U.S. Army Corps of Engineers Permit Northeast Energy Direct Project Section 3, Appendix 13 Wetland and Watercourse Report

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.

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.

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.									

 Table 2g-1

 Summary of Project Facilities in Connecticut

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

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

Table 2g-2Feature Identification NomenclatureTown 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.

Hydric Soi	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)	

 Table 2g-3

 Wetland Soil Indicators for the Northcentral and Northeast Region

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.

Primary (minimum of e	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)

 Table 2g-4

 Wetland Hydrology Indicators for the Northcentral and Northeast Region

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 inpart 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-A1Wetlands Identified Along the Connecticut Portion of the Northeast Energy DirectTable 2g-A2Waterbodies Identified Along the Connecticut Portion of the Northeast Energy Direct
 - Project

			Wetland		··· · · · · · · · · · ·			
Facility Name	Segment ¹	Nearest Milepost ²	Identification Number ³	Wetland Class ⁴	Hydrophytic Vegetation Indicator ⁵	Wetland Hydrology Indicator ⁶	Hydric Soll Indicator ⁷	Wetland Description
	0	-			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
	a						70	Meadow, Mowed Field. Also associated with Access Road TGP-TAR-S-
300 Line CT Loop	S	9.57	BL-P-W001-PEM	PEM	RT DT PI		F3	0300
300 Line CT Loop	S	10.04	BL-P-W005-PFO	PFO	DTPI	A3 B9	F3	Drainage Way
300 Line CT Loop	S	10.94	BL-N-W006-PFO	PFO	DTPI	B9 D5 D2	F21	Depression
300 Line CT Loop	S	10.94	BL-N-W006-PEM	PEM	DTPI	B9 D5 D2	F3	Flat
300 Line CT Loop	S	11.09	BL-N-W007-PEM	PEM	DTPI	A3 B9 D5 D2	F3	Depression
300 Line CT Loop	S	11.28	BL-N-W003-PFO	PFO	DTPI	A2 A3 D5 D2	Al	Depression
300 Line CT Loop	S	11.44	BL-N-W002-PFO	PFO	DTPI	A3 B9	F3	Depression
300 Line CT Loop	S	13.95	WI-P-W001-PEM	PEM	RT DT PI	A2 CI A3	F3	Depression
300 Line CT Loop	S	14.26	EG-P-W001-PFO	PFO		A3 B9	F3	Drainage\Depression
					Aboveground Facilitie	es		XY/4
N/A	N/A	N/A	N/A	N/A	N/A Contractor Varda	N/A	N/A	N/A
NI/A	NI/A	NT / A	NI/A	NT / A		NT/A		N/A
IN/A	IN/A	1N/A	IN/A	1N/A		IN/A	IN/A	1N/A
					Access Rodus			

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

2g-A-1

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

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.

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

2g-A-2

Drainage Way

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	Р	А	227				
300 Line CT Loop	S	11.35	BL-P-S010	UNT to Farmington River	Р	А	1				
300 Line CT Loop	S	11.14	BL-P-S009	UNT to Farmington River	Ι	А	4				
300 Line CT Loop	S	10.18	BL-P-S007	UNT to Wash Brook	E	А	3				
300 Line CT Loop	S	9.69	BL-P-S005	UNT to Wash Brook	NF	А	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	Р	А	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	А	31				
300 Line CT Loop	S	6.57	BL-O-S001	UNT to Tumble Brook	Ι						
				Abovegrou	und 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				
				Acces	s Roads						
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				

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

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.

2g-A-3

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)

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)

APPENDIX 2g-D

Army Corps of Engineers Wetland Data Sheets and Photographs



WETLAND DETERMINATION FORM - Northcer	ntral and Nor	theast Region		
Centerline Ce-Route Access Road Ancillary Facility	ansmission Line	Other		
Project/Site: NED Milepost: 34569.5 County:	Hartford	Date:	11/17/2014	
Applicant/Owner: Kinder Morgan State: C	T Samplir	ng Point: BL-O-WO	01-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 🔲 Co	onvex 🔲 None	Slope%.: 20	
Subregion (LRR): Middle Atlantic Lat: 41.833938	Long: -72.7819	37	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	n in Remarks.)		
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No	Are "Normal" Circur	mstances present?	🗹 Yes 🔲 No	
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No				
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, trans	sects, important	features, etc.	
Hydrophytic Vegetation Present? Ves No				
Hydric Soil Present?	Is the Sampled A	area 2	No	
Wetland Hydrology Present? 🗹 Yes 🔲 No		f		
Field Wetland Classification: PFO				
Remarks:				
	Sec	condany Indicators (2)	or more required)	
Wetland Hydrology Indicators:	<u></u>	Surface Seil Creeke		
Primary Indicators (minimum of one required; check all that apply)		Surface Soll Cracks	(B6)	
Surface Water (A1) Water-Stained Leaves (B9)		Mass Trim Lines (P	310)	
High Water Table (A2)		Moss Trim Lines (B16)		
Saturation (A3) Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1) Hydrogen Sulfide Odor (C1)			8)	
Sediment Deposits (B2)	Roots (C3)	Saturation Visible or	Aerial imagery (C9)	
Drift Deposits (B3)		Stunted or Stressed	Plants (D1)	
Algal Mat or Crust (B4)	s (C6)	Geomorphic Positior	ו (D2)	
Iron Deposits (B5)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	95)	
Field Observations:				
Surface Water Present? Yes No Depth (inches):				
Water Table Present? 🗹 Yes 🗖 No Depth (inches): 3	Wetland Hydro	logy Present?		
Saturation Present?			Yes 🗌 No	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ections), if available)	:		
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover	Dominant	Indicator Status	
Fraxinus americana	5	YES	FACU	
Quercus rubra Fagus grandifolia	10 10	YES YES	FACU FACU	
Total Cover:	25			

AECOM 10 Orms Street, Suite 405 Providence, RI 02904



Sapling/Shrub Stratum					
Plot Size: 15					
Scientific Name			% Cover	Dominant	Indicator Status
Quercus alba			5	YES	FACU
Acer rubrum Carpinus caroliniana			5 10	YES	FAC
		Total Cover:	20	I	I
Herb Stratum					
Plot Size: 5					
Scientific Name			% Cover	Dominant	Indicator Status
Microstegium vimineum			20	YES	FAC
Carex stricta Polystichum acrostichoides			10 20	YES	OBL
		Total Cover:	50	120	
Woody Vine Stratum					
Plot Size: 30					
Scientific Name			% Cover	Dominant	Indicator Status
		Total Cover:		I	1
Dominance Test Worksheet:		Prevalence Index Worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4 (A)</u>	Total % Cover	of:	Multiply by:	
		OBL Species:	<u>10</u>	x 1 = <u>10</u>	
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL_FACW_or FAC	<u>9 (B)</u>	FACW Species	s: <u>0</u>	x 2 = <u>0</u>	
		FAC Species:	<u>35</u>	x 3 = <u>105</u>	
	<u>44 (A/B)</u>	FACU Species	: <u>50</u>	x 4 = <u>200</u>	
,,		UPL Species:	<u>0</u>	x 5 = <u>0</u>	
		Column Totals:	<u>95 (A)</u>	<u>315 (B)</u>	
			Prevalence Index	= B/A = <u>3.32</u>	
Hydrophytic Vegetation Indicators:					
1 - Rapid Test for Hydrophytic Vegetation					
□ 2 - Dominance Test is > 50%					
□ 3 - Prevalence Index is ≤ 3.0					
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 		Hydrophytic \	egetation Preser	nt? ☑ Yes [] No
Problematic Hydrophytic Vegetat	ion¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Remarks:					


SOIL											
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Depth (inches) Matrix Redox Features Color (moist) % Color (moist) %										
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Remarks			
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	С	м	SILT LOAM				
15-20	7.5YR5/3	93	7.5YR4/6 5YR5/2	5 2	C D	M M	SILT LOAM				
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated Gr	rains.	² Location: PL=	Pore Lining, M=Matrix	
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :											
Image: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Image: Histor Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Image: Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)										A10) (LRR K, L, MLRA 149B) ∋ Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R)	
Hydrogen	l Sulfide (A4) Layers (A5)			oamy oamy	Mucky Mii Gleyed Mi	neral (F1) atrix (F2)	(LRR K, L)		 Dark Surface Polyvalue Be 	e (S7) (LRR K, L, M) elow Surface (S8) (LRR K, L)	
Depleted	Below Dark Surfa	ace (A	1) 🗹 🖸	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)	
Thick Dar	k Surface (A12)		D F	ledox I	Dark Surfa	ace (F6)			Iron-Mangan	ese Masses (F12) (LRR K, L, R)	
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)	
Sandy Gl	eyed Matrix (S4)		D F	ledox l	Depressio	ons (F8)			Mesic Spodie	c (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)								Red Parent I	Material (F21)	
Stripped	Matrix (S6)								Very Shallow	v Dark Surface (TF12)	
Dark Surf	face (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)	
³ Indicators of	hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbed o	or proble	ematic.		
Restrictive Lay	yer Present?		Yes 🗹 No	U U	Inknown			ŀ	lydric Soil Prese	nt? 🗹 Yes 🗌 No	
Remarks:											
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:					
Wetland Quali	ty: 🔲 High		Moderate 🗹	Low			Isolated We	etland?	🗹 Yes 🗖	No 🔲 Unknown	
General Comm	nents:										







WETLAND DETERMINATION FORM - Northcente	ral and Northeast Region
Centerline CR-Route Access Road Ancillary Facility Trans	nsmission 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: 🗹 C	Concave 🔲 Convex 🔲 None Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.835531 Lot	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 🦷	re "Normal" Circumstances present? 🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No	
SUMMARY OF FINDINGS - Attach site map showing sampling point loc	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	
	the Sampled Area
Wetland Hydrology Present?	thin a Wetland?
Field Wetland Classification: PEO	
Domorko:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Moss Trim Lines (B16)
Saturation (A3)	Dry-Season Water Table (C2)
Water Marks (B1) Hvdrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living Ro	oots (C3) Saturation Visible on Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C	Geomorphic Position (D2)
	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial	Microtopographic Relief (D4)
□ Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Ves V No Depth (inches):	
Water Table Present? Yes No Depth (inches): 8	Wetland Hydrology Present?
Saturation Present?	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspection	ions), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Ouercus rubra	1 NO FACIL
Carya glabra	10 NO FACU
Osuya virginiana Carya ovata	5 NO FACU 10 NO FACU
Total Cover:	26



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Fraxinus americana Lindera benzoin Rosa multiflora Rhamnus cathartica	Total Cover:	10 10 1 30 51	NO NO NO YES	FACU FACW FACU FAC
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Microstegium vimineum		20	YES	FAC
	Total Cover:	20	1	1
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant 2 (B) Percent of Dominant Species 100 (A/B) That Are OBL, FACW, or FAC: 100 (A/B)	OBL Species: FACW Species FAC Species: FACU Species UPL Species: Column Totals:	or: <u>0</u> 50 50 37 <u>0</u> 97 (A)	Multiply by: x 1 = 0 x 2 = 20 x 3 = 150 x 4 = 148 x 5 = 0 318 (B)	
		Prevalence Index	= B/A = <u>3.28</u>	
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation' (Explain) 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Remarks:	Hydrophytic \	/egetation Prese	nt? 🗌 Yes 🖻	₫ No



SOIL										
Profile Descrip	otion: (Describe	e the d	epth needed to	docum	ent the i	ndicator o	r confirm tl	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	Texture		Remarks
0-12	10YR3/1	100						SILT LO	OAM	
10.10	10VP4/2	00	EVD4/6	10		M			V LOAM	
12-10	101K4/2	90	51K4/0	10		IVI	3			
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix,	CS=Cov	vered Sand	d or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Ind	dicators: (Appli	cable	to all LRR's, unle	ess otl	herwise n	noted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			Polyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		I.		1430)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	⁻ hin Da	rk Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			.oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	Deplete	d Matrix ((F3)			Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox I	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1))		Deplete	d Dark Su	urface (F7)	1		Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressic	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	hydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	resent, unl	ess disturbe	d or prob	lematic.	
Restrictive Lav	ver Present?		Yes 🔽 No		Inknown					
								l	Hydric Soil Prese	ent? ☑ Yes 🗌 No
Remarks:										
Description of	Habitat Characte	eristics,	Aquatic Diversity	/ or Ge	neral Cor	nments:				
Wetland Quali	ty: 🔲 High		Moderate 🗹	Low			Isolated \	Wetland?	🗹 Yes 🔲	No 🔲 Unknown
General Comm	nents:									





W



WETLAND DETERMINATION FORM - Northcentral	and Northeast Region				
🔽 Centerline 🗖 Re-Route 🗖 Access Road 🗖 Ancillary Facility 🗖 Transmiss	sion Line 🗖 Other				
Project/Site: NED Milepost: 35482.1 County: Ha	Pate: 11/17/2014				
Applicant/Owner: Kinder Morgan State: CT	Sampling Point: BL-O-W003-UPL				
Investigators: TP CV Quad Name: Avon Township: Blo	Camping FormCamping Form				
Logbook No.: 2014O1 Logbook Pg.: 138 Tract: 27948					
Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: Conca	ave 🗹 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?: Ves Ves No ((If no, explain in Remarks.)				
Are Vegetation	ormal" Circumstances present? 🗹 Yes 🔲 No				
Are Vegetation Soil or Hydrology naturally problematic? V					
SUMMARY OF FINDINGS - Attach site map showing sampling point location	ons, transects, important features, etc.				
Hydrophytic Vegetation Present?					
Hydric Soil Present?	Sampled Area				
Wetland Hydrology Present?	a Wetland?				
Field Wetland Classification:					
Remarke:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)				
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)				
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)	ong Living Roots (C3)				
Drift Deposits (B3)	n (C4) Stunted or Stressed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6)	n Tilled Soils (C6) Geomorphic Position (D2)				
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	(s) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Pres Ves Vio Depth (inches):	den di buda la mu Basa an (2				
water lable Present? □ Yes ☑ No Depth (inches): we					
(includes capillary fringe)					
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		15	YES	FAC
Acer saccharum Carva ovata		8	NO NO	FACU FACU
Quercus rubra		10	NO	FACU
	Total Cover:	68		TAOW
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 Geum canadense		15 3	YES	FAC
	Total Cover:	18	NO	
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That are OBL, FACW, OF FAC.	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: <u>5 (B)</u>	FACW Species	s: <u>25</u>	x 2 = <u>50</u>	
	FAC Species:	<u>63</u>	x 3 = <u>189</u>	
That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>28</u>	x 4 = <u>112</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>116 (A)</u>	<u>351 (B)</u>	
		Prevalence Index =	= B/A = <u>3.03</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 3 - Prevalence Index is ≤ 3.0				
4 - Morphological Adaptations ¹ (Provide supporting	Hydrophytic \	egetation Presen	t? 🛛 Yes 🗹	No
Problematic Hydrophytic Vegetation ¹ (Explain)				
Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:	1			



SOIL										
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Re	dox Fe	atures			-		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Iex	ture	Remarks
0-8	10YR2/2	100						SILT L	LOAM	
8-16	7.5YR6/4	95	5YR4/6	5	С	М		SILT I	LOAM	
16-22	7.5YR6/3	85	5YR4/6	10	С	M		LO	AM	
			101 K0/2	Э	D	IVI				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. ² Location: PL=Pore Lining, M=Matrix										=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :										roblematic Hydric Soils ³ :
Histosol (A	A1)			olyval	Le Below	Surface (S	88) (LRR R	,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		K	ILRA	49B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		т 🗖	'hin Da	rk Surface	e (S9) (LR	R R, MLRA	(149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	d Matrix (F3)			Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		□ F	ledox l	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Fle	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox I	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturb	ed or prol	blematic.	
Restrictive Lay	ver Present?		Yes 🗹 No	U U	nknown				Hydric Soil Prese	ent? ☑ Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Quali	ty: 🔲 High		Moderate	Low			Isolated	Wetland	? 🔲 Yes 🗹	No 🔲 Unknown
General Comm	nents:									



NE





WETLAND DETERMINATION FORM - Northcentral	I and Northeast Region				
Centerline Re-Route Access Road Ancillary Facility Transmi	ission Line 🗖 Other				
Project/Site: NED Milepost: 34531.3 County: H	Hartford Date: 11/17/2014				
Applicant/Owner: Kinder Morgan State: CT	Sampling Point: BL-O-W001-UPL				
Investigators: AF CV Quad Name: Avon Township: E	Bloomfield				
Logbook No.: 2014P2 Logbook Pg.: 89 Tract: 27940					
Landform (hillslope, terrace, etc.): HILLSIDE Local Relief: Cond					
Subregion (LRR): Middle Atlantic Lat: 41.833905 Long	g: -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	o (If no, explain in Remarks.)				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ✔ No Are "I	Normal" Circumstances present? 🗹 Yes 🔲 No				
Are Vegetation Soil or Hydrology naturally problematic?					
SUMMARY OF FINDINGS - Attach site map showing sampling point locat	tions, transects, important features, etc.				
Hydrophytic Vegetation Present?					
Hydric Soil Present? Yes V No	e Sampled Area □ Yes ☑ No				
Wetland Hydrology Present? Yes V No	n a Wetland?				
Field Wetland Classification: UPLAND PLOT					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)				
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)				
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)				
Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots	ong Living Roots (C3)				
Drift Deposits (B3) Presence of Reduced Iron (C4)	n (C4)				
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Tilled Soils (C6) Geomorphic Position (D2)				
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	s) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No Denth (inches)					
Water Table Present? \Box Ves $\overline{\omega}$ No Depth (inches):	Netland Hydrology Present?				
Saturation Present? \Box Yes $\overline{\mathcal{M}}$ No Depth (inches):	☐ Yes ☑ No				
(includes capillary fringe)					
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections	s), if available):				



VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Carya ovata		25	YES	FACU
Pagus grandilolla Quercus rubra		20	YES	FACU
Acer rubrum Quercus alba		5 15	NO YES	FAC FACU
	Total Cover:	70		1
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	1		1	1
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: <u>1 (A)</u>	Total % Cover c	of:	Multiply by:	
Total Number of Dominant	OBL Species:	<u>0</u>	x 1 = 0	
Species Across All Strata: <u>4 (B)</u>	FACW Species:	<u>U</u>	x 2 = 0	
Percent of Dominant Species	FAC Species:	<u>15</u>	$x_3 = \frac{45}{260}$	
That Are OBL, FACW, or FAC: <u>25 (A/B)</u>	FACU Species:	0	x 4 = 260	
	OPL Species:	<u>U</u> 80 (A)	$x = \underline{0}$	
	Column Totals:	<u>80 (A)</u>	<u>305 (B)</u>	
	F	Prevalence Index	= B/A = <u>3.81</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 2 - Dominance Test is > 50%				
□ 3 - Prevalence Index is \leq 3.0				
4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	Hydrophytic V	egetation Prese	nt? 🗌 Yes 🗗	2 No
Problematic Hydrophytic Vegetation ¹ (Evolain)				
present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Re	dox Fe	atures			т.		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	lext	ure	Remarks
0-0.5	ORGANIC LAYER	100						ORG/	ANIC	
0.5-6	10YR3/3	100						LOA	AM	
6-24	7.5YR5/4	100					SILT LOAM			
1 Image: C_=Concentration D=Depletion RM=Reduced Matrix CS=Covered Sand or Coated Grains 21 ocation: PL = Pore Lining M=Matrix										Pore Lining. M=Matrix
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³										roblematic Hydric Soils ³ :
Histosol (A1)		ΠF	olvval	ue Below	Surface (S	8) (LRR R		□ 2 cm Muck (A10) (LRR K. L. MLRA 149B)
Histic Epi	pedon (A2)		N	ILRA 1	49B)		-7 (Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	hin Da	rk Surface	e (S9) (LR	R R, MLRA	A 149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mir	neral (F1)	(LRR K, L)	,	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)	,		Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A1	1) 🗖 🗆	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox l	Dark Surfa	ace (F6)			☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ns (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic veget	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturb	ed or prob	olematic.	
Restrictive Lay	ver Present?	□ `	Yes 🗹 No	– 1	Inknown				Hydric Soil Prese	nt? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Corr	nments:				
Wetland Qualit	iy: 🔲 High		Moderate	Low			Isolated	Wetland?	Yes 🗌	No 🔲 Unknown
General Comm	ients:									



NW





WETLAND DETERMINATION FORM - I	Northcentral and Northeast Region			
Centerline Re-Route Access Road Ancillary Facility	Transmission Line Dother			
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	1			
Landform (hillslope, terrace, etc.): DEPRESSION Local Re	elief: 🗹 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 🔲 N			
Are Vegetation D Soil or Hydrology naturally problematic?	No No			
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? 🗹 Yes 🗖 No	Is the Sampled Area within a Wetland? ☑ Yes □ No			
Wetland Hydrology Present? Ves No				
Field Wetland Classification: PEM				
Remarks: VEG MOWED IN ROW				
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)			
□ Surface Water (A1) ☑ Water-Stained Leaves (I	39) Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	C1) Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidized Rhizospheres a	along Living Roots (C3) Saturation Visible on Aerial imagery (C9)			
Drift Deposits (B3)	on (C4) Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Tilled Soils (C6)			
Iron Deposits (B5)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remar) Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present?				
Water Table Present? Yes V No Depth (inches):	Wetland Hydrology Present? ☑ Yes □ No			
Saturation Present? ☐ Yes ✓ No Depth (inches): (includes capillary fringe)				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pr	evious inspections), if available):			
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover Dominant Indicator Status			
т	otal Cover:			



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		
Solidago gigantea		5	NO	FACW		
Onoclea sensibilis	Tatal Osuan	5	NO	FACW		
	Total Cover:	90				
Woody Vine Stratum						
			1	1 .		
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
Number of Dominant Species	Total % Cover of: Multiply by:					
That Are OBL, FACW, or FAC:	OBL Species:	<u>5</u>	x 1 = <u>5</u>			
Total Number of Dominant	FACW Species	s: <u>10</u>	x 2 = <u>20</u>			
Species Across All Strata:	FAC Species:	<u>0</u>	x 3 = <u>0</u>			
Percent of Dominant Species	FACU Species	: <u>0</u>	x 4 = <u>0</u>			
	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals	: <u>15 (A)</u>	<u>25 (B)</u>			
		Prevalence Index	= B/A = <u>1.67</u>			
Hydrophytic Vegetation Indicators:						
1 - Rapid Test for Hydrophytic Vegetation						
□ 2 - Dominance Test is > 50%						
Image: 3 - Prevalence Index is ≤ 3.0						
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic	Vegetation Preser	nt? 🗹 Yes 🛛] No		
Problematic Hydrophytic Vegetation ¹ (Explain)						
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
Remarks:						



