TABLE OF CONTENTS

1.0	PROJECT DESCRIPTION	1
2.0	METHODS	1
2.1.	PRELIMINARY LANDSCAPE ANALYSIS	1
2.2.	WETLAND AND WATERBODY RESOURCE DELINEATION	1
2.3.	VERNAL POOL SURVEYS	
2.4.	RARE, THREATENED, AND ENDANGERED PLANT SURVEYS	2
2.5.	Agency Contacts	3
3.0	SURVEY RESULTS	3
3.1.	GENERAL SITE DESCRIPTION	3
3.2.	WETLAND AND WATERBODY DELINEATION SURVEY RESULTS	3
3.3.	VERNAL POOL SURVEY RESULTS	
3.4.	RARE, THREATENED, AND ENDANGERED PLANT SURVEY RESULTS	5
4.0	STATE AND FEDERAL WETLAND REGULATIONS	5

APPENDICES

- Appendix A Site Location Map
- Appendix B Appendix C Resource Maps
- Wetland, Vernal Pool, and Stream Tables
- Appendix D LURC Land Use Guidance Maps
- Representative Site Photographs Vernal Pool Data Sheets
- Appendix E Appendix F

1.0 **PROJECT DESCRIPTION**

The Bull Hill Wind Project is a 19-turbine, 34.2-megawatt (MW) wind power project proposed by Blue Sky East, LLC (the applicant) for an 158-acre project area on Bull Hill and Heifer Hill ridges in T16 MD, Hancock County Maine (Figure 1). The collection system will be underground along the road corridor and will flow to a new substation and Operations and Maintenance (O&M) facility located centrally in the project area. This design eliminates the need for a new 115 kV transmission line. The entire Township of T16 MD is designated as expedited for permitting and is currently zoned as General Management Subdistrict (M-GN), which includes protection subdistricts for wetlands and streams. The project area is low elevation commercial forest, with a substantial road system that the project will utilize to the extent practicable. Ridge elevations are between 450 and 675 feet above sea level. Blue Sky East is seeking approval from the Land Use Regulation Commission (LURC) for development of the proposed wind project and associated structures.

Stantec Consulting (Stantec) completed wetland and waterbody delineations and vernal pool surveys of the Bull Hill project area in 2009 and 2010. This report is intended to provide information normally required for Maine LURC permitting and contains:

- A Site Location Map (Appendix A);
- Maps presenting the location of resources within the project area (Appendix B);
- A summary of wetlands present within the project area (Appendix C, Table C-1);
- A summary of vernal pools on the site (Appendix C, Table C-2);
- A summary of stream resource information (Appendix C, Table C-3);
- LURC Land Use Guidance Maps (Appendix D);
- Representative site photographs (Appendix E); and
- MDEP Vernal Pool data sheets (Appendix F).

2.0 METHODS

2.1. PRELIMINARY LANDSCAPE ANALYSIS

Prior to conducting field surveys, Stantec reviewed U.S. Geological Survey topographical maps, National Wetlands Inventory maps, and State of Maine Office of GIS digital data layers for Eastbrook and T16 MD, Maine, as well as the U.S. Department of Agriculture Soil Survey map for Hancock County, Maine. The information gathered from these sources was used to identify the approximate location of known wetland and waterbody resources within the project area to support field efforts.

2.2. WETLAND AND WATERBODY RESOURCE DELINEATION

Stantec delineated the majority of the project area in 2009. Portions of the project area were delineated during winter conditions and subsequently verified during seasonally appropriate field conditions in 2010 to confirm wetland boundaries. Wetland boundaries under federal, state, and local jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.* Streams and Wetland Protection Subdistricts were identified and based on criteria in the Land Use Regulations and Standards (Chapter 10). Identification of streams and *Wetlands of Special Significance* (P-WL1) were limited to observable conditions within the project area and available background information. Wetland boundaries were marked with pink, numbered flagging and surveyed using Trimble® Pro-XR Global Positioning System (GPS) receivers. GPS data were then used to produce the attached resource maps (Appendix B).

2.3. VERNAL POOL SURVEYS

Stantec completed vernal pool surveys within the proposed project area in May 2009 and May 2010. The purpose of the surveys was to identify and evaluate vernal pool habitat throughout the project area. In

May 2010, Stantec also revisited those potential vernal pools (PVPs) identified during wetland delineations, which were conducted outside the appropriate window for verifying vernal pools. Vernal pools are dynamic habitats that vary in water level, vegetative cover, and other physical characteristics during the course of a year, as well as from year to year. In addition, the breeding activity of amphibians, particularly the initiation of breeding, is dependent upon seasonal environmental parameters such as temperature and precipitation. Due to this variability, the presence and number of egg masses may differ between breeding seasons and during the course of a given breeding season. The presence, absence, and number of egg masses presented in this report reflect the results of this survey. Based on Stantec's observations of the on-site vernal pools, the survey events were conducted at the appropriate time to characterize vernal pools.

Each vernal pool was surveyed by slowly wading through the pool basin, searching for amphibian breeding activity, including the presence of egg masses and use by other vernal pool-dependent species. During the surveys, egg masses for each vernal pool-dependent amphibian species were counted and recorded. In addition, the presence of other life stages of these amphibians was noted, as was the presence of other vernal pool-dependent species or associated species. Data were also collected on the physical characteristics of the pool such as the presence/absence of a permanently flowing inlet or outlet and the presence/absence of fish. A second field visit occurred one to two weeks after the first visit to focus on species that use vernal pools later in the spring. This second visit was only performed on naturally occurring pools. Information on the biological and physical characteristics of each pool then was used to determine if the vernal pools met the criteria of a Significant Vernal Pool (SVP) as defined in Chapter 335 Section 9 of the Natural Resources Protection Act (NRPA). According to this section, a vernal pool is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanently flowing inlet or outlet and no viable populations of predatory fish. In addition, an SVP contains one or any combination of the following:

- 40 or more wood frog (*Rana sylvatica*) egg masses;
- 20 or more spotted salamander (Ambystoma maculatum) egg masses;
- 10 or more blue spotted salamander (Ambystoma laterale) egg masses;
- Presence of fairy shrimp (*Eubranchipus* spp.); or
- Documented use by a state-listed rare, threatened or endangered species that commonly require a vernal pool to complete a critical portion of their life-history such as Blanding's turtle (*Emydoidea blandingii*), spotted turtle (*Clemmys guttata*), or ringed bog haunter dragonfly (*Williamsonia lintneri*).

Vernal pools that occur within wetlands but are man-made are not regulated under the NRPA; however, man-made vernal pools can be regulated by the Corps, the U.S. Environmental Protection Agency (USEPA), and the U.S. Fish and Wildlife Service (USFWS) under the Clean Water Act depending on their function and value as a resource. Further, the Corps does not have jurisdiction over vernal pools if they are not located within a jurisdictional wetland.

The boundary of each vernal pool envelope was located using GPS Trimble® Pro-Series receivers. GPS data were then used to produce the attached resource maps (Appendix B). Each vernal pool was assigned a unique alpha-numeric code (e.g., 01DD, 10MA) that appears on the map and within this report.

2.4. RARE, THREATENED, AND ENDANGERED PLANT SURVEYS

Rare, threatened, and endangered (RTE) plants surveys were completed concurrently with the vernal pool and wetland surveys in 2009 and 2010. Stantec's botanists traversed the project area, including the access roads and electrical collection systems with associated buffer distances. Surveys occurred in May, which ensured proper identification of spring ephemeral flowering species.

2.5. AGENCY CONTACTS

The Maine Natural Areas Program (MNAP), the Maine Department of Inland Fisheries and Wildlife (MDIFW), and the USFWS were contacted for information regarding documented occurrences of RTE species and communities within or in the vicinity of the project area. Responses to those inquiries are found in Exhibit 13B and Exhibit 14 of this application.

3.0 SURVEY RESULTS

3.1. GENERAL SITE DESCRIPTION

The project area includes the low-lying ridges of Bull Hill and Heifer Hill in T16-MD. The majority of the landscape consists of slightly to moderately sloping topography, with elevations ranging from approximately 350 feet in the valleys to approximately 650 feet above sea level along the ridges. General land use within the project area includes active and timber management on most of the areas along the ridges. The upland forest community present along the ridgelines and side slopes of the project area is dominated by Beech-Birch-Maple Forest in various stages of succession due to timber management practices. This type of Northern Hardwood Forest is characterized by a combination of American beech (Fagus grandifolia),¹ yellow birch (Betula alleghaniensis), and sugar maple (Acer saccharum). Additional tree species include American linden (Tilia americana), white ash (Fraxinus americana), paper birch (Betula papyrifera), and eastern hophornbeam (Ostrya virginiana). A Spruce-Northern Hardwoods Forest also occurs in the Project area within the valleys but constitutes a minimal portion of the overall community types. Dominant tree species in this forest community include red spruce (Picea rubens), balsam fir (Abies balsamea), and eastern hemlock (Tsuga canadensis), with yellow birch and other hardwoods such as sugar maple, balsam poplar (Populus balsamifera), and guaking aspen (Populus tremuloides) also occurring. The shrub stratum in the project area includes the above-mentioned tree species, as well as striped maple (Acer pensylvanicum), mountain maple (Acer spicatum), hobblebush (Viburnum lantanoides), red raspberry (Rubus idaeus), and beaked hazelnut (Corylus cornuta). Many upland portions of the project area contain well-developed herbaceous layers and include large colonies of Carolina spring beauty (Claytonia caroliniana), Dutchman's breeches (Dicentra cucullaria), Canada mayflower (Maianthemum racemosum), and trout lily (Erythronium americanum). Bracken fern (Pteridium aquilinum), Christmas fern (Polystichum acrostichoides), evergreen wood fern (Dryopteris intermedia), and mountain wood fern (Dryopteris campyloptera) also occur throughout the project area. A list of plant species observed within the Project area is presented in Appendix C.

Soil Mapping in the project area was completed by Albert Frick Associates. A full soils report is found in Exhibit 16A of this application.

3.2. WETLAND AND WATERBODY DELINEATION SURVEY RESULTS

Following is a brief summary of the wetland and waterbody resources identified within the project area.

- The project contains a total of 111 wetland resources.
- There are 14 streams, 3 of which are perennial.
- Of the 111 wetland resources, 21 would be considered *Wetlands of Special Significance* (part of the resource protection subdistrict P-WL1) for containing Significant Wildlife Habitat or due to their proximity to a stream resource.

Appendix C, Table C-1 details the wetland resources identified in the project area, including the resource identifier, wetland classifications (i.e., types), associated streams and vernal pools, dominant vegetation, hydric soil indicators, and observed evidence of hydrology. Table C-3 details the stream resources identified in the Project area, including the associated wetland, names, and stream width.

¹ Nomenclature follows Haines, A. 2009. *Flora Novae Angliae* available at:

[[]www.arthurhaines.com/tracheophyte_keys/Flora_Novae_Angliae_11Dec09.pdf]. Appendix C contains synonymy.

Emergent wetlands account for at least one-quarter of the wetlands within the project area and are regulated in LURC's resource protection subdistrict P-WL2a. Emergent wetlands are those with more than 30 percent of their area dominated by herbaceous plants such as sedges, grasses, rushes, ferns and other forbs. The emergent wetlands often make up a component of a larger wetland complex containing other wetland types. The emergent wetlands within the project area are comprised of cinnamon fern (*Osmunda cinnamomea*), common soft rush (*Juncus effuses*), common woolsedge (*Scirpus cyperinus*), dark-green bulrush (*Scirpus atrovirens*), grass-leaved goldenrod (*Euthamia graminifolia*), northeastern mannagrass (*Glyceria melicaria*), fowl mannagrass (*Glyceria striata*), fringed sedge (*Carex crinita*), fox sedge (*Carex vulpinoidea*), rough sedge (*Carex scabrata*), necklace sedge (*Carex projecta*), fringed willow-herb (*Epilobium ciliatum*), golden-saxifrage (*Chrysosplenium americanum*), bedstraw (*Galium sp.*), and sensitive fern (*Onoclea sensibilis*). The soils are generally an organic or dark A-horizon over a depleted matrix with redoximorphic features in the form of iron and manganese concentrations or depletions. At least 23 resources Stantec delineated have been disturbed, with the emergent species the first to be re-established.

Just less than one quarter of the wetland resources in the project area can be at least partially classified as scrub-shrub wetlands and are regulated in LURC's resource protection subdistrict P-WL2a. The scrub-shrub wetlands often make up a major component of a larger wetland complex containing other wetland types. Scrub-shrub wetlands can occur as the transition between a re-establishing emergent wetland and existing forested wetland. Alternatively, they can be dominated by species that occur naturally as shrubs. The majority of the scrub-shrub wetlands within the project area are comprised of speckled alder (*Alnus rugosa ssp. incana*), white meadowsweet (*Spiraea alba ssp. latifolia*), rosy meadowsweet (*Spiraea tomentosa*), yellow birch, gray birch (*Betula populifolia*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), high bush cranberry (*Viburnum opulus*), northern white-cedar (*Thuja occidentalis*), balsam fir, red osier dogwood (*Cornus sericea*), long beaked willow (*Salix bebbiana*), high bush blueberry (*Vaccinium corymbosum*), and pussy willow (*Salix discolor*).

Forested wetlands account for more than half of the Project area wetland resources, generally as a dominant community type with the other wetland types occurring as parts of a larger wetland complex. These resources are regulated under LURC's resource protection subdistrict P-WL3 Forested wetlands are those with more than 30 percent of their area dominated by woody vegetation that is greater than 3 inches in diameter and 20 feet in height. The forested wetlands often make up a major component of a larger wetland complex containing other wetland types. Canopy cover may be dominated by either deciduous, evergreen, or a combination. The forested wetlands within the Project area typically consist of yellow birch, balsam fir, black ash, green ash, eastern hop-hornbeam, and red maple (*Acer rubrum*). The soils in these wetlands vary from having more than 16 inches of mucky organic material to having 3-12 inches of organic and/or a dark A horizon over a depleted matrix with redoximorphic features. Most of these areas occur primarily at positions topographically lower on the landscape and do not appear to have been disturbed for several decades.

For the purposes of this report, all streams identified in the project area meet the LURC definition of a river, stream, or brook, as provided in LURC Land Use Regulations and Standards (Chapter 10). Streams within the project area vary in size from large, United States Geological Survey-named, perennial streams to smaller intermittent streams. Named streams in the project area include an unnamed tributary of Colson Branch and an unnamed tributary to Austin's Dam Heath. Wetlands within 25 feet of streams are regulated under the resource protection subdistrict P-WL1c6.

Data for each resource mapped are presented in Appendix C, Tables 1 and 3 as described above. Resource identification numbers that appear in these tables correspond to the numbers that appear on the resource delineation maps presented in Appendix B.

3.3. VERNAL POOL SURVEY RESULTS

Stantec identified 53 vernal pools within the Project area. Eighteen of those pools were determined to be naturally occurring. Of the 18 natural vernal pools, 7 were determined to be SVPs under the NRPA definition. Five pools are not naturally occurring but they meet the significance criteria of the NRPA and

are more likely to be regulated by the Corps. A table detailing observed amphibian breeding activity in each vernal pool is presented in as Table C-2. The vernal pool locations are shown on the resource delineation maps provided in Appendix B.

3.4. RARE, THREATENED, AND ENDANGERED PLANT SURVEY RESULTS

During the 2009 and 2010 surveys, Stantec botanists discovered no RTE plant species and observed no habitat in the project area that has potential to contain such plants. The landscape has been relatively heavily managed for timber harvest, and the community type is very commonly found across the state. The area of concern raised in the MNAP response to a project inquiry, French's Dam Meadow, is not near the project area.

4.0 STATE AND FEDERAL WETLAND REGULATIONS

LURC and the Corps regulate the wetlands identified within the Project area. Under the provisions of Section 404 of the Clean Water Act, the Corps regulates activities within waters of the United States, which include navigable waters and all their tributaries, adjacent wetlands, and other waters or wetlands where degradation or destruction could affect interstate or foreign commerce. The Corps has issued a Programmatic General Permit (PGP) for the State of Maine that merges the federal and state permit review process for many projects. In Maine, wetlands and waterbodies, as well as other protected natural resources, in unorganized plantations and townships are regulated under LURC's Land Use Districts and Standards (Chapter 10). The following provides information regarding LURC's zoning subdistricts. The purpose of this system of subdistricts is to protect valuable resources such as waterbodies, wetlands, wildlife habitat and mountain areas above 2,700 feet, and to prevent conflicts between incompatible land uses.

Development and Management Subdistricts

LURC's jurisdiction includes 10 development subdistricts and 3 management subdistricts. The Bull Hill project area includes the General Management Subdistrict (M-GN). The M-GN subdistrict includes those areas that LURC determined were appropriate for forestry or agricultural management activities, but that did not need the level of protection afforded by the Highly Productive Management Subdistrict (M-HP) or the Natural Character Management Subdistrict (M-NC). The M-GN subdistrict also includes those areas that do not fit within any other subdistrict.

Protection Subdistricts

Within LURC jurisdiction, the level of regulatory review for wetland alterations depends upon the size of the proposed impact and the **Wetland Protection Subdistrict (P-WL)** involved. Generally, projects that alter less than 4,300 square feet of P-WL2 or P-WL3 wetlands are exempt from the Tier permitting process. For all other projects, three categories of review exist: Tier 1, 2 and 3.

- Tier 1 reviews are limited to projects that alter between 4,300 square feet and 14,999 square feet of P-WL2 or P-WL3 wetlands.
- Tier 2 reviews are limited to projects that alter between 15,000 square feet and 43,560 square feet (1 acre) P-WL2 or P-WL3 wetlands provided the wetlands do not contain critically imperiled (S1) or imperiled (S2) natural communities.
- Tier 3 reviews are for projects that alter any area of a P-WL1 wetland; between 15,000 square and 43,559 square feet of P-WL2 or P-WL3 wetlands that contain critically imperiled (S1) or imperiled (S2) natural communities; or 43,560 square feet (1 acre) or more of a P-WL2 or P-WL3 wetlands.

Alterations of P-WL1 wetlands may be eligible for Tier 1 or 2 review if LURC determines that the activity will have no undue adverse impact on the freshwater wetlands or other protected natural resources present. The applicant must specifically request that LURC review the project's eligibility in order to reduce the level of regulatory review.

Based upon the available LURC *Land Use Guidance Map for T16 MD BPP*, and fieldwork conducted by Stantec, the project area includes P-SL2, P-WL1, P-WL2a and P-WL3 wetlands. Stantec identified 20 *Wetlands of Special Significance* (P-WL1) within the project area. Of these *Wetlands of Special Significance*, 12 include the P-WL3, 3 include the P-WL2a, and 5 occur with no other wetland protection sub-district. In some combination or alone, an additional 101 resources are associated with the P-WL2a and P-WL3 protection subdistricts.

LURC jurisdiction also includes 13 other protection subdistricts. The other applicable subdistrict for this project is the Shoreland Protection Subdistrict.

The **Shoreland Protection Subdistricts (P-SL)** are intended to protect water quality, habitat for plants, fish and wildlife, and scenic and recreational opportunities. There are two defined shoreland protection subdistricts, P-SL1 and P-SL2; of which only P-SL2 occurs within this Project area.

- The P-SL1 is defined as those areas within 250 feet of the normal high water mark, measured as a horizontal distance landward of such high water mark, of (a) tidal waters, and (b) flowing waters downstream from the point where such waters drain 50 square miles or more.
- The P-SL2 is defined as those areas within 75 feet measured as a horizontal distance landward of the normal high water mark of stream channels upstream from the point where such channels drain 50 square miles, the upland edge of those coastal and inland wetlands as defined in LURC Chapter 10, and the normal high water mark of bodies of standing water less than 10 acres in size, excluding bodies of standing water that are less than 3 acres in size and that are not fed or drained by a flowing water.

Depending upon the type of activities, projects located within a P-SL subdistrict may require a permit from LURC. Those uses that require a permit are described in Section 10.23, L of LURC's *Land Use Districts and Standards*. Wind energy development within designated expedited wind energy development areas is an allowed use that requires a permit from LURC.

Within the project area, 8 wetlands and 2 larger watercourses identified within the Project area would have an associated 75-foot P-SL2. These larger watercourses include S16 (an unnamed tributary to Austin's Dam Heath) and S03 (Colson Branch).

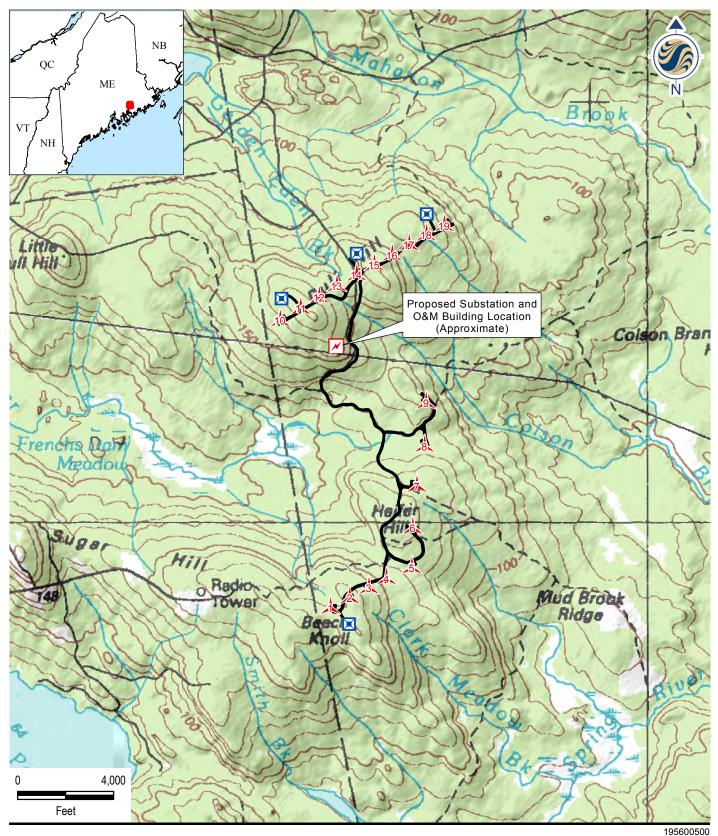
Regulatory Summary

The Project area includes one management subdistrict, M-GN, and two protection subdistricts, P-WL and P-SL. The M-GN subdistrict encompasses the entire Project area exclusive of those areas within one of the other protection subdistricts. Each of the identified stream and wetland resources occurs within the Wetland Protection Subdistrict, P-WL. In addition, the identified wetlands and waterbodies have an associated 75-foot Shoreland Protection Subdistrict, P-SL2. No resources within the Project area have an associated P-SL1.

Any proposed development is subject to the provisions and regulatory requirements of these respective subdistricts as outlined in the *Land Use Districts and Standards* (Chapter 10). If the proposed project is a "prohibited use" for the given subdistrict(s), an applicant can petition LURC for a change in subdistrict boundaries or zoning classification to allow for new uses. Such a zoning change can only be approved if it is (1) consistent with LURC's Comprehensive Land Use Plan, (2) satisfies a demonstrated need in the community or area, and (3) would have no undue adverse impacts on resources or uses [12 M.R.S.A. §685-A(8-A)].

Appendix A

Site Location Map





Stantec Consulting Services Inc. 30 Park Drive Topsham, ME USA 04086 Phone (207) 729-1199 Stantec Fax: (207) 729-2715 www.stantec.com

Legend

- 人 Turbine Layout
- Permament MET Towers

Client/Project Blue Sky East Bull Hill Wind Project T16 MD, Maine Figure No.

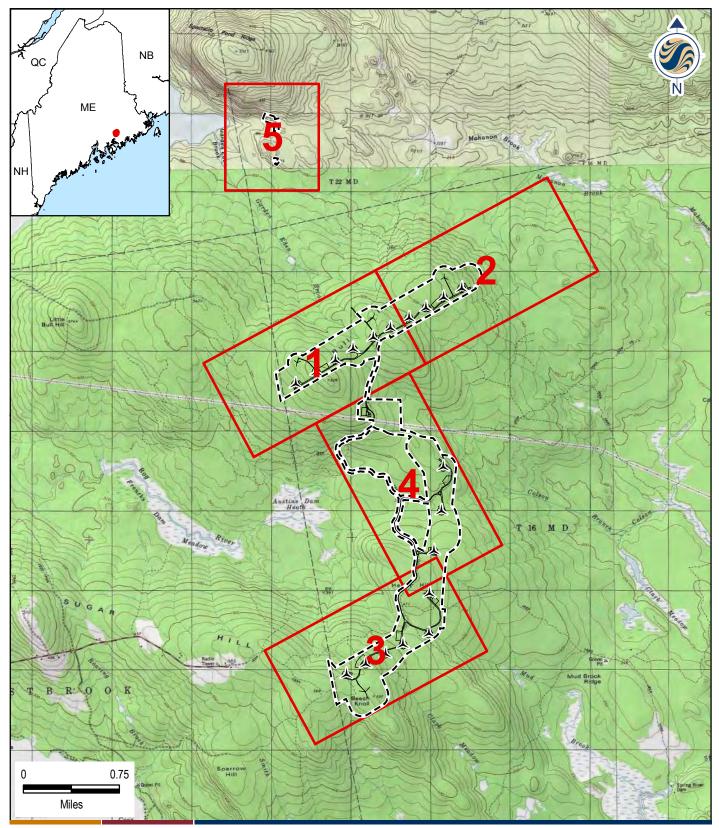
1

Title Project Site Map December 3, 2010

00500-00-USGS_turbines8.5x11.mxd

Appendix B

Resource Maps



Legend

Map Extent



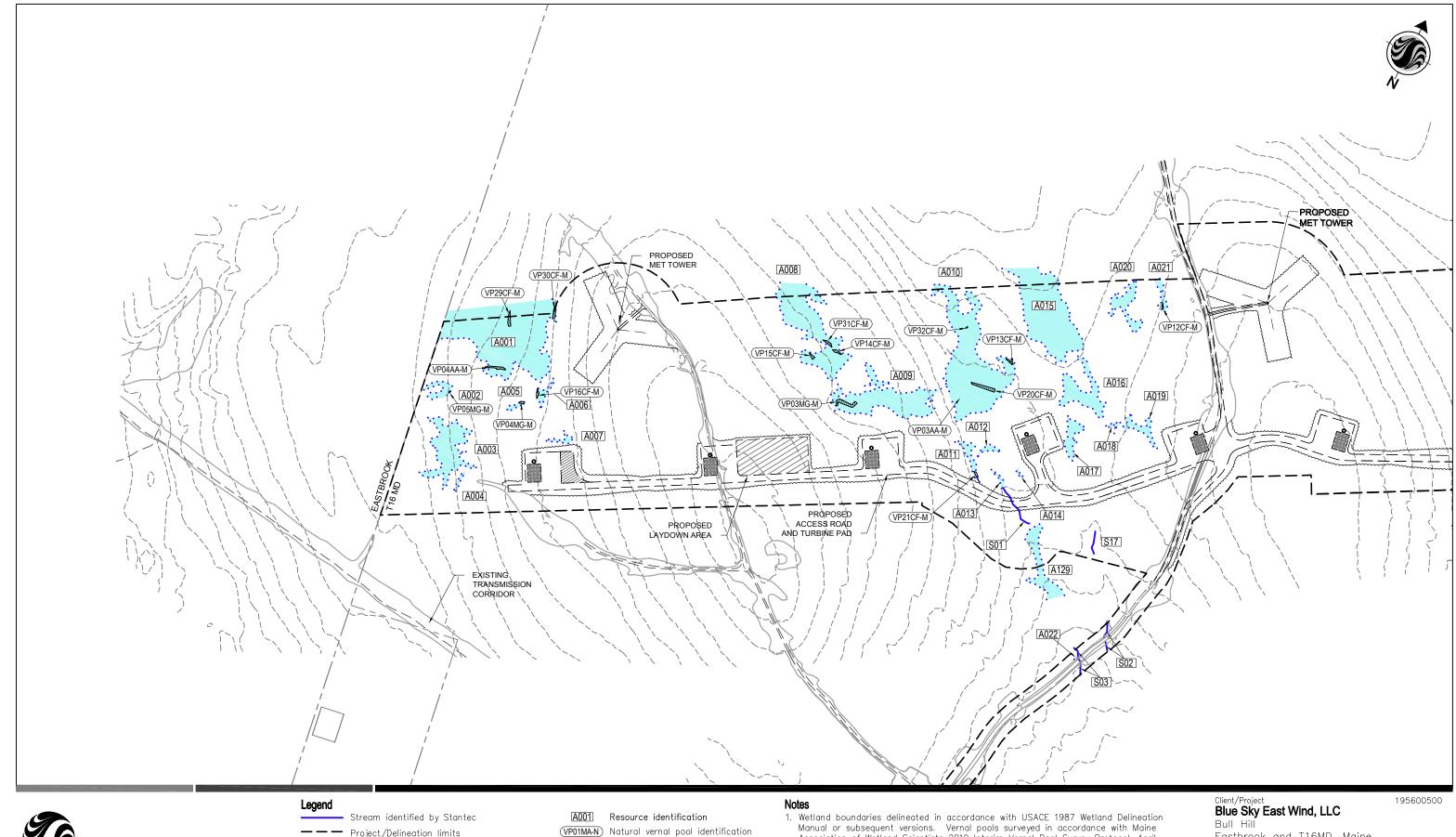
Stantec Consulting Services Inc. 30 Park Drive Topsham, ME USA 04086 Phone (207) 729-1199 Stantec Fax: (207) 729-2715 www.stantec.com

Client/Project Blue Sky East Wind, LLC Bull Hill Eastbrook and T16 MD, Maine Figure No. Key Title **Delineated Natural Resource Map**

00500-Key-NRMap

December 2010

195600500



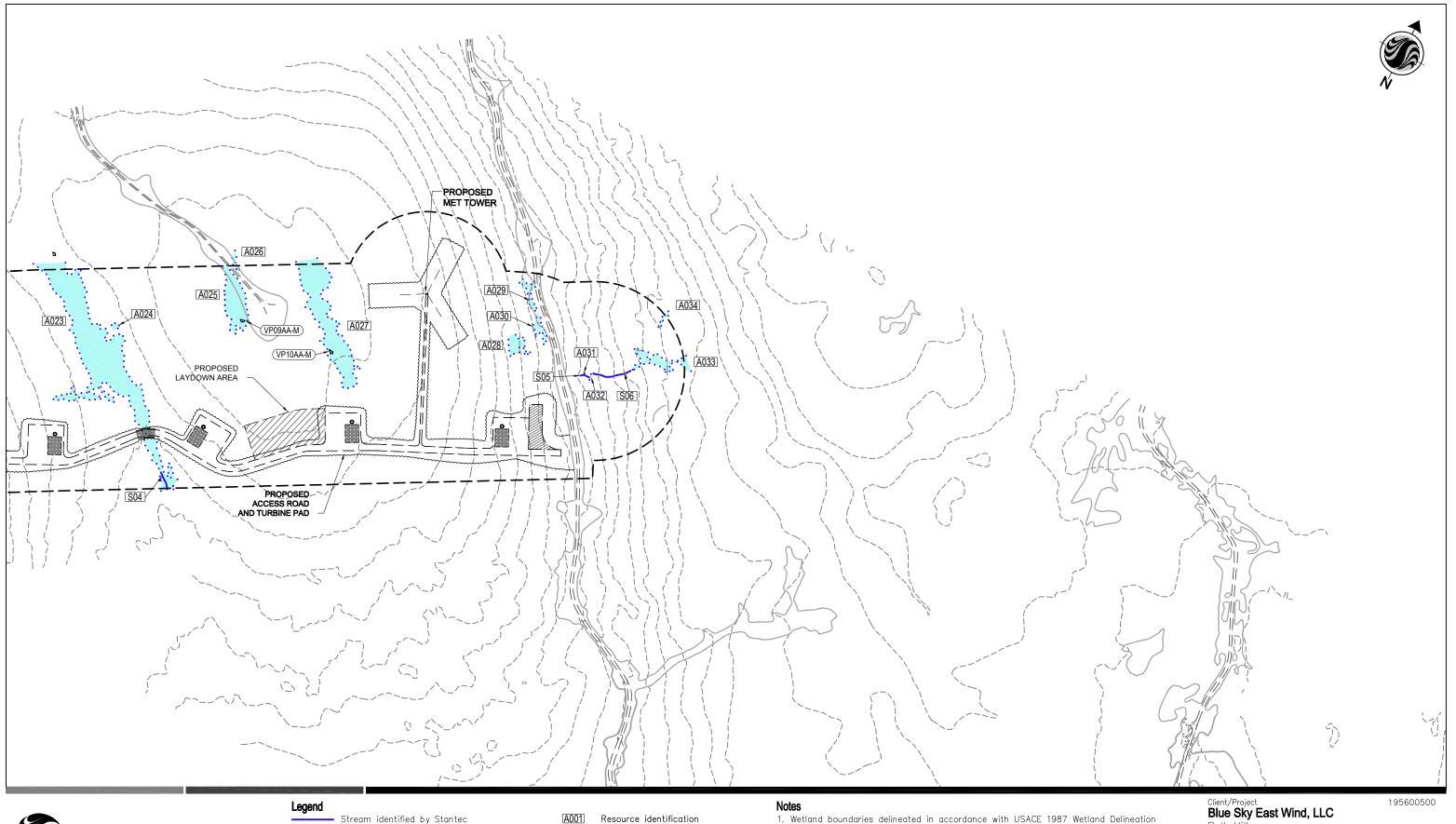


- — Project/Delineation limits Wetland identified by Stantec
- Vernal pool identified by Stantec
- Significant vernal pool identified by Stantec

- (VP02MA-M) Man-made vernal pool identification
- (SVP01DD-N) Significant vernal pool identification
- (PVP01BB-N) Potential vernal pool identification

- Association of Wetland Scientists 2010 Interim Vernal Pool Survey Protocol, April 2010.
- 2. Wetland and vernal pool boundaries were located utilizing a Trimble PRO Series Receiver. Expected accuracy of GPS data is within 1 to 2 meters of actual position.
- 3. Basemap features comprised of photogrammetry obtained from James W. Sewell Company.
- 4. Civil Design provided by James W. Sewell Company dated 11/15/2010.

