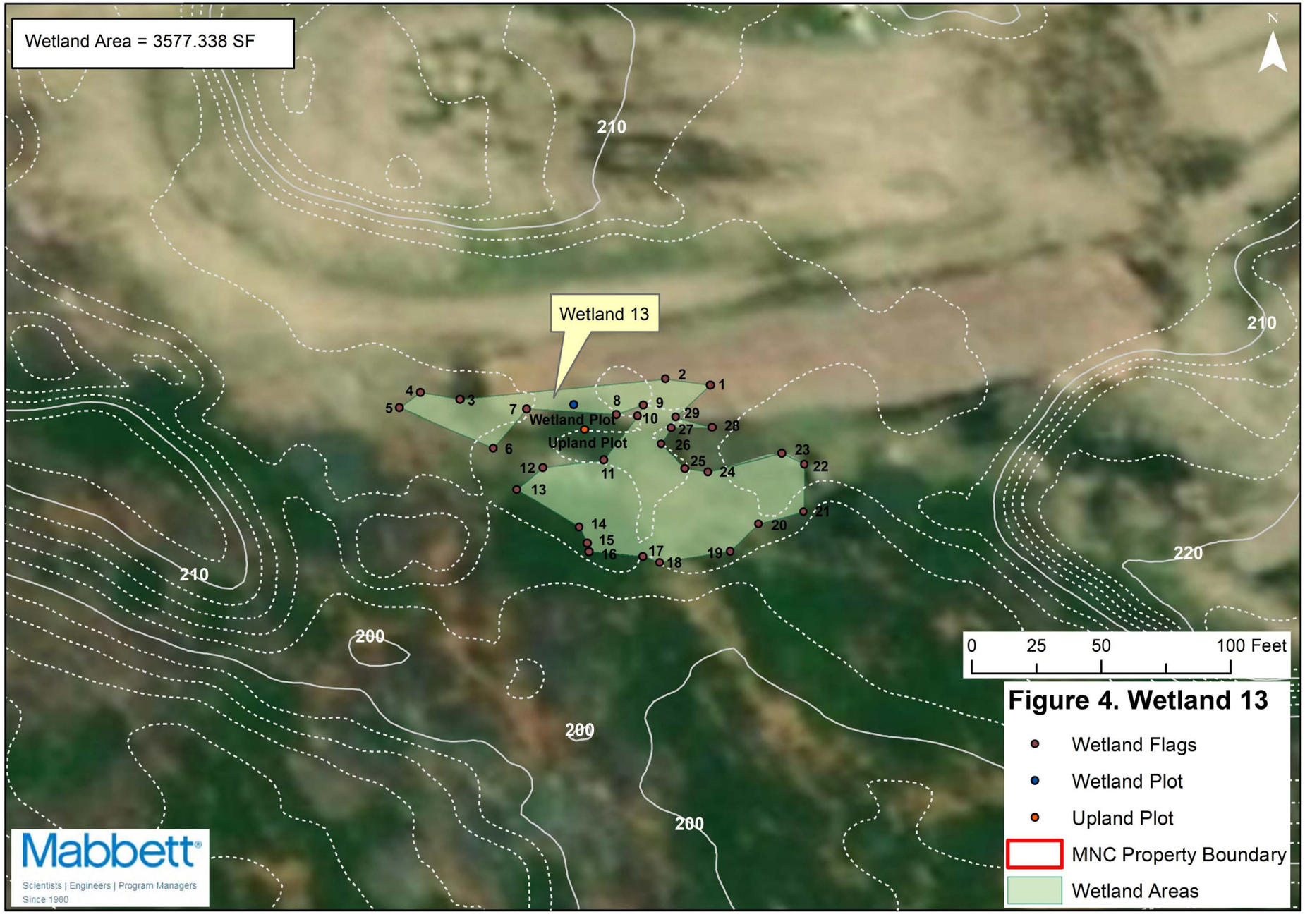
Contours represent feet above mean sea level (amsl)

Figure 3 – Wetland 7 Site Specific



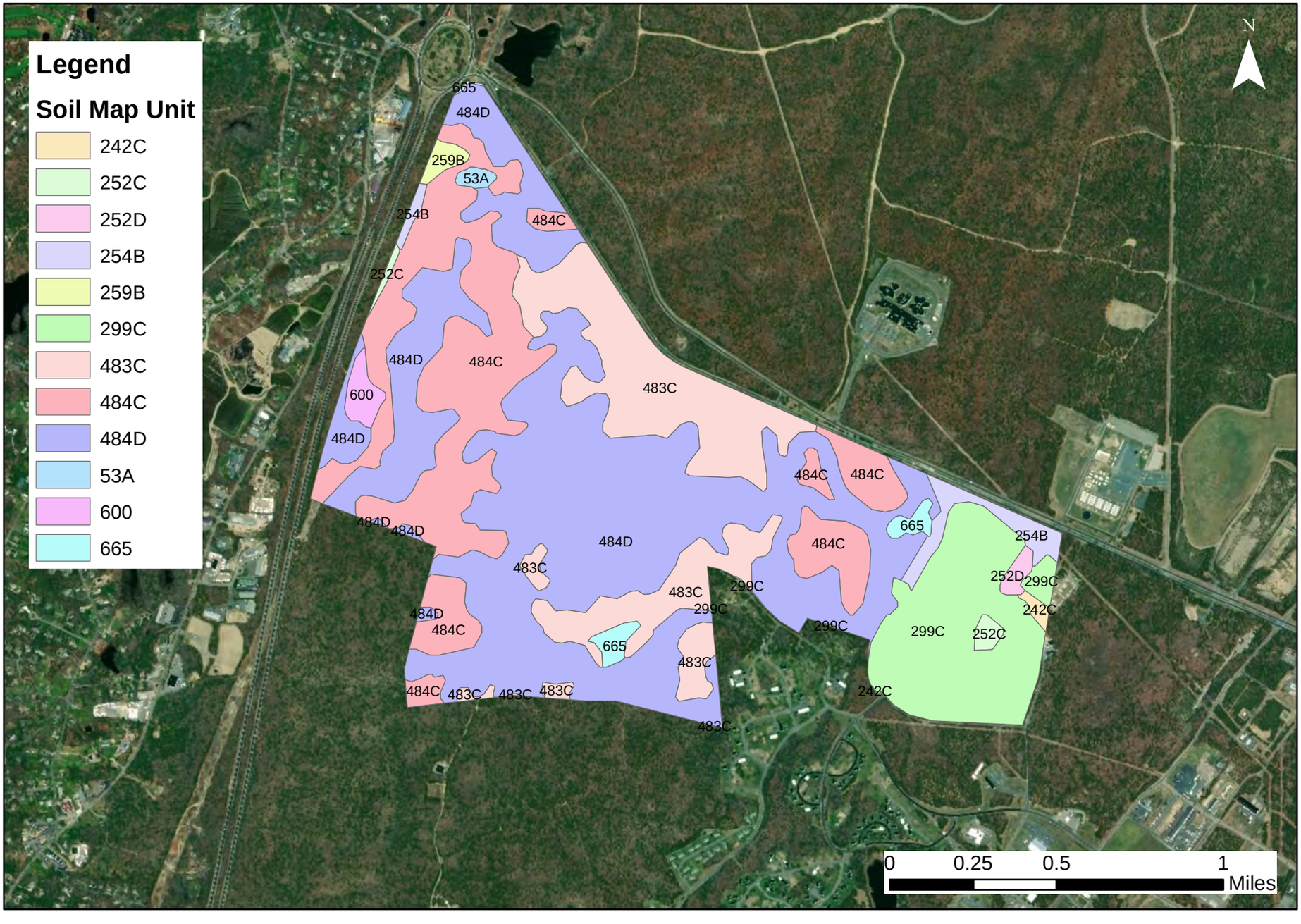
Contours represent feet above mean sea level (amsl)

Figure 4 – Wetland 13 Site Specific



Contours represent feet above mean sea level (amsl)

Figure 5 – Soil Series Map Units of the VA MNC


Legend
Soil Map Unit
242C
252C
252D
254B
259B
299C
483C
484C
484D
53A
600
665
N
0
0.25
0.5
1
Miles

Soil Map Unit	Soil Map Unit Name	Drainage Class	Hydric (Y/N)	Acres (percentage) within MNC Property
484D	Plymouth-Barnstable complex, hilly, extremely boulder	Excessively drained	N	340.2 (45.4)
484C	Plymouth-Barnstable complex, rolling, extremely bouldery	Excessively drained	N	162.0 (21.6)
483C	Plymouth-Barnstable complex, rolling, very bouldery	Excessively drained	N	120.3 (16.1)
299C	Merrimac-Udipsamments-Urban land complex	Excessively drained	N	86.1 (11.5)
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	Somewhat excessively drained	N	14.0 (1.9)
665	Udipsamments, smoothed	------	--	7.1 (0.9)
600	Pits, sand and gravel	------	--	5.8 (0.8)
252C	Carver coarse sand, 8 to 15 percent slopes	Excessively drained	N	3.6 (0.5)
259B	Carver loamy coarse sand, 3 to 8 percent slopes	Excessively drained	N	3.5 (0.5)
252D	Carver coarse sand, 15 to 35 percent slopes	Excessively drained	N	2.9 (0.4)
53A	Freetown muck, ponded, coastal lowland, 0 to 1 percent slopes	Very poorly drained	Y	2.1 (0.3)
242C	Hinckley loamy sand, 8 to 15 percent slopes	Excessively drained	N	1.7 (0.2)
Total				749.3 (100)

Appendix B MassDEP Field Delineation Data Forms

DEP Vegetated Wetland Delineation Field Data Form – Wetland 1

Applicant:	Prepared by:	Project Location:	DEP File#:
VA MA National Cemetery	**AECOM (Matthew Devlin)**	**VA MA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Wetland 1** Transect Number: **W1-108** Date of Delineation: **09/10/2018**

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*	*
Tree	Red maple	*Acer rubrum*	63	100	☒ yes ☐ no	FAC	☒
Shrub	Morrow's Honeysuckle	*Lonicera morrowii*	63	100	☒ yes ☐ no	NI	☐
Herb	Shallow Sedge	*Carex lurida*	38	40	☒ yes ☐ no	OBL	☒
Herb	Pennsylvania Smartweed	*Persicaria pensylvanica*	38	40	☒ yes ☐ no	FACW	☒
Herb	Beggarticks	*Bidens frondosa*	20.5	21	☒ yes ☐ no	FACW	☒

* Use an asterisk to mark wetland indicator 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+ 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: 1	
Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: Plymouth-Barnstable complex, rolling, very bouldery (483C)			
Hydric soil inclusions: Yes			
Are field observations consistent with soil survey?		☐ yes	☒ no
Remarks:			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
O	4-0 inches	7.5YR 4/2	N/A
A	0-7 inches	10YR 2/1	10YR 4/3
B	7-14 inches	10YR 5/1	10YR 4/3
	inches		
	inches		
	inches		

Remarks: Meets hydric soil field indicators A11 and F3 (Field Indicators for Identifying Hydric Soils in New England Version 4, May 2018).

