

December 18, 2015

Ms. Tiffany LaClair  
Maine Department of Environmental Protection  
106 Hogan Road  
Bangor, ME 04401

**Re: NRPA Permit Application Amendment | Proposed Utility Connection | MRC-Fiberight Waste Processing and Recycling Facility | Hampden, Maine**

Dear Tiffany:

CES is assisting the MRC with the design and permitting of a proposed utility connection for a solid waste processing and recycling facility in Hampden, Maine. Enclosed please find an Amendment to the NRPA Permit Application submitted for the proposed utility connection associated with the MRC-Fiberight Solid Waste Processing Facility (the Facility), a NRPA Permit by Rule (PBR) for a stream crossing (check included), and minor revisions to the site plan. This submittal is an Amendment to the permit application #L26497-TG-A-N submitted previously for the Facility on June 24, 2015.

The revisions to the original permit include a new proposed utility corridor to access available infrastructure from Ammo Park, and associated NRPA Permit by Rule application for a stream crossing of an intermittent stream associated with the utility corridor. The main project site also required minor revisions to accommodate recent infrastructure associated with the processing facility.

The proposed utility corridor is 5,000 feet long and 100 feet wide, and will connect sewer and water utilities from the Facility with existing infrastructure at Ammo Park. The proposed 20 foot wide utility footprint would require approximately 24,700 square feet of additional freshwater forested wetland alterations and require crossing an intermittent stream. The previous NRPA permit included approximately 75,177 square feet of impact.

The proposed stream crossing involves crossing an approximately 24" wide intermittent stream channel. A four foot wide by two foot high box culvert will be installed to provide greater than a 1.2 times bank full width opening. This opening has been sized based on the natural stream bank-full width observed downstream of the disturbed area. Construction is expected to occur in late Summer 2016 (July 15-October 1) during periods of low water, and will adhere to all standards and conditions outlined under Section 10 of Chapter 305 – Permit by Rule Standards and the current Erosion and Sediment Control BMPS.

Ms. Tiffany LaClair | 12.18.2015 | 10973.002 | Page 1

The revisions to the Processing Facility site include additional gas flares and relocated equipment. An odor control skid has been shifted that resulted in an additional 103 square feet of wetland impact. The odor control skid needs to be located as close as possible to the southeast corner of the building, while still providing a 20 foot wide access way along the south side of the building. The location selected impacts the least amount of wetlands.

An additional flare tower was added and the original proposed flare relocated. These changes require approximately 1,700 square feet of additional clearing in wetlands. The flare locations are shown with the required setbacks for clearing. There are 2 flares, each with different setbacks. The flares have been situated such that the minimum amount of clearing is required. The flares are in the general area of where they are needed, and placed in the upland as much as possible. We have included a revised site plan with these changes shown. These revisions result in approximately 1,800 square feet of additional alteration of freshwater forested wetlands.

With this amendment, the total impacts for the Facility and utility connection would be approximately 101,700 square feet or 2.3 acres.

Please contact us if we can provide additional information or if you have any questions during the department review.

Sincerely,  
CES, Inc.

A handwritten signature in blue ink, appearing to read "R. St. Amand", is written over a light blue circular background.

Roger St.Amand, LSE, CSS, CPESC, LF  
Senior Project Scientist

RSA/jok  
Enc.

Ms. Tiffany LaClair| 12.18.2015 | 10973.002

**SENSIBLE SOLUTIONS**



**MAINE DEPARTMENT OF ENVIRONMENTAL  
PROTECTION**

**NATURAL RESOURCES PROTECTION ACT  
PERMIT AMENDMENT**

**FOR**

**UTILITY CORRIDOR - SOLID WASTE PROCESSING  
AND  
RECYCLING FACILITY  
HAMPDEN, MAINE**

**Applicants:** Municipal Review Committee, Inc.  
395 State Street  
Ellsworth, ME 04605  
207.664.1700

Fiberight LLC  
1450 South Rolling Road  
Baltimore, MD 21227  
410.340.9387

**DECEMBER 2015  
JN: 10973.002 / 11293.001**

**Application Prepared By:**  
CES, Inc.  
465 South Main Street  
P.O. Box 639  
Brewer, ME 04412  
207.989.4824



**Corporate Office**

465 South Main Street  
PO Box 639  
Brewer, Maine 04412  
207.989.4824

[www.ces-maine.com](http://www.ces-maine.com)

## MRC/FR NRPA UTILITY CORRIDOR AMENDMENT

### OVERVIEW

Municipal Review Committee, Inc. (MRC) and Fiberight LLC (Fiberight) have submitted MDEP Permit applications to construct and operate a regional Solid Waste Processing and Recycling Facility (the Facility) in Hampden, Maine, to process municipal solid waste (MSW). The submittals included a Natural Resources Protection Act (NRPA) Individual Permit Application for alterations to protected natural resources. The original NRPA permit included approximately 62,442 square feet (SF) of fill and 12,735 SF of additional clearing in wetlands. This amendment includes a revised utility corridor extension to connect the Facility to nearby municipal water and sewer utilities and would add approximately 24,700 SF of additional alterations to protected natural resources. The original application proposed water and sewer connections along the existing access road and down Coldbrook Road. After further review and discussions with the municipal utility departments, and refinement of the Facility capacity requirements, this option was found to be cost prohibitive and several alternative options were evaluated. The connection to Ammo Park was determined to be the most viable option.

### 1 - PROJECT DESCRIPTION

The proposed project consists of installing water and sewer lines in a proposed 100 foot wide by 5,000 foot long corridor extending northeast that would connect the Facility to existing infrastructure at Ammo Park. The proposed utility connection consists of two trenches separated by a required 10 feet for sewer and water pipes located within a 20 foot wide corridor with an improved utility pathway. The 20 foot wide corridor will be cleared and grubbed and the two trenches excavated. Post construction, the native soils will be removed and replaced with 18 inches of MDOT Type B gravel fill with 4 inches of topsoil amendment back to the original grade to allow limited maintenance access along the corridor. The final surface will be maintained in a vegetated state.

### EXISTING CONDITIONS

The expanded Utility corridor (Site) extends easterly from the Facility to Ammo Park and is largely undeveloped. The MRC has retained an option to acquire the proposed 100 foot wide easement corridor. The majority of the utility project area is undeveloped forestland with a mix of uplands and wetlands. Land use on the Site has and currently includes timber harvesting and recreational use. Portions of the Site were previously cleared for agriculture or development in the Ammo Park area, and have reverted to forest. The uplands are dominated by mature softwoods interspersed with cut over hard wood on the Ammo Park lands. An intermittent stream and multiple forested wetlands occur along the Site.

**Wetlands:** The corridor crosses several forested wetlands (PFO1&4E) that are seasonally saturated. Soils in these wetlands consisted of an organic or dark mineral surface horizon underlain by depleted and mottled silt loam subsoil. Evidence of hydrology in these wetlands consisted of pit and mound microtopography, soil saturation to the ground surface, water stained leaves, and drainage patterns. An intermittent stream flows from north to south across the corridor approximately 1,200 feet east of the Facility.

**Vernal Pools:** A vernal pool survey was completed in the Spring of 2015, and no vernal pool resources were identified. Skidder rut and ditches (identified as amphibian breeding areas (ABAs)) within the corridor that have the potential to support amphibian breeding were also surveyed and documented, though they do not meet the definition of a vernal pool. No ABAs were identified. No vernal pools met the MDEP significant vernal pool criteria.

### **PROPOSED PROJECT IMPACTS**

The proposed 20 foot wide utility corridor footprint would alter approximately 24,700 square feet of freshwater forested wetland, and require crossing an intermittent stream. The impacted wetland areas are dominated by red maple–balsam fir forested wetlands on hydric mineral soils of till, lacustrine, and marine sediments. Alterations include clearing, grubbing, and soil removal within the utility line footprint. The pathway will be returned as near as possible to existing grade after construction, but the surface will be improved to allow occasional vehicle access. The previous NRPA permit included approximately 75,177 SF of impact. With this amendment, the total impacts would be approximately 101,700 SF or 2.3 acres.

### **AVOIDANCE AND MINIMIZATION**

Under the Maine Natural Resource Protection Act and Section 404 of the Federal Clean Water Act, the project is required to avoid and minimize disturbance to natural resources and to ensure that no unreasonable impact will occur. The proposed project has been designed to avoid and minimize impacts to freshwater wetlands and protected natural resources to the greatest practical extent.

Several alternative routes to connect utilities to the site were considered. Of the available options, the connection via Ammo Park was the most practical. See attached **Section 2 Alternatives Analysis**.

As part of the utility corridor route selection process for the connection to Ammo Park, a large area of land from the Facility to Ammo Park was reviewed to identify routes which minimize natural resource impacts. This included lands south of the Interstate and north of the existing transmission corridor. Within that area, several routes were considered, and a route was selected that maximized use of uplands and avoided the largest wetland areas. Where wetland crossings were needed, these were located at narrow points to further minimize impacts.

Within the preferred corridor alignment, the utilities were shifted away from the centerline where practical to avoid or reduce wetland impacts. The impacts were further minimized by not constructing an access road and only completing minimal fill and clearing to allow construction and long term maintenance.

## **2 - ALTERNATIVES ANALYSIS**

There were four options that were considered for the utility connections to the existing infrastructure. A summary of each follows.

**Pine Tree Landfill Route:** There is an existing pump station at the Pine Tree Landfill located to the west of the proposed Facility. This pump station pumps leachate collected from the landfill

to a sewer line near Dysart's restaurant which then flows by gravity to another pump station located on Odlin Road. The Pine Tree pump station is privately owned, and the pump station on Odlin Road does not have sufficient capacity to handle the flow from this Facility. This route would include crossing an urban impaired stream and most likely additional wetlands. This route only addresses the sewer needs of the Facility. The water mains would need to come from a different route. Due to costs associated with upgrading existing infrastructure and the need to negotiate with a private entity to connect to their facilities, this route was determined to be not feasible.

**Odlin Road Route:** A route that included crossing under Interstate 95 in a more direct route to the existing pump station on Odlin Road was also examined. As discussed above, the Odlin Road pump station does not have sufficient capacity to handle the flow from the proposed Facility. Also, the cost to cross under the Interstate was determined to not be feasible. Again, this route only addresses the sewer needs.

**Coldbrook Road Route:** The route that was initially planned for The Facility was to extend water and sewer down Coldbrook Road to connect to existing infrastructure. The water line could connect at the intersection of Route 202 and the sewer was planned to connect at Lindsey Way. After discussing this option with Town officials, it was determined that the sewer would need to extend further down Coldbrook Road to an existing pump station near the intersection with Route 9. Furthermore, the existing pump station and force main would need to be upgraded to handle the flow from the proposed Facility. Due to the significant upgrade requirements, this route was determined to not be feasible.

**Ammo Park Route:** The Ammo Park property owners had recently extended utility infrastructure from the Hampden Business Park to their development. They were willing to sell a corridor which could be used to connect utilities from the proposed Facility to the new infrastructure. This route provides the most direct connection to existing infrastructure as well as the least cost. The existing infrastructure is adequately sized to handle the flows as currently proposed, so there are little to no upgrades required. This route was selected as the preferred option.

### [3 - LOCATION MAP](#)

Please see attached location map.

### [4 - SITE PHOTOGRAPHS](#)

Site Photographs are included in **Attachment 9 – Site Conditions Report** and in the Permit by Rule Notification for Stream Crossing.

### [5 - SITE PLANS](#)

Please see attached Site plans of the proposed utility corridor and stream crossing.

## **6 - ADDITIONAL PLANS**

Not applicable.

## **7 - CONSTRUCTION PLAN**

The construction plan will be consistent with the original application.

## **8 - EROSION CONTROL PLAN**

The erosion control plan will be consistent with the original application.

## **9 - SITE CONDITION REPORT**

Please see the attached *Natural Resource Survey Report of Ammo Park Utility Connector, Hampden, Maine.*

## **10 - Public Notice**

The abutters of the project are consistent with the original application additional abutters include the owners of the proposed utility corridor, Maine Ground Developers, Inc.

## **11 - MHPC**

The area of the utility corridor is within close proximity to the area reviewed under the original application. On March 18, 2015 MHPC concluded that *"no historic properties will be affected by the proposed undertaking... no further Section 106 consultation is required."* Please see the attached MHPC review letter.

## **12 - WETLAND FUNCTIONAL ASSESSMENT**

The wetlands associated with the utility corridor are connected to the wetlands on the Facility site and are similar in functions and values. The Wetland Functional assessment conducted for the original NRPA application concluded that the primary functions of these wetlands include flood flow alteration, production export from wood harvesting and hunting, and wildlife habitat. The utility corridor resource impacts will cause only minor loss of wetland functions and values consistent with the Functional Assessment provided in the original NRPA application.

## **13 - COMPENSATORY MITIGATION**

The previous NRPA permit application included approximately 75,177 SF of impact. With this amendment, the total impacts would be approximately 101,700 SF or 2.3 acres. The proposed compensation of preserving the 80 acre parcel adjacent to the site has enough land area to include impacts associated with this proposed amendment. The new ratios are shown below:

REVISED COMPENSATORY MITIGATION WORKSHEET (from NRPA permit)					
Impact Type	Area (SF)	Area (Acres)	Restoration Ratio	ACOE Preservation Ratio	Minimum Preservation Area Required (Acres)
Facility - Forested Wetland (original)	75,177	1.73	(3:1)	(15:1)	26
Utility corridor – Additional Forested wetland	24,700	0.58	-	15:1	9
Facility-Forested wetland revisions	1,800	0.04		15:1	
<b>Combined Impact</b>	<b>101,677</b>	<b>2.3</b>		<b>15:1</b>	<b>35</b>

**Mitigation Parcel Summary:** The proposed mitigation site is approximately 80 acres. Using the ACOE recommended ratios for preservation of 15:1 would require a preservation site of approximately 35 acres. The proposed preservation area of 80 acres results in an approximately 35:1 ratio.

**14 – MDEP VISUAL EVALUATION FIELD SURVEY CHECKLIST**

Please see attached *Appendix A: MDEP Visual Evaluation Field Survey Checklist*.

**15 – RIGHT, TITLE, INTEREST**

Please see the attached Option to Purchase from Maine Ground Developers, Inc. to Municipal Review Committee, Inc.



# MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

[Corporate Name Search](#)

## Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Fri Jun 05 2015 08:57:09. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
MUNICIPAL REVIEW COMMITTEE, INC.	19910436ND	NONPROFIT CORPORATION (T13-B)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
06/07/1991	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
COMMITTEE TO ANALYZE PERC, INC.	F

### Clerk/Registered Agent

DANIEL G. MCKAY  
P.O. BOX 1210  
BANGOR, ME 04402 1210

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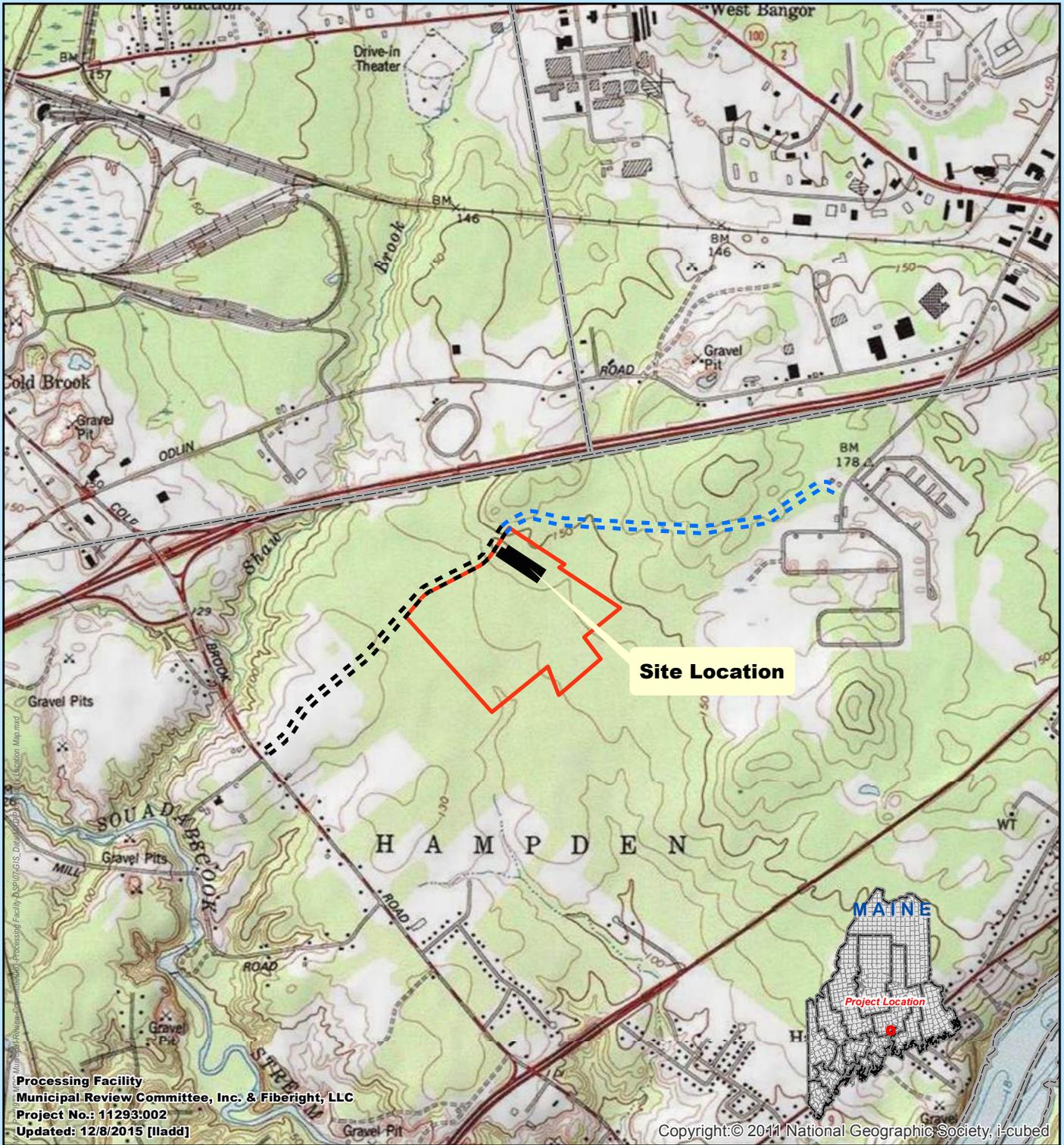
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# USGS Topographic Map

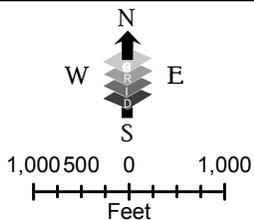


## Legend

- - - Utility ROW Corridor (100')
- - - - Utility Infrastructure Footprint (20')
- - - Proposed Road Location
- Proposed Building Location
- Proposed Facility Property Boundary
- Town Boundaries

## MAP NOTES:

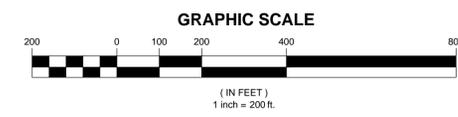
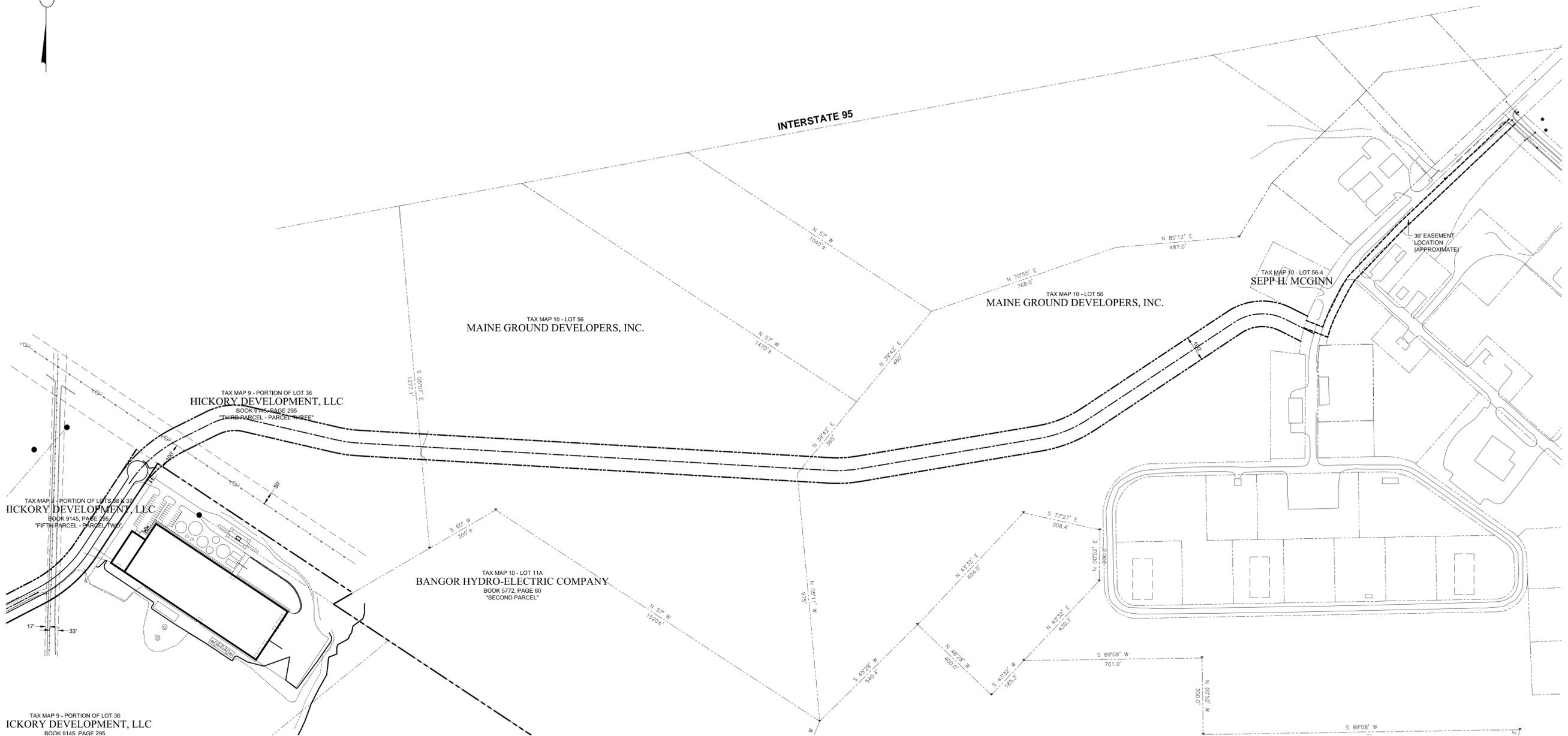
- 1: ADMINISTRATIVE BOUNDARIES COURTESY OF THE MAINE OFFICE OF GIS (MEGIS).
- 2: TOPOGRAPHIC MAP IS USGS 1:24,000 TOPOGRAPHIC QUADRANGLE. PUBLISHED BY USGS, 2011. ACQUIRED FROM ESRI, 2015.





**LEGEND:**

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
EDGE OF GRAVEL	---	---
EDGE OF PAVEMENT	---	---
CENTERLINE	---	---



Presque Isle  
 549 Main Street  
 Presque Isle, ME  
 F. 207-795-8412  
 F. 207-795-8414

Brewer  
 465 South Main Street  
 Brewer, ME  
 F. 207-588-4824  
 F. 207-589-4681

Waterville  
 44 Main Street  
 Waterville, ME  
 F. 207-680-2202  
 F. 207-686-2204

Bar Harbor  
 1346 State Hwy 102  
 Bar Harbor, ME  
 F. 207-686-2204  
 F. 207-288-0588

LeWiston, ME  
 102 LeWiston, ME  
 T. 207-256-3270  
 F. 207-256-8387



**UTILITY CORRIDOR PLAN**

**MRC HAMPDEN, MAINE**

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SCALE: 1"=200'

DATE: 2015-12-03

DRAWN BY: WAB    CHECKED BY: SMT

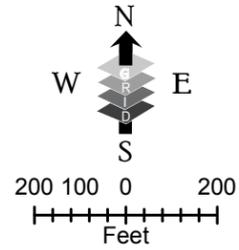
DESIGNED BY: SMT    APPROVED BY: SMT

JOB NUMBER: 10973.002

DRAWING NUMBER: **SK-1**

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# 2015 Natural Resources



## Legend

- Utility Infrastructure Footprint (20')
- Utility ROW Corridor (100')
- Wetland Boundary
- Delineated Streams
- Wetland Boundaries
- wetlandpoly
- Property Boundary
- Proposed Access Road ROW



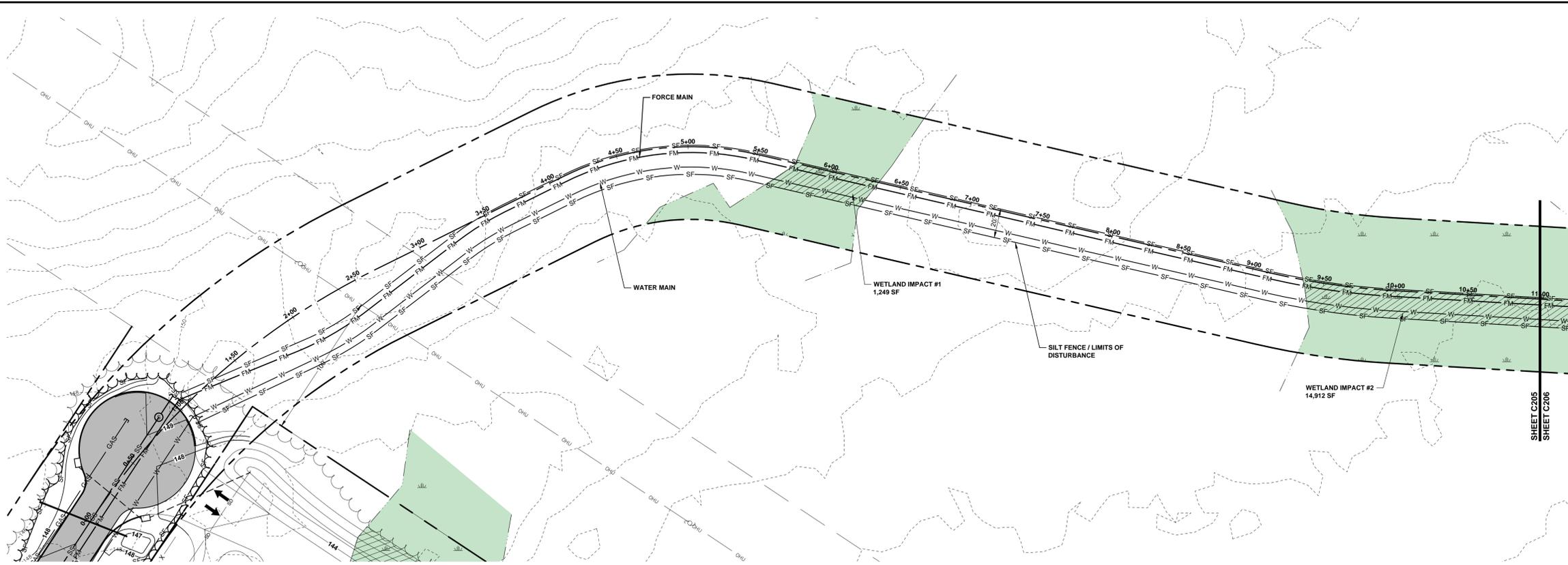
**MRC & Fiberright**  
**Waste Processing Facility**  
**Project No.: 10973.002**  
**Updated: 11/20/2015 [lladd]**