Eastbrook and T16MD, Maine Figure No. 1 Title Delineated Natural Resource Map





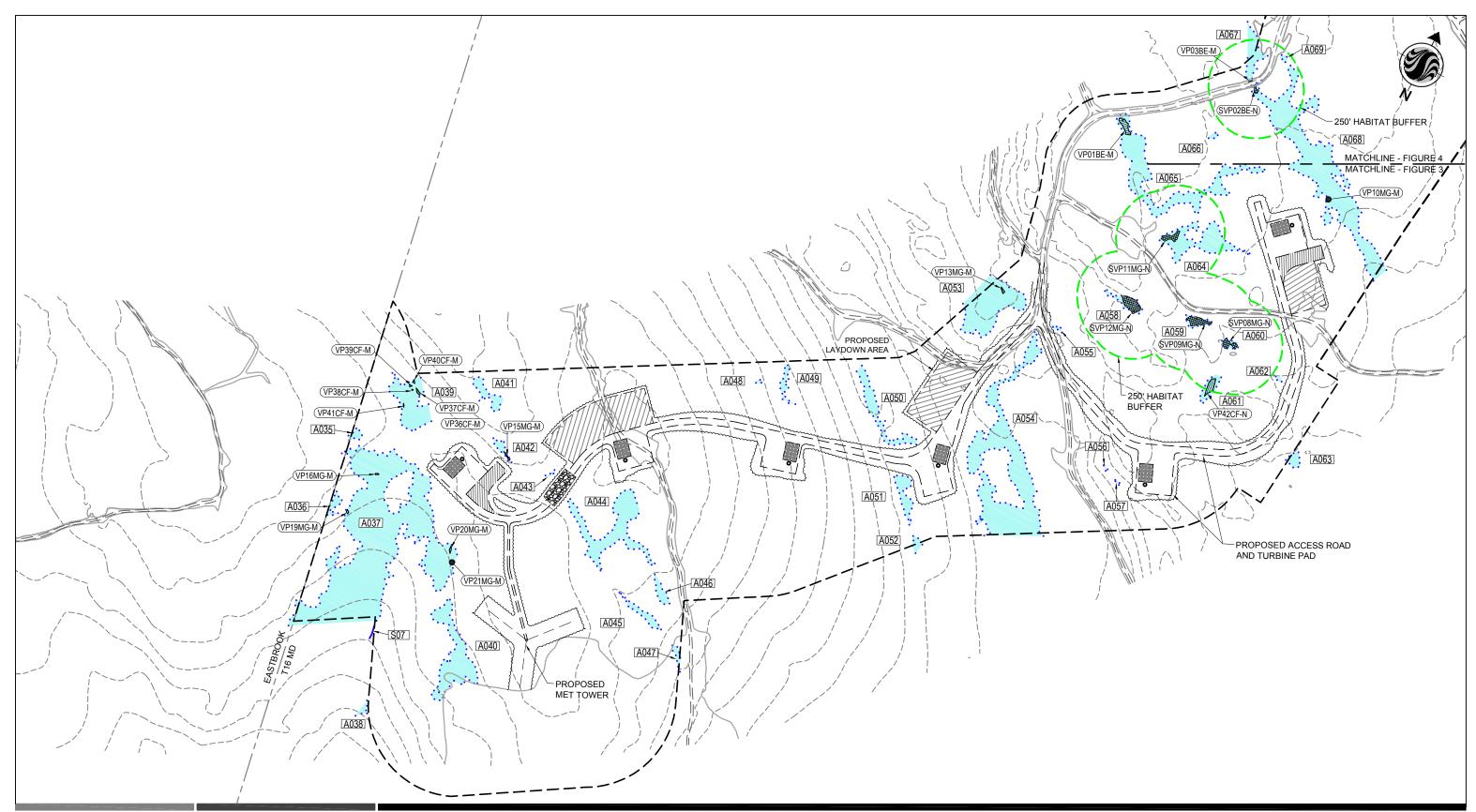
- Stream identified by Stantec
- — Project/Delineation limits Wetland identified by Stantec
- Vernal pool identified by Stantec
- Significant vernal pool identified by Stantec

(VP01MA-N) Natural vernal pool identification

- (VP02MA-M) Man-made vernal pool identification
- (SVP01DD-N) Significant vernal pool identification
- (PVP01BB-N) Potential vernal pool identification

- 1. Wetland boundaries delineated in accordance with USACE 1987 Wetland Delineation Manual or subsequent versions. Vernal pools surveyed in accordance with Maine Association of Wetland Scientists 2010 Interim Vernal Pool Survey Protocol, April 2010.
- 2. Wetland and vernal pool boundaries were located utilizing a Trimble PRO Series Receiver. Expected accuracy of GPS data is within 1 to 2 meters of actual position.
- 3. Basemap features comprised of photogrammetry obtained from James W. Sewell Compan'y.
- 4. Civil Design provided by James W. Sewell Company dated 11/15/2010.

Blue Sky East Wind, LLC Bull Hil Eastbrook and T16MD, Maine Figure No. **2** Title **Delineated Natural Resource Map**





Legend

- Stream identified by Stantec — — — Project/Delineation limits
 - Wetland identified by Stantec
- Vernal pool identified by Stantec
- \boxtimes Significant vernal pool identified by Stantec

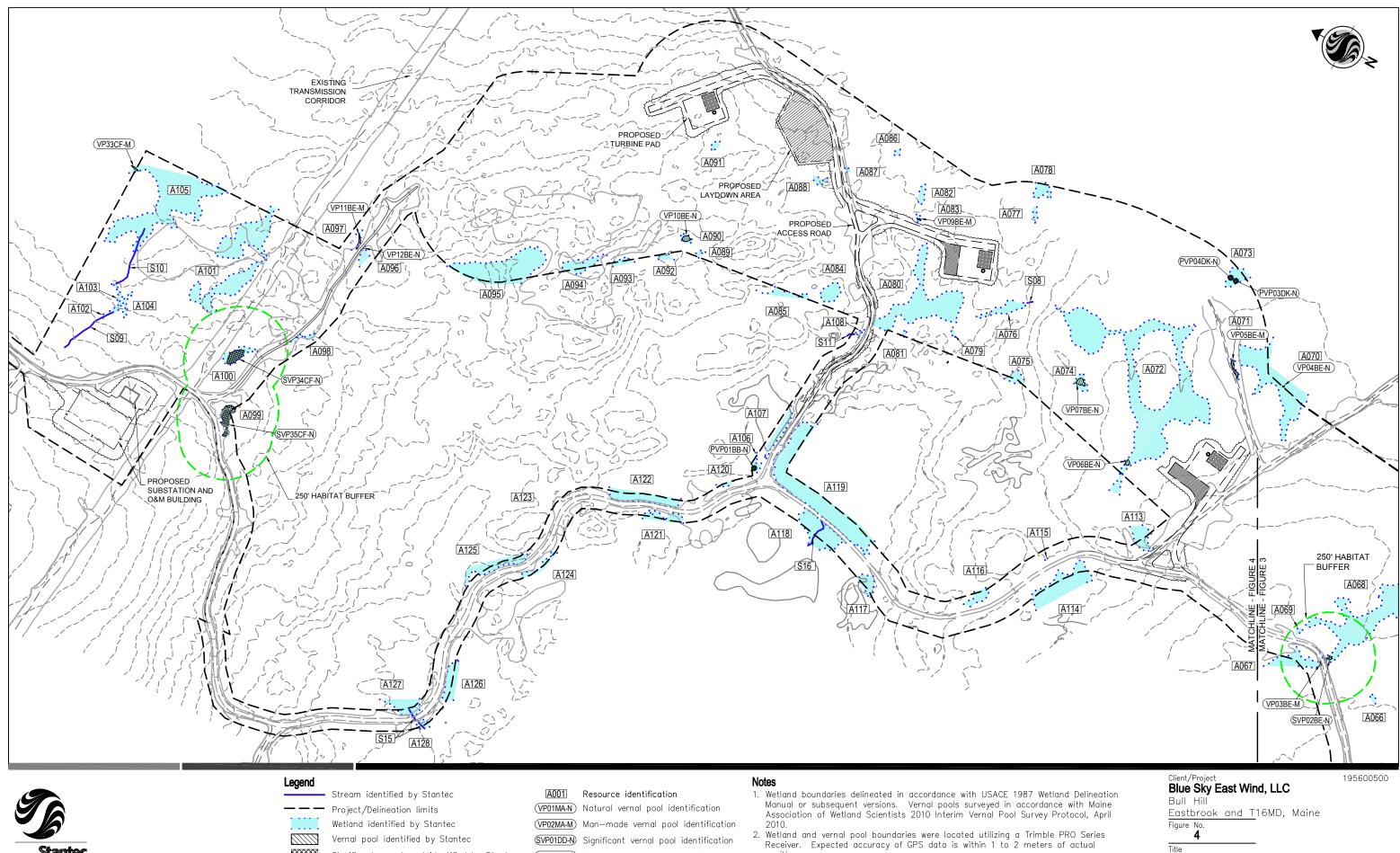
A001 Resource identification

- (VP01MA-N) Natural vernal pool identification
- (VP02MA-M) Man-made vernal pool identification
- (SVP01DD-N) Significant vernal pool identification
- (PVP01BB-N) Potential vernal pool identification

Notes

- 1. Wetland boundaries delineated in accordance with USACE 1987 Wetland Delineation Manual or subsequent versions. Vernal pools surveyed in accordance with Maine Association of Wetland Scientists 2010 Interim Vernal Pool Survey Protocol, April 2010.
- 2. Wetland and vernal pool boundaries were located utilizing a Trimble PRO Series Receiver. Expected accuracy of GPS data is within 1 to 2 meters of actual position.
- 3. Basemap features comprised of photogrammetry obtained from James W. Sewell Company.
- 4. Civil Design provided by James W. Sewell Company dated 11/15/2010.

Client/Projec Blue Sky East Wind, LLC Bull Hil Eastbrook and T16MD, Maine Figure No. **3** Title **Delineated Natural Resource Map** 195600500



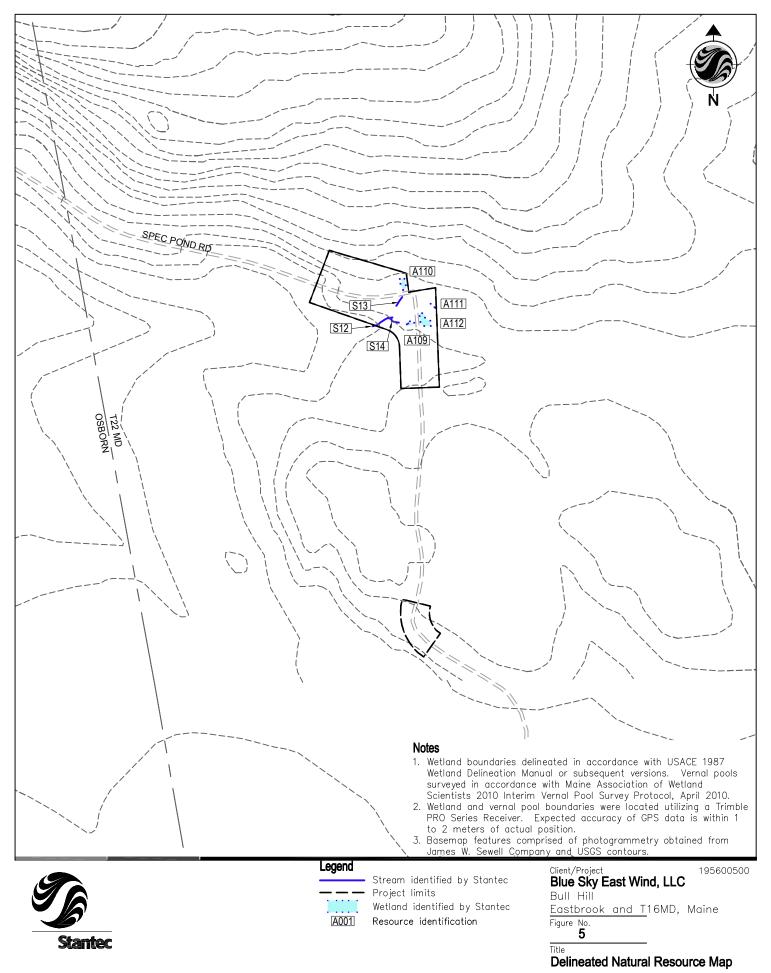


- \boxtimes Significant vernal pool identified by Stantec

- (PVP01BB-N) Potential vernal pool identification
- position.
- 3. Basemap features comprised of photogrammetry obtained from James W. Sewell Company.
- 4. Civil Design provided by James W. Sewell Company dated 11/15/2010.



Delineated Natural Resource Map



Appendix C

Resource Tables

Table C-1: Wetland Reso	ource Table
-------------------------	-------------

Мар	Resource		Wetland	d Type ^{1,}	2	2	Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
1	A001	D		D			29CF_M, 04AA_M, 30CF_M	P-WL3		northern white-cedar, yellow birch, red spruce, balsam fir, green ash, red raspberry, common woolsedge, sedges, dwarf raspberry, three-leaved goldthread, common wrinkle-leaved goldenrod, Canada dwarf-dogwood, cinnamon fern	3" organic material over a depleted matrix	Areas of standing water, soil saturated to the surface
1	A002			D			05MG_M	P- WL2a		common woolsedge, common soft rush, creeping bentgrass, fringed willow-herb, sensitive fern, balsam fir, red maple	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A003	D		D				P-WL3		yellow birch, balsam fir, American elm, quaking poplar, red maple, common woolsedge, sallow sedge, pointed broom sedge, fringed sedge, common soft rush, fringed willow-herb, dwarf raspberry, common grass- leaved-goldenrod, common wrinkle-leaved goldenrod	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A004			D				P- WL2a		pointed broom sedge, sallow sedge, fringed sedge, creeping bentgrass	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A005			D			04MG_M	P- WL2a		creeping bentgrass, slender wood-reed, pointed broom sedge, common soft rush, cinnamon fern, sensitive fern	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface

Мар	Resource		Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
1	A006			D			16CF_M	P- WL2a		sallow sedge, slender wood-reed, fowl manna grass, fringed sedge, common soft rush, creeping bentgrass, cinnamon fern, sensitive fern, balsam fir, red maple, white meadowsweet	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A007			D				P- WL2a		common woolsedge, sedges, common soft rush, dwarf raspberry	Thin layer of organic material over a depleted matrix	Areas of standing water, soil saturated to the surface
1	A008	D					14CF_M, 15CF_M, 31CF_M	P-WL3		red maple, yellow birch, gray birch, eastern hemlock, red spruce, common woolsedge, fringed sedge, pointed broom sedge, cinnamon fern, fringed willow-herb	3-6" mixed organic/A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A009	D					03MG_M	P-WL3		yellow birch, red maple, red spruce, eastern hemlock, three-seeded sedge, fringed sedge, greater bladder sedge, pointed broom sedge, creeping bentgrass, fringed willow-herb, cinnamon fern, sensitive fern, evergreen wood fern	4-10" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface, pit and mound micro- topography, wetland drainage patterns
1	A010	D					32CF_M, 20CF_M, 13CF_M, 03AA_M	P-WL3		northern white-cedar, yellow birch, red spruce, balsam fir, red maple, three-seeded sedge, greater bladder sedge, fringed willow-herb	4-6" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A011			D			21CF_M	P- WL2a		common woolsedge, common soft rush, cinnamon fern, sensitive fern, common grass- leaved-goldenrod, red raspberry	4" A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface

Мар	Resource		Wetland	d Type ^{1,;}	2		Vernal				Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
1	A012			D				P- WL2a		fringed sedge, cinnamon fern, sensitive fern, royal fern, common wrinkle- leaved goldenrod, Virginian strawberry, red raspberry, yellow birch, red spruce, balsam fir, red maple	4" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A013			D		S01		P- WL1c6, P- WL2a		yellow birch, green ash, red spruce, red maple, balsam fir, common winterberry, cinnamon fern, evergreen wood fern	4-6" A horizon over depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface, water-stained leaves
1	A014		D					P- WL2a		balsam fir, yellow birch, common winterberry	4-6" A horizon over depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A015	D						P-SL2, P-WL3		red spruce, balsam fir, yellow birch	4" organic material over a depleted matrix with redoximorphic concentrations	Soil saturated to the surface
1	A016		D					P-SL2, P- WL2a		northern white-cedar, red spruce, balsam fir, gray birch, red maple, common winterberry, cinnamon fern, Canada dwarf- dogwood, northern wood sorrel	4-6" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A017	D						P-WL3		red spruce, balsam fir, northern white-cedar, yellow birch, red maple, gray birch, eastern hemlock, cinnamon fern, royal fern, Canada dwarf- dogwood, three-leaved goldthread	4" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A018	D						P-WL3		northern white-cedar, balsam fir, red maple, royal fern, cinnamon fern, sharp- toothed nodding-aster	4" organic material over a depleted matrix	Soil saturated to the surface

Мар	Resource	ļ	Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
1	A019	D	D	D				P-WL3, P- WL2a		balsam fir, red maple, gray birch, yellow birch, red spruce, red raspberry, common woolsedge, common wrinkle-leaved goldenrod, Virginian strawberry	4" organic material over a depleted matrix	Areas of standing water, soil saturated to the surface
1	A020		D					P- WL2a		northern white-cedar, red spruce, balsam fir, eastern hemlock, red maple, gray birch, yellow birch, cinnamon fern, sedges	4" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A021			D			12CF_M	P- WL2a		common woolsedge, red raspberry, bristly blackberry, balsam fir, red spruce, red maple	4" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
1	A022	D				S15		P-SL2, P- WL1c6, P-WL3		no data	no data	no data
2	A023	D		D		S04		P- WL1c6, P- WL2a, P-WL3		northern white-cedar, red spruce, eastern hemlock, red maple, yellow birch, balsam fir, silky dogwood, three-seeded sedge, fringed sedge, common woolsedge, three-leaved goldthread, cinnamon fern, New York fern	4-10" organic material over a gleyed matrix	Areas of standing water, soil saturated to the surface, wetland drainage patterns
2	A024			D				P- WL2a		common woolsedge, red raspberry, balsam fir	4" organic material over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A025	D					09AA_M	P-WL3		red spruce, balsam fir, yellow birch, red maple, common woolsedge, fringed sedge, three- seeded sedge	2-4" organic material over a depleted matrix with organic streaking and redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A026			D				P- WL2a		common woolsedge, sensitive fern, red spruce, red maple, gray birch	2-4" dark A horizon over a depleted matrix with organic streaking and redoximorphic concentrations	Areas of standing water, soil saturated to the surface

Мар	Resource	1	Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
2	A027	D					10AA_M	P-WL3		red spruce, balsam fir, three-seeded sedge, common woolsedge, cinnamon fern	4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A028			D				P- WL2a		common woolsedge, common soft rush, fringed sedge, pointed broom sedge, tall white-aster, common wrinkle-leaved goldenrod, sensitive fern, red spruce, gray birch	3-6" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A029			D				P- WL2a		common woolsedge, fringed sedge, common soft rush, tall white-aster, common wrinkle-leaved goldenrod, sensitive fern, red spruce, gray birch	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A030			D				P- WL2a		common woolsedge, fringed sedge, common soft rush, common wrinkle- leaved goldenrod, sensitive fern, red spruce, gray birch	2-4" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A031			D		S05		P- WL1c6, P- WL2a	R4UB	golden-saxifrage, Canada reed grass, sensitive fern, yellow birch	4-6" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A032			D		S05, S06		P- WL1c6, P- WL2a	R4UB	golden-saxifrage, Canada reed grass, sensitive fern, yellow birch	4-6" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
2	A033	D				S06		P- WL1c6, P-WL3		yellow birch, green ash, red spruce, balsam fir, sensitive fern, cinnamon fern, fiddlehead fern	3-5" dark A horizon over a depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface, wetland drainage patterns
2	A034	D		D				P- WL2a, P-WL3		northern white-cedar, eastern hemlock, balsam fir, yellow birch, eastern rough sedge, three-seeded sedge, cinnamon fern	Areas with 12" of organic material; areas with 3-6" of organic material over a depleted matrix with redoximorphic features	Areas of standing water, soil saturated to the surface, wetland drainage patterns

Мар	Resource		Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
wap #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
3	A035	D						P-WL3	recently cut	balsam fir, red maple, tall white-aster, common soft rush, necklace sedge	Soil disturbed and mixed from recent harvest activity. 4" organic material over a mixed, depleted matrix with organic material throughout the coarse sandy loam	Areas of standing surface water, soil saturated to the surface
3	A036			D				P- WL2a	recently cut	red maple, common winterberry, common woolsedge, cinnamon fern, common wrinkle-leaf goldenrod	3-4" organic material, 1-2" A horizon over a depleted B horizon with 15% redoximorphic features at 6"	Soil saturated to the surface, 1-3" standing water in ruts
3	A037	D				S07	16MG_M, 19MG_M, 20MG_M, 21MG_M	P- WL1c6, P-WL3		northern white-cedar, balsam fir, red maple, red spruce, common winterberry, white meadowsweet, sensitive fern, common woolsedge, cinnamon fern	4-6" organic material over 3" A horizon over a depleted B horizon with 5% redoximorphic features at 10"	Soil saturated to the surface, wetland drainage patterns
3	A038	D						P-WL3		quaking poplar, yellow birch, red maple, balsam fir, green ash, cinnamon fern, evergreen wood fern	Very dark A horizon over a gravelly B horizon with many, common, prominent redoximorphic features at 7"	Soil saturated to the surface, wetland drainage patterns toward stream off project area
3	A039			D			41CF_M, 36CF_M, 37CF_M, 38CF_N, 39CF_M, 40CF_M, 33CF_M	P- WL2a		red maple, common woolsedge, eastern rough sedge, common wrinkle- leaved goldenrod	8" very dark A horizon over a gravelly depleted matrix with many, common, prominent redoximorphic features at 6"	Areas of 5-6" standing water
3	A040			D				P- WL2a	recently cut	balsam fir, red spruce, yellow birch, red maple, speckled alder, cinnamon fern, three-seeded sedge, northern white-cedar	8" organic material over a very dark A horizon over rock	Standing water in pockets, recently altered hydrology by harvest activity
	A041			D			P-SL2	P-SL2, P- WL2a	recently cut	red spruce, balsam fir, yellow birch, speckled alder, cinnamon fern, three-seeded sedge, northern white-cedar, sheep American-laurel	8" organic material over a very dark A horizon over rock	Altered with standing water in ruts

Mar	Resource		Wetland	d Type ^{1,}	2		Manual				Undria Cail	Evidence of
Map #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Vernal Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Hydric Soil Indicators	Evidence of Hydrology
3	A042			D			15MG_M	P- WL2a	skidder rut	red maple, balsam fir, gray birch, cinnamon fern, common woolsedge, willow herb, fowl manna grass	4-5" organic material over 2-3" A horizon over a depleted B horizon with 15% redoximorphic features at 8"	Soil saturated to the surface, 1-2" standing water in ruts
3	A043			D				P- WL2a	skidder rut	gray birch, red maple, cinnamon fern, necklace sedge	6" organic material over 2-3" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 10" and 25-35% coarse fragments	1-4" standing water in ruts, soil saturated to the surface
3	A044	D						P-WL3	winter conditions	northern white-cedar, red maple, red spruce, common winterberry, speckled alder, highbush blueberry, rhodora, cinnamon fern, common woolsedge	6" organic material over 2-3" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 10" and 25-35% coarse fragments	Soil saturated to the surface, wetland drainage patterns
3	A045	D						P-WL3		balsam fir, red spruce, red maple, common winterberry, cinnamon fern, three-seeded sedge	4-6" organic material over 3-4" dark A horizon over a depleted B horizon with 10% redoximorphic features at 10"	Soil saturated to the surface, wetland drainage patterns
3	A046	D						P-WL3		balsam fir, red spruce, gray birch, red maple, three-seeded sedge, cinnamon fern	6-8" organic material over a depleted B horizon with 5% redoximorphic features at 8-10" and 25% coarse fragments	Soil saturated to the surface, wetland drainage patterns
3	A047			D				P- WL2a		red spruce, Canada reed grass, common wrinkle- leaved goldenrod, tall white aster	8+" organic material over rock	3-4" standing water, soil saturated to the surface
3	A048			D				P- WL2a	recently cut	yellow birch, sheep American-laurel, common woolsedge	Organic material over rock	Soil saturated to the surface

	Resource	١	Netland	d Type ^{1,}	2		\/				Underla On il	Est damage of
Map #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Vernal Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Hydric Soil Indicators	Evidence of Hydrology
3	A049	D						P-WL3		northern white-cedar, red spruce, balsam fir, sheep American-laurel, three- seeded sedge, common woolsedge	10" organic material over depleted matrix with few, faint, fine redoximorphic features	Soil saturated to the surface
3	A050	D	D					P-WL3, P- WL2a	very disturbed soil, skid trail has filled part of wetland	northern white-cedar, balsam fir, red spruce, common woolsedge, three- seeded sedge, cinnamon fern	3" dark A horizon over loamy sand with stripped matrix, disturbed from harvesting activity, with redoximorphic concentrations at 8"	Areas of standing water, soil saturated
3	A051	D						P-WL3		balsam fir, red maple, red spruce, northern white- cedar, cinnamon fern, three-seeded sedge, common woolsedge	3-5" organic material over 2-3" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 8"	Soil saturated to the surface, 1-2" standing water in pits
3	A052		D					P- WL2a	areas disturbed	balsam fir, red maple, red spruce, northern white- cedar, cinnamon fern, three-seeded sedge, common woolsedge	3-5" organic material over 2-3" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 8"	Soil saturated to the surface, 1-2" standing water in pits
3	A053	D					13MG_M	P-SL2, P-WL3	cedar swamp, areas disturbed	northern white-cedar, balsam fir, red maple, yellow birch, common winterberry, cinnamon fern, sensitive fern, three- seeded sedge	Areas of histosol, areas of 4-6" organic material over 4-6" dark A horizon over a depleted B horizon	Soil saturated to the surface, wetland drainage patterns
3	A054	D						P-WL3	areas disturbed	balsam fir, red spruce, red maple, northern white- cedar, common winterberry, three-seeded sedge, cinnamon fern, three-leaved goldthread, fowl manna grass	6-12" organic material over rock and/or a depleted B horizon	Soil saturated to the surface, wetland drainage patterns
3	A055		D					P- WL2a		common winterberry, speckled alder, royal fern	6" very dark A horizon over a depleted B horizon with 3-5% redoximorphic concentrations in a fine sandy loam	Areas of standing water, soil saturated

Мар	Resource		Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
wap #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
3	A056	D						P-WL3		northern white-cedar, balsam fir, red spruce, eastern hemlock, starflower, cinnamon fern	4" organic material over a dark A horizon over a depleted B horizon with redoximorphic features	Soil saturated to the surface
3	A057	D						P-WL3		balsam fir, red spruce, red maple, starflower	4" organic material over a dark A horizon over a depleted B horizon with redoximorphic features	Soil saturated to the surface
3	A058		D		D		12MG_N	P- WL1c4, P- WL2a		red maple, balsam fir, common winterberry, cinnamon fern	Ponded for a long duration	24+" standing water in vernal pool basin
3	A059	D			D		09MG_N	P- WL1c4, P-WL3		red maple, yellow birch, eastern hemlock, balsam fir, common winterberry, sheep American-laurel, northern white-cedar, cinnamon fern	3" organic material over 4" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations	Ponded with 2' standing water
3	A060	D					08MG_N	P- WL1c4, P-WL3		northern white-cedar, eastern hemlock, red maple, common winterberry, cinnamon fern	3" organic material over 8" stripped matrix (E horizon) with organic streaking and redoximorphic concentrations over a dark horizon with redoximorphic concentrations	8-10" standing water
3	A061		D				42CF_N	P- WL2a		yellow birch, red maple, common winterberry, cinnamon fern	8" organic material over a depleted matrix with 10% redoximorphic concentrations (Histic epipedon)	6-10" standing water, soil saturated to the surface, water stained leaves
3	A062	D						P-WL3		northern white-cedar, red maple, balsam fir, sheep American-laurel	Hydric spodosol with many, common, prominent redoximorphic features at 6"	Soil saturated to the surface
3	A063		D					P- WL2a	potential vernal pool outside project area suspected significant	no data	no data	no data

Мар	Resource		Wetland	d Type ^{1,}	2	2	Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
3	A064	D	x				11MG_N	P- WL1c4, P-WL3		balsam fir, northern white- cedar, red spruce, red maple, common winterberry, highbush blueberry, speckled alder, gray birch, cinnamon fern, Canada dwarf-dogwood, common woolsedge	5" organic material 2" dark A horizon, 16" depleted B horizons, 2" hard pan, all with fine/faint redoximorphic concentrations	Soil saturated to the surface, 3-10" standing water
3	A065	D					01BE_N	P-WL3		balsam fir, northern white- cedar, red maple, red spruce, common winterberry, speckled alder, gray birch, cinnamon fern, common woolsedge, fowl manna grass, three- seeded sedge	2" very dark A horizon over 4" E horizon over Bhs horizon (10YR 3/3) with a cemented layer at 18"	Soil saturated to the surface, wetland drainage patterns, 3" standing water in pits
3	A066	D						P-WL3		balsam fir, gray birch, red maple, sheep American- laurel, cinnamon fern, Canada dwarf dogwood, three-seeded sedge	4" organic material over a depleted B horizon with 5% redoximorphic features at 7"	Soil saturated to the surface, water staining
3	A067	D					03BE_M	P-WL3		red maple, balsam fir, gray birch, speckled alder, common winterberry, white meadowsweet, sheep American-laurel, fowl manna grass, three- seeded sedge, common woolsedge	3-6" organic material over 4-6" dark A horizon over a depleted B horizon	Soil saturated to the surface, 3" standing water, water staining
3	A068	D					02BE_N, 10MG_M	P- WL1c4, P-WL3	(plots done)	northern white-cedar, balsam fir, red maple, red spruce, highbush blueberry, speckled alder, gray birch, three-seeded sedge, fowl manna grass, common woolsedge, common winterberry	3-10" organic material over a depleted B horizon with 10% redoximorphic concentrations; 4-6" organic material over a depleted B horizon with 10-20% redoximorphic concentrations; 6-10" organic material over rock	Wetland drainage patterns, soil saturated to the surface, water staining

Мар	Resource	1	Wetland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
3	A069	D						P-WL3		northern white-cedar, balsam fir, red spruce, speckled alder, red maple, cinnamon fern, northern white-cedar, Canada dwarf dogwood	5" organic material over 2-3" dark A horizon over a depleted B horizon	Soil saturated to the surface, water staining
4	A070	D					04BE_N	P-WL3	Larger cedar/spruce bog offsite. Plots done	northern white-cedar, balsam fir, red spruce, common winterberry, speckled alder, gray birch, highbush blueberry, cinnamon fern, fowl manna grass, common woolsedge	Areas of 8-15" organic over rock; or over a depleted B horizon	Soil saturated to the surface, water staining, wetland drainage patterns
4	A071			D			05BE_M	P- WL2a	Anthropogenic. Ditch	red maple, gray birch, common woolsedge, common soft rush, fowl manna grass, withe-rod	1" organic material over 5-6" A horizon over a depleted, sandy B horizon with 15-20% redoximorphic concentrations at 8"	Water staining, 2-6" standing water
4	A072	D	x				06BE_N	P-WL3		balsam fir, northern white- cedar, red spruce, red maple, common winterberry, speckled alder, highbush blueberry, gray birch, cinnamon fern, fowl manna grass	8-12" organic material over a depleted matrix with redoximorphic concentrations; some areas of 16+" organic material	2-10" standing water, wetland drainage patterns
4	A073	D					04DK_N, 03DK_N	P- WL1c4, P-WL3	recently cut. Potential vernal pools	no data	no data	no data
4	A074	D					07BE_N	P-WL3		red maple, balsam fir, common winterberry, highbush blueberry, rhodora, sheep American- laurel, cinnamon vern, three-seeded sedge, Canada dwarf dogwoon	6" organic material over 3" dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 10" and 25% coarse fragments	1-8" standing water, soil saturated to the surface
4	A075	D						P-WL3		northern white-cedar, red maple, balsam fir, red spruce, common winterberry, cinnamon fern, three-seeded sedge, three-leaved goldthread	36" organic material over rock (Histosol)	Soil saturated to the surface, standing water