3. Other: Loamy clay soil

Conclusion: Is soil hydric?	☒ yes	☐ no

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

☐ Site inundated:	
☐ Depth to free water in observation hole: inches	
☒ Depth to soil saturation in observation hole: surface	
☐ Water marks:	
☐ Drift lines:	
☐ Sediment deposits:	
☐ Drainage patterns in BVW:	
☐ Oxidized rhizospheres:	
☒ Water-stained leaves:	
☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):	
☐ Other:	

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☒ yes	☐ no
Wetland hydrology present:	☒ yes	☐ no
Hydric soil present	☒ yes	☐ no
Other indicators of hydrology present	☒ yes	☐ no
Sample location is in a Vegetated Wetland	☒ yes	☐ no

DEP Vegetated Wetland Delineation Field Data Form – Wetland 1

Applicant:	Prepared by:	Project Location:	DEP File#:
MA VA MA National Cemetery	**AECOM (Matthew Devlin)**	**VA MA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Upland 1** Transect Number: **W1-108** Date of Delineation: **09/10/2018**

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*	*
Tree	Red Oak	*Quercus rubra*	63	60	☒ yes ☐ no	FACU-	☐
Tree	Red Maple	*Acer rubrum*	38	40	☒ yes ☐ no	FAC	☒
Sapling/Shrub	White Pine	*Pinus strobus*	38	33	☒ yes ☐ no	FACU	☐
Sapling/Shrub	Red Maple	*Acer rubrum*	38	33	☒ yes ☐ no	FAC	☒
Sapling/Shrub	Black Huckleberry	*Gaylussacia baccata*	20.5	17	☐ yes ☒ no	FACU	☐
Sapling/Shrub	Black Cherry	*Prunus serotina*	20.5	17	☐ yes ☒ no	FACU	☐
Herb	Pennsylvania Sedge	*Carex pensylvanica*	63	100	☒ yes ☐ no	NI	☐

* Use an asterisk to mark wetland indicator 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+ 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: 2	Number of dominant non-wetland indicator plants: 3	
Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey			
Is there a published soil survey for this site?		☒ yes	☐ no
Title: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: Plymouth-Barnstable complex, rolling, very bouldery (483C)			
Hydric soil inclusions: No			
Are field observations consistent with soil survey?		☒ yes	☐ no
Remarks:			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-4 inches	7.5YR 3/2	N/A
B	4-18 inches	7.5YR 7/6	N/A
C	18-20 inches	10YR 3/3	N/A
	inches		
	inches		
	inches		

Remarks: Sandy Loam

3. Other:

Conclusion: Is soil hydric?	☐ yes	☒ no

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

- ☐ Site inundated:
- ☐ Depth to free water in observation hole: inches
- ☐ Depth to soil saturation in observation hole: inches
- ☐ Water marks:
- ☐ Drift lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizospheres:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☐ yes	☒ no
Wetland hydrology present:	☐ yes	☒ no
Hydric soil present	☐ yes	☒ no
Other indicators of hydrology present	☐ yes	☒ no
Sample location is in a Vegetated Wetland	☐ yes	☒ no

DEP Vegetated Wetland Delineation Field Data Form – Wetland 7

Applicant:	Prepared by:	Project Location:	DEP File#:
MA VA National Cemetery	**AECOM (Stephen Chmiel)**	**MA VA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Wetland 1** Transect Number: **W7-A12** Date of Delineation: **01/23/2019**

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*	*
Tree	White Oak	*Quercus alba*	63	100	☒ yes ☐ no	FACU-	☐
Shrub	Sheep Laurel	*Kalmia angustifolia*	10.5	22	☒ yes ☐ no	FAC	☒
Shrub	Highbush Blueberry	*Vaccinium corymbosum*	38	78	☒ yes ☐ no	FACW-	☒
Herb	Cinnamon Fern	*Osmundastrum cinnamomeum*	63	86	☒ yes ☐ no	FACW	☒
Herb	Eastern Teaberry	*Gaultheria procumbens*	10.5	14	☐ yes ☒ no	FACU	☐

* Use an asterisk to mark wetland indicator 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+ 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: 3	Number of dominant non-wetland indicator plants: 1	
Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: : Plymouth-Barnstable complex, hilly, extremely boulder (484D)			
Hydric soil inclusions: Yes			
Are field observations consistent with soil survey?		☐ yes	☒ no
Remarks: Isolated wetland within upland area			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
0	7-0 inches		N/A
A	0-3 inches	10YR 2/1	N/A
E	3-5 inches	2.5Y 5/2	
B	5-18 inches	10YR 5/3	10YR 5/6
	inches		
	inches		

Remarks: Fine Sandy Loam; Meets hydric soil indicator F3 (Field Indicators for Identifying Hydric Soils in New England Version 4, May 2018).

3. Other: Rock refusal at 18 inches

Conclusion: Is soil hydric?	☒ yes	☐ no

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

- ☒ Site inundated: partially
- ☐ Depth to free water in observation hole: inches
- ☒ Depth to soil saturation in observation hole: surface
- ☐ Water marks:
- ☐ Drift lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizospheres:
- ☒ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☒ yes	☐ no
Wetland hydrology present:	☒ yes	☐ no
Hydric soil present	☒ yes	☐ no
Other indicators of hydrology present	☒ yes	☐ no
Sample location is in a Vegetated Wetland	☒ yes	☐ no

DEP Vegetated Wetland Delineation Field Data Form – Wetland 7

Applicant:	Prepared by:	Project Location:	DEP File#:
VA MA National Cemetery	**AECOM (Stephen Chmiel)**	**VA MA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Upland 1** Transect Number: **W7-A12** Date of Delineation: **01/23/2019**

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*	*
Tree	White Oak	*Quercus alba*	10.5	20	☒ yes ☐ no	FACU-	☐
Tree	Red Oak	*Quercus rubra*	20.5	40	☒ yes ☐ no	FACU-	☐
Tree	Pitch Pine	*Pinus rigida*	20.5	40	☒ yes ☐ no	FACU	☐
Shrub	Pitch Pine	*Pinus rigida*	20.5	35	☒ yes ☐ no	FACU	☐
Shrub	Sheep Laurel	*Kalmia angustifolia*	38	65	☒ yes ☐ no	FAC	☒
Herb	Eastern Teaberry	*Gaultheria procumbens*	10.5	33	☒ yes ☐ no	FACU	☐
Herb	Spotted Wintergreen	*Chimaphila maculata*	10.5	33	☒ yes ☐ no	NI	☐
Herb	Princess Pine	*Lycopodium obscurum*	10.5	33	☒ yes ☐ no	FACU	☐

* Use an asterisk to mark wetland indicator 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+ 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: 1 Number of dominant non-wetland indicator plants: 7

Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: Plymouth-Barnstable complex, hilly, extremely boulder (484D)			
Hydric soil inclusions: No			
Are field observations consistent with soil survey?		☒ yes	☐ no
Remarks:			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
0	4-0 inches		N/A
A	0-3 inches	10YR 2/1	N/A
E	3-6 inches	2.5Y 5/2	N/A
Bw1	6-14 inches	7.5YR 4/6	N/A
Bw2	14-26 inches	2.5Y 6/6	
	inches		
	inches		

Remarks: Fine sandy loam underlain by sandy loam

3. Other:		
Conclusion: Is soil hydric?	☐ yes	☒ no

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

- ☐ Site inundated:
- ☐ Depth to free water in observation hole: inches
- ☐ Depth to soil saturation in observation hole: inches
- ☐ Water marks:
- ☐ Drift lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizospheres:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☐ yes	☒ no
Wetland hydrology present:	☐ yes	☒ no
Hydric soil present	☐ yes	☒ no
Other indicators of hydrology present	☐ yes	☒ no
Sample location is in a Vegetated Wetland	☐ yes	☒ no

DEP Vegetated Wetland Delineation Field Data Form – Wetland 13

Applicant:	Prepared by:	Project Location:	DEP File#:
VA MA National Cemetery	**AECOM (Stephen Chmiel)**	**VA MA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Wetland 1** Transect Number: **W13-A7** Date of Delineation: **01/23/2019**

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*	*
Sapling/Shrub	Gray Willow	*Salix cinerea*	10.5	50	☒ yes ☐ no	FACW	☒
Sapling/Shrub	Red Maple	*Acer rubrum*	10.5	50	☒ yes ☐ no	FAC	☒
Herb	Soft Rush	*Juncus effusus*	20.5	33	☒ yes ☐ no	FACW+	☒
Herb	Narrow-leaf cattail	*Typha angustifolia*	10.5	17	☒ yes ☐ no	OBL	☒
Herb	Wool-grass	*Scirpus cyperinus*	20.5	33	☒ yes ☐ no	FACW+	☒
Herb	Twig Rush	*Cladium mariscoides*	10.5	17	☒ yes ☐ no	OBL	☒

* Use an asterisk to mark wetland indicator 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+ 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: 6	Number of dominant non-wetland indicator plants: 0	
Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: Udipsamments, Smoothed (665)			
Hydric soil inclusions: Yes			
Are field observations consistent with soil survey?		☒ yes	☐ no
Remarks: Evidence of past disturbance from sand and gravel operations			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
F1	0-7 inches	7.5YR 2.5/2	N/A
F2	7-18 inches	2.5Y 5/2	10YR 6/8
F3	18-26 inches	10YR 5/3	2.5Y 6/4
	inches		
	inches		
	inches		

Remarks: Location subject to significant disturbance due to sand and gravel operations and landscape material storage; Meets hydric soil indicator A11 and HTM-A (Field Indicators for Identifying Hydric Soils in New England Version 4, May 2018).

