Section 3 - Appendix 13

Inventory and Delineation of Wetlands and Watercourses along the Connecticut Portion of the Northeast Energy Direct Project

This Appendix was formatted in its entirety as part of the Final FERC 7(c) Application, filed on November 20, 2015 (PF-14-22-000), Environmental Reports, Volume I; therefore, appendix references and page numbers contained within this document are not consistent with this permit application.

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INVENTORY AND DELINEATION OF WETLANDS AND WATERCOURSES ALONG THE CONNECTICUT PORTION OF THE NORTHEAST ENERGY DIRECT PROJECT

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1.0 INTRODUCTION

This report provides a summary of wetland and watercourse inventories and delineations conducted along the Connecticut portion of the proposed Northeast Energy Direct Project ("NED Project" or "Project"). The proposed project, as currently configured, would involve the construction of approximately 420-miles of new pipeline and pipeline looping (i.e., the installation of additional pipe to adjacent to the existing pipeline) in Pennsylvania, New York, Massachusetts, New Hampshire and Connecticut. The entire proposed NED Project facilities are as follows:

- Approximately 41 miles of pipeline looping on Tennessee's 300 Line in Pennsylvania;
- Approximately 133 miles of new pipeline to be generally co-located with the certificated Constitution Pipeline Project ("Constitution")[1] in Pennsylvania and New York (extending from Tennessee's existing 300 Line near Auburn, Pennsylvania to Wright, New York);
- Approximately 54 miles of pipeline generally co-located with Tennessee's existing 200 Line and an existing utility corridor in New York;
- Approximately 64 miles of pipeline generally co-located with an existing utility corridor in Massachusetts;
- Approximately 70 miles of pipeline generally co-located with an existing utility corridor in New Hampshire (extending southeast to Dracut, Massachusetts);
- Approximately 58 miles of various laterals and a pipeline loop in Massachusetts, New Hampshire, and Connecticut to serve local markets;
- Construction of nine new compressor stations and 15 new meter stations, and modifications to existing compressor and meter stations throughout the Project area; and
- Construction of appurtenant facilities, including mainline valves ("MLVs"), cathodic protection, and pig facilities through the Project area.

The Project is proposed by Tennessee Gas Pipeline Company (Tennessee), a wholly-owned subsidiary of Kinder Morgan, Inc. and a major supplier of natural gas to utilities and power generators in the Northeast. The Connecticut portion of the Project includes the 300 Line Connecticut Loop. The 300 Line Connecticut Loop consists of approximately 14.80 miles of new 24-inch-diameter pipeline generally located within or directly adjacent to Tennessee's existing 300 Line's right-of-way ("ROW"). A summary of Project facilities in Connecticut is detailed in Table 2g-1. Additional NED Project facilities include use of access roads and contractor yards.

This report discusses the methods used to identify the wetlands and watercourses encountered along the Connecticut portion of the Project and summarizes the findings of the surveys. Onsite and offsite wetland and watercourse investigations in Connecticut were conducted between November 10, 2014, and September 15, 2015. It contains wetland data between300 Line CT Loop, Segment S, MP 0.00 to MP

[1] On December 2, 2014, the Commission issued an Order Issuing Certificates and Approving Abandonment, Constitution Pipeline Company, LLC, 149 FERC 61,199 (2014), for the Constitution Pipeline Project, which adopted the recommendations from the Constitution "Final Environmental Impact Statement: Constitution Pipeline and Wright Interconnect Projects," FERC Environmental Impact Statement ("EIS") No. 0249F, Docket Numbers CP13-499-000, CP13-502-000, and PF12-9-000 ("Constitution Final EIS ["FEIS"]") issued October 24, 2014. Information contained within this WDR related to the Constitution Pipeline Project was based on the routing included in the FEIS, as approved by the certificate order.

14.80. Because the route determination and survey access permission process are ongoing, additional delineation submissions will be necessary to complete the process of jurisdictional boundary line verification and approval.

Tables listing wetlands and watercourses identified during the course of the surveys are located in Appendix2g-A. The tables include only those field-delieated wetlands and waterbodies which are located within the Project workspace and will be impacted by construction or operation of the Project. Additional wetlands and watercourses identified in the survey corridor but not impacted by the proposed Project configuration will be included in any future delineation submissions. Appendix2g-B and Appendix2g-C contain the wetland and watercourse mapping associated with the Project. Appendix2g-D contains the field data forms which were used to document the wetland delineations, including representative wetland photographs. Appendix2g-E contains the field data forms which were used to document the watercourse delineations, including representative watercourse photographs.

Table 2g-1
Summary of Project Facilities in Connecticut

Facility Name	Facility Type	New / Modified	Associated Pipeline[1]	County	Segment[2]	Milepost[3]	Length (miles)[4]
Connecticut							
300 Line CT Loop	Pipeline	New	N/A	Hartford	S	N/A	14.80
North Bloomfield (20453)	Meter Station	Modified	Existing TGP Line 300-1	Hartford	S	10.86	N/A
Easton (20853)[5]	Meter Station	Modified	Existing TGP Line 300-1	Fairfield	N/A	Existing Facility	N/A
Milford (20425)[5]	Meter Station	Modified	Existing TGP Line 300-1	New Haven	N/A	Existing Facility	N/A
						Connecticut Total	**14.80**

[1] N/A-Not Applicable for proposed pipelines. This column indicates the associated pipeline segment for each aboveground facility (compressor stations, meter stations, and regulators).

[2] Each segment is associated with its own set of mileposts beginning at MP 0.00.

[3] N/A-Not Applicable for proposed pipeline facilities. Mileposts are provided for the existing compressor station and the existing and new meter stations located along new proposed pipeline segments only. Mileposts are not provided for meter stations located along TGP's existing system.

[4] N/A-Not Applicable for aboveground facilities (compressor stations, meter stations, and regulators). Pipeline length applies only to the proposed pipeline facilities as reflected on the alignment sheets.

[5] Mileposts for these facilities are not provided because these facilities are located along other pipeline segments of Tennessee's existing system that are not proposed to be modified as part of this Project.

2.0 WETLAND AND WATERCOURSE REGULATIONS

Wetlands and watercourses subject to state or federal jurisdiction based upon the Federal Clean Water Act and the Connecticut Inland Wetland and Watercourses Act and its implementing regulations and mapping requirements are identified.

2.1 SECTION 404 – CLEAN WATER ACT

Wetlands, springs, and other waters of the United States are regulated under Section 404 of the Federal Clean Water Act ("CWA"; 33 U.S.C. 1341) by the U.S. Army Corps of Engineers ("USACE"). Under 33 Code of Federal Regulations ("CFR") Part 328.3(a), the term "waters of the U.S." include:

1. All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3(b)).

Under 33 CFR 328.4(c), the limits of federal jurisdiction for non-tidal waters of the United States extend to:

1. the ordinary high water mark In the absence of adjacent wetlands; or
2. beyond the ordinary high water mark to the limit of the adjacent wetlands when adjacent wetlands are present; or

3. to the limit of the wetland when the water of the United States consists only of wetlands

Wetlands and waterbodies meeting these criteria are subject to federal jurisdiction under Section 404 of the Federal Clean Water Act.

2.2 CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION REGULATIONS

Connecticut regulates inland wetlands under the Inland Wetlands and Watercourses Act, (Section 22a-36 through 45 of the Connecticut General Statutes; "The Act"). These state statutes are implemented through the Inland Wetlands and Watercourse Regulations as administered by the individual municipalities. Under Section 2 of The Act, a wetland is defined as "land, including submerged land…which consists of poorly drained, very poorly drained, alluvial and floodplain soils as defined by the National Cooperative Soils Survey. Such areas may include filled, graded or excavated sites which possess an aquatic (saturated) moisture regime as defined by the United States Department of Agriculture (USDA) Cooperative Soil Survey." As written, these statutes assign no bearing to vegetation when performing wetland delineation activities. According to the Connecticut Department of Energy and Environmental Protection (CTDEEP) website, approximately 17% of the state's land area is comprised of wetlands under the Connecticut' wetland definition; however, "under the federal definition only roughly half of this same area would be classified as wetlands".

Watercourses are defined in The Act as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof. Intermittent watercourses shall be delineated by a defined permanent channel bed and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration of longer than a particular storm incident, or (C) the presence of hydrophytic vegetation.

3.0 WETLAND AND WATERBODY DELINEATION PROCEDURES

This report describes area surrounding the current proposed Project Route located in Farmington, West Hartford, Bloomfield, Windsor, and East Granby, Hartford County, Connecticut. The attached alignment sheets with wetland and waterbody locations (Appendix2g-C) identify the Project location in Hartford County and major mileposts along the proposed alignment.

Identification of regulated wetland and waterbody boundaries occurred within a 400-foot wide survey corridor centered over the proposed pipeline (200 feet either side of the pipe centerline) when traversing greenfield, and a 250-foot wide survey corridor where the proposed pipeline is co-located with an existing utility (50 feet on the utility side and 200 feet on the non-utility side), from November 10, 2014, through September 15, 2015 (Study Area). Only land parcels where survey access permission was granted by landowners were surveyed. Therefore, many wetlands identified within the Study Area are incomplete and end at no-access parcel boundaries. Survey access has been granted by approximately 67 percent of landowners in the Study Area in Connecticut. Table 1.2-6 in Resource Report 1 identifies areas where

survey permission has not been granted. As of September 15, 2015, surveys have been completed on approximately 7.22 miles (49 percent) of the Study Area in Connecticut.

For the purpose of this state-specific report, all of the features identified within the Study Area have been refined to only those features falling within the limits of the Project workspace corridor. These features fall within either the limits of both the temporary workspace and permanent ROW or partially within either one of these areas.

This report does not detail survey of all temporary and permanent access roads and some ancillary facilities listed in Section 1.0. Once these areas are identified, access permission is granted, and the sites are surveyed, they will be listed and described as part of the Study Area within subsequent submittals.

3.1 WETLAND DELINEATION PROCEDURES

The term wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3(b)). Under 33 CFR 328.4(c), the limits of federal jurisdiction for non-tidal waters of the United States extend to:

1. the ordinary high water mark In the absence of adjacent wetlands; or
2. beyond the ordinary high water mark to the limit of the adjacent wetlands when adjacent wetlands are present; or
3. to the limit of the wetland when the water of the United States consists only of wetlands

The wetland delineation methods outlined in the ("1987 Corps Manual" and the "NC/NE Regional Supplement"; USACE 2012) were used in conjunction with NRCS soil surveys to identify and delineate wetlands along the proposed Project alignment in Connecticut. During the process of delineating the wetlands associated with the subject ROWs both state and federal methodologies were employed and state and federal wetland criteria were evaluated. In Connecticut, the definition of "wetlands" differs from the federal definition, resulting in differing state and federal boundaries. Frequently this is a result of areas of alluvial and floodplain soils, which may not also exhibit a wetland plant community and evidence of wetland hydrology, emanating from wetland areas which do possess the three parameters discussed above which qualify them as federal wetlands. As a result, some locations on the Connecticut landscape do require distinct state and federal wetland boundaries. A total of four of the 20 wetlands identified in the survey corridor in Connecticut were determined to be wetlands regulated in Connecticut, but do not meet the federal definition of wetlands. These wetlands are identified in Table A-1.

3.2 WATERBODY DELINEATION PROCEDURES

Under 33 CFR 328.4(c), "the limits of federal jurisdiction for non-tidal waters of the United States, in the absence of adjacent wetlands, is the ordinary high water mark." Waterbody types were classified as perennial, intermittent, or ephemeral, as defined in 72 F.R. 11196-11197. Perennial streams ("P") were categorized as waterbodies that have flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow and runoff from rainfall is a supplemental source of water for perennial streams. Intermittent streams ("I") were categorized as waterbodies that have flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have

flowing water and runoff from rainfall is a supplemental source of water for stream flow. Ephemeral streams ("E") were categorized as waterbodies that have flowing water only during, and for short duration after, precipitation events in a typical year. Emphemeral stream beds are located above the water table year-round. Groundwater is not a source of water for emphemeral streams and runoff from rainfall is the primary source of water for stream flow. Preliminary waterbody classifications were made during initial field surveys and were confirmed based on a desktop analysis of USGS hydrographic dataset (US Department of the Interior 2014). Additionally, each waterbody was reviewed for the water quality standard and classification assigned by the CTDEEP to surface waters as described in Sections 22a-426-1 to 22a-426-9, inclusive, of the Regulations of Connecticut State Agencies.

3.3 PRE-SURVEY DESKTOP INVESTIGATIONS

Prior to the commencement of field surveys, information from multiple sources was reviewed to determine the potential extent of wetlands within the survey areas. Pre-survey information reviewed included: USGS topographical quadrangles, National Wetland Inventory Maps, Natural Resource Conservation Service – Web Soil Surveys, and CTDEEP Freshwater Wetland Mapping.

3.4 FIELD SURVEYS

During the field investigations along the ROWs, the boundary between the water resource (wetland and/or watercourse) and non-regulated area were delineated and marked with survey flagging hung on vegetation at approximately 15 to 30-foot intervals. For wetlands, vegetation, soils, and hydrology data were assessed during the field surveys to determine if the wetland parameters were satisfied. The "top of bank" was used to demarcate the limits of a watercourse when no wetlands were adjacent to the channel. Data plots documenting the wetland boundaries were established at specific locations within each wetland series. Field data summary sheets were completed at each data plot for the wetland and watercourse resource surveys and include representative photographs of each wetland and watercourse (see Appendix2g-D and Appendix2g-E). Each wetland and waterbody was given a unique alphanumeric designation to assist in field survey location and documentation using the feature identification nomenclature in Table 2g-2 (Town, team, feature, and feature number). The Boundary Line and Flag Number are identified in one number representing both features. For example, BL-B-W003-101 is interpreted as "Bloomfield, Team B, Wetland Feature 003, Boundary Line 100, Flag Number 101. Mileposts on field data summary sheets are reported in feet.

Table 2g-2
Feature Identification Nomenclature
Town Abbreviation – Team # - Feature IDXXX – Flag # (Wetlands & Waterbodies)
and Start/End designation (if applicable)

County	Town	Abbreviation	Team	Feature	Feature Number	Boundary Line	Flag Number
Hartford	Bloomfield	BL	A–Z A1–Z1	W – Wetland S – Stream	001, 002, 003, etc.	100, 200, 300, etc.	101, 102, 103, etc. 201, 202, 203, etc.
	East Granby	EG					
	Farmington	FA					
	Simsbury	SM					
	West Hartford	WH					

Table 2g-2
Feature Identification Nomenclature
Town Abbreviation – Team # - Feature IDXXX – Flag # (Wetlands & Waterbodies) and Start/End designation (if applicable)

County	Town	Abbreviation	Team	Feature	Feature Number	Boundary Line	Flag Number
	Windsor	WI					

The specific methods for characterizing and evaluating vegetation, hydrology, and soils for a wetland determination were performed as follows:

- *Soils:* At the center of each data plot, the soil profile was recorded to determine the hydric soil status. Borings were taken with a hand-held auger to depths necessary to accurately determine a soil's hydric status (typically 18-24 inches below ground surface). The information collected for each soil profile included soil horizons, depth, texture, color, and the presence or absence of redoximorphic features. Colors of the soil matrix and redox features were identified using Munsell Soil Color Charts. All hydric soil determinations were based on criteria established in the USACE Northcentral and Northeast Regional Supplement (2012), along with *Field Indicators of Hydric Soils in the United States* (NRCS 2006). Additionally, the presence of any saturation and/or standing water encountered during the soil profile description was noted. The wetland soil indicators are listed in Table 2g-3.

Table 2g-3
Wetland Soil Indicators for the Northcentral and Northeast Region

Hydric Soil Indicators		Indicators for Problematic Hydric Soil
Histosol (A1)	Dark Surface (S7) (LRR R, MLRA 149B)	2cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR K, L)	5cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	Thin Dark Surface (S9) (LRR K, L, R)
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	Iron-Mg Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (F21)

Digital Flora: National Wetland Plant List (Lichvar and Kartesz 2009). Indicators of hydrophytic vegetation are satisfied by the rapid assessment if all dominant species are rated as OBL or FACW (Indicator 1), the dominance test if more than 50% of the dominant species are OBL, FACW, and/or FAC (Indicator 2), or the prevalence index is less than or equal to 3.0 (Indicator 3) based on the USACE NCNE Regional Supplement (USACE 2012).

- *Hydrology:* Site hydrology was evaluated during field surveys by initially observing whether the soil at the surface was inundated or saturated. If the ground surface was dry, the depth to freestanding groundwater or saturated soil was measured, and the presence or absence of other indicators of wetland hydrology (e.g. drift lines, water-stained leaves, etc.) was noted. The wetland hydrology criterion was met if one or more primary or two or more secondary field indicators were present (USACE 2012). The wetland hydrology indicators are listed in Table 2g-4.

Table 2g-4
Wetland Hydrology Indicators for the Northcentral and Northeast Region

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

Wetland and watercourse flag positions and data plot locations were field located using a Global Positioning System (GPS) handheld Trimble® Yuma® tablet computer unit coupled with AECOM's proprietary mobile Geographic Information System (GIS) field application software, Environmental Mobile Application for Projects (EMAP). The collected GPS data points were then differentially corrected by post-processing and plotted out on aerial photograph imagery.

3.5 WETLAND CLASSIFICATION

While in the field, the various wetlands and watercourses were classified according to the "Cowardin system" as Palustrine Forested (PFO), Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS) and Palustrine Open Water (POW), as further described below. In some cases, a wetland complex contained

more than one wetland classification type. In those situations, each wetland type is listed and the first classification type represents the more dominant characteristic.

- **Palustrine Forested Wetlands (PFO)**

  Forested wetlands are characterized by woody vegetation that is six meters (approximately 20 feet) tall or taller and normally includes an overstory of trees, an understory of young trees and/or shrubs and an herbaceous layer.

- **Palustrine Scrub-Shrub Wetlands (PSS)**

  Scrub-shrub wetlands are typically dominated by woody vegetation less than six meters (approximately 20 feet) tall. Scrub-shrub land types may represent a successional stage leading to a forested wetland and includes shrubs, saplings, and trees or shrubs that are small and/or stunted due to environmental conditions.

- **Palustrine Emergent Wetlands (PEM)**

  Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes not including mosses and lichens. These wetlands maintain the same appearance year after year, and are typically dominated by perennial plants that are present for the majority of the growing season.