Мар	Resource		Wetland	d Type ^{1,}	2	2	Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
4	A076	D				S08		P- WL1c6, P-WL3		balsam fir, red spruce, northern white-cedar, mountain holly, cinnamon fern, three-seeded sedge, dewdrop, three-leaved goldthread	2-3" dark to very dark A horizon over a depleted sandy soil with 25% redoximorphic concentrations	Wetland drainage patterns
4	A077	D						P-WL3		balsam fir, northern white- cedar, red maple, cinnamon fern	4-5" organic material over a thin dark A horizon over a depleted B horizon with 5% redoximorphic concentrations at 6"	Wetland drainage patterns, water staining
4	A078	D						P-SL2, P-WL3	recently cut	no data	no data	no data
4	A079		D					P- WL2a		balsam fir, highbush blueberry, sheep American-laurel, red spruce, cinnamon fern, three-seeded sedge, common woolsedge	8-12" organic material over rock	Soil saturated to the surface, 1-3" standing water in some areas
4	A080	D						P-WL3		northern white-cedar, balsam fir, red spruce, common winterberry, speckled alder, mountain holly, cinnamon fern, three-seeded sedge, dewdrop	12+" organic material	Soil saturated, standing water
4	A081	D						P-WL3		balsam fir, red maple, red spruce, highbush blueberry, speckled alder, common winterberry, cinnamon fern, three- seeded sedge	6-8" organic material over rock, areas of 6- 8" organic material over 5" dark A horizon over rock	Soil saturated to the surface, 1-2" standing water in pits, water staining
4	A082	D					09BE_M	P-WL3		northern white-cedar, balsam fir, red maple, speckled alder, highbush blueberry, cinnamon fern, sheep American-laurel, three-seeded sedge	6-8" organic material over a depleted B horizon with 5% redoximorphic concentrations at 8"	Soil saturated to the surface, 1-2" standing water in pits
4	A083	D						P-WL3		northern white-cedar, balsam fir, red maple, speckled alder, highbush blueberry, cinnamon fern, sheep American-laurel, three-seeded sedge	6-8" organic material over a depleted B horizon with 5% redoximorphic concentrations at 8"	Soil saturated to the surface, 1-2" standing water in pits

Мар	Resource		Wetland	d Type ^{1,}	2		Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
4	A084	D						P-WL3		red spruce*, common winterberry, mountain holly, speckled alder, withe-rod, cinnamon fern, three-seeded sedge	8-10" organic material over 6" very dark A horizon over very thin B horizon over bedrock	Soil saturated, standing water in pits, *trees on mounds
4	A085	D						P-WL3		northern white-cedar, balsam fir, red spruce, withe-rod, speckled alder, mountain holly, cinnamon fern, three-seeded sedge	Histosol	Soil saturated, water staining in pits
4	A086	D						P-WL3		balsam fir, cinnamon fern, three-seeded sedge, sharp-leaved nodding- aster	4-6" organic material over rock	Wetland drainage patterns, soil saturated to the surface
4	A087	D						P-WL3		balsam fir, red maple, gray birch, common winterberry, sheep American-laurel	6-8" organic matter mixed with a mucky A horizon over rock	Soil saturated, water stained leaves, standing water in pits
4	A088	D						P-WL3		balsam fir, red maple, gray birch, speckled alder, highbush blueberry, sheep American-laurel, cinnamon fern	6-10 inches of organic material over rock	Soil saturated to the surface
4	A089	D						P-WL3		balsam fir, common winterberry, highbush blueberry, speckled alder, sheep American-laurel, three-seeded sedge, cinnamon fern	8-10" of organic material over rock	Soil saturated to the surface, water staining
4	A090	D					10BE_N	P-WL3		red maple, balsam fir, gray birch, speckled alder, common winterberry, highbush blueberry, sheep American-laurel, cinnamon fern	Areas with 3-6" organic matter over depleted matrix with redoximorphic concentrations	Areas with 1-10" standing water
4	A091		D					P- WL2a		red maple, common winterberry, rhodora, highbush blueberry, sheep American-laurel, cinnamon fern	6-10" organic material over a depleted B horizon with 5% redoximorphic concentrations at 8- 10"	Water staining, soil saturated to the surface

Мар	Resource		Wetland	Wetland Type ^{1,2}			Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
4	A092	D						P-WL3		northern white-cedar, balsam fir, red spruce, red maple, common winterberry, three-seeded sedge, common soft rush, fowl manna grass, creeping spicy- wintergreen, cinnamon fern	Histosol	Areas with 1-2" standing water, soil saturated to the surface
4	A093	D						P-WL3		northern white-cedar, balsam fir, red spruce, red maple, common winterberry, three-seeded sedge, common soft rush, fowl manna grass, creeping spicy- wintergreen, cinnamon fern	Histosol	Areas with 1-2" standing water, soil saturated to the surface
4	A094	D						P-WL3		balsam fir, red spruce northern white-cedar, red maple, common winterberry, sheep American-laurel, three- seeded sedge, Canada dwarf-dogwood, cinnamon fern	Histosol	Areas with 2-6" standing water, soil saturated to the surface
4	A095	D						P-WL3	plots done	northern white-cedar, balsam fir, red spruce, common winterberry, three-seeded sedge, cinnamon fern	Histosol	Areas of standing water, soil saturated to the surface
4	A096	D					12BE_N	P-WL3		northern white-cedar, balsam fir, green ash, eastern hemlock, three- seeded sedge, peat moss	4-8" organic material over a depleted matrix (Mineral Histic)	Areas of standing water, soil saturated to the surface
4	A097	D	x	x			11BE_M	P-WL3		northern white-cedar, balsam fir, white meadowsweet, speckled alder, common winterberry, sensitive fern	Areas of histosol; areas with depleted matrix	Areas of standing water, soil saturated to the surface
4	A098			D				P- WL2a		common woolsedge, sedges, sensitive fern	4" thick dark A horizon over a depleted matrix	Soil saturated to the surface, wetland drainage patterns

	Resource	1	Netland	d Type ^{1,}	2							(
Map #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Vernal Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Hydric Soil Indicators	Evidence of Hydrology
4	A099		D		D		35CF_N	P- WL1c4, P- WL2a		common winterberry, rosy meadowsweet	Seasonally ponded	36" standing water
4	A100		D				34CF_N	P- WL1c4, P- WL2a		common winterberry, white meadowsweet, yellow birch, red spruce, red maple, green ash, balsam fir, gray birch, common woolsedge, three-seeded sedge	6" organic material over depleted matrix with redoximorphic concentrations	10-15" standing water
4	A101	D						P-WL3		northern white-cedar, red spruce, eastern hemlock, yellow birch, green ash, balsam fir, common winterberry, common woolsedge, three-seeded sedge, cinnamon fern, crested wood fern, peat moss	10-15" organic material over depleted matrix with redoximorphic concentrations (Histic Epipedon)	Areas of standing water, soil saturated to the surface
4	A102			D		S09		P- WL1c6, P- WL2a		fowl manna grass, common woolsedge, Canada reed grass, fringed willow-herb, bristly swamp currant, balsam fir, yellow birch	Areas with 6-8" dark A horizon over rock, area with depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface, wetland drainage patterns
4	A103			D		S09, S10		P- WL1c6, P- WL2a		fowl manna grass, common woolsedge, fringed willow-herb, bristly swamp currant, Canada reed grass, yellow birch	Areas with 6-8" dark A horizon over rock; area with depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
4	A104			D				P- WL2a		fowl manna grass, common woolsedge, Canada reed grass, fringed willow-herb, bristly swamp currant, yellow birch	Areas with 6-8" dark A horizon over rock; area with depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface
4	A105	D				S10	33CF_M	P- WL1c6, P-WL3		northern white-cedar, yellow birch, balsam fir, eastern hemlock, common woolsedge, three-seeded sedge, fowl manna grass, cinnamon fern	4-8" organic material over depleted matrix with redoximorphic concentrations	Areas of standing water, soil saturated to the surface, wetland drainage patterns

	Resource		Wetland	d Type ^{1,}	,2		Manua - 1					Estimate of
Map #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Vernal Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Hydric Soil Indicators	Evidence of Hydrology
4	A106	D					01BB_N	P-WL3	potential vernal pool suspected significant	balsam fir, red maple, speckled alder, common winterberry, mountain holly, three-seeded sedge	8-12" organic material over bedrock	Soil saturated to the surface, water stained leaves, free water at surface (not inundated)
4	A107		x	D				P-SL2, P- WL2a	measure to see if 20,000 ft^2	three-way sedge, common winterberry, Canada dwarf- dogwood, speckled alder, cottonsedge, meadowsweet, three- seeded sedge, tussock sedge, balsam fir, rhodora, northern white-cedar, American larch	Histosol	Areas inundated, soil saturated to the surface, standing dead trees in the wettest area
4	A108	D				S11		P- WL1c6, P-WL3		balsam fir, northern white-cedar, cinnamon fern, drooping sedge, red maple	8" organic material over rock	Wetland drainage patterns, soil saturated at 3", water stained leaves
5	A109	x	D					P- WL2a		red maple, yellow birch, speckled alder, balsam fir	Soil disturbed by wash in from road and culvert. Loamy coarse sand with sand particles more than 70% coated with organic material. Refusal at 10"	Water stained leaves, observable water line on hummocks, free water at 2", soil saturated to the surface
5	A110		D					P- WL2a		red maple, gray birch, northern white-cedar, balsam fir, long-beaked willow, cinnamon fern, sensitive fern, rattlesnake manna grass, three- seeded sedge	3" A horizon over 6" depleted loamy coarse gravel, over 4" depleted soil swith organic streaking over 4" very decomposed organic material. Refusal at hardpan.	Wetland drainage patterns, soil saturated at the surface, hydrogen sulfide odor
5	A111		D					P- WL2a	in old road	northern white-cedar, balsam fir, red maple, gray birch	3" very decomposed organic material over a depleted coarse sandy soil with few prominent redoximorphic concentrations.	Soil saturated at 2", water stained leaves
5	A112		D					P- WL2a		speckled alder, mountain holly, red maple, balsam fir, cinnamon fern, Canada dwarf-dogwood	4" organic material over 2" depleted fine gravel with organic coating 70% of the	Topographical depression, observable water line on hummocks,

Мар	Resource	1	Netland	d Type ^{1,}	2		Vernal				Hydric Soil	Evidence of
wap #	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
											particles, refusal at rock.	water stained leaves
4	A113	D						P-WL3		red spruce, balsam fir, speckled alder, common winterberry, three-seeded sedge, cinnamon fern	10+" mucky organic material over a depleted loamy sand	Standing water, soil saturated
4	A114	D						P-WL3		northern white-cedar, balsam fir, red spruce, withe-rod, mountain holly, cinnamon fern, common woolsedge	10-12" organic material over a mucky A horizon over a depleted sandy soil (Histic epipedon)	Soil saturated to the surface, areas of standing water
4	A115			D				P- WL2a		cinnamon fern, meadowsweet, red raspberry	4" organic material over a depleted matrix	Soil saturated to the surface
4	A116	D						P-WL3		red spruce, red maple, speckled alder, balsam fir, yellow birch, northern white-cedar, common woolsedge, cinnamon fern, manna grass	8-12" organic material over very rocky soil (Histic epipedon)	Areas of standing water
4	A117	D						P-WL3	Previously disturbed by harvest activity	northern white-cedar, balsam fir, speckled alder, red maple, withe-rod, cinnamon fern	Stripped matrix (E horizon) with depletions in a Bhs horizon at 10" (Hydric spodosol)	Standing water in pits, soil saturated
4	A118	D				S16		P-SL2, P- WL1c6, P-WL3		northern white-cedar, red spruce, balsam fir, mountain holly, red maple, white meadowsweet, common winterberry, fowl manna grass, cinnamon fern, common soft rush	Deep mucky A horizon	Soil saturated, areas of standing water
4	A119	D	D	D				P-SL2, P-WL3, P- WL2a		northern white-cedar, red maple, balsam fir, yellow birch, speckled alder, withe-rod, rattlesnake manna grass, common soft rush, cinnamon fern, sensitive fern	no data	24+" standing water in ditch basin, wetland drainage patterns
4	A120	D	Х					P-WL3		no data	no data	no data
4	A121		D					P- WL2a		no data	no data	no data
4	A122	х	D					P- WL2a		no data	no data	no data
4	A123		D					P-		no data	no data	no data

Мар	Resource	1	Wetland	d Type ^{1,}	2		Vernal	4.5			Hydric Soil	Evidence of
#	Identification Number	PFO	PSS	PEM	PUB	Stream ³	Pool	WPS ^{4, 5}	Notes	Dominant Vegetation	Indicators	Hydrology
								WL2a				
4	A124	D	Х					P-WL3		no data	no data	no data
4	A125	D						P-WL3		no data	no data	no data
4	A126	D						P-WL3		no data	no data	no data
4	A127	х	D			S15		P- WL2a		no data	no data	no data
4	A128	D				S15		P-WL3		no data	no data	no data

¹ Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31, USFWS, Office of Biological Services, Washington, D.C.

 2 D = Dominant; X = Present: As characterized here the community types represent only those communities present within delineation limits.

 3 P = Perennial; I = Intermittent

⁴ P-WL1: Wetland Protection Subdistrict

- a) Areas enclosed by the normal high water mark of flowing waters, stream channels, and bodies of standing water, except for constructed ponds less than 10 acres in size which are not fed or drained by flowing waters;
- b) Coastal wetlands, together with areas below the high water mark of tidal waters and extending seaward to the limits of the State's jurisdiction; or
- c) Freshwater wetlands, as follows:
 - i) Within 250' of a coastal wetland or of the normal high water mark of any body of standing water greater than 10 acres;
 - ii) Containing at least 20,000 square feet in total of the following: aquatic vegetation, emergent marsh vegetation, or open water, unless the wetlands are the result of constructed ponds less than 10 acres in size which are not fed or drained by flowing waters;
 - iii) That are inundated with floodwater during a 100 year flood event;
 - iv) Containing significant wildlife habitat;
 - v) Consisting of, or containing, peatlands, except that LURC may determine that a previously mined, peatland or portion thereof, is not a wetland of special significance; or
 - vi) Within 25' of a stream channel.

P-WL2: Wetland Protection Subdistrict

- a) Scrub shrub and other non-forested freshwater wetlands, excluding those covered under P-WL1;
- b) Constructed ponds less than 10 acres in size which are not fed or drained by flowing waters.

P-WL3: Wetland Protection Subdistrict – Forested freshwater wetlands, excluding those covered under P-WL1 and P-WL2.

⁵ Wetlands and some streams identified within the Project area have an associated Shoreland Protection Subdistrict, P- SL2. P-SL2 includes: areas within 75 feet, measured as a horizontal distance landward, of (a) the normal high water mark of stream channels upstream for the point where such channels drain 50 square miles; (b) the upland edge of those coastal and inland wetlands identified in Section 10.23, N, 2, a, (1)(b) and (c) and (2) and (3); and (c) the normal high water mark of bodies of standing water less than 10 acres in size, but excluding bodies of standing water which are less than three acres in size and which are not fed or drained by a flowing water.

⁶ P-FP = Flood Prone Area Protection Subdistrict: Those areas identified and mapped by the Federal Emergency Management Agency as areas of special flood hazard (Zones A, AE, A1-30, VE) are those that fall within the P-FP subdistrict.

Map Number	Stream Name	Stream Resource ID	Wetland Resource ID	Stream Name	Flow	Width
1	02BB	S01	A013	Colson Branch Stream	intermittent	12-24"
1	04BB	S02	-	-	intermittent	12-24"
1	03BB	S03	-	Colson Branch Stream	intermittent	12-24"
2	22CF	S04	A023	Unnamed Blue Line on USGS	intermittent	36"
2	21CF	S05	A031, A032	-	intermittent	12-24"
2	20cf	S06	A033, A032	-	intermittent	12-24"
3	10DD	S07	A037	-	perennial	10-15"
4	01MA	S08	A76	-	perennial	36-42"
4	23CF	S09	A102, A103	-	intermittent	12-24"
4	24CF	S10	A105	-	intermittent	24-36"
	23DD	S11	A107	-	intermittent	12"
	20DD	S12	-	-	intermittent	12-24"
	21DD	S13	-	-	intermittent	12-24"
	22DD	S14	-	-	intermittent	10-15"
4	04BB	S15	A022	-	perennial	24-36"
4	03MA	S16	A118	Unnamed Tributary to Austin's Dam Heath	perennial	48-60"

Table C-2: Stream Resource Table

		NRPA		Corps		Num	ber of E	Egg Mas	ses ¹		Pres	ence ²	
Vernal Pool Identifier	Associated Wetland ID	Vernal Pool	SVP	Regulated Vernal Pool	Wood	-	Spo Salam		Spo	ue- otted nander	Fairy Shrimp	Other Indicator	Comments
				FUUI	V1	V2	V1	V2	V1	V2		Species ³	
29CF_M	A001			х	3	-	11	-	0	-	-	-	anthropogenic pool: skidder rut
04AA_M	A001			x	6*	-	6	-	0	-	-	-	anthropogenic pool: skidder rut
30CF_M	A001			x	4	-	16	-	0	-	-	-	anthropogenic pool: skidder rut
05MG_M	A002			х	9*	-	4	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
04MG_M	A005			х	2	-	3	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
16CF_M	A006			х	4	-	6	-	0	-	-	-	anthropogenic pool: skidder rut
14CF_M	A008			x	7	-	0	-	0	-	-	-	anthropogenic pool: skidder rut
15CF_M	A008			Х	3	-	4	-	0	-	-	-	anthropogenic pool
31CF_M	A008			x	12	-	1	-	0	-	-	-	anthropogenic pool: skidder rut
03MG_M*	A009		X**	х	18*	-	28	-	0	-	-	-	anthropogenic pool: skidder rut. **meets MDEP's significance criteria. *tadpoles observed
32CF_M	A010			х	3	-	0	-	0	-	-	-	anthropogenic pool: skidder rut. 1 adult wood frog observed
20CF_M	A010			х	24*	-	0	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
13CF_M	A010			х	13	-	0	-	0	-	-	-	anthropogenic pool

Table C-3: Vernal Pool Resource Table

		NR	PA			Num	nber of E	Egg Mas	ses ¹		Pres	ence ²	
Vernal Pool Identifier	Associated Wetland ID	Vernal Pool	SVP	Corps Regulated Vernal Pool	Wood V1	Frog V2		otted nander V2	Spo	ue- otted nander V2	Fairy Shrimp	Other Indicator Species ³	Comments
03AA_M	A010			x	5	-	2	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed. Adult female wood frog observed
21CF_M	A011			x	4*	-	8	-	0	-	-	-	anthropogenic pool. *tadpoles observed
12CF_M	A021			х	4	-	5	-	0	-	-	-	anthropogenic pool: skidder rut
09AA_M	A025			x	2*	-	18	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
10AA_M	A027			х	0	-	8	-	0	-	-	-	anthropogenic pool: skidder rut
16MG_M	A037			х	4	-	0	-	0	-	-	-	anthropogenic pool: skidder rut
19MG_M	A037			х	0*	-	4	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
20MG_M*	A037		X**	х	0	-	28	-	0	-	-	-	anthropogenic pool: skidder rut. **meets MDEP's significance criteria
21MG_M	A037			х	9	-	0	-	0	-	-	-	anthropogenic pool: skidder rut
19/41CF_ M	A039			х	36	-	1	-	0	-	-	-	anthropogenic pool: skidder rut
14/36CF_ M	A039			х	21	-	14	-	0	-	-	-	anthropogenic pool: skidder rut
15/37CF_ M	A039			х	3	-	2	-	0	-	-	-	anthropogenic pool: skidder rut
16/38CF_ N	A039	х		х	7	0	4	4	0	0	-	-	natural pool: tree tip-up. Water level significantly less at second visit

		NR	PA	•		Num	ber of E	Egg Mas	ses ¹		Pres	ence ²	
Vernal Pool Identifier	Associated Wetland ID	Vernal Pool	SVP	Corps Regulated Vernal Pool	Wood	_	Salam	otted nander	Spo Salarr	ue- otted nander	Fairy Shrimp	Other Indicator Species ³	Comments
				1 001	V1	V2	V1	V2	V1	V2		Species	
17/39CF_ M*	A039		X**	x	1*	0	45	30	0	0	-	-	anthropogenic pool: skidder ruts. **meets MDEP's significance criteria. *tadpoles observed
18/40CF_ M	A039			х	6	-	14	-	0	-	-	-	anthropogenic pool
33/16CF_ M	A039			х	4	-	6	-	0	-	-	-	anthropogenic pool: skidder rut
15MG_M	A042			х	14	-	0	-	0	-	-	-	anthropogenic pool: skidder rut
13MG_M	A53			х	0	-	8	-	0	-	-	-	anthropogenic pool: skidder rut. Additional ruts contain activity but are not within wetland boundary
12MG_N*	A58	х	х	х	147	0	0	>20	0	0	-	-	natural-modified: roadside
09MG_N*	A59	х	х	х	0*	0	41	48	0	0	-	-	natural-modified: skidder activity. *tadpoles observed
08MG_N*	A60	х	х	х	0	0	35	34	0	0	-	-	
20/42CF_ N	A61	х		х	12	*	10	8-12	0	0	-	-	
11MG_N*	A64	х	х	х	17	0	0	49	0	0	-	-	natural-modified: skidder activity, tadpoles observed
01BE_N	A65	х		х	19	0	15	12	0	0	-	-	natural-modified: roadside
03BE_M	A67			х	0	-	2	-	0	-	-	-	anthropogenic pool: roadside ditch
02BE_N*	A68	х	х	х	12	0	66	29	0	0	-	-	natural-modified: roadside
10MG_M	A68			х	0*	-	9	-	0	-	-	-	anthropogenic pool: skidder rut. *tadpoles observed
04BE_N	A70	х		x	0	0	1	1	0	0	-	-	natural pool, water level dropping quickly

		NR	PA	Carra		Num	ber of E	Egg Mas	ses ¹		Pres	ence ²	
Vernal Pool Identifier	Associated Wetland ID	Vernal Pool	SVP	Corps Regulated Vernal Pool	Wood	-	Salam	otted ander	Salam	ue- tted ander	Fairy Shrimp	Other Indicator	Comments
				FUUI	V1	V2	V1	V2	V1	V2		Species ³	
05BE_M*	A71		X**	х	30	-	26	-	0	-	-	-	anthropogenic pool: roadside ditch. **meets MDEP's significance criteria
06BE_N	A72	х		х	0	0	3	0	0	0	-	-	natural pool, water level significantly less than at first visit
04DK_N	A73	х	PVP	х	-	-	-	-	-	-	-	-	potential vernal pool
03DK_N	A73	х	PVP	х	-	-	-	-	-	-	-	-	potential vernal pool
07BE_N	A74	х		х	14	0	14	14	0	0	-	-	natural pool, water level significantly less than at first visit
09BE_M	A82			x	0	-	10	-	0	-	-	-	anthropogenic pool: skidder rut
10BE_N	A90	х		х	2	0	18	15	0	0	-	-	water level significantly lower at second visit, one egg mass out of water
12BE_N	A96	х		x	0	-	5	-	0	-	-	-	natural-modified: adjacent to road
11BE_M*	A97		X**	х	0	0	41	39	1	0	-	-	anthropogenic pool: roadside ditch. **meets MDEP's significance criteria
13/35CF_ N*	A99	x	х	x	217	*	226	241	135	16			
11/34CF_ N*	A100	х	х	х	19	*	21	13	0	0	-	-	
10/33CF_ M	A105			х	0	-	9	-	0	-	-	-	anthropogenic pool: skidder rut
01BB_N	A106	х	PVP	*	-	-	-	-	-	-	-	-	potential vernal pool

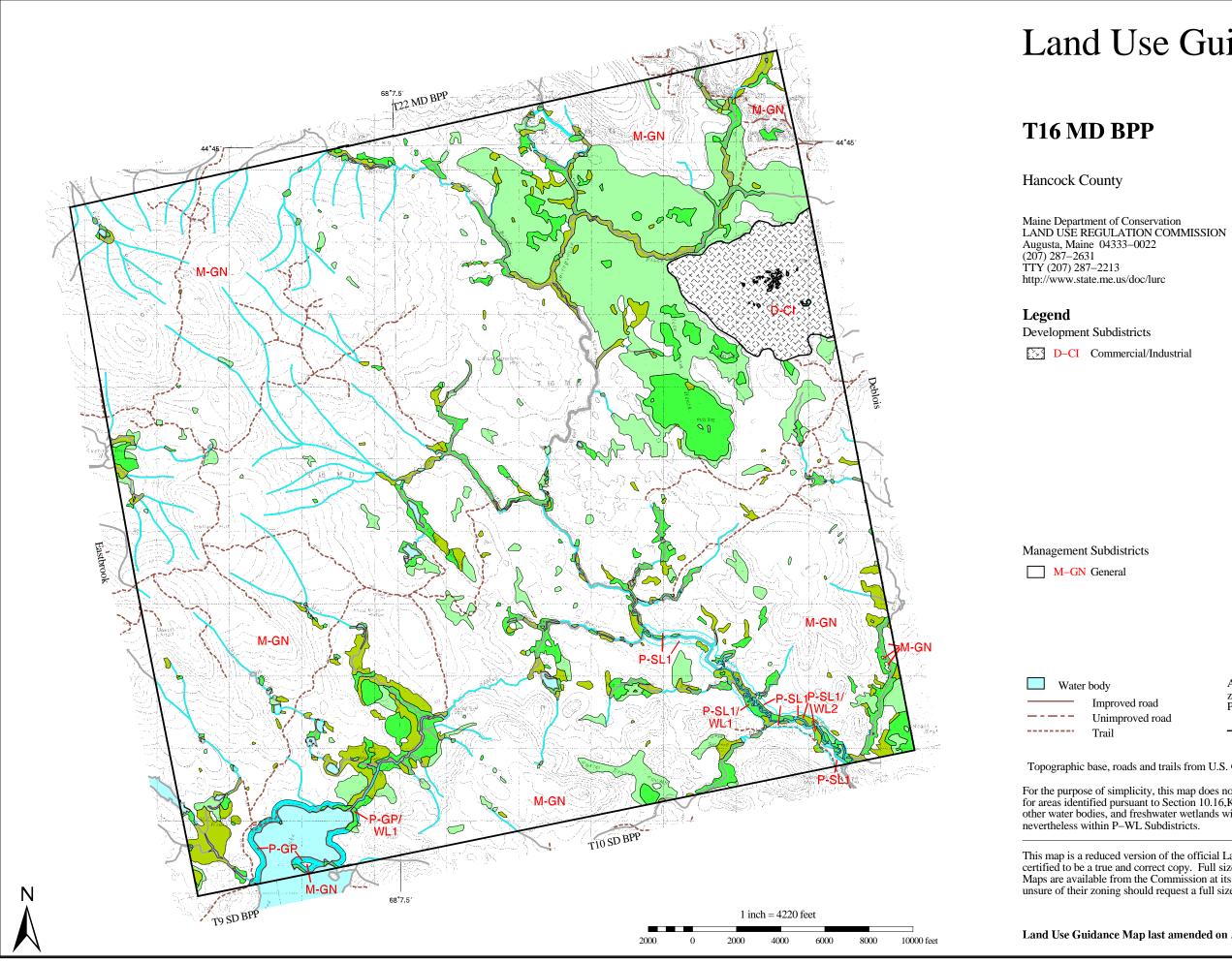
Scientific name	Common name
Abies balsamea	balsam fir
Acer pensylvanicum	striped maple
Acer rubrum	red maple
Agrostis stolonifera	creeping bentgrass
Alnus incana	speckled alder
Betula alleghaniensis	yellow birch
Betula populifolia	gray birch
Calamagrostis canadensis	Canada reed grass
Carex sp.	sedge
Carex crinita	fringed sedge
Carex gynandra	nodding sedge
Carex intumescens	greater bladder sedge
Carex scabrata	eastern rough sedge
Carex scoparia	pointed broom sedge
Carex lurida	sallow sedge
Carex trisperma	three-seeded sedge
Chamaepericlymenum canadense	Canada dwarf-dogwood
Chrysosplenium americanum	golden-saxifrage
Cinna latifolia	slender wood-reed
Comptonia peregrina	sweet-fern
Coptis trifolia	three-leaved goldthread
Doellingeria umbellata	tall white-aster
Dryopteris cristata	crested wood fern
Dryopteris intermedia	evergreen wood fern
Epilobium ciliatum	fringed willow-herb
Euthamia graminifolia	common grass-leaved-goldenrod
Fragaria virginiana	Virginia strawberry
Fraxinus pennsylvanica	green ash
Fraxinus americana	white ash
Gaultheria hispidula	creeping spicy-wintergreen
Gaultheria procumbens	eastern spicy-wintergreen
Glyceria canadensis	rattlesnake manna grass
Glyceria striata	fowl manna grass
Juncus effusus	common soft rush
llex verticillata	common winterberry
Kalmia angustifolia	sheep American-laurel
Larix laricina	American larch
Matteuccia struthiopteris	fiddlehead fern
Osmunda cinnamomea	cinnamon fern

Table C-4: Plant Resource Table

Scientific name	Common name
Parathelypteris noveboracensis	New York fern
Picea mariana	black spruce
Picea rubens	red spruce
Pinus resinosa	red pine
Pinus strobus	eastern white pine
Populus tremuloides	quaking poplar
Pteridium aquilinum	bracken fern
Oclemena acuminata	sharp-toothed nodding-aster
Onoclea sensibilis	sensitive fern
Osmunda cinnamomea	cinnamon fern
Osmunda claytoniana	interrupted fern
Osmunda regalis	royal fern
Oxalis montana	northern wood sorrel
Ribes lacustre	bristly swamp currant
Rubus hispidus	bristly blackberry
Rubus idaeus	red raspberry
Rubus pubescens	dwarf raspberry
Scirpus cyperinus	common woolsedge
Solidago rugosa	common wrinkle-leaved goldenrod
Spiraea alba	white meadowsweet
Spiraea tomentosa	rosy meadowsweet
Swida amomum	silky dogwood
Thuja occidentalis	northern white-cedar
Trientalis borealis	starflower
Tsuga canadensis	eastern hemlock
Ulmus americana	American elm
Vaccinium angustifolium	common lowbush blueberry
Vaccinium corymbosum	highbush blueberry
Viola sp.	violet
Viola pallens	smooth white violet

Appendix D

LURC Land Use Guidance Map



Land Use Guidance Map

D-CI Commercial/Industrial

Protection Subdistricts

P–GP	Great Pon	d
— P-SL1 25	50 feet Sl	noreland – Major
—— P–SL2 7	5 feet Sl	noreland – Minor
P-WL1	Wetlands	 Significant
P–WL2	Wetlands	– Scrub–shrub
P–WL3	Wetlands	- Forested

ody mproved road Jnimproved road	Areas designated as two or more protection zones are annotated with each zone, e.g. P-FP/FW/WL1, P-FP/SL1, etc., where necessary							
Trail	or	Subdistrict boundary Zoning amendment						

Topographic base, roads and trails from U.S. Geological Survey 7.5-minute map series

For the purpose of simplicity, this map does not show the Wetland Protection Subdistricts for areas identified pursuant to Section 10.16,K,2 such as beds of rivers, lakes, and other water bodies, and freshwater wetlands within 25 feet of stream channels, which are nevertheless within P-WL Subdistricts.

This map is a reduced version of the official Land Use Guidance Map. It is not certified to be a true and correct copy. Full size official LURC Land Use Guidance Maps are available from the Commission at its Augusta office. Potential applicants unsure of their zoning should request a full size map from the Augusta office.

Land Use Guidance Map last amended on August 18, 2005



Appendix E

Representative Site Photographs



Photo 1. LURC intermittent stream S06. Stantec Consulting, April 16, 2010.



Photo 2. LURC intermittent stream S04. Stantec Consulting, November 30, 2009.



Photo 3. LURC intermittent stream S09. Stantec Consulting, April 16, 2010.



Photo 4. Man-made vernal pool 32CF_M. Stantec Consulting, April 12, 2010.



Photo 5. Natural vernal pool 13CF_M. Stantec Consulting, April 12, 2010.



Photo 6. Natural vernal pool 16CF_M. Stantec Consulting, April 12, 2010.



Photo 7. Natural vernal pool 20CF_M. Stantec Consulting, April 12, 2010.



Photo 8. Natural vernal pool 07BE_N. Stantec Consulting, April 12, 2010.



Photo 9. Natural vernal pool 10BE_N. Stantec Consulting, April 12, 2010.



Photo 10. Typical emergent wetland A006. Stantec Consulting, November 30, 2009.



Photo 11. Typical emergent wetland A005. Stantec Consulting, November 30, 2009.



Photo 12. Typical emergent wetland A002. Stantec Consulting, November 30, 2009.



Photo 13. Typical emergent wetland A071. Stantec Consulting, December 2, 2009.



Photo 14. LURC perennial stream S08. Stantec Consulting, December 2, 2009.



Photo 15. Mixed forested and emergent wetland A023. Stantec Consulting, November 30, 2009.



Photo 15. Typical forested wetland A009. Stantec Consulting, November 30, 2009.



Photo 16. Typical hardwood forested wetland A067. Stantec Consulting, November 30, 2009.



Photo 17. Typical scrub-shrub wetland A100. Stantec Consulting, April 12, 2010.



Photo 18. Typical hardwood scrub-shrub wetland A061. Stantec Consulting, April 28, 2010.



Photo 19. Typical unconsolidated bottom wetland A058. Stantec Consulting, December 2, 2009.