3. Other:

Conclusion: Is soil hydric?	☒ yes	☐ no

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

☒ Site inundated: partially	
☐ Depth to free water in observation hole: inches	
☒ Depth to soil saturation in observation hole: ice at surface	
☐ Water marks:	
☐ Drift lines:	
☐ Sediment deposits:	
☐ Drainage patterns in BVW:	
☐ Oxidized rhizospheres:	
☐ Water-stained leaves:	
☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):	
☐ Other:	

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☒ yes	☐ no
Wetland hydrology present:	☒ yes	☐ no
Hydric soil present	☒ yes	☐ no
Other indicators of hydrology present	☒ yes	☐ no
Sample location is in a Vegetated Wetland	☒ yes	☐ no

DEP Vegetated Wetland Delineation Field Data Form – Wetland 13

Applicant:	Prepared by:	Project Location:	DEP File#:
VA MA National Cemetery	**AECOM (Stephen Chmiel)**	**VA MA National Cemetery, Bourne, MA**	**N/A**

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 section I and II
☐	Method other than dominance test used (attach additional information)

Section 1. Vegetation Observation Plot Number: **Upland 1** Transect Number: **W13-A7** Date of Delineation: **01/23/2019**

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*	*
Tree	Pitch Pine	*Pinus rigida*	38	100	☒ yes ☐ no	FACU	☐
Sapling	Pitch Pine	*Pinus rigida*	20.5	50	☒ yes ☐ no	FACU	☐
Sapling	Scarlet Oak	*Quercus coccinea*	20.5	50	☒ yes ☐ no	NI	☐
Herb	Common wormwood	*Artemisia vulgaris*	10.5	50	☒ yes ☐ no	UPL	☐
Herb	Deer Tongue	*Dichanthelium clandestinum*	10.5	50	☒ yes ☐ no	FAC+	☒
Vine	Asian Bittersweet	*Celastrus orbiculatus*	10.5	50	☒ yes ☐ no	UPL	☐
Vine	Poison Ivy	*Toxicodendron radicans*	10.5	50	☒ yes ☐ no	FAC	☒

* Use an asterisk to mark wetland indicator 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+ 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: 2 Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland indicator plants greater than the number of dominant non-wetland indicator 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.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey			
Is there a published soil survey for this site?		☒ yes	☐ no
Title: NRCS Web Soil Survey	Date: N/A		
Map number: N/A			
Soil type mapped: Udipsamments, Smoothed (665)			
Hydric soil inclusions: No			
Are field observations consistent with soil survey?		☒ yes	☐ no
Remarks: Evidence of past disturbance from sand and gravel operations			

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
F1	0-3 inches	10YR 3/4	N/A
F2	3-18 inches	2.5Y 5/4	N/A
F3	18-25 inches	2.5Y 5/6	N/A
	inches		
	inches		
	inches		

Remarks: Sandy Loam underlain by fine sandy loam

3. Other: Location subject to significant disturbance due to sand and gravel operations and landscape material storage

Conclusion: Is soil hydric?	☐ yes	☒ no

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

- ☐ Site inundated:
- ☐ Depth to free water in observation hole: inches
- ☐ Depth to soil saturation in observation hole: inches
- ☐ Water marks:
- ☐ Drift lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizospheres:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion		
Number of wetland indicator plants > or = Number of non-wetland indicator plants	☐ yes	☒ no
Wetland hydrology present:	☐ yes	☒ no
Hydric soil present	☐ yes	☒ no
Other indicators of hydrology present	☐ yes	☒ no
Sample location is in a Vegetated Wetland	☐ yes	☒ no

Appendix C Site Photographs

PHOTOGRAPHIC LOG

Project Name: MA VA National Cemetery	**Site Location:** MA VA National Cemetery Bourne, MA	**Project No.** 60587570

Photo No.	**Date:**
1	9/10/18

Direction Photo Taken:
Southeast

Description:
View of Wetland 1, an isolated Palustrine Emergent/Forested (PEM/PFO) wetland located near the maintenance-building complex within the northcentral portion of the site.

Photo No.	**Date:**
2	9/10/18

Direction Photo Taken:
Northwest

Description:
Additional view of Wetland 1, with fenced-in locations associated with the maintenance facility in the background.

PHOTOGRAPHIC LOG

Project Name: MA VA National Cemetery	**Site Location:** MA VA National Cemetery Bourne, MA	**Project No.** 60587570

Photo No.	**Date:**
3	1/24/19

Direction Photo Taken:
Southeast

Description:
View of Wetland 7, an isolated Palustrine Emergent/Palustrine Scrub-Shrub (PEM/PSS) wetland, displaying frozen surface water within the lowest portion of the wetland. This feature is located in the northern section of the property, south of Connery Avenue and east of Cole Road.

Photo No.	**Date:**
4	1/24/19

Direction Photo Taken:
North

Description:
Additional view of PSS portions of Wetland 7, with the steep embankment associated with Connery Avenue in the background.

PHOTOGRAPHIC LOG

Project Name: MA VA National Cemetery	**Site Location:** MA VA National Cemetery Bourne, MA	**Project No.** 60587570

Photo No.	**Date:**
5	1/24/19

Direction Photo Taken:
North

Description:
View of the southern extent of Wetland 7, and adjacent forested upland communities surrounding the perimeter of the wetland.

Photo No.	**Date:**
6	1/24/19

Direction Photo Taken:
West

Description:
View of the western extent of Wetland 7, with up-gradient views of the intersection of Coal Road and Connery Avenue in the background.

PHOTOGRAPHIC LOG

Project Name: MA VA National Cemetery	**Site Location:** MA VA National Cemetery Bourne, MA	**Project No.** 60587570

Photo No.	**Date:**
7	1/24/19

Direction Photo Taken:
Southeast

Description:
View of Wetland 13, an isolated Palustrine Emergent (PEM) wetland located adjacent to the existing sand and gravel pit/landscape material disposal area, situated in the southern section of the property.

Photo No.	**Date:**
8	1/24/19

Direction Photo Taken:
South

Description:
View of existing fill piles and forested upland areas adjacent to PEM portions of Wetland 13.

PHOTOGRAPHIC LOG

Project Name: MA VA National Cemetery	**Site Location:** MA VA National Cemetery Bourne, MA	**Project No.** 60587570

Photo No.	**Date:**
9	1/24/19

Direction Photo Taken:
South

Description:
Additional view of Wetland 13, with fill pile placement along the perimeter of the wetland.

Photo No.	**Date:**
10	1/24/19

Direction Photo Taken:
Southeast

Description:
Additional view of Wetland 13, with adjacent fill piles located along the perimeter of the wetland.

Appendix D Town of Bourne Conservation Commission Bylaw Forms

TOWN OF BOURNE CONSERVATION COMMISSION
24 PERRY AVENUE
BUZZARDS BAY, MA. 02532
508-759-0615 ext. 344/343

EFFECTIVE JANUARY 1, 2007

RDA	$75
NOI	**$125-(minimum)**
DUPLICATE DOCUMENT	.20/PAGE
REQUEST FOR AMENDMENT	**$75**
PERMIT EXTENSION	**$75**
CERTIFICATE OF COMPLIANCE	**$75**
COPY BYLAW/REGULATIONS	**$10**
PRESITE VISIT	**$25**

ANORAD: $1/LINEAR FOOT UP TO $100 ON A SINGLE FAMILY PROJECT, NOT TO BE GREATER THAN $1,000

All Filing Fees may be waived at the discretion of the Conservation Commission for non-profit or educational organizations or for those projects considered by the Commission to be an environmental improvement project. Extenuating circumstances or hardship the applicant may be experiencing may also be considered for reason to waive the filing fee.

ROBERT GRAY, CHAIRMAN, BRUCE MACDONALD, VICE-CHAIRMAN

AGENT: BRENDAN MULLANEY

Town of Bourne
CONSERVATION COMMISSION

24 Perry Avenue
Buzzards Bay, Massachusetts 02532

RDA FILING INFORMATION WORKSHEET

In order to expedite the processing of your Request for Determination of Applicability, please complete this information sheet and submit it with your application.

1. Applicant Name: US Department of Veterans Affairs - MA National Cemetery
2. Applicant Address: Connery Avenue, Bourne, MA 02532
3. Property Owner Name: US Department of Veterans Affairs - MA National Cemetery c/o Richard Wallace, Director, MA National Cemetery
4. Property Owner Address: Connery Avenue, Bourne, MA 02532
5. Representative Name: Richard Wallace
6. Representative Address: Connery Avenue, Bourne, MA 02532
7. Project Address: Connery Avenue, Bourne, MA 02532
8. Project Map and Parcel Number: Map 48 Parcel 82
9. Project Description: The applicant is submitting a WPA Form 1 – Request for Determination of Applicability application to to confirm the boundaries and jurisdictional status of three (3) isolated wetland features located within the limits of the United States Department of Veterans Affairs Massachusetts National Cemetery property in Bourne, Massachusetts.
10. Is this project in an AE flood zone? Yes (No)
11. Is this project in a V flood zone? Yes (No)
12. Is this project within 100 feet of a wetland resource area? Yes (No)
13. Is this project within 200 feet of a riverfront? Yes (No)
14. Plan Title and Date: Request for Determination of Applicability - VA MNC

Town of Bourne
CONSERVATION COMMISSION
Filing Fee Submittal Form

On January 6, 1993 the Conservation Commission adopted the following fee schedule for projects reviewed under the Town of Bourne Wetland and Natural Resource Protection Bylaw Article 3.7. The fee schedule was reviewed again on November 6, 2003 and revisions were implemented on July 1, 2004 and again on January 1, 2007 with the approval of the Bourne Conservation Commission and the Board of Selectmen.

All categories refer to G.L. Ch. 131 s. 40 filing fee schedule. **4/12/06**

CATEGORY 1. _____ X $110.00 = _____
No. Category 1 Activities — Total Category 1 Fee

CATEGORY 2. _____ X $500.00 = _____
No. Category 2 Activities — Total Category 2 Fee

CATEGORY 3. _____ X $1,050.00 = _____
No. Category 3 Activities — Total Category 3 Fee

CATEGORY 4. _____ X $1,450.00 = _____
No. Category 4 Activities — Total Category 4 Fee

CATEGORY 5. $4.00 per linear foot with a $100.00 minimum fee and a $2000.00 maximum fee. **(DOCKS)**

_____ X $4.00 = _____
Total Linear Feet — Total Category 5 Fee

FOR NOTICES OF INTENT THERE IS A MINIMUM CHARGE OF $125.00. ANY CALCULATION LESS THAN $125.00 MUST PAY $125.00, ANY CALCULATION PRODUCING A FIGURE GREATER THAN $125.00 MUST PAY THE CALCULATED RATE.

CATEGORY 6 (ANRAD) $2.00/LIN.FT. UP TO $200 FOR SFH, NO MORE THAN $2000 (ALL OTHER ACTIVITIES)

_____ **X $2.00**
_____
TOTAL LINEAR FEET — **TOTAL CATEGORY 6 FEE**

CATEGORY 7. $50.00 per activity listed below.
Request for Emergency Certification - $50.00

_____ X $50.00 = _____
No. Category 7 Activities — Total Category 7 Fee

CATEGORY 8. $75.00 per activity listed below.
Request for Determination - $75.00
Request for Certificate of Compliance - $75.00
Request for Extension Permit - $75.00
Request for Amended Order of Conditions - $75.00

1 X $75.00 = $0.00 (Federal entity is exempt per Town of Bourne)
No. Category 8 Activities — Total Category 8 Fee

TOTAL FILING FEE SUBMITTED = $0.00

_____

Name US Department of Veterans Affairs - MA National Cemetery

Address Connery Avenue

Tel. _____ Signature_____

Date_____

Fees may be waived at the discretion of the Conservation Commission for non-profit or educational organizations or for those projects considered by the Commission to be an environmental improvement project. Extenuating circumstances or hardship the applicant may be experiencing may also be considered for reason to waive the filing fee.

Commission Member Waiver Request

Bourne Conservation Commission
Town of Bourne
24 Perry Ave.
Buzzards Bay, MA 02532

Dear Commissioners:

The applicants and/or owners of the below referenced property hereby waive the right to require the same Commission members to be present at any and all continued hearings on this matter.

This is necessary for the Commission to allow a continuance to be granted to the project and is in conformance with the opinion of Town Counsel. Should a continuance be necessary the only alternatives are for the applicant to request a continuance to a future meeting when the same Commission members are present or to withdraw and re-file at a future time.