**MAP NOTES:**

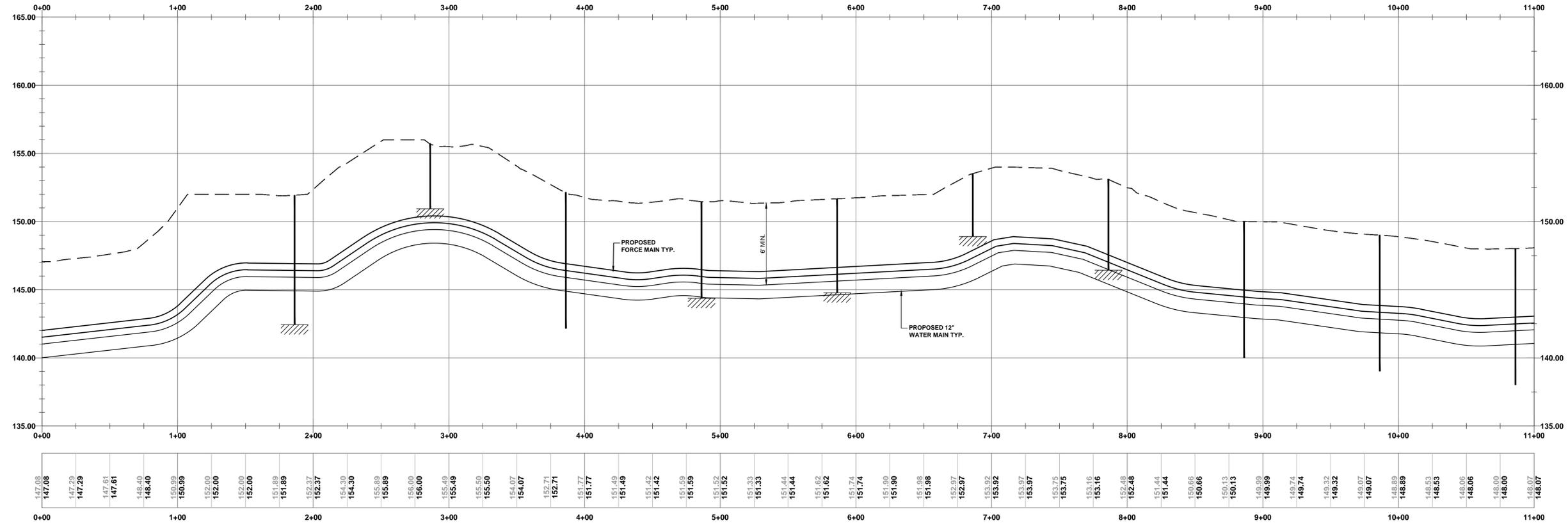
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2. VERNAL POOL SURVEYS WERE COMPLETED DURING AN APPROPRIATELY TIMED SURVEY IN SPRING 2015 AND IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS AND DEFINITIONS, AND THE MAWS VERNAL 2011 DRAFT POOL SURVEY PROTOCOL.
3. SITE FEATURES, INCLUDING WETLAND BOUNDARIES, STREAMS AND VERNAL POOLS DEPICTED ON THIS PLAN WERE LOCATED UTILIZING A GPS RECEIVER HAVING SUB-METER ACCURACY.
- 4: IMAGERY ACQUIRED FROM ESRI. IMAGERY IS 0.3-METER UC-G IMAGERY COURTESY OF MICROSOFT (2010).
- 5: MAP IS PROJECTED USING MAINE STATE PLANE COORDINATES, EAST ZONE, WITH UNITS OF U.S. SURVEY FEET AND REFERENCES THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- 6: NORTH ARROW IS REFERENCED TO GRID NORTH.



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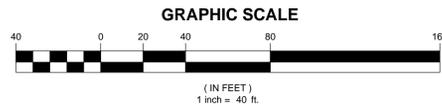


**PLAN - STA: 0+00 TO 11+00**  
SCALE: 1"=40'



**PROFILE - STA: 0+00 TO 11+00**  
SCALE: H: 1"=40'  
V: 1"=4'

IMPACT AREA	IMPACT (SF)
1	1,249
2	14,912
3	4,089
4	1,221
5	1,287
6	1,933
<b>TOTAL</b>	<b>24,691</b>



Warrenville  
44 Main Street  
Princeton, ME  
F. 207-795-8412  
F. 207-795-8414  
F. 207-795-8414

Brewer  
405 South Main Street  
Brewer, ME  
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F. 207-989-4821  
F. 207-989-4821

Warrenville  
61 Doble Street  
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F. 207-255-8387

Warrenville  
1361 State Hwy 102  
Lewiston, ME  
F. 207-288-0588  
F. 207-795-6129



PROJECT TITLE  
**MRC ACCESS ROAD  
HAMPDEN, MAINE**

SHEET TITLE  
**UTILITY CORRIDOR  
PLAN AND PROFILE  
STA: 0+00 TO 11+00**

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DATE: 2015-10-20

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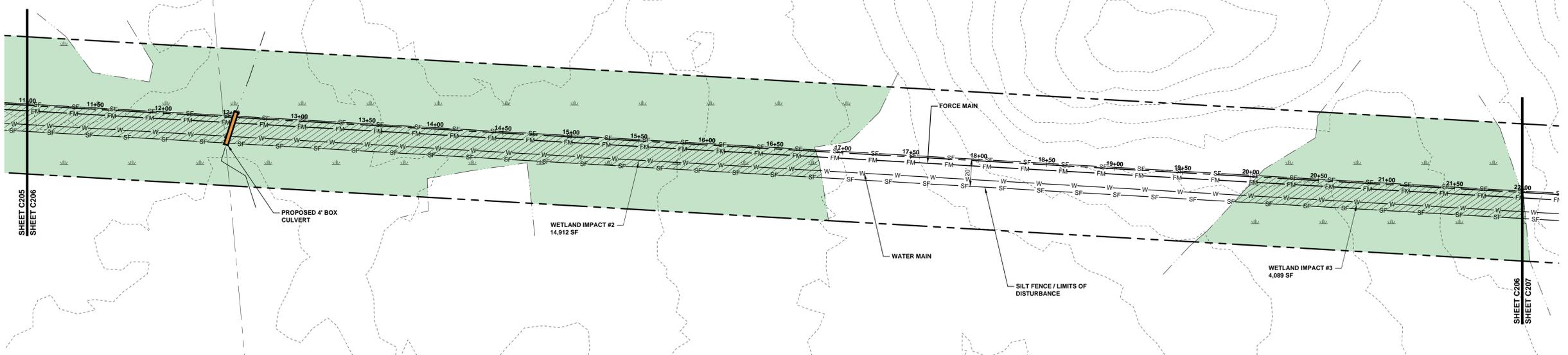
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XREF NUMBER: 10973.002

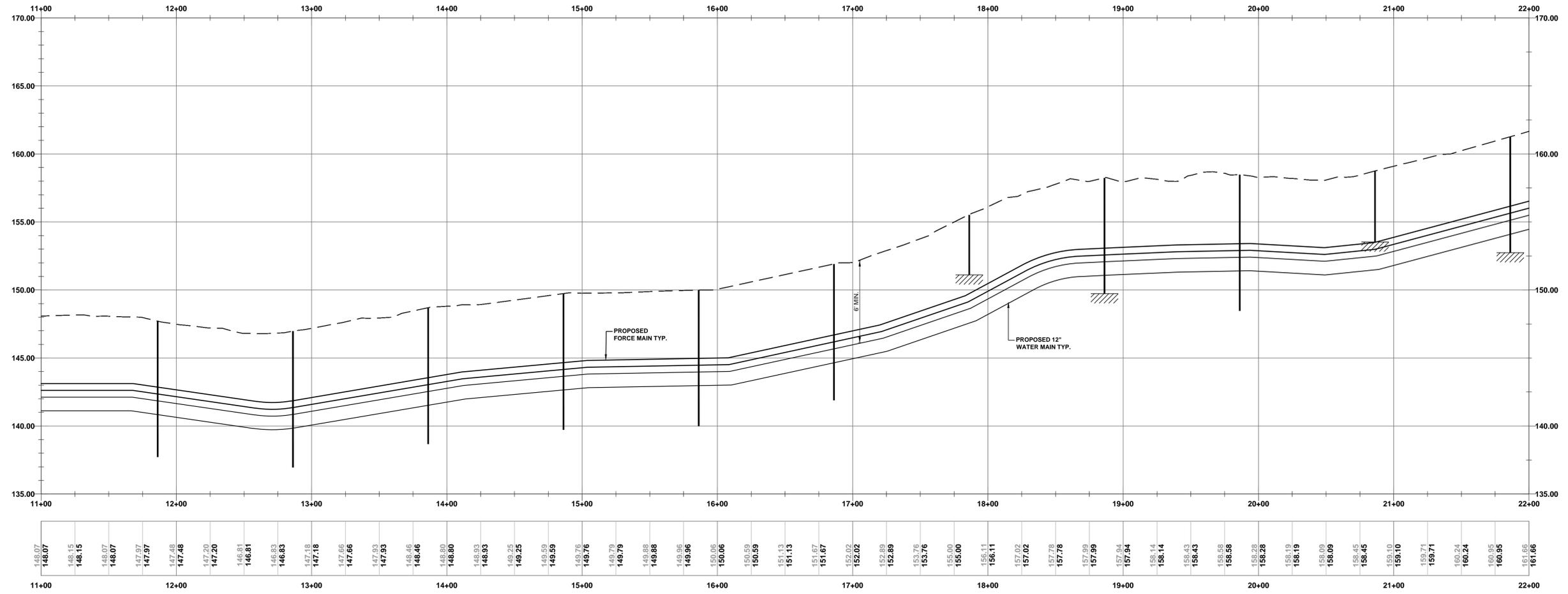
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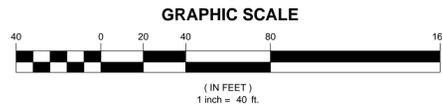
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**PLAN - STA: 11+00 TO 22+00**  
SCALE: 1"=40'



**PROFILE - STA: 11+00 TO 22+00**  
SCALE: H: 1"=40'  
V: 1"=4'



**CES INC**  
Engineers • Environmental Scientists • Surveyors

Brewer  
 465 South Main Street  
 Brewer, ME  
 F. 207-869-4824  
 F. 207-869-4821

Presque Isle  
 44 Main Street  
 Presque Isle, ME  
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 F. 207-769-6414

Lewiston  
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 Lewiston, ME  
 T. 207-255-3370  
 F. 207-255-8387

PROJECT TITLE  
**MRC ACCESS ROAD  
HAMPDEN, MAINE**

SHEET TITLE  
**UTILITY CORRIDOR  
PLAN AND PROFILE  
STA: 11+00 TO 22+00**

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DATE: 2015-10-20

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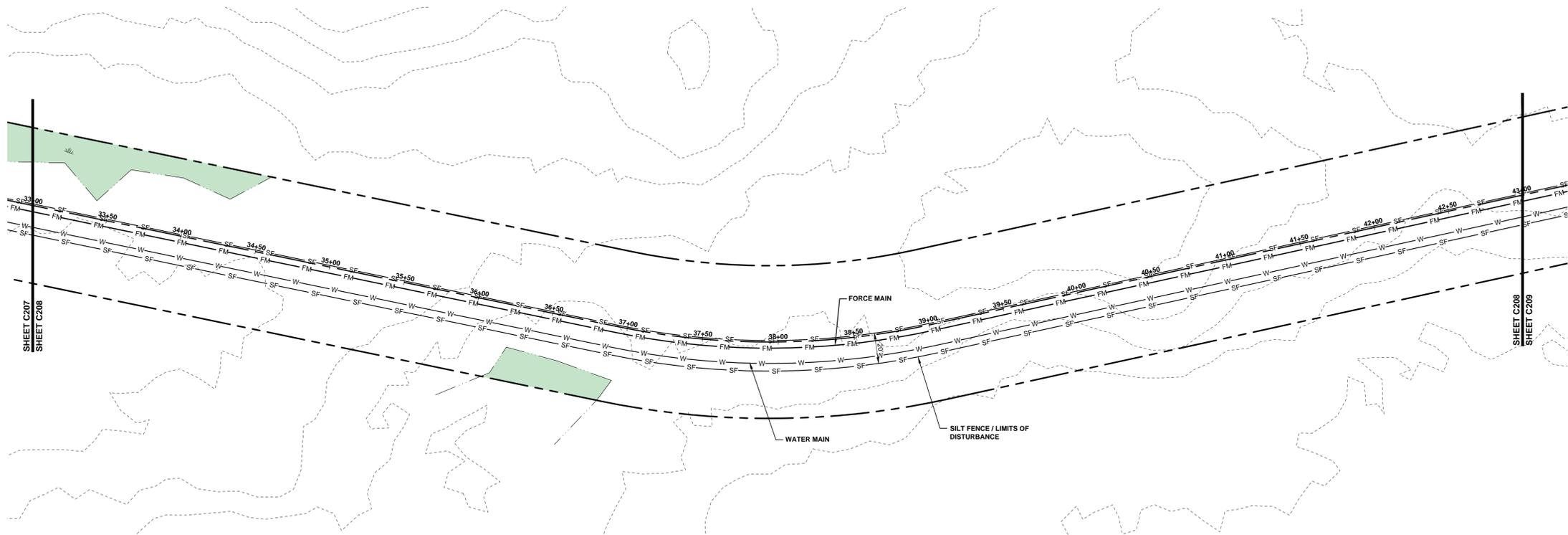
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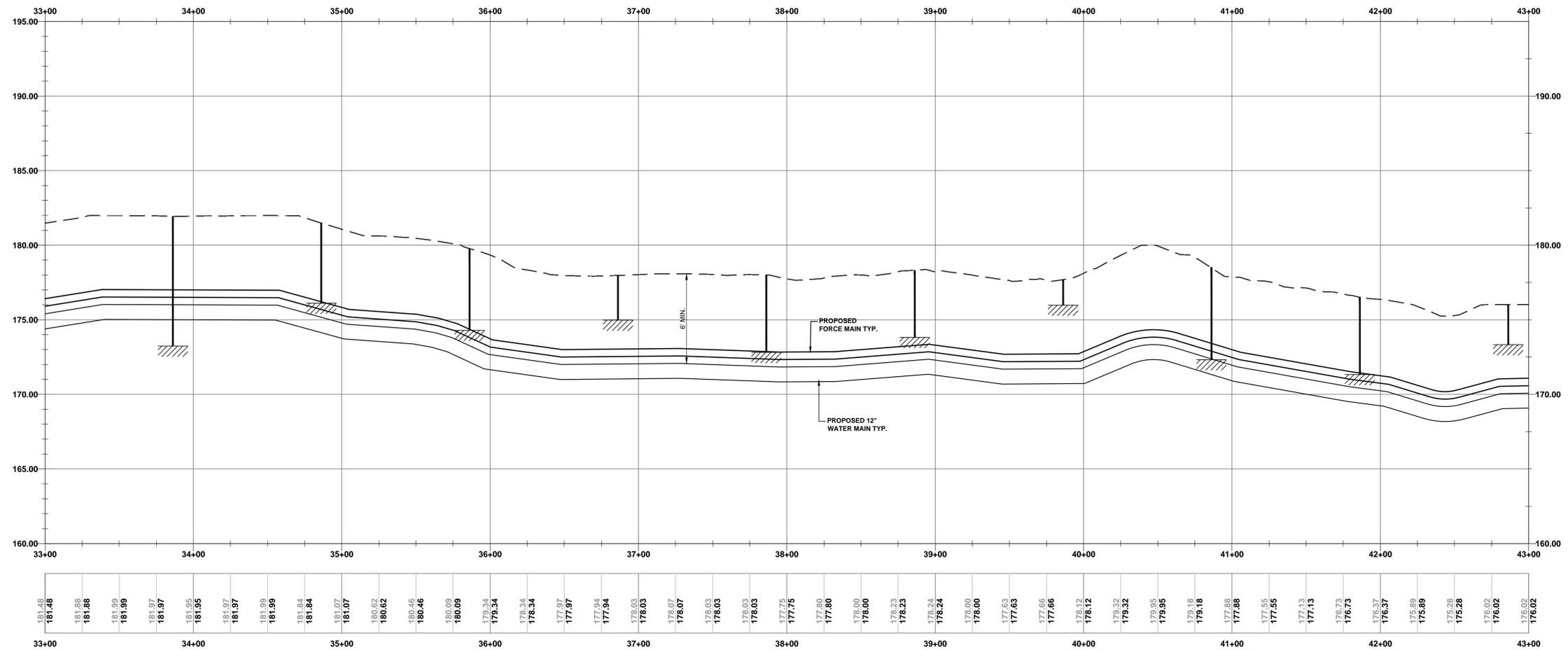
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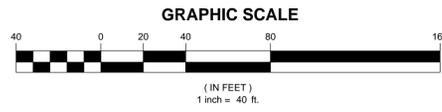