Appendix F

Vernal Pool Data Sheets

ELOIPCT INAME/A	#• Bull Hill	Organization	ol Data Collec			
	act Information	Organization		isuning		
		lany if applicable) · Brya	Emoreon	Phono or	Email207-729-1199	
-	-					
			Form: 🖄 Previously	/ Submitted	Included w/this Submission	
	ntact Information			N1 /		
					ne:	
					Zip: <u>02111</u>	
			0			
1. OBSERV						
This pool is:	Significant	Potentially Simultinent		🛛 does no	t meet MDEP SVP biological criteri	a
		Significant (include notes in section 3d	due to:		t meet MDEP vernal pool definition	criteria
		on Page 2)		Notes:		
		TION INFORMATION ook/ Hancock County, Ma	ine			
		ook hancock county, wa				
Brief site direction	ons to the pool (us	sing mapped landmarks):_	within 1000ft fro	om existing o	arriage path	
		red Coordinate System, D			-	
					essed corrections: 🛛 Yes 🗌 No	
Check / subm		-	-	-	ned* <u>-68.1579W, 44.7020N</u>	
		location of pool perimeter	included as polygon	shapefile na	med*	
					int Northing***:	
* Observers mu ** If mapping g	ust check the information	ation on an aerial photo to en	sure data quality.	ol Center Po	int Northing***:	
** If mapping gi	ust check the information in the information of the second s	ation on an aerial photo to ensisional Survey is not available,	sure data quality. observers must use the	ol Center Po		 m.
** If mapping gi *** Center point	ust check the information of the information of the sector	ation on an aerial photo to ensisional Survey is not available,	sure data quality. observers must use the	ol Center Po	int Northing***:	 m.
** If mapping gi *** Center point 3. VERNAL I a. Pool or Wet	ust check the informative of the order of th	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization	sure data quality. observers must use the	ol Center Po	int Northing***:	 m.
** If mapping gi *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char pest descriptor for	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting:	sure data quality. observers must use the paper map showing the	ol Center Po e most current pool location	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b I Isolated Upla	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char pest descriptor for and Depression	ation on an aerial photo to ensisional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the	ol Center Po e most current pool location	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Weth i. Choose the b Isolated Upla Floodplain D	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger weth	ol Center Po e most current pool location	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pain	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting: Pool assoc Other: best apply to this pool or w	sure data quality. observers must use the paper map showing the iated with larger weth vetland:	ol Center Po	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or WetI i. Choose the b ☐ Isolated Upla ☐ Floodplain D ii. Check all pale ☑ Forested weta	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland:	ol Center Po	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pall Forested we Shrub wetlar Peatland (ac	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland and cidic fen or bog)	ation on an aerial photo to ensisional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd beaver flowage	and complex	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pall Shrub wetlar Peatland (ac Emergent mathematical sectors)	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland hd sidic fen or bog) arsh	ation on an aerial photo to ensisional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd b beaver flowage ver flowage	ol Center Po e most current pool location of and complex	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial j use am ain overflow / Oxbow	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pall Forested wet Shrub wetlar Peatland (ac Emergent mathing) iii. Predominate	ust check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland and cidic fen or bog) arsh substrate in orde	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd beaver flowage ver flowage d:	and complex	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial j use am ain overflow / Oxbow	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pall Forested wet Shrub wetlar Peatland (ac Emergent mathematical) Mineral soil (ust check the informa rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression ustrine types that tland hd cidic fen or bog) arsh substrate in orde (bare, leaf-litter bo	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd beaver flowage ver flowage d:	and complex	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial j use am ain overflow / Oxbow	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wett i. Choose the b Isolated Upla Floodplain D ii. Check all pale Forested wet Shrub wetlar Peatland (ac Emergent mathematication) Mineral soil (Mineral soil Organic mathematication)	ust check the informa rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression ustrine types that tland hd cidic fen or bog) arsh substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) sh	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION racterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger weth vetland: ow nd d beaver flowage ver flowage d: resent)	and complex	int Northing***: MDIF&W Vernal Pool Data Collection For on USGS Topo Quad or large scale aerial j use am ain overflow / Oxbow	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pale Forested wetlar Peatland (ac Emergent mathematication) Mineral soil (Mineral soil (Organic mathematication) Organic mathematication) Organic mathematication Organic mathematication Organic mathematication Organic mathematication Organic mathematication Organic mathematication Structure of the second s	Ist check the informat rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression ustrine types that tland hd cidic fen or bog) arsh e substrate in orde (bare, leaf-litter boo I (sphagnum mo ter (peat/muck) sh ter (peat/muck) de	ation on an aerial photo to ensisional Survey is not available, rm must be submitted with a provide the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd beaver flowage ver flowage d: resent) reset portion	ol Center Po <i>e most current</i> <i>pool location</i> and complex Slow str Floodpla Headwa Other:	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> <i>eam</i> ain overflow / Oxbow ter seepage	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pall Forested wet Shrub wetlar Peatland (ac Emergent mathematication) Mineral soil (Mineral soil Organic mathematication) iv. Nonwoody p	Ist check the informative of the	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the observers must use the observers must use the saper map showing the iated with larger weth vetland: ow nd d beaver flowage d: resent) resent) est portion	ol Center Po e most current pool location of and complex Slow str Floodpla Headwa Other: ck all that ap	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> eam ain overflow / Oxbow ter seepage ply):	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pale Forested wet Shrub wetlar Peatland (ac Emergent mathematication) Mineral soil (Mineral soil Organic mathematication) iv. Nonwoody p Terrestrial no	Ist check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland nd sidic fen or bog) arsh e substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) sh ter (peat/muck) de pool vegetation inco ponvascular spp. (e	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the paper map showing the iated with larger wetla vetland: ow nd d beaver flowage d: resent) pest portion ing hydroperiod (chea Sphagnum mo	and complex	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> eam ain overflow / Oxbow ter seepage ply): d or suspended)	 m.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pale Shrub wetlar Peatland (ac Emergent ma iii. Predominate Mineral soil (Mineral soil Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferms	Ist check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland nd sidic fen or bog) arsh e substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) de bool vegetation inco provascular spp. (e op.) s (e.g. spinulose wo	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the baper map showing the iated with larger wetla vetland: wetland: ww nd d beaver flowage d: resent) est portion ing hydroperiod (cher ⊠ Sphagnum mo Wet site ferns ern) ⊠ Wet site gram	and complex	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> eam ain overflow / Oxbow ter seepage ply): d or suspended) ern, marsh fern) plue-joint grass, tussock sedge, cattail	m. photo.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b Isolated Upla Floodplain D ii. Check all pale Forested wet Shrub wetlar Peatland (ac Emergent mathematication) (Mineral soil (Mineral soil	Ist check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland and bidic fen or bog) arsh e substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) de bool vegetation inco provascular spp. (e op.) s (e.g. spinulose wo rns (e.g. sensitive, c	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the baper map showing the iated with larger wetla vetland: ow nd d beaver flowage ver flowage d: resent) est portion ing hydroperiod (cher ⊠ Sphagnum mo Wet site ferns ern) ⊠ Wet site gram ork) □ Aquatic vascu	and complex Slow str Slow str Floodpla Headwa Other: ck all that ap oss (anchore (e.g. royal fo inoids (e.g. I lar spp. (e.g	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> eam ain overflow / Oxbow ter seepage ply): d or suspended) ern, marsh fern) plue-joint grass, tussock sedge, cattail . pickerelweed, arrowhead)	m. photo.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b I Isolated Upla Floodplain D ii. Check all pale Forested wet Shrub wetlar Peatland (ac Emergent mat iii. Predominate Mineral soil (Mineral soil (Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Moist site ferm Moist site ferm Moist site va swamp candle	Ist check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression repression ustrine types that tland hd idic fen or bog) arsh e substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) sh ter (peat/muck)	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the baper map showing the iated with larger wetla vetland: ow nd d beaver flowage ver flowage d: resent) est portion ing hydroperiod (cher ⊠ Sphagnum mo Wet site ferns ern) ⊠ Wet site gram ork) □ Aquatic vascu	and complex Slow str Floodpla Headwa Other: ck all that ap oss (anchore (e.g. royal fo inoids (e.g. I lar spp. (e.g. bmerged aque	int Northing***: <i>MDIF&W Vernal Pool Data Collection For</i> <i>on USGS Topo Quad or large scale aerial</i> eam ain overflow / Oxbow ter seepage ply): d or suspended) ern, marsh fern) plue-joint grass, tussock sedge, cattail	m. photo.
** If mapping gr *** Center point 3. VERNAL I a. Pool or Wetl i. Choose the b I Isolated Upla Floodplain D ii. Check all pale Forested wet Shrub wetlar Peatland (ac Emergent mat iii. Predominate Mineral soil (Mineral soil (Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Moist site ferm Moist site ferm Moist site va swamp candle	Ist check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression ustrine types that tland hd idic fen or bog) arsh substrate in orde (bare, leaf-litter bo (sphagnum mo ter (peat/muck) sh ter (peat/muck) sh ter (peat/muck) de pool vegetation ind provascular spp. (e pp.) s (e.g. spinulose wo rns (e.g. sensitive, c sculars (skunk cab a) Origin or Impacts	ation on an aerial photo to ensional Survey is not available, rm must be submitted with a p Y INFORMATION facterization the physical setting:	sure data quality. observers must use the baper map showing the iated with larger weth vetland: ow nd d beaver flowage d: resent) est portion ing hydroperiod (cher ⊠ Sphagnum mo Wet site ferns ern) ⊠ Wet site gram ork) ☐ Aquatic vascu s, ☐ Floating or su	and complex Slow str Floodpla Headwa Other: ck all that ap oss (anchore (e.g. royal fo inoids (e.g. I lar spp. (e.g. bmerged aque	int Northing***: MDIF&W Vernal Pool Data Collection For- on USGS Topo Quad or large scale aerial j eam ain overflow / Oxbow ter seepage ply): d or suspended) ern, marsh fern) olue-joint grass, tussock sedge, cattail . pickerelweed, arrowhead) uatics (e.g. water lily, water shield, pond	m. photo.

			-										
April 14, 2010													Page 1 of 2
ii. Hydrology								Pool IE		BE			
	e size of pool (at)	lm 🖂	t (chec	k one)
	epth at time of s	-						check on	e)				
-	ol's <u>likely</u> hydrop		•		n the spa	ce to the	right.						
	nt												
Semi-peri	manent (drying p	partially in	n all yea	rs and co	mpletely	in drough	nt years) _						
=	al (drying out co												
🗌 Recomme	nd dry out perio	d observa	ation								_		
iii. Inlet/Outle	et Permanency												
No inlet /	outlet		Perma	nent inle	or outlet	(channel	with well	-defined	banks and	perma	nent flow)		
Ephemera	al inlet / outlet		Other										
iv. Faunal Ind													
Fish (spec	ies):		[] Bullfrog	or Greer	n frog tad	poles 🗌	Other:					
c. Significan	t Vernal Pool S	tatus uno	der NRF	PA									
i. Survey Dat	e(s): <u>4/21/10,</u>	5/4/10											
ii. Abundanc							_						
	tire pool compre dicator species,								() () ()	fidanaa			
	ntegrity (EI) for									nuence	level (CL), anu	
	Observation: Egg Masses (or Adult Fairy Shrimp) Tadpoles/Larvae												
Indicator	Information:				M*		L**		/ ***		/M*		CL**
Species	Date:	0	5/4/1 0	4/21/1 0	5/4/10	4/21/1 0	5/4/10	4/21/1 0	5/4/10	4/21/ 10	5/4/10	4/21/1 0	5/4/10
Wood fro	g	19	0	S	NA	3	3	F	Н	NA	S	NA	3
	Salamander	15	12	S	S	3	3	F	М	NA	NA	NA	NA
Blue-spo Salaman	der	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fairy Shi		0	0	NA	NA	NA	NA	NA	NA				
*** Egg Mass iii. Rarity Cri ■ Was a spec ■ If yes, indic ■ Note any ra	Iethod: S= Seen, Integrity: F= Frest teria ific effort made ate which specie re species asso e, pool location,	h (<24 hrs) to survey es were ta ciated wit	for rare argeted: th verna	species	d embryos ? 🗌 Yes		anced (loos	er matrix,		oryos), F	l= Hatcheo	or hatch	ning
		-	-	Verificat	ion						Verificat	ion	
Specie	S			Metho		CL**	Species				Metho		CL**
			F	, Н	S						P H	S	
Blandi	ng's Turtle						Wood Tu	urtle					
Spotte	d Turtle						Ribbon S	Snake					
Ringeo	l Boghaunter						Other:						
	ation Method: P=	Photograp	hed, H=	Handled,	S= Seen	**	*CL-Confid	lence level	l in verificati	on: 1= <	60%, 2= 6	0-95%, 3	= >95%
d. General C	omments:												
 Sent hard Sent hard Sent shap OBSERVER 		Vernal Po ol center imeter / c	point wi enter po	Collection th coordin bint on Cl	on Form t nates on D to MDIF	o: MDIF8 MAWS V F&W (add	&W, Attn: /ernal Poo lress aboy	Vernal Po ol Data C ve) or 🗌	ools; 650 S ollection F emailed to	State St orm to b: <u>verna</u>	reet; Ban MDIF&W alpools.mo	(addres	s above)
-	fy that the inforr _ <i>Bryan Emerso</i>				-		-		of my kno	-			
For MDIF&W	Use Only:	Povio	wod by		Data			Initiala					
This pool is:	t											logical	criteria and/or

_			ol Data Collec				
Project Name/#	t: _Bull Hill	Organization	Name: _Stantec Cor	nsulting Poo	I ID: 02 BE		
Observer Cont	act Information						
Primary Observ	er (include secon	dary, if applicable) : _Bryar	n Emerson	Phone or Email2	07-729-1199		
Primary Observ	er has Submitted	the MAWS VP Credential	Form: 🛛 Previously	Submitted 🗌 Include	ed w/this Submission		
Landowner Co	ntact Information	<u>n</u>					
Landowner perr	nission obtained f	for this survey & submissio	n: 🛛 Yes 🗌 No	Notes:			
Landowner cont	act information (F	REQUIRED): Name: <u>Blue</u>	Sky LLC F	Phone:			
Street Address:	179 Lincoln St.	City:	Boston	State: MA	Zip: <u>02111</u>		
1. OBSERV		ENDATION					
This pool is:	Significant			⊠ does not meet MI	DEP SVP biological criteria		
			due to:	does not meet MDEP vernal pool definition critering			
		(include notes in section 3d on Page 2)		Notes:			
		FION INFORMATION					
Municipality or 1	ownship: Eastb	rook/ Hancock County, Ma	ine				
Brief site direction	ons to the pool (u	sing mapped landmarks):_	within 1000ft fro	om existing carriage pa	th		
		ined Coordinate System D		NADO2 Zara 40 Nar			
		ired Coordinate System, Da : <u>Trimble Pro-XT</u>			-		
					1557W, 44.7061N		
		F					
		Center Point Easting***:		ol Center Point Northin	g***:		
		ation on an aerial photo to ens sional Survey is not available		e most current MDIF&W \	ernal Pool Data Collection Form.		
					opo Quad or large scale aerial photo.		
3. VERNAL I	POOL SURVE	Y INFORMATION					
	and Habitat Cha						
	-	the physical setting:	inted with lorger wat				
Isolated Upla Floodplain D	•	Other:	ated with larger wetla	and complex			
	-	best apply to this pool or w	vetland:				
Forested we	• •	Wet meado		☐ Slow stream			
Shrub wetlar	nd	Shallow po	nd	Floodplain overflov			
Peatland (ac Emergent magent magent	idic fen or bog)	Abandonec	l beaver flowage	Headwater seepag	ge		
		r of increasing hydroperiod					
		ottom, or upland mosses pr					
	(sphagnum mo	ss present)					
		nallow or restricted to deep eep and widespread	est portion				
Organic matt		•	na hydroperiod (che				
Organic mating Organic mating Organic mating	. ,	dicators in order of increasi		ck all that apply):			
Organic matt Organic matt iv. Nonwoody p	pool vegetation in	dicators in order of increas e.g. haircap moss,	• • • •		ended)		
 Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp 	pool vegetation in ponvascular spp. (e p.)	e.g. haircap moss,	Sphagnum mo	oss (anchored or suspe (e.g. royal fern, marsh	fern)		
 Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferms 	pool vegetation in povascular spp. (e p.) s (e.g. spinulose wo	e.g. haircap moss, ood fern, lady fern, polypody fe	Sphagnum mo Wet site ferns m) Wet site gram	oss (anchored or suspe (e.g. royal fern, marsh inoids (e.g. blue-joint g	fern) rass, tussock sedge, cattail)		
 Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferms Moist site fer 	pool vegetation in prvascular spp. (e p.) s (e.g. spinulose wo ns (e.g. sensitive, o	e.g. haircap moss,	Sphagnum mo Wet site ferns m) Wet site gram rk) Aquatic vascu s, Floating or su	oss (anchored or suspe (e.g. royal fern, marsh inoids (e.g. blue-joint g lar spp. (e.g. pickerelw bmerged aquatics (e.g.	fern) rass, tussock sedge, cattail)		
 Organic matt Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferms Moist site fer Moist site va swamp candle 	pool vegetation ind privascular spp. (e p.) s (e.g. spinulose wo ns (e.g. sensitive, o sculars (skunk cab	e.g. haircap moss, ood fern, lady fern, polypody fe cinnamon, interrupted, New Yo bage, jewelweed, blue flag iris	Sphagnum mo Wet site ferns Wet site gram Wet site gram Aquatic vascu	oss (anchored or suspe (e.g. royal fern, marsh inoids (e.g. blue-joint g lar spp. (e.g. pickerelw bmerged aquatics (e.g.	fern) irass, tussock sedge, cattail) reed, arrowhead)		
 Organic matt Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferms Moist site fer Moist site va swamp candle 	oool vegetation ind onvascular spp. (e p.) s (e.g. spinulose wo ns (e.g. sensitive, o sculars (skunk cab) Origin or Impact	e.g. haircap moss, ood fern, lady fern, polypody fe cinnamon, interrupted, New Yo bage, jewelweed, blue flag iris	Sphagnum mo Wet site ferns m) Wet site gram rk) Aquatic vascu s, Floating or su	oss (anchored or suspe (e.g. royal fern, marsh inoids (e.g. blue-joint g lar spp. (e.g. pickerelw bmerged aquatics (e.g.	fern) irass, tussock sedge, cattail) reed, arrowhead)		

April 14, 2	2010													Page 1 of 2
3. VERI	NAL PO	OL SURVE	EY INFO	RMAT	ON (col	ntinued)		Pool II): 02	BE			
ii. Hydro	ology				•		•							
		e of pool (at	-					-	-	-			t (check	one)
	-	at time of su	-						check on	e)				
		<u>likely</u> hydrop		d give e	vidence ir	n the spa	ce to the	right.						
		ant (du in a u					in due verk	-+						
	•	ent (drying p	•	•			•							
		rying out cor												
		dry out period	a observa	ation										
		ermanency	_				(ah an a al	المنتخلة بتنام	defined	haalka aad		a a set flassed		
	nlet / outle						-			banks and		-		
-	nal Indica	let / outlet		Other										
		:		_	Dullfrog	or Crook	o frog tod		Othor					
		rnal Pool Si				of Green	i irog tau	poles _	Other					
-): 4/21/10, 8			A									
	dance C		5/4/10											
		pool compre	hensivel	/ survev	ed for ea	a masse:	s? ∏Ye	es l	∃ No					
For ea	ach indica	tor species,	indicate f	the exac	t number	of egg n	nasses, v	erificatior	method		idence	level (CL)), and	
egg m	nass integ	grity (EI) for e	each life s	stage (s	eparate c	ells are p	provided f	for separa	ate surve	/ dates).				
egg mass integrity (EI) for each life stage (separate cells are provided for separate survey dates). Observation: Egg Masses (or Adult Fairy Shrimp) Tadpoles/Larvae														
-	icator	Information:	#		V	M*		L**		/ ***		/M*		L**
Spe	ecies	Date:	4/21/1 0	5/4/1 0	4/21/1 0	5/4/10	4/21/1 0	5/4/10	4/21/1 0	5/4/10	4/21/ 10	5/4/10	4/21/1 0	5/4/10
Woo	od frog		12	0	S	NA	3	3	F	Н	NA	S	NA	3
Spo	otted Sala	mander	66	0	S	S	3	3	F	М	NA	NA	NA	NA
	e-spotted amander		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fair	ry Shrimp	1	0	0	NA	NA	NA	NA	NA	NA				
*Verifica	ation Meth	od: S= Seen, I	H= Handle	d, P= Ph	otographe	d		**Con	fidence Le	vel (species	s ID): 1=	<60%, 2=	60-95%,	3= >95%
		grity: F= Fresh	i (<24 hrs)	, M= Mai	ture (round	l embryos), A= Adva	anced (loos	ser matrix,	curved emb	oryos), F	I= Hatched	or hatchi	ng
	t y Criteria a specific	a effort made f	o survev	for rare	species?	P □ Yes	D	🖾 No						
														labeled with
					l pools us	sing the b	ox below	. Observa	ations sh	ould be ac	compai	nied photo	graphs (labeled with
observe	r name, p	ool location,	and date	e).	<u></u>							<u>,, ,, ,, , , , , , , , , , , , , , , ,</u>		
s	Species				Verificati Method		CL**	Species				Verificat Method		CL**
	pecies			F		S		Openico				P H	S	
В	Blanding's	Turtle						Wood Tu	urtle					
	Spotted Tu			Г				Ribbon S	Snake					
	•	ghaunter						Other:						
	0	Method: P= I	Photograp	hed, H=	– Handled, S		**		ence leve	in verificati	on: 1= <	60%, 2= 60)-95%, 3=	: >95%
	eral Com		0 -										, -	
	•	ernal Pool Su	• •	•							•			
		y of MAWS												
	•	y map of poo		•									•	,
		NATURE									. <u>vonic</u>			
I hereby certify that the information contained in this report is true and complete to the best of my knowledge:														
Signatu	ure:	Bryan Emer	son			C	Date _10/	7/2010						
	IF&W Us	e Only:	Paris	woodburg		Deter			ا ما داند					
This poo			Revie	wearby	MDIF&W	Date.			Initials					

	Ν		n of Wetland S ol Data Collec	Scientists (MAWS) etion Form
Project Name/#	:_Bull Hill	Organization	Name: _Stantec Cor	nsulting Pool ID: 04 BE
Observer Conta		v		<u> </u>
		dary, if applicable) : Brya	n Emerson	Phone or Email207-729-1199
-				/ Submitted Included w/this Submission
Landowner Cor	tact Information	ı		
			on: 🛛 Yes 🗌 No	> Notes:
				Phone:
Street Address:	179 Lincoln St.		City: Boston	State: <u>MA</u> Zip: <u>02111</u>
1. OBSERVE	R RECOMM			
This pool is:	Significant	Potentially Significant	Not significant	☑ does not meet MDEP SVP biological criteria
		(include notes in section 3d		does not meet MDEP vernal pool definition criteria
		on Page 2)		Notes:
2. VERNAL I		ION INFORMATION		
		ook/ Hancock County, Ma		
Brief site directio	ns to the pool (us	sing mapped landmarks):_	within 1000ft from	m existing carriage path
Brand and Mo Check / submi * Observers mus ** If mapping gra	t one: 🛛 GPS unit** t one: 🖾 GPS 🗌 Pool st check the information ade GPS or Profession	: <u>Trimble Pro-XT</u> Map location of center point of location of pool perimeter Center Point Easting***: ation on an aerial photo to en sional Survey is not available	oping grade GPS with the pool included in s included as polygon Po sure data quality. observers must use the	I, NAD83, Zone 19 North, meters) post processed corrections: ∑ Yes □ No shapefile named*
a. Pool or Wetla	Ind Habitat Chai			
Isolated Upla	-		ciated with larger wetl	and complex
🗌 Floodplain De	pression	Other:		
Forested wetl	and d dic fen or bog)		ow	 Slow stream Floodplain overflow / Oxbow Headwater seepage Other:
Mineral soil (t Mineral soil Organic matte	bare, leaf-litter bo (sphagnum mo er (peat/muck) sh	r of increasing hydroperio ttom, or upland mosses p ss present) allow or restricted to deep eep and widespread	resent)	
iv. Nonwoody p	ool vegetation inc	dicators in order of increas	ing hydroperiod (che	ck all that apply):
 Moist site ferr Moist site vas swamp candle) 	o.) (e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab	od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iri	Wet site ferns ern) ⊠ Wet site gram ork) ⊒ Aquatic vascu	oss (anchored or suspended) (e.g. royal fern, marsh fern) inoids (e.g. blue-joint grass, tussock sedge, cattail) Ilar spp. (e.g. pickerelweed, arrowhead) bmerged aquatics (e.g. water lily, water shield, pond <i>r</i> ort)
b. Vernal Pool C i. Pool's Origin:		s	⊡ Non-Natural	Unknown
		modifications to the pool		

				Ve	rnal	Pool	Data C	Collect	ion Fo	orm				
3. VERNAL PO		EY INFO	RMA)N (co	ntinued	d)		Pool II	D: 04	1BE			
ii. HydrologyApproximate si					•			🛛 ft (ch] m 🖂 1	t (check	(one)
Maximum dept	h at time of s	urvey:		6		🛛 in 🗌]ft ⊡ c	m 🗌 m (check on	e)				
Select the pool's	s <u>likely</u> hydrop	period and	d give	e evi	dence ir	n the spa	ace to the	e right.						
Permanent														
Semi-perma	nent (drying p	partially ir	n all y	ears	and co	mpletely	/ in droug	ht years)						
Ephemeral (drying out co	mpletely	in mo	ost ye	ears)									
Recommend														
iii. Inlet/Outlet I	Permanency													
🛛 No inlet / out	tlet] Perr	mane	ent inlet	or outle	t (channe	el with wel	l-defined	banks and	l permar	nent flow)		
Ephemeral in	nlet / outlet] Othe	er _										
iv. Faunal Indic	ators:													
Fish (species	s):				Bullfrog	or Gree	n frog tad	dpoles 🗌] Other:_					
c. Significant V	ernal Pool S	tatus un	der N	IRP/	4									
i. Survey Date(s	s): <u>4/22/10, 5</u>	5/4/10												
ii. Abundance (Criteria													
 Was the entire For each indic egg mass inte 	ator species,	indicate	the ex	xact	number	of egg	masses, v	verificatior			fidence	level (CL), and	
	Observation:				Egg Ma	sses (oi	r Adult Fa	iry Shrimp	o)			Tadpole	es/Larva	е
Indicator	Information:	#	ŧ		VI	M*	C	CL**	EN	MI***	V	′M*	C	L**
Species	Date:	0	5/4/ 0		4/22/1 0	5/4/10	0	5/4/10	0	5/4/10	4/22/ 10	5/4/10	4/22/1 0	5/4/10
Wood frog		3	1		S	S	3	3	F	М	NA	NA	NA	NA
Spotted Sal	amander	6	0		S	NA	3	NA	F	NA	NA	NA	NA	NA
Blue-spotte Salamande		0	0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fairy Shrim	р	0	0		NA	NA	NA	NA	NA	NA				
*** Egg Mass Inte iii. Rarity Criter • Was a specific • If yes, indicate • Note any rare observer name, Species	ia effort made which species species asso	to survey es were ta ciated wi	for ra argete th vei	are s ed: _ rnal j	pecies?	P Tes	5	🛛 No					ographs (-
-1				Р	Н	S	-	-1				P H	S	-
Blanding'	s Turtle							Wood Tu	urtle					
Spotted 1	urtle							Ribbon S	Snake					
Ringed B	oghaunter							Other:						
	on Method: P=	Photograp	hed, I	<u>—</u> Н= На	andled, S	S= Seen			lence leve	l in verificati	ion: 1= <	60%, 2= 60)-95%, 3=	= >95%
Completed V Sent hard co Sent hard co Sent hard co	py of MAWS py map of po le of pool peri	Vernal Pol	ool D point	ata (t with	Collectic coordir	on Form nates or	to: MDIF	&W, Attn: Vernal Po	Vernal P ol Data C	ools; 650 \$ ollection F	State Str orm to N	reet; Bang MDIF&W	address	s above)
OBSERVER SIG I hereby certify Signature:B	that the inforr				-			-		-	-			
For MDIF&W U	se Only:	Derit		h		Deter			ا جاندا					
This pool is:	-] Not sigr		: lue to: □c			logical c	riteria and/o
											does not	t meet de	finition c	riteria

	N		on of Wetland ool Data Colleg	Scientists (MAW ction Form	S)
Project Name/#: _B	3ull Hill	Organizatio	n Name: _Stantec Co	nsulting Pool I	D: 06 BE
Observer Contact I	Information				
		ary, if applicable) : Bry	an Emerson	Phone or Email 207	7-729-1199
				y Submitted 🔲 Included	
Landowner Contac				N1 /	
				D Notes: Phone:	
1			<u>sion</u> siale.	MA	Zip:02111
1. OBSERVER	RECOMME				
This pool is:	Significant	Potentially Significant	Not significant		EP SVP biological criteria
		(include notes in section 3		does not meet MDE	P vernal pool definition criteria
		on Page 2)	-	Notes:	
		ook/ Hancock County, M			
				existing carriage path _	
		-		I, NAD83, Zone 19 North	-
				th post processed correct shapefile named* <u>68.1</u> 3	
		-	-		<u>540W, 44.7077N</u>
				ol Center Point Northing*	
** If mapping grade	heck the informa GPS or Profess	ation on an aerial photo to e sional Survey is not availabl	nsure data quality. e, observers must use th	e most current MDIF&W Ver	rnal Pool Data Collection Form. o Quad or large scale aerial photo.
3. VERNAL POO		Y INFORMATION			
a. Pool or Wetland i. Choose the best of		acterization the physical setting:			
Isolated Upland I	-		ciated with larger wet	and complex	
Floodplain Depre	ession	Other:	č	•	
ii. Check all palustri	ne types that I	pest apply to this pool or	wetland:		
Forested wetland	b	🗌 Wet mea		Slow stream	
Shrub wetland	fon or bog)	Shallow p	ond ed beaver flowage	Floodplain overflow	
Emergent marsh			aver flowage	Other:	
iii. Predominate sub	strate in orde	r of increasing hydroperi	od:		
		ttom, or upland mosses	present)		
Mineral soil (sp		ss present) allow or restricted to dee	post portion		
Organic matter (pest portion		
iv. Nonwoody pool	vegetation inc	licators in order of increa	sing hydroperiod (che	ck all that apply):	
Terrestrial nonva	iscular spp. (e	.g. haircap moss,		oss (anchored or suspen	
lycopodium spp.)		ad form lady form notwoody		(e.g. royal fern, marsh fe	ern) ass, tussock sedge, cattail)
		innamon, interrupted, New		ilar spp. (e.g. pickerelwe	
	ars (skunk cabl	bage, jewelweed, blue flag		bmerged aquatics (e.g. w	ater lily, water shield, pond
swamp candle) b. Vernal Pool Orig	ain or Impact	5	weed, bladderv	νοπ)	
i. Pool's Origin: 🛛	Natural	Natural-Modified modifications to the poo	Non-Natural	Unknown nd (REQUIRED):	
April 14 2010					Dogo 1 of 2

				Ve	ernal	Pool	Data C	Collect	ion Fo	orm				
3. VERNAL P		EY INFO	RM/	ATIC) DN (<i>coi</i>	ntinued	J)		Pool II	D: 06	6BE			
ii. Hydrology	· · · · · · ·		.,				·				. г			``````````````````````````````````````
Approximate s)] m 🛛 1	t (check	(one)
Maximum dep									cneck on	e)				
Select the pool's			-		dence ir	i the spa	ace to the	e right.						
 Permanent Semi-perma 					and on	malatak	in droug	ht vooro)						
-		-	-				-							
Ephemeral (
iii. Inlet/Outlet			allon											
No inlet / ou	•		l Porr	mani	ant inlat	or outle	t (channe	al with well	l-defined	banks and	Inormai	opt flow)		
Ephemeral i			-				•				•			
iv. Faunal Indic														
Fish (species					Bullfrog	or Gree	n frog tag	holes [] Other					
c. Significant V							in nog tad							
i. Survey Date(•									
ii. Abundance	-													
Was the entire	e pool compre] No					
For each indice each mass interest	ator species, egrity (EI) for (fidence	level (CL), and	
egg mass ma		r	Slage				-	-		y uales).	1]
Indicator	Observation:							iry Shrimp	-		ļ.,		es/Larva	
Species	Information:	# 4/22/1	£ 5/4/	/1	VN 4/22/1		4/22/4	L**	1/22/1	ЛI*** Т	4/22/	′M*	4/22/1	L**
	Date:	0	0		0	5/4/10	0	5/4/10	0	5/4/10	10	5/4/10	0	5/4/10
Wood frog		0	0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spotted Sa		3	0		S	NA	3	NA	F	NA	NA	NA	NA	NA
Blue-spotte Salamande		0	0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fairy Shrim *Verification Met	•	0	0		NA	NA	NA	NA	NA	NA evel (specie				
 *** Egg Mass Int iii. Rarity Criter Was a specifie If yes, indicate Note any rare observer name, 	r ia c effort made e which specie species asso	to survey es were ta ciated wi	r for ra argete th vei	are s ed:	species?	? □ Yes	5	🛛 No						-
Species					/erificati Method	*	CL**	Species				Verificat Method	d*	CL**
				<u>P</u>	H	S						P H	S	
Blanding								Wood Tu						
Spotted -	Turtle							Ribbon S	Snake					
-	Boghaunter							Other:						
*Verification d. General Con	on Method: P=	Photograp	hed, H	H= H	andled, S	S= Seen	ł	**CL-Confic	lence leve	l in verificat	ion: 1= <	60%, 2= 60	0-95%, 3=	= >95%
u. General Con	intents.													
Completed \	/ernal Pool St	urvey per	quide	eline	s outline	ed in the	MAWS	2010 Inter	im Verna	l Pool Surv	vev Prot	ocol		
Sent hard co	py of MAWS	Vernal P	ool D	ata (Collectio	n Form	to: MDIF	&W, Attn:	Vernal P	ools; 650 \$	State St	reet; Bang		
Sent hard co														
Sent shapefi		imeter / c	enter	poir	nt on CD	to MDI	F&W (ad	dress abo	ve) or 📋	emailed to	o: <u>verna</u>	lpools.mo	lifw@ma	<u>iine.gov</u>
OBSERVER SI I hereby certify		mation co	ntain	ed ir	this rer	oort is tr	ue and co	omolete to	the hest	of my kno	wledae			
Signature:														
For MDIF&W U	se Only:	Revie	wed I	by M	DIF&W	Date: _			_ Initials	:				
This pool is:	Potentia	ally signi	ificar	nt bu	t lackin	g critic	al data 🗌] Not sigr	hificant d				-	riteria and/c
											does no	t meet de	finition c	riteria