_____ _____
Applicant's or owner's signature Date

Applicant's name: US Department of Veterans Affairs - MA National Cemetery c/o Richard Wallace, Director, MA National Cemetery (print)

Address: Connery Avenue, Bourne, MA 02532

Telephone: _____

Project Location: _____

Town Map 48 Parcel 82 Lot _____

Project description: The applicant is submitting a WPA Form 1 – Request for Determination of Applicability application to confirm the boundaries and jurisdictional status of three (3) isolated wetland features located within the limits of the United States Department of Veterans Affairs Massachusetts National Cemetery property in Bourne, Massachusetts.

Town of Bourne
CONSERVATION COMMISSION

24 PerryAvenue
Buzzards Bay, Massachusetts 02532

Site Inspection Authorization

This form must be signed and dated by the property owner:

As the owner of the property which is the subject of this permit application, I grant to members and agents of the Bourne Conservation Commission the right to enter, inspect and sample the premises for the following:

1. To evaluate site conditions and verify information contained in the application prior to and during the hearing process.

2. To monitor the site during construction.

3. To verify compliance with the permit after the project's completion.

_____ _____

Signature Date

US Department of Veterans Affairs - MA National Cemetery Connery Avenue, Bourne, MA 02532 Map 44 Parcel 82

Address of Proposed Work (*include map and parcel*)

Town of Bourne
CONSERVATION COMMISSION

24 PerryAvenue
Buzzards Bay, Massachusetts 02532

Waiver Agreement

Bourne Conservation Commission
Town Hall
24 Perry Avenue
Buzzards Bay, MA 02532

Commissioners:

I hereby waive the time requirement set forth in Chapter 131 s. 40 (Wetlands Protection Act), its regulations at 310 CMR 10.00, and the Town of Bourne Wetlands Protection Bylaw Article 3.7. I understand the Commission will make every effort to hold a public meeting within the mandated 21 day time frame and render a decision within the subsequent time frame.

In agreeing with this waiver the public meeting will take place within 35 days of receiving the Request for Determination of Applicability.

_____ _____

Applicant's or Representative's Signature

Date

Applicant's Name: (***print***) US Department of Veterans Affairs - MA National Cemetery c/o Richard Wallace, Director, MA National Cemetery

Address: Connery Avenue, Bourne, MA 02532

Telephone: _____

Project Location: Connery Avenue, Bourne, MA 02532

Appendix E Abutter Notification List

REQUEST FOR CERTIFIED ABUTTERS LIST

REQUESTED BY:

NAME AECOM c/o Stephen Chmiel

ADDRESS 9 Jonathan Bourne Drive

CITY Pocasset ZIP 02559

PHONE (508) 833-6969

PURPOSE OF CERTIFIED ABUTTERS LIST: RDA Application

SUBJECT PROPERTY:

LOCATION Connery Avenue

MAP/PARCEL Map 48, Lot 82

Check appropriate purpose:

Planning Board
- ☐ Special Permit
- ☐ Sub-division
- ☐ Waiver of SP/SPR
- ☐ Site Plan Review

Zoning Board of Appeals
- ☐ Variance
- ☐ Special Permit

☐ Cape Cod Commission

☐ Board of Selectmen:
- ☐ Special Permit
- ☐ Liquor License

☐ Board of Health

☒ Conservation Commission
- ☒ RDA
- ☐ NOI

Assessors Office Use Only

ABUTTERS:

MAP/PARCEL	MAP/PARCEL	MAP/PARCEL
44/50		

TOWN OF BOURNE
Board of Assessors
24 Perry Avenue
Buzzards Bay, MA 02532
(508) 759-0600 Ext. 1510 ♦ Fax (508) 759-8026

Anne Ekstrom, Chairman
Priscilla A. Koleshis, Clerk
Michael Leitzel, Member

Bruce Cabral, MAA
Director of Assessing

January 30, 2019

AECOM
c/o Stephen Chmiel
9 Jonathan Bourne Dr
Pocasset, MA 02559

Reference: Abutters List for Map 48 Parcel 82
Subject Property: 0 Otis AF Base

Pursuant to the provisions of Massachusetts General Laws Chapter 141, Section 40, as amended, and the Town of Bourne Wetlands Protection Bylaw Article 3.7, enclosed is a list of names and addresses which constitutes direct abutters and abutters directly across the way from the subject property on the most recent tax list of the Town of Bourne. The purpose of the abutters list is for a Request for Determination of Applicability application for the Conservation Commission.

Abutting properties are: Map 44 Parcel 50.

The filing fee of $10.00 has exempted by the Assessors Office.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

See enclosed Data Base Inquiry Forms for abutters mailing addresses.

Board of Assessors

List Enclosed

Anne Ekstrom
Priscilla Koleshis
Michael Leitzel

Extract: 1 Abutters List
Database: LIVE
Filter: Key IN 9709
Sort:

Report #24: Owner Listing Report

Fiscal Year 2019

Bourne MA

Key	Parcel ID	Owner	Location	LCI/CI	Bk-Pg(Cert) /Dt	Mailing Street	Mailing City	ST	Zip Cd/County
9709	44.0-50-0	COMMONWEALTH OF MASSACHUSETTS MASS. MILITARY RESERVATION	0 OTIS A F BASE	N 9160	N/A/N/A	C/O COMMANDER 158 REILLY ST, BOX 3	OTIS ANGB	MA	02542-1330

Total Records 1

Conservation Commission
Meeting Minutes

Town Hall Lower Conference Room

24 Perry Ave., Buzzards Bay, MA 02532

April 4, 2019

I. Call to order

Chm. Gray called to order the meeting of the Conservation Commission at 7:00 PM on April 4, 2019. Chm. Gray explained all reviews, unless otherwise stated, are joint reviews. Applications will be processed pursuant to the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40 and pursuant to Article 3.7 of the Town of Bourne Wetlands Protection Bylaw.

Note: Chm. Gray addressed the audience and explained the 5, 5, 5 rules; which allows the applicant / representative five minutes to make a presentation to the Commission members, Commission members will take five minutes to seek clarification if needed, the Conservation agent will also give a report and five minutes of public input is allowed. He asked for all to silence their cell phones.

Note: The meeting was being recorded and anyone in the audience who was recording or videotaping was asked to acknowledge such to the Commission. The proceeding listing of matters are those reasonably anticipated by the Chair which may be discussed at the meeting. Not all items listed may be discussed and other items not listed may be discussed to the limited extent permitted by the Open Meeting Law. All items within the meeting agenda are subject to deliberation and vote(s) by the Conservation Commission.

Members Present: Bob Gray, Tom Ligor, Elise Leduc, Susan Weston (7:04) and Paul Szwed.

Excused Members: Rob Palumbo, Melvin P. Holmes and Associate Member, Greg Berman.

Also Present: Sam Haines, Carol Mitchell, Bradley Bertolo, Brendan Mullaney, Chris Newhall, Patrick Ross, Stephen Chmiel, Diane Reed, Wayne Tavares, Tom Bunker, William Ribich, Bob Bishop, Suzanne Meuse, Seth Wilkinson and Jack Vaccaro.

Request for Determination of Applicability:

1) Applicant: US Department of Veteran's Affairs – Massachusetts National Cemetery
File Number: CC19-12
Representative: AECOM
Massachusetts National Cemetery, Connery Ave, Bourne

To confirm the boundaries and jurisdictional status of 3 isolated wetland features.

Materials Reviewed – Site Photographs, Aerial Photographs and DEP Wetlands Change Mapping.

Chris Newhall addressed the members stating the purpose of the filing is to determine jurisdiction to use in conjunction with the planning for a multi-phase expansion of the Massachusetts National Cemetery.

Board Comment – None.

Agent Comment – Mr. Haines explained all three of the wetlands that the applicant has identified meet the bylaw definition of a Wetland Resource Area with the exception of Wetland #1. Based on aerials, it is the agent's opinion it is exempt; since it's a storm water basin. The applicant performed a parking lot improvement in 2012, and the area of that basin was defined; so it meets the exemption criteria. Wetland #13 is a man-made feature which appears to be made from sand and gravel activities sometime between 2010 and 2012. This had three spotted salamander egg masses in it and appeared to drain quickly. Mr. Newhall stated they are monitoring that area to see if it has a definite hydroperiod. Mr. Haines stated Wetland #7 is a small depressional wetland, with a large natural buffer. He did not observe any obligated activity in that wetland. The question for #7 and #13 is whether the Commission feels they have bylaw jurisdiction on federal land. Towns have dealt with this doctrine as sovereign immunity previously on state land. So first, the town places the burden of proof of immunity on the applicant to provide a legal opinion as to why the bylaw does not apply. To date, the Commission hasn't received any letter from the Department of Veterans Affairs legal counsel, so the Commission will need to decide how to determine jurisdiction on those two. Second, the Commission has to assess whether the bylaw will interfere with an essential government purpose or would have negligible impact on the project. In his opinion, because this is being heard under the bylaw only, it may be easier for the Commission not to take jurisdiction and request the applicant return with a design plan for discussion.

Board Comment – Chm. Gray asked if a conceptual design has been prepared for the Commission to review. Mr. Newhall explained there isn't a design available to share; however, only Wetland #1 currently has development planned.

Chm. Gray asked if it is possible to take the square footage of the total to see if there's a spot somewhere on the property where a similar wetland could be created. Mr. Newhall stated he cannot commit to that request; however, he can submit the request to the applicant's planning team. A discussion ensued.

Chm. Gray thinks the Commission should issue a Negative Determination which will allow for additional design review.

Public Comment – None.

Chm. Gray entertained a motion. **Mr. Ligor moved, Ms. Leduc seconded a Negative One Determination.** The motion carried. 4-0-0.

Notice of Intent

1) Applicant: Patrick Ross
File Number: SE7-2061
Representative: Same
Located north of the Mashnee Dike and east of Hog Island

To expand an existing Aquaculture/Shellfish Grant operation within the municipal waters of the Town of Bourne.

Materials Reviewed – Site Photographs, Site Plan of Record and DEP Wetlands Change Mapping.

Patrick Ross addressed the members. He explained that he's been before the Commission in the past and received grants in a couple of different areas. He is seeking to expand the operation because Little Bay, where the base of the operation is now, has been reclassified by the state and will be closed annually from July 1st to November 1st. He will continue to use the space as a nursery for year one but nothing can be harvested. If approved, the new space will be used for final grow out and harvesting.

Board Comment – None.

Agent Comment – Mr. Haines explained that the area is being shut down due to water quality issues. This project is essentially the same project that was previously approved in Little Bay, the operation will just be moved north of Mashnee Dike. He said they are waiting to receive input from the Division of Marine Fisheries (DMF) and the Natural Heritage and Endangered Species Program, so the matter has to be continued. He added that the project has been approved by the select board and has been given a positive recommendation by the shellfish warden.

Board Comment – Mr. Ligor asked for clarification of the water quality issues. Mr. Haines explained the levels of fecal coliform bacteria tested high; therefore, DMF has conditionally closed the area to shell fishing.

Public Comment – None.

With no further discussion, the matter was continued to April 18, 2019

2) Applicant: Tara R. Greco, Trs.
File Number: SE7-2057
Representative: BSS Design, Inc.
1 Maple Ave., Cataumet

To raze and rebuild a 3 bedroom house within an AE Flood Zone and within 100 feet of a Wetland Resource Area.