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	locum	ent the in	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Depth Matrix Redox Features				-		. .			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Textu	ure	Remarks
0-10	7.5YR 4/2	95	7.5YR 4/6	5	С	м		SILT LOAM		
10-20	7.5YR 5/3	90	7.5YR 4/6	10	С	м	SILT LOAM			
¹ Type: C=Cond	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. ² Location: PL=Pore Lining, M=Matrix									
Hydric Soil Inc	dicators: (Appli	cable 1	to all LRR's, unle	ess otl	nerwise n	oted.)			Indicators for Pr	roblematic Hydric Soils ³ :
Histosol (☐ Histosol (A1) ☐ Polyvalue Below Surface (S8) (LRR R, ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)									
Histic Epi	pedon (A2)		— N	ILRA 1	149B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		п т	hin Da	rk Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			edox l	Dark Surfa	ace (F6)			Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Flor	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	ledox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	hydrophytic vege	ation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbe	ed or prob	lematic.	
								l	Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate 🗹	Low			Isolated	Wetland?	🗹 Yes 🗖	No 🔲 Unknown
General Comm	ients:									





NE



WETLAND DETERMINATION FORM - Northcentral and Northeast Region							
Centerline Re-Route Access Road Ancillary Facility Tra	ansmission Line	Other					
Project/Site: NED Milepost: 37481.7 County:	Hartford	Date:	11/14/2014				
Applicant/Owner: Kinder Morgan State: CT	T Sampling	Point: BL-B-WOO)7-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 🗹 Con	vex 🔲 None	Slope%.: 2				
Subregion (LRR): Middle Atlantic Lat: 41.839970	Long: -72.775346	6	Datum: NAD83				
Soil Map Unit Name: Ludlow silt loam, 3 to 8 percent slopes	١	WI Classification:	Not mapped				
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes	No (If no, explain i	n Remarks.)					
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No 🖉	Are "Normal" Circums	stances present?	🗹 Yes 🔲 No				
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No							
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transe	ects, important	features, etc.				
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present?	s the Sampled Are	^{ea} □ Yes ☑	No				
Wetland Hydrology Present?	within a wetland?						
Field Wetland Classification: UPLAND PLOT							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:	<u>Seco</u>	ndary Indicators (2 c	or more required)				
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)						
□ Surface Water (A1) □ Water-Stained Leaves (B9)		Drainage Patterns (E	310)				
High Water Table (A2)	Moss Trim Lines (B16)						
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)						
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)						
Sediment Deposits (B2) Oxidized Rhizospheres along Living F	ng Living Roots (C3) 🛛 Saturation Visible on Aerial imagery (C9)						
Drift Deposits (B3)	on (C4) Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	Filled Soils (C6) Geomorphic Position (D2)						
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)						
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	5)				
Field Observations:							
Surface Water Present?							
Water Table Present? Yes No Depth (inches)	Wetland Hydrolo	av Present?					
Saturation Present? Ves Yes No Depth (inches):	·····,		Yes 🗹 No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspec	ctions), if available):						
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name	% Cover	Dominant	Indicator Status				
Acer rubrum Prinus serotina	10	YES	FAC				
Acer saccharum	5	YES	FACU				
Ulmus rubra	3	NO	FAC				
Total Cover:	23						



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			1				
Scientific Name		% Cover	Dominant	Indicator Status			
Celastrus orbiculatus		50	YES	UPL			
	Total Cover:	50					
Dominance Test Worksheet:	Prevalence Index Worksheet:						
Number of Dominant Species That Are OBL_EACW or EAC: 2 (A)	Total % Cover	of:	Multiply by:				
	OBL Species:	<u>0</u>	x 1 = <u>0</u>				
Total Number of Dominant Species Across All Strata:	FACW Species	s: <u>30</u>	x 2 = <u>60</u>				
'	FAC Species:	<u>13</u>	x 3 = <u>39</u>				
That Are OBL, FACW, or FAC: <u>40 (A/B)</u>	FACU Species	: <u>10</u>	x 4 = 40				
	UPL Species:	<u>50</u>	$x 5 = \frac{250}{200}$				
	Column Totals:	<u>103 (A)</u>	<u>389 (B)</u>				
		Prevalence Index =	= B/A = <u>3.78</u>				
Hydrophytic Vegetation Indicators:							
1 - Rapid Test for Hydrophytic Vegetation							
□ 2 - Dominance Test is > 50%							
□ 3 - Prevalence Index is \leq 3.0							
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic Vegetation Present? 🔲 Yes 🗹 No						
Problematic Hydrophytic Vegetation ¹ (Explain)							
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							
Remarks:							



Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Depth (inches) Matrix Redox Features Color (maint) % Color (maint) Yet Remarks Texture Remarks							
Depth (inches) Matrix Redox Features Color (moint) % Color (moint) % Type1 Log2 Texture Remarks							
(IIICIGS) Color (moint) % Color (moint) % Typo1 Loo? I IEXIUIE REMARKS							
0-13 7.5YR 4/3 100 SILT LOAM REFUSAL AT 13 INCHES DUE ROCK	то						
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.) Indicators for Problematic Hydric Soils ³ :							
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)							
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)							
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)							
Hydrogen Sulfide (A4) 🔲 Loamy Mucky Mineral (F1) (LRR K, L) 🔲 Dark Surface (S7) (LRR K, L, M)							
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)							
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)							
Thick Dark Surface (A12)							
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)							
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Redox Depressions (F8) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)							
Sandy Redox (S5)							
Stripped Matrix (S6)							
Dark Surface (S7) (LRR R, MLRA 149B)							
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 No							
Remarks:							
Description of Habitat Characteristics, Aquatic Diversity or General Comments:							
Wetland Quality: High Moderate Low Isolated Wetland? Yes No Unknown							
General Comments:							

PHOTOS









WETLAND DETERMINATION FORM - Northcen	ntral and Northeast Region			
Centerline Re-Route Access Road Ancillary Facility Tra	ansmission Line 🔲 Other			
Project/Site: NED Milepost: 38857.4 County:	Hartford Date: 11/13/2014			
Applicant/Owner: Kinder Morgan State: CT	T 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 lo	ocations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present?	s the Sampled Area			
Wetland Hydrology Present? Ves No	within a Wetland?			
Field Wetland Classification: PEM				
Remarks: VEG MOWED IN ROW, SHARED UPLAND PLOT BL-B-W005-UPL				
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)			
□ Surface Water (A1) □ Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2) Sediment Deposits (B2)	Living Roots (C3)			
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	(C6) Geomorphic Position (D2)			
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	Shallow Aquitard (D3)			
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Sunace water Present? Pres V No Depth (inches):	Wetten d Underland Bread and			
water lable Present? □ Yes ☑ No Depth (inches):	Wetland Hydrology Present?			
(includes capillary fringe)				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspec	ctions), if available):			
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover Dominant Indicator Status			
Total Cover:				



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 Phalaris arundinacea Carex sp		20 20 60	YES YES NA	OBL FACW NONE		
	Total Cover:	100				
Woody Vine Stratum						
Plot Size: 30	1					
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Index Worksheet:					
Number of Dominant Species	Total % Cover	of:	Multiply by:			
	OBL Species:	<u>20</u>	x 1 = <u>20</u>			
Total Number of Dominant Species Across All Strata: <u>2 (B)</u>	FACW Species	:: <u>20</u>	x 2 = <u>40</u>			
Descent of Dominant Species	FAC Species:	<u>0</u>	x 3 = 0			
That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>0</u>	x 4 = 0			
	UPL Species:	<u>U</u>	x = 0			
	Column Totals:	<u>40 (A)</u>	<u>60 (B)</u>			
		Prevalence Index :	= B/A = <u>1.50</u>			
Hydrophytic Vegetation Indicators:						
1 - Rapid Test for Hydrophytic Vegetation						
\mathbf{V} 2 - Dominance Test is > 50%						
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0						
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	/egetation Preser	nt? ☑ Yes 🗆] No		
Problematic Hydrophytic Vegetation ¹ (Explain)						
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
Remarks:						



Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)Depth (inches)MatrixRedox FeaturesTextureRemarks0-1010YR 3/2857.5YR 3/415CPLSILTY CLAY LOAM10-165Y 5/19010YR 4/610CMFINE SANDY LOAM							
Depth (inches) Matrix Redox Features Type1 Loc2 Texture Remarks 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							
Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 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							
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							
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.) Indicators for Problematic Hydric Soils ³ :							
Histosol (A1) Polyvalue Below Surface (S8) (LRR R. 2 cm Muck (A10) (LRR K, L, MLRA 149B)							
MLRA 149B)							
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)							
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)							
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)							
Depleted Below Dark Surface (A11) 🗹 Depleted Matrix (F3)							
Thick Dark Surface (A12)							
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)							
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)							
Sandy Redox (S5) Red Parent Material (F21)							
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)							
Dark Surface (S7) (LRR R, MLRA 149B)							
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.							
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:							



SOUTH





WETLAND DETERMINATION FORM - Northcentral and Northeast Region								
🗹 Centerline 🔲 Re-Route 🔲 Access Road 🔲 Ancillary Facility 🔲	Tra	ansmission Line	e 🔲 Other					
Project/Site: NED Milepost: 38914.6 Count	<i>.</i> :	Hartford	C	ate: 11/	13/2014			
Applicant/Owner: Kinder Morgan State:	С	T Sar	npling Point: BL-I	B-W006-PF	-0			
Investigators: RW JW Quad Name: Avon Towns	hip:	Bloomfield						
Logbook No.: 2014-2 Logbook Pg.: 126 Tract: 27876								
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief:	\square	Concave	Convex 🔲 N	one Slop	e%.: 0			
Subregion (LRR): Middle Atlantic Lat: 41.843438		Long: -72.	773171	Datu	m: NAD83			
Soil Map Unit Name: Broadbrook silt loam, 3 to 8 percent slopes			NWI Classificat	ion:	PFO1E			
Are climatic / hydrologic conditions on the site typical for this time of year?: \checkmark Yes		No (If no, ex	plain in Remarks.)					
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No	, /	Are "Normal" C	ircumstances preser	nt? 🗹	Yes 🔲 No			
Are Vegetation D Soil or Hydrology naturally problematic?)							
SUMMARY OF FINDINGS - Attach site map showing sampling poi	nt lo	ocations, tr	ansects, impor	tant feat	tures, etc.			
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present?	ls	s the Sample	ed Area orad2 ☑ Yes	5 🗆 N	0			
Wetland Hydrology Present?	v	vitnin a weti						
Field Wetland Classification: PFO								
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:			Secondary Indicato	<u>rs (2 or mo</u>	<u>re required)</u>			
Primary Indicators (minimum of one required; check all that apply)			Surface Soil C	racks (B6)				
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	Drainage Patterns (B10)							
High Water Table (A2)	Moss Trim Lines (B16)							
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)							
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)							
Sediment Deposits (B2)	Living Roots (C3) Saturation Visible on Aerial imagery (C9)				al imagery (C9)			
Drift Deposits (B3) Presence of Reduced Iron (C4)	n (C4) D Stunted or Stressed Plants (D1)				ts (D1)			
Algal Mat or Crust (B4)	Tilled Soils (C6) Geomorphic Position (D2))			
□ Iron Deposits (B5) □ Thin Muck Surface (C7)			Shallow Aquita	rd (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)				D4)			
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral T	est (D5)				
Field Observations:								
Surface Water Present?								
Water Table Present?		Wotland H	vdrology Procont?					
Saturation Present? Ves Z No Depth (inches):		Wettanu n	ydrology Present?	☑ Ye	s 🗌 No			
(includes capillary fringe)								
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous i	nspe	ctions), if availa	able):					
VEGETATION								
Tree Stratum								
Plot Size: 30								
Scientific Name		% Cover	Dominant		ndicator Status			
Acer rubrum		40	YES		FAC			
Total Cov	ver:	40	I	I				



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora		10	YES	FACU
Cornus alba		5 20	YES	FAC
	Total Cover:	35		I
Hark Stratum				
	1	0/ O	Deminent	In diantan Otatua
		% Cover	Dominant	Indicator Status
Epilobium coloratum		20 10	NO	OBL
Carex stricta		60 10	YES	OBL
	Total Cover:	100		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		70 00101	Dominant	
	 Total Cover:			I
Deminence Test Werkeheet	Dravalance Inc			
Dominance Test Worksneet:	Prevalence Inc	ex worksheet:		
That Are OBL, FACW, or FAC: $4(A)$	Total % Cover			
Total Number of Dominant	OBL Species:	<u>70</u>	x = 70	
Species Across All Strata: <u>5 (B)</u>	FACW Species	: <u>40</u>	x 2 = 80	
Percent of Dominant Species	FAC Species:	<u>55</u>	$x_3 = 165$	
That Are OBL, FACW, or FAC: <u>80 (A/B)</u>	FACU Species:	<u>10</u>	x 4 = 40	
	OPL Species:		$x = \underline{0}$	
	Column Totals:	<u>175 (A)</u>	<u>303 (D)</u>	
		Prevalence Index =	= B/A = <u>2.03</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Presen	ıt? I Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL	SOIL									
Profile Descri	otion: (Describe	the d	epth needed to a	docum	ent the in	ndicator o	r confirm t	he abser	nce of indicators.)	
Depth Matrix		Red	Redox Features				Tau			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture		Remarks
0-3	10YR 3/1	100						SILT LOAM		
3-12	10YR 4/1	90	7.5YR 4/6	10	С	м		CLAY	LOAM	
12-20	5Y 5/1	90	10YR 5/8	10	с	м	FI	NE SAN	DY LOAM	
¹ Type: C=Con	L centration, D=De	epletior	n, RM=Reduced	Matrix	CS=Cov	l vered Sand	l or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Ind	Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :									
Histosol (A1)		D P	olyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		Ν	ILRA [·]	149B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black His	tic (A3)		ПΤ	hin Da	rk Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	∋ (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	I1) 🗹 C	eplete	d Matrix (F3)			Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			Redox	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy GI	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of	hydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unle	ess disturbe	ed or prob	plematic.	
Restrictive Lay	ver Present?		Yes 🗹 No	– 1	Inknown				Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:							I			
Description of	Habitat Characta	riation			noral Can	omonto:				
Description of		1151105,	Aqualic Diversity	OI GE		ninents.				
Wetland Quali	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	? 🗋 Yes 🗹	No 🔲 Unknown
General Comm	nents:									





SOUTH



WETLAND DETERMINATION FORM - Northcentral and Northeast Region								
Centerline Re-Route Access Road Ancillary Facility Tra	ansmission Line	Other						
Project/Site: NED Milepost: 39245.8 County:	Hartford	Date:	11/13/2014					
Applicant/Owner: Kinder Morgan State: CT	T Samplir	ng Point: BL-B-W00)5-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 🔲 Co	onvex 🔲 None	Slope%.: 0					
Subregion (LRR): Middle Atlantic Lat: 41.844138	Long: -72.7724	46	Datum: NAD83					
Soil Map Unit Name: Wilbraham silt Ioam		NWI Classification:	PSS1Ed					
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes	No (If no, explain	n in Remarks.)						
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No 🧍	Are "Normal" Circur	mstances present?	🗹 Yes 🔲 No					
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No								
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations. trans	sects. important	features, etc.					
Hydrophytic Vegetation Present? Yes No		· · · · · · · · · · · · · · · · · · ·						
Hvdric Soil Present? ✓ ✓ Yes □ No	s the Sampled A	area ⊠ Yes □	Νο					
Wetland Hydrology Present?	vithin a Wetland	? <u> </u>						
Field Wetland Classification: PFO								
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:	Sec	condary Indicators (2 c	or more required)					
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)					
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	Drainage Patterns (B10)							
High Water Table (A2)	Moss Trim Lines (B16)							
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)							
□ Water Marks (B1) ☑ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)							
Sediment Deposits (B2)	Living Roots (C3)							
Drift Deposits (B3) Presence of Reduced Iron (C4)	(C4) Stunted or Stressed Plants (D1)							
Algal Mat or Crust (B4)	Tilled Soils (C6) Geomorphic Position (D2)							
□ Iron Deposits (B5) □ Thin Muck Surface (C7)		Shallow Aquitard (D3	3)					
Inundation Visible on Aerial Imagery (B7)	Microtopographic Relief (D4)							
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	5)					
Field Observations:								
Surface Water Present?								
Surface water Fresent? \Box Fes ∇ No Depth (inclus).	Wotland Hydro	logy Procent?						
$\nabla A = \frac{1}{2} \nabla A = \frac{1}{2} $	wettand Hydro		Yes 🛛 No					
(includes capillary fringe)								
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspec	ctions), if available)	:						
VEGETATION								
Tree Stratum								
Plot Size: 30								
Scientific Name	% Cover	Dominant	Indicator Status					
Quercus palustris	15	YES	FACW					
	30	YES	FAC					
i otal Cover:	40							



Sapling/Shrub Stratum						
Plot Size: 15						
Scientific Name		% Cover	Dominant	Indicator Status		
Rosa nitida Alnus serrulata Cornus amomum Lonicera morrowii	Total Cover:	10 30 20 20 80	NO YES YES YES	FACW OBL FACW FACU		
Herb Stratum						
Plot Size: 5						
Scientific Name		% Cover	Dominant	Indicator Status		
Bidens frondosa Persicaria sagittata Carex stricta Phalaris arundinacea Onoclea sensibilis	Total Cover:	15 10 20 10 20 75	YES NO YES NO YES	FACW OBL OBL FACW FACW		
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
That Are OBL, FACW, or FAC: Z (A) Total Number of Dominant Species Across All Strata: Species Across All Strata: 8 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: That Are OBL, FACW, or FAC: 88 (A/B) Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation	OBL Species: FACW Species: FAC Species: FACU Species: UPL Species: Column Totals:	60 60 30 30 20 0 200 (A) Prevalence Index =	x 1 = 60 $x 2 = 180$ $x 3 = 90$ $x 4 = 80$ $x 5 = 0$ $410 (B)$ $= B/A = 2.05$			
 ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0 ✓ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	/egetation Preser	nt? ☑ Yes [] No		
 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 						
Remarks:						



SOIL													
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)													
Depth (inches)	Matrix		Re	dox Fe	atures				_				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		lexture	Remarks				
0-10	10YR2/1	100					SII	LT LOAM					
10-20	GLEY1 5/10Y	60	7.5YR3/4 5YR5/8	20 10	C C	M M	FIN	NE SAND					
TT 0.0		1.0	10YR6/8	10	C	M	M		D. 111 M.M.C.				
Hydric Soil Indicators: (Applicable to all LRR's unless otherwise noted)													
Histosol (A1) Dolyvalue Relow Surface (S8) // DD R D 2 cm Muck (A40) // DD K 1 M/ DA 440D													
Histosol (A1)			Polyvalue Below Surface (S8) (LRR R, MLRA 149B)						$\Box \text{Coast Prairie Redox (A16) (LRR K R)}$				
Histic Epipedon (A2)				hin Da	urk Surfac	a (SQ) (I R			\Box 5 cm Mucky Peat or Peat (S3) (LRR K R)				
	Sulfide (A4)				Mucky Mi	e (03) (ER		Dark Surface	Dark Surface (S7) (LRR K. L. M)				
☐ Stratified	Lavers (A5)		Loamy Gleved Matrix (F2)						elow Surface (S8) (LRR K. L)				
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S0) (LRR K, 1)									urface (S9) (LRR K. L)				
Thick Dar	k Surface (A12)			ledox l	Dark Surfa	ace (F6)		Iron-Mangan	ese Masses (F12) (LRR K, L, R)				
□ Sandy Mucky Mineral (S1) □ Depleted Dark Surface (F7) □ Piedr									Floodplain Soils (F19) (MLRA 149B)				
Sandy Gl	eyed Matrix (S4)		D F	ledox l	Depressio	ons (F8)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)				
Sandy Re	edox (S5)							Red Parent I	Material (F21)				
□ Stripped Matrix (S6) □ Very Shallow Dark Surface (TF12)													
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)					Other (Explain	in in Remarks)				
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or	problematic.					
Restrictive Lay	yer Fresent?				IIKIIOWII			Hydric Soil Prese	nt? 🗹 Yes 🗌 No				
Remarks:													
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:							
Wetland Qualit	ty: 🗹 High		Moderate	Low			Isolated Wetla	and? 🔲 Yes 🗹	No 🔲 Unknown				
General Comm	nents:												





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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	b: 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?									
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?										
Hydric Soil Present? Ves No	Is the Sampled Area within a Wetland?									
Wetland Hydrology Present? 🗹 Yes 🗖 No										
Field Wetland Classification: PEM										
Remarks: VEG MOWED IN ROW										
	Secondary Indicators (2 or more required)									
Wetland Hydrology Indicators:										
Primary Indicators (minimum of one required; check all that apply)										
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)									
High Water Table (A2)										
Saturation (A3) 🔲 Marl Deposits (B15)										
□ Water Marks (B1) ☑ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)									
Sediment Deposits (B2) Oxidized Rhizospheres along Livin	Living Roots (C3) Saturation Visible on Aerial imagery (C9)									
Drift Deposits (B3)	1 (C4) Stunted or Stressed Plants (D1)									
Algal Mat or Crust (B4)	ils (C6) Geomorphic Position (D2)									
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)									
Inundation Visible on Aerial Imagery (B7)) Microtopographic Relief (D4)									
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)									
Field Observations:										
Surface Water Present?										
Water Table Present?	Wetland Hydrology Present?									
Saturation Present? Yes No Depth (inches): 0	v us ⊡ Yes □ No									
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	pections), if available):									
VEGETATION										
Tree Stratum										
Plot Size: 30										
Scientific Name	% Cover Dominant Indicator Status									
Total Cover:										