	Ν		n of Wetland S ol Data Collec	Scientists (MAWS) etion Form
Project Name/#	Bull Hill	Organization	Name: _Stantec Co	nsulting Pool ID:07BE
Observer Conta		U	—	J
		ary if applicable) · Bryar	Emerson	Phone or Email207-729-1199
				/ Submitted Included w/this Submission
-				
Landowner Con			n: 🕅 Ves 🗔 N	0 Notes:
				Phone:
	-		-	AZip: <u>02111</u>
			0.a.o.	·
1. OBSERVE				_
This pool is:	Significant	Potentially Significant	Not significant	 does not meet MDEP SVP biological criteria does not meet MDEP vernal pool definition criteria
		(include notes in section 3d		Notes:
		on Page 2)		Notes:
Municipality or To	ownship: <u>Eastbr</u>	TION INFORMATION		n existing carriage path
		=		I, NAD83, Zone 19 North, meters)
				ade GPS with post processed corrections: X Yes No shapefile named* -68.1529, 44.7089N
		-	-	shapefile named*
				ol Center Point Northing***:
** If mapping gra	st check the informa ade GPS or Profess	ation on an aerial photo to ensisional Survey is not available,	sure data quality. observers must use th	e most current MDIF&W Vernal Pool Data Collection Form. pool location on USGS Topo Quad or large scale aerial photo.
3. VERNAL P	OOL SURVE	Y INFORMATION		
a. Pool or Wetla i. Choose the be		acterization the physical setting:		
Isolated Upla	•	🛛 Pool assoc	iated with larger wetl	and complex
Floodplain De	•	Other:		
		best apply to this pool or w		
Forested wetl		☐ Wet meado ☐ Shallow po		Slow stream Floodplain overflow / Oxbow
Peatland (aci	dic fen or bog)	Abandoned	l beaver flowage	Headwater seepage
Emergent ma				Other:
		r of increasing hydroperiod ttom, or upland mosses pr		
☐ Mineral soil ☐ Organic matte	(sphagnum mo er (peat/muck) sh	· · ·		
	-	dicators in order of increas	· · · ·	
lycopodium spr Dry site ferns Moist site ferr Moist site vas swamp candle)	(e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab	od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iris	m) ⊠ Wet site ferns m) ⊠ Wet site gram mk) ⊡ Aquatic vascu	oss (anchored or suspended) (e.g. royal fern, marsh fern) inoids (e.g. blue-joint grass, tussock sedge, cattail) lar spp. (e.g. pickerelweed, arrowhead) bmerged aquatics (e.g. water lily, water shield, pond vort)
b. Vernal Pool C				
 i. Pool's Origin: Describe any m 		Natural-Modified modifications to the pool a	Non-Natural and associated wetla	Unknown nd (REQUIRED):

				-										
April 1	14, 2010													Page 1 of
ii. Hy	drology				•						'BE			
		ze of pool (at)		t (chec	;k one)
	-	n at time of s	-					-	Check on	e)				
	-	likely hydrop		-		in the spa	ice to the	right.						
		nent (drying p												
		drying out co			•									
		dry out perio		ation								_		
		ermanency					<i>.</i>							
	lo inlet / outl						-			banks and	-	-		
	-	let / outlet		Other										
	aunal Indica			_		_								
):				g or Gree	n frog tad	poles	Other:					
_		ernal Pool S		der NR	PA									
): <u>4/22/10, 5</u>	5/4/10											
	undance C		h a a a iu ca b		und for a	~~ ~~~~~								
		pool compre ator species,] No method	(VM) con	fidence	level (Cl) and	
		grity (EI) for e									naenee	10101 (02	, and	
		Observation:			Egg M	lasses (or	Adult Fai	irv Shrimr)			Tadpole	sc/Larva	20
h	ndicator	Information:				/M*		L**		/II***	\ \	/M*		CL**
	Species	Date:	4/22/1	-	4/22/1 0		4/22/1 0	5/4/10	4/22/1 0	5/4/10	4/22/ 10	5/4/10	4/22/1 0	
٧	Nood frog		14	0	S	NA	3	NA	F	Н	NA	S	NA	3
S	Spotted Sala	amander	14	14	s	S	3	3	F	М	NA	NA	NA	NA
E	Blue-spotted	1	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Salamander			0	NA	NA	NA	NA	NA					
	airy Shrimp	o od: S= Seen, I	0	-			INA			NA evel (specie			CO 050/	2 05%
iii. Ra ■ Wa ■ If ye ■ Not	arity Criteria as a specific es, indicate te any rare s	grity: F= Fresh a effort made which species species asso bool location,	to survey es were ta ciated wit	for rare argeted th verna	e species	s? 🗌 Yes	[anced (loos ⊠ No	ser matrix,	curved emb	oryos), F	l = Hatched	or hatch	ning
					Verifica	ation						Verificat	ion	
	Species				Metho		CL**	Species				Metho		CL**
					P H	S						P H	S	
	Blanding's							Wood Tu						
	Spotted T							Ribbon S	Snake					
	Ringed Bo							Other:						
d. Ge	*Verification eneral Com	n Method: P= I ments:	Photograp	hed, H=	Handled,	S= Seen	*:	*CL-Confia	lence leve	l in verificati	on: 1= <	:60%, 2= 6	0-95%, 3	≥>95%
												-		
		ernal Pool Su												
		by of MAWS												
		by map of po e of pool peri												
	ERVER SIG		meter / c	enter p						emaneu u). <u>vema</u>			ame.gov
		hat the inform	nation co	ntained	l in this r	eport is tru	ue and co	mplete to	the best	of my kno	wledge	:		
Signa	ature:	Bryan Emei	rson			Da	te10/7	/2010						
	MDIF&W Us	e Only:	Revie	wed by	MDIF&\	V Date:			Initials					
	pool is: gnificant	Detentia		-									logical	criteria and/

	Γ	laine Associatio Vernal Po	n of Wetland S ol Data Collec		. ,	
Project Name/#	t:Bull Hill	Organizatio	n Name: _Stantec C	onsulting	Pool ID: 08 MG	
Observer Cont	act Information					
		dary, if applicable): Micha	ael Glessner	Phone	or Email <u>207-729-1199</u>	
					Included w/this Submission	
_	ntact Information		—	·		
			on: 🛛 Yes 🗌 N	o Notes:		
					ne:	_
Street Address:	179 Lincoln St.	City: Bosto	nState	: <u>MA</u>	Zip: <u>02111</u>	
1. OBSERV						
This pool is:	Significant	Potentially	□ Not significant	does not	neet MDEP SVP biological criteria	
		Significant	due to:	🔲 does not i	neet MDEP vernal pool definition cr	riteria
		(include notes in section 3d on Page 2)		Notes:		
		TION INFORMATION rook/ Hancock, Maine				
	·		within 1000ft fr	om existing ca	riage path	
		•				
Brand and Mo Check / subm * Observers mu ** If mapping gi	it one: ⊠ GPS □ GPS □ Pool ust check the inform rade GPS or Profes	location of center point of location of pool perimeter Center Point Easting***: ation on an aerial photo to en sional Survey is not available	apping grade GPS w the pool included in included as polygon Pc sure data quality. observers must use th	ith post proces shapefile name shapefile name ol Center Point e most current M	Sed corrections: Yes No d*Notest No d* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho	
		Y INFORMATION				
	and Habitat Cha					
		the physical setting:				
	•	_	ciated with larger wet	and complex		
Floodplain D	•	□ Other: best apply to this pool or v	watland			
 ☑ Forested we ☑ Shrub wetlar 	tland nd idic fen or bog)	U Wet mead Shallow po Abandone	ow	☐ Slow strea ☐ Floodplair ☐ Headwate ☐ Other:	overflow / Oxbow	
		r of increasing hydroperio				
Mineral soil	(sphagnum mo ter (peat/muck) sh	attom, or upland mosses p ss present) aallow or restricted to deep eep and widespread				
iv. Nonwoody p	ool vegetation in	dicators in order of increas				
lycopodium sp Dry site ferns Moist site fer Moist site va swamp candle	s (e.g. spinulose wo ms (e.g. sensitive, o sculars (skunk cab	od fern, lady fern, polypody f innamon, interrupted, New Y bage, jewelweed, blue flag ir	ork) 🗌 Aquatic vascu	i (e.g. royal fern ninoids (e.g. blu lar spp. (e.g. p bmerged aqua		
	Origin or Impact					
 i. Pool's Origin Describe any r 		Natural-Modified modifications to the pool	Non-Natural and associated wetla	Unkno nd (REQUIREI		

					Ve	ernal	Pool	Data C	collect	ion Fo	rm				
3. V	ERNAL PC		EY INFO	RM	ΑΤΙΟ	DN (coi	ntinuea	Ŋ		Pool II	D: 08MG				
	lydrology	¢ 17.		.,		<i>c</i> 141	50								`
•	•	ze of pool (at	-	•	• ·	-				,	·] m 🖂 ft	(check d	one)
	-	h at time of s	-						-	check on	e)				
	=	likely hydrop		-		dence ir	n the spa	ace to the	right.						
	-														
	-	nent (drying p	-	-	-			-							
		drying out co													
		dry out perio		ation									•		
	nlet/Outlet F	-													
_	No inlet / out							-			banks and		nent flow)	
	Ephemeral ir] Oth	ier _										
	aunal Indica				_					_					
):				-	or Gree	n frog tac	poles] Other:_					
	-	ernal Pool S		der I	NRP/	4									
i. Sı	urvey Date(s	s): <u>5/18/09,</u> 6	5/4/09												
	bundance C								F	-					
		pool compre ator species,									(\/M) con	fidanca) and	
		grity (EI) for e										nuence		_), anu	
Г	33		r					•	•		,		Tadaal		
	Indicator	Observation:		<u> </u>	<u> </u>				iry Shrimp L**	-	/II***	,	I adpoi	es/Larvae	e L**
	Species	Information:	5/18/0		/0	VI 5/18/0		5/18/0		5/18/0		5/18/		5/18/0	
	Wood frog	Date:	9	9 0		9 NA	6/4/09 NA	9 NA	6/4/09 NA	9 NA	6/4/09 NA	09 NA	6/4/09 S	9 NA	6/4/09 3
-	Wood frog		-										-		
Ļ	Spotted Sala		35	34		S	S	3	3	M	М	NA	NA	NA	NA
	Blue-spotted Salamander		0	0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fairy Shrim	D	0	0		NA	NA	NA	NA	NA	NA				
iii.F ■ W ■ If ■ N(Rarity Criteri as a specific yes, indicate ote any rares	egrity: F= Fresh ia effort made which specie species asso pool location,	to survey es were ta ciated wi	[,] for r arget th ve	rare s ted: _ ernal	species?	? Yes		🛛 No			- ,			-
					١	/erificati	ion						Verifica		
	Species				L	Method		CL**	Species				Metho		CL**
					P	<u>H</u>	S						<u>Р Н</u>	S	
	Blanding's								Wood Tu						
	Spotted T	urtle							Ribbon S	Snake					
	•	oghaunter							Other:						
		n Method: P=	Photograp	hed,	H= Ha	andled, S	S= Seen	*	*CL-Confid	lence leve	l in verificat	ion: 1= <	:60%, 2=6	60-95%, 3 =	: >95%
a. e	eneral Com	ments:													
	Completed V	arnal Daal Si		aula	Jalina		od in the	MANNO	010 Inter	im Vorno	Deal Sum	In Dra	tagal		
		ernal Pool Su py of MAWS												aor ME (74401
		py map of po													
		e of pool peri													
OB:	SERVER SIG	SNATURE						i					-		
		hat the inforr							•		-	•			
Sig	nature: $\{\mathcal{M}}$	lichael Gless	ner					D	ate10/	7/2010					
For	MDIF&W Us	se Only:	Povia	wood	by M		Data			Initiala					
This	s pool is:		Revie	weu	by IV		Date			minals					
	Significant	Potentia	ally signi	fica	nt bu	it lackin	ng critica	al data 🗌] Not sigr	hificant d				ological ci	riteria and/c riteria

			Pool Data Collec		
-		Organiz	ation Name: _Stantec C	onsulting	Pool ID: 09 MG
	act Information				
-	-				or Email <u>207-729-1199</u>
rimary Observ	er has Submitted	the MAWS VP Creder	ntial Form: 🛛 Previousl	y Submitted	Included w/this Submission
	ntact Information				
		-	Blue Sky LLC P		Zip:02111
			BOSION		2ip. <u>02111</u>
. OBSERV					
his pool is:	Significant	Potentially Significant	Not significant due to:	does not n	neet MDEP SVP biological criteria
		(include notes in section		does not n	neet MDEP vernal pool definition cr
		on Page 2)	Su	Notes:	
			-		
		ook/ Hancock, Maine	(s): within 1000ft fro	m existing carri	age path
		sing mapped landmar	.s) within 1000it 110	in existing cam	
	🗌 GPS-	location of pool perim	eter included as polygon	shapefile name	d* <u>-68.1545W, 44.7008N</u> ed*
** If mapping g	GPS- Pool (ust check the informa rade GPS or Profess	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail	eter included as polygon **:Pc o ensure data quality. able, observers must use th	shapefile name ool Center Point e most current Mi	
** If mapping gu *** Center poin . VERNAL I . Pool or Wetl	GPS- Pool G ust check the informative rade GPS or Profession ts entered on this for POOL SURVE and Habitat Char	location of pool perim Center Point Easting** ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization	eter included as polygon **:Pc o ensure data quality. able, observers must use th th a paper map showing the	shapefile name ool Center Point e most current Mi	ed* Northing***: DIF&W Vernal Pool Data Collection Form.
** If mapping g. *** Center poin • VERNAL I • Pool or Wetl • Choose the b	GPS- Pool 0 ust check the informative rade GPS or Profession ts entered on this for POOL SURVE and Habitat Char poest descriptor for	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Po o ensure data quality. able, observers must use th th a paper map showing the	shapefile name ool Center Point e most current Mi pool location on	ed* Northing***: DIF&W Vernal Pool Data Collection Form.
** If mapping gu *** Center poin 5. VERNAL I . Pool or Wetl . Choose the b] Isolated Upla	GPS- GPS- Bool O Cust check the informative rade GPS or Profession BOOL SURVE Contemportation of the Contemportation of	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Pc o ensure data quality. able, observers must use th th a paper map showing the	shapefile name ool Center Point e most current Mi pool location on	ed* Northing***: DIF&W Vernal Pool Data Collection Form.
** If mapping g. *** Center poin Description Description Output Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Descr	GPS- GPS- Constructed on the information of the information of the information of the information of the information of the information of the infor	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION cacterization the physical setting: ☐ Pool as ☐ Other:	eter included as polygon **:Pro to ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet	shapefile name ool Center Point e most current Mi pool location on	ed* Northing***: DIF&W Vernal Pool Data Collection Form.
** If mapping gu *** Center poin Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description 	GPS- GPS- Bool O Cust check the information rade GPS or Profession POOL SURVE and Habitat Char best descriptor for and Depression Depression Ustrine types that I tland	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting: ☐ Pool as ☐ Other: best apply to this pool ☐ Wet mo	eter included as polygon **:Pc o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping gu *** Center poin Description Description Output Choose the b Isolated Upla Floodplain D Check all pale Forested we Shrub wetlar	GPS- GPS- Bool O Cust check the informative rade GPS or Profession POOL SURVEY and Habitat Char best descriptor for and Depression Depression Depression Ustrine types that I tland nd	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting: ☐ Pool as ☐ Other: best apply to this pool ☐ Wet mo ☐ Shallow	eter included as polygon **:Pc o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger weth or wetland: eadow w pond	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping gu *** Center poin Description Description Output Choose the b Isolated Upla Floodplain D Check all pale Forested we Shrub wetlar	GPS- GPS- Bool (Construction) Construction of the second Construction of the sec	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting: ☐ Pool as ☐ Other: best apply to this pool ☐ Wet mo ☐ Shallow ☐ Aband	eter included as polygon **:Pc o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping g, *** Center poin . VERNAL I . Pool or Wetl . Choose the b] Isolated Upla] Floodplain D . Check all pale] Forested we] Shrub wetlar] Peatland (ac] Emergent material	GPS- GPS- Pool (aust check the informa- rade GPS or Profession POOL SURVE) and Habitat Char best descriptor for and Depression bepression ustrine types that I tland nd cidic fen or bog) arsh a substrate in order	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro to ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod:	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping g. *** Center poin . VERNAL I . Pool or Wetl . Choose the b] Isolated Upla] Floodplain D . Check all pale] Forested we] Shrub wetlar] Peatland (ac] Emergent material . Predominate] Mineral soil (GPS- GPS- Pool (ust check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression ustrine types that I tland hd sidic fen or bog) arsh e substrate in order (bare, leaf-litter bo	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro to ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod:	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping g. *** Center poin • VERNAL I • Pool or Wetl • Choose the b • Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • Predominate • Mineral soil (• Mineral soil (GPS- GPS- Bool (Second for the second Contract of the second for	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present)	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping g. *** Center poin • VERNAL I • Pool or Wetl • Choose the b • Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • Predominate • Mineral soil (• Mineral soil • Organic mathematications)	GPS- Depression Construction of the section of th	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wi Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present)	shapefile name ool Center Point e most current Mi pool location on land complex	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • Indernal soil (• Mineral soil • Organic mathematications) • Nonwoody p	GPS- Pool of and Carl Carl Carl Carl Carl Carl Carl Carl	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting: □ Other: best apply to this pool □ Other: best apply to this pool □ Abando □ Abando □ Active r of increasing hydrop ttom, or upland mosse ss present) hallow or restricted to co bep and widespread	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wetl or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name ool Center Point e most current Mi pool location on land complex Slow strea Floodplain Headwater Other:	m overflow / Oxbow r seepage
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • Iredominate • Mineral soil (• Mineral soil • Organic mathemathemathemathemathemathemathemathe	GPS- Depression Construction of the second	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting: □ Other: best apply to this pool □ Other: best apply to this pool □ Abando □ Abando □ Active r of increasing hydrop ttom, or upland mosse ss present) hallow or restricted to co bep and widespread	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name bol Center Point e most current Mi pool location on land complex Slow strea Floodplain Headwater Other:	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho uSGS Topo Quad or large scale aerial pho overflow / Oxbow r seepage
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pala • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • Iredominate • Mineral soil (• Mineral soil • Organic mathemathemathemathemathemathemathemathe	GPS- Depression Construction of the formation of the fo	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wetl or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name bol Center Point e most current Mi pool location on land complex Slow strea Floodplain Headwater Other: eck all that apply loss (anchored of s (e.g. royal ferm	ed* Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho uSGS Topo Quad or large scale aerial pho overflow / Oxbow r seepage
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent material • Mineral soil (• Mineral soil • Organic material • Nonwoody p • Terrestrial no • Iycopodium sp • Moist site ferm	GPS- GPS- Pool of and contrast check the informa- rade GPS or Profess ts entered on this for POOL SURVE and Habitat Char best descriptor for and Depression Depression ustrine types that I thand and best descriptor for and Depression ustrine types that I and best descriptor for and Depression ustrine types that I and best descriptor for and best descriptor for and and and and and and and and	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name bol Center Point e most current Mi pool location on and complex Slow strea Floodplain Headwater Other: eck all that apply loss (anchored of s (e.g. royal ferm innoids (e.g. plu ular spp. (e.g. pl	m overflow / Oxbow r seepage //: or suspended) n, marsh fern) e-joint grass, tussock sedge, cattail) ickerelweed, arrowhead)
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pale • Forested we • Shrub wetlar • Peatland (ac • Emergent material • Mineral soil (• Mineral soil • Organic material • Nonwoody p • Terrestrial no • Iycopodium sp • Moist site ferm	GPS- Depression Carst check the information rade GPS or Profession POOL SURVE and Habitat Char best descriptor for and Depression Depression ustrine types that I thand and best descriptor for and Depression ustrine types that I and best descriptor for and Depression and Depression	location of pool perim Center Point Easting* ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting: Dother: best apply to this pool Wet mu Shallow Abandu Abandu Active r of increasing hydrop ttom, or upland mosse ss present) hallow or restricted to of sep and widespread dicators in order of incl .g. haircap moss, od fern, lady fern, polypo	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name bol Center Point e most current Mi pool location on and complex Slow strea Floodplain Headwater Other: eck all that apply oss (anchored of s (e.g. royal ferm ninoids (e.g. plu ular spp. (e.g. plu bmerged aquat	m overflow / Oxbow r seepage
** If mapping g, *** Center poin • VERNAL I • Pool or Wetl • Choose the b Isolated Upla • Floodplain D • Check all pala • Forested we • Shrub wetlar • Peatland (ac • Emergent mathematications) • IPredominate • Mineral soil (Mineral soil • Organic mathemathemathemathemathemathemathemathe	GPS- Depression Construction of the second Construction	location of pool perim Center Point Easting** ation on an aerial photo t sional Survey is not avail rm must be submitted wit Y INFORMATION racterization the physical setting:	eter included as polygon **:Pro o ensure data quality. able, observers must use th th a paper map showing the ssociated with larger wet or wetland: eadow w pond oned beaver flowage beaver flowage eriod: es present) deepest portion reasing hydroperiod (che	shapefile name bol Center Point e most current Mi pool location on and complex Slow strea Floodplain Headwater Other: eck all that apply oss (anchored of s (e.g. royal ferm ninoids (e.g. plu ular spp. (e.g. plu bmerged aquat	And*Northing***: Northing***: DIF&W Vernal Pool Data Collection Form. USGS Topo Quad or large scale aerial pho with the scale aerial pho aerial pho with the scale aerial pho overflow / Oxbow r seepage /): or suspended) h, marsh fern) e-joint grass, tussock sedge, cattail) ickerelweed, arrowhead) tics (e.g. water lily, water shield, pond

				Verna	al Pool	Data C	Collect	ion Fo	orm				
3. VERNAL	POOL SURVE	EY INFO	RMA	TION (continue	ed)		Pool II	D: 09 MG				
ii. Hydrology • Approximate	size of pool (at	max. ca	pacity	/): Width	35	□ m [⊠ ft (che	ck one) L	ength 10	00	∣m⊠	ft (check	one)
	pth at time of s											·	,
	ol's <u>likely</u> hydrop	-					-		,				
•	nt ,		•				0						
	nanent (drying p				completel	ly in droug	ht years)						
Ephemera	al (drying out co	mpletely	in mo [,]	st years)									
	nd dry out perio												_
iii. Inlet/Outle	t Permanency												
🛛 No inlet /	outlet] Pern	nanent in	nlet or outle	et (channe	with wel	I-defined	banks and	l permai	nent flow)		
Ephemera	al inlet / outlet] Othe	er									
iv. Faunal Inc	licators:												
🗌 Fish (spec	ies):			🗌 Bullfr	rog or Gree	en frog tac	lpoles 🗌] Other:_					
c. Significant	Vernal Pool S	tatus un	der N	RPA									
i. Survey Dat	e(s): <u>5/18/09, 6</u>	3/4/09											
ii. Abundanc													
For each ind	ire pool compre dicator species, ntegrity (EI) for e	indicate i	the ex	kact numl	ber of egg	masses, v	verification			fidence	level (CL), and	
	Observation:			Egg	Masses (o			-			Tadpole	es/Larvae)
Indicator	Information:				VM*		;L**		/I***		′M*		_**
Species	Date:	9	9	9	6/4/08	9	0/4/09	5/18/0 9	6/4/09	5/18/ 09	6/4/09	5/18/0 9	6/4/09
Wood fro	-	20+	0	S	NA	3	NA	Н	Н	S	S	3	3
	Salamander	41	48	S	S	3	3	М	М	NA	NA	NA	NA
Blue-spot Salaman		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fairy Shr	imp lethod: S= Seen, I	0	0	NA	NA	NA	NA	NA	NA evel (specie				
 iii. Rarity Crit Was a spec If yes, indica Note any ra 	Integrity: F= Fresh feria ific effort made to ate which species re species asso e, pool location,	to survey es were ta ciated wit	r for ra argete th ver	are specie ed: nal pools	es? Yes	S	🛛 No				ied photo	ographs (-
Specie	s			Meth		CL**	Species				Verificat Method P H		CL**
Blandir	ng's Turtle						Wood Tu	urtlo					
	-						Ribbon S				= =		
	d Turtle							Snake					
-	Boghaunter	<u></u>					Other:		1				05%
d. General Co	ation Method: P= I omments:	Photograp	hed, H	I= Handle	d, S= Seen		*CL-Confic	ience leve	l in verificat	on: 1= <	50%, 2= 60)-95%, 3=	>95%
Completed	Vernal Pool Su	Jrvey per	guide	elines out	tlined in the	e MAWS 2	2010 Inter	im Verna	I Pool Surv	vey Prot	ocol		
	copy of MAWS												
	copy map of po												
	efile of pool peri	meter / c	enter	point on	CD to MD	IF&W (add	dress abo	ve) or 📋	emailed to	o: <u>verna</u>	lpools.mo	lifw@ma	ine.gov
-	fy that the inforr				-		-		-	-			
-	_Michael Gles	SILET				D	ale _10/	1/2010					
For MDIF&W	Use Only:	Revie	wed b	by MDIF8	W Date:			Initials	:				
This pool is: Significan	t 🗌 Potentia	ally signi	fican	t but lac	king critic	cal data 🗌] Not sigr	nificant d			meet bio t meet de	-	

			ol Data Collec		
Project Name/#	:_Bull Hill	Organization	Name: _Stantec Cor	nsulting	Pool ID: 10BE
Observer Conta	act Information				
Primary Observe	er (include second	dary, if applicable) : _Bryar	Emerson	Phone or E	Email207-729-1199
Primary Observe	er has Submitted	the MAWS VP Credential	Form: 🛛 Previously	/ Submitted [Included w/this Submission
Landowner Cor	ntact Information	ı			
			n: 🛛 Yes 🗌 No	Notes:	
		EQUIRED): Name: <u>Blue</u>			
Street Address:	179 Lincoln St.	City: Boston	State:	MA	Zip: <u>02111</u>
1. OBSERVE					
				🛛 does not	meet MDEP SVP biological criteria
This pool is:	Significant		Not significant		meet MDEP SVP biological criteria
		(include notes in section 3d	uue to.	does not	meet MDEP vernal pool definition criteria
		on Page 2)		Notes:	
2. VERNAL	POOL LOCAT	ION INFORMATION			
Municipality or T	ownship: Eastbr	ook/ Hancock County, Ma	ine		
Brief site directic	ne to the neel (up	sing mapped landmarks):_	within 1000ft fr	om ovicting or	priago path
		sing mapped ianumarks)			
	/				
		red Coordinate System, D			
					ocessed corrections: X Yes No
Check / submi	it one: 🖂 GPS-	location of center point of	the pool included in s	shapefile nam	ed* <u>-68.1542W, 44.7155N</u>
		location of pool perimeter	included as polydon	shanafila nan	ned*
					nt Northing***:
* Observers mu		ation on an aerial photo to en			
** If mapping gra	ade GPS or Profes	sional Survey is not available,	observers must use the	e most current l	MDIF&W Vernal Pool Data Collection Form.
*** Center points	s entered on this fo	rm must be submitted with a p	paper map showing the	pool location o	n USGS Topo Quad or large scale aerial photo.
3. VERNAL P	POOL SURVE	Y INFORMATION			
	and Habitat Chai				
		the physical setting:			
Isolated Upla	-		ated with larger wetla	and complex	
Floodplain De	•	Other:			
		best apply to this pool or w			
⊠ Forested wet ⊠ Shrub wetlan		☐ Wet meado ☐ Shallow po		Slow stre	am n overflow / Oxbow
			beaver flowage		er seepage
Peatland (aci		Active beav		Other:	1 0
Peatland (aci Emergent ma	1511		<u> </u>		
Emergent ma		r of increasing hydroperiod			
☐ Emergent ma iii. Predominate ⊠ Mineral soil (t	substrate in orde bare, leaf-litter bo	ttom, or upland mosses pr	1:		
☐ Emergent ma iii. Predominate ⊠ Mineral soil (t ☐ Mineral soil	substrate in orde bare, leaf-litter bo (sphagnum mo	ttom, or upland mosses pr ss present)	l: esent)		
Emergent ma Emergent ma Iii. Predominate Mineral soil (t Mineral soil Organic matte	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh	ttom, or upland mosses pr ss present) allow or restricted to deep	l: esent)		
Emergent ma Emergent ma Iii. Predominate Mineral soil (t Mineral soil organic matte Organic matte	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread	l: esent) est portion	ck all that app	
Emergent ma Emergent ma iii. Predominate Mineral soil (t Mineral soil coil Organic matte Organic matte iv. Nonwoody p	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas	l: esent) est portion ing hydroperiod (chea		
Emergent ma Emergent ma iii. Predominate Mineral soil (t Mineral soil Organic matte Organic matte iv. Nonwoody p Terrestrial no lycopodium sp	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind nvascular spp. (e p.)	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss,	I: esent) est portion ing hydroperiod (chea ☐ Sphagnum ma ⊠ Wet site ferns	oss (anchored (e.g. royal fe	d or suspended) rn, marsh fern)
Emergent ma Emergent ma iii. Predominate Mineral soil (t Mineral soil Organic matte Organic matte Organic matte iv. Nonwoody p Terrestrial no lycopodium spp Dry site ferns	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind nvascular spp. (e p.) (e.g. spinulose wo	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe	I: esent) est portion Ing hydroperiod (chea ☐ Sphagnum ma ⊠ Wet site ferns irn) ⊠ Wet site gram	oss (anchored (e.g. royal fe inoids (e.g. bl	d or suspended) rn, marsh fern) lue-joint grass, tussock sedge, cattail)
Emergent ma Emergent ma iii. Predominate Mineral soil Mineral soil Organic matte Organic matte Organic matte iv. Nonwoody pe Terrestrial no lycopodium sp Dry site ferns Moist site fern	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind nvascular spp. (e p.) (e.g. spinulose wo ns (e.g. sensitive, c	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo	I: esent) est portion ☐ Sphagnum mo ⊠ Wet site ferns vrn) ⊠ Wet site gram vrk) ☐ Aquatic vascu	oss (anchored (e.g. royal fe inoids (e.g. bl lar spp. (e.g.	d or suspended) rn, marsh fern) lue-joint grass, tussock sedge, cattail) pickerelweed, arrowhead)
Emergent ma Emergent ma iii. Predominate Mineral soil (t Mineral soil organic matte Organic matte	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind nvascular spp. (e p.) (e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab	ttom, or upland mosses pr ss present) lallow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iris	I: esent) est portion ☐ Sphagnum mo ⊠ Wet site ferns vrn) ⊠ Wet site gram vrk) ☐ Aquatic vascu	oss (anchored (e.g. royal fe inoids (e.g. bl lar spp. (e.g. bmerged aqu	d or suspended) rn, marsh fern) lue-joint grass, tussock sedge, cattail)
Emergent ma Emergent ma iii. Predominate Mineral soil (t Mineral soil organic matte Organic matte	substrate in orde pare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de ool vegetation ind nvascular spp. (e p.) (e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab) Drigin or Impact	ttom, or upland mosses pr ss present) lallow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iris	I: esent) est portion ☐ Sphagnum mo ⊠ Wet site ferns mn) ⊠ Wet site gram wrk) ☐ Aquatic vascu s, ☐ Floating or su	oss (anchored (e.g. royal fe inoids (e.g. bl lar spp. (e.g. bmerged aqu	d or suspended) rn, marsh fern) lue-joint grass, tussock sedge, cattail) pickerelweed, arrowhead)