(Continued from March 20, 2019, at the request of the representative)

Materials Reviewed – Site Photographs, Revised Site Plan of Record, Letter of opposition from Suzanne Meuse and DEP Wetlands Change Mapping.

Tom Bunker addressed the members. He discussed the location of the property and described the proposed project.

Board Comment – Chm. Gray asked if the representative found a culvert under the grasslands connecting it to the main saltmarsh during his investigation of the off-site northeast saltmarsh. Mr. Bunker replied that he didn't look that closely at it. Mr. Haines responded that he's looked at the area several times and did not observe a culvert.

Agent Comment – Mr. Haines stated it's difficult to tell what the existing structure was used for or whether it had a cesspool or septic system. Mr. Haines mentioned that based on the transects, there is a fragment of Coastal Bank on the property. He doesn't feel that it warrants protection under the Wetlands Protection Act because he doesn't think it has much value for storm damage prevention. Mr. Haines asked that a vegetative planting plan be submitted for the area shown on the plan to be converted from lawn to native vegetation. Additionally, Mr. Haines recommended conditioning the Order requiring that a twenty-five foot buffer be retained in perpetuity.

Board Comment – Ms. Leduc made note that the new structure will not be constructed within the same footprint as the existing structure.

Public Comment – Abutter, William Ribich, expressed concern that the new structure will be close to the property line and the wetlands. He expressed opposition with the

current design because the property has been abandoned for at least twenty-five years and he thinks that adding a three-bedroom structure will add more contaminates to the harbor. Mr. Bunker responded that they are planning to install an advanced treatment septic system. Mr. Haines explained under the Wetlands Protection Act, if the septic system meets Title V and the Board of Health's performance standards, then it automatically is presumed to meet the Wetlands Protection Act.

Bob Bishop commented that he doesn't think a water hookup was ever run to the property. He questioned whether that would affect the viability of a new structure. Chm. Gray explained that is not a Conservation issue. Mr. Bishop then expressed concern that the proposed septic system will not meet setback requirements. Mr. Haines explained that falls under the purview of the Board of Health and encouraged him to present those questions at the next Board of Health meeting.

Stephen Chmiel opened a brief discussion regarding the proposed planting area and the height of the proposed structure.

Diane Reed questioned what entity oversees the preservation of a neighborhood. Mr. Haines explained that may fall under the purview of the Zoning Board of Appeals, the Planning Board and in some cases, the Historic Commission.

Mr. Haines briefly summarized a letter of opposition submitted by Suzanne Meuse.

With no further discussion, Chm. Gray entertained a motion to close the public hearing. **Ms. Leduc moved, Ms. Weston seconded to close the public hearing**. The motion carried. 4-0-0.

Mr. Haines - Draft Order of Conditions: All General Conditions, Special Conditions pursuant to M.G.L. Chapter 131, Section 40 numbers; 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 14, 15, 16, 18, 19, 21, 25, 27, 28, 29, Special Conditions pursuant to the Bourne Wetlands Protection Bylaw number 2 and the following Additional Special Condition; ASC (1) the naturalized vegetated mitigation area as shown on the plan of record must consist of native plantings and shall remain in place in perpetuity. All plants must be allowed to grow to maturity before pruning and be maintained at a minimum height of at least three feet in height. All plantings will be monitored for a minimum of two growing seasons and any plants that do not survive must be replaced.

Chm. Gray entertained a motion to move the Draft Order of Conditions to the Final Order of Conditions. **Mr. Ligor moved, Ms. Weston seconded to move the Draft Order of Conditions to the Final Order of Conditions**. With no discussion, the motion carried. 4-0-0.

Chm. Gray explained the appeal process to the audience.

Chm. Gray recused himself from discussion and vote. Ms. Leduc chaired the next two hearings.

2) Applicant: Mary Jo Diogo
File Number: SE7- 2060
Representative: JC Engineering, Inc
38 Massasoit Ave., Pocasset

To install a tight tank and minor grading to replace an existing cesspool within an AE Flood Zone, V Flood Zone and within 100 feet of a Wetland Resource Area.

Materials Reviewed – Site Photographs, Site Plan of Record and DEP Wetlands Change Mapping.

(Continued from March 20, 2019, at the request of the representative)

Brad Bertolo addressed the members He explained that the matter was continued because a file number had not been issued and then he briefly summarized the proposed project. He also discussed violations that occurred on the property and measures the applicant is taking to resolve them.

Board Comment – Ms. Leduc clarified that other than the violations, the matter was continued for a file number. Mr. Haines agreed. He also commented that the mowing violation dates back to the 90s.

Agent Comment – Mr. Haines stated all debris has been removed except for the concrete. He suggested conditioning the Order that requires all debris be removed prior to excavation. Mr. Bertolo agreed.

Mr. Ligor asked about the water table height. Mr. Bertolo stated ground water is approximately two feet below grade. A brief discussion transpired regarding the installation depth of the tank, the frequency that the tank will be pumped and the tank's capacity.

Ms. Leduc asked if the proposed fence is depicted on the plan. Mr. Haines stated the Order will be conditioned requiring the fence be installed at the delineation line.

Public Comment – None.

Ms. Leduc entertained a motion to close the public hearing. **Ms. Weston moved, Mr. Ligor seconded to close the public hearing.** The motion carried. 3-0-0.

Mr. Haines - Draft Order of Conditions: All General Conditions, Special Conditions pursuant to M.G.L. Chapter 131, Section 40 numbers; 1, 2, 3, 5, 7, 9, 10, 11, 12, 14, 15, 18, 19, 27, 28, Special Conditions pursuant to the Bourne Wetlands Protection Bylaw number 2, 4, 7 and the following Additional Special Conditions; ASC (1) as agreed to in the hearing, the saltmarsh must be delineated by split rail fence along the delineated boundary and no work shall occur within the marsh without a permit from the Commission, ASC (2) all existing debris and concrete must be removed from the marsh prior to the installation of the septic system. No equipment is allowed within the saltmarsh unless it is done under the supervision of the Bourne Conservation Agent.

Ms. Leduc entertained a motion to move the Draft Order of Conditions to the Final Order of Conditions. **Ms. Weston moved, Mr. Szwed seconded to move the Draft Order of Conditions to the Final Order of Conditions**. With no discussion, the motion carried. 3-0-0.

4) Applicant: Vincent Michienzi
File Number: SE7-2059
Representative: Bracken Engineering
32 & 32A Cohasset Ave and 0 Main Street, Buzzards Bay

To install an auxiliary parking lot, rain garden to include associated paving, landscaping and site work within an AE Flood Zone.

(Hearing under State Act only)

(Continued from March 20, 2019, at the request of the representative)

Materials Reviewed – Site Photographs, Revised Site Plan of Record and DEP Wetlands Change Mapping.

Brendan Mullaney addressed the members and discussed the proposed project.

Agent Comment – Mr. Haines stated the only issue he has is it is labor intensive to keep the proposed material of the parking lot clean. Based on guidance from UNH, he recommended the following conditions be placed on the Order; ASC (1) pavement vacuuming shall occur at a minimum of two to four times per year and shall occur more frequently if operation and maintenance personnel observe sediment or organic buildup on the pavement. Pavement vacuuming shall occur during fall clean up to remove dead leaves and during spring clean up to remove accumulated debris and sediment. Improper maintenance shall be a violation of this Order. Mr. Haines expressed concern that drainage from this lot is tied into the adjacent property's drainage system, which is tied into the town's drainage system. This is why a comprehensive maintenance plan is

essential. ASC (2) the operation and maintenance records shall be made available to members of the Conservation Commission or its agent upon request. Prior to the start of work, the applicant shall supply the Commission with contact information for obtaining those records.

Board Comment – Mr. Szwed discussed proposed grading at the site.

Ms. Leduc asked if rain gardens are being proposed. Mr. Mullaney stated no, that was part of the original plan which has been revised.

Public Comment – None.

Ms. Leduc entertained a motion to close the public hearing. **Ms. Weston moved, Mr. Ligor seconded to close the public hearing.** The motion carried. 3-0-0.

Mr. Haines - Draft Order of Conditions: All General Conditions, Special Conditions pursuant to M.G.L. Chapter 131, Section 40 numbers; 1, 2, 3, 7, 9, 10, 12, 14, 15, 18, 19, 27, 28, 29 and the two Additional Special Conditions previously stated by the agent.

Ms. Leduc entertained a motion to move the Draft Order of Conditions to the Final Order of Conditions. **Mr. Ligor moved, Ms. Weston seconded to move the Draft Order of Conditions to the Final Order of Conditions**. With no discussion, the motion carried. 3-0-0.

Request to Amend Order of Conditions:

4) Applicant: John and Elizabeth LoMedico
File Number: SE7-2037
Representative: Bracken Engineering
18 Winsor Road, Cataumet

To include reducing the size of the proposed dwelling, removing the raised parking area and replacing with a standard driveway configuration, shifting the location of the proposed garage, and revising the proposed septic system to include Innovative/ Alternative Technology within a V Flood Zone and within 100 feet of a Wetland Resource Area.

Materials Reviewed – Site Photographs, Revised Site Plan of Record and DEP Wetlands Change Mapping.

Brendan Mullaney addressed the members and discussed revisions made to the original plan that was approved in the Fall of 2018.

Agent Comment – Ms. Haines stated the revised plan is an improvement over what was previously approved. Ordinarily, this would be something he would have administratively approved; however, because of the scope of the changes, he felt it important to allow for public input.

Board Comment – Ms. Leduc opened a brief discussion regarding water flow under the proposed structure.

Public Comment – None.

Ms. Leduc entertained a motion to close the public hearing. **Mr. Szwed moved, Ms. Weston seconded to close the public hearing.** The motion carried. 3-0-0.

Mr. Haines explained all of the conditions are the same as the original Order, it just incorporates the new plan date.

Ms. Leduc entertained a motion. **Ms. Weston moved, Mr. Ligor seconded to grant the Request to Amend the Order of Conditions.** The motion carried. 3-0-0.

Chm. Gray returned to chair the hearing.

► 3 Beachwood Avenue, Monument Beach: bordering vegetated wetland restoration plan. –

Materials Reviewed – Restoration Planting Plan and Site Plan of Record.

Wayne Tavares spoke on behalf the property owner who had encroached on the wetland line and the twenty-five foot buffer zone. Mr. Tavares stated he worked with the agent and then presented the restoration plan to the members.

Board Comment – None.

Agent Comment – Mr. Haines reminded the members this was a wetland cutting violation. Since the property owner hadn't performed excavation in the area, the agent feels there is adequate seed source for the vegetation to regrow. Mr. Haines said after speaking with the applicant and the representative, they decided on a twenty-five foot buffer vs. a thirty-three foot buffer to provide recreational value at that section of the property. He explained that the outer boundary will be established with plantings and the remaining boundary will reestablish itself from the seed source.

Board Comment – None.

Public Comment – None.

After a brief discussion, it was decided that the agent will monitor the situation and report back to the Commission if necessary.