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 Onoclea sensibilis Cornus alba Symplocarpus foetidus Carex sp	Total Cover:	10 50 10 10 30 110	YES YES YES YES NA	FACW FACW FACW OBL NONE			
Woody Vine Stratum							
Plot Size: 30							
Scientific Name		% Cover	Dominant	Indicator Status			
	Total Cover:						
Dominance Test Worksheet:	Prevalence Index Worksheet:						
Number of Dominant Species	Total % Cover	of:	Multiply by:				
That Are OBL, FACW, or FAC:	OBL Species:	<u>10</u>	x 1 = <u>10</u>				
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species	:: <u>70</u>	x 2 = <u>140</u>				
	FAC Species:	<u>0</u>	x 3 = <u>0</u>				
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>0</u>	x 4 = <u>0</u>				
	UPL Species:	<u>0</u>	x 5 = <u>0</u>				
	Column Totals:	<u>80 (A)</u>	<u>150 (B)</u>				
		Prevalence Index	= B/A = <u>1.88</u>				
Hydrophytic Vegetation Indicators:							
1 - Rapid Test for Hydrophytic Vegetation							
☑ 2 - Dominance Test is > 50%							
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0							
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic Vegetation Present? 🗹 Yes 🔲 No						
Problematic Hydrophytic Vegetation ¹ (Explain)							
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							
Remarks:							


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	SOIL							
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix Redox Features	Demedia							
(Incres) Color (moist) % Color (moist) % Type ¹ Loc ²	Remarks							
0-3 10YR 3/1 100 ORGANIC								
3-10 10YR 4/1 85 10YR 4/6 5 C M FINE SANDY LOAM 3-10 10YR 4/1 85 10YR 4/6 5 C M 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=Matri								
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Hydric Soil Indicators for Problematic Hydric Hydric Hydric Soil Indicators for Problematic Hydric Hydri	Iric Soils³:							
Histosol (A1) Dolyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L,	, MLRA 149B)							
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (L	LRR K, L, R)							
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3)	3) (LRR K, L, R)							
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L	_, M)							
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8)	8) (LRR K, L)							
Depleted Below Dark Surface (A11)	R K, L)							
Thick Dark Surface (A12)	12) (LRR K, L, R)							
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F7)	F19) (MLRA 149B)							
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 1	144A, 145, 149B)							
Sandy Redox (S5) Red Parent Material (F21)								
Stripped Matrix (S6) Very Shallow Dark Surface ((TF12)							
Dark Surface (S7) (LRR R, MLRA 149B)								
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	s 🗌 No							
Remarks:								
Description of Habitat Characteristics, Aquatic Diversity or General Comments:								
Wetland Quality: □ High ✓ Moderate □ Low Isolated Wetland? □ Yes ✓ No □ Ur	nknown							
General Comments:								





SOUTHWEST



WETLAND DETERMINATION FORM - Northcer	ntral and Nor	theast Region		
Centerline Ce-Route Access Road Ancillary Facility Tra	ransmission Line	Other		
Project/Site: NED Milepost: 39137.4 County:	Hartford	Date:	11/13/2014	
Applicant/Owner: Kinder Morgan State: C	T Sampli	ng Point: BL-B-W0	05-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 🗹 C	onvex 🔲 None	Slope%.: 10	
Subregion (LRR): Middle Atlantic Lat: 41.843814	Long: -72.7725	563	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, explai	n in Remarks.)		
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No	Are "Normal" Circu	mstances present?	🗹 Yes 🔲 No	
Are Vegetation D Soil or Hydrology naturally problematic? 🗹 No				
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, trans	sects, important	features, etc.	
Hydrophytic Vegetation Present?				
Hydric Soil Present?	Is the Sampled A within a Wetland	Area 🛛 Yes 🗹	No	
Wetland Hydrology Present?				
Field Wetland Classification: UPLAND PLOT				
Remarks:				
HYDROLOGY				
Wetland Hydrology Indiastory	Se	condary Indicators (2)	or more required)	
		Surface Soil Cracks	(B6)	
		Drainage Patterns (B	(20) 310)	
Sunace water (A1) Water-Stained Leaves (B9)	Moss Trim Lines (B16)			
High Water Table (A2) Aquatic Fauna (B13)	Dry-Season Water Table (C2)			
Saturation (A3) Main Deposits (B15)	\square Cravfish Burrows (C8)			
Water Marks (B1) Hydrogen Sunde Odor (C1)	Saturation Visible on Aerial imagery (C9)			
Sediment Deposits (B2) Oxidized Rhizospheres along Living Oxidized Rhizospheres along Living	Stunted or Stressed Plants (D1)			
Dhit Deposits (B3) Presence of Reduced from (C4)	(D^{+})			
Algai Mat or Crust (B4)	Solis (C6) Shallow Aquitard (D3)			
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Microtopographic Relief (D4)			
Inundation Visible on Aerial Imagery (B7) U Other (Explain in Remarks)	EAC-Neutral Test (D5)			
Sparsely vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present? Yes No Depth (inches):				
Water Table Present? Yes No Depth (inches):	Wetland Hydro	ology Present?	Vac 🔽 Na	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)			ies 🗹 no	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ections), if available)	:		
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover	Dominant	Indicator Status	
Quercus rubra	10	YES	FACU	
Total Cover	30			



Sapling/Shrub Stratum								
Plot Size: 15								
Scientific Name		% Cover	Dominant	Indicator Status				
Rosa multiflora Elaeagnus angustifolia Lonicera morrowii Ligustrum vulgare Rubus fruticosus		10 10 10 10 15	YES YES YES YES YES	FACU FACU FACU FACU UPL				
	Total Cover:	55						
Herb Stratum								
Plot Size: 5								
Scientific Name		% Cover	Dominant	Indicator Status				
Plantago major Daucus carota Phleum pratense Euthamia graminifolia	Total Cover:	10 5 20 10 45	YES NO YES YES	FACU UPL FACU FAC				
Woody Vine Stratum								
Plot Size: 30								
Scientific Name		% Cover	Dominant	Indicator Status				
	Total Cover:							
Dominance Test Worksheet:	Prevalence Index Worksheet:							
Number of Dominant Species That Are OBL, FACW, or FAC: <u>2 (A)</u>	Total % Cover	of:	Multiply by:					
Total Number of Dominant	OBL Species:	<u>0</u>	x 1 = 0					
Species Across All Strata: <u>10 (B)</u>	FAC VV Species	:: <u>U</u> 20	$x 2 = \underline{0}$					
Percent of Dominant Species	FACU Species	- 80	x = 320					
That Are OBL, FACW, or FAC: <u>20 (A/B)</u>	UPL Species:	20	x = 5 = 100					
	Column Totals:	<u>130 (A)</u>	<u>510 (B)</u>					
		Prevalence Index :	= B/A = <u>3.92</u>					
Hydrophytic Vegetation Indicators:								
1 - Rapid Test for Hydrophytic Vegetation								
□ 2 - Dominance Test is > 50%								
□ 3 - Prevalence Index is ≤ 3.0								
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	/egetation Preser	nt? 🗌 Yes 🖸	2 No				
Problematic Hydrophytic Vegetation ¹ (Explain)								
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:	I							



SOIL									
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Depth Matrix Redox Features					T	Demedia		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-20	5YR4/6	100					SA	NDY LOAM	
¹ Type: C=Cond	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	l or Coated Gra	ins. ² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable t	to all LRR's, unl	ess ot	herwise n	oted.)		Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)									
Histic Epipedon (A2)									
Black Hist	tic (A3)			Thin Da	ark Surfac	e (S9) (LR	R R, MLRA 149	B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)		Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🔲 [Deplete	ed Matrix (F3)		Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			Redox	Dark Surfa	ace (F6)		Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ICKY Mineral (S1)			Deplete	ed Dark Su	urface (F7)	1	Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyea Matrix (S4)			≺edox	Depressio	ons (F8)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
	200X (55)							Red Parent	Material (F21)
	VIATITIX (56)	MID	A 140P)						v Dark Surrace (TF12)
Indicators of h		, IVILR/	n 149D)	ologiur	must ha ar	acont unl	and disturbed or		in in Remarks)
Bestrictive Lev						esent, uni			
Restrictive Lay	er Present?	Ц	res 🔽 No		JIKNOWN			Hydric Soil Prese	ent? □ Yes 🗹 No
Remarks:							I		
Description of	Habitat Characte	ristics,	Aquatic Diversit	/ or Ge	eneral Con	nments:	Isolated Wet	and? 🗆 Yes 🗖	No 🗖 Unknown
	.,. D								
General Comm	ients:								







WETLAND DETERMINATION FORM - Northcentral and Northeast Region									
Centerline Ce-Route Access Road Ancillary Facility Tra	ansmission Line 🔲 Other								
Project/Site: NED Milepost: 40197.2 County:	Hartford Date: 11/12/	/2014							
Applicant/Owner: Kinder Morgan State: C	Γ 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 D Soil or Hydrology 🗹 significantly disturbed? D No	Are "Normal" Circumstances present?	Yes 🔲 No							
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No									
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transects, important featur	res, etc.							
Hydrophytic Vegetation Present? Ves No									
Hydric Soil Present? 🗹 Yes 🗖 No	s the Sampled Area vithin a Wetland?								
Wetland Hydrology Present? Ves No									
Field Wetland Classification: PFO									
Remarks: BERM FARM POND NORTH OF US									
HYDROLOGY									
Wetland Hydrology Indicators:	Secondary Indicators (2 or more	required)							
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)								
Surface Water (A1)	Drainage Patterns (B10)								
□ High Water Table (A2) □ Aquatic Fauna (B13)	Moss Trim Lines (B16)								
Saturation (A3)	Dry-Season Water Table (C2)	2)							
Water Marks (B1)	Crayfish Burrows (C8)								
Sediment Deposits (B2) Oxidized Rhizospheres along Living	Roots (C3) Saturation Visible on Aerial i	magery (C9)							
□ Drift Deposits (B3) □ Presence of Reduced Iron (C4)	ron (C4) Stunted or Stressed Plants (D1)								
Algal Mat or Crust (B4)	in Tilled Soils (C6) Geomorphic Position (D2)								
□ Iron Deposits (B5) □ Thin Muck Surface (C7)) Discrete Shallow Aquitard (D3)								
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)								
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)								
Field Observations:									
Surface Water Present? Ves 🗖 No Depth (inches): 0-1									
Water Table Present? ∇ Yes \Box No Depth (inches): 0	Wetland Hydrology Present?								
Saturation Present? Yes No Depth (inches): 0	✓ Yes	🗆 No							
(includes capillary fringe)									
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ctions), if available):								
VEGETATION									
Tree Stratum									
Plot Size: 30									
Scientific Name	% Cover Dominant Indi	icator Status							
Thuja occidentalis Acer rubrum	5 NO 30 YES	FACW FAC							
Total Cover:	35								
Plot Size: 30 Scientific Name Thuja occidentalis Acer rubrum Total Cover:	% Cover Dominant Indi 5 NO 30 YES 35	icator Status FACW FAC							



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Cornus amomum		20	YES	FACW
Rosa multiflora		20 10	YES	FACU
	Total Cover:	50		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Onoclea sensibilis Enilobium coloratum		10	YES	FACW
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:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>25</u>	x 1 = <u>25</u>	
Total Number of Dominant Species Across All Strata: <u>6 (B)</u>	FACW Species	:: <u>35</u>	x 2 = <u>70</u>	
	FAC Species:	<u>30</u>	x 3 = <u>90</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67 (A/B)</u>	FACU Species	: <u>30</u>	x 4 = <u>120</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>120 (A)</u>	<u>305 (B)</u>	
		Prevalence Index =	= B/A = <u>2.54</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	egetation Presen	nt? ☑ Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to	docum	ent the i	ndicator o	or confirm th	ne absen	ce of indicators.)	1
Depth	Matrix		Re	dox Fe	atures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	Textu	ure	Remarks
0-8	10YR2/1	100						SILT LO	OAM	
8-18	GLAY1 5/10Y	60	7.5YR3/4 5YR5/8 10YR5/6	20 10 10	с с с с	M M M	V	ERY FIN	E SAND	
¹ Type: C=Con	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	/ered Sand	d or Coated	Grains.	² Location: PL:	=Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable	to all LRR's, unle	ess otl	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			olvval	ue Below	Surface (S	S8) (I RR R		□ 2 cm Muck (A10) (LRR K L MI RA 149B)
	nedon (A2)			/LRA 1	149B)	eanace (e	, <u>(</u>			Bedox (A16) (LBB K B)
	tic (A3)		п т	hin Da	ork Surfac	e (S9) (I R		149R)		Peat or Peat (S3) (LRR K L R)
	Sulfide (A4)			00000		o (00) (E1)		1450)		e(SZ) (LRR K M)
				oomu		otrix (E2)				e(07) (ERR R, E, M)
	Layers (A3)			.oamy						
		ace (A		Pepiere	o iviatrix ((F3)				
	k Sullace (A12)			kedox I		ace (F6)				hese Masses (F12) (LRR K, L, R)
	ICKY Mineral (S1)			Peplete	d Dark Si	urface (F7))		Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy Gi	eyed Matrix (S4)			Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
	dox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	resent, unl	ess disturbe	d or prob	lematic.	
								I	Hydric Soil Prese	ent? 🗹 Yes 🗌 No
Remarks: REFUSAL AT	18" DUE TO STO	ONE								
Description of	Habitat Characte	ristics.	Aquatic Diversity	or Ge	neral Cor	nments:				
Decemption of				0.00						
Wetland Qualit	ty: 🗹 High		Moderate	Low			Isolated V	Vetland?	🗋 Yes 🗹	No 🔲 Unknown
General Comm	ients:									







WETLAND DETERMINATION FORM - North	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 Towns	ip: 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?: \checkmark Yes	No (If no, explain in Remarks.)							
Are Vegetation D Soil O or Hydrology Significantly disturbed? 🗹 No	Are "Normal" Circumstances present? 🗹 Yes 🔲 I							
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No								
SUMMARY OF FINDINGS - Attach site map showing sampling point	nt locations, transects, important features, etc.							
Hydrophytic Vegetation Present?								
Hydric Soil Present?	Is the Sampled Area within a Wetland? □ Yes ☑ No							
Wetland Hydrology Present?								
Field Wetland Classification: UPLAND PLOT								
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)							
Primary Indicators (minimum of one required: check all that apply)	Surface Soil Cracks (B6)							
Surface Water (A1)	Drainage Patterns (B10)							
High Water Table (A2)	Moss Trim Lines (B16)							
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)							
Water Marks (B1)								
	ng Living Roots (C3)							
	nn (C4) Stunted or Stressed Plants (D1)							
Alsol Matter Crust (D4) Becont Iron Deduction in Tilled 5	a Tilled Soils (C6)							
	□ Shallow Aquitard (D3)							
	Microtopographic Relief (D4)							
	FAC-Neutral Test (D5)							
Sparsely vegetated Concave Surface (B8)								
Field Observations:								
Surface Water Present? Yes No Depth (inches):								
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present?							
Saturation Present?	∐ Yes ⊠ No							
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous in	_l ispections), if available):							
VEGETATION								
Tree Stratum								
Plot Size: 30								
Scientific Name	% Cover Dominant Indicator Status							
Juniperus virginiana	30 YES FACU							
Total Cov	er: 30							



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Lonicera morrowii Ligustrum vulgare Berberis thunbergii Rubus fruticosus	Total Cover:	20 10 5 30 65	YES NO NO YES	FACU FACU FACU UPL
Harb Stratum				
Herb Stratum				
Scientific Name	1	% Covor	Dominant	Indicator Status
Diantago major		20	VES	FACIL
Viola sorria		5	NO	FAC
Triolium repens	Total Cover:	35	YES	FACU
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:		I	Ι
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species	:: <u>5</u>	x 2 = <u>10</u>	
Species Across All Strata:	FAC Species:	<u>5</u>	x 3 = <u>15</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0 (A/B)</u>	FACU Species	<u>95</u>	x 4 = <u>380</u>	
	UPL Species:	<u>30</u>	x 5 = <u>150</u>	
	Column Totals:	<u>135 (A)</u>	<u>555 (B)</u>	
		Prevalence Index :	= B/A = <u>4.11</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 2 - Dominance Test is > 50%				
□ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	egetation Preser	nt? 🗌 Yes 🗹	No No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	e the d	epth needed to	docum	nent the i	ndicator o	or confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	eatures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	Texture		Remarks
0-5	10YR 4/4	100	10YR 6/8	20	с	м		SANDY	LOAM	
5-15	7.5YR 5/6	100	10YR 6/8	20	с	M		SANDY	LOAM	
17 0.0								<u> </u>		
'Type: C=Cond	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	/ered Sand	d or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Appli	cable t	o all LRR's, unle	ess ot	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			olyval /II RA ´	ue Below 149B)	Surface (S	68) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)				,				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	'hin Da	ark Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			.oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			.oamy	Gleyed M	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A1	1) 🔲 🗆	Deplete	ed Matrix ((F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox	Dark Surfa	ace (F6)			Iron-Mangar	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1))		Deplete	ed Dark Su	urface (F7))		Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	resent, unl	ess disturbe	d or prob	lematic.	
Restrictive Lay	ver Present?		Yes 🗹 No		Jnknown				Hydric Soil Prese	mt? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characte	eristics,	Aquatic Diversity	or Ge	eneral Cor	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗌 Yes 🔲	No 🔲 Unknown
General Comm	ients:									
1										

PHOTOS





SOUTH



WETLAND DETERMINATION FORM - Northcentral and Northeast Region							
Centerline CRe-Route Access Road Ancillary Facility	ransmission Line 🔲 Other						
Project/Site: NED Milepost: 42758.9 County:	Hartford Date: 11/12/2014						
Applicant/Owner: Kinder Morgan State: C	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?						
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? Ves No							
Hydric Soil Present?	Is the Sampled Area within a Wotland 2 ☑ Yes □ No						
Wetland Hydrology Present? 🗹 Yes 🗖 No							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)						
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)						
High Water Table (A2)	Moss Trim Lines (B16)						
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)						
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)						
□ Sediment Deposits (B2) ☑ Oxidized Rhizospheres along Living	long Living Roots (C3)						
Drift Deposits (B3) Presence of Reduced Iron (C4)	on (C4)						
Algal Mat or Crust (B4)	in Tilled Soils (C6)						
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present? Yes No Depth (inches):							
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present?						
Saturation Present?	☑ Yes □ No						
Remarks (Describe Recorded Data (stream dade monitoring well aerial photos previous inso	ections) if available).						
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name	% Cover Dominant Indicator Status						
Total Cover:							



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 Phalaris arundinacea		10	NO VES	FACW		
	Total Cover:	100	120	17.000		
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:			'		
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
Number of Dominant Species	Total % Cover of: Multiply by:					
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>			
Total Number of Dominant Species Across All Strate: 1 (B)	FACW Species	:: <u>100</u>	x 2 = <u>200</u>			
	FAC Species:	<u>0</u>	x 3 = <u>0</u>			
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>0</u>	x 4 = <u>0</u>			
	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	<u>100 (A)</u>	<u>200 (B)</u>			
	Prevalence Index = $B/A = 2.00$					
Hydrophytic Vegetation Indicators:						
1 - Rapid Test for Hydrophytic Vegetation						
3 - Prevalence Index is ≤ 3.0						
4 - Morphological Adaptations ¹ (Provide supporting	Hydrophytic \	egetation Presen	t? ☑ Yes [] No		
Problematic Hydrophytic Vegetation1 (Explain)						
present, unless disturbed or problematic.						
Remarks:						



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	locum	ent the in	ndicator o	r confirm t	the absen	ce of indicators.)	1
Depth	th Matrix Redox Features						_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	lextu	ure	Remarks
0-9	2.5Y 4/1	92	5YR 3/4	8	С	PL	SILT LOAM		MAC	
9-20	5YR 6/1	85	10YR 4/6	15	С	м	F	INE SAND	DY LOAM	
¹ Type: C=Cond	L centration, D=De	pletio	n, RM=Reduced	Matrix,	CS=Cov	l vered Sand	l d or Coated	Grains.	² Location: PL=	EPore Lining, M=Matrix
Hydric Soil Inc	dicators: (Appli	cable	to all LRR's, unle	ess otl	herwise n	oted.)			Indicators for Pr	roblematic Hydric Soils ³ :
Histosol (/	A1)		D P	olyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		— N	ILRA 1	149B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗆	hin Da	ark Surfac	e (S9) (LR	R R, MLRA	(149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox l	Dark Surfa	ace (F6)			Iron-Mangan	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)	1		Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	hydrophytic veget	ation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
- Romarka:								I	Hydric Soil Prese	ent? 🗹 Yes 🗌 No
Remarks.										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High	V	Moderate	Low			Isolated	Wetland?	🗋 Yes 🗹	No 🔲 Unknown
General Comm	nents:									
<u> </u>										





NORTH



WETLAND DETERMINATION FORM - Northcer	ntral and Northeast Region						
│	ansmission Line 🗖 Other						
Project/Site: NED Milepost: 42501.4 County:	Hartford Date: 11/12/2014	1					
Applicant/Owner: Kinder Morgan State: C	T 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: NAE	083					
Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes	NWI Classification: Not ma	pped					
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 man showing sampling point locations, transacts, important features, ato							
Hvdrophytic Vegetation Present?	,,,						
	s the Sampled Area						
Wetland Hydrology Present?	within a Wetland?						
Field Wetland Classification: UPLAND PLOT							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (2 or more requ	ired)					
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)						
□ Surface Water (A1) □ Water-Stained Leaves (B9)	Drainage Patterns (B10)						
High Water Table (A2)	Moss Trim Lines (B16)						
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)						
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)						
Sediment Deposits (B2) Oxidized Rhizospheres along Living	Roots (C3)	ery (C9)					
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	(C6) Geomorphic Position (D2)						
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)						
Sparsely Vegetated Concave Surface (B8)	☐ FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present? Ves No. Denth (inches):							
Water Table Present? \Box Yes \Box No. Denth (inches):	Wetland Hydrology Present?						
Saturation Present? Yes No Depth (inches):		No					
(includes capillary fringe)							
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ctions), if available):						
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name	% Cover Dominant Indicato	r Status					
Carya ovata Prunus serotina	10 NO FA 20 VES FA						
Quercus rubra	20 YES FA	CÚ					
ragus granoliolia		0					
l lotal Cover:	UU						