**PLAN - STA: 33+00 TO 43+00**  
SCALE: 1"=40'



**PROFILE - STA: 33+00 TO 43+00**  
SCALE: H: 1"=40'  
V: 1"=4'



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Waterville  
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F. 207-795-8412  
F. 207-766-6414  
F. 207-666-2204

Presque Isle  
549 Main Street  
Presque Isle, ME  
F. 207-569-4624  
F. 207-569-4621

Brewer  
465 South Main Street  
Brewer, ME  
F. 207-589-4824  
F. 207-589-4621

Bar Harbor  
1346 State Hwy 102  
Bar Harbor, ME  
F. 207-288-0588  
F. 207-288-0587



PROJECT FILE  
**MRC ACCESS ROAD  
HAMPDEN, MAINE**  
SHEET FILE

**UTILITY CORRIDOR  
PLAN AND PROFILE  
STA: 33+00 TO 43+00**

NO.	DESCRIPTION	DATE	DRAWN BY	CHECKED BY

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DATE: 2015-10-20  
DRAWN BY: WAB CHECKED BY: ACH  
DESIGNED BY: ACH APPROVED BY: SMT  
JOB NUMBER: 10973.002  
DRAWING NUMBER:  
**C208**





**SENSIBLE SOLUTIONS**



**Corporate Office**

465 South Main Street  
PO Box 639  
Brewer, Maine 04412  
207.989.4824

[www.ces-maine.com](http://www.ces-maine.com)



**NATURAL RESOURCES SURVEY REPORT**

**OF**

**AMMO PARK UTILITY CONNECTOR  
HAMPDEN, MAINE**

**FOR**

**MUNICIPAL REVIEW COMMITTEE, INC. – FIBERIGHT LLC  
HAMPDEN, MAINE**

**Applicants:** Municipal Review Committee, Inc.  
395 State Street  
Ellsworth, ME 04605  
207.664.1700

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## 1.0 INTRODUCTION

CES, Inc. (CES) has completed natural resources surveys for a proposed utility connector associated with the MRC - Fiberright solid waste processing and recycling facility in Hampden, Maine. The proposed utility connector is an approximately 5,000-foot long and 100-foot wide linear corridor (the Site) and will connect an area located on Coldbrook Road to Ammo Industrial Park in Hampden.

Natural resources surveys were conducted on the Site in October 2015, to identify protected natural resources, such as wetlands and streams, which are jurisdictional to State and/or Federal agencies. Vernal pool surveys were conducted on the Site in April and May 2015, to identify jurisdictional vernal pools, which are jurisdictional to State and/or Federal agencies. The primary agencies typically involved in the permitting process are the Maine Department of Environmental Protection (MDEP) and the U.S. Army Corps of Engineers (ACOE).

## 2.0 METHODOLOGY

Prior to conducting the field surveys, CES reviewed existing Geographic Information System (GIS) data available from the MDEP and Maine Department of Inland Fisheries and Wildlife (MDIFW) and digital aerial photography. This data included significant wildlife habitat information. CES also reviewed preliminary data from the Maine Office of GIS, including National Wetlands Inventory (NWI) mapped wetlands, USDA – Natural Resources Conservation Service soil survey data, and the United States Geological Survey (USGS) 7.5' topographic map for the Bangor, Maine quadrangle.

### 2.1 Natural Resources Reconnaissance

Preliminary natural resources mapping was completed on the Site in March 2015, to identify approximate areas of uplands and wetlands.

### 2.2 Wetland Delineation

The wetland delineation process began with a review of the existing NWI data and aerial photography. CES scientists then visited the Site and identified jurisdictional wetlands based on the 1987 ACOE *Wetland Delineation Manual* and the routine determination method as outlined in the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. The U.S. Fish and Wildlife Service (USFWS) Cowardin classification system outlined in *Classification of Wetland and Deepwater Habitats of the United States* and the 2012 *Regional Supplement* were then used to characterize the wetlands identified.

Wetlands are defined as follows:

*“...Areas that are inundated or saturated by surface or groundwater water at frequency and duration sufficient to support and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland generally includes swamps, marshes, bogs and similar areas.” -*  
[taken from the EPA Regulations listed at 40 CFR 230.3(t)]

The following three parameters are used to determine if a wetland exists: hydric soils; evidence of wetland hydrology; and a predominance of hydrophytic vegetation.

A general walk-through of the Site was conducted to assess and categorize the natural communities present and potential wetland areas. Transects were completed and soils, hydrology, and vegetation were assessed and determined to be wetland or upland. Information gained from these transects was used to delineate the boundary separating upland from jurisdictional wetland based on changes in natural communities, vegetation, soil characteristics, and evidence of hydrology.

Jurisdictional streams were identified using the definition provided in MRSA Title 38 §480-B (9). All natural and artificial watercourses on-site were assessed.

### 2.3 Vernal Pool Survey

Vernal pool surveys were completed on the Site in April and May 2015. Vernal pools (VPs) and other breeding areas (identified as amphibian breeding areas [ABAs]) were assessed and characterized according to the definitions under MDEP Rule Chapter 335: *Significant Wildlife Habitat* and under Section 404 of the Clean Water Act as required by the ACOE. The vernal pool surveys were conducted in general accordance with the current version of the Maine Association of Wetland Scientists *Vernal Pool Survey Protocol* (April 2014). In this respect, a VP is a temporary water body that provides habitat for breeding of amphibians, fairy shrimp, and certain rare, threatened, or endangered species. ABAs are features which support amphibian breeding but do not meet one of the MDEP Rule criteria, such as “natural” or “no permanent inlet or outlet”.

CES scientists conducted vernal pool field work on the Site on April 30 and May 12, 2015. Transect surveys were completed to identify potential vernal pools and breeding areas on the Site. These areas were identified by the presence of indicator species breeding activity. Two surveys were conducted to account for both the early season and late season timing of the breeding activity associated with vernal pools. Vernal pools were assessed and MDIFW issued vernal pool data collection sheets were completed. Vernal pool boundaries were identified based on the Spring high water mark and located with a mapping grade GPS, as described in **Section 2.4**. Amphibian breeding areas were located with one location point in the center of the area using mapping grade GPS.

### 2.4 GPS Mapping and Flagging

All features were point located in the field using a sub-meter capable mapping grade GPS. Data was post-processed according to manufacturer’s recommended post-processing settings using CORS reference stations. Pink “Wetland Delineation” flags were sequentially numbered and hung along wetland boundaries on the Site. Blue flagging was sequentially numbered and hung along the Spring high water mark of vernal pools. Yellow flagging was sequentially numbered and hung along the Spring high water mark of vernal pools. A single yellow flag was hung marking an amphibian breeding area.

## 3.0 RESULTS AND DISCUSSION

### 3.1 General Project Area Overview

The Site is located between Coldbrook Road and Ammo Industrial Park in Hampden, Maine as shown in **Attachment 3** of the NRPA permit application. The Site is an approximately 100-foot wide 4,700-foot linear corridor, and is approximately 2 miles north of downtown Hampden and 0.5-mile southeast of Interstate 95.

The Site is characterized by undeveloped forestland. In October 2015, at the time of the natural resources survey, a portion of the parcel through which the corridor passes was being harvested for timber. Other portions of this parcel were harvested for timber 5 to 10 years ago; indications of this activity (in particular, haul/skid roads) were observed throughout the Site. The Site is accessed via a gravel road from Coldbrook Road, or via Ammo Industrial Park. An electric utility transmission corridor is located at the western end of the Site.

The Site is dominated by gently rolling terrain with areas of uplands and wetlands throughout. Uplands on the Site are dominated by red maple (*Acer rubrum*), white pine (*Pinus strobus*), grey birch (*Betula populifolia*), balsam fir (*Abies balsamea*), and white birch (*Betula papyrifera*) with red oak (*Quercus rubra*) and American beech (*Fagus grandifolia*) also present. Red maple and balsam fir dominate in the forested wetlands on the Site. Topography on the Site consists of gently sloping terrain. Wetlands on the western portion of the Site drain to the southwest, toward an unnamed stream which eventually flows into Souadabscook Stream. Wetlands on the eastern portion of the Site drain to the northeast, toward an unnamed stream, and eventually into the Penobscot River.

According to information provided in the USDA – Natural Resources Conservation Service soil survey, the soils on the Site are dominated by loam and silt-loam textured soils which are relatively shallow to bedrock and derived from fine-textured glacial till. Smaller areas are mapped as soils derived from glaciomarine sediment. Hydric soils, which are a component of wetlands, are mapped in drainage areas and depressions primarily in the western portions of the Site.

## 3.2 Natural Resources Survey Results

### 3.2.1 Wetlands

The following paragraphs briefly discuss the wetlands found on the Site. Within this discussion, the descriptive wetland classification, based on the Cowardin classification system or the ACOE wetland parameter indicator, follow as capital letters and numbers in parenthesis throughout the text. The Natural Resource Site Plan, included in **Attachment 5** of the NRPA permit application, shows the location of the wetlands. Representative photographs of each wetland are included in **Appendix A**.

Wetlands on the Site are dominated by forested freshwater red maple – balsam fir wetlands. In the western portion of the Site, these wetlands are seasonally saturated forested wetlands (PFO1&4E), such as Wetland 15AU-1 and Wetland 15AU-3. In these wetlands, the tree stratum is dominated by red maple, balsam fir, and cedar (*Thuja occidentalis*). The shrub stratum is dominated by the species noted in the tree stratum, and also by speckled alder (*Alnus incana*) and quaking aspen (*Populus tremuloides*). The herb stratum is sparse to moderate cover, with bracken fern (*Pteridium aquilinum*), horsetail (*Equisetum* sp.), sensitive fern (*Onoclea sensibilis*), and dwarf raspberry (*Rubus pubescens*) present. Greater than 50 percent of the dominant vegetation across all strata is currently listed as having a regional wetland indicator status of facultative or wetter (Vegetation Indicator 2). Soils in these wetlands consisted of a depleted silt loam horizon underlain by a depleted and mottled silt loam horizon. In some areas, a thin horizon of organic soil or mucky mineral soil covered the surface. These soils met the requirements of Hydric Soil Indicator F3, Depleted Matrix. Evidence of hydrology in this wetland consisted of pit and mound microtopography, water stained leaves, and thin muck surface (Hydrology Indicators D4, B9, and C7).

Wetland drainages such as Wetland 15AU-4 are located in areas of the Site where soils are stony and shallow to bedrock. Vegetation and soils characteristics are similar to what was noted above. Indicators of hydrology in these wetland drainages consisted of saturation, drainage patterns, and pit and mound microtopography (Hydrology Indicators A3, B10, and D4).

In harvested portions of the Site, the tree and shrub strata in wetlands were dominated by quaking aspen. Wetland 15AU-2 is located in the portion of the Site which has been harvested within the last 5-10 years. In this wetland, the tree stratum is relatively sparse, and dominated by cedar and balsam fir. The shrub stratum is relatively dense, and dominated by quaking aspen, grey birch, and Morrow's honeysuckle (*Lonicera morrowii*). The herb stratum is also relatively dense and dominated by horsetail, balsam fir, glossy false buckthorn (*Frangula alnus*), and dwarf raspberry. Greater than 50 percent of the dominant vegetation across all strata is currently listed as having a regional wetland indicator status of facultative or wetter (Vegetation Indicator 2). Soils in these wetlands consisted of a depleted silt loam horizon underlain by a depleted and mottled silt loam horizon. These soils met the requirements of Hydric Soil Indicator F3, Depleted Matrix. Evidence of hydrology in this wetland consisted of pit and mound microtopography and water stained leaves (Hydrology Indicators D4 and B9).

Wetland 15AU-8 is located in the eastern portion of the Site and is a deciduous forested and scrub shrub freshwater wetland (PFO1 and PSS1) which is different from the wetlands noted above. In the forested portions, the tree stratum is dominated by red maple and quaking aspen with grey birch and black cherry (*Prunus serotina*) also present. The shrub stratum of both the forested and scrub-shrub wetland is dominated by speckled alder, Morrow's honeysuckle, and winterberry with glossy false buckthorn also present. The herb stratum in the forested wetland is relatively sparse, with meadowsweet (*Spiraea latifolia*) and bunchberry (*Cornus canadensis*) dominant. In the scrub-shrub portions of this wetland, the herbaceous layer is abundant and dominated by Canada goldenrod (*Solidago canadensis*), dwarf raspberry and sensitive fern. Greater than 50 percent of the dominant vegetation across all strata is currently listed as having a regional wetland indicator status of facultative or wetter (Vegetation Indicator 2). Soils in these wetlands consisted of a depleted silt loam horizon underlain by a depleted and mottled silt loam horizon. In some areas, a thin horizon of organic soil or mucky mineral soil covered the surface. These soils met the requirements of Hydric Soil Indicator F3, Depleted Matrix. Evidence of hydrology in this wetland consisted of pit and mound microtopography, water stained leaves, drainage patterns, and thin muck surface (Hydrology Indicators D4, B9, B10 and C7).