- **Palustrine Open Water (POW)**

  Areas of permanent open water that border on palustrine systems are referred to as POW. Areas of open water may exist as man-made or natural waterbodies.

3.6 POST-SURVEY DESKTOP ANALYSIS

The wetland and watercourse boundaries were plotted on aerial imagery and subsequently reviewed and confirmed. The aerial-based wetland plans in Appendix2g-C: Alignment Sheets with Wetland and Waterbody Locations, show the locations of the delineated resources relative to the proposed limits of the Project in Connecticut. Water quality designations were determined using Connecticut mapping resources.

4.0 RESULTS

Appendix2g-A includes tables highlighting the wetlands and watercourses identified during these investigations. Appendix2g-B and Appendix2g-C provide project mapping depicting the locations of the inventoried wetlands and watercourses; Appendix2g-C includes the wetlands and watercourses data forms; and Appendix2g-D provides representative site photographs of wetlands and watercourses located within the Connecticut study area.

As illustrated in Tables 2g-A1 and 2g-A2 (Appendix 2g-A), a total of 20 wetlands and 11 watercourses were identified in association with the Connecticut study area during the November 10, 2014, through September 15, 2015, investigations. A total of 13 wetlands examined in this study are classified either wholly or in-part as PFO. A total of 13 wetlands examined during this study are classified either wholly

or in-part as PEM, and none of the wetlands examined during this study are classified either wholly or in-part as PSS.

4.1 WETLAND VEGETATION

The wetlands inventoried during the course of these investigations ranged from the drier PFO wetlands, to PEM wetlands and deepwater habitat. Common species encountered in the various PFO wetlands during the investigations included: red maple (*Acer rubrum)*, American elm (*Ulmus americana*), northern arrowwood (*Viburnum dentatum*), spicebush (*Lindera benzoin*), arrowleaf tearthumb (*Persicariasagittatum*), skunk cabbage (*Symplocarpus foetidus*), sensitive fern (*Onoclea sensibilis*), winterberry (*Ilex verticillata*), cinnamon fern (*Osmundastrum cinnamomeum*), poison ivy (*Toxicodendron radicans*), jewelweed (*Impatiens capensis)*, and swamp white oak (*Quercus bicolor*).

Common vegetation species encountered during the PSS wetland investigations included: red maple, multiflora rose (*Rosa multiflora*), silky dogwood (*Cornus amomum*), northern arrowwood, arrowleaf tearthumb, sensitive fern, jewelweed, woolgrass (*Scirpus cyperinus*), and reed canary grass (*Phalaris arundinacea*).

Common vegetation types found within the PEM wetland areas included: common cattail (*Typha latifolia*), jewelweed, arrowleaf tearthumb, woolgrass, willow (*Salix* spp.), arrowwood, meadowsweet (*Spiraea latifolia*), purple loosestrife (*Lythrum salicaria*), lurid sedge (*Carex lurida*), aster spp. (*Symphyotrichum spp.*), goldenrods (*Solidago* spp.), soft rush (*Juncus effusus*), Joe-Pye-weed (*Eutrochium maculatum*), sedges (*Carex* spp.) and sensitive fern. See Appendix 2g-D for additional details and site specific information for each wetland area.

4.2 WETLAND SOILS

Multiple soil types representing a wide variety of soil series designations were identified during this wetland and watercourse inventory. Soils described in the various wetlands appear to have formed in parent material including glacial till, glaciolacustrine sediments and glacial outwash. The soil types were identified as poorly drained to very poorly drained mineral soil with varying degrees of organics, and included fine sandy loams, silt loams, sandy loams and mucks. Many areas were also identified as frequently flooded. Poor drainage was noted in areas with the presence of deep organic soils, sapric material in the surface layers, high organic contents in the topsoil and/or prolonged standing water. Additionally, varying degrees of stoniness and rockiness were observed. In the more developed and industrial portions of the study area, the wetland soils were often described as, or officially mapped as, disturbed.

See Appendix 2g-D and Resource Report 7 for additional soils details and site specific information for each wetland area.

4.3 WATERCOURSES

The watercourses encountered during this inventory varied greatly in type, size and character. Some of the streams that were inventoried are natural, whereas others were anthropic. Silty sediments, sand, rock, gravel, riprap, and/or cobble bottoms dominated the natural stream beds that were inventoried. The shape, height, susceptibility to erosion and direction of flow of the individual watercourses also varied.

Anthropic watercourses that were inventoried included those with culverts and corrugated and smooth drainage pipes, retention ponds, and anthropicfarm ponds.

See Appendix 2g-E for additional details and site specific information for each watercourse area.

5.0 REFERENCES

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APPENDIX 2g-A

Tables

Table 2g-A1 Wetlands Identified Along the Connecticut Portion of the Northeast Energy Direct Project

Table 2g-A2 Waterbodies Identified Along the Connecticut Portion of the Northeast Energy Direct Project

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Table 2g-A1
Wetlands Identified Along the Connecticut Portion of the Northeast Energy Direct Project

Facility Name	Segment[1]	Nearest Milepost[2]	Wetland Identification Number[3]	Wetland Class[4]	Hydrophytic Vegetation Indicator[5]	Wetland Hydrology Indicator[6]	Hydric Soil Indicator[7]	Wetland Description
Pipeline Facilities								
300 Line CT Loop	S	6.55	BL-O-W001-PFO	PFO		A2 A3	F3	Hillside
300 Line CT Loop	S	6.71	BL-O-W003-PFO	PFO	DT	A3	F3	Depression
300 Line CT Loop	S	7.10	BL-B-W007-PEM	PEM	RT PI	B9 D4	F3	Depression, Veg mowed in ROW
300 Line CT Loop	S	7.36	BL-B-W006-PEM	PEM	RT DT PI	C3 D4	F3	Drainage Way, Veg mowed in ROW Shared Upland Plot Bl-B-W005-UPL
300 Line CT Loop	S	7.37	BL-B-W006-PFO	PFO	DT PI	B9 D4	F3	Drainage Way
300 Line CT Loop	S	7.43	BL-B-W005-PFO	PFO	DT PI	C1 A3 B9	F3 A4 F2	Depression Also Associated With Access Road TGP-TAR-S-0200
300 Line CT Loop	S	7.47	BL-B-W005-PEM	PEM	RT DT PI	C1 A3 D4	F3	Drainage Way, Veg Mowed In ROW
300 Line CT Loop	S	7.61	BL-B-W004-PFO	PFO	DT PI	A3 A1 B9	F3 S4	Depression, Berm Farm Pond North of Us
300 Line CT Loop	S	8.10	BL-B-W002-PEM	PEM	RT DT PI	C3 D4	F3	Depression
300 Line CT Loop	S	8.48	BL-B-W001-PFO	PFO	DT PI	A2 C3 A3 B9	F3 A12	Depression
300 Line CT Loop	S	8.48	BL-B-W001-PEM	PEM	DT PI	B3 B7 C3 A3 B1	F3	Depression, ROW mowed
300 Line CT Loop	S	8.67	BL-P-W002-PFO	PFO	DT PI	A3 B9	F3	Depression, Drainage Way
300 Line CT Loop	S	8.70	BL-P-W002-PEM	PEM	RT DT PI	C3 D4	F3	Depression, Veg Mowed in ROW
300 Line CT Loop	S	9.43	BL-P-W001-PFO	PFO	DT PI	C1 A3 A1	F3 S4	Valley
300 Line CT Loop	S	9.57	BL-P-W001-PEM	PEM	RT DT PI	C1 A3	F3	Meadow, Mowed Field. Also associated with Access Road TGP-TAR-S-0300
300 Line CT Loop	S	10.04	BL-P-W005-PFO	PFO	DT PI	A3 B9	F3	Drainage Way
300 Line CT Loop	S	10.94	BL-N-W006-PFO	PFO	DT PI	B9 D5 D2	F21	Depression
300 Line CT Loop	S	10.94	BL-N-W006-PEM	PEM	DT PI	B9 D5 D2	F3	Flat
300 Line CT Loop	S	11.09	BL-N-W007-PEM	PEM	DT PI	A3 B9 D5 D2	F3	Depression
300 Line CT Loop	S	11.28	BL-N-W003-PFO	PFO	DT PI	A2 A3 D5 D2	A1	Depression
300 Line CT Loop	S	11.44	BL-N-W002-PFO	PFO	DT PI	A3 B9	F3	Depression
300 Line CT Loop	S	13.95	WI-P-W001-PEM	PEM	RT DT PI	A2 C1 A3	F3	Depression
300 Line CT Loop	S	14.26	EG-P-W001-PFO	PFO	DT PI	A3 B9	F3	Drainage\Depression
Aboveground Facilities								
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contractor Yards								
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Access Roads								

TGP-TAR-S-0200	S	7.42	BL-O-W004-PEM	PEM		A3	None	Drainage Way

[1] Each segment is associated with its own set of mileposts beginning at 0.00.

[2] Mileposts for Contractor Yards and Access Roads are given as nearest MP, which indicates the point at which the Access Road or Contractor Yard connects with the pipeline construction ROW, or closest MP to the construction ROW if there is no direct connection.

[3] Wetland series number generated to identify wetlands within and adjacent to the Project corridor in accordance with the feature identifiecation nomenclature described in Table 2g-2.

[4] Wetlands classification according to Cowardin et al 1979; PEM = Palustrine Emergent Wetland; PFO = Palustrine Forested Wetland; PSS = Palustrine Scrub-Shrub Wetland; POW = Palustrine Open Water; Other = accommodates all other wetland types.

[5] RT = Rapid Test (all dominant species are rated as OBL or FACW); DT=Dominance Test (more than 50% of the dominant species are OBL, FACW, and/or FAC); PI = Prevelance Index is less than or equal to 3.0.

[6] Wetland Hydrology Indicators are described in Table 2g-4.

[7] Hydric Soil Indicators are described in Table 2g-3.

Table 2g-A2
Waterbodies Identified Along the Connecticut Portion of the Northeast Energy Direct Project

Facility Name	Segment[1]	Nearest Milepost[2]	Waterbody Identification Number[3]	Waterbody Name[4]	Waterbody Frequency Type[5]	Water Quality Designation/Fishery Classification[6]	Crossing Length (ft)[7]
Pipeline Facilities							
300 Line CT Loop	S	11.41	BL-P-S008	UNT to Farmington River	P	A	227
300 Line CT Loop	S	11.35	BL-P-S010	UNT to Farmington River	P	A	1
300 Line CT Loop	S	11.14	BL-P-S009	UNT to Farmington River	I	A	4
300 Line CT Loop	S	10.18	BL-P-S007	UNT to Wash Brook	E	A	3
300 Line CT Loop	S	9.69	BL-P-S005	UNT to Wash Brook	NF	A	64
300 Line CT Loop	S	8.73	BL-P-S001	UNT to Wash Brook	E		
300 Line CT Loop	S	7.71	BL-P-S002	UNT to Tumble Brook	NF		
300 Line CT Loop	S	7.46	BL-P-S003	UNT to Tumble Brook	P	A	5
300 Line CT Loop	S	7.45	BL-B-S003	UNT to Tumble Brook	NF		
300 Line CT Loop	S	7.07	BL-P-S004	UNT to Tumble Brook	E	A	31
300 Line CT Loop	S	6.57	BL-O-S001	UNT to Tumble Brook	I		
Aboveground Facilities							
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contractor Yards							
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Access Roads							
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[1] Each segment is associated with its own set of mileposts beginning at 0.00
[2] Mileposts for Contractor Yards and Access Roads are given as nearest MP, which indicates the point at which the Access Road or Contractor Yard connects with the pipeline construction ROW, or closest MP to the construction ROW if there is no direct connection.
[3] Waterbody series number generated to identify waterbodies within and adjacent to the Project corridor in accordance with the feature identifiecation nomenclature described in Table 2g-2.
[4] Unnamed tributary: waterbody is not mapped as a tributary on available GIS data layers; tributary name will be identified based on review of USGS topographical mapping in the final filing.
[5] P = perennial; I = intermittent; E = Ephemeral; NF = No Flow; AP = Artificial Path; C = Connector
[6] Water quality classifications were identified through a desktop review of available GIS data layers.
[7] Existing waterbodies will not be impacted. Any improvements to existing culverts will be permitted as necessary.

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APPENDIX 2g-B

Wetland and Waterbody Locations Identified on USGS 7.5 Minute Topographic Map Excerpts

(provided under separate cover in Volume II, Appendix E of the FERC Environmental Report)

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APPENDIX 2g-C

Wetland and Waterbody Locations Identified on Aerial Alignment Sheets

(provided under separate cover in Volume II, Appendix F, of the FERC Environmental Report)

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APPENDIX 2g-D

Army Corps of Engineers Wetland Data Sheets and Photographs

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 34569.5	County: Hartford	Date: 11/17/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-O-W001-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 88	Tract: 27940	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 20

Subregion (LRR): Middle Atlantic Lat: 41.833938 Long: -72.781937 Datum: NAD83

Soil Map Unit Name: Wethersfield loam, 3 to 15 percent slopes, extremely stony NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ Yes ☐ No

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	3
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ Yes ☐ No

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Fraxinus americana	5	YES	FACU
Quercus rubra	10	YES	FACU
Fagus grandifolia	10	YES	FACU
Total Cover:	25		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Quercus alba	5	YES	FACU
Acer rubrum	5	YES	FAC
Carpinus caroliniana	10	YES	FAC
Total Cover:	20		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Microstegium vimineum	20	YES	FAC
Carex stricta	10	YES	OBL
Polystichum acrostichoides	20	YES	FACU
Total Cover:	50		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 44 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	10	x 1 =	10
FACW Species:	0	x 2 =	0
FAC Species:	35	x 3 =	105
FACU Species:	50	x 4 =	200
UPL Species:	0	x 5 =	0
Column Totals:	95 (A)		315 (B)

Prevalence Index = B/A = 3.32

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-0.5	LEAF LITTER O HORIZON	100					ORGANIC	
0.5-7	10YR2/2	100					SILT LOAM	
7-15	7.5YR5/3	95	7.5YR4/6	5	C	M	SILT LOAM	
15-20	7.5YR5/3	93	7.5YR4/6 5YR5/2	5 2	C D	M M	SILT LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☑ Yes ☐ No ☐ Unknown

General Comments:

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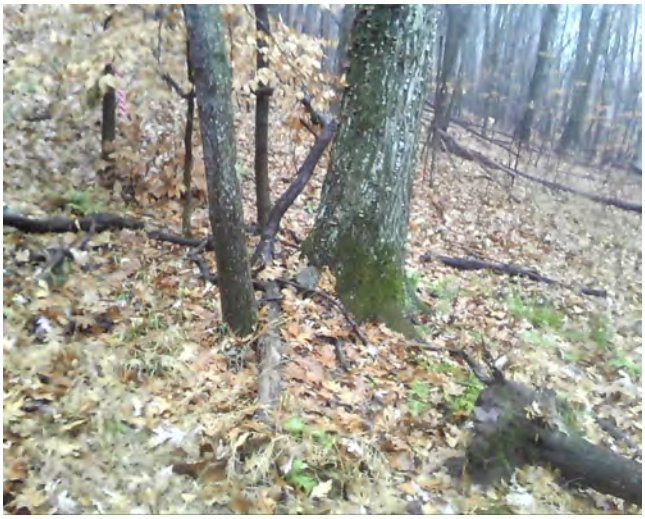
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 35432.9	County: Hartford	Date: 11/17/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-O-W003-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 95	Tract: 27948	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.835531 Long: -72.779587 Datum: NAD83

Soil Map Unit Name: Holyoke-Rock outcrop complex, 3 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ Yes ☐ No

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):
Water Table Present?	☑ Yes	☐ No	Depth (inches): 8
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches): 0

Wetland Hydrology Present? ☑ Yes ☐ No

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	1	NO	FACU
Carya glabra	10	NO	FACU
Ostrya virginiana	5	NO	FACU
Carya ovata	10	NO	FACU
Total Cover:	26		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Fraxinus americana	10	NO	FACU
Lindera benzoin	10	NO	FACW
Rosa multiflora	1	NO	FACU
Rhamnus cathartica	30	YES	FAC
Total Cover:	51		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Microstegium vimineum	20	YES	FAC
Total Cover:	20		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	10	x 2 =	20
FAC Species:	50	x 3 =	150
FACU Species:	37	x 4 =	148
UPL Species:	0	x 5 =	0
Column Totals:	97 (A)		318 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	10YR3/1	100					SILT LOAM	
12-18	10YR4/2	90	5YR4/6	10	C	M	SILTY CLAY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☑ Yes ☐ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 35482.1	County: Hartford	Date: 11/17/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-O-W003-UPL**
Investigators: TP CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014O1	Logbook Pg.: 138	Tract: 27948	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 3

Subregion (LRR): Middle Atlantic Lat: 41.835588 Long: -72.779418 Datum: NAD83

Soil Map Unit Name: Holyoke-Rock outcrop complex, 3 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	15	YES	FAC
Acer saccharum	8	NO	FACU
Carya ovata	10	NO	FACU
Quercus rubra	10	NO	FACU
Ulmus americana	25	YES	FACW
Total Cover:	68		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Carpinus caroliniana	10	YES	FAC
Rhamnus cathartica	20	YES	FAC
Total Cover:	30		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Carpinus caroliniana	15	YES	FAC
Geum canadense	3	NO	FAC
Total Cover:	18		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	25	x 2 =	50
FAC Species:	63	x 3 =	189
FACU Species:	28	x 4 =	112
UPL Species:	0	x 5 =	0
Column Totals:	116 (A)		351 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	10YR2/2	100					SILT LOAM	
8-16	7.5YR6/4	95	5YR4/6	5	C	M	SILT LOAM	
16-22	7.5YR6/3	85	5YR4/6 10YR6/2	10 5	C D	M M	LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 34531.3	County: Hartford	Date: 11/17/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-O-W001-UPL**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 89	Tract: 27940	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 20

Subregion (LRR): Middle Atlantic Lat: 41.833905 Long: -72.782039 Datum: NAD83

Soil Map Unit Name: Wethersfield loam, 3 to 15 percent slopes, extremely stony NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Carya ovata	25	YES	FACU
Fagus grandifolia	5	NO	FACU
Quercus rubra	20	YES	FACU
Acer rubrum	5	NO	FAC
Quercus alba	15	YES	FACU
Total Cover:	70		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Carpinus caroliniana	10	YES	FAC
Total Cover:	10		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	0	x 2 =	0
FAC Species:	15	x 3 =	45
FACU Species:	65	x 4 =	260
UPL Species:	0	x 5 =	0
Column Totals:	80 (A)		305 (B)