► 0 Crab Rock Way (Map 2/ parcel 2): discussion of Coastal Bank erosion with Jack Vaccaro of Epsilon Associates.

Materials Reviewed – Erosion Control Narrative, Memorandum from Town Counsel.

Jack Vaccaro and Seth Wilkinson addressed the members to discuss possible erosion control options to stabilize the bank at 0 Crab Rock Way. Mr. Vaccaro stated he is hoping for a preliminary determination from the Commission that authorizes a Notice of Intent to be filed. Mr. Haines explained procedurally, the Commission will not be voting on the matter that evening. He stated he is meeting with town counsel and the town administrator the following week to discuss how the Commission should proceed.

Mr. Wilkinson discussed his experience with similar projects. A lengthy discussion transpired regarding potential strategies to stabilize the bank.

Mr. Vaccaro thanked the members for allowing the discussion.

► Vote to excuse absent members, if necessary – **Ms. Leduc moved, Ms. Weston seconded to excuse the absent members.** The motion carried. 4-0-0.

► Acceptance of Previous Meeting Minutes – Chm. Gray entertained a motion to approve the minutes of the February 21, 2019 meeting. **Mr. Ligor moved, Ms. Weston seconded to approve the minutes of the February 21, 2019 meeting**. With no discussion, the motion carried. 4-0-0.

► Report of the Conservation Agent – Mr. Haines announced he would like to discuss saltmarsh mowing at the next meeting.

Mr. Haines mentioned a homeowner would like to discuss the town's dock and pier regulations at the next meeting.

► Public Comment Period on Non-Agenda Items – None.

►Questions and Answers re: M.G.L. Chapter 131 §40 and 310 CMR 10.00-10.99 – None.

► Questions and Answers re: Town of Bourne Wetland Protection Bylaw (Article 3.7) and BWR 1.00-1.16 – None.

II. Adjournment

Ms. Weston moved, Ms. Leduc seconded to adjourn. The motion carried. The meeting adjourned at 9:23 PM.

Minutes submitted by: Carol Mitchell

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Bourne File Number: CC19-12

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
and the Town of Bourne Wetlands Protection Bylaw

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.

From:

Town of Bourne
Conservation Commission

To: Applicant

US Department of Veterans Affairs – MA National Cemetery
Name

Connery Avenue
Mailing Address

Bourne | MA | 02532
City/Town | State | Zip Code

Property Owner (if different from applicant):

Name

Mailing Address

City/Town | State | Zip Code

1. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Title	Date
Figure 1 Wetland Review Area	NA
Figures 2, 3, & 4 (Wetlands 1, 7, & 13)	NA
Photographic log	01/24/2019

2. Date Request Filed:

March 13, 2019

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

Wetland jurisdiction determination (Bylaw only)

Project Location:

Veterans Cemetary, Connery Ave. — Street Address
Bourne — City/Town
48 — Assessors Map/Plat Number
82 — Parcel/Lot Number

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
and the Town of Bourne Wetlands Protection Bylaw

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination
Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) or Order of Resource Area Delineation (issued following submittal of Simplified Review ANRAD) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

☐ 1. The area described on the referenced plan(s) is an area subject to protection under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.

☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

_____

_____

_____

☐ 2b. The boundaries of resource areas listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

_____

_____

_____

☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to protection under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.

☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to protection under the Act. Therefore, said work requires the filing of a Notice of Intent or ANRAD Simplified Review (if work is limited to the Buffer Zone).

☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

_____
Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

_____ _____
Name Ordinance or Bylaw Citation

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
and the Town of Bourne Wetlands Protection Bylaw

B. Determination (cont.)

☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:

☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)c. for more information about the scope of alternatives requirements):

- ☐ Alternatives limited to the lot on which the project is located.
- ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
- ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
- ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

☒ 1. The area described in the Request is not an area subject to protection under the Act or the Buffer Zone.

☐ 2. The work described in the Request is within an area subject to protection under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.

☐ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to protection under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

☐ 4. The work described in the Request is not within an Area subject to protection under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to protection under the Act.

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
and the Town of Bourne Wetlands Protection Bylaw

B. Determination (cont.)

☐ 5. The area described in the Request is subject to protection under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statuatory/regulatory provisions)

☐ 6. The area and/or work described in the Request is not subject to review and approval by:

Name of Municipality

Pursuant to a municipal wetlands ordinance or bylaw.

Bourne Wetland Protection Bylaw — Name

Article 3.7 — Ordinance or Bylaw Citation

C. Authorization

This Determination is issued to the applicant and delivered as follows:

☐ by hand delivery on — Date

☒ by certified mail, return receipt requested on 04/11/2019 — Date

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. A copy must be sent to the appropriate DEP Regional Office (see http://www.mass.gov/eea/agencies/massdep/about/contacts/) and the property owner (if different from the applicant).

Signatures:

04/04/2019
Date

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
and the Town of Bourne Wetlands Protection Bylaw

D. Appeals

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see http://www.mass.gov/eea/agencies/massdep/about/contacts/) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

Request for Jurisdictional Determination
U.S. Army Corps of Engineers – New England District

United States Department of Veterans Affairs – Massachusetts National Cemetery

Connery Avenue, Bourne, Massachusetts

February 21, 2019

Prepared for:

United States Department of Veterans Affairs
Massachusetts National Cemetery
Connery Avenue
Bourne, MA 02532

Prepared by:

Gordon
4501 Daly Drive, Suite 200
Chantilly, VA 20151

Mabbett & Associates, Inc.
5 Bedford Circle
Bedford, MA 01730

Applicant Checklist & Request for Jurisdictional Determination Form

US Army Corps of Engineers®
New England District

JURISDICTIONAL DETERMINATION REQUESTS:
APPLICANT CHECKLIST

This checklist is to assist applicants in submitting complete and proper information. This is not a comprehensive list nor are all items mandatory for all projects. However, the list contains general information typically necessary for this office to confirm jurisdictional and/or wetland delineations as part of the permit process. Please consult with the Corps Regulatory Project Manager assigned to your project to determine the appropriate information for your project. There are few items that are required for any request and those are indicated with an asterisk (*).

1*. __X__ **A request letter or application form**. The request letter should include written permission from property owner to access the site.

2*. __X__ **Name, address, and phone number** of the current property owner(s). If applicable, provide the subdivision name, block number and lot number.

3*. __X__ **Site's coordinates** should be based on a standard coordinate system, i.e., Geographic (at least to the nearest tenth of a second), State Plane or UTM. Indicate on the plan legend the coordinate system (and zone for UTM), units (English or metric) and the corresponding geodetic datum, either NAD27 or NAD83.

4*. __X__ **Vicinity map** including the exact location of the property. It should include the nearest intersection of two state highways, identifiable reference points and concise directions to the site. We recommend the use of the appropriate USGS quadrangle and/or street atlas.

5*. __X__ **Plans to scale**. Plans should illustrate all potential "Waters of the U.S." Submit large-scale maps for use in the field as well as 8.5" x 11" copies for reporting. Include north arrow and property name.

6. __X__ **Property lines with measurements** illustrating all existing land features, including streams, ditches, trails, etc.

7. __X__ **Adjacent property owner(s)** including names, addresses, mailbox number and reference points (i.e., unnamed tributary to Cattail Creek).

8. __X__ **Area of review** if different than the property boundary. The Corps evaluator will only determine jurisdiction for the area(s) on the property the proponent requests. Omission of other areas on the property does not constitute a "no wetland" determination for those areas.

9. __X__ **Acreage of each wetland** the project will affect (if known) and also the type and source of fill materials when jurisdictional determination is part of permit processing. If known, indicate direct, indirect, temporary and permanent impacts. The limits of the proposed wetland impacts should be staked or flagged in the field.

10. X **Reference information** (information from National Wetland Inventory (NWI) maps, soil surveys, rainfall data, floodplains, USGS, etc.). NWI information is located at http://www.fws.gov/wetlands/. The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists, located at http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/?cid=nrcs142p2_053957. The Federal Emergency Management Agency (FEMA) Map Service Center is located at: https://msc.fema.gov/portal.

11. X **Federal Jurisdictional Boundaries.** Wetland boundaries shall satisfy the Federal criteria defined at 33 CFR 328-329. Boundaries shall be delineated in accordance with the current Corps Wetland Delineation Base Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region located at http://www.nae.usace.army.mil/Missions/Regulatory/JurisdictionalLimits/WetlandDelineationManual.aspx. The U.S. Army Corps of Engineers is leading a national effort to update the National Wetland Plant List (NWPL). Information is located at http://geo.usace.army.mil/wetland_plants/index.html.

12. X **Datasheets.** Record wetland delineation information for both the upland and wetland side of various points along the boundary. The Wetland Determination Data Form – Northcentral and Northeast Region can be found at: http://www.nae.usace.army.mil/Missions/Regulatory/JurisdictionalLimits/WetlandDelineationManual.aspx. Ensure the datasheets are complete and legible, and include the general climatological condition of the site at the time of and immediately preceding the evaluation. Specify the location of the data collected.

13. X **Map, sketch, or survey of the jurisdictional boundary line** (wetland/upland line) that was staked or flagged in the field. Show the sampling points and transect(s) locations.

14. X **Current land use** and plant communities located on and adjacent to the area under review (i.e., agricultural, industrial, residential, cropland, lawn, forested, etc.). If known, a brief history of the previous land use will be helpful.

15. X **Photographs** and aerial photographs are helpful. Please supply if available. If not, consult the Corps before allocating resources. It is helpful to show the property boundaries and a north arrow on the photographs.

16. **Optional items** that can be supplied that will assist in subsequent permit evaluations:

_____ Proposed & existing structures clearly defined as such.
_____ Dimensions of proposed structures such as a driveway, house, garage, and other structures which are proposed in wetlands.
_____ Sewage/septic system: location, dimensions and type.
_____ Drainage ditches and/or berms: location and dimensions.

NOTE: Depending on field conditions, a delineation confirmation may be preliminary until it can be confirmed during more appropriate conditions. Conditions which may prevent confirmation of a delineation include, but may not be limited to, fog, flooding, snow, and frozen soils.

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here New England District

- I am requesting a JD on property located at: Connery Avenue
  (Street Address)
  City/Township/Parish: Bourne County: Barnstable State: MA
  Acreage of Parcel/Review Area for JD: 2
  Section: _____ Township: _____ Range: _____
  Latitude (decimal degrees): 41.6758 Longitude (decimal degrees): -70.5822
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- X I currently own this property. ___ I plan to purchase this property.
  ___ I am an agent/consultant acting on behalf of the requestor.
  ___ Other (please explain): _____.
- Reason for request: (check as many as applicable)
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  X I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ___ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ___ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ___ A Corps JD is required in order to obtain my local/state authorization.
  ___ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ___ I believe that the site may be comprised entirely of dry land.
  X Other: Request the Corps determine jurisdictional status of three isolated wetlands
- Type of determination being requested:
  X I am requesting an approved JD.
  ___ I am requesting a preliminary JD.
  ___ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ___ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: _____
  Company name: _____
  Address: _____
  _____
  Daytime phone no.: _____
  Email address: _____

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Project Narrative

Table of Contents

Tables

1. Introduction

The United States Department of Veterans Affairs (VA) Massachusetts National Cemetery (MNC), is submitting this Request for Jurisdictional Determination (JD) with the U.S. Army Corps of Engineers (Corps), New England District, to determine the extent to which "waters of the U.S." subject to federal jurisdiction under Section 404 of the Clean Water Act (CWA) are located within specific areas of the VA MNC property in Bourne, Massachusetts. This JD has been prepared pursuant to Section 404 of the CWA and the Section 404(b)(1) Guidelines, the Corps and Environmental Protection Agency (EPA) Clean Water Rule: Definition of ''Waters of the United States''; Final Rule (33 CFR Part 328), as well as the supporting information contained within the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instruction Guidebook* (Corps 2007).