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Acer saccharum		10	YES	FACU
ragus grandiiolia	Total Cover:	5 15	TES	FACU
		10		
Herb Stratum				
Plot Size: 5				
		% Cover	Dominant	Indicator Status
	Total Cover:			
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		,		
	Total Cover:		I	I
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species	s: <u>0</u>	x 2 = <u>0</u>	
	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0 (A/B)</u>	FACU Species	: <u>75</u>	x 4 = <u>300</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>75 (A)</u>	<u>300 (B)</u>	
		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 Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	legetation Presen	nt? 🗌 Yes 🛛] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic				
Remarks:				



SOIL									
Profile Descrip	otion: (Describe	the d	epth needed to	docum	nent the in	ndicator o	or confirm the a	absence of indicators.)	
Depth	Depth Matrix Redox Features			_					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	Texture	Remarks
0-3	10YR 3/1	100						LOAM	
	40)/5 4/4	100							
3-12	10YR 4/4	100						SILT LOAM	REFUSAL AT 12 INCHES DUE TO ROCKS
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	d or Coated Gra	ains. ² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Ind	dicators: (Applie	cable 1	to all LRR's, unle	ess ot	herwise n	oted.)		Indicators for Pr	oblematic Hydric Soils ³ :
Histosol (A	A1)			olyval	ue Below	Surface (S	88) (LRR R,	2 cm Muck (A	A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		Ν	ILRA [·]	149B)			Coast Prairie	Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	'hin Da	ark Surfac	e (S9) (LR	R R, MLRA 149	9B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)		Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗖 🛛	eplete	ed Matrix (F3)		Thin Dark Su	rface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox	Dark Surfa	ace (F6)		Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	ed Dark Su	urface (F7))	Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)		Mesic Spodie	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)							Red Parent N	Material (F21)
Stripped I	Matrix (S6)							Very Shallow	/ Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)					Other (Expla	in in Remarks)
³ Indicators of I	hydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbed of	r problematic.	
	yer Fresent?				JIKIOWI			Hydric Soil Prese	nt? 🗌 Yes 🗹 No
Remarks:									
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	eneral Con	nments:			
Wetland Quali	ty: 🔲 High		Moderate	Low			Isolated Wet	land? 🔲 Yes 🔲	No 🔲 Unknown
General Comm	ients:								







WETLAND DETERMINATION FORM - Northcen	tral and Northea	st Region	
Centerline Ce-Route Access Road Ancillary Facility Tra	nsmission Line 🔲 🕻	Other	
Project/Site: NED Milepost: 44767.1 County:	Hartford	Date:	11/10/2014
Applicant/Owner: Kinder Morgan State: CT	Sampling Po	pint: BL-B-W00	1-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 S	Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.856189	Long: -72.763084	[Datum: NAD83
Soil Map Unit Name: Wilbraham silt Ioam	NWI	Classification:	PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes	No (If no, explain in Re	emarks.)	
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No 🥻	Are "Normal" Circumstan	ces present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transects	s. important f	eatures. etc.
Hydrophytic Vegetation Present?	,	<i>·</i> •	,
Hydric Soil Present?	the Sampled Area	⊠ Yes □	No
Wetland Hydrology Present?	vithin a Wetland?		
Field Wetland Classification: PFO			
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	Seconda	ry Indicators (2 or	r more required)
Primary Indicators (minimum of one required; check all that apply)	Surfa	ace Soil Cracks (B6)
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	🗖 Draii	nage Patterns (B	10)
High Water Table (A2)	Mos:	s Trim Lines (B16	5)
Saturation (A3) 🔲 Marl Deposits (B15)	Dry-	Season Water Ta	able (C2)
□ Water Marks (B1) □ Hydrogen Sulfide Odor (C1)	🗖 Cray	/fish Burrows (C8)
□ Sediment Deposits (B2) ☑ Oxidized Rhizospheres along Living F	Roots (C3)	ration Visible on	Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	🗖 Stun	nted or Stressed F	Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils ((C6) 🗌 Geor	morphic Position	(D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	Shall	llow Aquitard (D3))
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		otopographic Rel	ief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC	-Neutral Test (D5	5)
Field Observations -			
Surface Water Present? \square Yes \square No. Depth (inches):			
Water Table Present? \square Yes \square No Depth (inclus):	Wetland Hydrology I	Procent?	
Saturation Present? ∇ Yes \Box No Depth (inches): 16	wedanu nyulology i	☑	Yes 🛛 No
(includes capillary fringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspec	ctions), if available):		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	30	YES	FAC
Quercus palustris Populus sp	5	NO NO	FACW FACU
Ulmus rubra	10	YES	FAC
Total Cover:	50		



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Alnus incana Rosa multiflora Lindera benzoin Lonicera morrowii Euonymus alatus		5 20 20 2 3	NO YES YES NO NO	FACW FACU FACW FACU UPL
	Total Cover:	50		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Solidago gigantea Symplocarpus foetidus Carex sp	Total Cover:	5 10 20 35	NO YES NA	FACW OBL NONE
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 4 (A)	OBL Species:	<u>10</u>	x 1 = <u>10</u>	
Total Number of Dominant Species Across All Strata: 5 (B)	FACW Species	:: <u>35</u>	x 2 = <u>70</u>	
	FAC Species:	<u>40</u>	x 3 = <u>120</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80 (A/B)</u>	FACU Species	: <u>27</u>	x 4 = <u>108</u>	
	UPL Species:	<u>3</u>	x 5 = <u>15</u>	
	Column Totals:	<u>115 (A)</u>	<u>323 (B)</u>	
		Prevalence Index :	= B/A = <u>2.81</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
\checkmark 3 - Prevalence Index is \leq 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	egetation Preser	nt? ⊡ Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Re	Redox Features				Demedia		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ure	Remarks
0-10	7.5YR 2.5/1	92	7.5YR 3/4	8	С	PL	SILT LOAM		.OAM	
10-16	5YR 4/3	90	7.5YR 4/6	10	С	М	SA	NDY CL	AY 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=Con	centration, D=De	pletior	n, RM=Reduced	Matrix,	CS=Cov	vered Sand	d or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :									oblematic Hydric Soils ³ :	
Histosol (A	A1)			Polyvalı	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		Ν	/ILRA 1	49B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		י 🗆	⁻ hin Da	rk Surface	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	I1) 🗹 [Deplete	d Matrix (F3)			Thin Dark Su	ırface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox I	Dark Surfa	ace (F6)			Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			Deplete	d Dark Su	urface (F7))		Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	/ Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Explain	in in Remarks)
³ Indicators of I	hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbe	d or prob	olematic.	
Restrictive Lay	ver Present?		Yes 🗹 No	u u	nknown				Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	/ or Ge	neral Con	nments:				
Wetland Quali	ty: 🗹 High		Moderate	Low			Isolated V	Vetland?	Yes 🗹	No 🔲 Unknown
General Comm	nents:									

PHOTOS





BL-B-W001-PFO Page 4



WETLAND DETERMINATION FORM - Northce	entral and Nor	theast Region	
Centerline 🔲 Re-Route 🔲 Access Road 🔲 Ancillary Facility 🔲 T	ransmission Line	Other	
Project/Site: NED Milepost: 44788.5 County:	Hartford	Date:	11/10/2014
Applicant/Owner: Kinder Morgan State: 0	CT Sampli	ng Point: BL-B-W00	D1-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 🔲 C	onvex 🔲 None	Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.856376	Long: -72.7632	265	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, explai	n in Remarks.)	
Are Vegetation 🗹 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🔲 No	Are "Normal" Circu	mstances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, trans	sects, important	features, etc.
Hydrophytic Vegetation Present? Yes No	· ·	· •	
Hydric Soil Present?	Is the Sampled A	rea ⊃ ⊠ Yes □	No
Wetland Hydrology Present?	within a wetland	, <u>_</u>	
Field Wetland Classification: PEM			
Remarks: ROW MOWED			
HYDROLOGY			
Wetland Hydrology Indicators:	Se	condary Indicators (2 c	or more required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
□ Surface Water (A1) □ Water-Stained Leaves (B9)		Drainage Patterns (E	310)
High Water Table (A2)		Moss Trim Lines (B1	6)
Saturation (A3) Marl Deposits (B15)		Dry-Season Water T	able (C2)
☑ Water Marks (B1)		Crayfish Burrows (C	8)
Sediment Deposits (B2)	g Roots (C3)	Saturation Visible on	Aerial imagery (C9)
☑ Drift Deposits (B3) ☑ Presence of Reduced Iron (C4)		Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	s (C6)	Geomorphic Position	ר (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	5)
Surface Water Present?			
Weter Table Present?	Wotland Hydro	logy Brocont?	
Saturation Present?	wettand Hydro		Yes 🛛 No
(includes capillary fringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	ections), if available)	:	
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Quercus palustris	5	YES	FACW
Ustrya virginiana	1		FACU
i otal Cover:	Ø		



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 Phalaris arundinacea		30 20	YES YES	OBL FACW
	Total Cover:	80		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:	-		
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Ale OBE, FACW, OF FAC.	OBL Species:	<u>30</u>	x 1 = <u>30</u>	
Total Number of Dominant	FACW Species	s: <u>55</u>	x 2 = <u>110</u>	
	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL_FACW. or FAC: 80 (A/B)	FACU Species	:: <u>6</u>	x 4 = <u>24</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals	: <u>91 (A)</u>	<u>164 (B)</u>	
		Prevalence Index :	= B/A = <u>1.80</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
Image: 3 - Prevalence Index is ≤ 3.0				
4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	Hydrophytic V	Vegetation Preser	nt? ☑ Yes 🛛] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL									
Profile Descrip	otion: (Describe	the d	epth needed to a	docum	nent the in	ndicator o	or confirm the	e absence of indicator	s.)
Depth	Matrix	Matrix Redox Features			Tautura	Damasla			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-8	10YR2/1	90	2.5YR3/6	10	С	PL	CLAY LOAM		
8-20	10YR4/6	80	10YR2/2 2.5YR3/6	15 5	C C	PL PL	SAN	IDY CLAY LOAM	
¹ Type: C=Con	L centration, D=De	pletior	n, RM=Reduced	Matrix,	, CS=Cov	l /ered Sand	l d or Coated G	rains. ² Location: F	L=Pore Lining, M=Matrix
Hydric Soil Ind	dicators: (Applie	able 1	to all LRR's, unle	ess otl	herwise n	oted.)		Indicators for	Problematic Hydric Soils ³ :
Histosol (A1)		D P	olyval	ue Below	Surface (S	88) (LRR R,	2 cm Muc	k (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		— N	ILRA 1	149B)		, , , , ,	Coast Pra	irie Redox (A16) (LRR K, L, R)
Black His	tic (A3)		П Т	hin Da	ark Surfac	e (S9) (LR	R R, MLRA 1	49B) 🔲 5 cm Muc	ky Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surf	ace (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)		Polyvalue	Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ice (A	11) 🗹 C	eplete	ed Matrix ((F3)		Thin Dark	Surface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox I	Dark Surfa	ace (F6)		Iron-Mang	anese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			Peplete	ed Dark Su	urface (F7))	Piedmont	Floodplain Soils (F19) (MLRA 149B)
Sandy GI	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)		Mesic Spo	odic (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)							Red Pare	nt Material (F21)
Stripped	Matrix (S6)							Very Shal	ow Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	MLR	A 149B)					Other (Ex	olain in Remarks)
³ Indicators of	nydrophytic veget	ation a	and wetland hydro	ology r	nust be pr	resent, unl	ess disturbed	or problematic.	
Remarks:								Hydric Soil Pre	sent? 🗹 Yes 🔲 No
Description of		ristics,	Aquatic Diversity	or Ge	neral Con	nments:			
General Comm	iy: L High			LOW			Isolated W	etiand? 🔲 Yes	







WETLAND DETERMINATION FORM - Northce	entral and Nort	heast Region	
Centerline 🗖 Re-Route 🔲 Access Road 🗖 Ancillary Facility 🗖 T	ransmission Line	□ Other	
Project/Site: NED Milepost: 44510.4 County:	Hartford	Date:	11/10/2014
Applicant/Owner: Kinder Morgan State: 0	CT Samplin	a Point: BL-B-W00	D1-UPL
Investigators: RW JW Quad Name: Avon Township:	Bloomfield		
Logbook No.: 2014-2 Logbook Pg.: 94 Tract: 27753			
Landform (hillslope, terrace, etc.):	Concave 🗹 Co	onvex 🔲 None	Slope%.: 5
	Long: -72.7639	07	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?: Ves	No (If no, explain	in Remarks.)	
Are Vegetation Soil or Hydrology significantly disturbed? No	Are "Normal" Circun	nstances present?	🗹 Yes 🔲 No
Are Vegetation □ Soil □ or Hydrology □ naturally problematic? ☑ No			
CUMMARY OF FINDINGS Attack site man showing compliant point	la antiona trans	ante immentent	factures ato
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, trans	ects, important	features, etc.
	Is the Sampled A	rea 👝 🗤 🗖	(
Hydric Soil Present?	within a Wetland	? LI Yes ⊠	NO
Pielo Wetiano Classification. OPLAND PLOT			
Remarks.			
HYDROLOGY			
Wetland Hydrology Indicators:	Sec	condary Indicators (2 c	or more required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
□ Surface Water (A1) □ Water-Stained Leaves (B9)		Drainage Patterns (E	310)
High Water Table (A2)		Moss Trim Lines (B1	6)
Saturation (A3) Marl Deposits (B15)		Dry-Season Water T	able (C2)
Water Marks (B1)		Crayfish Burrows (Ca	8)
Sediment Deposits (B2)	Roots (C3)	Saturation Visible on	Aerial imagery (C9)
□ Drift Deposits (B3) □ Presence of Reduced Iron (C4)		Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	s (C6)	Geomorphic Positior	n (D2)
		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	5)
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No Depth (inches):	Wetland Hydro	logy Present?	Ves 🗹 No
Saturation Present? Yes No Depth (inches): (includes capillary fringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	ections), if available):		
	,, ,		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	5	YES	FACU
Populus sp Acer saccharum	3	NO YES	FACU
Prunus serotina	5	YES	FACU
Total Cover:	23		



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:	Prevalence In	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: <u>4 (B)</u>	FACW Species	s: <u>0</u>	x 2 = <u>0</u>	
	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
That Are OBL, FACW, or FAC: <u>0 (A/B)</u>	FACU Species	: <u>33</u>	x 4 = <u>132</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals	: <u>33 (A)</u>	<u>132 (B)</u>	
		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	Hydrophytic	Vegetation Preser	nt? 🗌 Yes 🗹	🛛 No
data in remarks of on a separate sheet)				
Problematic Hydrophytic Vegetation ¹ (Explain)				
present, unless disturbed or problematic.				
Remarks:	1			



SOIL													
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)													
Depth (inches)	Matrix		Redox Features				_						
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		rexture		Remarks			
0-14	7.5YR 3/3	100					FI	INE SAND	DY LOAM				
14-20 7.5YR 3/4 100							FI	INE SAND	DY LOAM				
1 Image: Carbon Concentration Depletion RM=Reduced Matrix CS=Concentration 2Location: PL = Pore Lining M=Matrix													
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils ³													
\square Histosol (A1) \square Polyvalue Below Surface (SR) (LRR R \square 2 cm Muck (A10) (LRR K MLRA 149B)													
				ILRA [·]	149B)	Sunace (C			Coast Prairie Redox (A16) (LRR K. L. R)				
□ Black Histic (A3)				Thin Dark Surface (S9) (LRR R. MLRA 149B)					☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
Hvdrogen Sulfide (A4)				Loamy Mucky Mineral (F1) (LRR K. L)					Dark Surface (S7) (LRR K, L, M)				
Stratified Lavers (A5)				Loamy Gleyed Matrix (F2)					Polyvalue Below Surface (S8) (LRR K, L)				
Depleted	Below Dark Surfa	ace (A	11) 🗖 🗆	Depleted Matrix (F3)					Thin Dark Surface (S9) (LRR K, L)				
Thick Dar	Thick Dark Surface (A12)				Dark Surfa	ace (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)				
Sandy Mu	ucky Mineral (S1)			eplete	ed Dark Su	urface (F7)	1		Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Re	edox (S5)								Red Parent Material (F21)				
Stripped Matrix (S6)								Very Shallov	w Dark Surface (TF12)				
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)			
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.				
	yer Fresent?				JIKIOWI			I	Hydric Soil Prese	nt? 🔲 Yes 🗹 No			
Remarks:													
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:							
Wetland Quality: High Moderate Low Isolated Wetland? Yes No Unknown													
General Comments:													







WETLAND DETERMINATION FORM - Northcentral and Northeast Region									
Centerline	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 Local R	elief: 🗹 Concave 🗖 Convex 🗖 None Slope% · 0								
DRAINAGEWAY									
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 D No (If no, explain in Remarks.)								
Are Vegetation Soil or Hydrology significantly disturbed?	☑ No Are "Normal" Circumstances present? ☑ Yes □ No								
Are Vegetation D Soil or Hydrology naturally problematic?	☑ No								
SUMMARY OF FINDINGS - Attach site map showing sampling	ng point locations, transects, important features, etc.								
Hydrophytic Vegetation Present?									
Hydric Soil Present?	Is the Sampled Area ☑ Yes □ No								
Wetland Hydrology Present?	within a Wetland?								
Field Wetland Classification: PFO									
Remarks:									
	Secondary Indicators (2 or more required)								
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)								
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)								
Surface Water (A1) Water-Stained Leaves (
High Water Table (A2) Aquatic Fauna (B13)									
Saturation (A3) Marl Deposits (B15)	$\Box \text{Dry-Season water Table (C2)}$								
Water Marks (B1) Hydrogen Sulfide Odor	(C1) Crayisin Burrows (C6)								
Sediment Deposits (B2) Oxidized Rhizospheres	along Living Roots (C3) Stunted or Stressed Plants (D1)								
Drift Deposits (B3) Presence of Reduced In									
	Shallow Aquitard (D3)								
I Iron Deposits (B5) Inin Muck Surface (C7)	Microtopographic Relief (D4)								
	FAC-Neutral Test (D5)								
Field Observations:									
Surface Water Present? U Yes V No Depth (inches):									
Water Table Present? Ves Vos Depth (inches): 15	Wetland Hydrology Present?								
Saturation Present? Ves No Depth (inches): 0 (includes capillary fringe)									
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pr	evious inspections), if available):								



VEGETATION						
Tree Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
Quercus rubra		10	YES	FACU		
Quercus palustris		20	YES	FAC		
Ostrya virginiana		10	YES	FACU		
	Total Cover:	55				
Sapling/Shrub Stratum						
Plot Size: 15	1	~ ~				
		% Cover	Dominant			
Lonicera morrowii		10	YES	FACU		
Rosa multiflora Berberis thunberaii		5 10	NO YES	FACU FACU		
	Total Cover:	45	- 1			
Herb Stratum						
Plot Size: 5						
Scientific Name		% Cover	Dominant	Indicator Status		
Carex stricta Onoclea sensibilis		25 10	YES	OBL FACW		
	Total Cover:	35	120	T AGW		
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
Number of Dominant Species	Total % Cover	of:	Multiply by:			
That Ale OBE, FACW, of FAC.	OBL Species:	<u>25</u>	x 1 = <u>25</u>			
Total Number of Dominant	FACW Species	s: <u>50</u>	x 2 = <u>100</u>			
	FAC Species:	<u>15</u>	x 3 = <u>45</u>			
Percent of Dominant Species That Are OBL_EACW_or_EAC: 56 (A/B)	FACU Species	: <u>45</u>	x 4 = <u>180</u>			
	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	: <u>135 (A)</u>	<u>350 (B)</u>			
	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	Hydrophytic \	Vegetation Presen	t? ☑ Yes 🗆] No		
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.						
Remarks:						


SOIL										
Profile Descrip	otion: (Describe	e the d	epth needed to	docum	nent the in	ndicator o	r confirm t	he abser	nce of indicators.)	
Depth	Matrix		Re	dox Fe	atures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	Text	ure	Remarks
0-1	7.5YR2.5/1	100						ORGA	ANIC	
1-18	7.5YR2.5/3	70	2.5YR3/6	20	D	PL	s	SILTY CLA	AY LOAM	
17			2.5YR6/8	10	C	M		Oneine	21 a a a tiana i Di	Dese Lister M. Metric
Type: C=Concentration, D=Depletion, KM=Reduced Matrix, CS=Covered Sand or Coated Grains. ² Location: PL=Pore Lining, M=Matrix										
Hydric Soil Ind	dicators: (Appli	cable 1	to all LRR's, unle	ess otl	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			Polyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		I.		1430)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	hin Da	ark Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			.oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			.oamy	Gleyed M	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 🖸	Deplete	ed Matrix (F3)			Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox I	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
🔲 Sandy Mu	ucky Mineral (S1))		Deplete	ed Dark Su	urface (F7)	1		Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
🔲 Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nvdrophytic vege	tation a	and wetland hydro	oloav r	nust be pr	esent. unle	ess disturbe	ed or prob	ematic.	
Restrictive Lay	ver Present?		Yes 🗹 No		Jnknown				Hydric Soil Prese	ent? 🗹 Yes 🗌 No
Remarks:										
REFUSAL AT	18" DUE TO STO	ONE								
Description of	Habitat Characte	eristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Quali	ty: 🔲 High	₹ I	Moderate	Low			Isolated	Wetland?	Yes 🗹	No 🔲 Unknown
General Comm	ients:									







WETLAND DETERMINATION FORM - Northce	entral 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	p: 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?			
Hydric Soil Present?	Is the Sampled Area within a Wotland?		
Wetland Hydrology Present? 🗹 Yes 🔲 No			
Field Wetland Classification: PEM			
Remarks: VEG MOWED IN ROW			
HYDROLOGY			
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)		
Primary Indicators (minimum of one required: check all that apply)	Surface Soil Cracks (B6)		
Surface Water (A1) Water Stained Leaves (B9)	Drainage Patterns (B10)		
	Moss Trim Lines (B16)		
	Dry-Season Water Table (C2)		
Water Marks (B1)	Crayfish Burrows (C8)		
Sodimont Doports (P2)	Baturation Visible on Aerial imagery (C9)		
Drift Deposits (B2)	□ Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	(ce) \Box Geomorphic Position (D2)		
	$\square Shallow Aguitard (D3)$		
Inin Deposits (B5) Inin Mack Surface (C7) Inin Mack Surface (C7)	Microtopographic Relief (D4)		
	FAC-Neutral Test (D5)		
Sparsely vegetated concave surface (B6)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present?		
Saturation Present?	⊠ Yes LI No		
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inst	pections), if available):		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover Dominant Indicator Status		
Total Cover	- 		