Prevalence Index = B/A = 3.81

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-0.5	ORGANIC LAYER	100					ORGANIC	
0.5-6	10YR3/3	100					LOAM	
6-24	7.5YR5/4	100					SILT LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 37490.0	County: Hartford	Date: 11/14/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W007-PEM**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 130	Tract: 27878	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 1

Subregion (LRR): Middle Atlantic Lat: 41.839917 Long: -72.775177 Datum: NAD83

Soil Map Unit Name: Ludlow silt loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: VEG MOWED IN ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Juncus effusus	5	NO	OBL
Carex sp	75	NA	NONE
Solidago gigantea	5	NO	FACW
Onoclea sensibilis	5	NO	FACW

Total Cover: 90

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	5	x 1 =	5
FACW Species:	10	x 2 =	20
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	15 (A)		25 (B)

Prevalence Index = B/A = 1.67

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	7.5YR 4/2	95	7.5YR 4/6	5	C	M	SILT LOAM	
10-20	7.5YR 5/3	90	7.5YR 4/6	10	C	M	SILT LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☑ Yes ☐ No ☐ Unknown

General Comments:

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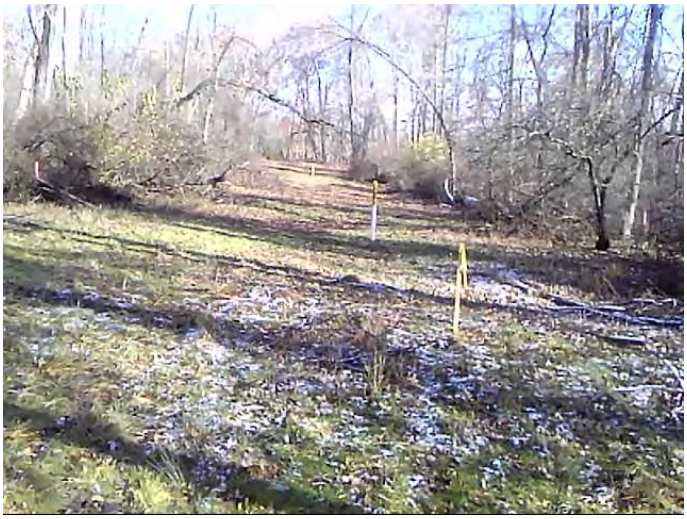
PHOTOS



NE

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 37481.7	County: Hartford	Date: 11/14/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W007-UPL**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 130	Tract: 27878	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 2

Subregion (LRR): Middle Atlantic Lat: 41.839970 Long: -72.775346 Datum: NAD83

Soil Map Unit Name: Ludlow silt loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	10	YES	FAC
Prunus serotina	5	YES	FACU
Acer saccharum	5	YES	FACU
Ulmus rubra	3	NO	FAC
Total Cover:	23		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lindera benzoin	30	YES	FACW
Total Cover:	30		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Celastrus orbiculatus	50	YES	UPL
Total Cover:	50		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	30	x 2 =	60
FAC Species:	13	x 3 =	39
FACU Species:	10	x 4 =	40
UPL Species:	50	x 5 =	250
Column Totals:	103 (A)		389 (B)

Prevalence Index = B/A = 3.78

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-13	7.5YR 4/3	100					SILT LOAM	REFUSAL AT 13 INCHES DUE TO ROCK

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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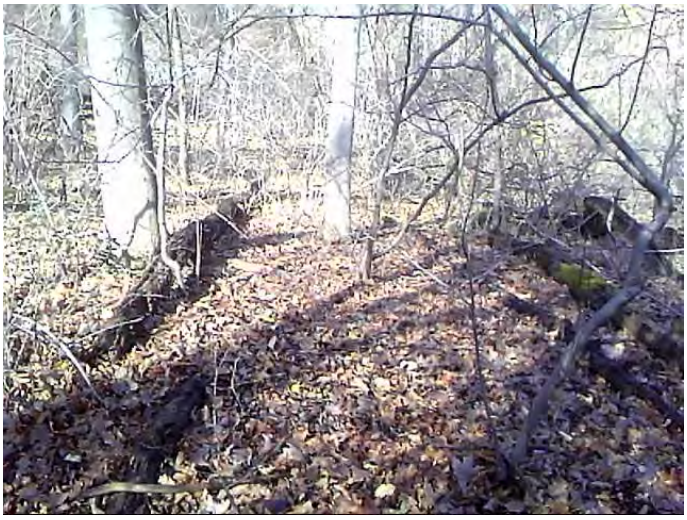
PHOTOS



WEST

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 38857.4	County: Hartford	Date: 11/13/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W006-PEM**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 126	Tract: 27876	

Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.843361 Long: -72.773448 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: VEG MOWED IN ROW, SHARED UPLAND PLOT BL-B-W005-UPL

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Carex stricta	20	YES	OBL
Phalaris arundinacea	20	YES	FACW
Carex sp	60	NA	NONE

Total Cover: 100

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	20	x 1 =	20
FACW Species:	20	x 2 =	40
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	40 (A)		60 (B)

Prevalence Index = B/A = 1.50

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	10YR 3/2	85	7.5YR 3/4	15	C	PL	SILTY CLAY LOAM	
10-16	5Y 5/1	90	10YR 4/6	10	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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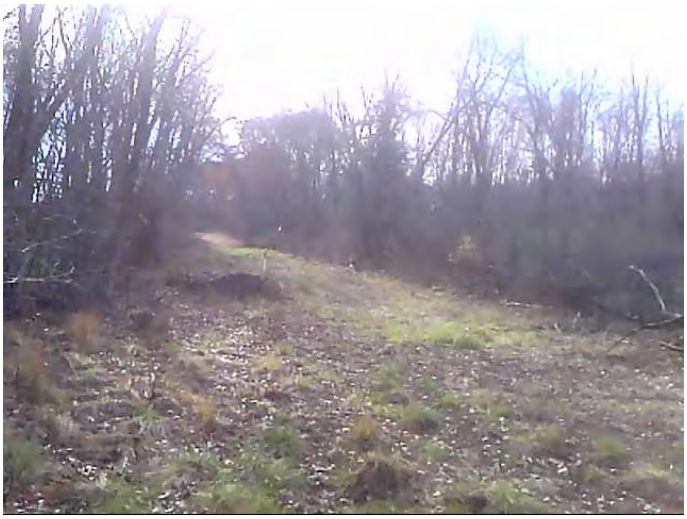
PHOTOS



SOUTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 38914.6	County: Hartford	Date: 11/13/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W006-PFO**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 126	Tract: 27876	

Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.843438 Long: -72.773171 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 3 to 8 percent slopes NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	40	YES	FAC
Total Cover:	40		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	10	YES	FACU
Ulmus rubra	5	NO	FAC
Cornus alba	20	YES	FACW
Total Cover:	35		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Phalaris arundinacea	20	YES	FACW
Epilobium coloratum	10	NO	OBL
Carex stricta	60	YES	OBL
Solidago rugosa	10	NO	FAC
Total Cover:	100		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	70	x 1 =	70
FACW Species:	40	x 2 =	80
FAC Species:	55	x 3 =	165
FACU Species:	10	x 4 =	40
UPL Species:	0	x 5 =	0
Column Totals:	175 (A)		355 (B)

Prevalence Index = B/A = 2.03

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	10YR 3/1	100					SILT LOAM	
3-12	10YR 4/1	90	7.5YR 4/6	10	C	M	CLAY LOAM	
12-20	5Y 5/1	90	10YR 5/8	10	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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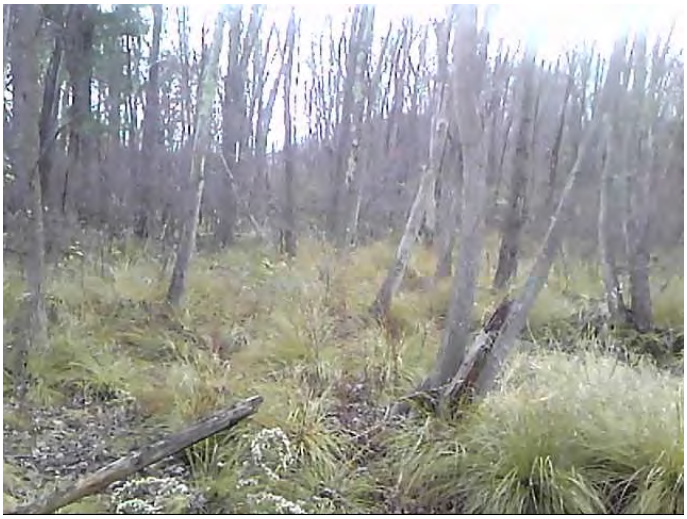
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 39245.8	County: Hartford	Date: 11/13/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W005-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 68	Tract: 27876	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.844138 Long: -72.772446 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: PSS1Ed

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus palustris	15	YES	FACW
Acer rubrum	30	YES	FAC
Total Cover:	45		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa nitida	10	NO	FACW
Alnus serrulata	30	YES	OBL
Cornus amomum	20	YES	FACW
Lonicera morrowii	20	YES	FACU
Total Cover:	80		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Bidens frondosa	15	YES	FACW
Persicaria sagittata	10	NO	OBL
Carex stricta	20	YES	OBL
Phalaris arundinacea	10	NO	FACW
Onoclea sensibilis	20	YES	FACW
Total Cover:	75		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
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: 88 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	60	x 1 =	60
FACW Species:	90	x 2 =	180
FAC Species:	30	x 3 =	90
FACU Species:	20	x 4 =	80
UPL Species:	0	x 5 =	0
Column Totals:	200 (A)		410 (B)

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	10YR2/1	100					SILT LOAM	
10-20	GLEY1 5/10Y	60	7.5YR3/4 5YR5/8 10YR6/8	20 10 10	C C C	M M M	FINE SAND	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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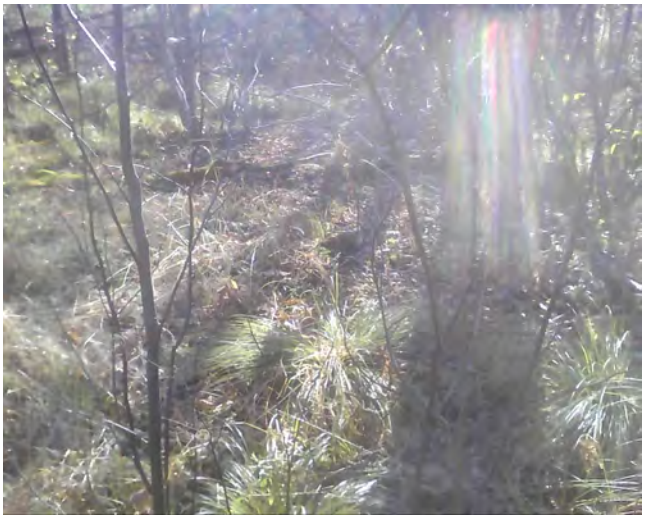
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 39435.5	County: Hartford	Date: 11/13/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W005-PEM**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 122	Tract: 27876	

Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.844602 Long: -72.772094 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: PSS1Ed

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: VEG MOWED IN ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Phalaris arundinacea	10	YES	FACW
Onoclea sensibilis	50	YES	FACW
Cornus alba	10	YES	FACW
Symplocarpus foetidus	10	YES	OBL
Carex sp	30	NA	NONE

Total Cover: 110

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	10	x 1 =	10
FACW Species:	70	x 2 =	140
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	80 (A)		150 (B)

Prevalence Index = B/A = 1.88

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	10YR 3/1	100					ORGANIC	
3-10	10YR 4/1	85	10YR 4/6 5YR 3/6	5 10	C C	M PL	FINE SANDY LOAM	
10-20	10YR 3/1	90	10YR 3/3	10	C	PL	LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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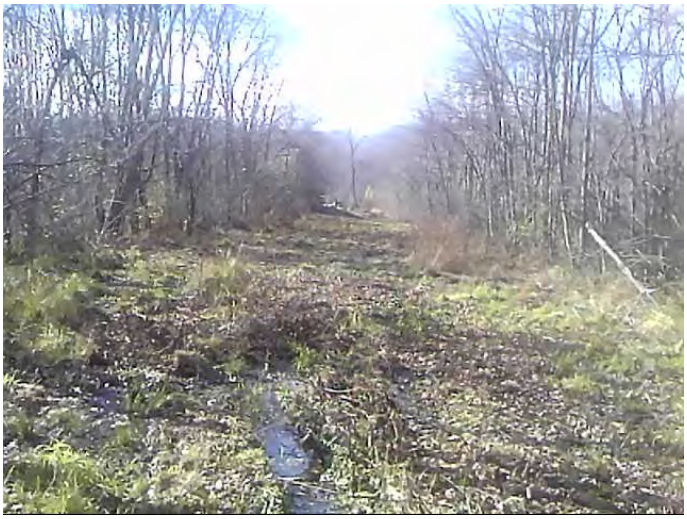
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 39137.4	County: Hartford	Date: 11/13/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W005-UPL**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 69	Tract: 27876	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.843814 Long: -72.772563 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	10	YES	FACU
Acer rubrum	20	YES	FAC
Total Cover:	30		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	10	YES	FACU
Elaeagnus angustifolia	10	YES	FACU
Lonicera morrowii	10	YES	FACU
Ligustrum vulgare	10	YES	FACU
Rubus fruticosus	15	YES	UPL
Total Cover:	55		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Plantago major	10	YES	FACU
Daucus carota	5	NO	UPL
Phleum pratense	20	YES	FACU
Euthamia graminifolia	10	YES	FAC
Total Cover:	45		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	0	x 2 =	0
FAC Species:	30	x 3 =	90
FACU Species:	80	x 4 =	320
UPL Species:	20	x 5 =	100
Column Totals:	130 (A)		510 (B)

Prevalence Index = B/A = 3.92

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-20	5YR4/6	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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PHOTOS

NW

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 40197.2	County: Hartford	Date: 11/12/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W004-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 60	Tract: 27917	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.844908 Long: -72.769135 Datum: NAD83

Soil Map Unit Name: Wilbraham and Menlo soils, extremely stony NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks: BERM FARM POND NORTH OF US

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☑ Yes	☐ No	Depth (inches):	0-1
Water Table Present?	☑ Yes	☐ No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Thuja occidentalis	5	NO	FACW
Acer rubrum	30	YES	FAC
Total Cover:	35		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Cornus amomum	20	YES	FACW
Lonicera morrowii	20	YES	FACU
Rosa multiflora	10	YES	FACU
Total Cover:	50		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Onoclea sensibilis	10	YES	FACW
Epilobium coloratum	5	NO	OBL
Carex stricta	20	YES	OBL
Total Cover:	35		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	25	x 1 =	25
FACW Species:	35	x 2 =	70
FAC Species:	30	x 3 =	90
FACU Species:	30	x 4 =	120
UPL Species:	0	x 5 =	0
Column Totals:	120 (A)		305 (B)

Prevalence Index = B/A = 2.54

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	10YR2/1	100					SILT LOAM	
8-18	GLAY1 5/10Y	60	7.5YR3/4 5YR5/8 10YR5/6	20 10 10	C C C	M M M	VERY FINE SAND	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

REFUSAL AT 18" DUE TO STONE

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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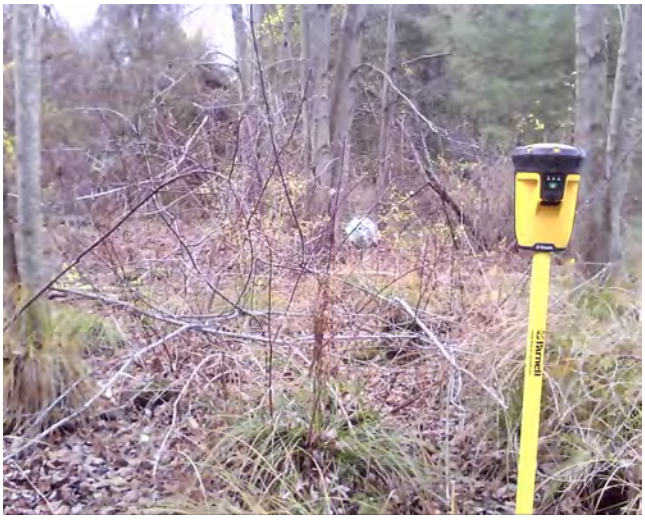
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 40297.2	County: Hartford	Date: 11/12/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W004-UPL**
Investigators: DF JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 59	Tract: 27962	

Landform (hillslope, terrace, etc.): HILLSLOPE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 20

Subregion (LRR): Middle Atlantic Lat: 41.845240 Long: -72.768567 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☐ No Depth (inches):

Water Table Present? ☐ Yes ☐ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☐ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Juniperus virginiana	30	YES	FACU
Total Cover:	30		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lonicera morrowii	20	YES	FACU
Ligustrum vulgare	10	NO	FACU
Berberis thunbergii	5	NO	FACU
Rubus fruticosus	30	YES	UPL
Total Cover:	65		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Plantago major	20	YES	FACU
Viola sororia	5	NO	FAC
Trifolium repens	10	YES	FACU
Total Cover:	35		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	5	x 2 =	10
FAC Species:	5	x 3 =	15
FACU Species:	95	x 4 =	380
UPL Species:	30	x 5 =	150
Column Totals:	135 (A)		555 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-5	10YR 4/4	100	10YR 6/8	20	C	M	SANDY LOAM	
5-15	7.5YR 5/6	100	10YR 6/8	20	C	M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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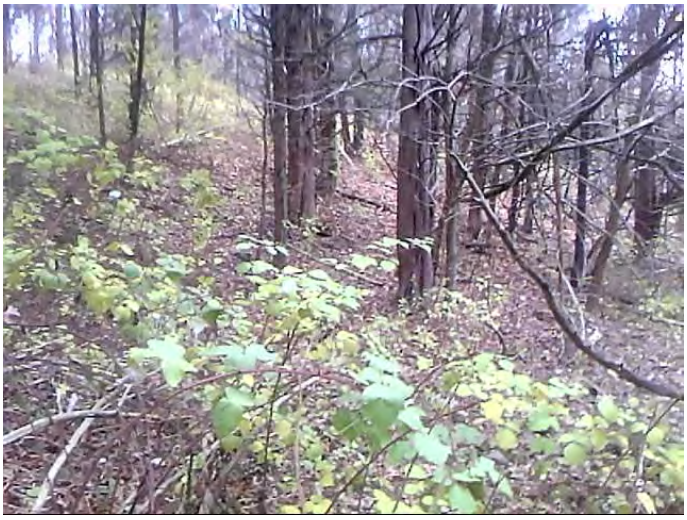
PHOTOS



SOUTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 42758.9	County: Hartford	Date: 11/12/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W002-PEM**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 112	Tract: 27983	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 1

Subregion (LRR): Middle Atlantic Lat: 41.852107 Long: -72.767831 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☐ No Depth (inches):

Water Table Present? ☐ Yes ☐ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☐ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Onoclea sensibilis	10	NO	FACW
Phalaris arundinacea	90	YES	FACW

Total Cover: 100

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	100	x 2 =	200
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-9	2.5Y 4/1	92	5YR 3/4	8	C	PL	SILT LOAM	
9-20	5YR 6/1	85	10YR 4/6	15	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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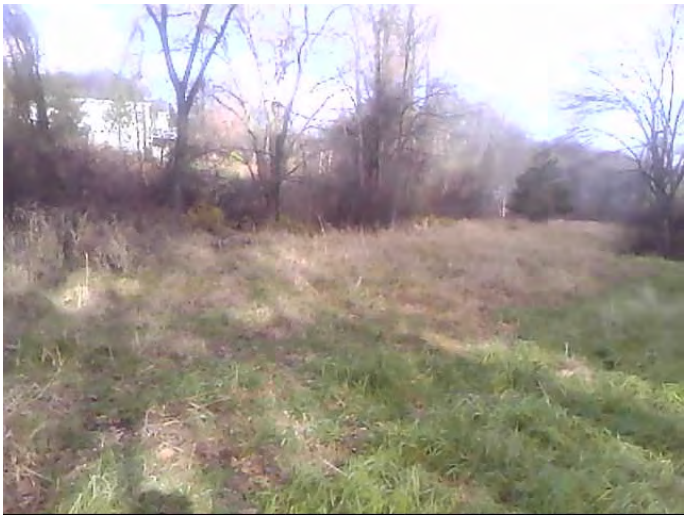
PHOTOS



NORTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 42501.4	County: Hartford	Date: 11/12/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W002-UPL**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 112	Tract: 27987	

Landform (hillslope, terrace, etc.): SIDESLOPE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.851388 Long: -72.767850 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☐ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☐ No Depth (inches):

Water Table Present? ☐ Yes ☐ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☐ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Carya ovata	10	NO	FACU
Prunus serotina	20	YES	FACU
Quercus rubra	20	YES	FACU
Fagus grandifolia	10	NO	FACU
Total Cover:	60		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Acer saccharum	10	YES	FACU
Fagus grandifolia	5	YES	FACU
Total Cover:	15		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	0	x 2 =	0
FAC Species:	0	x 3 =	0
FACU Species:	75	x 4 =	300
UPL Species:	0	x 5 =	0
Column Totals:	75 (A)		300 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-3	10YR 3/1	100					LOAM	
3-12	10YR 4/4	100					SILT LOAM	REFUSAL AT 12 INCHES DUE TO ROCKS

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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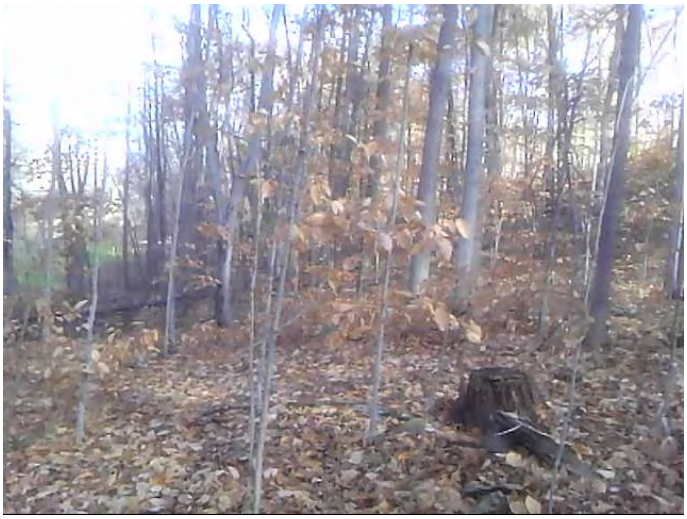
PHOTOS



NORTHEAST

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 44767.1	County: Hartford	Date: 11/10/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W001-PFO**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 94	Tract: 27753	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.856189 Long: -72.763084 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ Yes ☐ No

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	16
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	16

Wetland Hydrology Present? ☑ Yes ☐ No

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	30	YES	FAC
Quercus palustris	5	NO	FACW
Populus sp	5	NO	FACU
Ulmus rubra	10	YES	FAC
Total Cover:	50		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Alnus incana	5	NO	FACW
Rosa multiflora	20	YES	FACU
Lindera benzoin	20	YES	FACW
Lonicera morrowii	2	NO	FACU
Euonymus alatus	3	NO	UPL
Total Cover:	50		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Solidago gigantea	5	NO	FACW
Symplocarpus foetidus	10	YES	OBL
Carex sp	20	NA	NONE
Total Cover:	35		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	10	x 1 =	10
FACW Species:	35	x 2 =	70
FAC Species:	40	x 3 =	120
FACU Species:	27	x 4 =	108
UPL Species:	3	x 5 =	15
Column Totals:	115 (A)		323 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	7.5YR 2.5/1	92	7.5YR 3/4	8	C	PL	SILT LOAM	
10-16	5YR 4/3	90	7.5YR 4/6	10	C	M	SANDY CLAY LOAM	
16-20	5YR 4/3	85	5YR 3/4 2.5Y 5/2 10YR 5/8	10 3 2	C D C	M M M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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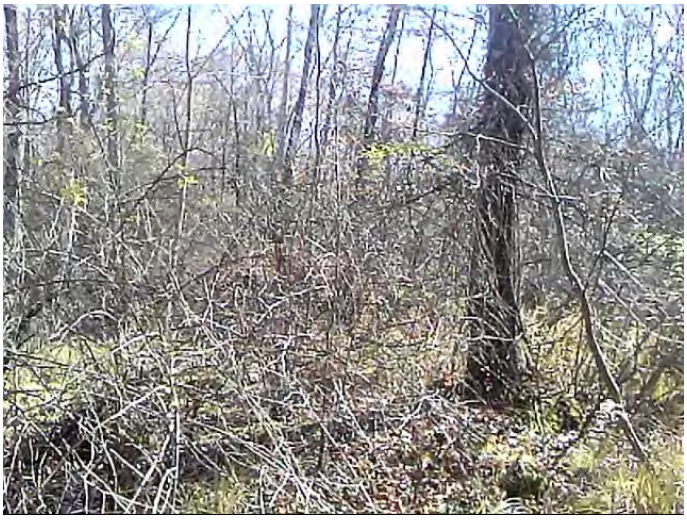
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 44788.5	County: Hartford	Date: 11/10/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W001-PEM**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 39	Tract: 27753	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.856376 Long: -72.763265 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: ROW MOWED

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☑ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus palustris	5	YES	FACW
Ostrya virginiana	1	NO	FACU
Total Cover:	6		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	5	YES	FACU
Total Cover:	5		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Onoclea sensibilis	30	YES	FACW
Carex stricta	30	YES	OBL
Phalaris arundinacea	20	YES	FACW
Total Cover:	80		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	30	x 1 =	30
FACW Species:	55	x 2 =	110
FAC Species:	0	x 3 =	0
FACU Species:	6	x 4 =	24
UPL Species:	0	x 5 =	0
Column Totals:	91 (A)		164 (B)

Prevalence Index = B/A = 1.80

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	10YR2/1	90	2.5YR3/6	10	C	PL	CLAY LOAM	
8-20	10YR4/6	80	10YR2/2 2.5YR3/6	15 5	C C	PL PL	SANDY CLAY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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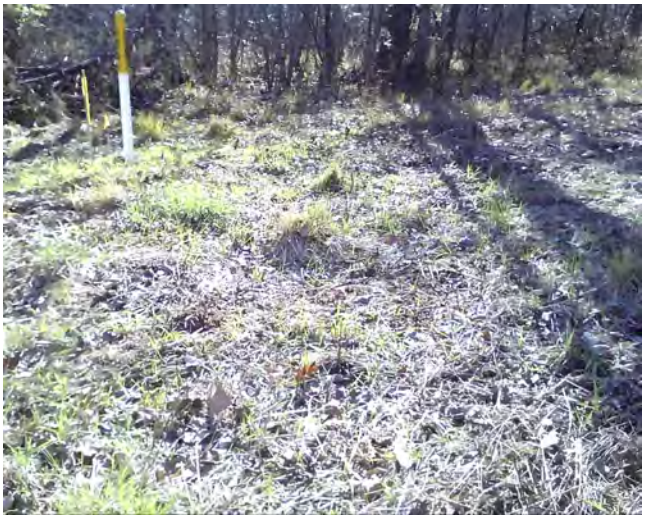
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 44510.4	County: Hartford	Date: 11/10/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-B-W001-UPL**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 94	Tract: 27753	

Landform (hillslope, terrace, etc.): Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 5

Subregion (LRR): Middle Atlantic Lat: 41.855812 Long: -72.763907 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 8 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☐ No Depth (inches):

Water Table Present? ☐ Yes ☐ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☐ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	5	YES	FACU
Populus sp	3	NO	FACU
Acer saccharum	10	YES	FACU
Prunus serotina	5	YES	FACU
Total Cover:	23		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Berberis thunbergii	10	YES	FACU
Total Cover:	10		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	0	x 2 =	0
FAC Species:	0	x 3 =	0
FACU Species:	33	x 4 =	132
UPL Species:	0	x 5 =	0
Column Totals:	33 (A)		132 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-14	7.5YR 3/3	100					FINE SANDY LOAM	
14-20	7.5YR 3/4	100					FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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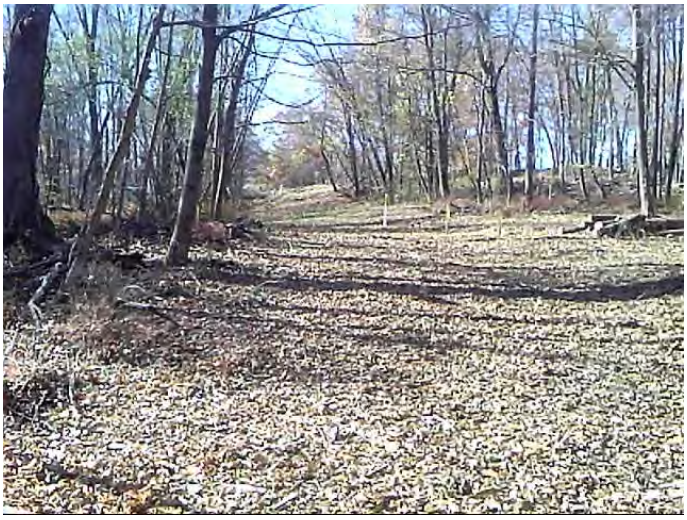
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 45759.4	County: Hartford	Date: 11/11/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W002-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 49	Tract: 27753	

Landform (hillslope, terrace, etc.): DEPRESSION, DRAINAGEWAY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.858625 Long: -72.761542 Datum: NAD83

Soil Map Unit Name: Scitico, Shaker, and Maybid soils NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	15
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	10	YES	FACU
Carpinus caroliniana	15	YES	FAC
Quercus palustris	20	YES	FACW
Ostrya virginiana	10	YES	FACU
Total Cover:	55		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lindera benzoin	20	YES	FACW
Lonicera morrowii	10	YES	FACU
Rosa multiflora	5	NO	FACU
Berberis thunbergii	10	YES	FACU
Total Cover:	45		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Carex stricta	25	YES	OBL
Onoclea sensibilis	10	YES	FACW
Total Cover:	35		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 56 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	25	x 1 =	25
FACW Species:	50	x 2 =	100
FAC Species:	15	x 3 =	45
FACU Species:	45	x 4 =	180
UPL Species:	0	x 5 =	0
Column Totals:	135 (A)		350 (B)

Prevalence Index = B/A = 2.59

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-1	7.5YR2.5/1	100					ORGANIC	
1-18	7.5YR2.5/3	70	2.5YR3/6 2.5YR6/8	20 10	D C	PL M	SILTY CLAY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

REFUSAL AT 18" DUE TO STONE

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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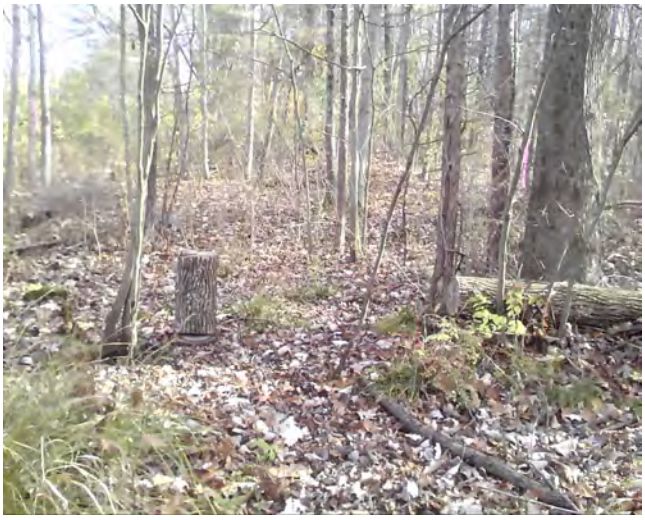
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 45954.3	County: Hartford	Date: 11/11/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W002-PEM**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 104	Tract: 27753	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.859146 Long: -72.761352 Datum: NAD83

Soil Map Unit Name: Scitico, Shaker, and Maybid soils NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: VEG MOWED IN ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Phalaris arundinacea	85	YES	FACW
Persicaria sagittata	2	NO	OBL
Cornus alba	3	NO	FACW
Phragmites australis	5	NO	FACW
Carex stricta	5	NO	OBL

Total Cover: 100

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	7	x 1 =	7
FACW Species:	93	x 2 =	186
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	100 (A)		193 (B)

Prevalence Index = B/A = 1.93

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-7	7.5YR 3/2	92	7.5YR 3/4	8	C	PL	SILT LOAM	
7-20	5YR 4/2	90	7.5YR 4/6	10	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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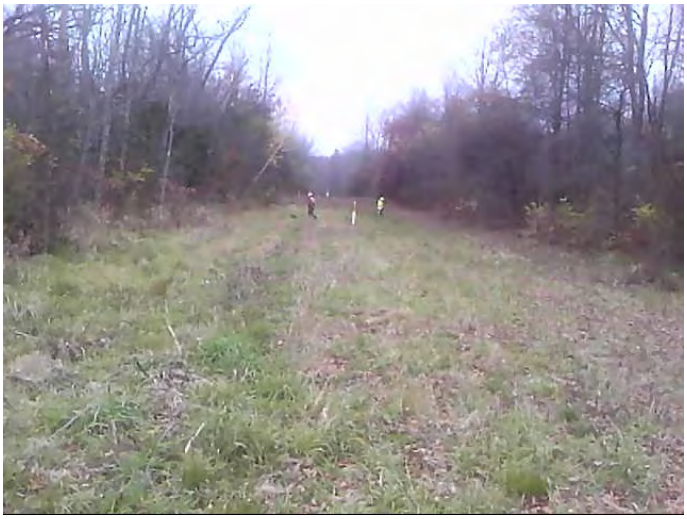
PHOTOS



SOUTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 45667.4	County: Hartford	Date: 11/11/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W002-UPL**
Investigators: RW JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-2	Logbook Pg.: 104	Tract: 27753	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 3

Subregion (LRR): Middle Atlantic Lat: 41.858450 Long: -72.761845 Datum: NAD83

Soil Map Unit Name: Manchester gravelly sandy loam, 3 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks: VEG MOWED IN ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Galium mollugo	30	YES	FACU
Phleum pratense	60	YES	FACU
Rosa multiflora	10	NO	FACU

Total Cover: 100

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	0	x 2 =	0
FAC Species:	0	x 3 =	0
FACU Species:	100	x 4 =	400
UPL Species:	30	x 5 =	150
Column Totals:	130 (A)		550 (B)

Prevalence Index = B/A = 4.23

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	7.5YR 3/2	100					SILT LOAM	
8-20	7.5YR 4/6	100					SILT LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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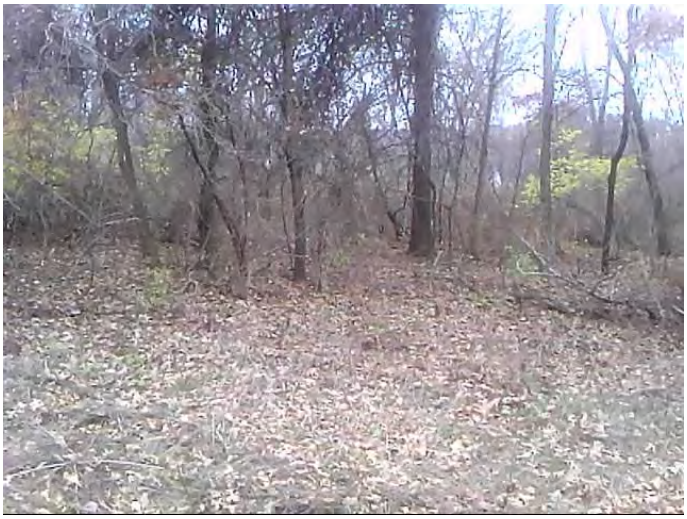
PHOTOS



NW

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 49794.4	County: Hartford	Date: 11/15/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W001-PFO**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 83	Tract: 27959	

Landform (hillslope, terrace, etc.): VALLEY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.868916 Long: -72.756061 Datum: NAD83