The VA MNC is currently in the planning and design stages of a proposed multi-phase expansion project to extend the longevity of the VA MNC by several decades through development of previously undeveloped areas of the property. To assist in the design of the expansion project and identify potential areas containing land subject to federal regulation under Section 404 of the CWA, VA's contracted professional wetland scientists conducted wetland identification and delineation surveys of the expansion areas to confirm the presence or absence of jurisdictional wetland resources. The following sections provide a summary of the existing site conditions, a description of the wetland areas encountered during site assessments, and an overview of the resource areas, with respect to CWA regulations.

2. Existing Conditions

The VA MNC is located on an approximately 750-acre site off Connery Avenue in Bourne, Massachusetts, and is identified as Lot 82 on the Town of Bourne Assessor's Map 48. The property is confined to the west by State Route 28, to the north by Connery Avenue, and to the south and east by state-owned property comprising of Joint Base Cape Cod. Approximately 250-acres of the VA MNC property are developed with existing paved roadways, maintained landscapes, gravesites, buildings, and ancillary facilities. The remaining 500-acres primarily consist of forested land, with limited areas containing gravel access roads, cleared and maintained utility right-of-ways, and active borrow pit and landscape material stockpile areas.

2.1 Physiographic and Geologic Overview

The VA MNC property is situated within the Seaboard Lowlands Region of the New England Physiographic Province. This region is characterized by locations containing limited topographic relief, with areas of small streams and rivers that flow towards the coast along the land–surface slope. Bedrock geology mapping indicates the property is located in areas containing Precambrian and Palaeozoic Igneous and Metamorphic rocks. The landscape of New England was heavily influenced by the late Wisconsinan glaciation episode from the Laurentide ice sheet, which shaped the landscape and deposited sand, gravel and other unconsolidated sediments across the area. The resulting surficial geology of the area is characterized by glacial ice-laid deposits of moraine and glacial meltwater outwash plain deposits of sand and gravel (Tessler 1999).

2.2 Watershed and Ecoregion Information

The VA MNC is located within the Cape Cod watershed, which has an associated 8-digit United States Geological Survey (USGS) hydrologic unit code of 01090002. This watershed is part of the Massachusetts-Rhode Island Coastal Subregion of the New England Coastal Basin (Sohl 2003). Associated local sub-watershed basin includes the Pocasset Harbor Watershed (Cape Cod Commission 2017). The VA MNC is mapped within the Atlantic Coastal Pine Barrens ecoregion, which locally includes all of Cape Cod, and the nearby islands off the coast of Massachusetts. This ecoregion is characterized as a temperate coniferous forest, which is distinguished by its nutrient-poor, often acidic soils, and the distribution of pine species (*Pinus* spp.), which were historically controlled by frequent natural fires. Average rainfall totals in the area are approximately 48-inches per year, and the soil is typically sandy, extremely porous, and drains very quickly. Soils and water in the ecoregion are generally very acidic, which limits naturally occurring flora, fauna, and limits suitable agricultural crops (Sohl 2003).

2.3 Soil Classifications

Soil series map units mapped by the Natural Resource Conservation Service (NRCS) within the limits of the VA MNC property include Freetown muck, ponded, Carver loamy coarse sand, Pits sand and gravel, Merrimac-Udipsamments-Urban land complex, multiple variations of the Plymouth-Barnstable complex, and Udipsamments, smoothed (NRCS 2019). Official soil series map unit descriptions associated with the identified expansion areas on the VA MNC property have been provided below.

2.3.1 PvC-Plymouth-Barnstable complex, rolling, very bouldery

These undulating and rolling, very deep, excessively drained and well drained soils are on the side slopes of moraines. Stones and boulders cover 1 to 3 percent of the surface. Slopes range from 3 to 15 percent. The soils make up about 1.1 percent (2,811 acres) of the survey area. They are mapped mainly in the Plymouth-Barnstable-Nantucket general soil map unit. Areas are irregular in shape and generally range from 20 to 600 acres in size. They are about 55 percent Plymouth soil, 20 percent Barnstable soil, and 25 percent other soils. The soils occur as areas so intricately mixed or so small that separating them in mapping is not practical (USDA 1993).

2.3.2 PxC-Plymouth-Barnstable complex, rolling, extremely bouldery

These undulating and rolling, very deep, excessively drained and well drained soils are on the side slopes of moraines. Stones and boulders cover 3 to 15 percent of the surface. Slopes range from 3 to 15 percent. The soils make up about 1.1 percent (2,761 acres) of the survey area. They are mapped mainly in the Plymouth-Barnstable-Nantucket general soil map unit. Areas are irregular in shape and generally range from 20 to 600 acres in size. They are about 55 percent Plymouth soil, 20 percent Barnstable soil, and 25 percent other soils. The soils occur as areas so intricately mixed or so small that separating them in mapping is not practical (USDA 1993).

2.3.3 PxD-Plymouth-Barnstable complex, hilly, extremely bouldery

These hilly and steep, very deep, excessively drained and well drained soils are on hills and ridges on moraines. Stones and boulders cover 3 to 15 percent of the surface. Slopes range from 15 to 35 percent. The soils make up about 3.4 percent (8,688 acres) of the survey area. They are mapped mainly in the Plymouth-Barnstable-Nantucket general soil map unit. Areas are irregular in shape and generally range from 20 to 700 acres in size. They are about 55 percent Plymouth soil, 20 percent Barnstable soil, and 25 percent other soils. The soils occur as areas so intricately mixed or so small that separating them in mapping is not practical (USDA 1993).

2.3.4 Ud-Udipsamments, smoothed

These nearly level soils are in areas that have been excavated or filled during construction. They make up about 1.8 percent (4,593 acres) of the survey area. They are mapped throughout the survey area. Areas are commonly rectangular and generally have straight boundaries. They range from 5 to 200 acres in size. Most are about 15 acres. Most areas are used for roads, highways, schools, housing developments, or athletic fields. Commonly, the more nearly level areas have structures and the more sloping areas are vegetated (USDA 1993).

2.4 Vegetation Communities

Undisturbed portions of the identified expansion areas generally contain rolling terrain with upland vegetation communities consisting of a dense overstory of pitch pine (*Pinus rigida*) and oaks (*Quercus* spp.), with an understory of blueberry (*Vaccinium* spp.), black huckleberry (*Gaylussacia baccata*), and sheep laurel (*Kalmia angustifolia*), and a groundcover of bracken fern (*Pteridium aquilinum*), wintergreen (*Gaultheria procumbens*), and Pennsylvania sedge (*Carex pensylvanica*). Wetland community types encountered within the identified expansion areas were limited to three (3) isolated wetland features that were found in low-lying areas of the property, along both natural and human altered landscapes. Vegetation typical of these wetland habitats includes emergent/herbaceous communities of soft rush (*Juncus effusus*), narrow-leaved cattail (*Typha latifolia*), common reed (*Phragmites australis*) and wool-grass (*Scirpus cyperinus*), with transitional shrub/sapling communities of highbush blueberry (*Vaccinium corymbosum*), gray willow (*Salix cinerea*), and red maple (*Acer rubrum*). Specific details pertaining to the classification of the wetland features identified and delineated during field surveys have been provided in the sections below.

3. Freshwater Wetland Delineation Methodology and Procedures

VA's contracted professional wetland scientists completed wetland identification and delineation surveys at the VA MNC property on September 10, 2018 and January 23, 2019. The wetland surveys were performed to determine if wetland resources were present within the identified expansion areas and if found, to establish and locate the limit of the wetland boundaries in accordance with applicable federal regulations. Wetlands for the purpose of this evaluation were defined as "those areas that are inundated or saturated by surface or at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (Environmental Laboratory 1987).

3.1 Pre-survey Desktop Investigations

Prior to the commencement of field surveys an in-office desktop review of pertinent information utilizing the online mapping resources available through the MassGIS Online Data Viewer (OLIVER 2019), as well as the NRCS Web Soil Survey (NRCS 2019) to evaluate the potential presence of wetlands, waterbodies, hydric soils and Federal Emergency Management Agency (FEMA) flood hazard areas. Results of the in-office review of publicly available information indicated the following:

- No portion of the identified expansion areas contain wetland resources as mapped by the MassDEP Wetland Inventory Program and United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI);
- No portion of the identified expansion areas contain any waterbodies or streams as mapped by the MassDEP, USGS National Hydrography Dataset (NHD), or USFWS NWI;
- No potential or certified vernal pools have been mapped by the Massachusetts Natural Heritage & Endangered Species Program (NHESP) within the identified expansion areas;
- No soil series map units with a hydric classification have been mapped within the identified expansion areas by the NRCS; and
- No portion of the identified expansion areas are within flood hazard areas as mapped by FEMA.

3.2 Field Surveys

The wetland identification and delineation surveys were performed pursuant to the methods described in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and applicable *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Ver. 2.0; U.S. Army Corps of Engineers 2011) and the *Field Indicators for Identifying Hydric Soils in New England, Version 4* (New England Hydric Soils Technical Committee 2018). To meet federal jurisdictional wetlands must meet the three-parameter approach (i.e., presence of hydric soil, hydrophytic vegetation, and wetland hydrology) per the Corps Manual and Regional Supplement.

3.2.1 Methodology

Field surveys were completed in the identified expansion areas to identify soil types, topographic and drainage features, and plant associations that would indicate the potential for jurisdictional wetlands to be present. Soil profiles were sampled using a soil auger to determine if any hydric soil indicators were present. The information collected for each soil profile included soil horizons, depth, texture, color, and the presence or absence of redoximorphic features (mottles and other features). Colors of the soil matrix and mottles were identified using Munsell Soil Color Charts.

The indicator status of dominant plant species in each stratum was evaluated in the field to determine whether a hydrophytic plant association was present. Dominant species in both upland and wetland communities were visually estimated and recorded with appropriate radius plots, and the wetland indicator status was noted using the applicable state reference materials. Wetlands were classified during field surveys according to the "Cowardin system", which is a process discussed in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979). Identified wetlands were classified as Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), or Palustrine Emergent (PEM), all of which are further described below.

Indicators of wetland hydrology were also observed and recorded. Site hydrology was evaluated during field surveys by initially observing whether the soil at the surface was inundated or saturated. If the ground surface was dry, the depth to water table or saturated soil was measured, and the presence or absence of other indicators of wetland hydrology (e.g., drift lines, water-stained leaves, etc.) was noted.