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 Persicaria sagittata Cornus alba Phragmites australis Carex stricta	Total Cover	85 2 3 5 5	YES NO NO NO NO	FACW OBL FACW FACW OBL	
Woody Vine Stratum		100			
Plot Size: 30					
Scientific Name		% Cover	Dominant	Indicator Status	
	Total Cover:				
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:			
Number of Dominant Species	Total % Cover of: Multiply by:				
That Are OBL, FACW, or FAC:	OBL Species:	7	x 1 = <u>7</u>		
Total Number of Dominant Species Across All Strata: 1 (B)	FACW Species	: <u>93</u>	x 2 = <u>186</u>		
	FAC Species:	<u>0</u>	x 3 = <u>0</u>		
That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>0</u>	x 4 = <u>0</u>		
	UPL Species:	<u>0</u>	x 5 = 0		
	Column Totals:	<u>100 (A)</u>	<u>193 (B)</u>		
		Prevalence Index :	= B/A = <u>1.93</u>		
Hydrophytic Vegetation Indicators:					
1 - Rapid Test for Hydrophytic Vegetation					
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0					
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	/egetation Preser	nt? ☑ Yes [] No	
Problematic Hydrophytic Vegetation ¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
Remarks:					



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	locum	ent the in	ndicator o	or confirm t	he absen	ce of indicators.)	
Depth	Matrix	Matrix Redox Features					-		. .	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	lextu	lre	Remarks
0-7	7.5YR 3/2	92	7.5YR 3/4	8	С	PL		SILT LO	MAC	
7-20	5YR 4/2	90	7.5YR 4/6	10	С	м	FI	INE SAND	DY 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.) Indicators for Problematic Hydric Soils ³ :										
Histosol (/	A1)		D P	olyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		— N	ILRA 1	149B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		п т	hin Da	rk Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			edox I	Dark Surfa	ace (F6)			Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7))		Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	ledox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	hydrophytic vege	ation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
									Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High	₹ I	Moderate	Low			Isolated	Wetland?	🗋 Yes 🗹	No 🔲 Unknown
General Comm	nents:									





SOUTH



WETLAND DETERMINATION FORM - Northco	entral 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 Townshi	p: 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 D Soil or Hydrology naturally problematic? 🗹 No				
SUMMARY OF FINDINGS - Attach site map showing sampling point	t locations, transects, important features, etc.			
Hydrophytic Vegetation Present?				
Hydric Soil Present?	Is the Sampled Area within a Wetland? □ Yes ☑ No			
Wetland Hydrology Present?				
Field Wetland Classification: UPLAND PLOT				
Remarks: VEG MOWED IN ROW				
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required: check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
$\square \text{ Saturation (A3)} \square \text{ Marl Deposits (B15)}$	Dry-Season Water Table (C2)			
Water Marke (B1)	1) Crayfish Burrows (C8)			
Sodimont Deposite (P2) Ovidized Phizopheres along Livin	Backs (C3) Saturation Visible on Aerial imagery (C9)			
Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (C1)	Stunted or Stressed Plants (D1)			
Algel Met es Crust (P4)	\square Geomorphic Position (D2)			
	Shallow Aquitard (D3)			
	Microtopographic Relief (D4)			
	$\Box = FAC_Neutral Test (D5)$			
Sparsely vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present? Yes No Depth (inches):				
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present?			
Saturation Present?	∐ Yes ⊠ No			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous ins	pections), if available):			
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover Dominant Indicator Status			
Total Cover	r.			



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Herb Stratum				
Plot Size: 5		1	1	1
Scientific Name		% Cover	Dominant	Indicator Status
Galium mollugo Phleum pratense Rosa multiflara		30 60 10	YES YES	FACU FACU FACU
	Total Cover:	100		17,00
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Deminence Test Werkehest	Prevelence In	day Markahaati		
Number of Dominant Species	Total % Cover	of.	Multiply by:	
That Are OBL, FACW, or FAC: <u>0 (A)</u>	OBL Species:	0	x 1 - 0	
Total Number of Dominant	EACW Species	<u>v</u>	$x^2 = 0$	
Species Across All Strata: 2 (B)	FAC Species:	<u>0</u>	x 3 = 0	
Percent of Dominant Species	FACU Species	: <u>100</u>	x 4 = <u>400</u>	
That Are OBL, FACW, of FAC:	UPL Species:	<u>30</u>	x 5 = <u>150</u>	
	Column Totals:	: <u>130 (A)</u>	<u>550 (B)</u>	
		Prevalence Index :	= B/A = <u>4.23</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 2 - Dominance Test is > 50%				
□ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	Vegetation Preser	nt? 🗌 Yes 🗹	No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	nent the in	ndicator o	or confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures			-		_
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	-	lextu	lre	Remarks
0-8	7.5YR 3/2	100						SILT LO	DAM	
8-20	7.5YR 4/6	100						SILT LO	DAM	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. ² Location: PL=Pore Lining, M=Matrix										
Hydric Soil Ind	dicators: (Applie	cable	to all LRR's, unle	ess ot	herwise n	oted.)			Indicators for Pr	roblematic Hydric Soils ³ :
Histosol (A1)			olyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		N		1430)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		т 🗋	hin Da	ark Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A	11) 🗹 🖸	eplete	ed Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
I hick Dar	K Surface (A12)			edox	Dark Surfa	ace (F6)			☐ Iron-Mangan	nese Masses (F12) (LRR K, L, R)
	JCKY Mineral (S1)			eplete	ed Dark Su	urface (F7))		Piedmont Flo	odplain Soils (F19) (MLRA 149B)
Sandy G	eyed Matrix (54)			edox	Depressio	ons (F8)				c (TA6) (MLRA 144A, 145, 149B)
									Red Parent I	Material (F21)
	vialitix (30)	MID	140P)							v Dark Surface (TFT2)
3 Dark Sur		, IVILR/	 149D) and wotland bydr 		must ha ar	acont unl	ooo diaturba	d or probl		in in Remarks)
						esent, uni				
Restrictive Lay	yer Fresent?	Ц	res 🔽 No		JIKIOWI			I	Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	eneral Con	nments:				
Wetland Quali	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗋 Yes 🔲	No 🔲 Unknown
General Comm	nents:									







WETLAND DETERMINATION FORM - Northcentral and Northeast Region									
Centerline Re-Route Access Road Anci	llary Facility 🔲 Transmission Line 🔲 Other								
Project/Site: NED Milepost: 497	94.4 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 Tra	act: 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 y	ear?: 🗹 Yes 🔲 No (If no, explain in Remarks.)								
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly d	sturbed? 🗹 No Are "Normal" Circumstances present? 🗹 Yes 🔲 No								
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally prob	ematic? 🗹 No								
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Ves No	Is the Sampled Area								
Hydric Soil Present? ✓ Yes ☐ No	within a Wetland? Yes 🗌 No								
Vietland Hydrology Present? Y res No									
Field Wetland Classification: PFO									
Remarks:									
HYDROLOGY									
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)								
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)								
Surface Water (A1)	ned Leaves (B9) Drainage Patterns (B10)								
High Water Table (A2)	una (B13) 🔲 Moss Trim Lines (B16)								
Saturation (A3)	its (B15) Dry-Season Water Table (C2)								
U Water Marks (B1)	Sulfide Odor (C1)								
Sediment Deposits (B2) Oxidized R	nizospheres along Living Roots (C3) Saturation Visible on Aerial imagery (C9)								
Drift Deposits (B3)	f Reduced Iron (C4) Stunted or Stressed Plants (D1)								
Algal Mat or Crust (B4)	Reduction in Tilled Soils (C6) Geomorphic Position (D2)								
Iron Deposits (B5)	Surface (C7) Shallow Aquitard (D3)								
Inundation Visible on Aerial Imagery (B7) Other (Exp	ain in Remarks)								
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)								
Field Observations:									
Surface Water Present? 🗹 Yes 🔲 No Depth (inches):	1-3								
Water Table Present? ☑ Yes ☐ No Depth (inches):	Wetland Hydrology Present?								
Saturation Present?	0 ⊻ Yes □ No								
Remarks (Describe Recorded Data (stream dade monitoring well are	ial photos, previous inspections), if available):								
······································									



VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name			% Cover	Dominant	Indicator Status
Ostrya virginiana Fagus grandifolia Tsuga canadensis Pinus strobus Acer rubrum			15 15 5 10 25	YES YES NO NO YES	FACU FACU FACU FACU FAC
		I otal Cover:	70		
Sapling/Shrub Stratum					
Plot Size: 15		1			
			% Cover	Dominant	Indicator Status
Lindera benzoin		Total Covor:	30	YES	FACW
Herb Stratum					
Plot Size: 5		1		I	1
Scientific Name			% Cover	Dominant	Indicator Status
Carex comosa Sphagnum sp Phalaris arundinacea Carex lupulina Onoclea sensibilis		Total Cover	10 25 10 20 20 85	YES NA YES YES YES	OBL NONE FACW OBL FACW
Woody Vino Stratum					
Plot Size: 30					
Scientific Name		1	% Cover	Dominant	Indicator Status
			70 COVEI	Dominant	
		Total Cover:			1
Dominance Test Worksheet:		Prevalence Inc	lex Worksheet:		
Number of Dominant Species	- //>	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC:	<u>6 (A)</u>	OBL Species:	<u>30</u>	x 1 = <u>30</u>	
Total Number of Dominant	8 (B)	FACW Species	: <u>60</u>	x 2 = <u>120</u>	
Species Across All Strata.	<u>0 (0)</u>	FAC Species:	<u>25</u>	x 3 = <u>75</u>	
Percent of Dominant Species	<u>75 (A/B)</u>	FACU Species:	<u>45</u>	x 4 = <u>180</u>	
		UPL Species:	<u>0</u>	x 5 = <u>0</u>	
		Column Totals:	<u>160 (A)</u>	<u>405 (B)</u>	
		1	Prevalence Index =	= B/A = <u>2.53</u>	
Hydrophytic Vegetation Indicators:					
1 - Rapid Test for Hydrophytic Veg	getation				
✓ 2 - Dominance Test is > 50%					
$\boxed{\checkmark}$ 3 - Prevalence Index is ≤ 3.0					
 4 - Morphological Adaptations¹ (Pr data in Remarks or on a separate 	ovide supporting sheet)	Hydrophytic V	egetation Presen	nt? ☑ Yes [] No
Problematic Hydrophytic Vegetatic	on ¹ (Explain)				
rindicators of hydric soil and wetland hy present, unless disturbed or problemati	rarology must be c.				
Remarks:					



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	r confirm the a	bsence of indicators.)		
Depth	Matrix		Re	dox Fe	eatures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		lexture	Remarks	
0-6	5YR2.5/1	100					S	ILT LOAM		
6-20	G;EY2 6/10BG	80	10YR6/8	20	С	М	FINE	SANDY LOAM		
Turney C. Com		platia	DM Deduced	Motrix		ared Cone		ing 2 section, DI	Data Lining M. Matrix	
Hudrie Seil Indicatore: (Applicable to all L PP's unless otherwise noted)										
		cable			nerwise n					
	A(1)			ILRA 1	149B)	Sunace (S	00) (LKK K,		Podox (A16) (IPP K I P)	
	$fic (\Delta 3)$			hin Da	ork Surface	o (SQ) (I R		B) D 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)				Mucky Mi	e (39) (LR	(I D D K I)		(S7) (LRR K M)	
	Lavers (A5)			oamv	Gleved M	atrix (F2)		Polyvalue Be	Plow Surface (S8) (LRR K 1)	
	Below Dark Surfa	ace (A	11) 🖬)eplete	d Matrix (F3)		Thin Dark Su	urface (S9) (I BB K 1)	
Thick Dar	k Surface (A12)	,	, <u>с</u>	Redox I	Dark Surfa	ace (F6)		☐ Iron-Mangan	ese Masses (F12) (LRR K, L, R)	
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)		Piedmont Flo	podplain Soils (F19) (MLRA 149B)	
Sandy GI	eyed Matrix (S4)			Redox	Depressio	ons (F8)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)	
Sandy Re	edox (S5)							Red Parent I	Material (F21)	
Stripped	Matrix (S6)							Very Shallov	/ Dark Surface (TF12)	
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)					Other (Explain of the control of	in in Remarks)	
³ Indicators of	nydrophytic veget	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbed or	problematic.		
Restrictive Lay	/er Present?		Yes 🗹 No		Inknown			Hydric Soil Prese	nt? 🗹 Yes 🗌 No	
Remarks:							·			
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Quali	ty: 🗹 High		Moderate	Low			Isolated Wet	land? 🔲 Yes 🗹	No 🔲 Unknown	
General Comm	ients:									







WETLAND DETERMINATION FORM - Northce	ntral and Northeast Region
Centerline CRe-Route Access Road Ancillary Facility Tr	ransmission Line 🔲 Other
Project/Site: NED Milepost: 50508.2 County:	Hartford Date: 11/15/2014
Applicant/Owner: Kinder Morgan State: C	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?
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No	
SUMMARY OF FINDINGS - Attach site man showing sampling point I	locations transacts important features atc
Hydrophytic Vagetation Present?	
	Is the Sampled Area
Wetland Hydrology Present?	within a Wetland?
Field Watland Classification: DEM	
Remarks. MOWED FIELD	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
□ Water Marks (B1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living	Roots (C3) Saturation Visible on Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	s (C6) Geomorphic Position (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations	
Surface Water Present?	
Weter Table Present?	Wetland Hydrology Present?
Saturation Present?	Venand Hydrology Present?
(includes capillary fringe)	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Total Cover:	



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
Typha angustifolia		80 20	YES	OBL
	Total Cover:	110	T	I
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence In	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Ale OBL, FACW, OF FAC. $=\sqrt{2}$	OBL Species:	<u>40</u>	x 1 = <u>40</u>	
Total Number of Dominant	FACW Species	s: <u>80</u>	x 2 = <u>160</u>	
	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	:: <u>0</u>	x 4 = <u>0</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals	: <u>120 (A)</u>	<u>200 (B)</u>	
		Prevalence Index :	= B/A = <u>1.67</u>	
Hydrophytic Vegetation Indicators:				
✓ 1 - Rapid Test for Hydrophytic Vegetation				
✓ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	Vegetation Preser	nt? ☑ Yes 🛛] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL									
Profile Descri	otion: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	r confirm the abse	nce of indicators.)	
Depth	Matrix		Re	dox Fe	atures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Tex	ture	Remarks
0-8	5YR3/2	90	2.5YR3/6	10	D	PL	SILT I	LOAM	
8-10	2.5YR4/2	90	2.5YR3/6	10	D	PL	SANDY	' LOAM	
10-20	10YR6/4	50	10YR5/6	20	С	М	SA	ND	
10-20	2.5YR4/3	20	2.5YR3/6	10	С	м	SANDY	' LOAM	
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix,	CS=Cov	vered Sand	or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Ind	dicators: (Appli	cable 1	to all LRR's, unle	ess oth	nerwise n	oted.)		Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (F6) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No							A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L, M) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) bodplain Soils (F19) (MLRA 149B) c (TA6) (MLRA 144A, 145, 149B) Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes No		
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:			
Wetland Quali	ty: 🗹 High		Moderate	Low			Isolated Wetland	? 🔲 Yes 🗹	No 🔲 Unknown
General Comm	nents:								







WETLAND DETERMINATION FORM - Northcen	ntral and Nor	theast Region	
Centerline CR-Route Access Road Ancillary Facility Tr	ransmission Line	Other	
Project/Site: NED Milepost: 46104.7 County:	Hartford	Date:	11/10/2014
Applicant/Owner: Kinder Morgan State: C	CT Sampli	ng Point: BL-P-W00	D1-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 🗹 C	onvex 🔲 None	Slope%.: 5
Subregion (LRR): Middle Atlantic Lat: 41.859605	Long: -72.7613	859	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	n in Remarks.)	
Are Vegetation D Soil or Hydrology significantly disturbed? 🗹 No	Are "Normal" Circu	mstances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point I	locations, trans	sects, important	features, etc.
Hydrophytic Vegetation Present?			
Hydric Soil Present?	Is the Sampled A within a Wetland	vrea □ Yes 🗹	No
Wetland Hydrology Present? 🔲 Yes 🗹 No	within a wettand		
Field Wetland Classification: UPLAND PLOT			
Remarks:			
	80	andary Indiantara (2)	ar more required)
Wetland Hydrology Indicators:	<u>Se</u>	Condary Indicators (2 d	<u>or more requirea)</u>
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
Surface Water (A1) Water-Stained Leaves (B9)		Drainage Patterns (E	310)
High Water Table (A2)		Moss Trim Lines (B1	(6)
Saturation (A3) Marl Deposits (B15)		Dry-Season Water I	able (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C	8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living	Roots (C3)	Saturation Visible or	Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)		Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	s (C6)	Geomorphic Positior	ח (D2)
Iron Deposits (B5)		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	95)
Field Observations:			
Surface Water Present? Ves No Depth (inches):			
Water Table Present?	Wetland Hydro	ology Present?	
Saturation Present? Yes No Depth (inches): (includes cabillary fringe)			Yes 🗹 No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ections), if available)	:	
	,, ,		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	1	NO	FACU
Juniperus virginiana	20	YES	FACU
l otal Cover:	21		



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora		25	YES	FACU
	Total Cover:	2	NO	TACO
Lash Stratum				
Plot Sitatum				
		% Cover	Dominant	Indicator Status
		20	YES	FACU
Euthamia graminifolia		5	NO	FAC
Plantago major Phalaris arundinacea		10 5	YES	FACU FACW
Daucus carota		5	NO	FACU
	Total Cover:	45		
Woody Vine Stratum				
Plot Size: 30			I	I
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species	:: <u>5</u>	x 2 = <u>10</u>	
	FAC Species:	<u>5</u>	x 3 = <u>15</u>	
Percent of Dominant Species	FACU Species	<u>83</u>	x 4 = <u>332</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>93 (A)</u>	<u>357 (B)</u>	
		Prevalence Index =	= B/A = <u>3.84</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 2 - Dominance Test is > 50%				
□ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	egetation Presen	nt? □ Yes 🗹	No
Problematic Hydrophytic Vegetation ¹ (Explain)				
Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



SOIL									
Profile Descrip	otion: (Describe	e the d	epth needed to	docun	nent the in	ndicator o	r confirm the a	absence of indicators.)	
Depth	Matrix		R	edox Fe	eatures			Toyturo	Demode
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-12	5YR3/4	100					SA	NDY LOAM	
¹ Type: C=Cond	centration, D=De	epletio	n, RM=Reduce	d Matrix	, CS=Cov	/ered Sand	or Coated Gra	ains. ² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable	to all LRR's, ur	less ot	herwise n	oted.)		Indicators for P	roblematic Hydric Soils ³ :
Histosol (A	A1)			Polyva	ue Below	Surface (S	68) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	Histic Epipedon (A2)								
Black Hist	tic (A3)			Thin Da	ark Surfac	e (S9) (LR	R R, MLRA 149	9B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			Loamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			Loamy	Gleyed M	atrix (F2)		Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11)	Deplete	ed Matrix ((F3)		Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			Redox	Dark Surfa	ace (F6)		Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			Deplete	ed Dark Su	urface (F7)		Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
	200X (55)							Red Parent	Material (F21)
	Viatrix (S6)	MID	A 140P)					U Very Shallov	v Dark Surface (TF12)
3Indicators of h			and wetland by	rologyu	must ha nr	resent unl	ess disturbed o		an in Remarks)
Postrictivo L a	or Prosent?				Inknown	coont, un			
Restrictive Lay	er Fresent?				JIKIOWI			Hydric Soil Prese	ent? □ Yes ☑ No
Remarks:							·		
REFUSAL AT	12" DUE TO STO	ONE							
Description of	Habitat Characte	ristics,	Aquatic Divers	ty or Ge	eneral Con	nments:			
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated Wet	land? 🔲 Yes 🗌	No 🔲 Unknown
General Comm	ients:								





NE



WETLAND DETERMINATION FORM - Northcen	ntral and Nort	heast Region	
Centerline Ce-Route Access Road Ancillary Facility Tra	ansmission Line	Other	
Project/Site: NED Milepost: 53008.9 County:	Hartford	Date:	11/18/2014
Applicant/Owner: Kinder Morgan State: CT	T Samplin	g Point: BL-P-W00)5-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 🔲 Co	nvex 🔲 None	Slope%.: 5
Subregion (LRR): Middle Atlantic Lat: 41.877132	Long: -72.75206	51	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" Circum	stances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations. trans	ects. important	features, etc.
Hydrophytic Vegetation Present? Yes No		, _	
Hydric Soil Present?	s the Sampled Ar	ea I Yes □	No
Wetland Hydrology Present?	within a Wetland?		
Field Wetland Classification: PFO			
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	Seco	ondary Indicators (2 c	or more required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)		Drainage Patterns (E	310)
High Water Table (A2)		Moss Trim Lines (B1	6)
Saturation (A3) 🔲 Marl Deposits (B15)		Dry-Season Water T	able (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (Ca	8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living F	Roots (C3)	Saturation Visible on	Aerial imagery (C9)
Drift Deposits (B3)		Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	(C6)	Geomorphic Position	n (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	5)
Field Observations:			
Surface Water Present?			
Water Table Present?	Wetland Hydrol	oav Present?	
Saturation Present? Yes No Depth (inches): 6		Ø	Yes 🗌 No
	otiona) if curlint)		
Remarks (Describe Recorded Data (stream gage, monitoring weil, aenai protos, previous inspec	cuons), il avallable):		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Quercus palustris Fravinus pennsulvanica	15	YES	FACW
Acer rubrum	20	YES	FAC
Carpinus caroliniana	10	NO	FAC
Total Cover:	55		