**Appendix B** contains State and Federal regulatory information pertaining to wetlands. ACOE wetland determination data forms are included in **Appendix C**.

### 3.2.2 Streams

One stream was identified on the Site: Stream 15AU-2 S1 is intermittent, silt, organic (leaf litter), and gravel substrate stream that ranges from 12 to 24 inches bankfull width. This stream originates in wetland Wetland 15AU-2 and flows off-Site to the southwest. Based on the substrate and bank characteristics, it appears that portions of the stream may have been altered or straightened during past site use. Photographs of this stream are included in **Appendix A**.

### 3.2.3 Vernal Pools

A survey for VPs and ABAs was conducted on the Site. None were found.

## 4.0 SUMMARY

Natural resources surveys have been completed by CES for the Site, located between Coldbrook Road and Ammo Industrial Park in Hampden, Maine, as shown on the Natural Resources Plan, included as in **Attachment 5** of the NRPA permit application. CES identified nine jurisdictional wetlands and one intermittent stream on the Site.

## REFERENCES

1. Environmental Laboratory. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. ERDC/EL Technical Report TR-12-1, U.S. Army Engineer Research and Development Center, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199.
2. Cowardin, L. M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. (Version 04DEC98).

**APPENDIX A**  
**PHOTOGRAPHS**

MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
NATURAL RESOURCE SURVEY REPORT



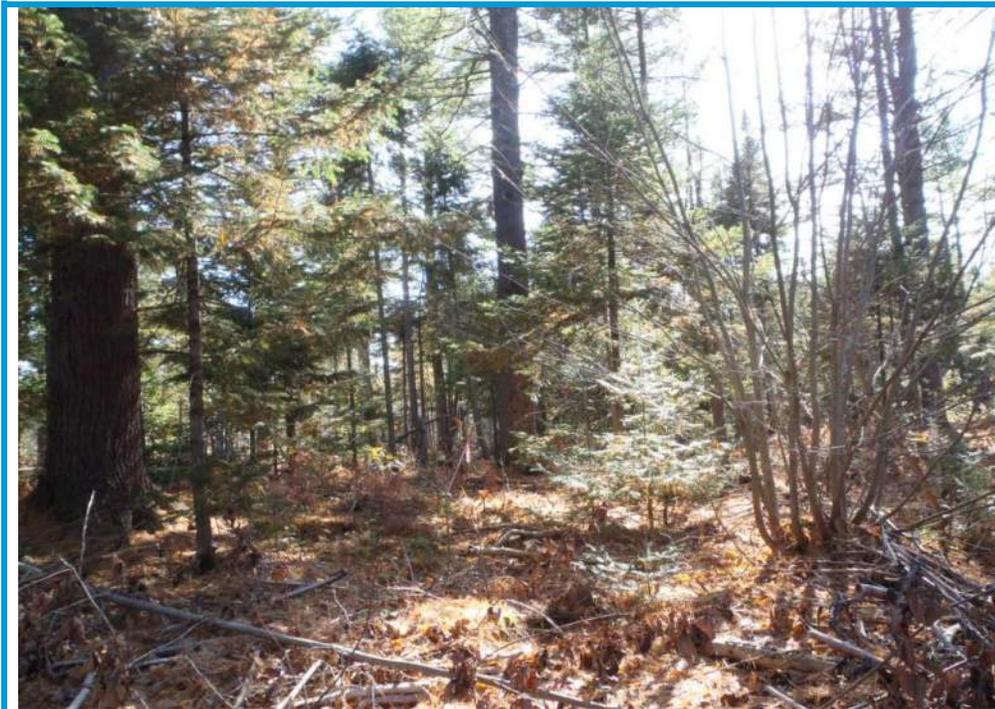
**Photo No. 1**

**Photo Date:**  
October 21, 2015

**Site Location:**  
Ammo Park  
Hampden, Maine

**Description:**  
View of Wetland  
15AU-1, a red maple-  
balsam fir forested  
wetland.

**Photo By:** JES



**Photo No. 2**

**Photo Date:**  
October 27, 2015

**Site Location:**  
Ammo Park  
Hampden, Maine

**Description:**  
View of upland  
located adjacent to  
15AU-1.

**Photo By:** JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
 NATURAL RESOURCE SURVEY REPORT



**Photo No. 3**

**Photo Date:**  
 October 21, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of Wetland  
 15AU-2.

**Photo By:** JES



**Photo No. 4**

**Photo Date:**  
 October 27, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of upland  
 adjacent to Wetland  
 15AU-2.

**Photo By:** JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
 NATURAL RESOURCE SURVEY REPORT



**Photo No. 5**

**Photo Date:**  
 October 21, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of intermittent stream 15AU-2 S1, which is located within Wetland 15AU 2.

**Photo By:** JES




**Photo No. 6**

**Photo Date:**  
 October 21, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of Wetland 15AU-3, a red maple balsam fir forested wetland.

**Photo By:** JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
NATURAL RESOURCE SURVEY REPORT



Photo No. 7

Photo Date:  
October 21, 2015

Site Location:  
Ammo Park  
Hampden, Maine

Description:  
View of Wetland  
15AU-4, a forested  
swale wetland.

Photo By: JES



Photo No. 8

Photo Date:  
October 22, 2015

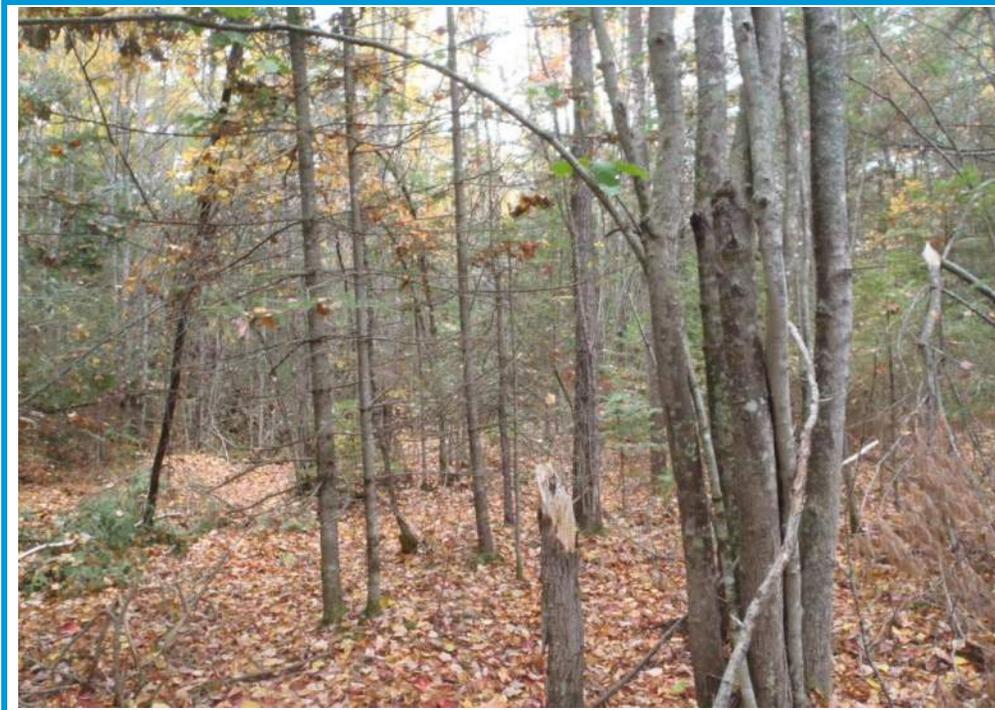
Site Location:  
Ammo Park  
Hampden, Maine

Description:  
View of Wetland  
15AU-5.

Photo By: JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
 NATURAL RESOURCE SURVEY REPORT



**Photo No. 9**

**Photo Date:**  
 October 22, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of Wetland  
 15AU-6, a red maple  
 and balsam fir  
 seasonally inundated  
 forested wetland.

**Photo By:** JES



**Photo No. 10**

**Photo Date:**  
 October 27, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of upland  
 adjacent to Wetland  
 15AU-6.

**Photo By:** JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
NATURAL RESOURCE SURVEY REPORT



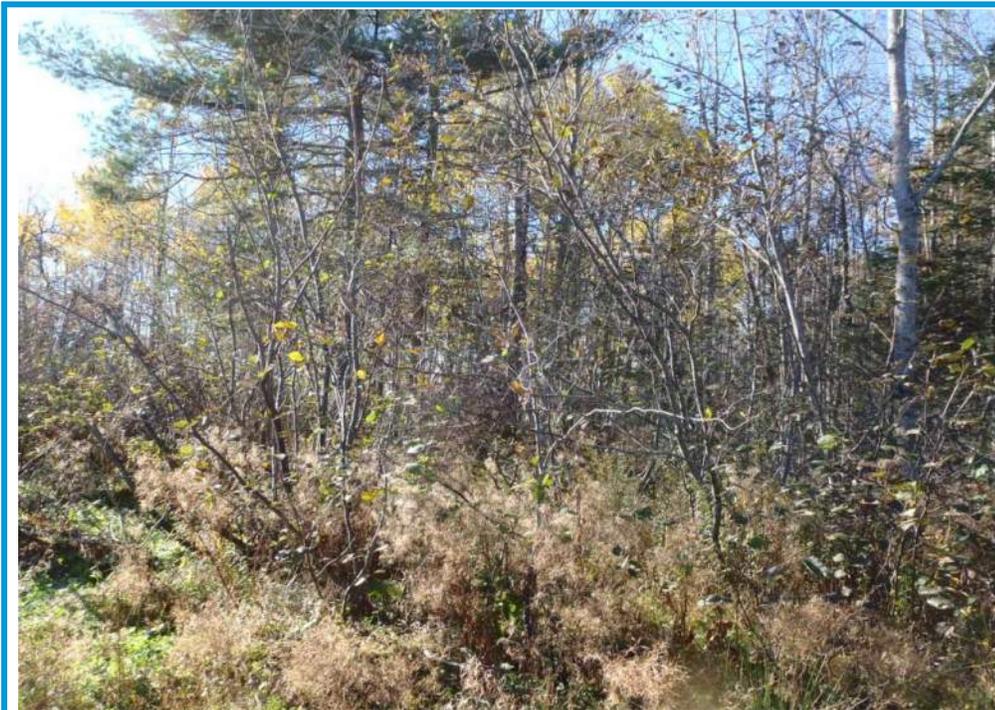
**Photo No.** 11

**Photo Date:**  
October 22, 2015

**Site Location:**  
Ammo Park  
Hampden, Maine

**Description:**  
View of forested  
portion of Wetland  
15AU-8.

**Photo By:** JES



**Photo No.** 12

**Photo Date:**  
October 27, 2015

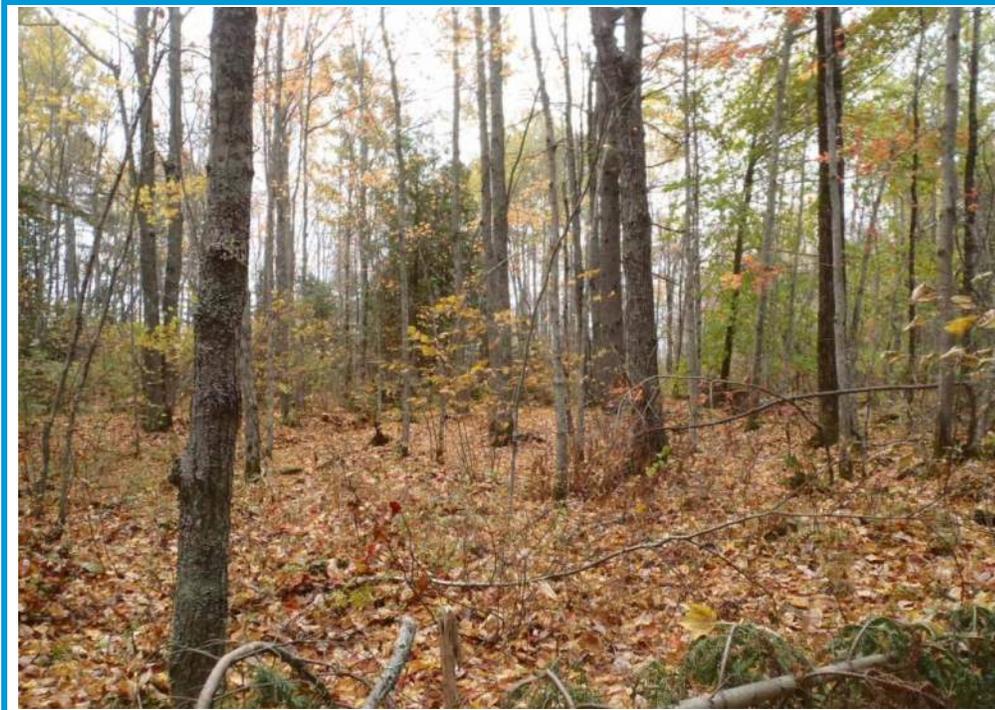
**Site Location:**  
Ammo Park  
Hampden, Maine

**Description:**  
View of scrub shrub  
portion of Wetland  
15AU-8

**Photo By:** JES



MRC, INC. - FIBERIGHT LLC, UTILITY CONNECTOR  
 NATURAL RESOURCE SURVEY REPORT



**Photo No. 13**

**Photo Date:**  
 October 22, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of Wetland  
 15AU-9, a red maple  
 and balsam fir  
 seasonally inundated  
 forested wetland.

**Photo By:** JES



**Photo No. 14**

**Photo Date:**  
 October 29, 2015

**Site Location:**  
 Ammo Park  
 Hampden, Maine

**Description:**  
 View of upland  
 adjacent to Wetland  
 15AU-9.

**Photo By:** JES



**APPENDIX B**

**REGULATORY INFORMATION**

## APPENDIX B

### REGULATORY INFORMATION

#### REGULATORY INFORMATION

Alterations to jurisdictional wetlands and natural resources are subject to Federal, State, and local regulations. Wetlands are regulated by the State of Maine under the Natural Resources Protection Act (NRPA) and enforced by the Maine Department of Environmental Protection (MDEP) according to the Department rules and *Chapter 310, Wetland and Water Bodies Protection Rules*. Wetlands are regulated by the Army Corps of Engineers (ACOE) under *Section 404 of the Clean Water Act*.

#### 1.0 Wetland Regulations

##### 1.1 State Regulations:

Under the NRPA, any proposed alterations must avoid and minimize impacts to natural resources to the greatest extent.