Apri	il 14, 2010													Page 1 of 2
3. \	VERNAL PO	OOL SURVE	EY INFC	RMAT	ION (co	ntinued	0		Pool II): 10)BE			
ii. F	lydrology				•									
-	oproximate siz							-		-)		t (chec	< one)
	aximum depth		-						check on	e)				
	ect the pool's			-	vidence ii	n the spa	ice to the	right.						
	Permanent _													
	Semi-permar		-	-			-							
	Ephemeral (c				• • —									
	Recommend	•	d observa	ation										
	Inlet/Outlet P	-	_	1 -										
	No inlet / outl									banks and	•	,		
	Ephemeral in			JOther										
				_		•		. –						
	Fish (species)					or Gree	n frog tad	poles	Other:_					
	Significant Ve			der NRI	A									
	urvey Date(s	-	6/4/10											
	Abundance C Vas the entire		hensivel		ed for ea	a masse	s2 □ Ve	is L	∃ No					
	or each indica									(VM), con	fidence	level (CL), and	
	egg mass integ													
		Observation:			Egg Ma	sses (or	Adult Fai	rv Shrimc)			Tadpole	es/Larva	e
	Indicator	Information:	#	ŧ		M*		L**		/II***	Ņ	/M*		CL**
	Species	Date:	4/22/1 0	5/4/1 0	4/22/1 0	5/4/10	4/22/1 0	5/4/10	4/22/1 0	5/4/10	4/22/ 10	5/4/10	4/22/1 0	5/4/10
	Wood frog		2	0	S	NA	3	NA	F	н	NA	S	NA	3
	Spotted Sala	amander	18	15	S	S	3	3	F	F	NA	NA	NA	NA
	Blue-spotted Salamander		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fairy Shrimp)	0	0	NA	NA	NA	NA	NA	NA				
	erification Meth							**Con	fidence Le	evel (specie	s ID): 1=	= <60%, 2=	60-95%,	3= >95%
	* Egg Mass Inte		n (<24 hrs), <i>M</i> = Ma	ture (round	l embryos	s), A= Adva	anced (loos	ser matrix,	curved emb	oryos), F	l= Hatched	or hatch	ng
	Rarity Criteri Vas a specific		to survey	for rare	snecies		٢	🖾 No						
∎ If	ves, indicate	which specie	es were t	argeted:	•									
∎ N	lote any rare s	species asso	ciated wi	th verna	l pools us	sing the I	oox below	. Observa	ations sh	ould be ac	compai	nied photo	graphs	(labeled with
obs	server name, p	pool location,	, and date	e).									-	
	Species				Verificat Method		CL**	Spacios				Verificat Metho		CL**
	Species			F		S	0L	Species			-	P H	S	CL
	Blanding's	s Turtle		Γ				Wood Tu	urtle					
	Spotted T							Ribbon S						
	Ringed Bo							Other:						
		n Method: P= I	Photoaran				**		lence leve	l in verificati	on 1	60% 2-6)-95% 2	= >95%
d. (General Com		notograp		nanuleu, c	- 06611		SE-Connu		vornoau	511. I – S		/ 00 /0, 0	- 20070
\boxtimes	Completed Ve	ernal Pool Su	urvey per	guidelir	nes outlin	ed in the	MAWS 2	010 Interi	im Verna	Pool Surv	/ey Pro	tocol		
	Sent hard cop													
	Sent hard cop													
	Sent shapefile		meter / c	enter po	Dint on CE	to MDI	-&vv (ado	aress abo	ve) or ∐	emailed to	o: <u>verna</u>	aipools.mo	lifw@ma	aine.gov
	ereby certify t		nation co	ntained	in this re	oort is tri	ue and co	mplete to	the best	of my kno	wledne	:		
	gnature: _ <i>Br</i> y						10/7/201	-			mouge	-		
	MDIF&W Us	se Only:	Revie	wed by	MDIF&W	Date: _			Initials					
n mi	s pool is:													

	Ν		n of Wetland S ol Data Collec	Scientists (MAWS) ction Form
Project Name/#	:Bull HII	Organizatio	n Name: _Stantec C	Consulting Pool ID: 11CF
Observer Conta				
		dary if applicable) · Cha	urles Ferris Pho	ne or Email _ 207-729-1199
-	-			y Submitted I Included w/this Submission
-				
Landowner Cor				
				o Notes:
			•	Phone:
Street Address:_	179 Lincoln St.	City: Bosto	nS	tate: <u>MA</u> Zip: <u>02111</u>
1. OBSERVE	R RECOMM			
This pool is:	Significant	Potentially Significant	Not significant due to:	
		(include notes in section 3d		does not meet MDEP vernal pool definition criteria
		on Page 2)		Notes:
2. VERNAL I	POOL LOCAT	ION INFORMATION		
		ook/ Hancock County, Ma	ine	
Brief site directio	ns to the pool (us	sing mapped landmarks):_	within 1000ft	from existing carriage path
Location of Ver	nal Pool* (Requi	red Coordinate System D	atum and Linits: LITM	/, NAD83, Zone 19 North, meters)
		-		post processed corrections: \square Yes \square No
				shapefile named*68.1612W, 44.7211N
		·····		
	GPS-	location of pool perimeter	included as polygon	shapefile named*
	Pool	Center Point Easting***:	Po	ol Center Point Northing***:
		ation on an aerial photo to en		a mark summer MDIER MUVame Deal Date Callestian Farm
				e most current MDIF&W Vernal Pool Data Collection Form. pool location on USGS Topo Quad or large scale aerial photo.
3. VERNAL P		Y INFORMATION		
a. Pool or Wetla				
i. Choose the be	est descriptor for	the physical setting:		
Solated Upla	•		iated with larger wet	and complex
🗌 Floodplain De	pression	Other:		
	••	best apply to this pool or v		_
Forested wetl		☐ Wet meado ☐ Shallow po		Slow stream Floodplain overflow / Oxbow
	dic fen or bog)		beaver flowage	Headwater seepage
Emergent ma		Active bear	•	Other:
		r of increasing hydroperio		
	oare, leaf-litter bo (sphagnum mo	ottom, or upland mosses plass present)	resent)	
		allow or restricted to deep	est portion	
		ep and widespread	•	
iv. Nonwoody p	ool vegetation ind	dicators in order of increas	ing hydroperiod (che	ck all that apply):
Terrestrial no		.g. haircap moss,		oss (anchored or suspended)
lycopodium spr □ Drv site ferns		od fern. ladv fern. polypody fe		s (e.g. royal fern, marsh fern) ninoids (e.g. blue-joint grass, tussock sedge, cattail)
Moist site ferr	ns (e.g. sensitive, c	innamon, interrupted, New Yo	ork) 🗌 Aquatic vascu	ular spp. (e.g. pickerelweed, arrowhead)
Moist site vas swamp candle)		bage, jewelweed, blue flag iri	s, D Floating or su weed, bladdery	Ibmerged aquatics (e.g. water lily, water shield, pond
b. Vernal Pool C		S		
i. Pool's Origin:		Natural-Modified	Non-Natural	
Describe any m	odern or historic	modifications to the pool	and associated wetla	nd (REQUIRED):

Apri	I 14, 2010													Page 1 of 2
3. \	ERNAL PO		EY INFO	RMAT	ON (col	ntinued)		Pool II): <u>11CF</u>				
	lydrology	· · · · ·		· · · ·	A.C. 141	50					о Г			,
	proximate siz										0		t (check	one)
	aximum depth								Check on	e)				
	ect the pool's			-		i the spa	ce to the	right.						
	Permanent					man lata h (in due or							
	Semi-perman													
	Ephemeral (c													
	Recommend of			ation										
	nlet/Outlet P	•		D										
	No inlet / outl						-			banks and	-			
	Ephemeral in Faunal Indic a			Other										
				_	Dullfrom	or Croor	frog tod		Othory					
	-ish (species)				-	or Green	i irog tad	poles _	Other:					
	ignificant Ve				-A									
	urvey Date(s		0/3/10											
	bundance C as the entire		hensivel	/ survev	ed for ea	a masse	s? 🖂 Ye	s F	No					
	or each indica									(VM), conf	idence	level (CL)	, and	
е	gg mass integ	grity (EI) for e	each life s	stage (s	eparate c	ells are p	provided f	or separa	ate survey	dates).				
		Observation:			Egg Ma	sses (or	Adult Fai	ry Shrimp)			Tadpole	s/Larvae	•
	Indicator	Information:	#		V		C	_**	-	11***	V	M*		**
	Species	Date:	4/15/1 0	5/3/1 0	4/15/1 0	5/3/10	4/15/1 0	5/3/10	4/15/1 0	5/3/10	4/15/ 10	5/3/10	4/15/1 0	5/3/10
	Wood frog		19	0	S	NA	3	NA	F	Н	NA	S	NA	3
_	Spotted Sala	amander	21	13	S	S	3	3	F	F	NA	NA	NA	NA
	Blue-spotted		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Salamander Fairy Shrimp		0	0	NA	NA	NA	NA	NA	NA				
*\/#	erification Meth		•							vel (species	s ID): 1–	<60% 2-	60-95%	3- >95%
***	Egg Mass Inte	grity: F= Fresh	n (<24 hrs)	, <i>M</i> = Mat	ure (round	l embryos), A= Adva	nced (loos	ser matrix,	curved emb	ryos), H	= Hatched	or hatchir	ig
	Rarity Criteria						_	_						
	as a specific					' 🗌 Yes		🛛 No						
	yes, indicate ote any rare s					sing the t	ox below	Observa	ations she	ould be acc	compan	ied photo	araphs (abeled with
	erver name, p											ieu priete	9.40.00	
					Verificati	on						Verificat	ion	
	Species				Method		CL**	Species				Method		CL**
				P		S						P H	S	
	Blanding's							Wood Tu						
	Spotted T	urtle		L				Ribbon S	Snake		l			
	Ringed Bo	-						Other:						
4 0		n Method: P= I	Photograp	hed, H=	Handled, S	S= Seen	**	CL-Confid	ence level	in verificatio	on: 1= <6	60%, 2= 60)-95%, 3=	>95%
a. e	Seneral Com	nents:												
	Completed Ve	vrnal Pool Su		quidolin	oc outling	nd in the	MA\A/Q 2	010 Intori		Pool Surv	OV Prot			
	Sent hard cop												or. ME ()4401
	Sent hard cop													
	Sent shapefile													
	SERVER SIG													
	ereby certify th										wledge:			
Sig	nature:C	harles Ferri	s			_ Date	10/7/20	010						
	MDIF&W Us	e Only:	Revie	wed by	MDIF&W	Date:			Initials:					
	s pool is:	-		20.09										

Maine Association of Wetland Scientists (MAWS) Vernal Pool Data Collection Form											
Project Name/#:	Bull Hill	Organizatio	n Name: Stantec Co	onsulting	Pool ID: 11 MG						
Observer Conta		U	—	0							
		domy if oppliable) + Micha	ol Classnar	Dhana ar F							
		dary, if applicable) : Micha									
		the MAWS VP Credential	Form: 🛛 Previously	/ Submitted 📋 Ind	cluded w/this Submission						
Landowner Con											
	-		-								
Street Address:_	179 Lincoln St	City: <u>Bosto</u>	n	_State: <u>MA</u>	Zip: <u>02111</u>						
1. OBSERVE	R RECOMM										
This pool is:	Significant		Not significant due to:		t MDEP SVP biological criteria						
		(include notes in section 3d			t MDEP vernal pool definition criteria						
		on Page 2)		Notes:							
2. VERNAL F		ION INFORMATION									
		ook/ Hancock, Maine									
Brief site directions to the pool (using mapped landmarks): within 1000ft from existing carriage path											
Location of Vernal Pool* (Required Coordinate System, Datum and Units: UTM, NAD83, Zone 19 North, meters)											
Brand and Mo	del of GPS unit**	: <u>Trimble Pro-XT</u> Ma	pping grade GPS wit	h post processed o	corrections: 🛛 Yes 🗌 No						
Check / submi	t one: 🛛 GPS-	location of center point of	the pool included in s	shapefile named*	-68.1559W, 44.7008N						
	GPS-	location of pool perimeter	included as polygon	shapefile named*							
		Center Point Easting***:	Po	ol Center Point No	rthing***:						
** If mapping gra	ade GPS or Profes	ation on an aerial photo to ens sional Survey is not available, rm must be submitted with a p	observers must use the	e most current MDIF& pool location on USG	&W Vernal Pool Data Collection Form. GS Topo Quad or large scale aerial photo.						
3. VERNAL P	OOL SURVE	Y INFORMATION									
a. Pool or Wetla		acterization the physical setting:									
□ Isolated Upla	•		iated with larger wetl	and complex							
Floodplain De	•	Other:	iated with larger wet	and complex							
	•	best apply to this pool or w	vetland:								
Forested wetl		Wet meado		☐ Slow stream							
Shrub wetland	b	🔲 Shallow po	nd	Floodplain ove	erflow / Oxbow						
	dic fen or bog)		beaver flowage	Headwater see	epage						
Emergent ma		Active beav		Other:							
		ttom, or upland mosses pr									
☐ Mineral soil											
		allow or restricted to deep eep and widespread	est portion								
_ •	. <i>,</i>	dicators in order of increas	ing hydroperiod (che	ck all that apply).							
Terrestrial no	-		- · · ·	oss (anchored or s	uspended)						
lycopodium spr	o.)		Wet site ferns	(e.g. royal fern, ma	arsh fern)						
					int grass, tussock sedge, cattail)						
Moist site vas	culars (skunk cab	innamon, interrupted, New Yo bage, jewelweed, blue flag iris	s, 🗌 Floating or su	bmerged aquatics	erelweed, arrowhead) (e.g. water lily, water shield, pond						
swamp candle) b. Vernal Pool C		5	weed, bladderv	voit)							
i. Pool's Origin:		Natural-Modified	Non-Natural	Unknown							
		modifications to the pool a									

3. VERNAL POOL SURVEY INFORMATION (continued) Pool ID: 11 MG ii. Hydrology • Approximate size of pool (at max. capacity): Width70 m imes ft (check one) Length120 m imes ft (check one) • Maximum depth at time of survey:60 in □ ft □ cm □ m (check one) Select the pool's likely hydroperiod and give evidence in the space to the right. □ Permanent	
 Approximate size of pool (at max. capacity): Width 70 m K ft (check one) Length 120 m ft (check one) Maximum depth at time of survey: 60 K in c ft c m m (check one) Select the pool's likely hydroperiod and give evidence in the space to the right. Permanent	
 Maximum depth at time of survey:60 X in ft cm m (check one) Select the pool's likely hydroperiod and give evidence in the space to the right. Permanent Semi-permanent (drying partially in all years and completely in drought years) Ephemeral (drying out completely in most years) Ephemeral (drying out completely in most years) Recommend dry out period observation	
Select the pool's likely hydroperiod and give evidence in the space to the right. Permanent Semi-permanent (drying partially in all years and completely in drought years) Ephemeral (drying out completely in most years) Recommend dry out period observation Recommend dry out period observation Permanent inlet or outlet (channel with well-defined banks and permanent flow) Permanent inlet / outlet Permanent Other Semi-permanent lot of the Permanent flow of the recent of the right. Between the space of the recent of the recent of the right. Between the space of the recent o	
Permanent	
 Semi-permanent (drying partially in all years and completely in drought years)	
Ephemeral (drying out completely in most years) Recommend dry out period observation III. Inlet/Outlet Permanency No inlet / outlet Permanent inlet or outlet (channel with well-defined banks and permanent flow) Ephemeral inlet / outlet Other IFish (species): Image: Species of the species of	
Recommend dry out period observation	
iii. Inlet/Outlet Permanency	
 No inlet / outlet Permanent inlet or outlet (channel with well-defined banks and permanent flow) Ephemeral inlet / outlet Other	
Ephemeral inlet / outlet Other Other V. Faunal Indicators: Fish (species): Bullfrog or Green frog tadpoles Other: C. Significant Vernal Pool Status under NRPA Survey Date(s): 5/18/09, 6/4/09 ii. Abundance Criteria	
v. Faunal Indicators: Fish (species): Bullfrog or Green frog tadpoles Other: Significant Vernal Pool Status under NRPA Survey Date(s): 5/18/09, 6/4/09 ii. Abundance Criteria	
Fish (species): Bullfrog or Green frog tadpoles Other: G. Significant Vernal Pool Status under NRPA S. Survey Date(s): 5/18/09, 6/4/09 S. Abundance Criteria	
c. Significant Vernal Pool Status under NRPA . Survey Date(s): <u>5/18/09, 6/4/09</u> ii. Abundance Criteria	
. Survey Date(s): <u>5/18/09, 6/4/09</u> i. Abundance Criteria	
i. Abundance Criteria	
■ For each indicator species, indicate the exact number of egg masses, verification method (VM), confidence level (CL), and	
egg mass integrity (EI) for each life stage (separate cells are provided for separate survey dates).	
Observation: Egg Masses (or Adult Fairy Shrimp) Tadpoles/Larvae	
Indicator Information: # VM* CL** EMI*** VM* CL**	t .
Species 5/18/0 6/4/0 5/18/0 5/18/0 5/18/0 5/18/0 5/18/0 5/18/0 5/18/0	6/4/09
Wood frog 7+ 0 S/H NA 3 NA H NA S S 3 3	3
Spotted Salamander 0 49 NA S NA 3 NA M NA NA NA NA	NA
Salamander 0 NA NA NA NA NA NA NA NA	NA
Fairy Shrimp 0 0 NA NA NA NA NA *Verification Method: S= Seen, H= Handled, P= Photographed **Confidence Level (species ID): 1= <60%, 2= 60-95%, 3=	
 *** Egg Mass Integrity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (looser matrix, curved embryos), H= Hatched or hatching Was a specific effort made to survey for rare species? Yes Was a specific effort made to survey for rare species? Yes No If yes, indicate which species were targeted: Note any rare species associated with vernal pools using the box below. Observations should be accompanied photographs (lab observer name, pool location, and date). 	beled wi
Verification Verification	
Species Method* CL** Species Method* CL	-**
P H S Dispetiencie Turtie P H	
Blanding's Turtle Image: Description of the second se	
Spotted Turtle Image: Constraint of the state	
Ringed Boghaunter Image: Control of the c	
**CL-Confidence level in verification: 1= <60%, 2= 60-95%, 3= >6 d. General Comments:	<i>)</i> 5%
d. General Comments.	
Completed Vernal Pool Survey per guidelines outlined in the MAWS 2010 Interim Vernal Pool Survey Protocol	
Sent hard copy of MAWS Vernal Pool Data Collection Form to: MDIF&W, Attn: Vernal Pools; 650 State Street; Bangor, ME 044	401
□ Sent hard copy map of poor center point with coordinates on MAWS verhal Poor Data Collection Form to MDF&W (address at	von.
Sent shapefile of pool perimeter / center point on CD to MDIF&W (address above) or 🗌 emailed to: vernalpools.mdifw@maine	<u></u>
Sent shapefile of pool perimeter / center point on CD to MDIF&W (address above) or emailed to: vernalpools.mdifw@maine OBSERVER SIGNATURE	
Sent shapefile of pool perimeter / center point on CD to MDIF&W (address above) or emailed to: <u>vernalpools.mdifw@maine</u> OBSERVER SIGNATURE I hereby certify that the information contained in this report is true and complete to the best of my knowledge:	<u></u>
Sent hard copy map of pool center point with coordinates on MAWS Vernal Pool Data Collection Form to MDIF&W (address at Sent shapefile of pool perimeter / center point on CD to MDIF&W (address above) or emailed to: <u>vernalpools.mdifw@maine</u> OBSERVER SIGNATURE I hereby certify that the information contained in this report is true and complete to the best of my knowledge: Signature: <i>Michael Glessner</i> Date10/7/2010	
Sent shapefile of pool perimeter / center point on CD to MDIF&W (address above) or emailed to: <u>vernalpools.mdifw@maine</u> OBSERVER SIGNATURE I hereby certify that the information contained in this report is true and complete to the best of my knowledge:	

Project Name/#		Vernal Po			
Fioject Name/#	t: _Bull Hill	Organization	Name: _Stantec Cor	nsulting	Pool ID: 12 BE
Observer Conta	act Information				
Primary Observe	er (include second	dary, if applicable) : _Bryar	emerson	Phone or E	mail207-729-1199
Primary Observe	er has Submitted	the MAWS VP Credential	Form: 🗌 Previously	/ Submitted	Included w/this Submission
Landowner Col	ntact Information	<u>1</u>			
Landowner pern	nission obtained f	or this survey & submissio	n: 🛛 Yes 🗌 No	Notes:	
Landowner cont	act information (F	EQUIRED): Name: Bl	ue Sky LLC	Phone:	
Street Address:	179 Lincoln St.	City: Boston	State:N	IA	Zip: <u>02111</u>
1. OBSERVI					
This pool is:	Significant	Potentially		🛛 does not	meet MDEP SVP biological criteria
		Significant (include notes in section 3d	due to:	🗌 does not	meet MDEP vernal pool definition criteria
		on Page 2)		Notes:	
		OOK/ Hancock County, Ma	ne		
Brief site direction	ons to the pool (us	sing mapped landmarks):_	within 1000ft f	rom existing o	carriage path
		red Coordinate System, D			ed corrections: 🛛 Yes 🗌 No
					ed corrections. A res h no
		location of center point of			
	GPS-	location of pool perimeter	included as polygon	shapefile nam	ned*
		Center Point Easting***:	Po	ol Center Poir	nt Northing***:
		ation on an aerial photo to en			ADIERIAL Versel Deck Option Course
					<i>IDIF&W Vernal Pool Data Collection Form.</i> DUSGS Topo Quad or large scale aerial photo.
3. VERNAL F	POOL SURVE	Y INFORMATION			
	and Habitat Cha				
	=	the physical setting:			
Isolated Upla	•		ated with larger wetl	and complex	
		Other:			
Floodplain D	-				
ii. Check all palu	ustrine types that	best apply to this pool or w			
ii. Check all palu	ustrine types that	best apply to this pool or w	W	Slow stre	
ii. Check all palı ☐ Forested wet ☐ Shrub wetlan ☐ Peatland (aci	ustrine types that tland nd idic fen or bog)	best apply to this pool or w Wet meado Shallow po	w nd beaver flowage	Floodplai	am n overflow / Oxbow er seepage
ii. Check all palı ☐ Forested wet ☐ Shrub wetlan ☐ Peatland (aci ⊠ Emergent ma	ustrine types that tland id idic fen or bog) arsh	best apply to this pool or w Wet meado Shallow po Abandoned Active beau	w nd I beaver flowage ver flowage	Floodplai	n overflow / Oxbow
ii. Check all palu Forested wet Shrub wetlan Peatland (ac Emergent ma iii. Predominate	ustrine types that tland id idic fen or bog) arsh substrate in orde	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod	w nd beaver flowage <u>rer flowage</u> I:	Floodplai	n overflow / Oxbow
ii. Check all palu ☐ Forested wet ☐ Shrub wetlan ☐ Peatland (ac ⊠ Emergent ma iii. Predominate ⊠ Mineral soil (ustrine types that tland id idic fen or bog) arsh substrate in orde bare, leaf-litter bo	best apply to this pool or w Wet meado Shallow po Abandoneo Active beav r of increasing hydroperioo ttom, or upland mosses pr	w nd beaver flowage <u>rer flowage</u> I:	Floodplai	n overflow / Oxbow
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil Organic matt	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo rer (peat/muck) sh	best apply to this pool or w Wet meado Shallow po Abandoneo Active beav r of increasing hydroperioo ttom, or upland mosses pr ss present) allow or restricted to deep	w nd beaver flowage <u>rer flowage</u> l: esent)	Floodplai	n overflow / Oxbow
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil Organic matt Organic matt	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo ier (peat/muck) sh ier (peat/muck) de	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread	w nd beaver flowage esent) est portion	☐ Floodplai ☐ Headwate ☐ Other:	n overflow / Oxbow er seepage
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil Organic matt Organic matt iv. Nonwoody p	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo ser (peat/muck) sh ser (peat/muck) de pool vegetation inc	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas	w nd beaver flowage <u>rer flowage</u> l: esent) est portion ng hydroperiod (chea	Floodplai	n overflow / Oxbow er seepage
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil (Organic matt Organic matt iv. Nonwoody p Terrestrial no	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de bool vegetation ind povascular spp. (e	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas	w nd beaver flowage <u>rer flowage</u> l: esent) est portion ng hydroperiod (cher Sphagnum mo	Floodplai	ly): I or suspended)
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferns	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo ser (peat/muck) sh er (peat/muck) sh pool vegetation inco prvascular spp. (e p.) s (e.g. spinulose wo	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep bep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe	w nd beaver flowage <u>rer flowage</u> l: essent) est portion mg hydroperiod (cher Sphagnum mo Su Wet site ferns rn) Wet site gram	Floodplai Headwate Other: ck all that app oss (anchored (e.g. royal fei inoids (e.g. bl	ly): I or suspended) 'n, marsh fern) ue-joint grass, tussock sedge, cattail)
ii. Check all palu Forested wet Shrub wetlan Peatland (aci Emergent ma iii. Predominate Mineral soil (Mineral soil (Organic matt Organic matt iv. Nonwoody p Terrestrial no lycopodium sp Dry site ferns Moist site fern	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo ser (peat/muck) sh er (peat/muck) sh er (peat/muck) de pool vegetation inco prvascular spp. (e p.) s (e.g. spinulose wo ns (e.g. sensitive, c	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep tep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo	w nd beaver flowage <u>rer flowage</u> l: essent) est portion mg hydroperiod (cher Sphagnum mo Subagnum mo Wet site ferns rn) Wet site gram rk) Aquatic vascu	Floodplai Headwate Other: Ck all that app oss (anchored (e.g. royal fer inoids (e.g. bl lar spp. (e.g.	ly): I or suspended) 'n, marsh fern) ue-joint grass, tussock sedge, cattail) pickerelweed, arrowhead)
 ii. Check all palu Forested wet Shrub wetland Peatland (aci Emergent mail Emergent mail Predominate Mineral soil (Mineral soil (Organic matt Organic matt Organic matt Terrestrial not lycopodium sp Dry site ferns Moist site fer Moist site vas swamp candle 	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo er (peat/muck) sh er (peat/muck) de bool vegetation inc prvascular spp. (e p.) s (e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iris	w nd beaver flowage <u>rer flowage</u> l: essent) est portion mg hydroperiod (cher Sphagnum mo Subagnum mo Wet site ferns rn) Wet site gram rk) Aquatic vascu	Floodplai Headwate Other: Other:	ly): I or suspended) 'n, marsh fern) ue-joint grass, tussock sedge, cattail)
 ii. Check all palu Forested wet Shrub wetland Peatland (aci Emergent mail Emergent mail Predominate Mineral soil (Mineral soil (Organic matt Organic matt Organic matt Terrestrial not lycopodium sp Dry site ferns Moist site fer Moist site vas swamp candle 	ustrine types that tland idic fen or bog) arsh substrate in orde bare, leaf-litter bo (sphagnum mo eer (peat/muck) sh eer (peat/muck) de pool vegetation ind pool vegetation ind pool vegetation ind pool vegetation ind pool se (e.g. spinulose wo ns (e.g. sensitive, c sculars (skunk cab) Origin or Impact	best apply to this pool or w Wet meado Shallow po Abandoned Active beav r of increasing hydroperiod ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread dicators in order of increas .g. haircap moss, od fern, lady fern, polypody fe innamon, interrupted, New Yo bage, jewelweed, blue flag iris	w nd beaver flowage <u>rer flowage</u> l: essent) est portion g hydroperiod (chea Sphagnum ma Sphagnum ma Wet site ferns rn) Wet site gram wrk) Aquatic vascu s, Floating or su	Floodplai Headwate Other: Other:	ly): l or suspended) m, marsh fern) ue-joint grass, tussock sedge, cattail) pickerelweed, arrowhead) atics (e.g. water lily, water shield, pond

April 1	14, 2010													Page 1 of 2
3. VE	ERNAL PO		EY INFO	RMAT	ION (co	ntinued	0		Pool II): 12	2BE			-
ii. Hy	drology				•		•							,
		e of pool (at							-	-)	<u>∟</u> m ⊠ f	t (check	cone)
	•	at time of s				-			check on	e)				
	-	likely hydrop		-	vidence ii	n the spa	ce to the	right.						
	-	ent (drying p	-	-			-							
		Irying out co												
		dry out perio		ation										
		ermanency					<i>,</i> , , ,							
	lo inlet / outl									banks and	•	,		
	-	let / outlet		JOther										
	aunal Indica			_		~		. –						
		:				or Greei	h frog tad	poles	Other:					
		ernal Pool S		uer NRI	- A									
	-): <u>4/22/10,5</u> riterie	0/4/10											
	undance C	pool compre	hensivel		ed for ea	a masse	s? 🛛 Ye	s L	∃ No					
		tor species,								(VM), con	fidence	e level (CL), and	
		grity (EI) for e												
		Observation:			Egg Ma	sses (or	Adult Fai	ry Shrimp)			Tadpole	es/Larva	Э
	Indicator Information: # VM* CL** EMI*** VM* CL**													
S	Species Date: 4/			5/4/1 0	4/22/1 0	5/4/10	4/22/1 0	5/4/10	4/22/1 0	5/4/10	4/22/ 10	5/4/10	4/22/1 0	5/4/10
٧	Nood frog		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S	Spotted Sala	amander	5	39	S	S	3	3	F	F	NA	NA	NA	NA
	Blue-spotted Salamander		0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F	airy Shrimp)	0	0	NA	NA	NA	NA	NA	NA				
*Veri	ification Meth	od: S= Seen, I	H= Handle	ed, P= Ph	otographe	d		**Con	fidence Le	evel (specie	s ID): 1=	= <60%, 2=	60-95%,	3= >95%
iii. Ra ∎ Wa ∎ If ye	arity Criteria Is a specific es, indicate	grity: F= Fresh a effort made t which species species asso	to survey es were ta	for rare	species	? 🗌 Yes		🛛 No						
		ool location,			•	0						·	0	
	Species				Verificat Method		CL**	Species				Verificat Method		CL**
				F	, н	S		•				ΡH	S	
	Blanding's	Turtle						Wood Tu	urtle					
	Spotted T	urtle						Ribbon S	Snake					
	Ringed Bo	ghaunter						Other:						
	*Verification	n Method: P= I	Photograp	hed, H=	Handled, S	S= Seen	*1	*CL-Confid	ence leve	in verificati	on: 1= <	<60%, 2= 60)-95%, 3=	= >95%
d. Ge	eneral Com	ments:												
						<u> </u>								
		ernal Pool Su												04404
		by of MAWS by map of po												
		e of pool peri		•									•	,
	ERVER SIG								· · / · ·					
		hat the inform	nation co	ntained	in this re	port is tru	ue and co	mplete to	the best	of my kno	wledge	:		
Signa	ature:B	Bryan Emers	on			[Date _10/	7/2010						
For M	MDIF&W Us	e Only:	Devie	wodby		Deter			ا ما داند					
	pool is:	y.	Revie	weaby	MDIF&W	Date: _			Initials					

Project Name/#	• Bull Hill	Organizatio	n Name: Stantec (Consulting	Pool ID: 12 MG	
Observer Conta		Organization				-
		dary, if applicable) : Micha	al Glassnar – Pho	ne or Email	207-729-1199	
_					Included w/this Submission	
-				iy Submitted [
	ntact Informatio			la Notaa:		
					Phone:	
					Zip: <u>02111</u>	
		-		0.0.01 <u></u>		
				does not	meet MDEP SVP biological c	riteria
This pool is:	Significant	Potentially Significant	due to:			
		(include notes in section 3d			meet MDEP vernal pool defin	lition criteria
		on Page 2)		Notes:		
		TION INFORMATION rook/ Hancock, Maine				
		sing mapped landmarks):_	within 1000ft	from existing	carriage path	_
				-		
Brand and Mo Check / submi * <i>Observers mu</i>	del of GPS unit** it one: ⊠ GPS □ GPS □ Pool st check the inform	-location of center point of -location of pool perimeter Center Point Easting***: nation on an aerial photo to ens	Mapping gi the pool included in included as polygor Po sure data quality.	rade GPS with shapefile nam shapefile nan ool Center Poir	post processed corrections: 🖂 ed* <u>-68.1560W, 44.6996N</u> ned* nt Northing***:	
					MDIF&W Vernal Pool Data Collection OUSGS Topo Quad or large scale a	
3. VERNAL P	OOL SURVE	Y INFORMATION				
a. Pool or Wetla						
	est descriptor for nd Depression	the physical setting:	iated with larger we	land complex		
Floodplain De	-	Other:	ated with larger we			
- •		best apply to this pool or w	vetland:			
 ☑ Forested wet ☑ Shrub wetlan 	land d dic fen or bog)	☐ Wet meado ☐ Shallow po ☐ Abandoneo)W		am n overflow / Oxbow er seepage	
iii. Predominate	substrate in orde	er of increasing hydroperiod	d:			
Mineral soil Organic matter	(sphagnum mc er (peat/muck) sł	ottom, or upland mosses pr oss present) nallow or restricted to deep eep and widespread				
_	-	dicators in order of increas	· · · ·		•••	
lycopodium sp Dry site ferns Moist site ferr	(e.g. spinulose wo ns (e.g. sensitive, o sculars (skunk cab		ern) 🖾 Wet site grar ork) 🔲 Aquatic vasc	s (e.g. royal fe ninoids (e.g. b ular spp. (e.g. ubmerged aqu	l or suspended) rn, marsh fern) ue-joint grass, tussock sedge, c pickerelweed, arrowhead) atics (e.g. water lily, water shield, p	-
b. Vernal Pool (
 i. Pool's Origin: Describe any m 		Natural-Modified modifications to the pool a	Non-Natural and associated wetla			
April 14, 2010						Page 1 of 2