Soil Map Unit Name: Scitico, Shaker, and Maybid soils NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☑ Yes ☐ No	Depth (inches):	1-3
Water Table Present?	☑ Yes ☐ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☑ Yes ☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Ostrya virginiana	15	YES	FACU
Fagus grandifolia	15	YES	FACU
Tsuga canadensis	5	NO	FACU
Pinus strobus	10	NO	FACU
Acer rubrum	25	YES	FAC
Total Cover:	70		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lindera benzoin	30	YES	FACW
Total Cover:	30		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Carex comosa	10	YES	OBL
Sphagnum sp	25	NA	NONE
Phalaris arundinacea	10	YES	FACW
Carex lupulina	20	YES	OBL
Onoclea sensibilis	20	YES	FACW
Total Cover:	85		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	30	x 1 =	30
FACW Species:	60	x 2 =	120
FAC Species:	25	x 3 =	75
FACU Species:	45	x 4 =	180
UPL Species:	0	x 5 =	0
Column Totals:	160 (A)		405 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	5YR2.5/1	100					SILT LOAM	
6-20	G;EY2 6/10BG	80	10YR6/8	20	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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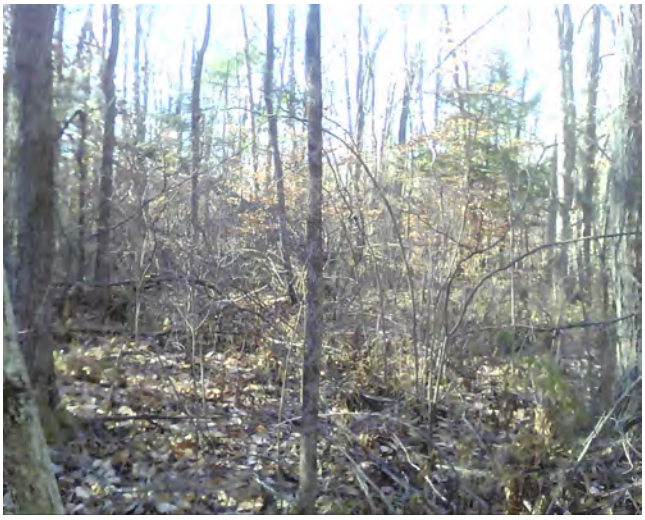
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 50508.2	County: Hartford	Date: 11/15/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W001-PEM**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 84	Tract: 28006	

Landform (hillslope, terrace, etc.): MEADOW Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.870702 Long: -72.754995 Datum: NAD83

Soil Map Unit Name: Scitico, Shaker, and Maybid soils NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks: MOWED FIELD

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Alnus serrulata	10	YES	OBL
Total Cover:	10		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Persicaria sagittata	10	NO	OBL
Phalaris arundinacea	80	NO	FACW
Typha angustifolia	20	YES	OBL
Total Cover:	110		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	40	x 1 =	40
FACW Species:	80	x 2 =	160
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	120 (A)		200 (B)

Prevalence Index = B/A = 1.67

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	5YR3/2	90	2.5YR3/6	10	D	PL	SILT LOAM	
8-10	2.5YR4/2	90	2.5YR3/6	10	D	PL	SANDY LOAM	
10-20	10YR6/4	50	10YR5/6	20	C	M	SAND	
10-20	2.5YR4/3	20	2.5YR3/6	10	C	M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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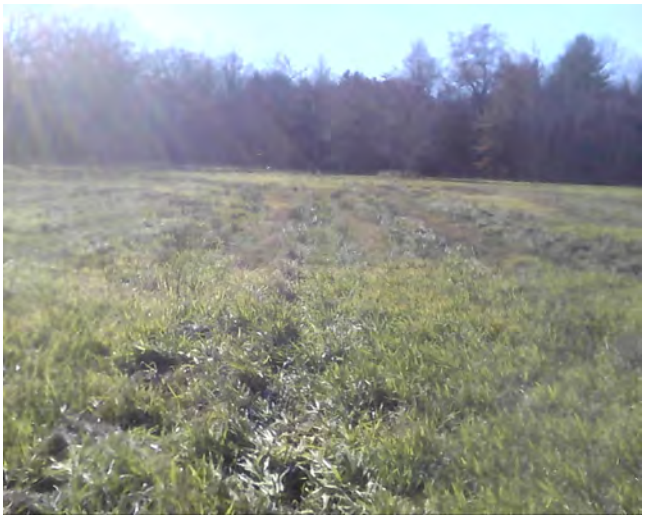
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 46104.7	County: Hartford	Date: 11/10/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W001-UPL**
Investigators: AF CV	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 41	Tract: 28776	

Landform (hillslope, terrace, etc.): ROADSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 5

Subregion (LRR): Middle Atlantic Lat: 41.859605 Long: -72.761359 Datum: NAD83

Soil Map Unit Name: Manchester gravelly sandy loam, 3 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	1	NO	FACU
Juniperus virginiana	20	YES	FACU
Total Cover:	21		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	25	YES	FACU
Lonicera morrowii	2	NO	FACU
Total Cover:	27		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Trifolium pratense	20	YES	FACU
Euthamia graminifolia	5	NO	FAC
Plantago major	10	YES	FACU
Phalaris arundinacea	5	NO	FACW
Daucus carota	5	NO	FACU
Total Cover:	45		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	5	x 2 =	10
FAC Species:	5	x 3 =	15
FACU Species:	83	x 4 =	332
UPL Species:	0	x 5 =	0
Column Totals:	93 (A)		357 (B)

Prevalence Index = B/A = 3.84

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	5YR3/4	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

REFUSAL AT 12" DUE TO STONE

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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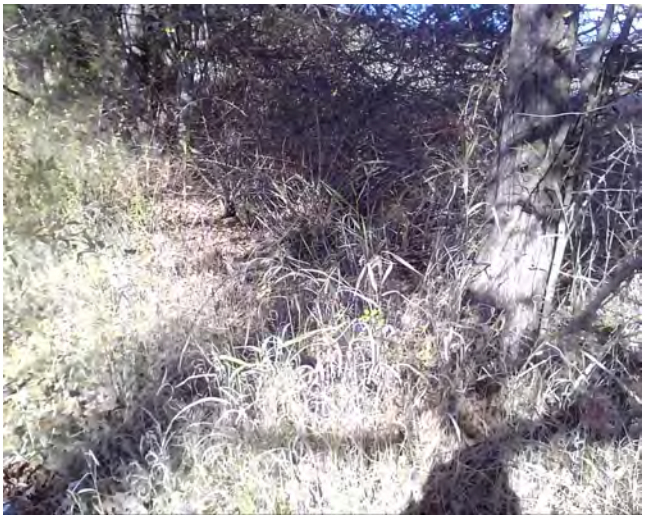
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 53008.9	County: Hartford	Date: 11/18/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W005-PFO**
Investigators: AF CV	Quad Name: Tariffville	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 106	Tract: 27955	

Landform (hillslope, terrace, etc.): DRAINAGEWAY Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 5

Subregion (LRR): Middle Atlantic Lat: 41.877132 Long: -72.752061 Datum: NAD83

Soil Map Unit Name: Cheshire fine sandy loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ Yes ☐ No

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 6

Wetland Hydrology Present? ☑ Yes ☐ No

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus palustris	15	YES	FACW
Fraxinus pennsylvanica	10	NO	FACW
Acer rubrum	20	YES	FAC
Carpinus caroliniana	10	NO	FAC
Total Cover:	55		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	15	YES	FACU
Lindera benzoin	30	YES	FACW
Total Cover:	45		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Sphagnum sp	10	NA	NONE
Total Cover:	10		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	55	x 2 =	110
FAC Species:	30	x 3 =	90
FACU Species:	15	x 4 =	60
UPL Species:	0	x 5 =	0
Column Totals:	100 (A)		260 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	7.5YR3/2	90	10YR6/8	10	C	M	SILT LOAM	
8-20	7.5YR4/4	80	10YR6/8 2.5YR3/6	10 10	C D	M PL	SILT LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 53013.9	County: Hartford	Date: 11/18/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-P-W005-UPL**
Investigators: AF CV	Quad Name: Tariffville	Township: Bloomfield	
Logbook No.: 2014P2	Logbook Pg.: 105	Tract: 27955	

Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.877108 Long: -72.751866 Datum: NAD83

Soil Map Unit Name: Cheshire fine sandy loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Fagus grandifolia	20	YES	FACU
Acer saccharum	5	NO	FACU
Quercus rubra	20	YES	FACU
Pinus strobus	1	NO	FACU
Total Cover:	46		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Pinus strobus	25	YES	FACU
Fagus grandifolia	20	YES	FACU
Lindera benzoin	5	NO	FACW
Total Cover:	50		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	5	x 2 =	10
FAC Species:	0	x 3 =	0
FACU Species:	91	x 4 =	364
UPL Species:	0	x 5 =	0
Column Totals:	96 (A)		374 (B)

Prevalence Index = B/A = 3.90

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR2/1	100					ORGANIC	
4-8	10YR4/4	100					SANDY LOAM	
8-20	10YR4/6	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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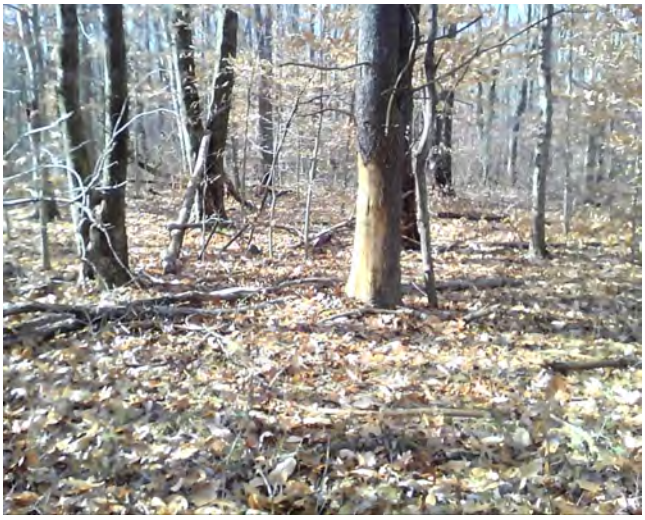
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 57789.2	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W006-PFO**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Bloomfield	
Logbook No.: 2015-2	Logbook Pg.: 13	Tract: 27942	

Landform (hillslope, terrace, etc.): Depression Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.887466 Long: -72.742106 Datum: NAD83

Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	90	YES	FAC
Total Cover:	90		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	5	NO	FACU
Prunus serotina	10	NO	FACU
Viburnum dentatum	5	NO	FAC
Lindera benzoin	65	YES	FACW
Total Cover:	85		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Impatiens capensis	5	NO	FACW
Onoclea sensibilis	15	YES	FACW
Toxicodendron radicans	15	YES	FAC
Total Cover:	35		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	85	x 2 =	170
FAC Species:	110	x 3 =	330
FACU Species:	15	x 4 =	60
UPL Species:	0	x 5 =	0
Column Totals:	210 (A)		560 (B)

Prevalence Index = B/A = 2.67

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	7.5YR 3/2	100					FINE SANDY LOAM	
8-20	7.5YR 5/3	93	7.5YR 3/2 7.5YR 5/6	2 5	D C	M M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☑ Yes ☐ No ☐ Unknown

General Comments:

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PHOTOS

NORTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 57746.4	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W006-PEM**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Bloomfield	
Logbook No.: 2015-2	Logbook Pg.: 12	Tract: 27942	

Landform (hillslope, terrace, etc.): Flat Local Relief: ☐ Concave ☐ Convex ☑ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.887409 Long: -72.742245 Datum: NAD83

Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	10	YES	FAC
Total Cover:	10		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Euthamia graminifolia	20	YES	FAC
Carex lurida	10	NO	OBL
Eutrochium purpureum	45	YES	FAC
Impatiens capensis	15	NO	FACW
Eupatorium pilosum	10	NO	FACW

Total Cover: 100

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	10	x 1 =	10
FACW Species:	25	x 2 =	50
FAC Species:	75	x 3 =	225
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	110 (A)		285 (B)

Prevalence Index = B/A = 2.59

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	7.5YR 3/2	100					FINE SANDY LOAM	
12-20	7.5YR 4/2	95	5YR 4/4	5	C	M	FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☑ Yes ☐ No ☐ Unknown

General Comments:

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PHOTOS

NORTH

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 57923.6	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W006-UPL**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Bloomfield	
Logbook No.: 2015-2	Logbook Pg.: 10	Tract: 27942	

Landform (hillslope, terrace, etc.): Flat Local Relief: ☐ Concave ☐ Convex ☑ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.887727 Long: -72.741749 Datum: NAD83

Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	50	YES	FAC
Total Cover:	50		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	10	NO	FAC
Lindera benzoin	45	YES	FACW
Total Cover:	55		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Impatiens capensis	15	YES	FACW
Lindera benzoin	10	YES	FACW
Onoclea sensibilis	15	YES	FACW
Total Cover:	40		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	85	x 2 =	170
FAC Species:	60	x 3 =	180
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	145 (A)		350 (B)

Prevalence Index = B/A = 2.41

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	7.5YR 3/2	100					FINE SANDY LOAM	
8-20	7.5YR 5/4	97	5YR 4/4	3	C	M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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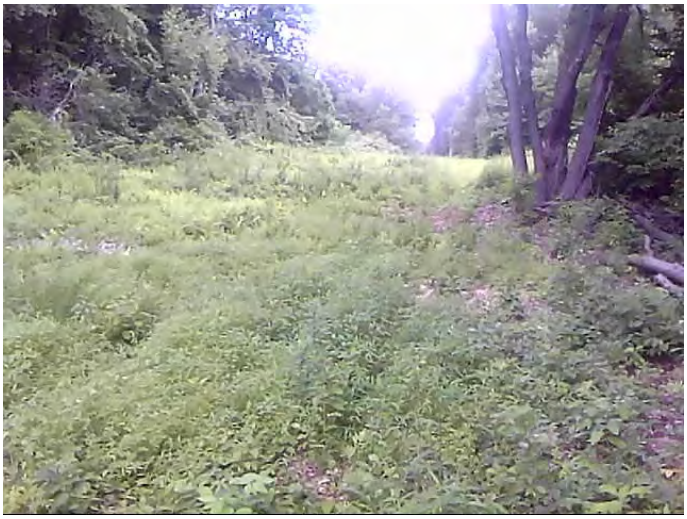
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 58544.5	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W007-PEM**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Bloomfield	
Logbook No.: 2015-2	Logbook Pg.: 8	Tract: 27942	

Landform (hillslope, terrace, etc.): Depression Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 1

Subregion (LRR): Middle Atlantic Lat: 41.888733 Long: -72.739915 Datum: NAD83

Soil Map Unit Name: Windsor loamy sand, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Viburnum dentatum	5	YES	FAC
Total Cover:	5		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Symplocarpus foetidus	75	YES	OBL
Impatiens capensis	25	YES	FACW
Scirpus cyperinus	1	NO	OBL
Onoclea sensibilis	5	NO	FACW
Total Cover:	106		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	76	x 1 =	76
FACW Species:	30	x 2 =	60
FAC Species:	5	x 3 =	15
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	111 (A)		151 (B)

Prevalence Index = B/A = 1.36

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	7.5YR 2.5/1	100					FINE SANDY LOAM	
2-4	7.5YR 4/1	100					SANDY LOAM	
4-20	7.5YR 4/2	95	5YR 4/4	5	C	M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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PHOTOS

EAST

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 58473.0	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W007-UPL**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Bloomfield	
Logbook No.: 2015-2	Logbook Pg.: 9	Tract: 27942	

Landform (hillslope, terrace, etc.): Flat Local Relief: ☐ Concave ☐ Convex ☑ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.888638 Long: -72.740140 Datum: NAD83

Soil Map Unit Name: Windsor loamy sand, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Onoclea sensibilis	10	NO	FACW
Toxicodendron radicans	15	NO	FAC
Impatiens capensis	5	NO	FACW
Prunus serotina	1	NO	FACU
Geum canadense	10	NO	FAC
Phalaris arundinacea	50	YES	FACW

Total Cover: 91

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	65	x 2 =	130
FAC Species:	25	x 3 =	75
FACU Species:	1	x 4 =	4
UPL Species:	0	x 5 =	0
Column Totals:	91 (A)		209 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-10	7.5YR 3/2	100					FINE SANDY LOAM	
10-20	7.5YR 5/6	100					FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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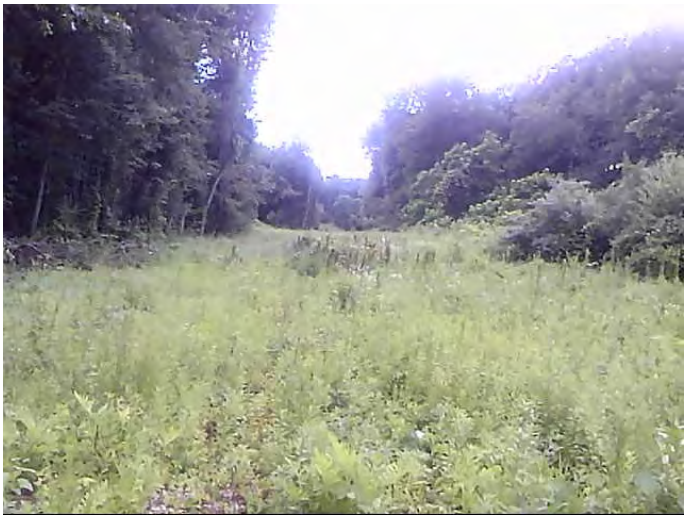
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 59582.4	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W003-PFO**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2015-2	Logbook Pg.: 4	Tract: 27866	

Landform (hillslope, terrace, etc.): Depression Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 1

Subregion (LRR): Middle Atlantic Lat: 41.888665 Long: -72.736669 Datum: NAD83

Soil Map Unit Name: Saco silt loam NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	8
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	30	YES	FACU
Acer rubrum	15	YES	FAC
Total Cover:	45		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	10	NO	FACU
Lindera benzoin	50	YES	FACW
Hamamelis virginiana	10	NO	FACU
Alnus incana	30	YES	FACW
Total Cover:	100		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Symplocarpus foetidus	80	YES	OBL
Impatiens capensis	10	NO	FACW
Total Cover:	90		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	80	x 1 =	80
FACW Species:	90	x 2 =	180
FAC Species:	15	x 3 =	45
FACU Species:	50	x 4 =	200
UPL Species:	0	x 5 =	0
Column Totals:	235 (A)		505 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-20	7.5YR 2.5/1	100					ORGANIC	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☑ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 59660.6	County: Hartford	Date: 07/24/2015
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W003-UPL**
Investigators: JM JW	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2015-2	Logbook Pg.: 5	Tract: 27866	

Landform (hillslope, terrace, etc.): Slope - mid Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 3