Plot Size: 15 Scientific Name % Cover Dominant Indicator Status Rosa multiflora Lindera benzoin 15 30 YES FACU FACW Total Cover: 45 Herb Stratum Plot Size: 5 5 Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA NONE Voody Vine Stratum 10 NA NONE Plot Size: 30 5 5 5 Scientific Name % Cover Dominant Indicator Status Plot Size: 30 10 NA NONE Scientific Name % Cover Dominant Indicator Status Scientific Name % Cover Dominant Indicator Status	Sapling/Shrub Stratum				
Scientific Name % Cover Dominant Indicator Status Rosa multiflora Lindera benzoin 15 30 YES FACU FACW Total Cover: 45 FACU Herb Stratum 10 NA NONE Scientific Name 10 NA NONE Sphagnum sp 10 NA NONE Woody Vine Stratum 10 NA NONE Plot Size: 30 Scientific Name 10 NA Sphagnum sp 10 NA NONE Total Cover: 10 NA NONE Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Scientific Name % Cover 10 NA NONE Scientific Name Total Cover: Scientific Name Indicator Status Scientific Name % Cover Dominant Indicator Status Total Cover: Indicator Status Indicator Status Indicator Status	Plot Size: 15				
Rosa multiflora Lindera benzoin15 30YES YESFACU FACWTotal Cover:45Herb StratumPlot Size:5Scientific Name% CoverDominantSphagnum sp10NANONETotal Cover:10NAWoody Vine Stratum10NANONEPlot Size:3055Scientific Name10NANONETotal Cover:1010NAKoody Vine Stratum10NANONEPlot Size:3055Scientific Name% CoverDominantIndicator StatusIndicator Status10Indicator StatusScientific Name% CoverDominantIndicator StatusTotal Cover:10Indicator Status	Scientific Name		% Cover	Dominant	Indicator Status
Inder a benzohn 50 TES TROW Total Cover: 45 Herb Stratum Plot Size: 5 Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA NONE Total Cover: 10 Value NONE Woody Vine Stratum 10 NA NONE Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Scientific Name % Cover Dominant Indicator Status Total Cover: 10 Total Cover Dominant Indicator Status	Rosa multiflora		15 30	YES	FACU
Herb Stratum Plot Size: 5 Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA Woody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover: 10 Voody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover:		Total Cover	45	TE5	TAOW
Herb Stratum Plot Size: 5 Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA NONE Total Cover: 10 NA NONE Woody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover: Total Cover: Total Cover: Dominant Indicator Status					
Plot Size: 5 Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA NONE Total Cover: 10 NA NONE Woody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover: "Total Cover: Total Cover Dominant Indicator Status	Herb Stratum				
Scientific Name % Cover Dominant Indicator Status Sphagnum sp 10 NA NONE Total Cover: 10 NA NONE Woody Vine Stratum 10 Voore Indicator Status Plot Size: 30 % Cover Dominant Scientific Name % Cover Dominant Indicator Status	Plot Size: 5			1	l
Sphagnum sp 10 NA NONE Total Cover: 10 Woody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover:	Scientific Name		% Cover	Dominant	Indicator Status
Woody Vine Stratum Plot Size: 30 Scientific Name % Cover Dominant Indicator Status	Sphagnum sp	Tatal Cavar	10	NA	NONE
Plot Size: 30 Scientific Name % Cover Dominant Indicator Status Total Cover:			10		
Scientific Name % Cover Dominant Indicator Status Total Cover:	Vvoody Vine Stratum				
Total Cover:		1	04 October	Deminant	In diantan Otatua
Total Cover:			% Cover	Dominant	Indicator Status
		Total Cover:			
Dominance Test Worksheet: Prevalence Index Worksheet:	Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species Total % Cover of: Multiply by: That Are OBL, FACW, or FAC: 3 (A) ODL On the option of th	That Are OBL, FACW, or FAC: <u>3 (A)</u>	Total % Cover	of:	Multiply by:	
$OBL Species: \underline{0} \qquad x \ 1 = \underline{0}$	Total Number of Dominant	OBL Species:	<u>0</u>	x 1 = 0	
Species Across All Strata: $4(B)$	Species Across All Strata: <u>4 (B)</u>	FACW Species	5: <u>55</u> 20	$x^2 = \frac{110}{2}$	
Percent of Dominant Species 50 $x_3 = 90$	Percent of Dominant Species	FAC Species:	. 15	$x_{3} = 90$	
That Are OBL, FACW, or FAC: <u>75 (A/B)</u>	That Are OBL, FACW, or FAC: <u>75 (A/B)</u>	I ACO Species	. <u>15</u>	x = 0	
Column Totals: $100 (A)$ 260 (B)		Column Totals:	<u>0</u> 100 (A)	260 (B)	
		Column rotals.	Drevelence Index	<u>200 (D)</u>	
Prevalence index = $B/A = \frac{2.00}{2}$			Prevalence index =	= B/A = <u>2.00</u>	
Hydrophytic Vegetation Indicators:	Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation	1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%	✓ 2 - Dominance Test is > 50%				
3 - Prevalence Index is ≤ 3.0	\checkmark 3 - Prevalence Index is \leq 3.0				
□ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	Hydrophytic \	egetation Preser	nt? ☑ Yes 🛛] No
Problematic Hydrophytic Vegetation ¹ (Explain)	Problematic Hydrophytic Vegetation ¹ (Explain)				
present, unless disturbed or problematic.	present, unless disturbed or problematic.				
Pomarke	Pemarke:				



SOIL									
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	ent the in	ndicator o	r confirm the	absence of indicators.)	
Depth	Matrix		Re	dox Fe	atures			-	5
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		lexture	Remarks
0-8	7.5YR3/2	90	10YR6/8	10	С	м	SILT LOAM		
8-20	7.5YR4/4	80	10YR6/8 2.5YR3/6	10 10	C D	M PL		SILT LOAM	
¹ Type: C=Cond	L centration, D=De	epletion	n, RM=Reduced	Matrix.	CS=Cov	l /ered Sand	l or Coated G	rains. ² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Appli	cable 1	to all LRR's, unle	ess otl	nerwise n	oted.)		Indicators for Pr	oblematic Hydric Soils ³ :
Histosol (A1)		, L F	olyval	ue Below	, Surface (S	8) (LRR R,	□ 2 cm Muck (#	A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		— N	ILRA 1	149B)		, , , , ,	Coast Prairie	Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		т 🗖	hin Da	rk Surfac	e (S9) (LR	R R, MLRA 14	49B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)		Polyvalue Be	low Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	d Matrix (F3)		Thin Dark Su	rface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		□ F	ledox I	Dark Surfa	ace (F6)		Iron-Mangan	ese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)	1	Piedmont Flo	odplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)		Mesic Spodic	: (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)							Red Parent N	Naterial (F21)
Stripped I	Matrix (S6)							Very Shallow	Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)					Other (Explai	in in Remarks)
³ Indicators of I	hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbed	or problematic.	
								Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:									
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:			
Wetland Qualit	ty: 🗹 High		Moderate	Low			Isolated We	etland? 🔲 Yes 🗹	No 🔲 Unknown
General Comm	nents:								
L									







WETLAND DETERMINATION FORM - Northce	ntral and Northeast Region	
Centerline Re-Route Access Road Ancillary Facility T	ransmission Line	
Project/Site: NED Milepost: 53013.9 County:	Hartford Date: 11/18/2014	
Applicant/Owner: Kinder Morgan State: 0	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 EINDINGS Attach site man showing compling point	logations, transports, important factures, etc.	
SolvimART OF FINDINGS - Attach site map showing sampling point i	locations, transects, important leatures, etc.	
	Is the Sampled Area	
Hydric Soli Present?	within a Wetland? LI Yes 🗹 No	
Pemarke		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)	
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)	
High Water Table (A2)	Moss Trim Lines (B16)	
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Roots (C3) Saturation Visible on Aerial imagery (C9)	9)
Drift Deposits (B3)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)	s (C6) Geomorphic Position (D2)	
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)	
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)	
Field Observations:		
Surface Water Present? Ves V No Depth (inches):		
Water Table Present? Ves V No Depth (inches):	Wetland Hydrology Present?	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)		
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	ections), if available):	
VEGETATION		
Plot Size: 20		
Scientific Name	% Cover Dominant Indicator Status	115
Facus grandifolia	20 VES EACU	
Acer saccharum	5 NO FACU	
Quercus rubra Pinus strobus	20 YES FACU 1 NO FACU	
Total Cover:	46	



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Pinus strobus Fagus grandifolia Lindera benzoin		25 20 5	YES YES NO	FACU FACU FACW
	Total Cover:	50	I	I
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:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species	: <u>5</u>	x 2 = <u>10</u>	
	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0 (A/B)</u>	FACU Species:	<u>91</u>	x 4 = <u>364</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>96 (A)</u>	<u>374 (B)</u>	
		Prevalence Index :	= B/A = <u>3.90</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
□ 2 - Dominance Test is > 50%				
□ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Preser	nt? 🗌 Yes 🗹	2 No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				
Nondro.				



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SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to a	locum	ent the ir	ndicator o	r confirm	the abser	nce of indicators.)	1
Depth	Matrix		Re	dox Fe	atures			т		Destadua
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ure	Remarks
0-4	10YR2/1	100						ORGA	ANIC	
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						=Pore Lining, M=Matrix				
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, unle	ess otl	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A	A1)			olyval	ue Below	Surface (S	8) (LRR R	,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		K	ILRA	149B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	hin Da	ark Surface	e (S9) (LR	R R, MLRA	A 149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mir	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A1	11) 🗖 🗆	eplete	d Matrix (F3)			Thin Dark St	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox I	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		F	Redox	Depressio	ns (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	200X (S5)						Red Parent Material (F21)			
	Stripped Matrix (S6)				v Dark Surface (TF12)					
					ain in Remarks)					
Indicators of r	nydropnytic vege	tation a	and wetland hydro	biogy n	nust be pr	esent, uni	ess disturb	ed or proc	Diematic.	
Restrictive Layer Present? Yes V No Unknown										
									Hydric Soll Prese	ent? ∐ Yes ⊠ No
Demenden										
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Matland Quality							la alata d	Mada - 10		No. 🗖 Halassur
welland Quali	iy: 🔲 High	<u></u> ч		LOW			Isolated	wettand?		
General Comm	ients:									







WETLAND DETERMINATION FORM - Northce	entral and North	east Region	
Centerline Re-Route Access Road Ancillary Facility	ransmission Line	Other	
Project/Site: NED Milepost: 57789.2 County:	Hartford	Date:	07/24/2015
Applicant/Owner: Kinder Morgan State:	CT Sampling	Point: BL-N-W00	06-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 🔲 Conv	vex 🔲 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	N	WI 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" Circumst	tances present?	🗹 Yes 🔲 No
Are Vegetation Soil or Hydrology naturally problematic?			
SUMMARY OF FINDINGS - Attach site man showing sampling point	locations transer	rts important	features etc
	Is the Sampled Are		No
Wetland Hydrology Present?	within a Wetland?		NO
Field Wetland Classification: PEO			
Demarke:			
relians.			
HYDROLOGY			
Wetland Hydrology Indicators:	Secon	ndary Indicators (2 c	or more required)
Primary Indicators (minimum of one required; check all that apply)	🗆 s	urface Soil Cracks	(B6)
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)		Prainage Patterns (E	310)
High Water Table (A2)		loss Trim Lines (B1	6)
Saturation (A3) Marl Deposits (B15)		ry-Season Water T	able (C2)
U Water Marks (B1) Hydrogen Sulfide Odor (C1)	□ c	rayfish Burrows (Ca	8)
Sediment Deposits (B2) Oxidized Rhizospheres along Livin	g Roots (C3)	aturation Visible on	Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	🗖 s	tunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	s (C6) 🗹 G	eomorphic Position	n (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	🗖 s	hallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)	☑ F.	AC-Neutral Test (D	5)
Field Observations:			
Surface Water Present? Ves No Depth (inches):			
Water Table Present?	Wetland Hydrolog	gy Present?	
Saturation Present? Yes 🗹 No Depth (inches):		\checkmark	Yes 🗌 No
(includes capillary fringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	ections), 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 Prunus serotina Viburnum dentatum Lindera benzoin	Total Cover:	5 10 5 65 85	NO NO NO YES	FACU FACU FAC FACW
Hoth Stratum				
	1	% Cover	Dominant	Indiantar Status
		% Cover	Dominant	
Onoclea sensibilis		15	YES	FACW
Toxicodendron radicans	T (10	15	YES	FAC
	l otal Cover:	35		
Woody Vine Stratum				
Plot Size: 30			I	1
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species	s: <u>85</u>	x 2 = <u>170</u>	
	FAC Species:	<u>110</u>	x 3 = <u>330</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>15</u>	x 4 = <u>60</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>210 (A)</u>	<u>560 (B)</u>	
		Prevalence Index =	= B/A = <u>2.67</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%				
4 - Morphological Adaptations ¹ (Provide supporting	Hydrophytic \	egetation Preser	nt? 🗹 Yes [] No
data in Remarks or on a separate sheet)		0		
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				
itemains.				



SOIL												
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)												
Depth (inchos)	Matrix		Re	edox Features		_	Tautura		Demortes			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks			
0-8	7.5YR 3/2	100					FINE	E SANDY LOAM				
8-20	7.5YR 5/3	93	7.5YR 3/2 7.5YR 5/6	2 5	D C	M M	S	ANDY LOAM				
¹ Type: C=Cond	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	or Coated Gr	rains. ² Location: PL	=Pore Lining, M=Matrix			
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, unl	ess ot	herwise n	oted.)		Indicators for P	roblematic Hydric Soils ³ :			
Histosol (/	A1)		D F	Polyval	ue Below	Surface (S	8) (LRR R,	2 cm Muck	(A10) (LRR K, L, MLRA 149B)			
MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R												
□ Black Histic (A3) □ Thin Dark Surface (S9) (LRR R. MLRA 149B) □ 5 cm								49B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)			
Hydrogen	Sulfide (A4)		— П I	oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surfac	e (S7) (LRR K, L, M)			
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)	. , ,	Polyvalue B	elow Surface (S8) (LRR K, L)			
Depleted	Below Dark Surfa	ace (A1	⊔1) □ [Deplete	ed Matrix (F3)		Thin Dark S	Thin Dark Surface (S9) (LRR K. L)			
Thick Dar	k Surface (A12)			Redox I	Dark Surfa	ace (F6)		☐ Iron-Manga	nese Masses (F12) (LRR K, L, R)			
🔲 Sandy Mu	icky Mineral (S1))		Deplete	ed Dark Su	urface (F7)		Piedmont Fl	oodplain Soils (F19) (MLRA 149B)			
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)		☐ Mesic Spod	ic (TA6) (MLRA 144A, 145, 149B)			
Sandy Re	dox (S5)		_			. ,		Red Parent	Material (F21)			
Stripped I	Matrix (S6)							☐ Very Shallo	w Dark Surface (TF12)			
Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)					Other (Explain in Remarks)				
³ Indicators of I	nvdrophytic vege	tation a	and wetland hvdr	oloav r	nust be pr	resent. unle	ess disturbed o	or problematic.				
Restrictive Lay	ver Present?		Yes 🗹 No		Jnknown			Hydric Soil Pres	ent? 🗹 Yes 🗌 No			
Remarks.												
Description of	Habitat Characte	eristics,	Aquatic Diversity	/ or Ge	eneral Con	nments:						
Wetland Qualit	y: 🔲 High		Moderate 🗹	Low			Isolated We	etland? 🗹 Yes 🗖	No 🔲 Unknown			
General Comm	ents:											

PHOTOS



NORTH





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 Townsh	p: 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 🔲 N									
Are Vegetation D Soil or Hydrology naturally problematic? 🗹 No										
SUMMARY OF FINDINGS - Attach site map showing sampling poir	t locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Ves No	· · · · ·									
Hydric Soil Present?	Is the Sampled Area ☑ Yes □ No									
Wetland Hydrology Present?	within a Wetland?									
Field Wetland Classification: PEM										
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)									
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)									
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	Drainage Patterns (B10)									
High Water Table (A2)	Moss Trim Lines (B16)									
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)									
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)									
Sediment Deposits (B2) Oxidized Rhizospheres along Liv	ng Roots (C3)									
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)									
Algal Mat or Crust (B4)	oils (C6) Geomorphic Position (D2)									
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)									
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)									
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)									
Field Observations:										
Surface Water Present? Yes No Depth (inches):										
Water Table Present? \Box Yes ∇ No Depth (inclus):	Wetland Hydrology Present?									
Saturation Present? \Box Yes \Box No Depth (inches):	Venand Hydrology Present?									
(includes capillary fringe)										
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous in	spections), if available):									
VEGETATION										
Tree Stratum										
Plot Size: 30										
Scientific Name	% Cover Dominant Indicator Status									
Acer rubrum	10 YES FAC									
Total Cove	r: 10									



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 Carex lurida Eutrochium purpureum Impatiens capensis Eupatorium pilosum	Total Cover:	20 10 45 15 10 100	YES NO YES NO NO	FAC OBL FAC FACW FACW			
Woody Vine Stratum							
Plot Size: 30							
Scientific Name		% Cover	Dominant	Indicator Status			
	Total Cover:						
Dominance Test Worksheet:	Prevalence Index Worksheet:						
Number of Dominant Species	Total % Cover	of:	Multiply by:				
That Are OBL, FACW, or FAC:	OBL Species:	<u>10</u>	x 1 = <u>10</u>				
Total Number of Dominant	FACW Species	:: <u>25</u>	x 2 = <u>50</u>				
	FAC Species:	<u>75</u>	x 3 = <u>225</u>				
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>0</u>	x 4 = <u>0</u>				
	UPL Species:	<u>0</u>	x 5 = <u>0</u>				
	Column Totals:	<u>110 (A)</u>	<u>285 (B)</u>				
Hydrophytic Vegetation Indicators:							
1 - Rapid Test for Hydrophytic Vegetation							
☑ 2 - Dominance Test is > 50%							
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0							
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic Vegetation Present? 🗹 Yes 🗆 No						
Problematic Hydrophytic Vegetation ¹ (Explain)							
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							
Remarks:							


SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to a	docum	nent the ir	ndicator o	r confirm the ab	sence of indicators.)		
Depth (inchoo)	Matrix		Re	dox Fe	atures	_	т	Texture		
(incries)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	rexture		Reliaiks	
0-12	7.5YR 3/2	100					FINE S/	ANDY LOAM		
12-20	7.5YR 4/2	95	5YR 4/4	5	С	м	FINE S/	ANDY LOAM		
¹ Type: C=Cond	centration. D=De	pletior	n. RM=Reduced	Matrix.	CS=Cov	vered Sand	or Coated Grain	s. ² Location: PL=	Pore Lining. M=Matrix	
Hydric Soil Inc	dicators: (Appli	cable	to all LRR's. unle	ess ot	herwise n	oted.)		Indicators for P	roblematic Hvdric Soils ³ :	
Histosol (/	A1)		□ F	olyval	ue Below	Surface (S	8) (LRR R,	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Epi	pedon (A2)		— N	ILRA 1	149B)		, x	Coast Prairie	e Redox (A16) (LRR K, L, R)	
Black Hist	tic (A3)		П Т	hin Da	ark Surface	e (S9) (LR	R R, MLRA 149B) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)	
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)	Dark Surface	e (S7) (LRR K, L, M)	
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)		Polyvalue B	elow Surface (S8) (LRR K, L)	
Depleted	Below Dark Surfa	ace (A	11) 🗹 C	eplete	ed Matrix (F3)		Thin Dark S	urface (S9) (LRR K, L)	
Thick Dar	k Surface (A12)			Redox I	Dark Surfa	ace (F6)		Iron-Mangar	nese Masses (F12) (LRR K, L, R)	
🔲 Sandy Mu	ucky Mineral (S1)			eplete	ed Dark Su	urface (F7)		Piedmont Fle	oodplain Soils (F19) (MLRA 149B)	
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)	
🔲 Sandy Re	edox (S5)							Red Parent	Material (F21)	
Stripped I	Matrix (S6)							Very Shallow	v Dark Surface (TF12)	
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)					Other (Explanation)	ain in Remarks)	
³ Indicators of I	nydrophytic vege	ation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbed or p	problematic.		
Remarks:								Hydric Soil Prese	ent? 🗹 Yes 🗌 No	
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate 🗹	Low			Isolated Wetlar	nd? 🗹 Yes 🗖	No 🔲 Unknown	
General Comm	ients:									





NORTH



WETLAND DETERMINATION FORM - Northe	central and N	ortheast Region		
Centerline Ce-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 Sam	pling Point: BL-N-WO	06-UPL	
Investigators: JM JW Quad Name: Windsor Locks Townsh	nip: 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: -72.7	41749	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, exp	olain in Remarks.)		
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No	Are "Normal" Ci	rcumstances present?	🗹 Yes 🔲 No	
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No				
			f (
SUMMARY OF FINDINGS - Attach site map showing sampling poir	nt locations, tra	ansects, important	features, etc.	
Hydrophytic Vegetation Present? Ves Vos	Is the Sample	d Area	_	
Hydric Soil Present? Ves No	within a Wetla	ind? □ Yes 🗹	No	
Wetland Hydrology Present? Yes V No				
Field Wetland Classification: UPLAND PLOT				
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (2	or more required)	
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)	
□ Surface Water (A1) □ Water-Stained Leaves (B9)		Drainage Patterns (I	310)	
High Water Table (A2)		Moss Trim Lines (B1	16)	
Saturation (A3) Marl Deposits (B15)		Dry-Season Water 1	able (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C	8)	
Sediment Deposits (B2) Oxidized Rhizospheres along Liv	ing Roots (C3)	Saturation Visible or	n Aerial imagery (C9)	
Drift Deposits (B3) Presence of Reduced Iron (C4)		Stunted or Stressed	Plants (D1)	
Algal Mat or Crust (B4)	ioils (C6)	Geomorphic Position	n (D2)	
□ Iron Deposits (B5) □ Thin Muck Surface (C7)		Shallow Aquitard (D	3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D	95)	
Field Observations:				
Surface Water Present? 🔲 Yes 🗹 No Depth (inches):				
Water Table Present? 🔲 Yes 🗹 No Depth (inches):	Wetland Hy	drology Present?		
Saturation Present?			Yes 🗹 No	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous ir	spections), if availal	ble):		
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover	Dominant	Indicator Status	
Acer rubrum	50	YES	FAC	
Total Cov	er: 50		1	