						_								
		OL SURVE	ey info	RMATI	ON (coi	ntinued)		Pool ID	0: <u>12MG</u>				
	ydrology proximate siz	ze of pool (at	max ca	oacity): \	Nidth	35		⊠ft (che	ck one) I	enath 90) Г]m ⊠ft	(check (one)
		n at time of s									<u> </u>		(0110011)	,
	-	likely hydrop	•											
	=	<u>intory</u> nyarop		-		r ino opu								
		nent (drying p			rs and co	mpletelv	in drouat	nt vears)						
	-	drying out co	-	-			-							
		dry out perio												
		ermanency										-		
	No inlet / outl	-		Permai	nent inlet	or outlet	(channel	with well	-defined	banks and	permar	nent flow)		
_] E	Ephemeral in	let / outlet									•	,		
	aunal Indica													
] F	ish (species)):			Bullfrog	or Greer	frog tad	poles	Other:					
		ernal Pool S			-		0							
Su	- rvey Date(s): 5/18/09, 6	6/4/09											
. AI	bundance C	riteria												
Fo	r each indica	pool compre ator species, grity (EI) for e	indicate	the exac	t number	of egg n	nasses, v	erificatior			fidence	level (CL), and	
ЕÇ	jų mass me			slaye (si	•	•		•	-	/ uales).	1			
Observation: Egg Masses (or Adult Fairy Shrimp) Tadpoles/Larvae Indicator Information: # VM* CL** EMI*** VM* CL**														
	Species	Information: Date:	# 5/18/0 9	-	5/18/0 9	6/4/09	5/18/0 9	6/4/09	5/18/0 9	6/4/09	v 5/18/ 09	6/4/09	5/18/0 9	6/4/09
	Wood frog 147			0	S	NA	3	NA	F	NA	NA	S	NA	3
	Spotted Sala	amander	0	20+	NA	S	NA	3	NA	М	NA	NA	NA	NA
	Blue-spotted 0 0				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fairy Shrimp)	0	0	NA	NA	NA	NA	NA	NA				
*** <i>l</i> ii. R ı Wa	Egg Mass Inte arity Criteri as a specific	od: S= Seen, a grity: F= Fresh a effort made which specie	h (<24 hrs) to survey	, <i>M= Mat</i> for rare	species?	l embryos,				evel (specie curved emb				
No	ote any rare s	species asso	ciated wi	th verna	l pools us	sing the b	ox below	. Observa	ations she	ould be ac	compan	ied photo	graphs (I	abeled w
	Species				Verificati Method	*	CL**	Species				Verificat Method	*t	CL**
	Blanding's	Turtlo		P		S □		Wood Tu	urtlo			P H	S	
	Blanding's Spotted T							Ribbon S						
									ыаке					
	•	oghaunter n Method: P= I	Photograp	hed, H= I	Handled, S	S= Seen	**	Other: CL-Confid	ence level	in verificati	on: 1= <	60%, 2= 60)-95%, 3=	>95%
] S] S	Sent hard cop Sent hard cop	ernal Pool Su by of MAWS by map of po	Vernal Po ol center	ool Data point wi	Collection th coordir	on Form t nates on	o: MDIF8 MAWS V	W, Attn: ernal Poo	Vernal Po Data C	ools; 650 \$ ollection F	State Sti orm to N	reet; Bang MDIF&W	address)	above)
	ERVER SIG	e of pool peri	inneter / C	enter po			avv (add	1622 900			. <u>verna</u>		mw@mai	ne.gov
l he	reby certify t	hat the inforr						-		-	-			
-		Ũ												
	MDIF&W Us pool is:	e Only:	Revie	wed by I	MDIF&W	Date:			Initials:					
	ignificant	🗌 Potentia	ally signi	ficant b	ut lackin	ig critica	l data 🗌	Not sign	i ficant d			meet bio t meet de	-	

	Γ	Maine Association Vernal Po	n of Wetland S ol Data Collec		
Project Name/#	:Bull HII	Organizatio	on Name: _Blue Sky	LLC_	Pool ID: 13CF
Observer Conta		dary, if applicable) :Cha	ndos Forris Dha	000 OF	- Empil 207 720 1100
_					mitted Included w/this Submission
				y Subi	
Landowner Cor			n [.] 🛛 Yes 🗖 N	o Not	tes:
					one:
Street Address:	179 Lincoln St.	City: Bosto	on Sta	ate: <u>N</u>	MA Zip: <u>02111</u>
1. OBSERVE		ENDATION			
This pool is:	Significant	Potentially	☐ Not significant	🗆 d	oes not meet MDEP SVP biological criteria
		Significant	due to:		oes not meet MDEP vernal pool definition criteria
		(include notes in section 3d on Page 2)		Notes	s:
		FION INFORMATION rook/ Hancock County, Ma			
Brief site directio	ons to the pool (u	sing mapped landmarks):_	within 1000ft	from e	existing carriage path
Location of Ver	nal Pool* (Requi	red Coordinate System, D	atum and Units: UTM	Л, NAE	D83, Zone 19 North, meters)
				-	processed corrections: 🛛 Yes 🗌 No
Check / submi	it one: 🛛 GPS-	location of center point of	the pool included in s	shape	file named*68.1524W, 44.7207N
		-location of pool perimeter	included as polygon	shape	efile named*
					nter Point Northing***:
** If mapping gra	ade GPS or Profes		observers must use th		t current MDIF&W Vernal Pool Data Collection Form. ocation on USGS Topo Quad or large scale aerial photo.
3. VERNAL P	POOL SURVE	Y INFORMATION			
a. Pool or Wetla		r acterization the physical setting:			
Isolated Upla	-		iated with larger wetl	land co	omplex
 ☐ Floodplain De	•	Other:	5		
ii. Check all palu	strine types that	best apply to this pool or v	vetland:		
Forested wet		Wet meade			Slow stream Floodplain overflow / Oxbow
Shrub wetlan	dic fen or bog)	Shallow po	d beaver flowage		leadwater seepage
Emergent ma		Active bear		□ C	Other:
		r of increasing hydroperiod ottom, or upland mosses pl			
	(sphagnum mo		lesent)		
		nallow or restricted to deep eep and widespread	pest portion		
_ •	. ,	dicators in order of increas	ing hydroperiod (che	ck all	that apply):
Terrestrial no		e.g. haircap moss,			anchored or suspended)
lycopodium sp Drv site ferns		od fern, lady fern, polypody fe			royal fern, marsh fern) s (e.g. blue-joint grass, tussock sedge, cattail)
Moist site ferr	ns (e.g. sensitive, c	innamon, interrupted, New Yo	ork) 🗌 Aquatic vascu	ular sp	pp. (e.g. pickerelweed, arrowhead)
swamp candle))	bage, jewelweed, blue flag iri	s, <u> </u>		ged aquatics (e.g. water lily, water shield, pond
b. Vernal Pool C	Drigin or Impact				
 i. Pool's Origin: Describe any m 		Natural-Modified	Non-Natural and associated wetla		Unknown EQUIRED):

Apri	l 14, 2010													Page 1 of 2
3. \	/ERNAL PO	OL SURVE	EY INFO	RMAT	ON (coi	ntinued	0		Pool ID): 13CF				
	lydrology	ra of pool (of	may an	o o o ituli i	Midth	50		⊠ ft (ab/	nak ana)	Longth 10	о Г		t (abaak	
	proximate siz										0		t (check	one)
	aximum depth								спеск оп	e)				
	ect the pool's			-		i the spa	ice to the	ngni.						
	Permanent _ Semi-perman					mplotoly	in drough	ot vooro)						
	=		-	-			-							
	Ephemeral (c													
	Recommend of			ation										
	nlet/Outlet P No inlet / outl	-		Dormo	oont inlot	or outlot	(ahannal	المبينا المسالين	defined	hanka and	normor	ant flow)		
	Ephemeral in						-			banks and	-	-		
	Faunal Indica			Other										
	-aurial mulca -ish (species)				Bullfrog	or Groop	o frog tod		Othor					
	Significant Ve				-	U Gleei	n nog tau		Jourier					
	urvey Date(s				A									
	bundance C		0/3/10											
	as the entire		hensivel	/ survev	ed for ea	a masse	s? 🖂 Ye	es l	∃ No					
∎ Fo	or each indica	tor species,	indicate	he exac	t number	of egg n	nasses, v	erification	method		idence	level (CL)), and	
е	gg mass integ	grity (EI) for e	each life	stage (s	eparate c	ells are p	provided f	for separa	ate survey	/ dates).				
		Observation:			Egg Ma	sses (or	Adult Fai	iry Shrimp)			Tadpole	es/Larvae)
	Indicator	Information:	#		V	۸*		L**	EN	/ ***	V	′M*	C	L**
	Species	Date:	5/3/1 0	4/15/1 0	5/3/10	4/15/1 0	5/3/10	4/15/1 0	5/3/10	4/15/ 10	5/3/10	4/15/1 0	5/3/10	
	Wood frog		226	0	S	NA	3	NA	F	Н	NA	S	NA	3
	Spotted Sala	amander	217	241	S	S	3	3	F	F	NA	NA	NA	NA
	Blue-spotted		135	15	S	S	3	3	F	A/H	NA	NA	NA	NA
-	Salamander			0	NA	NA	NA	NA	NA	-				
*\/	Fairy Shrimp		0	-			INA			NA evel (species		.60% 2	60.05%	$2 \rightarrow 05\%$
V6 ***	erification Meth Egg Mass Inte	grity: F= Fresh	n= nariule 1 (<24 hrs)	, <i>M</i> = Mat	ure (round	a I embryos	s), A= Adva	anced (loos	ser matrix,	curved emb	oryos), H	<00%, 2= = Hatched	or hatchi	3= >95% 1g
iii. F	Rarity Criteria	a												-
	as a specific					' 🗌 Yes		🛛 No						
■ I† ■ N	yes, indicate ote any rare s	which species	es were ta	argeted:		ing the h	nov helow		ations shi	ould be ac	rompan	ied photo	aranhe (labeled with
	erver name, p					sing the t					ompan	lieu prioto	graphs (
				,	Verificati	on						Verificat	ion	
	Species				Method		CL**	Species				Method	*t	CL**
				P	<u>н</u>	S						P H	S	
	Blanding's	s Turtle						Wood Tu	urtle		l			
	Spotted T	urtle						Ribbon S	Snake		[
	Ringed Bo	-						Other:						
		n Method: P= I	Photograp	hed, H= I	Handled, S	S= Seen	*:	*CL-Confid	lence level	in verificati	on: 1= <0	60%, 2= 60)-95%, 3=	>95%
d. C	Seneral Com	ments:												
	Completed Ve	arnal Roal Su		quidolin	oc outling	nd in the	MANNS 2	010 Intori		Pool Sur	N Drot			
	Sent hard cop												nor ME (04401
	Sent hard cop													
	Sent shapefile													
OB	SERVER SIG	NATURE												
	ereby certify the				-			-		-	wledge:			
Sig	nature:	Charles Feri	ris		I	Date	_10/7/201	0						
For	MDIF&W Us	e Only:	Revie	wed by I	MDIF&W	Date:			Initials:					
This	s pool is:		1.0010											

	Ν		n of Wetland S ol Data Collec	Scientists (MAWS) ction Form
Project Name/	#:Bull HII	Organization Na	ame: _Stantec Consu	ulting Pool ID:16CF
Observer Cont	act Information			
Primary Observ	er (include second	dary, if applicable) :Cha	arles Ferris Ph	none or Email _ 207-729-1199
Primary Observ	ver has Submitted	the MAWS VP Credential	Form: X Previously	y Submitted 🔲 Included w/this Submission
	ontact Information			
			on: 🛛 Yes 🗌 N	o Notes:
				hone:
Street Address:	179 Lincoln St.		City: Boston	State: <u>MA</u> Zip: <u>02111</u>
1. OBSERV	ER RECOMM			
This pool is:	Significant	Potentially Significant	Not significant	☑ does not meet MDEP SVP biological criteria
		(include notes in section 3d	due to.	does not meet MDEP vernal pool definition criteria
		on Page 2)		Notes:
				l
		ook/ Hancock County, Ma		
				om existing carriage path
Brand and Me Check / subm * Observers me ** If mapping g *** Center point	odel of GPS unit** nit one: GPS- GPS- Pool ust check the information rade GPS or Profestor ts entered on this formation of the the second seco	<u>Trimble Pro-XT</u> location of center point of location of pool perimeter Center Point Easting***: ation on an aerial photo to er sional Survey is not available	Mapping gra the pool included in s included as polygon Po sure data quality. , observers must use th	M, NAD83, Zone 19 North, meters) ade GPS with post processed corrections: ⊠ Yes □ No shapefile named*68.1687W, 44,6934N shapefile named* pol Center Point Northing***: the most current MDIF&W Vernal Pool Data Collection Form. spool location on USGS Topo Quad or large scale aerial photo.
	and Habitat Chai			
	=	the physical setting:		
·	and Depression	_	ciated with larger wetl	land complex
Floodplain D	•	Other:	votland:	
☑ Forested we ☑ Shrub wetland	itland nd cidic fen or bog)		ow	 Slow stream Floodplain overflow / Oxbow Headwater seepage Other:
		r of increasing hydroperio		
☐ Mineral soi ☐ Organic mat	I (sphagnum mo ter (peat/muck) sh	ttom, or upland mosses p ss present) allow or restricted to deep eep and widespread		
	-	dicators in order of increas	- · · ·	
lycopodium s Dry site fern Moist site fe Moist site va swamp candle	s (e.g. spinulose wo rns (e.g. sensitive, c asculars (skunk cab e)	od fern, lady fern, polypody f innamon, interrupted, New Y bage, jewelweed, blue flag ir	wet site ferns ern) ⊠ Wet site gram ork) □ Aquatic vascu	noss (anchored or suspended) s (e.g. royal fern, marsh fern) ninoids (e.g. blue-joint grass, tussock sedge, cattail) ular spp. (e.g. pickerelweed, arrowhead) ubmerged aquatics (e.g. water lily, water shield, pond wort)
	Origin or Impact		Non Notural	
 i. Pool's Origin Describe any 		Natural-Modified modifications to the pool	Non-Natural and associated wetla	Unknown and (REQUIRED):

				Ve	ernal	Pool	Data C	Collect	ion Fo	orm				
3. VERNAL P	OOL SURVE	EY INFO	RM	ΑΤΙΟ	ON (col	ntinued	d)		Pool II	D: 16CF				
ii. HydrologyApproximate s	ize of pool (at	t max. ca	pacity	y): W	/idth	7	m [🛛 ft (cheo	ck one) L	ength <u>7</u>	[_m ⊠1	t (check	one)
Maximum dept	h at time of s	urvey:		6		🖂 in 🗌]ft ∏ c	m 🗌 m (check on	e)				
Select the pool's	s <u>likely</u> hydrop	period and	d give	e evi	idence ir	n the spa	ace to the	right.						
Permanent														
Semi-perma	nent (drying p	partially in	n all y	/ears	s and co	mpletely	/ in droug	ht years) <u>-</u>						
Ephemeral (drying out co	mpletely	in mo	ost y	ears)									
Recommend	dry out perio	d observa	ation											
iii. Inlet/Outlet I	Permanency													
No inlet / ou	tlet] Per	man	ent inlet	or outle	t (channe	l with well	-defined	banks and	l perma	nent flow)		
Ephemeral i	nlet / outlet] Oth	er _										
iv. Faunal Indic														
Fish (species	s):				Bullfrog	or Gree	en frog tac	lpoles 🗌] Other:_					
c. Significant V	ernal Pool S	tatus un	der N	NRP	Α									
i. Survey Date(5/3/10												
ii. Abundance (o 57 v	г	-					
 Was the entire For each indic 									_ No method	(VM) con	fidence	level (Cl) and	
egg mass inte											naenee		, and	
	Observation:				Egg Ma	ISSES (OI	r Adult Fa	irv Shrimr)			Tadpole	s/l arvae	2
Indicator Information: # VM* CL** EMI*** VM* CL**														
Species	Date:	4/15/1	5/3, 0	/1	4/15/1 0	5/3/10	1/15/1	5/3/10	4/15/1 0	5/3/10	4/15/ 10	5/3/10	4/15/1 0	5/3/10
Wood frog		7	0		S	NA	3	NA	F	NA	NA	NA	NA	NA
Spotted Sa		4	4		S	S	3	3	F	A/F	NA	NA	NA	NA
Blue-spotte Salamande		0	0		NA	NA	NA	NA	NA	A/H	NA	NA	NA	NA
Fairy Shrim	-	0	0		NA	NA	NA	NA	NA	NA evel (specie				
*** Egg Mass Inte iii. Rarity Criter • Was a specific • If yes, indicate • Note any rare observer name,	ia c effort made which species species asso	to survey es were ta ciated wi	[,] for r arget th ve	are s ed: _ rnal	species? pools us	? Yes	6	🛛 No				nied photo	ographs (-
Species					Verificati Methoc	*	CL**	Species				Verificat Method	d*	CL**
				<u>P</u>	<u>H</u>	S						<u>Р Н</u>	S	
Blanding								Wood Tu						
Spotted 7	Furtle							Ribbon S	Snake					
	oghaunter							Other:						
*Verification d. General Com	on Method: P=	Photograp	hed, I	H= H	andled, S	S= Seen	*	*CL-Confia	lence leve	l in verificati	ion: 1= <	60%, 2= 60	0-95%, 3=	: >95%
u. General Con	intento.													
Completed V	/ernal Pool Sเ py of MAWS												gor, ME (04401
Sent hard co														
	le of pool peri	imeter / c	enter	r poi	nt on CE	to MDI	F&W (add	dress abo	ve) or 📋	emailed to	o: <u>verna</u>	Ipools.mo	lifw@ma	ine.gov
OBSERVER SIG	that the inforr					-		-		-	-			
Signature:	Charles Ferri	<u>s</u>					Date	10/7/2	2010					
For MDIF&W U This pool is:	se Only:	Revie	wed	by N	1DIF&W	Date: _			Initials	:				
Significant	Potentia	ally signi	ificar	nt bu	ut lackin	ng critic	al data 🗌] Not sign	ificant d			t meet bio t meet de		riteria and/or
											1062 110	i meet ue		nend

Maine Association of Wetland Scientists (MAWS) Vernal Pool Data Collection Form									
Project Name/#	:Bull HII	Organizatio	n Name: _Stantec C	onsulting	Pool ID:	20 CF			
Observer Conta	ct Information								
		dary, if applicable) :Cha	urles Ferris Phor	e or Email 2	07-729-1199				
-		the MAWS VP Credential							
-									
Landowner Cor				N 1 <i>i</i>					
		or this survey & submissio							
		EQUIRED): Name: <u>Blu</u>	-						
Street Address:	179 Lincoln St.	City: Boston	State:N	ЛА	Zıp: <u>_021</u>	11			
1. OBSERVE	R RECOMM		<u>.</u>						
This pool is:	Significant	Potentially Significant	Not significant	does not	meet MDEP S	SVP biological criteria			
		(include notes in section 3d		does not	meet MDEP v	vernal pool definition criteria			
		on Page 2)		Notes:					
		TION INFORMATION	ine						
		sing mapped landmarks):_		from existing	carriage path				
Brand and Mo Check / submi * Observers mus ** If mapping gra	Location of Vernal Pool* (Required Coordinate System, Datum and Units: UTM, NAD83, Zone 19 North, meters) Brand and Model of GPS unit**: <u>Trimble Pro-XT</u> Mapping grade GPS with post processed corrections: Yes No Check / submit one: GPS-location of center point of the pool included in shapefile named*68.1537W, 44.6991N GPS-location of pool perimeter included as polygon shapefile named* Pool Center Point Easting***:Pool Center Point Northing***: * Observers must check the information on an aerial photo to ensure data quality. ** If mapping grade GPS or Professional Survey is not available, observers must use the most current MDIF&W Vernal Pool Data Collection Form. *** Center points entered on this form must be submitted with a paper map showing the pool location on USGS Topo Quad or large scale aerial photo.								
		Y INFORMATION		, 	•				
a. Pool or Wetla	and Habitat Char								
☐ Isolated Uplat ☐ Floodplain De	•	⊠ Pool assoc □ Other:	iated with larger wetl	and complex		_			
ii. Check all palu	strine types that	best apply to this pool or w	vetland:						
Emergent ma	d dic fen or bog) ırsh	Active beav	nd I beaver flowage /er flowage	 Slow streat Floodplain Headwate Other: 	overflow / Ox	xbow			
		r of increasing hydroperiod							
☐ Mineral soil ☐ Organic matte	(sphagnum mo er (peat/muck) sh	ttom, or upland mosses pr ss present) allow or restricted to deep eep and widespread							
	-	licators in order of increas							
lycopodium sp Dry site ferns Moist site fern Moist site vas swamp candle)	 Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.) Dry site ferns (e.g. spinulose wood fern, lady fern, polypody fern) Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail) Moist site ferns (e.g. sensitive, cinnamon, interrupted, New York) Aquatic vascular spp. (e.g. pickerelweed, arrowhead) Moist site vasculars (skunk cabbage, jewelweed, blue flag iris, Floating or submerged aquatics (e.g. water lily, water shield, pond 								
b. Vernal Pool C									
i. Pool's Origin:Describe any m		Natural-Modified modifications to the pool a	Non-Natural and associated wetla	Unkno Nd (REQUIREI					
				\ zL	,				

April	14, 2010														Page 1 of 2
3. V	ERNAL PC		EY INFO	RMAT	ION	l (coi	ntinued)			Pool ID): 20CF				
	ydrology	to of pool (of			\\/;d	lth	40		₩ (ah		longth 15	0		ft (abaa	k ono)
		ze of pool (at										0		it (cnec	k one)
		n at time of s								спеск опе	Э)				
	-	likely hydrop		-			the space	ce to the	right.						
		ant (drain a r						in durawak							
		nent (drying p													
		drying out co													
		dry out perio											_		
	nlet/Outlet P	-				<u>لمامد</u>		(ab a m m al		ما م النه م ما ا			n ant flaw)		
	No inlet / outl							-			banks and		-		
	aunal Indica	let / outlet		Other											
				г	п.	ultrog		frogtod		Othori					
):				Jiirrog	or Green	i frog tad	poles	Other:					
	-				PA										
): <u>4/16/10,5</u>	/5/10												
	bundance C as the entire	pool compre	hensivel	/ surve	ved f	for ea	masses	s? 🖂 Ye	s F	∃ No					
		ator species,									(VM), cont	fidence	level (CL), and	
eg	jg mass integ	grity (EI) for e	each life s	stage (s	sepa	rate c	ells are p	orovided f	or separa	te survey	/ dates).				
Γ		Observation:			Εç	gg Ma	sses (or l	Adult Fai	ry Shrimp)			Tadpole	es/Larva	e
	Indicator	Information:	#		T	VN			_**		11***	١	/M*		CL**
;	Species	Date:	4/16/1 0	5/5/1 0	4/ 0	/16/1	5/5/10	4/16/1 0	5/5/10	4/16/1 0	5/5/10	4/16/ 10	5/5/10	4/16/1 0	5/5/10
,	Wood frog		12	0	S		NA	3	NA	F	NA	NA	S	NA	3
-	Spotted Sala	amander	10	12	s		S	3	3	F	Н	NA	NA	NA	NA
Salamander 0 A/H NA NA NA NA															
	Fairy Shrimp)	0	0	N	A	NA	NA	NA	NA	NA				
*Ver	rification Meth	od: S= Seen, I	H= Handle	d, P= P	hotog	graphe	d		**Con	fidence Le	vel (specie	s ID): 1=	= <60%, 2=	60-95%,	3= >95%
		grity: F= Fresh	1 (<24 nrs)	, M= Ma	ature	(rouna	embryos)	l, A= AdVa	incea (loos	er matrix,	curvea em	oryos), F	I= Hatcheo	or natch	ing
	arity Criteria	effort made	to survev	for rar	e spe	ecies?	☐ Yes	D	🛛 No						
∎ If y	es, indicate	which specie	es were ta	argeted	l:										
					al po	ols us	ing the b	ox below	. Observa	ations sho	ould be ac	compai	nied photo	ographs	(labeled with
obse	rver name, p	bool location,	and date) .				r							
	Species					rificati 1ethod		CL**	Species				Verificat Metho		CL**
	Opecies				P	H	S		Opecies				P H	S	
	Blanding's	s Turtle							Wood Tu	ırtle					
	Spotted T				╗				Ribbon S						
	Ringed Bo				=				Other:						
	•	n Method: P= I	Photograp	hed. H=		dled. S	= Seen	**		ence level	in verificati	on: 1= <	60%. 2= 6	0-95%. 3	= >95%
<u>d. G</u>	eneral Com			,									,	, -	
		ernal Pool Su													
		by of MAWS													
		by map of po													
	SERVER SIG	e of pool peri	meter / co	enter p	oint			avv (auu	liess abov		emailed to). <u>vema</u>	apools.me	anw@ma	<u>ane.gov</u>
		hat the inform	nation co	ntainec	d in t	his rer	ort is tru	e and co	mplete to	the best	of my kno	wledge	:		
		Charles Ferr				-			-		-	Ũ			
For I	MDIF&W Us	e Only:	Davia	we d hu			Data								
This	pool is:	-													
		D Potentia	ally signi	ficant	but I	lackin	g critica	I data 🗔	Not sign	ificant d	ue to: 🔲 d	oes no	t meet bic	logical o	criteria and/or

Project/Site: Blue Sky East / Bull Hill Wind		City/County: T16 MD / Hancock Sampling Date: 12/2/2009					
Applicant/Owner: Blue Sky East, LLC				State: ME	Sampling Point: A070		
Investigator(s): ETD	Sect	tion, To	wnship, Range:				
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none):					
Slope (%): Lat:		Long:		Datum:			
Soil Map Unit Name:			NWI Classification:				
Are climatic/hydrologic conditions on the site ty	pical for this time of year? Ye	es 🖂 N	lo 🗌 (If no, exp	lain in remarks)			
Are Vegetation , Soil , or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances" present? Yes 🛛 No 🗌					
Are Vegetation , Soil , or Hydrology are	(If nee	ded, explain an	y answers in Rema	rks)			
SUMMARY OF FINDINGS – Attach si	te map showing sam	oling	point locatio	ons, transects,	important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗌 No 🖂	Is the	Sampled Area				
Hydric Soil Present?	Yes 🗌 No 🖾		a wetland?	Yes 🖂	No 🗌		
Wetland Hydrology Present?	Yes 🗌 No 🖂	lf yes,	optional Wetlan	d Site ID: A070			
Remarks (Explain alternative procedures here of	or in a separate report):						
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is required				Surface Soil Cr	()		
Surface Water (A1)	Water-Stained Leaves (I	B9)	Drainage Patterns (B10)				
High Water Table (A2)	Aquatic Fauna (B13)			Moss Trim Line			
Saturation (A3)	Marl Deposits (B15)			Dry-Season Wa	()		
Water Marks (B1)	Hydrogen Sulfide Odor (` '		Crayfish Burrov	()		
Sediment Deposits (B2)	Oxidized Rhizospheres		o ()		ble on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Ire	• • •		Stunted or Stre	()		
Algal Mat or Crust (B4)	Recent Iron Reduction in		Soils (C6)	Geomorphic Po			
Iron Deposits (B5)	Thin Muck Surface (C7)			Shallow Aquita			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remar	rks)		Microtopograph			
Sparsely Vegetated Concave Surface (B8)				FAC-Neutral Te	est (D5)		
Field Observations:							
Surface Water Present? Yes 🗌 N	lo🛛 Depth (Inches):						
Water Table Present? Yes	lo🛛 Depth (Inches):						
Saturation Present? Yes IN (includes capillary fringe)	lo 🛛 Depth (Inches):		Wetland Hydr	ology Present?	res 🗌 No⊠		
Describe Recorded Data (stream guage, monitor	oring well, aerial photos, prev	vious in	spections), if av	ailable:			
			. ,, .				
Remarks:							