Subregion (LRR): Middle Atlantic Lat: 41.888871 Long: -72.736584 Datum: NAD83

Soil Map Unit Name: Saco silt loam NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus alba	10	NO	FACU
Acer saccharum	20	YES	FACU
Carya glabra	30	YES	FACU
Total Cover:	60		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Alnus incana	20	YES	FACW
Total Cover:	20		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Parthenocissus quinquefolia	5	NO	FACU
Berberis thunbergii	5	NO	FACU
Polystichum acrostichoides	80	YES	FACU
Total Cover:	90		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	20	x 2 =	40
FAC Species:	0	x 3 =	0
FACU Species:	150	x 4 =	600
UPL Species:	0	x 5 =	0
Column Totals:	170 (A)		640 (B)

Prevalence Index = B/A = 3.76

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	7.5YR 3/2	100					FINE SANDY LOAM	
6-20	7.5YR 5/6	100					FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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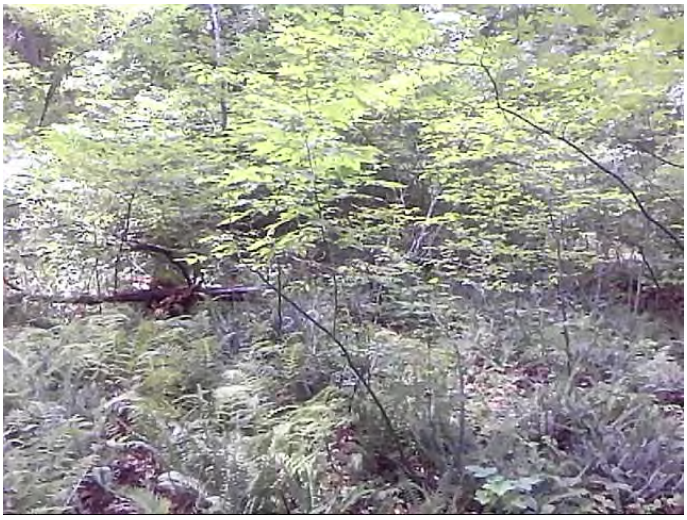
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 60426.8	County: Hartford	Date: 11/20/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W002-PFO**
Investigators: AF CV	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2014P2	Logbook Pg.: 124	Tract: 27865	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.891002 Long: -72.736206 Datum: NAD83

Soil Map Unit Name: Merrimac sandy loam, 3 to 8 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ Yes ☐ No

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ Yes ☐ No

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	20	YES	FAC
Fraxinus americana	10	YES	FACU
Quercus rubra	15	YES	FACU
Total Cover:	45		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lindera benzoin	30	YES	FACW
Cornus amomum	20	YES	FACW
Total Cover:	50		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Equisetum hyemale	20	YES	FAC
Onoclea sensibilis	20	YES	FACW
Total Cover:	40		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Vitis labruscana	1	NO	FACU
Total Cover:	1		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	70	x 2 =	140
FAC Species:	40	x 3 =	120
FACU Species:	26	x 4 =	104
UPL Species:	0	x 5 =	0
Column Totals:	136 (A)		364 (B)

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	7.5YR2.5/1	100					SILT LOAM	
6-20	7.5YR4/6	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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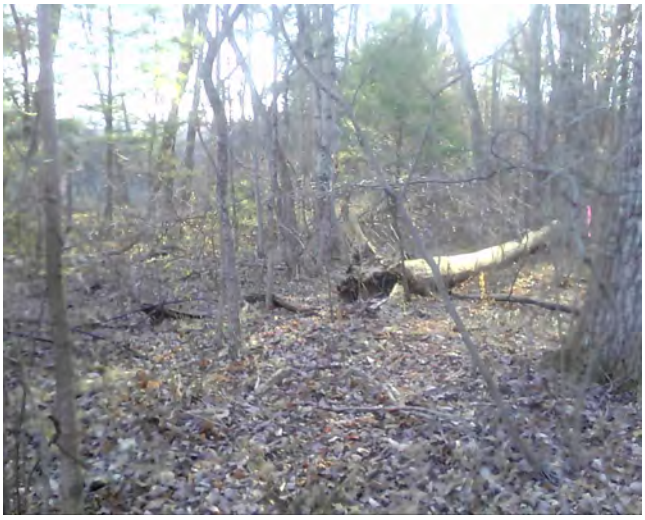

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 60327.1	County: Hartford	Date: 11/20/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-N-W002-UPL**
Investigators: AF CV	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2014P2	Logbook Pg.: 125	Tract: 27865	

Landform (hillslope, terrace, etc.): RIPARIAN DRAINAGE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.890745 Long: -72.736329 Datum: NAD83

Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Betula populifolia	10	YES	FAC
Betula papyrifera	1	NO	FACU
Pinus strobus	20	YES	FACU
Quercus alba	10	NO	FACU
Tsuga canadensis	15	NO	FACU
Quercus rubra	15	YES	FACU
Total Cover:	71		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Pinus strobus	25	YES	FACU
Lindera benzoin	5	NO	FACW
Total Cover:	30		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Dendrolycopodium dendroideum	20	YES	FACU
Total Cover:	20		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	5	x 2 =	10
FAC Species:	10	x 3 =	30
FACU Species:	106	x 4 =	424
UPL Species:	0	x 5 =	0
Column Totals:	121 (A)		464 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	7.5YR3/2	100					SILT LOAM	
6-20	7YR4/6	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low

Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 73669.4	County: Hartford	Date: 11/21/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **WI-P-W001-PEM**
Investigators: AF CV	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2014P2	Logbook Pg.: 137	Tract: 27835	

Landform (hillslope, terrace, etc.): DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.924982 Long: -72.720474 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 8 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	0
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Lythrum salicaria	10	NO	OBL
Carex stricta	20	YES	OBL
Eupatorium perfoliatum	15	NO	FACW
Phalaris arundinacea	10	NO	FACW
Epilobium coloratum	10	NO	OBL
Juncus dudleyi	20	YES	FACW
Juncus effusus	30	YES	OBL
Scirpus cyperinus	20	YES	OBL
Carex lupulina	25	YES	OBL
Total Cover:	160		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	115	x 1 =	115
FACW Species:	45	x 2 =	90
FAC Species:	0	x 3 =	0
FACU Species:	0	x 4 =	0
UPL Species:	0	x 5 =	0
Column Totals:	160 (A)		205 (B)

Prevalence Index = B/A = 1.28

Hydrophytic Vegetation Indicators:

- ☑ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-16	7.5YR 4/2	80	10YR 6/8 2.5YR 4/6	10 10	C D	M PL	LOAM	LOAM FILL

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

REFUSAL AT16" DUE TO STONE

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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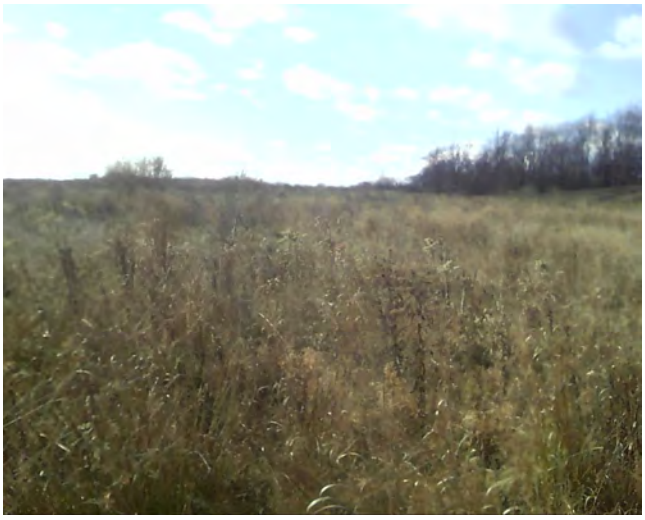
PHOTOS



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Providence, RI 02904

WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 73505.4	County: Hartford	Date: 11/21/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **WI-P-W001-UPL**
Investigators: AF CV	Quad Name: Windsor Locks	Township: Windsor	
Logbook No.: 2014P2	Logbook Pg.: 138	Tract: 27835	

Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.924532 Long: -72.720559 Datum: NAD83

Soil Map Unit Name: Broadbrook silt loam, 8 to 15 percent slopes NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status

Total Cover:

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Rosa multiflora	10	YES	FACU
Elaeagnus angustifolia	20	YES	FACU
Total Cover:	30		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Phalaris arundinacea	20	YES	FACW
Daucus carota	5	NO	UPL
Schizachyrium scoparium	25	YES	FACU
Fragaria vesca	10	NO	UPL
Euthamia graminifolia	25	YES	FAC
Total Cover:	85		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	10	x 1 =	10
FACW Species:	20	x 2 =	40
FAC Species:	25	x 3 =	75
FACU Species:	55	x 4 =	220
UPL Species:	15	x 5 =	75
Column Totals:	125 (A)		420 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-12	7.5YR 4/2	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

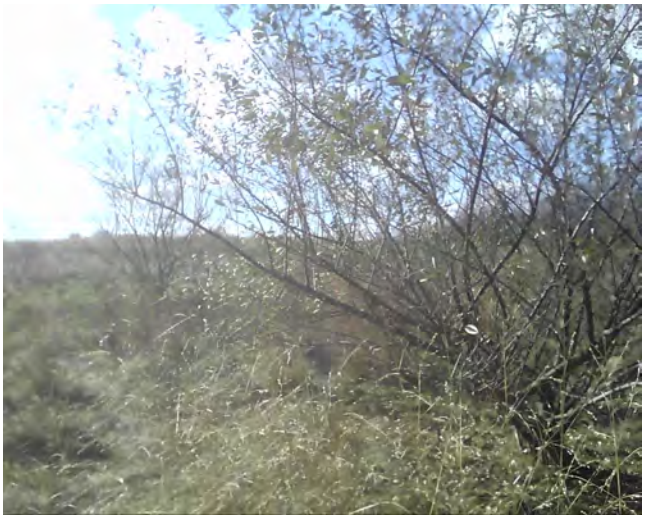
REFUSAL AT 12" DUE TO STONE

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

PHOTOS



SW

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 75290.3	County: Hartford	Date: 11/20/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **EG-P-W001-PFO**
Investigators: A FCV	Quad Name: Windsor Locks	Township: East Granby	
Logbook No.: 2014P2	Logbook Pg.: 132	Tract: 27778	

Landform (hillslope, terrace, etc.): DRAINAGE\DEPRESSION Local Relief: ☑ Concave ☐ Convex ☐ None Slope%.: 0

Subregion (LRR): Middle Atlantic Lat: 41.928848 Long: -72.717247 Datum: NAD83

Soil Map Unit Name: Raypol silt loam NWI Classification: PFO1E

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PFO

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☑ Yes ☐ No Depth (inches): 0

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus alba	20	YES	FACU
Fraxinus americana	25	YES	FACU
Betula populifolia	25	YES	FAC
Quercus palustris	20	YES	FACW
Total Cover:	90		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Lindera benzoin	25	YES	FACW
Total Cover:	25		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Sphagnium sp	20	NA	NONE
Total Cover:	20		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	45	x 2 =	90
FAC Species:	25	x 3 =	75
FACU Species:	45	x 4 =	180
UPL Species:	0	x 5 =	0
Column Totals:	115 (A)		345 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is > 50%
- ☑ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR2/1	100					SANDY LOAM	
4-16	7.5YR4/1	80	10YR5/8	20	C	M	SANDY LOAM	
16-20	7.5YR4/1	70	10YR5/8 2.5YR4/6	15 15	C C	M M	SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☑ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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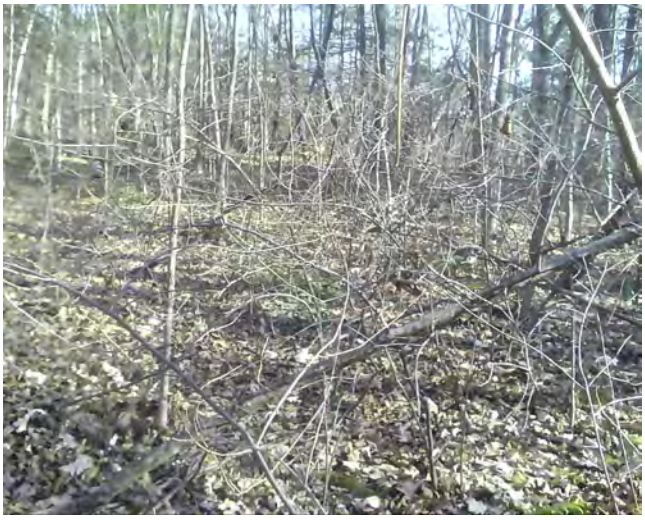
PHOTOS



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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 75343.4	County: Hartford	Date: 11/20/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **EG-P-W001-UPL**
Investigators: AF CV	Quad Name: Windsor Locks	Township: East Granby	
Logbook No.: 2014P2	Logbook Pg.: 133	Tract: 27778	

Landform (hillslope, terrace, etc.): HILLSIDE DRAUNAGE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10

Subregion (LRR): Middle Atlantic Lat: 41.928907 Long: -72.717020 Datum: NAD83

Soil Map Unit Name: Raypol silt loam NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☐ Yes ☑ No

Hydric Soil Present? ☐ Yes ☑ No

Wetland Hydrology Present? ☐ Yes ☑ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☑ **No**

Field Wetland Classification: UPLAND PLOT

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present? ☐ Yes ☑ No Depth (inches):

Water Table Present? ☐ Yes ☑ No Depth (inches):

Saturation Present? (includes capillary fringe) ☐ Yes ☑ No Depth (inches):

Wetland Hydrology Present? ☐ **Yes** ☑ **No**

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

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VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Quercus alba	1	NO	FACU
Acer rubrum	1	YES	FAC
Betula populifolia	30	YES	FAC
Liriodendron tulipifera	1	NO	FACU
Tsuga canadensis	20	YES	FACU
Acer saccharinum	10	NO	FACW
Total Cover:	63		

Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Polystichum acrostichoides	25	YES	FACU
Total Cover:	25		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Vitis labruscana	1	NO	FACU
Total Cover:	1		

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	0	x 1 =	0
FACW Species:	10	x 2 =	20
FAC Species:	31	x 3 =	93
FACU Species:	48	x 4 =	192
UPL Species:	0	x 5 =	0
Column Totals:	89 (A)		305 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☐ **Yes** ☑ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	7.5YR4/2	100					SANDY LOAM	
8-18	7.5YR4/6	100					SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☐ **Yes** ☑ **No**

Remarks:

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown

General Comments:

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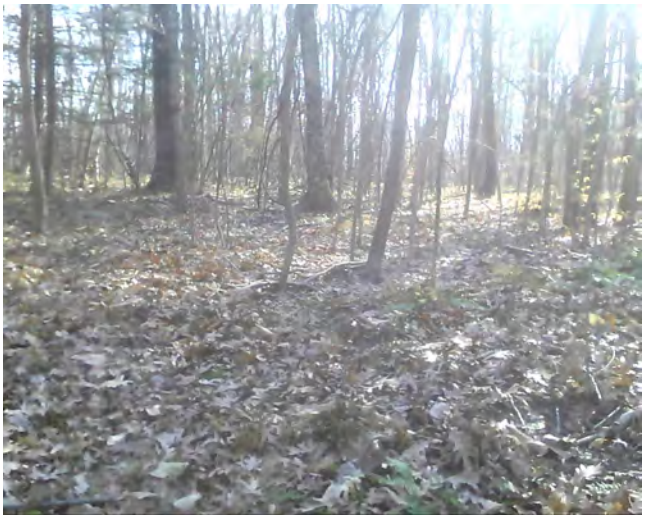
PHOTOS



SW

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WETLAND DETERMINATION FORM - Northcentral and Northeast Region

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Project/Site: NED	Milepost: 39184.0	County: Hartford	Date: 11/18/2014
Applicant/Owner: Kinder Morgan		State: CT	Sampling Point: **BL-O-W004-PEM**
Investigators: TP JW	Quad Name: Avon	Township: Bloomfield	
Logbook No.: 2014-1	Logbook Pg.: 142	Tract: 27876	

Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 3

Subregion (LRR): Middle Atlantic Lat: 41.843737 Long: -72.772199 Datum: NAD83

Soil Map Unit Name: Wilbraham silt loam NWI Classification: Not mapped

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

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No

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

Hydrophytic Vegetation Present? ☑ Yes ☐ No

Hydric Soil Present? ☑ Yes ☐ No

Wetland Hydrology Present? ☑ Yes ☐ No

Is the Sampled Area within a Wetland? ☑ **Yes** ☐ **No**

Field Wetland Classification: PEM

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ 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)

Field Observations:

Surface Water Present?	☐ Yes	☑ No	Depth (inches):	
Water Table Present?	☑ Yes	☐ No	Depth (inches):	18
Saturation Present? (includes capillary fringe)	☑ Yes	☐ No	Depth (inches):	8

Wetland Hydrology Present? ☑ **Yes** ☐ **No**

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

VEGETATION

Tree Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Acer saccharinum	15	YES	FACW
Total Cover:	15		

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Sapling/Shrub Stratum

Plot Size: 15

Scientific Name	% Cover	Dominant	Indicator Status
Alnus incana	2	NO	FACW
Elaeagnus angustifolia	10	YES	FACU
Total Cover:	12		

Herb Stratum

Plot Size: 5

Scientific Name	% Cover	Dominant	Indicator Status
Trifolium repens	15	YES	FACU
Juncus effusus	5	NO	OBL
Taraxacum officinale	10	YES	FACU
Glechoma hederacea	8	NO	FACU
Phalaris canariensis	15	YES	FACU
Festuca rubra	10	YES	FACU
Solidago rugosa	5	NO	FAC
Total Cover:	68		

Woody Vine Stratum

Plot Size: 30

Scientific Name	% Cover	Dominant	Indicator Status
Total Cover:			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 17 (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL Species:	5	x 1 =	5
FACW Species:	17	x 2 =	34
FAC Species:	5	x 3 =	15
FACU Species:	68	x 4 =	272
UPL Species:	0	x 5 =	0
Column Totals:	95 (A)		326 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is > 50%
- ☐ 3 - Prevalence Index is ≤ 3.0
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? ☑ **Yes** ☐ **No**

Remarks:

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SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-14	7.5YR 3/3	100					LOAM	
14-30	10YR 2/2	100					SILT LOAM	
30-35	10YR 6/2	95	5YR 4/6	5	C	M	VERY FINE SANDY LOAM	

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

Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)

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

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)