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Acer rubrum Lindera benzoin		10 45	NO YES	FAC FACW/
	Total Cover:	55	120	17.000
Herb Stratum				
	I	0/ O	Deminent	la diastas Otatus
		% Cover	Dominant	
Lindera benzoin		10	YES	FACW
Onoclea sensibilis	Total Cover:	15	YES	FACW
Masely Vina Stratum	Total Cover.	40		
Plot Size: 30				
Scientific Name	1	% Covor	Dominant	Indicator Status
		78 COver	Dominant	
	Total Cover:			
Deminence Test Werkehest	Brevelence Inc	lay Markahaati		
Number of Dominant Species	Total % Cover	of	Multiply by:	
That Are OBL, FACW, or FAC: <u>5 (A)</u>		0	x = 0	
Total Number of Dominant	FACW Species	· 85	$x^{2} = 170$	
Species Across All Strata: <u>5 (B)</u>	FAC Species:	. <u>60</u>	$x_{3} = 180$	
Percent of Dominant Species	FACU Species:	: 0	x 4 = 0	
That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	UPL Species:	0	x 5 = 0	
	Column Totals:	<u>145 (A)</u>	<u>350 (B)</u>	
	1	Prevalence Index :	= B/A = 2.41	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
$\mathbf{\nabla} = 2 - \text{Dominance Test is } > 50\%$				
I 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting 	Hydrophytic V	/egetation Preser	nt? I∕ Yes Γ	7 No
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.				
Pamarka:				
rellidits.				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	ent the in	ndicator o	r confirm t	the absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures					_
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	lextu	ure	Remarks
0-8	7.5YR 3/2	100					F	INE SAND	DY LOAM	
8-20	7.5YR 5/4	97	5YR 4/4	3	С	М		SANDY I	LOAM	
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix,	CS=Cov	vered Sand	d or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Applie	cable	to all LRR's, unle	ess otl	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			olyval ILRA 1	ue Below 149B)	Surface (S	58) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)				, , , ,	(20) (15)			Coast Prairie	e Redox (A16) (LRR K, L, R)
	tic (A3)			hin Da	irk Surfac	e (S9) (LR	R R, MLRA	(149B)		Peat or Peat (S3) (LRR K, L, R)
Hydrogen				oamy	Mucky Mi	neral (F1)	(LRR K, L)			e(S7) (LRR K, L, M)
	Layers (A3) Below Dark Surfs				d Matrix (E2)				urface (S0) (LRR K, L)
Thick Dar	k Surface (A12)	, (A		edov I	Dark Surf	ace (F6)				nace (03) (LINIX, L)
Sandy Mi	ucky Mineral (S1)			eplete	d Dark Si	urface (F7)				oodplain Soils (F19) (MI RA 149R)
□ Sandy Gl	eved Matrix (S4)			Redox	Depressio	ons (F8)				c (TA6) (MI RA 144A 145 149B)
Sandy Re	edox (S5)					()			Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
Restrictive Lay	/er Present?		Yes 🔽 No	Πι	Inknown					
				_				I	Hydric Soil Prese	ent? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗌 Yes 🔲	No 🔲 Unknown
General Comm	ients:									





NE



WETLAND DETERMINATION FORM - Northce	ntral and Northeast Region			
Centerline 🔲 Re-Route 🔲 Access Road 🔲 Ancillary Facility 🔲 Ti	ransmission Line 🔲 Other			
Project/Site: NED Milepost: 58544.5 County:	Hartford Date: 07/24/2015			
Applicant/Owner: Kinder Morgan State: C	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 D Soil or Hydrology significantly disturbed? 🗹 No	Are "Normal" Circumstances present?			
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? Ves No				
Hydric Soil Present? Ves No	Is the Sampled Area within a Wetland? Ves I No			
Wetland Hydrology Present? 🗹 Yes 🔲 No				
Field Wetland Classification: PEM				
 Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)			
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidized Rhizospheres along Living	Roots (C3) Saturation Visible on Aerial imagery (C9)			
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	s (C6) Geomorphic Position (D2)			
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present?				
Weter Table Present?	Wotland Hydrology Procent?			
Vale rable Fresent? The Ves \square No Depth (inches):				
(includes capillary fringe)				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous insp	ections), if available):			
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name	% Cover Dominant Indicator Status			
Total Cover:				



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 Impatiens capensis Scirpus cyperinus Onoclae sensibilis		75 25 1	YES YES NO	OBL FACW OBL FACW		
	Total Cover:	106	No	17,000		
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	T . 10					
	Total Cover:					
Dominance Test Worksheet:	Prevalence Index Worksheet:					
Number of Dominant Species That Are OBL, FACW, or FAC: <u>3 (A)</u>	Total % Cover	of:	Multiply by:			
	OBL Species:	<u>76</u>	x 1 = <u>76</u>			
Species Across All Strata: <u>3 (B)</u>	FACW Species	s: <u>30</u>	x 2 = <u>60</u>			
Percent of Dominant Species	FAC Species:	5	$x_3 = \frac{15}{2}$			
That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species	: <u>U</u>	x 4 = 0			
	OPL Species:	<u>U</u>	$x = \underline{0}$			
	Column rotais.	<u> </u>	<u>151 (В)</u>			
		Prevalence Index	= B/A = 1.30			
Hydrophytic Vegetation Indicators:						
1 - Rapid Test for Hydrophytic Vegetation						
\checkmark 2 - Dominance Test is > 50%						
$\boxed{2}$ 3 - Prevalence Index is ≤ 3.0						
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	/egetation Preser	nt? ☑ Yes [] No		
Problematic Hydrophytic Vegetation ¹ (Explain)						
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
Remarks:	· ·					



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	r confirm t	he abser	nce of indicators.)	
Depth (inchor)	Matrix		Re	dox Fe	atures			Tavit		Domoriko
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture			Remarks
0-2	7.5YR 2.5/1	100					F	INE SANI		
2-4	7.5YR 4/1	100						SANDY	LOAM	
4-20	7.5YR 4/2	95	5YR 4/4	5	С	м		SANDY	LOAM	
¹ Type: C=Cond	L centration, D=De	l epletior	n, RM=Reduced	Matrix.	CS=Cov	l rered Sanc	l d or Coated	Grains.	² Location: PL=	EPore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable t	to all LRR's, unle	ess otl	nerwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)		∏ F	olvval	ue Below	Surface (S	8) (LRR R.		□ 2 cm Muck (A10) (LRR K. L. MLRA 149B)
Histic Epi	bedon (A2)		Ň	ILRA 1	49B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		ד 🗖	hin Da	rk Surface	e (S9) (LR	R R, MLRA	(149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mir	neral (F1)	(LRR K, L)	,	Dark Surface	e (S7) (LRR K, L, M)
☐ Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)	(, ,		Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹 🖸	Peplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	Redox I	Dark Surfa	ace (F6)			☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	dox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unle	ess disturb	ed or prob	olematic.	
Restrictive Lay	ver Present?		Yes 🗹 No		Inknown				Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Corr	nments:				
Wetland Qualit	ty: 🔲 High		Moderate 🗹	Low			Isolated	Wetland?	Yes 🗹	No 🔲 Unknown
General Comm	ients:									







WETLAND DETERMINATION FORM - Northcentral and No	rtheast Region
Centerline Ce-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 Samp	ling 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: -72.740	D140 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, expla	in in Remarks.)
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No Are "Normal" Circ	umstances present? 🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, tran	sects, important features, etc.
Hydrophytic Vegetation Present? Ves No	
Hydric Soil Present? Is the Sampled within a Wottan	Area ⊿⊃ Yes
Wetland Hydrology Present? Ves Ves	
Field Wetland Classification: UPLAND PLOT	
Remarks:	
Watland Hydrology Indicators:	econdary Indicators (2 or more required)
	Surface Soil Cracks (B6)
	Drainage Patterns (B10)
U Surface Water (A1) U Water-Stained Leaves (B9)	Moss Trim Lines (B16)
	Drv-Season Water Table (C2)
Saturation (A3)	Cravfish Burrows (C8)
Water Marks (B1)	Saturation Visible on Aerial imagery (C9)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐	Stupted or Strossed Plants (D1)
Drift Deposits (B3)	
Algal Mat or Crust (B4)	
Iron Deposits (B5)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Ves Ves Wetland Hydr	ology Present?
Saturation Present? Yes Z No Depth (inches): (includes capillary fringe)	🗌 Yes 🗹 No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available	e):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name % Cover	Dominant Indicator Status
Total Cover:	



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 Toxicodendron radicans Impatiens capensis Prunus serotina Geum canadense Phalaris arundinacea	Tatal Causa	10 15 5 1 10 50	NO NO NO NO YES	FACW FAC FACW FACU FAC FACW
Weedy Vine Stratum		91		
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Total Cover:		I	Ι
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: <u>1 (A)</u>	Total % Cover OBL Species:	of: <u>0</u>	Multiply by: x 1 = $\underline{0}$	
Total Number of Dominant Species Across All Strata: <u>1 (B)</u>	FACW Species	s: <u>65</u>	x = 130	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species. FACU Species: UPL Species: Column Totals:	25 : 1 <u>0</u> : <u>91 (A)</u> Prevalence Index :	$\begin{array}{rcl} x & 3 &=& \underline{73} \\ x & 4 &=& \underline{4} \\ x & 5 &=& \underline{0} \\ && \underline{209} & (\underline{B}) \\ \end{array}$ $= B/A = 2.30$	
Hydrophytic Vegetation Indicators:				
 □ 1 - Rapid Test for Hydrophytic Vegetation ☑ 2 - Dominance Test is > 50% ☑ 3 - Prevalence Index is ≤ 3.0 □ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 	Hydrophytic \	Vegetation Preser	nt? □ Yes 🗹	2 No
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	nent the in	ndicator o	r confirm tl	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures					. .
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	Textu	lre	Remarks
0-10	7.5YR 3/2	100					FI	NE SAND	DY LOAM	
10-20	7.5YR 5/6	100					FI	NE SAND	DY LOAM	
¹ Type: C=Con	centration D=De	pletior	RM=Reduced	Matrix	CS=Cov	ered Sand	l or Coated	Grains	² l ocation: Pl =	Pore Lining M=Matrix
Hydric Soil Inc	licators: (Appli	cable			herwise n	oted)		oranis.	Indicators for P	roblematic Hydric Soils ³
		cable				Surface (S				
	nedon (A2)			ILRA [·]	149B)	ounace (c				\sim Redox (A16) (I RR K R)
Black Hist	tic (A3)		пт	hin Da	ark Surfac	e (S9) (I R	RR MIRA	149B)		Peat or Peat (S3) (LRR K R)
	Sulfide (A4)			oamv	Mucky Mi	neral (F1)	(I RR K I)		Dark Surface	e (S7) (LRR K. L. M)
☐ Stratified	Lavers (A5)			oamv	Gleved M	atrix (F2)	(, _)		Polvvalue Be	elow Surface (S8) (LRR K. L)
Depleted	Below Dark Surfa	ace (A	11) П С	eplete	ed Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			ledox	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	ed Dark Su	urface (F7)	1		Piedmont Florence	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
Restrictive Lay	er Present?		Yes 🖌 No		JNKNOWN			I	Hydric Soil Prese	nt? □ Yes 🗹 No
Remarks:							·			
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	eneral Con	nments:				
Wetland Quali	ty: 🔲 High		Moderate	Low			Isolated \	Wetland?	🗋 Yes 🔲	No 🔲 Unknown
General Comm	nents:									





SW



WETLAND DETERMINATION FORM - Northcen	ntral and Nort	heast Region	
Centerline Re-Route Access Road Ancillary Facility Tra	ansmission Line	Other	
Project/Site: NED Milepost: 59582.4 County:	Hartford	Date:	07/24/2015
Applicant/Owner: Kinder Morgan State: CT	T Samplin	g Point: BL-N-WOO	03-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 🔲 Co	nvex 🔲 None	Slope%.: 1
Subregion (LRR): Middle Atlantic Lat: 41.888665	Long: -72.7366	69	Datum: NAD83
Soil Map Unit Name: Saco silt Ioam		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" Circun	nstances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, trans	ects, important	features, etc.
Hydrophytic Vegetation Present? Ves No		•	
Hydric Soil Present?	s the Sampled A	rea ☑ Yes □	No
Wetland Hydrology Present?	within a wetiand	r — —	
Field Wetland Classification: PFO			
 Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	<u>Sec</u>	ondary Indicators (2 c	or more required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
Surface Water (A1) Water-Stained Leaves (B9)		Drainage Patterns (E	310)
High Water Table (A2) Aquatic Fauna (B13)		Moss Trim Lines (B1	6)
Saturation (A3)		Dry-Season Water T	able (C2)
Water Marks (B1)		Crayfish Burrows (Ca	8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living R	Roots (C3)	Saturation Visible on	Aerial imagery (C9)
Drift Deposits (B3)		Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)	(C6)	Geomorphic Position	n (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)		Shallow Aquitard (D3	3)
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)	\square	FAC-Neutral Test (D	5)
Field Observations:			
Surface Water Present?			
Water Table Present? Ves No Depth (inches): 8	Wetland Hvdro	oav Present?	
Saturation Present? Yes No Depth (inches): 0	2	${\bf \nabla}$	Yes 🗌 No
(includes capillary tringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspect	ections), if available):		
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Quercus rubra	30 15	YES	FACU
Total Cover	45	120	
	10		



Sapling/Shrub Stratum

Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora Lindera benzoin Hamamelis virginiana Alnus incana		10 50 10 30	NO YES NO YES	FACU FACW FACU FACW
	Total Cover:	100		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Symplocarpus foetidus		80 10	YES	OBL
	Total Cover:	90	NO	
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		,		
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species That Are OBL_EACW_or EAC' <u>4 (A)</u>	Total % Cover of	of:	Multiply by:	
	OBL Species:	<u>80</u>	x 1 = <u>80</u>	
Species Across All Strata: <u>5 (B)</u>	FACW Species	: <u>90</u>	x 2 = 180	
Percent of Dominant Species	FAC Species:	<u>15</u>	x 3 = 45	
That Are OBL, FACW, or FAC: <u>80 (A/B)</u>	FACU Species:	<u>50</u>	x 4 = 200	
	Column Totals:	<u>U</u> 225 (A)	x = 0	
	Column rotais.	<u>200 (A)</u>	<u>505 (B)</u>	
		Prevalence Index	= B/A = 2.15	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
2 - Dominance Test Is > 50%				
\checkmark 3 - Prevalence Index is ≤ 3.0	l hadron ha din X	la matatian Duana		7
data in Remarks or on a separate sheet)	Hydropnytic v	egetation Preser	nt? IV Yes L] NO
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	e the d	epth needed to	docun	nent the in	ndicator o	r confirm th	e absen	ce of indicators.)	1
Depth	Matrix		Re	dox Fe	atures			-		_
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		l exture Rei		Remarks
0-20	7.5YR 2.5/1	100						ORGA	NIC	
¹ Type: C=Cond	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	d or Coated G	Grains.	² Location: PL=	=Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable	to all LRR's, un	ess ot	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A	A1)			Polyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	oedon (A2)				1100)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)			Thin Da	ark Surfac	e (S9) (LR	R R, MLRA 1	49B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
	Layers (A5) Dalam Dark Ourfe	() /		_oamy	Gleyed M	atrix (F2)				elow Surface (S8) (LRR K, L)
	Below Dark Suna	ace (A		Deplete	ed Matrix (F3)				urface (S9) (LRR K, L)
	r Sullace (A12)									nese masses (FIZ) (LRR R, L, R)
Sandy Mic	eved Matrix (S4)			Sedov	Depressio	ons (FR)				c (TA6) (MI RA 144A 145 140P)
Sandy Re	edox (S5)			COUCK	Depressio	/13 (1 U)			Red Parent	Material (F21)
	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						☐ Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic veget	tation a	and wetland hydi	ology r	nust be pr	esent, unl	ess disturbed	l or prob	lematic.	
Restrictive Lav	ver Present?		Yes 🗹 No		Jnknown			•		
		—	—	_					Hydric Soil Prese	ent? 🗹 Yes 🗖 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversit	y or Ge	eneral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated W	/etland?	🗖 Yes 🗹	No 🔲 Unknown
General Comm	ients:									
Ceneral Comm	iento.									





SE



WETLAND DETERMINATION FORM - North	central and	d Northeast Region	
Centerline Re-Route Access Road Ancillary Facility	Transmission	Line D Other	
Project/Site: NED Milepost: 59660.6 County	: Hartfor	rd Date:	07/24/2015
Applicant/Owner: Kinder Morgan State:	СТ	Sampling Point: BL-N-WO	03-UPL
Investigators: JM JW Quad Name: Windsor Locks Towns	hip: Windso	or	
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 Ioam		NWI Classification:	Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes	No (If no	o, explain in Remarks.)	
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 significantly disturbed? 🗹 No	Are "Norma	al" Circumstances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling poi	nt locations	, transects, important	features, etc.
Hydrophytic Vegetation Present?	la tha Sam	anled Area	
Hydric Soil Present?	within a W	letland? □ Yes 🗹	1 No
Wetland Hydrology Present? Ves No			
Field Wetland Classification: UPLAND PLOT			
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (2	or more required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks	(B6)
□ Surface Water (A1) □ Water-Stained Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		Moss Trim Lines (B	16)
Saturation (A3) Marl Deposits (B15)		Dry-Season Water	Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C	(8)
Sediment Deposits (B2) Oxidized Rhizospheres along Liv	ving Roots (C3)	Saturation Visible of	n Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)		Stunted or Stressed	l Plants (D1)
Algal Mat or Crust (B4)	Soils (C6)	Geomorphic Positio	n (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)		Shallow Aquitard (D	3)
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks)		Microtopographic R	elief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (E	D5)
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present?	Wetlan	d Hydrology Present?	
Saturation Present?			Yes ⊻ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous i	nspections), if a	vailable):	
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Co	over Dominant	Indicator Status
Quercus alba	10	NO NO	FACU
Carya glabra	30	YES	FACU
Total Cov	ver: 60)	



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 Polystichum acrostichoides		5 80	NO YES	FACU FACU		
	Total Cover:	90	1	I		
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:			1		
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
Number of Dominant Species	Total % Cover of: Multiply by:					
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>			
Total Number of Dominant	FACW Species	: <u>20</u>	x 2 = <u>40</u>			
Species Across All Strata.	FAC Species:	<u>0</u>	x 3 = <u>0</u>			
Percent of Dominant Species	FACU Species	: <u>150</u>	x 4 = <u>600</u>			
	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	<u>170 (A)</u>	<u>640 (B)</u>			
		Prevalence Index :	= B/A = <u>3.76</u>			
Hydrophytic Vegetation Indicators:						
1 - Rapid Test for Hydrophytic Vegetation						
□ 2 - Dominance Test is > 50%						
□ 3 - Prevalence Index is ≤ 3.0						
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic \	egetation Preser	nt? 🗌 Yes 🗹	No		
Problematic Hydrophytic Vegetation ¹ (Explain)						
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
Remarks:						



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	nent the ir	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures			-		. .
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		lre	Remarks
0-6	7.5YR 3/2	100					FI	INE SAND	OY LOAM	
6-20	7.5YR 5/6	100					FI	INE SAND	DY LOAM	
17.00								<u> </u>		
Type: C=Cond	centration, D=De	epietior	n, RM=Reduced	Matrix	, CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil ind	alcators: (Appli	cable	to all LRR's, unio	ess oti	nerwise n	loted.)				roblematic Hydric Solls":
	A1)			'oiyvai 1LRA '	ue Below 149B)	Surface (S	58) (LRR R,			A10) (LRR K, L, MLRA 149B)
	pedon (A2)		— -	'hin De	where Cuerto a			1400)		Redox (A16) (LRR K, L, R)
	Sulfido (A4)					e (59) (LK		1496)		Pear of Pear (SS) (LKK K, L, K)
				oamy	Gloved M	atrix (E2)				= (07) (LIKKK, L, M)
	Below Dark Surfa	ace (A	11) D F	enlete	d Matrix (E3)				urface (S9) (LRR K L)
Thick Dar	k Surface (A12)	(ledox	Dark Surfa	ace (F6)				ese Masses (F12) (LRR K. L. R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)	1		☐ Piedmont Flo	podplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
Restrictive Lay	ver Present?		Yes 🗹 No		Jnknown			I	Hydric Soil Prese	nt? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗌 Yes 🗌	No 🔲 Unknown
General Comm	nents:									





NW



WETLAND DETERMINATION FORM - Northo	entral and Nor	theast 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 Sampli	ng Point: BL-N-WO	02-PFO
Investigators: AF CV Quad Name: Windsor Locks Townsh	ip: Windsor		
Logbook No.: 2014P2 Logbook Pg.: 124 Tract: 27865			
Landform (hillslope, terrace, etc.): DEPRESSION Local Relief:	🗹 Concave 🔲 C	onvex 🔲 None	Slope%.: 10
Subregion (LRR): Middle Atlantic Lat: 41.891002	Long: -72.7362	206	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, explai	n in Remarks.)	
Are Vegetation 🔲 Soil 🗋 or Hydrology 🔲 significantly disturbed? 🗹 No	Are "Normal" Circu	mstances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🗋 or Hydrology 🗋 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling poir	t locations, trans	sects, important	features, etc.
Hydrophytic Vegetation Present? Ves No			
Hydric Soil Present? Yes No	Is the Sampled A within a Wetland	Area I?	No
Wetland Hydrology Present? Ves No			
Field Wetland Classification: PFO			
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	Se	condary Indicators (2	or more required)
Primary Indicators (minimum of one required: check all that apply)		Surface Soil Cracks	(B6)
Surface Water (A1)	-	Drainage Patterns (E	B10)
High Water Table (A2)		Moss Trim Lines (B1	16)
Aquatic Faulta (B13)		Dry-Season Water T	able (C2)
V(ster Marke (P1)		Cravfish Burrows (C	8)
Sediment Deposite (D2)		Saturation Visible or	Aerial imagery (C9)
Sediment Deposits (B2) Oxidized Rhizospheres along Liv		Stunted or Stressed	Plants (D1)
Drift Deposits (B3) Presence of Reduced Iron (C4)		Geomorphic Position	(D2)
		Shallow Aquitard (D	3)
		Microtopographic Re	o) blief (D4)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (C	5101 (D-1)
Sparsely vegetated Concave Surface (B8)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes 🗹 No Depth (inches):	Wetland Hydro	ology Present?	. . .
Saturation Present?			Yes 📙 No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous in	spections), if available):	
VEGETATION			
Tree Stratum			
Plot Size: 30			
Scientific Name	% Cover	Dominant	Indicator Status
Acer rubrum	20	YES	FAC
Praxinus americana Quercus rubra	10 15	YES YES	FACU
Total Cove	er: 45	I	I