US Army Corps of Engineers

1. Picea rubens50YesFACU NoNumber of Dominant Species That Are Oblic, FACW, or FAC;3 (A)2. Act rubrum10NoFACUTotal Number of Dominant Species Across All Strata:6 (B)3. Thuig occidentalis10NoFACUPercent of Dominant Species That Are Oblic, FACW, or FAC;5 (B)5.7.Total Number of Dominant Species That Are Oblic, FACW, or FAC;6 (B)Percent of Dominant Species That Are Oblic, FACW, or FAC;6 (B)7.7.Total Sociesx 1 =Total % Cover of:Multiply by:2. Acer rubrum20YesFACFAC Speciesx 3 =3. Abies balsamea10NoFACFAC Speciesx 3 =3. Abies balsamea10NoFACColum Totals(A)(B)7.Total CoverImprovement action of the speciesx 5 =Colum Totals(A)(B)7.Total CoverImprovement action of the speciesx 5 =Colum Totals(A)(B)7.Total CoverImprovement action of the speciesx 5 =Colum Totals(A)(B)7.1. Abies balsamea2YesFACUDominance Test is > 50%Prevalence Index is 3 of1. Abies balsamea2YesFACUDominance Test is > 50%Prevalence Index is 3 ofImprovement action or more in diameter2. Oramuda chameda15YesFACUDominance Test is > 50%Improvement action or more in diameter3. Oramuda chamedamea2	Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:	
3. Thuja occidentalis 10 No FACW Total Number of Dominant Species 4. Betula papyrifera 10 No FACW Percent of Dominant Species 6. 7. Total Aumber of Dominant Species Total Aumber of Dominant Species 7. 80 -Total Cove Percent of Dominant Species 7. 80 -Total Cove FACU Percent of Dominant Species 7. 80 -Total Cove FACU Percent of Dominant Species Soft (AB) 1. Picea rubors 20 Yes FACU FACU Species x 1 = 2. Acter ruborm 20 Yes FACU FACU Species x 3 = 3. Abies balsamea 10 No FAC FACU Species x 4 = 4. 50 = Total Cover FACU Species x 5 = Column Columno 50 = Total Cover Prevalence Index is ≤ 3.0 ¹ (B) 4. 50 = Total Cover Important Species x 5 = 						
4. Batula papyrifera 10 No FACU Species Across All Strata: 6 (B) 5. Percent of Dominant Species FACU Percent of Dominant Species FACU 7. Percent of Dominant Species Total Are OBL, FACW, or FAC: 50% (A/B) 7. Percent of Dominant Species X1 = 7. Percent of Dominant Species X1 = 7. Collady Species X1 = 7. Percent of Dominant Species X1 = 7. FACU Species X1 = 7. FACU Species X2 = 7. FACU Species X3 = FACU Species X3 = 8. FACU Species X3 = FACU Species X3 = 9. = Total Cover FACU Species X3 = FACU Species X3 = 6. - - FACU Species X3 = FACU Species X3 = 7. - - FACU Species X4 = UP = Percelance Index worksheet: IP = 7. - - - Percelance Index worksheet: IP = IP =					Total Number of Deminant	
S. Item Processing parameters of the set						
6. Trait are OBL, FACW, or FAC: 50% (A/B) 7. 80 = Total Cove 80 = Total Cove Total % Cover of: Multiply by: 9. Or Yes FACU FACW Species x 1 = 1. Picea rubens 20 Yes FACU FACU Species x 2 = 2. Acer rubrum 20 Yes FACU FACU Species x 3 = 3. Ables balsamea 10 No FAC FACU Species x 4 = 4. Column Totals (A) (B) 6. Column Totals (A) (B) 7. Column Totals (A) (B) 6. Column Totals (A) (B) 7. Column Totals (A) (B) 6. Column Totals (A) (B) 1. Ables balsamea 2 Yes FACU 2. Somunda chamonea <td></td> <td>10</td> <td>NU</td> <td>FACO</td> <td></td> <td></td>		10	NU	FACO		
80 = Total Cove Trevalence index worksheet: Saping/Shrub Stratum (Plot size: 15') Columin (Plot size: 15') 1. Picea rubens 20 Yes FACU 2. Acer rubrum 20 Yes FAC 3. Abies balsamea 10 No FAC 4. 10 No FAC 5. 10 No FAC 6. 7. UPL species x4 = 7. 10 No FAC 1. Abies balsamea 2 Yes FAC 9. = Total Cover Improvement tables (A) (B) 1. Abies balsamea 2 Yes FAC 1. Abies balsamea 2 Yes FACU 2. Mitella repens 2 Yes FACU 3. Osmunda dinamomea 15 Yes FACU 4. Prouseroubus 1 No FACU 6. - Problematic Hydrophytic Vegetation (Provide supporting data in Remarks or on a separate sheet) 1. Saling/shrub - Woody plants is sin (76 cm) or more in diameter (DBH), regardiess of hight. Improvement and sin (20 min more in diameter (DBH), regardiess of hight. 1. Abies balsamea 2 Yes FACU 2. Ostrautus trepens 1 No <t< td=""><td>6.</td><td></td><td></td><td></td><td></td><td></td></t<>	6.					
Saping/Shrub Stratum (Plot size: 15) OBL Species x1 = 1. Picea rubens 20 Yes FACU FACW Species x3 = 3. Abies balsamea 10 No FAC FACU Species x3 = 3. Abies balsamea 10 No FAC FACU Species x3 = 5. 6. .	7.	80	= Total Cov	e	Prevalence Index worksheet:	
1. Picea rubens 20 Yes FACU FACW Species X 2 = 2. Acer rubrum 20 Yes FAC FAC Species X 3 = 3. Abies balsamea 10 No FAC FACU Species X 4 = 4. 10 No FAC FACU Species X 4 = 4. 10 No FAC FACU Species X 4 = 4. 10 No FAC Column Totals (A) (B) 6. 7. Column Totals (A) (B) Prevalence Index = B/A = 1. Abies balsamea 2 Yes FACU Dominance Test is > 50% Prevalence Index is ≤ 3.0 ¹ 1. Abies balsamea 2 Yes FACU Dominance Test is > 50% Prevalence Index is ≤ 3.0 ¹ 2. Mitelia repens 2 Yes FACU Prevalence Index is ≤ 3.0 ¹ Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic. Definitions of hydric Soil and wetland hydrology must be present, unless disturbed or problematic. 6. 7. Encore Woody plants less than 3 in. DBH and greater than 3.28 ft tail. 9.					Total % Cover of: Multiply b	<u>y:</u>
In Note Tuber20YesFAC2. Acer rubrum20YesFAC3. Abies balsamea10NoFAC4.10NoFAC5.1. Mole and the second sec	Sapling/Shrub Stratum (Plot size: 15')				OBL Species x 1 =	
2. Acer rubrum 20 Yes FAC FAC Species x 3 = 3. Abies balsamea 10 No FAC Species x 4 = 4. 10 No FAC Species x 4 = 4. 10 No FAC Species x 4 = 4. 10 No FAC Species x 5 = 5. 1 No FAC Species x 5 = 7. 50 = Total Cover Hydrophytic Vegetation Indicators: Image: Species Rapid Test for Hydrophytic Vegetation 1 Abies balsamea 2 Yes FAC Species x 3.0' 1 Abies balsamea 2 Yes FACU Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Dominance Test is > 50% Prevalence Index is ≤ 3.0' Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic. Provide supporting data in Remarks or on a separate sheet) Problematic. 5. Yes FACU Species Morphological Adaptations' (Provide supportin	1. Picea rubens	20	Yes	FACU	FACW Species x 2 =	
3. Abies balsamea 10 No FAC FACU Species X 4 = 4. 10 No FAC FACU Species X 4 = 5. 0 X 5 = Column Totals (A) (B) 6. Prevalence Index = B/A = Image: Column Totals (A) (B) 7. 50 = Total Cover Image: Column Totals (A) (B) 1. Abies balsamea 2 Yes FACU Prevalence Index = B/A = Image: Column Totals (A) (B) 2. Mitella repens 2 Yes FACU Prevalence Index is 4 3.0 ¹ Image: Column Totals (A) (B) 3. Osmunda cinamomea 15 Yes FACU Prevalence Index is 4 3.0 ¹ Image: Column Totals (A) (B) 4. Provides usizes 15' 1 No FACU Prevalence Index is 4 3.0 ¹ Image: Column Totals (A) (B) 5. Yes FACU Image: Column Totals (A) (B) (B) (C) (C) <td< td=""><td></td><td></td><td></td><td></td><td>FAC Species x 3 =</td><td></td></td<>					FAC Species x 3 =	
4. UPL species x 5 = 5. Column Totals (A) (B) 6. Prevalence Index = B/A = Hdrophytic Vegetation Indicators: 7. 0 = Total Cover Important for the physic Vegetation Indicators: 1. Abies balsamea 2 Yes FAC 2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 1 No FACU 3. Osmunda cinamomea 1 No FACU 5. Osmunda cinamomea 1 No FACU 6. Importantic Hydrophytic Vegetation ¹ (Explain) Importantic Hydrophytic Vegetation ¹ (Explain) 1. No FACU Provalence Index is ≤ 3.0 ¹ Importantic Hydrophytic Vegetation ¹ (Explain) 2. Osmunda cinamomea 1 No FACU Importantic Hydrophytic Vegetation ¹ (Explain) 3. Osmunda cinamomea 1 No FACU Provalence Index is ≤ 3.0 ¹ Importantic Hydrophytic Vegetation ¹ (Explain) 1. Abies balsamea 2 Yes FACU Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU Importantic Hydrophytic Vegetation ¹ (Explain) Importantic H					FACU Species x 4 =	
5. Column Totals (A) (B) 6. Prevalence Index = B/A = 7. Index prevalence Index = B/A = 1. Abies balsamea 2 Yes FACU 1. Abies balsamea 2 Yes FACU 2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACU 4. Pinus strobus 1 No FACU 6. Indicators of hydrophytic Vegetation' (Explain) 1. Abies balsamea 2 Yes 2. Yes FACU 3. Osmunda cinamomea 15 Yes 6. FACU 7. Indicators of hydroic soil and wetland hydrology must be present, unless disturbed or problematic. 6. Indicators of hydric soil and wetland hydrology must be present, unless of height. 9. Indicators of Vegetation Strate: 10. Indicators of vegetation strate. 11. 20 = Total Cover 20 = Total Cover Definitions of Vegetation Strate. 10. Indicators of vody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 15)					UPL species x 5 =	
6. Prevalence Index = B/A = 7. 50 = Total Cover 50 = Total Cover Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 5') Dominance Test is > 50% 1. Abies balsamea 2 Yes 2. Mitella repens 2 Yes 3. Osmunda cinamomea 15 Yes 4. Pinus strobus 1 No 50. FACU 9. Problematic Hydrophytic Vegetation' (Explain) 1. No 6. FACU 7. Definitions of Vegetation Site or a separate sheet) 1. No 6. FACU 7. Tree -Woody plants less than 3 in. (T6 cm) or more in diameter (DBH), regardless of height. 9. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft tail. Woody Vine Stratum (Plot size: 15') In Herb - All woody vines greater than 3.28 ft tail. 1. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Hydrophytic Vegetation 1. 2. In herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tail. 4. Woody Vine Stratum (Plot size: 15') Hydrophytic Vegetation <td></td> <td></td> <td></td> <td></td> <td></td> <td>(B)</td>						(B)
7. Hydrophytic Vegetation Indicators: 50 = Total Cover Herb Stratum (Plot size: 5') □ Dominance Test is > 50% 1. Abies balsamea 2 Yes 2. Mitella repens 2 Yes 3. Osmunda cinamomea 15 Yes 1. No FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 3. Osmunda cinamomea 15 Yes 1. So FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU □ Problematic Hydrophytic Vegetation ¹ (Explain) 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: 7. . . Sapling/shrub – Woody plants 1 in . (76 cm) or more in diameter (0BH), regardless of height. 10. . . Sapling/shrub – All woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size: 15') . . 1. Aco .						()
50 = Total Cover Herb Stratum (Plot size: 5) 1. Abies balsamea 2 Yes FAC 2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACW 4. Pinus strobus 1 No FACU 5. 1 No FACU 6. 7. 8. 9. 7. 8. 9. 10. 10. 1. No FACU 9. 10. 1. No 11. 20 = Total Cover Definitions of Vegetation Strata: 7. 8. 9. 10. 10. 11. 20 = Total Cover Definitions of Vegetation Strata: Woody Vine Stratum (Plot size: 15) 1. 20 = Total Cover 10. 20 = Total Cover Woody vines – All woody vines greater than 3.28 ft tall. Woody Vine Stratum (Plot size: 15) 1. Woody vines – All woody vines greater than 3.28 ft tall. 1. 2. 3. Hydrophytic Yegetation 3. 4. H	7.					
Herb Stratum (Plot size: 5') □ Dominance Test is > 50% 1. Abies balsamea 2 Yes FAC 2. Miteila repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACU 4. Pinus strobus 1 No FACU 5. 1 No FACU 6. 7. Problematic Hydrophytic Vegetation 1 (Explain) 1 No FACU 9. 1 No FACU 1. No FACU Problematic Hydrophytic Vegetation 1 (Explain) 1. Sapting/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft (1 m) tall. 1		50	- Total Cov	or		
Herb Stratum (Plot size: 5') □ Prevalence Index is ≤ 3.0 ¹ 1. Abies balsamea 2 Yes FAC 2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACW 4. Pinus strobus 1 No FACU 5. 1 No FACU 6. 1 No FACU 7. 1 No FACU 9. 1 No FACU 10. 1 No FACU 11. 12. 20 = Total Cover 20 = Total Cover Woody Vine Stratum (Plot size: 15') 1. 20 = Total Cover Woody vines - All woody vines greater than 3.28 ft in height. 9. 20 = Total Cover Woody vines - All woody vines greater than 3.28 ft in height. 11. 20 = Total Cover Hydrophytic 12. 20 = Total Cover Woody vines - All woody vines greater than 3.28 ft in height. 13. 4. You phytic You phytic 14. You phytic You phytic		50		ei		
1. Abies balsamea 2 Yes FAC 2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACW 4. Pinus strobus 1 No FACU 5. 1 No FACU 6. - - Problematic Hydrophytic Vegetation ¹ (Explain) 1 No FACU - Problematic Hydrophytic Vegetation ¹ (Explain) 1. No FACU - - Problematic Hydrophytic Vegetation ¹ (Explain) 5. -	Herb Stratum (Plot size: 5')					
2. Mitella repens 2 Yes FACU 3. Osmunda cinamomea 15 Yes FACW 4. Pinus strobus 1 No FACU 5. 1 No FACU 6. 1 No FACU 7. 1 No FACU 9. 1 No FACU 9. 1 No FACU 9. 1 No FACU 9. 1 No FACU 10. 1 No FACU 11. 20 = Total Cover Definitions of Vegetation Strata: Woody Vine Stratum (Plot size: 15') 1 Hydrophytic 1. 20 = Total Cover Woody vines – All woody vines greater than 3.28 ft tall. Woody Vine Stratum (Plot size: 15') 1 Hydrophytic 1. 2 4. Hydrophytic 3. 4. Hydrophytic	1. Abies balsamea	2	Yes	FAC	Morphological Adaptations ¹ (Provide support	ing
4. Pinus strobus 1 No FACU 5. 1 No FACU 5. 1 No FACU 5. 1 No FACU 6. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 6. 7. Definitions of Vegetation Strata: 7. Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height. 9. 10. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. 20 = Total Cover 20 = Total Cover Woody vines – All woody vines greater than 3.28 ft tall. Woody Vine Stratum (Plot size: 15') 1. Hydrophytic 1. 2. Hydrophytic Yegetation 3. 4. Hydrophytic Yegetation	2. Mitella repens	2	Yes	FACU		0
5. ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 6. ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. ¹ Indicators of Vegetation Strata: 7. ¹ Indicators of Vegetation Strata: 9. ¹ Indicators of Vegetation Strata: 9. ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 9. ¹ Indicators of Vegetation Strata: 10. ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10. ¹ Indicators of Vegetation Strata: 11. ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 20 ^I Teta Cover Woody Vine Stratum (Plot size: 15') ^I Indicators of hydric soil and wetland hydrology must be present? 1. ^I 2. ^I 3. ^I 4.	3. Osmunda cinamomea	15	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain	ו)
5. present, unless disturbed or problematic. 6. 7. 7. Definitions of Vegetation Strata: 8. Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height. 9. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. 2. 3. Hydrophytic 4. Vegetation		1	No	FACU	¹ Indicators of hydric soil and wetland hydrology mu	ist be
7. Definitions of Vegetation Strata: 8. Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height. 9. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. . 2. . 3. . 4. Hydrophytic						
7. Tree – Woody plants 3 in. (76 cm) or more in diameter 9. 10. 10. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. Hydrophytic 2. Hydrophytic 3. Hydrophytic 4. Yegetation					Definitions of Vegetation Strata	
9. (DBH), regardless of height. 9. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. 4.					_	eter
10. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. 11. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 20 = Total Cover Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. 1. 2. 3. 4. Hydrophytic Vegetation Procent? Yos □ No ⊠						
12. 20 = Total Cover size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 15') Woody vines – All woody vines greater than 3.28 ft in height. 1. 2. 3. Hydrophytic 4. Vegetation						and
20 = Total Cover Woody vines – All woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size: 15') 1. 1. 2. 3. 4.						ess of
Woody Vine Stratum (Plot size: 15') 1. 2. 3. 4. Prosent? Yes<□ No ☑	12.	20	= Total Cov	er	Woody vines – All woody vines greater than 3.28	ft in
1. 2. 3. 4. Prospet2	Woody Vino Stratum (Plot size: 15)				height.	
2. 3. Hydrophytic 4. Vegetation Prospet2 No □ No □						
3. 4. Hydrophytic Vegetation						
4. Vegetation Prospet2 Vos □ No □						
Breant? Vos 🗆 No 🕅						
0 = Total Cover	4.					
		0	= Total Cov	er		

US Army Corps of Engineers

	Matrix			Redox Fea	atures			
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
2-0"								Duff
0-1"	2.5Y 3/1	100	-	-	-	-	loamy sand	"A"
1-2"	2.5Y 5/2	100	-	-	-	-	"	"B1"
2-5"	2.5Y 5/3	100	-	-	-	-	"	"B2"
5-10"	2.5Y 5/2	100	-	-	-	-	n	"B3"
10"								Refusal
			+					
					-			
¹ Type: C=Cor	centration, D=Dep	pletion, R	M=Reduced Matrix,	CS=Cover	ed or Coated	Sand Grain	ns. ² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for Pr	oblematic Hydric Soils ³ :
Thick Dark Sandy Mu Sandy Gle Sandy Rec Stripped M Dark Surfa Indicators of	edon (A2) c (A3) Sulfide (A4) .ayers (A5) Below Dark Surface c Surface (A12) cky Mineral (S1) yed Matrix (S4) dox (S5) latrix (S6) ace (S7) (LRR R, N hydrophytic vegeta	ILRA 149 ation and	Polyvalue Bel 149B) Thin Dark Sur Loamy Mucky Loamy Gleyed Depleted Mate Redox Dark S Depleted Dark Redox Depresent 9B) wetland hydrology	rface (S9) (L / Mineral (F1 d Matrix (F2 rix (F3) Surface (F7) k Surface (F7) k Surface (F8)	LRR R, MLRA 1) (LRR K, L))) ⁷ 6)	A 149B)	Coast Prairie I Coast Prevent State Coast Prevent Magane Co	bow Surface (S8) (LRR K, L) face (S9) (LRR K, L) se Masses (F12) (LRR K, L, R) odplain Soils (F19) (MLRA 149 B) (TA6) (MLRA 144A, 145, 149B) aterial (TF2) Dark Surface (TF12)
Type: unsp	ayer (if observed) ecified):						
	nes): 10"						Hvdric Soil	Present? Yes 🗌 No 🛛

US Army Corps of Engineers

Project/Site: Blue Sky East / Bull Hill	Wind	City/County: T16 MD	/ Hancock	Sampling Date: 12/2/2009	
Applicant/Owner: Blue Sky East, LLC			State: ME	Sampling Point: A070	
Investigator(s): TT, MPA	Sec	tion, Township, Range	:		
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):		
Slope (%):	Lat:	Long:	Da	atum:	
Soil Map Unit Name:			NWI Classificat	tion:	
	the site typical for this time of year?	∕es 🛛 No 🗋 (If no, ex	plain in remarks)		
Are Vegetation , Soil , or Hydrol	logy Significantly disturbed?	Are "Normal Circums	tances" present? Y	′es ⊠ No 🗌	
Are Vegetation , Soil , or Hydrol	logy anaturally problematic?	(If needed, explain ar	ny answers in Rema	arks)	
SUMMARY OF FINDINGS – A		ping point locati	ons, transects	, important reatures, etc.	
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area			
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?	Yes 🛛	No 🛄	
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetla	nd Site ID: A070		
Remarks (Explain alternative procedu	ures here or in a separate report):				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicat	tors (minimum of two required)	
Primary Indicators (minimum of one i	is required; check all that apply)		Surface Soil C		
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patte		
High Water Table (A2)	🗌 Aquatic Fauna (B13)		Moss Trim Line	es (B16)	
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor	(C1)	Crayfish Burro	ws (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3)	Saturation Visi	ble on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced I	ron (C4)	Stunted or Stre	essed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction	in Tilled Soils (C6)	Geomorphic P	osition (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquita	ard (D3)	
Inundation Visible on Aerial Image	ery (B7) 🛛 🗌 Other (Explain in Rema	ırks)	Microtopograp	hic Relief (D4)	
Sparsely Vegetated Concave Sur	face (B8)		FAC-Neutral T	est (D5)	
Field Observations:					
Surface Water Present?	Yes 🗌 No🖾 Depth (Inches):				
Water Table Present?	Yes 🖾 No 🗌 Depth (Inches): 4"				
Saturation Present?	Yes 🛛 No 🗌 Depth (Inches): 0"	Wetland Hyd	rology Present?	Yes 🕅 No	
(includes capillary fringe)					
Describe Recorded Data (stream gua	age, monitoring well, aerial photos, pre	evious inspections), if a	vailable:		

Remarks:

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> Cover	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Picea rubens*	80	Yes	FACU	Number of Dominant Species
2. Thuja occidentalis	30	No	FACW	That Are OBL, FACW, or FAC: 3 (A)
3. Abies balsamea	20	No	FAC	Total Number of Dominant
4. Acer rubrum	10	No	FAC	Species Across All Strata: 5 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 60% (A/B)
7.				Prevalence Index worksheet:
		= Total C	/er	
				Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL Species x 1 =
1. Picea rubens	18	Yes	FACU	FACW Species x 2 =
2. Thuja occidentalis	15	Yes	FACW	FAC Species x 3 =
3. Abies balsamea	10	No	FAC	FACU Species x 4 =
4.				UPL species x 5 =
5.				Column Totals (A) (B)
6.				Prevalence Index = B/A =
7.				Hydrophytic Vegetation Indicators:
		= Total Cov	er	Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				Dominance Test is > 50%
THEID Stratum (FIOL SIZE, 5)				Prevalence Index is $\leq 3.0^{1}$
 Osmunda cinamomea Carex trisperma 	15 3	Yes Yes	FACW OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3.	0	100	OBL	 Problematic Hydrophytic Vegetation¹ (Explain)
4.				
5.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6.				
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9.				Sapling/shrub – Woody plants less than 3 in. DBH and
10.				greater than 3.28 ft (1 m) tall.
11. 12.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.		= Total Cov	rer	Woody vines - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 15')				height.
1.				
2. 3.				
3. 4.				Hydrophytic Vegetation
4.		= Total Cov	rer	Present? Yes 🛛 No 🗌
Remarks (Include photo numbers here or on a	separate sheet	.): Red spruce	e trees with m	orphological adaptations: Buttressed trunks
· ·		•		· - ·

US Army Corps of Engineers

	Matrix			Redox Fe	atures							
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks				
5-0"	-	-	-	-	-	-	-	organic material				
0-2"	2.5y 3/1	100	-	-	-	-	-	"A"				
2-4"	2.5y 4/1	100	-	-	-	-	loamy sand	"B1"				
4-10"	2.5y 5/1	100	-	-	-	-	fine sandy Ioam	"B2"				
10-18"	10yr 3/3	100	-	-	-	-	loamy sand	"B3"				
18-20"	-	-	-	-	-	-	-	hardpan				
¹ Type: C=Co Hydric Soil I		oletion, RI	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Gra		: PL=Pore Lining, M=Matrix.				
Histosol (<i>i</i> Histic Epi	A1)		Polyvalue Bel 149B)	ow Surface	(S8) (LRR R ,	MLRA	2 cm Muck (A	(10) (LRR K, L, MLRA 149B) Redox (A16) (LRR, K, L, R)				
Black Hist	. ,		Thin Dark Su	face (S9) (I	.RR R, MLRA	A 149B)		Peat or Peat (S3) (LRR K, L, R)				
Hydrogen	. ,		Loamy Mucky	•	, ,		Dark Surface					
Stratified	• • •	- (Loamy Gleye)		•	ow Surface (S8) (LRR K, L)				
		e (A11)	Depleted Mat					face (S9) (LRR K, L) ese Masses (F12) (LRR K, L, R)				
Depleted								odplain Soils (F19) (MLRA 149 B				
Depleted Thick Dar	cky Mineral (S1)		Redox Depres	•	0)			(TA6) (MLRA 144A, 145, 149B)				
□ Depleted □ Thick Dar □ Sandy Mu	cky Mineral (S1) eved Matrix (S4)		Sandy Redox (S5)									
Depleted Thick Dar Sandy Mu Sandy Gle	eyed Matrix (S4)											
Depleted Thick Dar Sandy Mu Sandy Gla Sandy Re Sandy Re	eyed Matrix (S4) dox (S5)						Very Shallow	Dark Surface (TF12)				
Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re Sandy Re Sandy Re	eyed Matrix (S4) dox (S5)	MLRA 149)B)				☐ Very Shallow ☐ Other (Explain	. ,				
Depleted Thick Dar Sandy Mu Sandy Gla Sandy Re Sandy Re DStripped I Dark Surf	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M		PB) wetland hydrology	must be pre	esent, unless	disturbed	Other (Explain					
Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re Stripped N Dark Surf Indicators of	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M	ation and	,	must be pre	esent, unless (disturbed	Other (Explain					
Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re Stripped N Dark Surf Indicators of	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M hydrophytic vegeta ayer (if observed	ation and	,	must be pre	esent, unless (disturbed	Other (Explain					

US Army Corps of Engineers

Project/Site: Blue Sky East / Bull Hill	l Wind	City/County: T16 MD / Hancock Sampling Date: 12/1/2009				
Applicant/Owner: Blue Sky East, LLC	C		State: ME	Sampling Point: A095		
Investigator(s): MPA / TT	See	ction, Township, Range:				
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none):				
Slope (%):	Lat:	Long:	Dat	um:		
Soil Map Unit Name:		0	NWI Classificati	on:		
	the site typical for this time of year?	Yes 🗆 No 🗔 (If no. exr				
Are Vegetation \Box , Soil \Box , or Hydro		Are "Normal Circumst				
Are Vegetation \Box , Soil \Box , or Hydro	o, _ o ,	(If needed, explain an	·			
3 <u> </u>	<u> </u>			,		
SUMMARY OF FINDINGS – A	Attach site map showing sam	pling point location	ons, transects,	important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗌 No 🛛	Is the Sampled Area				
Hydric Soil Present?	Yes 🗌 No 🛛	Within a wetland?	Yes 🗌	No 🛛		
Wetland Hydrology Present?	Yes 🗌 No 🛛	If yes, optional Wetlar	nd Site ID:			
Remarks (Explain alternative proced	lures here or in a separate report):	·				
HYDROLOGY						
Wetland Hydrology Indicators:				ors (minimum of two required)		
Primary Indicators (minimum of one			Surface Soil Cr			
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	(-	Dry-Season Wa	· · ·		
Water Marks (B1)	Hydrogen Sulfide Odor	. ,	Crayfish Burrov	. ,		
Sediment Deposits (B2)	Oxidized Rhizospheres			ble on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced I	()	Stunted or Stre	()		
Algal Mat or Crust (B4)	Recent Iron Reduction	()	Geomorphic Pc	. ,		
Iron Deposits (B5)	Thin Muck Surface (C7	,	Shallow Aquita			
Inundation Visible on Aerial Image Sparsely Vegetated Concerve Sur		arks)				
Sparsely Vegetated Concave Sur Field Observations:			FAC-Neutral Te	est (D5)		
Surface Water Present?	Yes 🗌 No🛛 Depth (Inches):					
Water Table Present?	Yes \square No \square Depth (Inches):					
Saturation Present?	Yes \square No \square Depth (Inches):					
(includes capillary fringe)		Wetland Hyd	rology Present? Y	′es 🔲 No⊠		
	age, monitoring well, aerial photos, pre	evious inspections), if av	vailable:			
· · ·	· · ·					
Remarks:						

US Army Corps of Engineers

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:
1. Thuja occidentalis 2. Picea rubens	10 10	Yes Yes	FACW FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
3. 4.				Total Number of Dominant Species Across All Strata: 7 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 29% (A/B)
7.	00	T () O		Prevalence Index worksheet:
	20	= Total Cov	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL Species 0 x 1 = 0
1. Picea rubens	8	Yes	FACU	FACW Species 11 x 2 = 22
2. Abies balsamea	15	Yes	FAC	FAC Species 15 x 3 = 45
3. Comptonia perigrina	3	No	NI	FACU Species 35 x 4 = 140
4. Gaylussacia baccata	10	Yes	FACU	UPL species 0 x 5 = 0
5. Pinus strobus	1	No	FACU	Column Totals 61 (A) 207 (B)
6.				Prevalence Index = $B/A = 3.39$
7.				Hydrophytic Vegetation Indicators:
	37	= Total Cov	er	Rapid Test for Hydrophytic Vegetation
				Dominance Test is > 50%
Herb Stratum (Plot size:)				Prevalence Index is $\leq 3.0^1$
1. Pteridium aquilinium	3	Yes	FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a congrate shoot)
2. Gaultheria procumbens	3	Yes	FACU	data in Remarks or on a separate sheet)
3. Epigaea repens	1	No	NI	Problematic Hydrophytic Vegetation ¹ (Explain)
 Gaultheria hispidula 5. 	1	No	FACW	¹ Indicators of hydric soil and wetland hydrology must be
6.				present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless of
12.	8	= Total Cov	or	size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in
	0	- 10tai 000	ei	height.
Woody Vine Stratum (Plot size: 15')				
1.				
2.				
3.				Hydrophytic
4.				Vegetation Present? Yes □ No ⊠
	0	= Total Cov	er	
Remarks (Include photo numbers here or on a	separate sheet	.):		

Death	Matrix			Redox Fea	atures			
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
1-0"							hemic	Organic material
0-1"	2.5Y 3/1	100	-	-	-	-	mixed	Organic mixed with mineral A
1-3"	2.5Y 6/1	100	-	-	-	-	loamy sand	"E"
3-6"	10YR 5/8	100	-	-	-	-	sandy Ioam	fine to medium loose granular structure
6-10+"	10YR 5/6	100	-	-	-	-	loamy sand	medium loose granular structure
¹ Type: C=Co Hydric Soil I	ncentration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Gra		n: PL=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol (. Histic Epi Black Hist Hydrogen Stratified Depleted Thick Dar Sandy Mu	A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Below Dark Surfac k Surface (A12) icky Mineral (S1) eyed Matrix (S4) idox (S5)		 Polyvalue Bel 149B) Thin Dark Su Loamy Mucky Loamy Gleye Depleted Mat Redox Dark S Depleted Dar Redox Depre 	fface (S9) (L v Mineral (F ⁻ d Matrix (F2 rix (F3) Surface (F7) k Surface (F	.RR R, MLRA) (LRR K, L))	A 149B)	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Su Iron-Mangar Piedmont Fle Mesic Spodi Red Parent I	/ Dark Surface (TF12)
Sandy Re Stripped N Dark Surf	ace (S7) (LRR R, M		,	must be pre	sent, unless	disturbed	or problematic.	
Sandy Re Stripped N Dark Surf	()	ation and	,	must be pre	esent, unless	disturbed	or problematic.	

US Army Corps of Engineers

Project/Site: Blue Sky East / Bull Hill	Wind	City/County: T16 MD	/ Hancock	Sampling Date: 12/1/2009		
Applicant/Owner: Blue Sky East, LLC	2		State: ME	Sampling Point: A095		
Investigator(s): MPA / TT	Sec	tion, Township, Range	:			
Landform (hillslope, terrace, etc.):		Local relief (concave,	convex, none):			
Slope (%):	Lat:	Long:	Da	tum:		
Soil Map Unit Name:		NWI Classification:				
Are climatic/hydrologic conditions on	the site typical for this time of year?	∕es 🖾 No 🗋 (If no, exp	es 🖂 No 🔲 (If no, explain in remarks)			
Are Vegetation , Soil , or Hydro	logy Significantly disturbed?	Are "Normal Circums	ances" present? Y	es 🛛 No 🗌		
Are Vegetation , Soil , or Hydro	logy [] naturally problematic?	(If needed, explain ar	v answers in Rema	rks)		
	Attach site map showing sam	ping point locati	ons, transects,	important reatures, etc.		
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	Is the Sampled Area				
Hydric Soil Present?	Yes 🛛 No 🗌	Within a wetland?	Yes 🛛			
Wetland Hydrology Present?	Yes 🛛 No 🗌	If yes, optional Wetlar	nd Site ID: A095			
Remarks (Explain alternative proced	ures here or in a separate report):					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one		Surface Soil Cracks (B6)				
Surface Water (A1)	Water-Stained Leaves	(B9)	Drainage Patte	. ,		
High Water Table (A2)	Aquatic Fauna (B13)	☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2)				
\boxtimes Saturation (A3)	☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor	(C1)	-			
Water Marks (B1)	Oxidized Rhizospheres		Crayfish Burrov	ble on Aerial Imagery (C9)		
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced I		Stunted or Stre			
Algal Mat or Crust (B4)	Recent Iron Reduction	. ,				
\square Iron Deposits (B5)	Thin Muck Surface (C7	. ,	Shallow Aquita	. ,		
Inundation Visible on Aerial Imag		,	Microtopograp			
Sparsely Vegetated Concave Sur		lik5)	FAC-Neutral T			
Field Observations:						
Surface Water Present?	Yes 🛛 No 🗌 Depth (Inches): 0"					
Water Table Present?	Yes \square No \boxtimes Depth (Inches):					
Saturation Present?	Yes X No Depth (Inches): 0"					
(includes capillary fringe)		Wetland Hyd	rology Present? `	Yes 🖂 No		

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

Remarks:

US Army Corps of Engineers

(includes capillary fringe)

Tree Stratum (Plot size: 30')	Absolute <u>%</u> <u>Cover</u>	Dominant <u>Species?</u>	Indicator <u>Status</u>	Dominance Test worksheet:			
1. Picea rubens	40	Yes	FACU	Number of Dominant Species			
2. Thuja occidentalis	10	No	FACW	That Are OBL, FACW, or FAC: 3 (A)			
3. Abies balsamea 4.	10	No	FAC	Total Number of Dominant Species Across All Strata: 5 (B)			
5. 6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)			
7.				Prevalence Index worksheet:			
	60	= Total Cove	er				
Conting (Chrysh Chrotspan, (Dist sizes 451)				Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15')				OBL Species 20 x 1 = 20			
1. Picea rubens	38	Yes	FACU	FACW Species 63 $x 2 = 126$			
2. Abies balsamea	35	Yes	FAC	FAC Species 48 x 3 = 144			
3. Thuja occidentalis	3	No	FACW	FACU Species 78 $x 4 = 312$			
4.				UPL species $0 x 5 = 0$			
5.				Column Totals 209 (A) 602 (B)			
6.				Prevalence Index = $B/A = 2.88$			
7.				Hydrophytic Vegetation Indicators:			
	76	= Total Cove	er	Rapid Test for Hydrophytic Vegetation			
				Dominance Test is > 50%			
Herb Stratum (Plot size: 5')				Prevalence Index is $\leq 3.0^1$			
1. Osmunda cinamomea	50	Yes	FACW	Morphological Adaptations ¹ (Provide supporting			
2. Rubus dalibarda	3	No	FAC	data in Remarks or on a separate sheet)			
3. Carex trisperma	20	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)			
4. 5.				¹ Indicators of hydric soil and wetland hydrology must be			
5. 6.				present, unless disturbed or problematic.			
7.				Definitions of Vegetation Strata:			
8.				Tree – Woody plants 3 in. (76 cm) or more in diameter (DBH), regardless of height.			
9. 10.				Sapling/shrub – Woody plants less than 3 in. DBH and			
11.				greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of			
12.				size, and woody plants less than 3.28 ft tall.			
	73	= Total Cove	er	Woody vines – All woody vines greater than 3.28 ft in height.			
Woody Vine Stratum (Plot size: 15')							
1.							
2.							
3.				Hydrophytic			
4.				Vegetation Brocont2 Vec V No U			
= T			er	Present? Yes 🛛 No 🗌			
Remarks (Include photo numbers here or on a	separate sheet	.):					

US Army Corps of Engineers

Frome Desci		to the de	epth needed to doo			commu		licators).		
Depth	Matrix			Redox Fea	atures					
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-15"	-	-	-	-	-	-	hemic	organic material		
15-48"	-	-	-	-	-	-	sapric	organic material		
¹ Type: C=Cor	centration, D=Dep	oletion, R	M=Reduced Matrix	, CS=Cover	ed or Coated	Sand Grai	ins. ² Location	: PL=Pore Lining, M=Matrix.		
Hydric Soil Ir	dicators:						Indicators for P	roblematic Hydric Soils ³ :		
Histosol (A	.1)		Polyvalue Bel	ow Surface	(S8) (LRR R	, MLRA	2 cm Muck (A	(LRR K, L, MLRA 149B)		
Histic Epip	· · ·		149B)					Coast Prairie Redox (A16) (LRR, K, L, R)		
								5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L)		
								Polyvalue Below Surface (S8) (LRR K, L)		
								Thin Dark Surface (S9) (LRR K, L)		
	Surface (A12)	0 (7117)	Redox Dark S	. ,				Iron-Manganese Masses (F12) (LRR K, L, R)		
							-	Piedmont Floodplain Soils (F19) (MLRA 149 B)		
								: (TA6) (MLRA 144A, 145, 149B)		
								Aterial (TF2)		
Stripped Matrix (S6)								Very Shallow Dark Surface (TF12)		
🗌 Dark Surfa	ce (S7) (LRR R, N	Other (Explain	Other (Explain in Remarks)							
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive L	ayer (if observed):								
Type:										
Depth (inch	es):	Hydric Soil	Hydric Soil Present? Yes 🛛 No 🗌							
Remarks:							1			

US Army Corps of Engineers