During the field investigations, the boundaries of each wetland were identified by surveyors flagging tape noted with a unique alphanumeric designation for each point tied to vegetation and spaced at appropriate intervals. Wetland boundaries were flagged with pink and black ribbon, and wetland boundary flags as well as wetland/upland data plots were located using a hand-held Trimble® Global Positioning System (GPS) unit. The delineated wetland boundaries were plotted on aerial imagery, and were subsequently reviewed and confirmed by field personnel.

3.2.2 Survey Results

A total of three (3) isolated wetlands were documented and delineated within the identified expansion areas as shown on figures presented in Appendix A. All wetlands delineated were determined to be closed wetland systems with no adjacent or neighboring connection to waters that are part of an expanding wetland complex or areas that contain associated tributaries. A description of each wetland delineated in the field, identifying the feature's location, classification type, source of hydrology, and associated characteristics has been provided below. Corps Wetland Determination Data Forms and site photographs for each feature have been included for review in Appendix B and C (respectively).

3.2.2.1 Wetland 1

Wetland 1 is an isolated PEM/PFO freshwater wetland that is located immediately south of the maintenance building complex within the northcentral portion of the property. This wetland totals 3,889 square-feet (0.089 acres) in size, and the boundary was demarcated in the field using pink and black surveyor's flagging, identified with flag numbers W-100 through W-113. This wetland's hydrology is associated with stormwater discharge from an existing up-gradient earthen swale and an outfall structure located at the southern section of the paved parking lot associated with the maintenance-building complex. Locations surrounding this feature are comprised of mowed lawn, forested uplands and impervious locations associated maintenance complex. Dominant vegetation includes red maple, bladder sedge (*Carex intumescens*), smartweed (*Polygonum pensylvanicum*), soft rush, beggarticks (*Bidens frondosa*), barnyard grass (*Echinochloa crus-galli*) and common reed. Hydric soils were encountered within this wetland along with water-stained leaves at the soil surface as an indicator of hydrology. The principal functions and values exhibited by this feature appear to be limited to the wetland's ability to perform groundwater recharge and retain sediments/toxins from up-gradient developed locations. The overall quality of this wetland was observed to be low due to the developed and maintained landscapes immediately surrounding the wetland, its isolated nature and limited size, the wetland's primary source of hydrology (i.e., stormwater), and the colonization of invasive species within the wetland.

3.2.2.2 Wetland 7

Wetland 7 is an isolated PSS/PEM freshwater wetland located in the northwestern portion of the property, southeast of the intersection of Connery Avenue and Cole Road. This wetland is situated at the low point of a kettle hole-type landform, and is 5,013 square-feet (0.115 acres) in total size. The limits of this feature were delineated in the field using pink and black surveyor's flagging, identified with flag numbers A1 through A14. Dominant wetland vegetation includes red maple, highbush blueberry, cinnamon fern (*Osmundastrum cinnamomeum*), sheep laurel, water willow (*Justicia americana*), and sensitive fern (*Onoclea sensibilis*). This feature's hydrology is associated with surface water runoff from the surrounding up-gradient locations, as well as stormwater discharge from Connery Avenue and Cole Road. Hydric soils were present within this wetland as well as approximately 3-inches of standing water within the center of the feature. The principal functions and values exhibited by this feature included groundwater recharge and sediment/toxin retention due to the collection of stormwater runoff from up-gradient locations, and production export which is associated with the dominance of flowering/fruiting shrub species within the wetland. The overall quality of this wetland was observed to be moderate as a result of the discharge of stormwater to the wetland from Connery Avenue and Cole Road, and the isolated nature and limited overall size of the feature.

3.2.2.3 Wetland 13

Wetland 13 is an isolated PEM freshwater wetland that is located in the southcentral portion of the property, along the southern perimeter of an existing soil borrow area, immediately adjacent to the landscape material stockpile area. This wetland appears to be man-made, as piles of recently deposited fill are located along the perimeter of the feature. This feature's hydrology is associated with surface water runoff from the surrounding soil borrow area, and dominant wetland vegetation includes gray willow, narrow-leafed cattail, wool-grass, goldenrods (*Solidago* spp.), sedges (*Carex* spp.), soft rush and manna grass (*Glyceria* sp.). Hydric soils were encountered during site investigations and areas of standing water, ranging from one to two feet in depth were observed within the center

of the wetland. This feature is 3,577 square-feet (0.082 acres) in size, and the boundary was demarcated in the field using pink and black surveyor's flagging, identified with flag numbers A1 through A29. The principal functions and values exhibited by this feature appear to be limited to the wetland's ability to perform groundwater recharge, as the wetland displayed evidence of containing significant volumes of water, which is assumed to be associated with surface water runoff from the neighboring sand and gravel operation. The overall quality of this wetland was observed to be low based on the level of disturbance within and within the vicinity of the wetland, the isolated nature and limited size of the feature, and surface water runoff from the borrow pit areas functioning as the feature's primary source of hydrology.

4. Regulated Areas and Activities Under Section 404 of the CWA

The CWA regulations and guidelines aid the EPA and Corps in determining which waters are subject to Section 404 jurisdiction, and ensure that JDs, administrative enforcement actions, and other relevant agency actions are consistently issued in accordance with federal law. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into "waters of the U.S.", including wetlands. Activities in waters of the U.S. regulated under this program include fill for development, water resource projects, infrastructure development, and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U.S., unless the activity is determined to be exempt from Section 404 regulations.

4.1 Waters of the U.S.

The Corps and the EPA published the 2015 Clean Water Rule: Definition of ''Waters of the United States''; Final Rule (33 CFR Part 328) defining the scope of waters protected under CWA. The Final Rule is intended to increase the CWA program predictability and consistency by clarifying the scope of ''waters of the United States'' protected under the CWA. The 2015 Final Rule (33 CFR 328.3(a)), define the term "waters of the U.S." as:

(1) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters, which are subject to the ebb and flow of the tide;
(2) All interstate waters, including interstate wetlands;
(3) The territorial seas;
(4) All impoundments of waters otherwise identified as waters of the United States;
(5) All tributaries of waters identified in paragraphs (a)(1) through (3) of this section;
(6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;
(7) All waters in paragraphs (a)(7)(i) through (v) of this section where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (a)(7)(i) through (v) of this section are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

    (i) Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.
    (ii) Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.
    (iii) Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.
    (iv) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.
    (v) Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(8) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (3) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

4.2 Regulatory Overview of Wetland Resources Associated with the VA MNC

As discussed above, a total of three (3) isolated wetlands were documented and delineated within the identified expansion areas as shown on mapping presented in Appendix A. All wetlands delineated were found to meet the necessary three parameters (hydrology, hydrophytic vegetation, and hydric soils) for consideration as federal freshwater wetlands, as described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Ver. 2.0; U.S. Army Corps of Engineers 2011). Furthermore, all delineated wetlands were determined to be closed wetland systems that are geographically isolated, located outside of the 100-year flood plain, and lack hydrologic connections or direct outlets to other jurisdictional features. This conclusion is supported by both field observations by wetland scientists, as well as review of MassGIS OLIVER data that did not depict any known streams, rivers, ponds, waterbodies, or other hydrologic connections in the vicinity of the field-delineated isolated wetlands.

The Corp's Final Rule indicates CWA jurisdiction will be applied "by rule" in all cases to traditional navigable waters, interstate waters, the territorial seas, and impoundments of jurisdictional waters, along with waters meeting the definition of tributaries and adjacent waters. For waters that are jurisdictional by rule, no additional analysis of the specific waters is required by agencies. None of wetlands delineated within the identified review area meet the definition of the jurisdictional resources described under 33 CFR 328.3(a)(1) through (6), and therefore would not be jurisdictional "by rule" under the current regulations.

The Final Rule further stipulates jurisdiction may be afforded to "other waters" detailed in 33 CFR 328.3(a)(7)(i) through (v) (i.e., prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools and Texas coastal prairie wetlands), if found after a case-specific analysis, the waters have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas, either alone or in combination with similarly situated waters in the region. None of wetlands delineated within the identified review area meet the definition of the resources described under 33 CFR 328.3(a) 328.3(a)(7)(i) through (v), and therefore would not require a case-specific analysis under the definition of "other waters" based on the current regulations.

Section 328.3(a)(8) of the Final Rule indicates CWA jurisdiction may be extended to waters located within the 100-year floodplain of specific regulated waters listed in 33 CFR 328.3(a)(1) through (3), and to waters located within 4,000 feet of the high tide line or ordinary high water mark of waters listed in 33 CFR 328.3(a)(1) through (5); where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of the regulations. Based on the definitions contained within Section 328.3(a)(8) of the Final Rule, the VA MNC is requesting a Corps JD be completed for the three (3) isolated wetlands delineated within the identified expansion areas to determine their regulatory status in regard to the criteria described above. To assist with the request for JD determination, a summary table identifying the characteristic of the three (3) wetlands delineated within the identified expansion areas with respect to the review parameters contained within the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instruction Guidebook* (Corps 2007) for the assessment of jurisdictional waters has been provided below.

Table 1. Wetlands Associated with the U.S. Department of VA MNC

Wetland ID	Latitude Longitude	Water Type	Cowardin Classification	Located in 100 Year Flood Zone	Total Area[a]	Nearest TNW[b]	Nearest RPW[c]	HUC 8-Digit Code	Watershed/Size Sub-watershed/ Size	Associated Flow Characteristics	Average Annual Rainfall/ Snowfall	Estimated Ability to Provide Pollution Transport to TNW[b]	Estimated Ability to Provide Aquatic Habitat That Supports Biota of TNW[b]	Estimated Ability to Trap/Filter Pollutants or Store Flood Waters	Estimated Ability to Maintain Water Quality
Wetland 1	41.673097 -70.576728	Isolated Wetland	PEM/PFO	No	3,889 SF/ 0.09 AC	8,333 FT Red Brook Pond/ Pocasset Harbor Estuary	4,600 FT UN Pond	01090002	Cape Cod/ 330 SQ MI Pocasset Harbor/ 7.37 SQ MI	N/A Isolated Water with no Outlet	48 IN/ 30 IN	N/A Isolated Water with no Outlet	Low	Low	Low
Wetland 7	41.681339 -70.587193	Isolated Wetland	PSS/PEM		5,013 SF/ 0.12 AC	5,200 FT Red Brook Pond/ Pocasset Harbor Estuary	630 FT UN Pond						Moderate	Low	Low
Wetland 13	41.666362 -70.584531	Isolated Wetland	PEM		3,577 SF/ 0.08 AC	7,270 FT Red Brook Pond/ Pocasset Harbor Estuary	4,144 FT Osborne Pond						Low	Low	Low

a: Total area is based on the calculated square foot (SF) / acre (AC) of the delineated wetland.
b: Traditional Navigable Waters (TNWs) are waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
c: Relatively Permanent Waters (RPWs) are waters that contain water at least seasonally.
FT = feet, SQ MI = square miles, IN = inches, N/A = not applicable, HUC = hydrologic unit code

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Appendix A Figures

USGS Locus Map