Under the MDEP rules, a wetland may be classified as a “Wetlands of Special Significance” (WOSS) or not. Wetlands that do not meet the definition of a WOSS are typically eligible for reduced permitting or exemption for minor alteration (less than 4,300 square feet). This exemption may not apply for Federal or local agencies should the wetland contain significant wildlife habitat, such as a significant vernal pool, or wetlands which contain or are adjacent to other important natural resources. Non-WOSS wetland alterations of greater than 4,300 square feet to 14,999 square feet typically require a Tier 1 NRPA Permit. A Tier 1 permit does not require in-depth wetland characterizations, delineation, functional assessment or compensation, and mitigation. Tier 2 permits cover alterations of 15,000 square feet to 43,560 square feet (one acre). Alterations greater than one acre or any alteration to a WOSS requires a Tier 3 (Individual) NRPA permit. Tier 2 and Tier 3 NRPA permit applications generally include in-depth wetland delineation, characterization, functional assessment, and compensation and mitigation. Compensation for impacts to natural resources is typically required when impacts exceed the Tier 1 level. Determination of application requirements is often made in consultation with the MDEP Project Manager during a pre-application meeting.

The NRPA also regulates activity adjacent to certain wetlands. Adjacent is defined as within 75 feet of the wetland boundary. Wetlands containing significant wildlife habitat or 20,000 square feet of open water are two examples. See the NRPA text for complete details.

##### 1.2 Federal Regulations:

The ACOE regulates all fill in waters of the United States. Most wetland alterations are permitted through the MDEP as a joint streamlined permit process under the General Permit (GP) issued by the ACOE. Under the GP, application materials prepared for the MDEP generally fulfill ACOE submission requirements. The current GP regulates activities which have “no more than minimal individual, secondary, and cumulative adverse effects on the aquatic environment...”. These activities are separated into Category 1 and Category 2 activities. Activities which meet the Category 1 standard generally require submission of the MDEP permit application or ACOE Category 1 Notification Form. Those activities which do not qualify for Category 1 may qualify for Category 2 review under the ACOE GP. Activities which do not meet the ACOE GP conditions are reviewed as

individual permits. Determination of the level of review necessary and application requirements is made based on the activity involved, and often in consultation with the ACOE Project Manager during a pre-application meeting.

Certain wetlands, vernal pools, and other significant resources may require additional review under the ACOE individual permit process.

## 2.0 Vernal Pools - Significant Wildlife Habitat

Vernal pools are also regulated at the local, State, and Federal level, and each has slightly differing definitions and standards.

### 2.1 State Regulations:

Under the MDEP *Chapter 335 - Significant Wildlife Habitat Rules*, Significant Vernal Pools are regulated as Significant Wildlife Habitat under the NRPA permitting process. A vernal pool is defined under the rules as follows:

*“A natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills in the spring or fall and may dry during the summer. Vernal pools have no permanent inlet and no viable populations of predatory fish.”*

A Significant Vernal Pool is determined based on abundance of egg masses of pool breeding amphibians, the presence of fairy shrimp, or documented use by a listed endangered or threatened species. The abundance criteria are:

- ◆ Forty (40) or more wood frog (*Rana sylvatica*) egg masses;
- ◆ Twenty (20) or more spotted salamander (*Ambystoma maculatum*) egg masses;
- ◆ Ten (10) or more Blue Spotted salamander (*Ambystoma laterale*) egg masses; and
- ◆ Presence of fairy shrimp (*Eubbranchipus spp.*) in any life stage.

The area under State jurisdiction includes the pool depression and 250 foot critical habitat buffer around the pool. Alteration within the 250 buffer may be allowed under a Permit by Rule process, if impacts are not within wetlands, and are less than 25 percent of the habitat area. Alterations greater than this will require an Individual NRPA Permit be obtained.

The State Site Location of Development Act (SLODA) also regulates Significant Wildlife Habitat and Significant Vernal Pools. Under Site Law, a setback of up to 500 feet may be required for ecologically significant wildlife resources within a project that requires a Site Permit.

### 2.2 Federal Regulations:

At the Federal level, the ACOE also regulates vernal pools and special aquatic sites under the Maine General Permit (GP). A vernal pool is defined there as follows:

*“...Temporary to permanent bodies of water occurring in shallow depressions that fill during the spring and fall and may dry during the summer. Vernal pools have no permanent or viable populations of predatory fish. Vernal pools provide the primary breeding habitat for wood frogs, spotted salamanders, blue-spotted salamanders, and fairy shrimp, and provide habitat for other wildlife including several endangered and threatened species.”*

The ACOE regulates activities within 750 feet of vernal pools. The GP requires that disturbance within 750 feet of a vernal pool shall be minimized to the maximum extent possible. It is important to note that the ACOE must have jurisdiction over the project (i.e. wetland impacts are proposed) before buffers are mandated.

**APPENDIX C**  
**WETLAND DATA FORMS**

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/21/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU-1 -7W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-1</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

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

<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
---	---

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU-1 -7W

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Acer rubrum</i></u>	20	Yes	FAC
2. <u><i>Abies balsamea</i></u>	25	Yes	FAC
3. <u><i>Thuja occidentalis</i></u>	15	Yes	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	60	=Total Cover	

<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Acer rubrum</i></u>	5	No	FAC
2. <u><i>Betula populifolia</i></u>	7	No	FAC
3. <u><i>Populus tremuloides</i></u>	10	Yes	FACU
4. <u><i>Thuja occidentalis</i></u>	10	Yes	FACW
5. <u><i>Abies balsamea</i></u>	20	Yes	FAC
6. <u><i>Alnus incana</i></u>	10	Yes	FACW
7. _____	_____	_____	_____
	62	=Total Cover	

<u>Herb Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Onoclea sensibilis</i></u>	7	No	FACW
2. <u><i>Rubus pubescens</i></u>	7	No	FACW
3. <u><i>Lonicera morrowii</i></u>	3	No	FACU
4. <u><i>Scirpus cyperinus</i></u>	7	No	OBL
5. <u><i>Equisetum pratense</i></u>	25	Yes	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	49	=Total Cover	

<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	_____	=Total Cover	

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)  
 Total Number of Dominant Species Across All Strata: 8 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>7</u>	x 1 = <u>7</u>
FACW species <u>74</u>	x 2 = <u>148</u>
FAC species <u>77</u>	x 3 = <u>231</u>
FACU species <u>13</u>	x 4 = <u>52</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>171</u> (A)	<u>438</u> (B)
Prevalence Index = B/A = <u>2.56</u>	

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is >50%  
 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supportin data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/27/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 1-11U  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>15AU-1</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

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





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/21/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 2-2W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation Y, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-2</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland in a heavily harvested area.	

### HYDROLOGY

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 2-2W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u><i>Thuja occidentalis</i></u>	25	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																	
2. <u><i>Abies balsamea</i></u>	10	Yes	FAC																		
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	35	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center">Total % Cover of:</td> <td style="width:50%; text-align:center">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>52</u></td> <td>x 2 = <u>104</u></td> </tr> <tr> <td>FAC species <u>32</u></td> <td>x 3 = <u>96</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>134</u> (A)</td> <td><u>400</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = <u>2.99</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>52</u>	x 2 = <u>104</u>	FAC species <u>32</u>	x 3 = <u>96</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>134</u> (A)	<u>400</u> (B)	Prevalence Index = B/A = <u>2.99</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>52</u>	x 2 = <u>104</u>																				
FAC species <u>32</u>	x 3 = <u>96</u>																				
FACU species <u>50</u>	x 4 = <u>200</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>134</u> (A)	<u>400</u> (B)																				
Prevalence Index = B/A = <u>2.99</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. <u><i>Populus tremuloides</i></u>	35	Yes	FACU																		
2. <u><i>Betula populifolia</i></u>	5	No	FAC																		
3. <u><i>Lonicera morrowii</i></u>	15	Yes	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	55	=Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u><i>Equisetum pratense</i></u>	20	Yes	FACW																		
2. <u><i>Frangula alnus</i></u>	7	No	FAC																		
3. <u><i>Abies balsamea</i></u>	10	Yes	FAC																		
4. <u><i>Rubus pubescens</i></u>	7	No	FACW																		
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	44	=Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
1. _____																					
2. _____																					
3. _____																					
4. _____																					
				_____ =Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																					

**SOIL**

Sampling Point: 15AU 2-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1-0							Muck	
0-2	10yr 3/2						Loamy/Clayey	
2-12	2.5y 4/2		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations
12-17	2.5y 5/2		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations
17-19							Loamy/Clayey	

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

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

**Remarks:**

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/21/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 2-18U  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>15AU-9</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

### HYDROLOGY

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

Remarks:





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/21/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 3-10W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-3</u>
Remarks: (Explain alternative procedures here or in a separate report.)    	

### HYDROLOGY

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 3-10W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u>Abies balsamea</u>	40	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)																	
2. <u>Acer rubrum</u>	20	Yes	FAC																		
3. <u>Thuja occidentalis</u>	25	Yes	FACW																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	85	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>112</u></td> <td>x 3 = <u>336</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>147</u> (A)</td> <td><u>426</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.90</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>112</u>	x 3 = <u>336</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>147</u> (A)	<u>426</u> (B)	Prevalence Index = B/A = <u>2.90</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
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Column Totals: <u>147</u> (A)	<u>426</u> (B)																				
Prevalence Index = B/A = <u>2.90</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )																					
1. <u>Abies balsamea</u>	40	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
2. _____																					
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	40	=Total Cover																			
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u>Cornus canadensis</u>	7	Yes	FAC	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																	
2. <u>Pteridium aquilinum</u>	10	Yes	FACU																		
3. <u>Abies balsamea</u>	5	Yes	FAC																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	22	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
<u>Woody Vine Stratum</u> (Plot size: _____ )																					
1. _____																					
2. _____																					
3. _____																					
4. _____																					
				=Total Cover																	

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 15AU 3-10W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
3-0							Muck	
0-10	2.5y 4/2						Loamy/Clayey	
10-14	2.5y 5/2		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations

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

**Hydric Soil Indicators:**

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

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/21/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 4-1W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-4</u>
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
Remarks: (Explain alternative procedures here or in a separate report.)			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1)                      _____ Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3)    _____ Marl Deposits (B15) _____ Water Marks (B1)    _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)    _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)    _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)    _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)    _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)                      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <u>Y</u> No _____ Depth (inches): <u>7-8</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
---	---

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 4-1W

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: _____ )																				
1. <u>Thuja occidentalis</u>	25	Yes	FACW	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>45</u></td> <td>x 2 = <u>90</u></td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x 3 = <u>240</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>330</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.64</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>45</u>	x 2 = <u>90</u>	FAC species <u>80</u>	x 3 = <u>240</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>125</u> (A)	<u>330</u> (B)	Prevalence Index = B/A = <u>2.64</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>45</u>	x 2 = <u>90</u>																			
FAC species <u>80</u>	x 3 = <u>240</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>125</u> (A)	<u>330</u> (B)																			
Prevalence Index = B/A = <u>2.64</u>																				
2. <u>Abies balsamea</u>	20	Yes	FAC																	
3. <u>Acer rubrum</u>	10	No	FAC																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	55	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: _____ )																				
1. <u>Abies balsamea</u>	40	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Ilex verticillata</u>	10	Yes	FACW																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	50	=Total Cover																		
<b>Herb Stratum</b> (Plot size: _____ )																				
1. <u>Osmunda claytoniana</u>	5	Yes	FAC																	
2. <u>Abies balsamea</u>	5	Yes	FAC																	
3. <u>Rubus pubescens</u>	10	Yes	FACW																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	20	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: _____ )																				
1. _____				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
2. _____																				
3. _____																				
4. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																
Remarks: (Include photo numbers here or on a separate sheet.)																				

**SOIL**

Sampling Point: 15AU 4-1W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1-0							Mucky Peat	
0-10	10yr 3/1						Loamy/Clayey	
10-14	5y 5/2		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations

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

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No \_\_\_\_\_

**Remarks:**

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 5-3W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-5</u>
Remarks: (Explain alternative procedures here or in a separate report.)    	

### HYDROLOGY

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 5-3W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u>Abies balsamea</u>	25	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																	
2. <u>Acer rubrum</u>	20	Yes	FAC																		
3. <u>Populus tremuloides</u>	10	No	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	55 =Total Cover			<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>105</u></td> <td>x 3 = <u>315</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>355</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.09</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>105</u>	x 3 = <u>315</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>355</u> (B)	Prevalence Index = B/A = <u>3.09</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>0</u>	x 2 = <u>0</u>																				
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FACU species <u>10</u>	x 4 = <u>40</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>115</u> (A)	<u>355</u> (B)																				
Prevalence Index = B/A = <u>3.09</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. <u>Abies balsamea</u>	55	Yes	FAC																		
2. _____																					
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	55 =Total Cover			<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u>Abies balsamea</u>	5	Yes	FAC																		
2. _____																					
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	5 =Total Cover																				
<u>Woody Vine Stratum</u> (Plot size: _____ )																					
1. _____																					
2. _____																					
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	=Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 6-3W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-6</u>
Remarks: (Explain alternative procedures here or in a separate report.)    	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1-2 in pits</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
---	---

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 6-3W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Acer rubrum</i></u>	40	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>3</u></td> <td>x 2 = <u>6</u></td> </tr> <tr> <td>FAC species <u>118</u></td> <td>x 3 = <u>354</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>141</u> (A)</td> <td><u>440</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.12</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>3</u>	x 2 = <u>6</u>	FAC species <u>118</u>	x 3 = <u>354</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>141</u> (A)	<u>440</u> (B)	Prevalence Index = B/A = <u>3.12</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>3</u>	x 2 = <u>6</u>																			
FAC species <u>118</u>	x 3 = <u>354</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>141</u> (A)	<u>440</u> (B)																			
Prevalence Index = B/A = <u>3.12</u>																				
2. <u><i>Abies balsamea</i></u>	15	Yes	FAC																	
3. <u><i>Populus tremuloides</i></u>	20	Yes	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>75</u>	=Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u><i>Abies balsamea</i></u>	45	Yes	FAC																	
2. <u><i>Acer rubrum</i></u>	10	No	FAC																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>55</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: _____ )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																
1. <u><i>Abies balsamea</i></u>	5	Yes	FAC																	
2. <u><i>Cornus canadensis</i></u>	3	Yes	FAC																	
3. <u><i>Rubus pubescens</i></u>	3	Yes	FACW																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>11</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____ )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 15AU 6-3W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
2-0							Muck	
0-3	2.5y 3/2						Loamy/Clayey	
3-13	2.5Y 5/1		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations

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

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

**Remarks:**

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/27/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 6-14U  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>15AU-6</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

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

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 6-14U

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u>Betula alleghaniensis</u>	5	No	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																	
2. <u>Betula papyrifera</u>	25	Yes	FACU																		
3. <u>Pinus strobus</u>	25	Yes	FACU																		
4. <u>Acer rubrum</u>	25	Yes	FAC																		
5. <u>Picea rubens</u>	10	No	FACU																		
6. _____																					
7. _____																					
	90	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center">Total % Cover of:</td> <td style="width:50%; text-align:center">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>90</u></td> <td>x 3 = <u>270</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>175</u> (A)</td> <td><u>610</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = <u>3.49</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>90</u>	x 3 = <u>270</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>175</u> (A)	<u>610</u> (B)	Prevalence Index = B/A = <u>3.49</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>0</u>	x 2 = <u>0</u>																				
FAC species <u>90</u>	x 3 = <u>270</u>																				
FACU species <u>85</u>	x 4 = <u>340</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>175</u> (A)	<u>610</u> (B)																				
Prevalence Index = B/A = <u>3.49</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )																					
1. <u>Tsuga canadensis</u>	10	No	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
2. <u>Abies balsamea</u>	40	Yes	FAC																		
3. <u>Quercus rubra</u>	5	No	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	55	=Total Cover																			
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u>Pteridium aquilinum</u>	7	Yes	FACU	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																	
2. <u>Abies balsamea</u>	20	Yes	FAC																		
3. <u>Tsuga canadensis</u>	3	No	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	30	=Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____ )																					
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
2. _____																					
3. _____																					
4. _____																					
		=Total Cover																			

Remarks: (Include photo numbers here or on a separate sheet.)