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

Restrictive Layer Present? ☐ Yes ☑ No ☐ Unknown

Hydric Soil Present? ☑ **Yes** ☐ **No**

Remarks:

PROBLEMATIC SOIL, DEEP MUCKY FILL SOIL

Description of Habitat Characteristics, Aquatic Diversity or General Comments:

Wetland Quality: ☐ High ☐ Moderate ☑ Low

Isolated Wetland? ☐ Yes ☑ No ☐ Unknown

General Comments:

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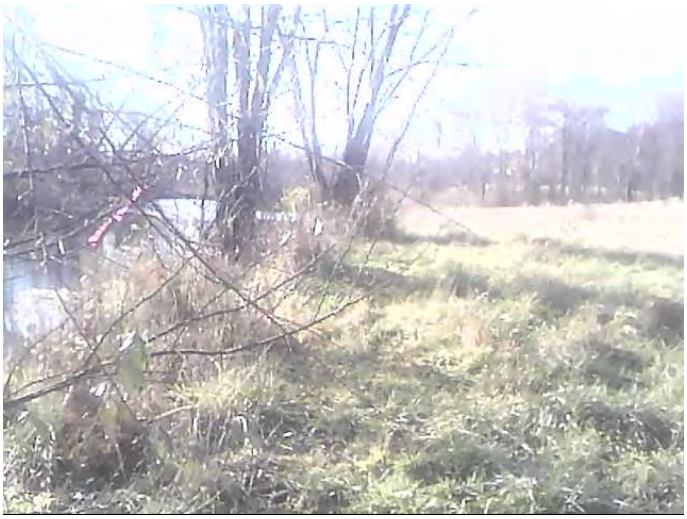
PHOTOS



SE

APPENDIX 2g-E

Army Corps of Engineers Waterbody Data Sheets and Photographs

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Waterbody Data Form

Feature ID: BL-O-S001

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/17/2014 10:44:50 AM	Client/Project Name: NED	Milepost: 34580.5
Investigators: AF CV	Latitude/Longitude: 41.833977, -72.78188	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014P2	Logbook Pg.: 90	Tract No.: 27940

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☑ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☑ No Flow

OHWM Width (ft.): 3.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 2.0 | Water Surface (At Crossing Location)(ft.): 0.0

Stream Depth (in.): 0

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 20
Right: 20

Qualitative Attributes

Water Appearance: ☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☑ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:
OTHER: 25%
GRAVEL: 50%
SANDS: 25%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☑ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☐ Moderate ☑ Low

Comments:

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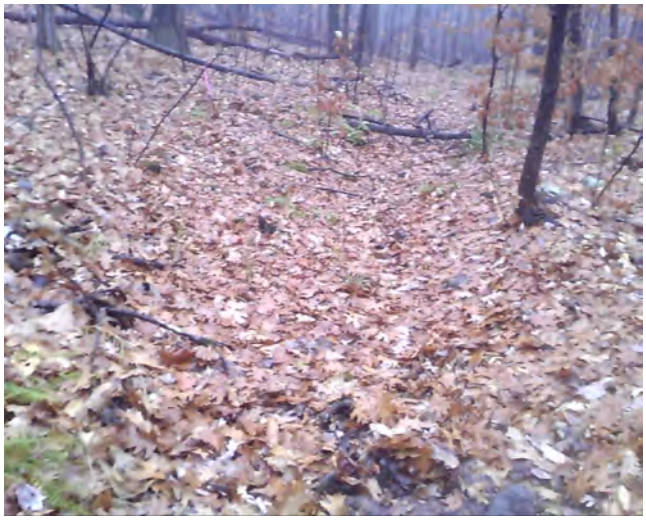
Photos

SW



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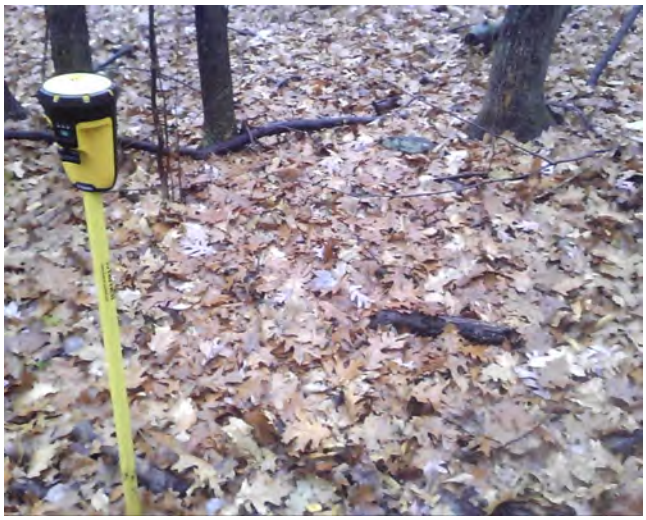

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SE

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Waterbody Data Form

Feature ID: BL-P-S004

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/13/2014 1:33:57 PM	Client/Project Name: NED	Milepost: 37234.4
Investigators: AF CV	Latitude/Longitude: 41.839362, -72.77576	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014P2	Logbook Pg.: 70	Tract No.: 27919

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☑ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☑ No Flow

OHWM Width (ft.): 20.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 20.0 | Water Surface (At Crossing Location)(ft.): 0.0

Stream Depth (in.): 0

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 90
Right: 90

Qualitative Attributes

Water Appearance: ☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☑ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

COBBLES:	33%
GRAVEL:	33%
SANDS:	33%
BEDROCK:	1%

Aquatic Habitats:

☐ Sand Bar ☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar ☐ Deep Pools ☐ In-stream Submerged Plants
☐ Mud Bar ☑ Bank Root Systems ☐ Fringing Wetlands[1]
☑ Undercut Banks ☑ Overhanging Trees/Shrubs ☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☑ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☑ Moderate ☐ Low

Comments:

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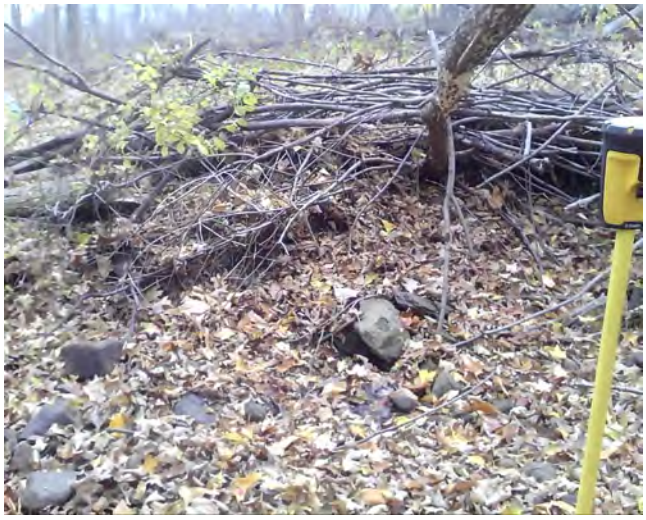
Photos



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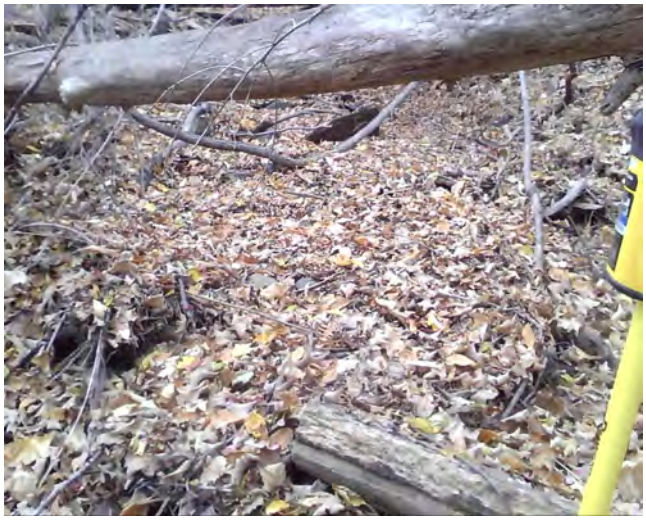

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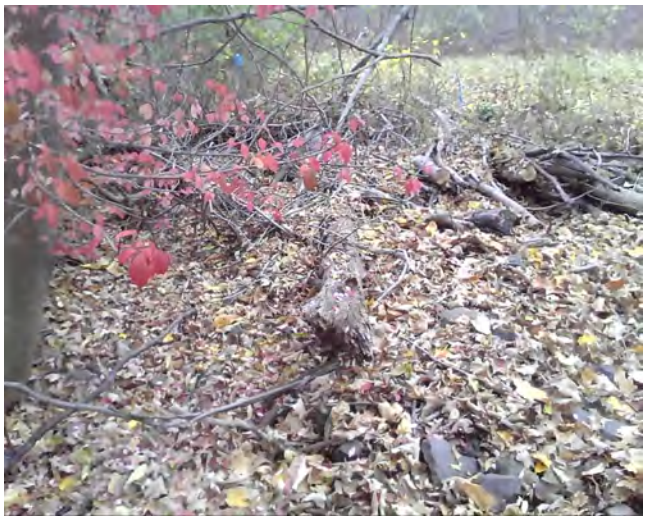

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E

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Waterbody Data Form

Feature ID: BL-B-S003

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/13/2014 10:03:11 AM	Client/Project Name: NED	Milepost: 39168.9
Investigators: RW JW	Latitude/Longitude: 41.843662, -72.77217	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014-2	Logbook Pg.: 124	Tract No.: 27876

Waterbody Type: ☐ Stream ☑ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☑ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☑ No Flow

OHWM Width (ft.): 400.0

Sinuosity: ☐ Braided ☐ Meandering ☐ Straight ☑ N/A

Stream Width (ft.): 100.0 | Water Surface (At Crossing Location)(ft.): 100.0

Stream Depth (in.): 36-48

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☐ 0-2 ☑ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☐ 0-2 ☑ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 50
Right: 50

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %: SILTS: 100%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☐ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed: FROGS, FISH (ADULT), FISH (JUVENILE), INVERTEBRATES

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☑ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☑ Moderate ☐ Low

Comments:

Photos

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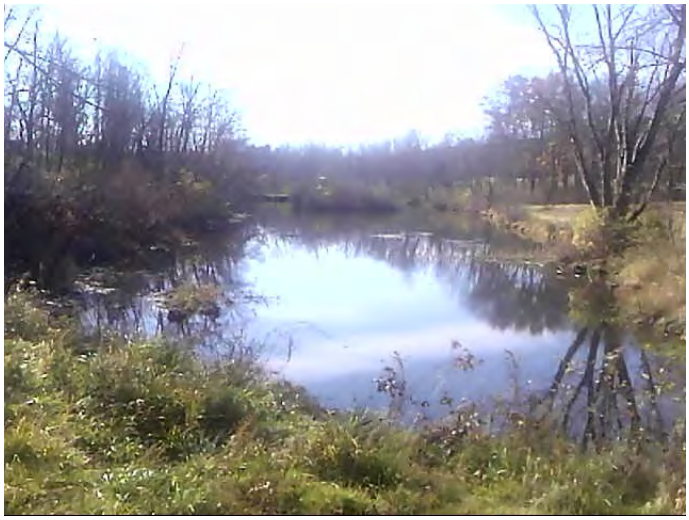

SOUTH

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Waterbody Data Form

Feature ID: BL-P-S003

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/13/2014 9:38:01 AM	Client/Project Name: NED	Milepost: 39289.0
Investigators: AF CV	Latitude/Longitude: 41.844236, -72.77235	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014P2	Logbook Pg.: 65	Tract No.: 27876

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☑ Slow ☐ Very Slow ☐ None

Flow Type: ☑ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☑ SE ☐ SW ☐ W ☐ NW ☐ S ☐ No Flow

OHWM Width (ft.): 5.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 5.0 | Water Surface (At Crossing Location)(ft.): 5.0

Stream Depth (in.): 6-12

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 90
Right: 90

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

MUCK:	25%
COBBLES:	10%
SANDS:	25%
GRAVEL:	15%
SILTS:	25%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☑ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☑ Bank Root Systems	☑ Fringing Wetlands[1]
☑ Undercut Banks	☑ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☑ High ☐ Moderate ☐ Low

Comments:

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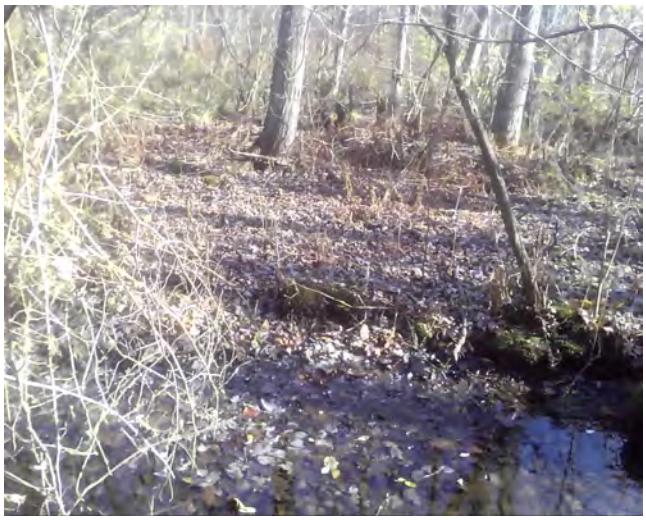
Photos



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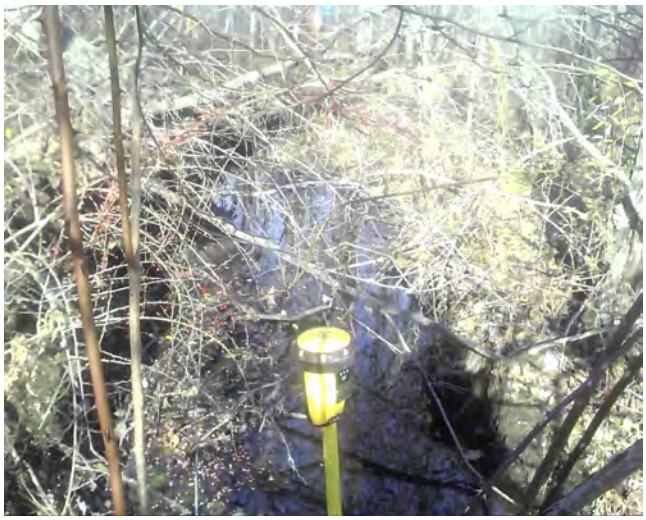
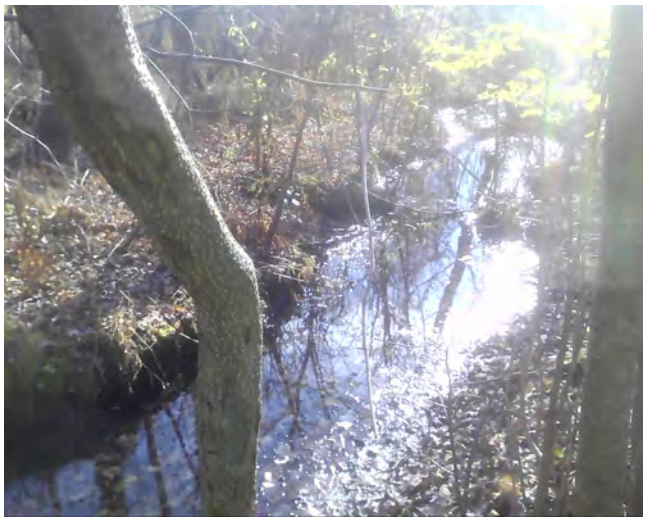


NW



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Waterbody Data Form

Feature ID: BL-P-S002

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/12/2014 2:09:38 PM	Client/Project Name: NED	Milepost: 40773.0
Investigators: DF JW	Latitude/Longitude: 41.846687, -72.76863	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014-2	Logbook Pg.: 57	Tract No.: 27962

Waterbody Type: ☐ Stream ☑ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☑ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☑ No Flow

OHWM Width (ft.): 200.0

Sinuosity: ☐ Braided ☐ Meandering ☐ Straight ☑ N/A

Stream Width (ft.): 200.0 | Water Surface (At Crossing Location)(ft.): 200.0

Stream Depth (in.): 24-36

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 10
Right: 70

Qualitative Attributes

Water Appearance: ☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☑ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

SILTS:	25%
SANDS:	25%
MUCK:	25%
COBBLES:	25%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☑ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☐ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed: NONE

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☑ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☑ Moderate ☐ Low

Comments:

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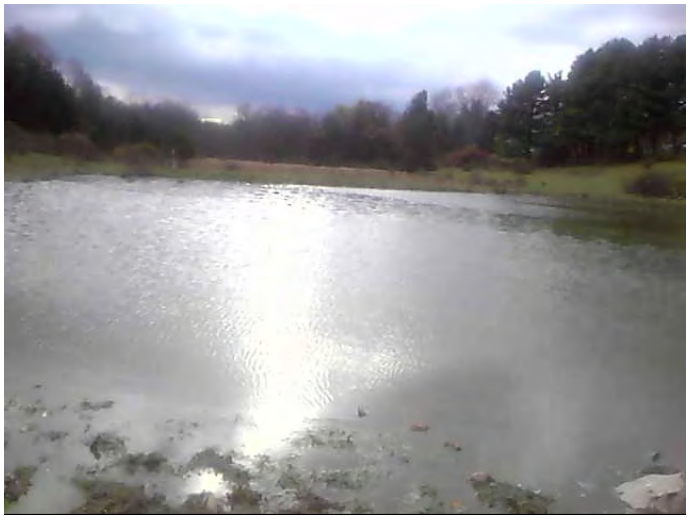
Photos



SOUTH

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Waterbody Data Form

Feature ID: BL-P-S001

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/11/2014 10:49:09 AM	Client/Project Name: NED	Milepost: 46098.3
Investigators: AF CV	Latitude/Longitude: 41.859665, -72.76158	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014P2	Logbook Pg.: 46	Tract No.: 28776

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☑ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☑ NW ☐ S ☐ No Flow

OHWM Width (ft.): 3.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 1.0 | Water Surface (At Crossing Location)(ft.): 1.0

Stream Depth (in.): 0

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 0
Right: 0

Qualitative Attributes

Water Appearance: ☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☑ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

SILTS:	25%
MUCK:	25%
VEGETATION:	10%
COBBLES:	15%
GRAVEL:	25%

Aquatic Habitats:

☐ Sand Bar ☐ Gravel Riffles ☑ In-stream Emergent Plants
☐ Gravel Bar ☐ Deep Pools ☐ In-stream Submerged Plants
☐ Mud Bar ☐ Bank Root Systems ☑ Fringing Wetlands[1]
☐ Undercut Banks ☐ Overhanging Trees/Shrubs ☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☑ High ☐ Moderate ☐ Low

Comments:

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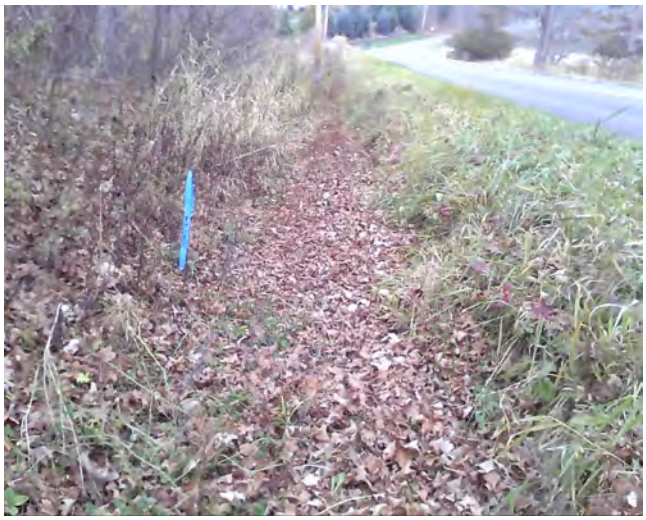
Photos



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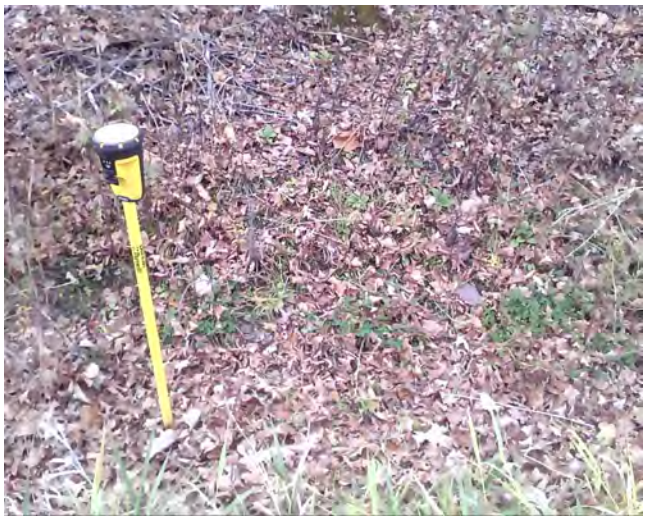

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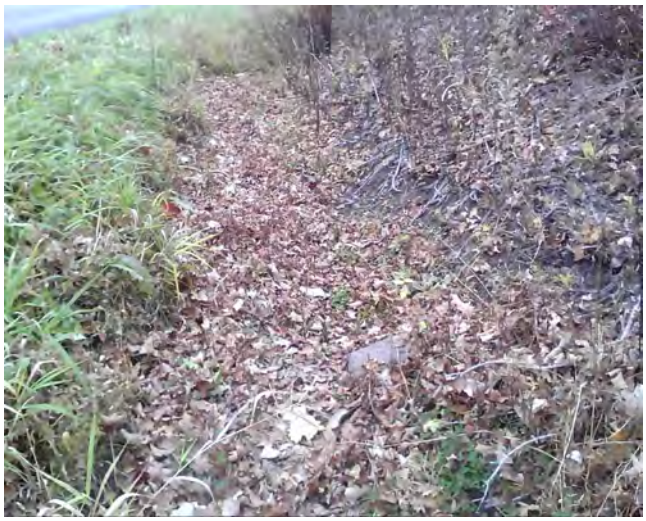

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Waterbody Data Form

Feature ID: BL-P-S005

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/15/2014 8:54:27 AM	Client/Project Name: NED	Milepost: 49216.2
Investigators: AF CV	Latitude/Longitude: 41.867579, -72.75724	
State: CT	County: Hartford	Quad Name: Avon
Logbook No.: 2014P2	Logbook Pg.: 80	Tract No.: 27960

Waterbody Type: ☐ Stream ☑ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☑ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☑ No Flow

OHWM Width (ft.): 30.0

Sinuosity: ☐ Braided ☐ Meandering ☐ Straight ☑ N/A

Stream Width (ft.): 30.0 | Water Surface (At Crossing Location)(ft.): 30.0

Stream Depth (in.): 6-12

OHWM Indicators: BENT, MATTED OR MISSING VEGETATION

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 5
Right: 5

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %: VEGETATION: 10%
MUCK: 90%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☐ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☑ High ☐ Moderate ☐ Low

Comments:

Photos

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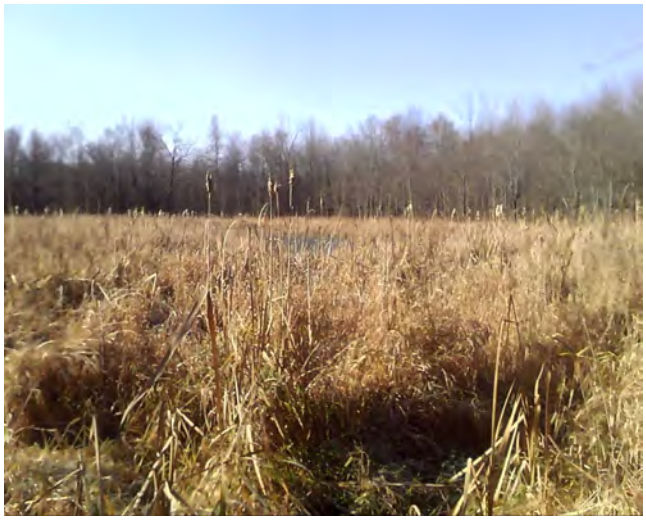

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Waterbody Data Form

Feature ID: BL-P-S007

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/18/2014 12:51:29 PM	Client/Project Name: NED	Milepost: 53580.0
Investigators: AF CV	Latitude/Longitude: 41.878605, -72.75129	
State: CT	County: Hartford	Quad Name: Tariffville
Logbook No.: 2014P2	Logbook Pg.: 108	Tract No.: 27955

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☑ Slow ☐ Very Slow ☐ None

Flow Type: ☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☑ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☑ NW ☐ S ☐ No Flow

OHWM Width (ft.): 3.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 3.0 | Water Surface (At Crossing Location)(ft.): 3.0

Stream Depth (in.): 3-6

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 20
Right: 20

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

SILTS:	25%
COBBLES:	25%
GRAVEL:	25%
SANDS:	25%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☑ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☐ Moderate ☑ Low

Comments:

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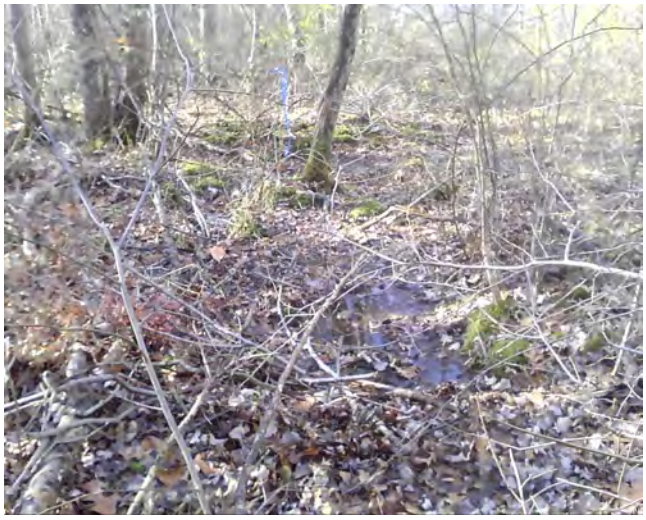
Photos



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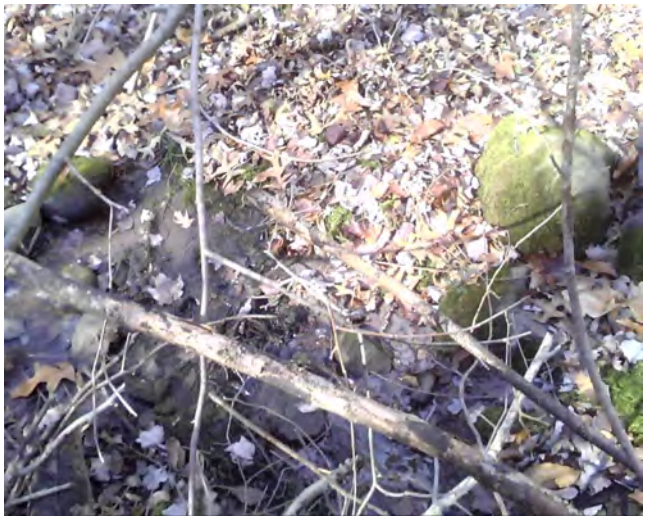

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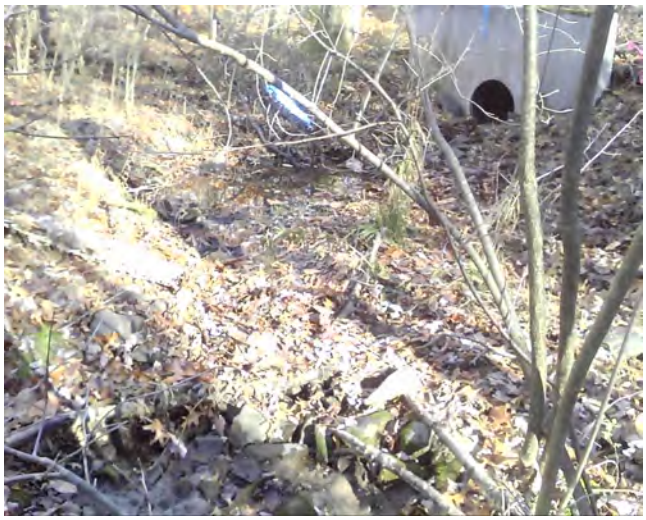

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Waterbody Data Form

Feature ID: BL-P-S009

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 7/24/2015 2:29:29 PM	Client/Project Name: NED	Milepost: 58546.9
Investigators: JM JW	Latitude/Longitude: 41.888716, -72.73988	
State: CT	County: Hartford	Quad Name: Windsor Locks
Logbook No.: 2015-2	Logbook Pg.: 6	Tract No.: 27942

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☑ Slow ☐ Very Slow ☐ None

Flow Type: ☐ Perennial (Flows year round) ☑ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☑ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☐ No Flow

OHWM Width (ft.): 2.5

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 5.0 | Water Surface (At Crossing Location)(ft.): 2.0

Stream Depth (in.): 1-3

OHWM Indicators: SCOUR

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 100
Right: 100

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %: SILTS: 100%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems	☑ Fringing Wetlands[1]
☐ Undercut Banks	☐ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed: NONE

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☑ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☐ High ☐ Moderate ☑ Low

Comments:

Photos

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NORTH

EAST

SOUTH

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Waterbody Data Form

Feature ID: BL-P-S010

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/19/2014 2:09:34 PM	Client/Project Name: NED	Milepost: 60130.8
Investigators: AF CV	Latitude/Longitude: 41.890229, -72.73654	
State: CT	County: Hartford	Quad Name: Windsor Locks
Logbook No.: 2014P2	Logbook Pg.: 120	Tract No.: 27865

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☐ Fast ☐ Moderate ☑ Slow ☐ Very Slow ☐ None

Flow Type: ☑ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☑ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☐ No Flow

OHWM Width (ft.): 1.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 1.0 | Water Surface (At Crossing Location)(ft.): 1.0

Stream Depth (in.): 1-3

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 80
Right: 80

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:
MUCK: 50%
SANDS: 50%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools	☐ In-stream Submerged Plants
☐ Mud Bar	☑ Bank Root Systems	☑ Fringing Wetlands[1]
☑ Undercut Banks	☑ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed:

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☑ High ☐ Moderate ☐ Low

Comments:

Photos

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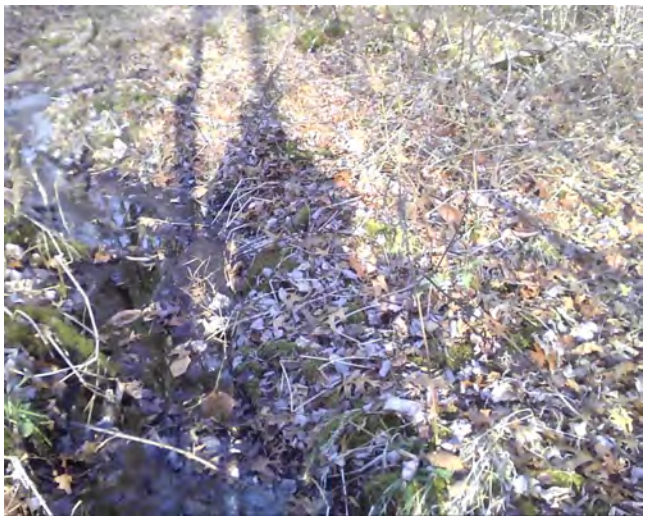

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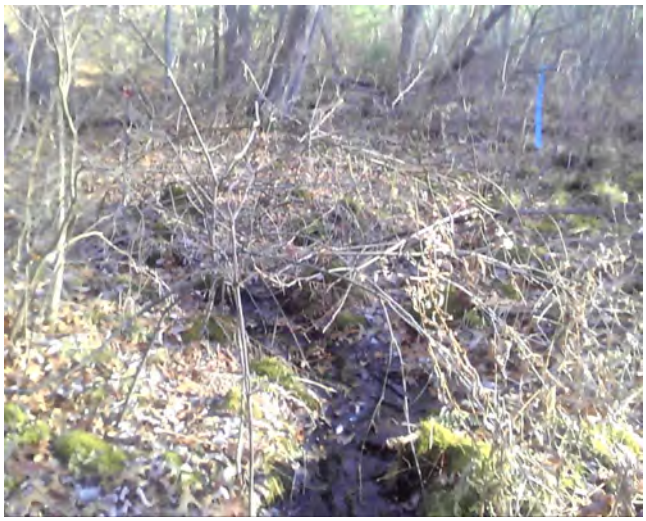

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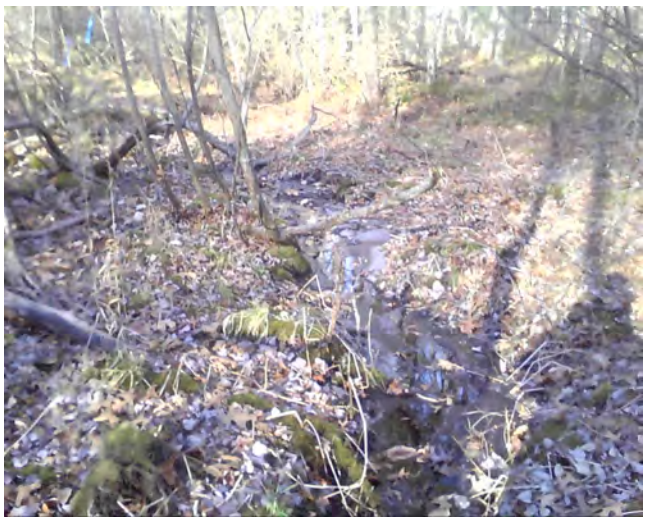

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Waterbody Data Form

Feature ID: BL-P-S008

☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

Date: 11/19/2014 12:09:46 PM	Client/Project Name: NED	Milepost: 60443.4
Investigators: AF CV	Latitude/Longitude: 41.890877, -72.73555	
State: CT	County: Hartford	Quad Name: Windsor Locks
Logbook No.: 2014P2	Logbook Pg.: 116	Tract No.: 27865

Waterbody Type: ☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:

Stream Flow: ☑ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☐ None

Flow Type: ☑ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)

Direction of Flow: ☐ N ☐ NE ☐ E ☑ SE ☐ SW ☐ W ☐ NW ☐ S ☐ No Flow

OHWM Width (ft.): 290.0

Sinuosity: ☐ Braided ☐ Meandering ☑ Straight ☐ N/A

Stream Width (ft.): 282.0 | Water Surface (At Crossing Location)(ft.): 282.0

Stream Depth (in.): 60+

OHWM Indicators: CLEAR NATURAL LINE ON BANK

Bank Height (ft.): (looking downstream)
Left: ☐ 0-2 ☑ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Right: ☐ 0-2 ☑ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+

Bank Slope (%): (looking downstream)
Left: 90
Right: 90

Qualitative Attributes

Water Appearance: ☑ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Turbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:

Stream Substrate %:

GRAVEL:	15%
COBBLES:	25%
OTHER:	10%
SILTS:	25%
SANDS:	25%

Aquatic Habitats:

☐ Sand Bar	☐ Gravel Riffles	☐ In-stream Emergent Plants
☑ Gravel Bar	☑ Deep Pools	☑ In-stream Submerged Plants
☐ Mud Bar	☑ Bank Root Systems	☑ Fringing Wetlands[1]
☑ Undercut Banks	☑ Overhanging Trees/Shrubs	☐ None

Aquatic Organisms Observed: FISH

Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other

Habitat Characteristics, Aquatic and Terrestrial Diversity Description:

Stream Quality: ☑ High ☐ Moderate ☐ Low

Comments:

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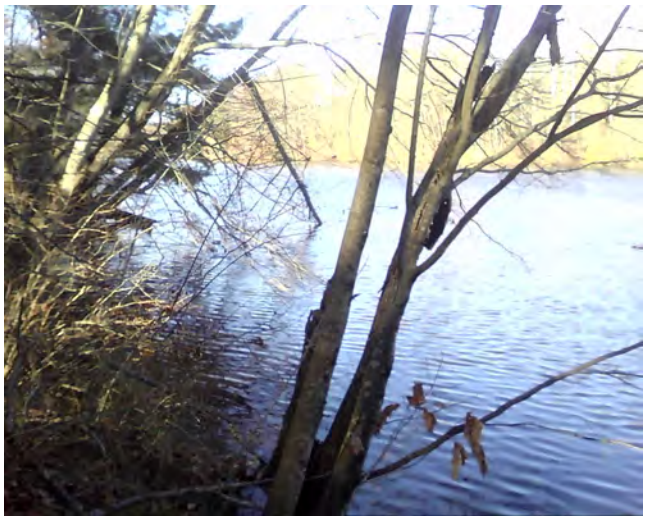
Photos

NE



NW

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SE