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 7-8W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-7</u>
Remarks: (Explain alternative procedures here or in a separate report.)    	

### HYDROLOGY

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

Remarks:





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 8-3W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-8</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 8-3W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u><i>Acer rubrum</i></u>	35	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>62.5%</u> (A/B)																	
2. <u><i>Populus tremuloides</i></u>	30	Yes	FACU																		
3. <u><i>Betula populifolia</i></u>	15	No	FAC																		
4. <u><i>Prunus serotina</i></u>	5	No	FACU																		
5. _____																					
6. _____																					
7. _____																					
	85	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center">Total % Cover of:</td> <td style="width:50%; text-align:center">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>67</u></td> <td>x 4 = <u>268</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>177</u> (A)</td> <td><u>558</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = <u>3.15</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>67</u>	x 4 = <u>268</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>177</u> (A)	<u>558</u> (B)	Prevalence Index = B/A = <u>3.15</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>40</u>	x 2 = <u>80</u>																				
FAC species <u>70</u>	x 3 = <u>210</u>																				
FACU species <u>67</u>	x 4 = <u>268</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>177</u> (A)	<u>558</u> (B)																				
Prevalence Index = B/A = <u>3.15</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. <u><i>Lonicera morrowii</i></u>	25	Yes	FACU																		
2. <u><i>Alnus incana</i></u>	15	Yes	FACW																		
3. <u><i>Ilex verticillata</i></u>	15	Yes	FACW																		
4. <u><i>Frangula alnus</i></u>	10	No	FAC																		
5. _____																					
6. _____																					
7. _____																					
	65	=Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u><i>Spiraea latifolia</i></u>	10	Yes	FACW																		
2. <u><i>Cornus canadensis</i></u>	10	Yes	FAC																		
3. <u><i>Rubus idaeus</i></u>	7	Yes	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	27	=Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____ )																					
1. _____																					
2. _____																					
3. _____																					
4. _____																					
			=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 15AU 8-3W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1-0							Mucky Peat	
0-7	2.5y 4/2						Loamy/Clayey	
7-15	2.5Y 5/1		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations

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

**Hydric Soil Indicators:**

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

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No \_\_\_\_\_

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 8-8W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-8</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland is located by Ammo Park Road, and a gravel access road has been filled/ dozed in this area, along wetland.	

### HYDROLOGY

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

Remarks:





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/22/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 9-6W  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>15AU-9</u>
Remarks: (Explain alternative procedures here or in a separate report.)    	

### HYDROLOGY

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 9-6W

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u><i>Acer rubrum</i></u>	35	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																	
2. <u><i>Populus tremuloides</i></u>	10	No	FACU																		
3. <u><i>Picea rubens</i></u>	7	No	FACU																		
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	52	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center">Total % Cover of:</td> <td style="width:50%; text-align:center">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>54</u></td> <td>x 2 = <u>108</u></td> </tr> <tr> <td>FAC species <u>77</u></td> <td>x 3 = <u>231</u></td> </tr> <tr> <td>FACU species <u>42</u></td> <td>x 4 = <u>168</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>173</u> (A)</td> <td><u>507</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = <u>2.93</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>54</u>	x 2 = <u>108</u>	FAC species <u>77</u>	x 3 = <u>231</u>	FACU species <u>42</u>	x 4 = <u>168</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>173</u> (A)	<u>507</u> (B)	Prevalence Index = B/A = <u>2.93</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>54</u>	x 2 = <u>108</u>																				
FAC species <u>77</u>	x 3 = <u>231</u>																				
FACU species <u>42</u>	x 4 = <u>168</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>173</u> (A)	<u>507</u> (B)																				
Prevalence Index = B/A = <u>2.93</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. <u><i>Ilex verticillata</i></u>	30	Yes	FACW																		
2. <u><i>Acer rubrum</i></u>	7	No	FAC																		
3. <u><i>Kalmia angustifolia</i></u>	10	Yes	FAC																		
4. <u><i>Rhododendron canadense</i></u>	7	No	FACW																		
5. <u><i>Corylus cornuta</i></u>	10	Yes	FACU																		
6. _____																					
7. _____																					
	64	=Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u><i>Cornus canadensis</i></u>	25	Yes	FAC																		
2. <u><i>Spiraea latifolia</i></u>	7	No	FACW																		
3. <u><i>Rubus pubescens</i></u>	10	No	FACW																		
4. <u><i>Vaccinium angustifolium</i></u>	15	Yes	FACU																		
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	57	=Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____ )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																	
1. _____																					
2. _____																					
3. _____																					
4. _____																					
			=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 15AU 9-6W

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
2-0							Muck	
0-3	2.5y 3/2						Loamy/Clayey	
3-13	2.5Y 5/1		10yr 5/6	18	c		Loamy/Clayey	Prominent redox concentrations

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

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- ? Redox Depressions (F8)
- Marl (F10) (LRR K, L)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No \_\_\_\_\_

**Remarks:**

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MRC, Inc. / Fiberight, LLC City/County: Hampden/ Penobscot County Sampling Date: 10/27/2015  
 Applicant/Owner: MRC, INC. / Fiberight State: ME Sampling Point: 15AU 9-3U  
 Investigator(s): CES, Inc. JES Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>15AU-9</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

### HYDROLOGY

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

<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
---	---

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: 15AU 9-3U

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status																		
1. <u>Pinus strobus</u>	25	Yes	FACU	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>44.4%</u> (A/B)																	
2. <u>Quercus rubra</u>	7	No	FACU																		
3. <u>Fagus grandifolia</u>	7	No	FACU																		
4. <u>Abies balsamea</u>	30	Yes	FAC																		
5. <u>Acer rubrum</u>	10	No	FAC																		
6. <u>Betula populifolia</u>	10	No	FAC																		
7. _____																					
	89	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>91</u></td> <td>x 3 = <u>273</u></td> </tr> <tr> <td>FACU species <u>58</u></td> <td>x 4 = <u>232</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>149</u> (A)</td> <td><u>505</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.39</u></td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>91</u>	x 3 = <u>273</u>	FACU species <u>58</u>	x 4 = <u>232</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>149</u> (A)	<u>505</u> (B)	Prevalence Index = B/A = <u>3.39</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
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Column Totals: <u>149</u> (A)	<u>505</u> (B)																				
Prevalence Index = B/A = <u>3.39</u>																					
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )																					
1. <u>Abies balsamea</u>	35	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																	
2. <u>Corylus cornuta</u>	10	Yes	FACU																		
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
	45	=Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <u>      </u> No <u>  X  </u>																	
<u>Herb Stratum</u> (Plot size: _____ )																					
1. <u>Cornus canadensis</u>	3	Yes	FAC																		
2. <u>Pteridium aquilinum</u>	3	Yes	FACU																		
3. <u>Trientalis borealis</u>	3	Yes	FAC																		
4. <u>Maianthemum canadense</u>	3	Yes	FACU																		
5. <u>Vaccinium angustifolium</u>	3	Yes	FACU																		
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
11. _____																					
12. _____																					
	15	=Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____ )																					
1. _____																					
2. _____																					
3. _____																					
4. _____																					
			=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 15AU 9-3U

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
2-0							Muck	
0-4	10yr 3/3						Loamy/Clayey	
4-11	10yr 4/6						Loamy/Clayey	
11-14	2.5y 5/4						Loamy/Clayey	

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

**Hydric Soil Indicators:**

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- Black Histic (A3)
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- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

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- Thin Dark Surface (S9) (LRR R, MLRA 149B)
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**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

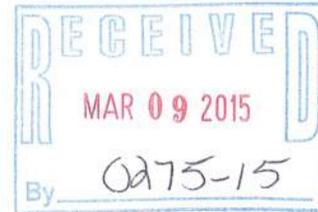
Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

### ABUTTER'S LIST

MAP	LOT	NAME / ADDRESS
09	36	Hickory Development, LLC P.O. Box 249 Hampden, ME 04444-0249
10	56	Maine Ground Developers, Inc. P.O. box 1169 Bangor, ME 04402-1169
10	11-A	Emera Maine P.O. Box 932 Bangor, ME 04402-0932
10	56-4	Sepp H. McGinn 19 Strawberry Hill Bar Harbor, ME 04609

March 5, 2015

Mr. Earle G. Shettleworth, Jr., Director  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, ME 04333-0065

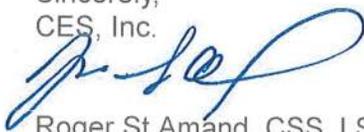
**Re: Proposed Waste Processing Facility and Access Road | Hampden, Maine**

Dear Mr. Shettleworth:

CES, Inc. is assisting with the design and permitting of a proposed waste processing facility and associated access road in Hampden, Maine. We respectfully request your review of the site and its immediate surroundings for the potential presence of structures or areas of historical significance to the Maine Historical Preservation Commission.

The site is located on Cold Brook Road in Hampden, Maine. The site is undeveloped and accessed via a gravel road. There are no buildings or structures on or adjacent the project site greater than 50 years of age. Proposed site improvements consist of the construction of a waste processing facility and improvements to the access road. For your reference, the site location is indicated on the attached portion of the U.S.G.S. 7.5' Bangor, Maine quadrangle map.

Your response can be emailed to [rstamand@ces-maine.com](mailto:rstamand@ces-maine.com), faxed to 207-989-4881, or mailed to CES, Inc., 465 South Main Street, P.O. Box 639 Brewer, Maine 04412. If you have any questions, please do not hesitate to contact us.

Sincerely,  
CES, Inc.

Roger St. Amand, CSS, LSE  
Project Manager

RSA/gdr  
Enc.

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

  
Kirk F. Mohney,  
Deputy State Historic Preservation Officer  
Maine Historic Preservation Commission

3/18/15  
Date

Mr. Earle Shettleworth | 03.05.2015 | 10973.003 / 11293.001

**APPENDIX A: MDEP VISUAL EVALUATION  
FIELD SURVEY CHECKLIST**  
(Natural Resources Protection Act, 38 M.R.S.A. §§ 480 A - Z)

Name of applicant: MRC, Fiberight, LLC Phone: 207-664-1700

Application Type: NRPA Amendment – Wetland alteration, stream crossing

Activity Type: (brief activity description) Construct 5,000 foot utility corridor for a proposed Solid Waste Processing and Recycling facility on a 90 acre parcel accessed from Coldbrook Road in Hampden, Maine

Activity Location: Town: Hampden Court: Penobscot  
GIS Coordinates, if known: UTM Northing: 5023286 | UTM Easting: 536410

Date of Survey: June 2015 Observer: CES, Inc. (RST) Phone: 989-4824

**Distance Between the Proposed Visibility  
Activity and Resource (in Miles)**

- |  | 0-1/4                    | 1/4-1                               | 1+   |
|--|--------------------------|-------------------------------------|--|
| 1. Would the activity be visible from:   |                          |                                     |  |
| A. A National Natural Landmark or other outstanding natural feature?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| B. A State or National Wildlife Refuge, Sanctuary, or Preserve or a State Game Refuge?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| C. A state or federal trail?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| D. A public site or structure listed on the National Register of Historic Places?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| E. A National or State Park?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| F. 1) A municipal park or public open space?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/>            |
| 2) A publicly owned land visited, in part, for the use, observation, enjoyment and appreciation of natural or man-made visual qualities? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>No</b>  |
| 3) A public resource, such as the Atlantic Ocean, a great pond or a navigable river?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/>            |
| 2. What is the closest estimated distance to a similar activity?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>N/A</b> |
| 3. What is the closest distance to a public facility intended for a similar use?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> <b>N/A</b> |
| 4. Is the visibility of the activity seasonal?<br>(i.e., screened by summer foliage, but visible during other seasons)                   |                          | <input type="checkbox"/> <b>Yes</b> | <input checked="" type="checkbox"/> <b>No</b>  |
| 5. Are any of the resources checked in question 1 used by the public during the time of year during which the activity will be visible?  |                          | <input type="checkbox"/> <b>Yes</b> | <input checked="" type="checkbox"/> <b>No</b>  |

A listing of National Natural Landmarks and other outstanding natural features in the State of Maine can be found at: [www.nature.nps.gov/nnl/Registry/USA\\_map/states/Maine/maine.htm](http://www.nature.nps.gov/nnl/Registry/USA_map/states/Maine/maine.htm) . In addition, unique natural areas are listed in the Maine Atlas and Gazetteer published by DeLorme.

Most Maine State and National Wildlife Refuges, Sanctuaries, and Preserves and State Game Refuges are listed in the Maine Atlas and Gazetteer published by DeLorme.

Most State and federal trails are listed in the Maine Atlas and Gazetteer published by DeLorme. In addition, the Maine Department of Conservation maintains a list of state parks with trails that can be searched by county at: [www.state.me.us/doc/parks/programs/db\\_search/index.html](http://www.state.me.us/doc/parks/programs/db_search/index.html)

Maine sites and structures listed on the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966, as amended, can be searched by town at: [www.cr.nps.gov/nr/research/nris.htm](http://www.cr.nps.gov/nr/research/nris.htm)

In addition, State historic sites can be found at: [www.state.me.us/doc/parks/programs/db\\_search/index.html](http://www.state.me.us/doc/parks/programs/db_search/index.html) A partial listing of historic sites in Maine can be found in the Maine Atlas and Gazetteer published by DeLorme.

A listing of Maine State Parks can be found at: [www.state.me.us/doc/parks/programs/db\\_search/index.html](http://www.state.me.us/doc/parks/programs/db_search/index.html) or in the Maine Atlas and Gazetteer published by DeLorme. Acadia National Park on Mount Desert Island is Maine's only National Park.

For guidance on completing this field survey checklist, please contact Licensing staff in the Division of Land Resource Regulation at the following offices:

(Headquarters)  
Central Maine Regional Office  
17 State House Station  
Ray Building, Hospital Street  
Augusta, Maine 04333  
**(207) 287-3901** or  
toll free at **1-800-452-1942**

Eastern Maine Regional Office  
106 Hogan Road  
Bangor, Maine 04401  
**(207) 941-4570** or  
toll free at **1-888-769-1137**

Northern Maine Regional Office  
1235 Central Drive  
Presque Isle, Maine 04769  
**(207) 764-0477** or  
toll free at **1-888-769-1053**

Southern Maine Regional Office  
312 Canco Road  
Portland, Maine 04103  
**(207) 822-6300** or  
toll free at **1-888-769-1036**

## OPTION TO PURCHASE

Maine Ground Developers, Inc., a Maine corporation with a place of business in Hampden, Maine (hereinafter referred to as *Seller*), grants to Municipal Review Committee, Inc., a Maine corporation with a place of business in Ellsworth, Maine (hereinafter referred to as *Buyer*), an option to purchase, upon the terms and conditions set forth below, a certain lot or parcel of land one hundred feet (100') in width extending from the westerly sideline of Ammo Park Road, so called, in a generally westerly direction to the easterly sideline of land now or formerly of Hickory Development, LLC (hereinafter the *Fee Land*), together with certain easements referred to below (hereinafter referred to as the *Easements*) located on other lands of Seller in Hampden, Maine, the location of said Fee Land and Easements being generally depicted on Exhibit A attached hereto (the Fee Land and Easements collectively referred to as the *Option Lands*).

### TERMS AND CONDITIONS:

1. Option Term. This Option shall be for an initial term of eighteen (18) months from the date of this agreement. This option may be extended once for an additional three (3) months upon sixty (60) days written notice from Buyer to Seller.
2. Exercise of Option. Buyer shall exercise this option, if at all, at any time during the term of this Option, and any renewals thereof, by giving written notice delivered by certified mail or reputable overnight courier to Seller. Upon exercise of this option, the terms and provisions herein shall govern the purchase and sale of the Fee Land and Easements.
3. Option Consideration. Buyer shall pay to Seller an initial option consideration of Forty Thousand dollars (\$40,000.00), payable upon Seller's execution of this agreement. Upon exercise of this option, the initial option consideration shall be deemed an earnest money deposit and applied toward the purchase price.
4. Transfers during Option Term. During the term of this Option, and any renewals thereof, and prior to closing, Seller agrees not to sell the Option Lands, offer to sell, mortgage, encumber, or otherwise transfer or dispose of the Option Lands (collectively *transfer*), without prior written consent of Buyer, unless any such transfer is expressly subject to this Option to Purchase. During the term of this Option, Seller shall have the right to cut or have cut timber and brush from the Option Lands, with such cut timber, brush, debris and slash being removed from the Option Lands prior to any closing. The proceeds of said cutting shall be the Seller's.
5. Inspection. Seller grants to Buyer, Buyer's duly authorized agents and employees, the right, during the term of this Option, and any renewals thereof, and prior to closing to enter upon the Option Lands and upon adjoining land of Seller within the narrowest practical confines to conduct whatever tests and inspections of the Option Lands that Buyer deems necessary.

6. Easement Terms. The easements to be conveyed by Seller to Buyer shall be perpetual and appurtenant to all and any portion of lands and easements owned by Buyer in Hampden, Maine as of closing. The terms of the easements shall be as follows:

a. a temporary twelve (12) month construction easement for a right of way over Ammo Park Road from a public way to the Fee Land on such other terms and conditions reasonably agreed upon by Seller and Buyer.

b. a non-exclusive easement for utility services located on, over or under a strip of land thirty feet (30') in width in the approximate location depicted on **Exhibit A**. Said utility easement shall include by way of example and not limitation the right to install a water main not greater than 20" in diameter and a sewer main not greater than 8" in diameter within said strip of land. Seller shall have the right to tie into and/or connect to such utility lines, subject to any rules and requirements of any Utility Holder defined below. Said utility easement shall further be in a form and substance suitable for transfer to and/or acceptance by a public utility, the Town of Hampden and/or applicable municipal or quasi-municipal authority, including by way of example the Hampden Water District (collectively the *Utility Holder*) and Buyer shall have the right to transfer the same to any such Utility Holder. Seller shall join in any instrument reasonably requested by any such Utility Holder for the purposes contemplated herein. The utility easement shall extend from the easterly line of the Fee Land across Ammo Park Road and then by and along Ammo Park Road to the point of interconnection with utility lines providing similar services at the intersection of Ammo Park Road and a utility road as shown on **Exhibit A**, and Buyer shall have the right to tie into and/or connect to such utility lines.

Seller shall reserve in the deed of the Fee Land:

a. an easement to tie into or connect with any utility services located by Buyer within the Fee Land, which reserved easement shall be appurtenant to other lands now of Seller, on such further customary terms as are agreed upon by Seller and Buyer and shall not unreasonably interfere with the use and enjoyment by Buyer of the Fee Land.

b. an easement for a right of way over the Fee Land appurtenant to adjacent lands of Seller, which shall include the right to pave said right of way, provided the exercise of said easement shall not unreasonably interfere with the use and enjoyment by Buyer of the Fee Land and any lands and easements of Buyer in Hampden, Maine owned as of closing and which easement shall automatically terminate in the event any roadway within the Fee Land is accepted by the Town of Hampden as a public road. Said easement shall be on such further customary terms as are agreed upon by Buyer and Seller and shall be transferable by Seller to assigns of the adjacent lands.

Buyer agrees that, in the event Buyer acquires title to other lands on Coldbrook Road that are adjacent to the Fee Land and Buyer thereafter installs a utility line for natural gas within those other lands, Buyer shall grant Seller the right to tie into and/or connect to such utility line on terms reasonably acceptable to the public utility and Buyer.

Any construction contemplated by any easement granted or reserved by either party shall be at the sole cost of the party undertaking the construction and the undertaking party shall be responsible for obtaining permits required for any such construction.

The terms and conditions of the foregoing easements shall be consistent with terms and conditions customary for and consistent with commercial easements for similar purposes and such other terms and conditions agreed upon by Seller and Buyer within four (4) months following the date of this Option. In the event the parties cannot agree in good faith on the terms and conditions within said time period, either party may terminate this agreement upon written notice to the other Party, which written notice must be delivered to the other Party not later than two (2) weeks after said time period. Upon any such termination, all parties shall be released from their obligations hereunder and the option consideration shall be returned to Buyer.

7. Certification. At any time prior to exercise of the Option, Buyer may request Seller to certify to Buyer that the water and sewer infrastructure intended to serve land and easements of Buyer have been tested and accepted by the applicable Authority, said infrastructure being those that extend from the Sargent Corporation property, so called, to the water and sewer utility lines installed by Buyer. In the event Seller is unable to provide such certification, Buyer may, at Buyer's sole option, either (a) terminate this agreement, in which case the parties shall be released from their obligations hereunder and the option consideration shall be returned to Buyer, or (b) may waive the requirement for such certification, in which event this agreement shall remain in effect.

**UPON EXERCISE OF THIS OPTION, THIS AGREEMENT SHALL BE CONSIDERED A PURCHASE AND SALE AGREEMENT AND THE FOLLOWING PARAGRAPHS 1 - 6 SHALL APPLY TO CONVEYANCE OF THE PROPERTY.**

1. Purchase Price. The total purchase price for the Option Lands shall be Two Hundred Thousand dollars (\$200,000.00). After application of the option consideration/deposit, the remaining purchase price shall be paid to Seller with cash or by bank check or certified check at closing.

2. Deed. At the closing of the sale, Seller shall deliver to Buyer a quitclaim deed with covenant conveying to Buyer good and marketable title to the Option Lands, free of all easement, conditions, restrictions and encumbrances except those contemplated herein or otherwise acceptable to Buyer in Buyer's sole discretion.

3. Title and Municipal Approval. Examination of the title shall be the responsibility of Buyer at Buyer's sole expense. Within sixty (60) days of the exercise of the Option, Seller shall provide Buyer with copies of all existing title abstracts, title insurance policies or other title or survey information which Seller may have in Seller's possession. If Buyer finds title to the Option Lands not to be good and marketable, then the closing shall be delayed for not more than thirty (30) days in order for Seller to cure the defect or defects. If such defect or defects cannot be removed by Seller (Seller having used reasonable efforts), Buyer may, at Buyer's sole option, either (a)

terminate this agreement, in which case all parties shall be released from their obligations hereunder and the option consideration/deposit shall be returned to Buyer, or (b) accept such title as Seller can convey and consummate purchase of the Option Lands in accordance with this agreement.

In the event that the sale of the Fee Land contemplated herein requires municipal subdivision approval or a subdivision plan amendment (the "approval"), Buyer shall apply for such approval at any time during the term of this agreement and, if applicable, the date of closing shall be extended until such approval is granted or denied by the municipal reviewing authority. Seller shall reasonably cooperate with Buyer, at no additional cost to Seller. In the event Buyer is unable to obtain such approval, after a commercially reasonable good faith effort, Buyer may terminate this agreement, in which case all parties shall be released from their obligations hereunder and the option consideration/deposit shall be returned to Buyer.

4. Possession. Exclusive possession of the Option Lands, other than rights reserved by Seller in the deed, rights of others entitled to use the Easements or matters acceptable to Buyer under section 3 above, shall be delivered to Buyer at the time of the delivery of said deed.

5. Closing. The closing of the sale contemplated hereby shall take place at the offices of Eaton Peabody in Bangor, Maine, within five (5) days following Buyer's acquisition of lands and easements on the easterly sideline of Coldbrook Road pursuant to an option agreement with H.O. Bouchard, Inc. and Hickory Development, LLC, as amended (the "Bouchard Purchase") but in no event later than forty five (45) days of Seller's receipt of notice of Buyer's exercise of the option as stated herein or such earlier date as specified by Buyer in its notice of exercise, unless delayed in accordance with the terms hereof.

6. Closing Adjustments. State of Maine transfer tax, if any, shall be shared equally by Buyer and Seller. Each party shall be responsible for its own attorney's legal fees. Seller shall pay all charges for recording any documents necessary to remove encumbrances from record title to the Property. Buyer shall pay the recording fee for the deed. The municipal real estate taxes shall be prorated as of the date of the closing.

7. Default. In the event Buyer fails to fulfill any of Buyer's obligations hereunder, this agreement shall, at the option of Seller, be terminated, and Buyer's said option consideration/deposit shall be retained by Seller as Seller's sole remedy. In the event Seller fails to fulfill any of Seller's obligations hereunder, then the option consideration/deposit shall be returned to Buyer and Buyer, at Buyer's option, may pursue its remedies at law or in equity, including but not limited to specific performance.

8. Survey Costs. Buyer shall at its cost cause to be prepared by a licensed surveyor a survey and legal description reasonably acceptable to the parties of the Option Lands and shall provide Seller with a copy of the survey. Said description shall also be located on the ground by the surveyor.

9. Notices. Any notice by either party to the other, as provided herein, shall be in writing and shall be effective if delivered by certified mail, return receipt requested, or by reputable overnight courier to the following address:

a. If to Seller, c/o Sarah S. Zmistowski, Esq.  
Eaton Peabody P.A.  
P.O. Box 1210  
80 Exchange Street  
Bangor, ME 04402-1210

b. If to Buyer, c/o Karen A. Huber, Esq.  
Eaton Peabody P.A.  
P.O. Box 1210  
80 Exchange Street  
Bangor, ME 04402-1210

10. General Provisions.

a. This agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. Buyer may assign this agreement, provided that Buyer shall give written notice to Seller after such assignment of the name and address for any assignee.

b. This agreement constitutes the entire agreement between the parties, supersedes all prior negotiations and understandings between them, and shall not be altered or amended except by a written amendment signed by Seller and Buyer.

c. This agreement may be simultaneously executed in any number of counterparts, each of which when duly executed and delivered shall be an original; but such counterparts shall constitute but one and the same agreement. For purposes of this agreement, a facsimile signature shall be deemed an original.

d. Each party agrees that it shall keep the terms of this agreement and the transaction contemplated herein confidential, except as may be set forth in the Memorandum of Option contemplated below and the obligations under this provision shall survive closing.

e. The parties agree that this Option shall not be recorded. A Memorandum of this Option to Purchase may be prepared for recording for the purpose of giving notice to third persons of the existence of this agreement.

f. If any provision of this agreement is found to be invalid or unenforceable, such finding shall not affect the validity or enforceability of any other provision hereof.

g. This agreement shall be construed and enforced in accordance with and governed by the laws of the State of Maine.

h. For purposes of this agreement, the date of this agreement shall be the date Seller executes this agreement.

In witness whereof, the parties hereto have hereunto set their hands and seals as of the date set forth below.

Witness:

Jolayne M. Mason

**Maine Ground Developers, Inc.**

By: Way L. Umboden  
Its: Agent  
Date: 11-12-15, 2015

**Municipal Review Committee, Inc.**

\_\_\_\_\_

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_, 2015

h. For purposes of this agreement, the date of this agreement shall be the date Seller executes this agreement.

In witness whereof, the parties hereto have hereunto set their hands and seals as of the date set forth below.

Witness:

\_\_\_\_\_

**Maine Ground Developers, Inc.**

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_, 2015

**Municipal Review Committee, Inc.**



By:   
Its: Executive Director  
Date: Nov 10, 2015, 2015

**Exhibit A**