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Lindera benzoin Cornus amomum		30 20	YES YES	FACW FACW
	Total Cover:	50		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Equisetum hyemale		20	YES	FAC
	Total Cover:	40	123	
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Vitis labruscana		1	NO	FACU
	Total Cover:	1	I	I
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
I nat Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 7 (B)	FACW Species	: <u>70</u>	x 2 = <u>140</u>	
	FAC Species:	<u>40</u>	x 3 = <u>120</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71 (A/B)</u>	FACU Species:	<u>26</u>	x 4 = <u>104</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>136 (A)</u>	<u>364 (B)</u>	
	I	Prevalence Index =	= B/A = <u>2.68</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
Image: 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Preser	nt? ☑ Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	locum	nent the ir	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures					. .
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Textu	ure	Remarks
0-6	7.5YR2.5/1	100						SILT LO	DAM	
6-20	7.5YR4/6	100						SANDY I	LOAM	
	centration D-De	oletion	RM-Reduced	Matrix	CS-Cov	ered Sand	l or Coated	Grains	² l ocation: Pl -	-Pore Lining M-Matrix
Hydric Soil Inc	licators: (Appli	piction			herwise n	oted)		oranis.	Indicators for Pr	roblematic Hydric Soils ³
						Surface (S	8) (I RR R			A10) (I RR K I MI RA 149B)
	pedon (A2)			ILRA [·]	149B)	Currace (C	, EIXIX IX,			Redox (A16) (I RR K I R)
Black Hist	tic (A3)		пт	hin Da	ark Surface	e (S9) (LR	R R. MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K. L. R)
Hydrogen	Sulfide (A4)			oamv	Muckv Mi	neral (F1)	(LRR K. L)	,	Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleved M	atrix (F2)	(,		Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🔽 C	eplete	ed Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			edox	Dark Surfa	ace (F6)			Iron-Mangan	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	ed Dark Su	urface (F7)	1		Piedmont Flor	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	edox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	in in Remarks)
³ Indicators of I	nydrophytic vege	ation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or probl	lematic.	
Restrictive Lay	/er Present?		Yes 🗹 No	L L	Jnknown			I	Hydric Soil Prese	nt? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Quali	ty: 🗹 High		Moderate	Low			Isolated	Wetland?	🗋 Yes 🗹	No 🔲 Unknown
General Comm	ients:									







WETLAND DETERMINATION FORM - Northcentr	ral and Northeast Region				
Centerline CR-Route Access Road Ancillary Facility Trans	smission 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:	oncave 🗹 Convex 🔲 None Slope%.: 0				
Subregion (LRR): Middle Atlantic Lat: 41.890745 Lot	ong: -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 D Soil or Hydrology significantly disturbed? 🗹 No Are	e "Normal" Circumstances present? 🗹 Yes 🔲 No				
Are Vegetation 🔲 Soil 🗋 or Hydrology 🔲 naturally problematic? 🗹 No					
SUMMARY OF FINDINGS - Attach site map showing sampling point loc	ations, transects, important features, etc.				
Hydrophytic Vegetation Present?					
Hydric Soil Present?	the Sampled Area thin a Wetland? □ Yes ☑ No				
Wetland Hydrology Present?					
Field Wetland Classification: UPLAND PLOT					
Remarks:					
	Secondary Indicators (2 or more required)				
	Surface Soil Cracks (B6)				
	Drainage Patterns (B10)				
U Surface Water (A1) U Water-Stained Leaves (B9)	Moss Trim Lines (B16)				
	Drv-Season Water Table (C2)				
Saturation (A3) Mari Deposits (B15)	\square Cravfish Burrows (C8)				
	Saturation Visible on Aerial imagery (C9)				
	Ing Living Roots (C3) Stunted or Stressed Plants (D1)				
Drift Deposits (B3)	on (C4) Geomorphic Position (D1)				
Algal Mat or Crust (B4)	Tilled Soils (C6)				
I Iron Deposits (B5)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7) U Other (Explain in Remarks)	EAC Noutral Tast (D5)				
Sparsely Vegetated Concave Surface (B8)					
Field Observations:					
Surface Water Present? Yes Yes No Depth (inches):					
Water Table Present?	Wetland Hydrology Present?				
Saturation Present? Yes No Depth (inches): (includes capillary fringe)					
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspection	ons), if available):				



VEGETATION						
Tree Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
Betula populifolia Betula papyrifera Pinus strobus Quercus alba Tsuga canadensis Quercus rubra	Total Cover:	10 1 20 10 15 15 71	YES NO YES NO NO YES	FAC FACU FACU FACU FACU FACU		
Sapling/Shrub Stratum						
Plot Size: 15						
Scientific Name		% Cover	Dominant	Indicator Status		
Pinus strobus		25	YES	FACU		
Lindera benzoin	Total Cover:	5	NO	FACW		
	Total Cover.					
Herb Stratum						
Plot Size: 5	1					
Scientific Name		% Cover	Dominant	Indicator Status		
Dendrolycopodium dendroideum		20	YES	FACU		
	Total Cover:	20				
Woody Vine Stratum						
Plot Size: 30	1					
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:				
Number of Dominant Species	Total % Cover of: Multiply by:					
That Are OBL, FACW, or FAC:	OBL Species:	<u>0</u>	x 1 = <u>0</u>			
Total Number of Dominant	FACW Species	: <u>5</u>	x 2 = <u>10</u>			
Species Across Air Strata. $\underline{\circ} \underline{\circ} \underline{\circ} \underline{\circ}$	FAC Species:	<u>10</u>	x 3 = <u>30</u>			
Percent of Dominant Species That Are OBL_EACW_or EAC' <u>20 (A/B)</u>	FACU Species:	<u>106</u>	x 4 = <u>424</u>			
	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	<u>121 (A)</u>	<u>464 (B)</u>			
	- F	Prevalence Index =	= B/A = <u>3.83</u>			
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	Hydrophytic V	egetation Presen	t? 🗌 Yes 🗹	Í No		
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.						
Remarks:						



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to	docum	nent the in	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	atures			-		. .
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	Texture		Remarks
0-6	7.5YR3/2	100						SILT LO	OAM	
6-20	7YR4/6	100						SANDY	LOAM	
¹ Type: C=Con	centration, D=De	epletion	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Appli	cable	to all LRR's, unle	ess ot	herwise n	oted.)			Indicators for Pr	roblematic Hydric Soils ³ :
	A1)			'olyval ILRA [·]	ue Below 149B)	Surface (S	58) (LRR R,			A10) (LRR K, L, MLRA 149B)
	pedon (A2)				ul. Ourfaa	- (00) (1 D		4.400)		Predox (A16) (LRR K, L, R)
	(IC (A3)			nin Da		e (59) (LR		149B)		Peat of Peat (S3) (LRR K, L, R) $(S7)$ (LRR K, L, M)
				oamy		otrix (E2)	(LKK K, L)			= (37) (LRR R, L, M)
	Below Dark Surfa	ace (A	11) D r	oanny Ienlete	oleyeu M	E3)				urface (SQ) (LRR K L)
Thick Dar	k Surface (A12)			ledox	Dark Surf:	ace (F6)				uese Masses (F12) (LRR K L R)
Sandy Mi	ucky Mineral (S1))eplete	ed Dark Si	urface (F7)				oodplain Soils (F19) (MI RA 149R)
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
□ Sandy Re	edox (S5)		_		·	. ,			Red Parent I	Material (F21)
Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Explain	in in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or prob	lematic.	
Restrictive Lay	/er Present?		Yes 🔽 No		Jnknown					
			_	_				I	Hydric Soil Prese	nt? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characta	riation				omonto:				
Description of		1151105,	Aqualic Diversity	UI GE		ninents.				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗌 Yes 🔲	No 🔲 Unknown
General Comm	ients:									







WETLAND DETERMINATION FORM - Northcen	ntral and Northeast Region
Centerline CRe-Route Access Road Ancillary Facility Tra	ansmission Line 🔲 Other
Project/Site: NED Milepost: 73669.4 County:	Hartford Date: 11/21/2014
Applicant/Owner: Kinder Morgan State: CT	T 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 lo	ocations, transects, important features, etc.
	s the Sampled Area
Wetland Hydrology Present?	within a Wetland?
Field Wetland Classification: PEM	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
□ Surface Water (A1) □ Water-Stained Leaves (B9)	Drainage Patterns (B10)
✓ High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
□ Water Marks (B1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living F	Roots (C3) Saturation Visible on Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	(C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?	
Water Table Propert?	Watland Hydrology Present?
Saturation Present?	Venand Hydrology Present?
(includes capillary fringe)	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspec	ections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Total Cover:	



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 Carex stricta Eupatorium perfoliatum Phalaris arundinacea Epilobium coloratum Juncus dudleyi Juncus deffusus Scirpus cyperinus Carex lupulina		10 20 15 10 20 30 20 25	NO YES NO NO YES YES YES YES	OBL OBL FACW FACW OBL FACW OBL OBL OBL
	Total Cover:	160		
Woody Vine Stratum				
Plot Size: 30		1	1	
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence In	dex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: <u>5 (A)</u>	Total % Cover OBL Species:	of: <u>115</u>	Multiply by: x 1 = 115	
Total Number of Dominant Species Across All Strata: <u>5 (B)</u>	FACW Species	s: <u>45</u> <u>0</u>	$\begin{array}{rcl} x & 2 = & \underline{90} \\ x & 3 = & \underline{0} \end{array}$	
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100 (A/B)</u>	FACU Species UPL Species: Column Totals	:: <u>0</u> <u>0</u> : <u>160 (A)</u> Prevalence Index =	$\begin{array}{rcl} x \ 4 = & \underline{0} \\ x \ 5 = & \underline{0} \\ & \underline{205 \ (B)} \end{array}$ $= B/A = & \underline{1.28} \end{array}$	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
☑ 2 - Dominance Test is > 50%				
$\boxed{\square}$ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic '	Vegetation Preser	nt? ☑ Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL													
Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)													
Depth (inches)	Matrix		Redox Features				Tovturo		Demode				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text		IVEIIIdINS				
0-16	7.5YR 4/2	80	10YR 6/8 2.5YR 4/6	10 10	C D	M PL	LOA	λM	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.) Indicators for Problematic Hydric Soils ³ :													
Histosol (A	A1)			2 cm Muck (A10) (LRR K, L, MLRA 149B)								
Histic Epi	pedon (A2)		N	Coast Prairie Redox (A16) (LRR K, L, R)									
Black Histic (A3) Thin Dark Surface (S9) (LRR R, ML								5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)				
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)								Dark Surface (S7) (LRR K, L, M)					
	Layers (A5) Bolow Dork Surf			oamy	Gleyed M	atrix (F2)		Polyvalue Below Surface (S8) (LRR K, L)					
	below Dark Suna k Surface (Δ12)	ace (A			I ININ Dark Surrace (S9) (LKR K, L)								
Sandy Mu	uckv Mineral (S1)			enlete	d Dark Sulla	urface (F7)		Iron-Manganese Masses (F12) (LRR R, L, R) Piedmont Eloodplain Soils (E10) (MLRA 149B)					
Sandy Gl	Sandy Gleved Matrix (S4) Depleted Dark Surface (F7) Redov Depressions (F8)								Mesic Spodic (TA6) (MLRA 144A 145 149B)				
Sandy Redox (S5)								Red Parent I	Material (F21)				
Stripped I	Matrix (S6)				Very Shallow Dark Surface (TF12)								
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)					Other (Expla	in in Remarks)				
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	resent, unle	ess disturbed or prot	olematic.					
Restrictive Lay	ver Present?		Yes 🗹 No		Inknown			Hydric Soil Prese	nt? ☑ Yes 🛛 No				
Remarks:													
REFUSALAT	I6" DUE TO STC	INE											
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Cor	nments:							
Wetland Qualit	ty: 🔲 High		Moderate 🗹	Low			Isolated Wetland?	Yes 🗹	No 🔲 Unknown				
General Comm	ients:												

PHOTOS





SW



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	b: 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?										
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? □ Yes ☑ No									
Wetland Hydrology Present? 🗹 Yes 🗖 No										
Field Wetland Classification: UPLAND PLOT										
Remarks:										
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)									
Drimony Indicators (minimum of one required: sheek all that apply)	Surface Soil Cracks (B6)									
	Drainage Patterns (B10)									
U Surface Water (A1) U Water-Stained Leaves (B9)	Moss Trim Lines (B16)									
High Water Table (A2) Aquatic Fauna (B13)	Dry-Season Water Table (C2)									
✓ Saturation (A3) ✓ Marl Deposits (B15)	$\Box Cravifish Burrows (C8)$									
Water Marks (B1) Hydrogen Sulfide Odor (C1)										
Sediment Deposits (B2) Oxidized Rhizospheres along Livin	ng Living Roots (C3) Saturation Visible on Aeria Imagery (C9)									
Drift Deposits (B3)	1 (C4) Stunted or Stressed Plants (D1)									
Algal Mat or Crust (B4)	ils (C6) Geomorphic Position (D2)									
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)									
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	;) Microtopographic Relief (D4)									
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)									
Field Observations:										
Surface Water Present? 🔲 Yes 🗹 No Depth (inches):										
Water Table Present? Ves Ves No Depth (inches):	Wetland Hydrology Present?									
Saturation Present? Yes No Depth (inches): 0	🗹 Yes 🗖 No									
Remarks (Describe Recorded Data (stream rade, monitoring well, agrid photos, providus inco	nections) if available).									
Remarks (Describe Recorded Data (Stream gage, monitoring well, aenai photos, previous insp										
VEGETATION										
Tree Stratum										
Plot Size: 30										
Scientific Name	% Cover Dominant Indicator Status									
Total Cover:	Total Cover.									



Sapling/Shrub Stratum								
Plot Size: 15								
Scientific Name		% Cover	Dominant	Indicator Status				
Rosa multiflora Elaeagnus angustifolia	Total Cover:	10 20 30	YES YES	FACU FACU				
Herb Stratum								
Plot Size: 5								
Scientific Name		% Cover	Dominant	Indicator Status				
Phalaris arundinacea Daucus carota Schizachyrium scoparium Fragaria vesca Euthamia graminifolia	Total Cover:	20 5 25 10 25 85	YES NO YES NO YES	FACW UPL FACU UPL FAC				
Woody Vine Stratum								
Plot Size: 30								
Scientific Name		% Cover	Dominant	Indicator Status				
	Total Cover:							
Dominance Test Worksheet:	Prevalence Index Worksheet:							
Number of Dominant Species	Total % Cover	of:	Multiply by:					
That are OBL, FACW, of FAC. $= \sqrt{2}$	OBL Species:	<u>10</u>	x 1 = <u>10</u>					
Total Number of Dominant Species Across All Strata: <u>5 (B)</u>	FACW Species	:: <u>20</u>	x 2 = <u>40</u>					
	FAC Species:	<u>25</u>	x 3 = <u>75</u>					
That Are OBL, FACW, or FAC: <u>40 (A/B)</u>	FACU Species	<u>55</u>	x 4 = <u>220</u>					
	UPL Species:	<u>15</u>	$x 5 = \frac{75}{100}$					
	Column Totals:	<u>125 (A)</u>	<u>420 (B)</u>					
	Prevalence Index = B/A = <u>3.36</u>							
Hydrophytic Vegetation Indicators:								
1 - Rapid Test for Hydrophytic Vegetation								
2 - Dominance Test is > 50%								
□ 3 - Prevalence Index is \leq 3.0								
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic Vegetation Present? Yes No							
Problematic Hydrophytic Vegetation ¹ (Explain)								
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								


SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to	docun	nent the in	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Matrix		R	edox Fe	eatures			Taut		Destadua
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ure	Remarks
0-12	7.5YR 4/2	100						SANDY	LOAM	
¹ Type: C=Cond	centration, D=De	epletior	l n, RM=Reduced	Matrix	, CS=Cov	/ered Sand	l d or Coated	Grains.	² Location: PL=	 =Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable 1	to all LRR's, un	less ot	, herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (/	A1)			Polyval	ue Below	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		_	MLŔA	149B)	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)			Thin Da	ark Surfac	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			Loamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			Loamy	Gleyed M	atrix (F2)			Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A	11) 🗹	Deplete	ed Matrix ((F3)			Thin Dark S	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)			Redox	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			Deplete	ed Dark Su	urface (F7)	1		Piedmont Fle	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)			Redox	Depressio	ons (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hyd	rology i	must be pr	resent, unl	ess disturbe	ed or prob	lematic.	
Restrictive Lay	ver Present?		Yes 🗹 No		Jnknown				Hydric Soil Prese	ent? ☑ Yes 🗌 No
Remarks:										
REFUSAL AT	12" DUE TO STO	JNE								
Description of	Habitat Characte	ristics,	Aquatic Diversi	y or Ge	eneral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🛛 Yes 🗌	No 🔲 Unknown
General Comm	ients:									

PHOTOS







WETLAND DETERMINATION FORM - Northcen	tral and Northe	east Region	
Centerline Re-Route Access Road Ancillary Facility Tra	ansmission Line	Other	
Project/Site: NED Milepost: 75290.3 County:	Hartford	Date:	11/20/2014
Applicant/Owner: Kinder Morgan State: CT	T Sampling F	Point: EG-P-W00	1-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 🔲 Conve	ex 🔲 None	Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.928848	Long: -72.717247		Datum: NAD83
Soil Map Unit Name: Raypol silt loam	NV	VI 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" Circumsta	ances present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🗋 or Hydrology 🗋 naturally problematic? 🗹 No			
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transec	ts, important	features, etc.
Hydrophytic Vegetation Present? Yes No		<u> </u>	
Hydric Soil Present?	s the Sampled Area	^a ⊠ Yes 🗆	No
Wetland Hydrology Present?	vitnin a wetland?		
Field Wetland Classification: PFO			
 Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	Second	dary Indicators (2 o	r more required)
Primary Indicators (minimum of one required; check all that apply)	🗖 Su	urface Soil Cracks (B6)
□ Surface Water (A1) ☑ Water-Stained Leaves (B9)	Dr.	rainage Patterns (B	10)
High Water Table (A2)	D Mo	oss Trim Lines (B1)	6)
Saturation (A3) Marl Deposits (B15)		ry-Season Water Ta	able (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Cr	rayfish Burrows (C8	3)
Sediment Deposits (B2) Oxidized Rhizospheres along Living F	Roots (C3)	aturation Visible on	Aerial imagery (C9)
Drift Deposits (B3)		unted or Stressed I	Plants (D1)
Algal Mat or Crust (B4)	(C6) 🗖 Ge	eomorphic Position	(D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	🗖 Sh	hallow Aquitard (D3)
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks)	🗖 Mi	icrotopographic Re	lief (D4)
Sparsely Vegetated Concave Surface (B8)	D FA	AC-Neutral Test (D	5)
Field Observations:			
Surface Water Present?			
Water Table Present?	Wetland Hydrolog	v Present?	
Saturation Present? Yes No Depth (inches): 0	, .	Ø	Yes 🗌 No
Remarke (Deperihe Recorded Data (stream gage manifering well agried shares, starting increases)	ctions) if available).		
	cuons), il available).		
VEGETATION			
Tree Stratum			
Plot Size: 30	1 .		
Scientific Name	% Cover	Dominant	Indicator Status
Quercus alba Fraxinus americana	20	YES YES	FACU
Betula populifolia	25	YES	FAC
uercus palustris	20	YES	FACW
I otal Cover:	90		



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:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: <u>5 (B)</u>	FACW Species	s: <u>45</u>	x 2 = <u>90</u>	
	FAC Species:	<u>25</u>	x 3 = <u>75</u>	
That Are OBL, FACW, or FAC: <u>60 (A/B)</u>	FACU Species	: <u>45</u>	x 4 = <u>180</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals	: <u>115 (A)</u>	<u>345 (B)</u>	
		Prevalence Index	= B/A = <u>3.00</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
$\boxed{\checkmark}$ 3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	Vegetation Preser	nt? 🗹 Yes [] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



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SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	ent the ir	ndicator o	r confirm	the abs	ence of indicators.)
Depth	Matrix		Re	dox Fe	atures			-		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	Ie	exture	Remarks
0-4	10YR2/1	100						SAND	DY LOAM	
	7.5\\D.4/4	00	40)/DE/0	00				CAND		
4-16	7.51 K4/1	80	10185/8	20	U	IVI		SAND		
16-20	7.5YR4/1	70	10YR5/8 2.5YR4/6	15 15	C C	M M		SAND	DY LOAM	
¹ Type: C=Cond	centration, D=De	epletior	n, RM=Reduced	Matrix,	CS=Cov	vered Sand	l or Coated	Grains	. ² Location: PL	=Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable 1	to all LRR's, unle	ess otl	nerwise n	oted.)			Indicators for F	Problematic Hydric Soils ³ :
Histosol (A	A1)		D P	olyval	ue Below	Surface (S	8) (LRR R	,	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
Histic Epi	oedon (A2)		Ν	ILRA 1	49B)				Coast Prair	ie Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		т 🗆	hin Da	irk Surface	e (S9) (LR	R R, MLRA	A 149B)	5 cm Mucky	/ Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mi	neral (F1)	(LRR K, L)		Dark Surface	ce (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed M	atrix (F2)			Polyvalue E	Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A [,]	11) 🗹 C	eplete	d Matrix (F3)			Thin Dark S	Surface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox l	Dark Surfa	ace (F6)			Iron-Manga	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont F	loodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ons (F8)			Mesic Spoo	lic (TA6) (MLRA 144A, 145, 149B)
Sandy Re	dox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallo	w Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expl	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unle	ess disturb	ed or pr	oblematic.	
Restrictive Lay	ver Present?		Yes 🗹 No	- u	Inknown				Hydric Soil Pres	ent? 🗹 Yes 🗌 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	ty: 🗹 High		Moderate	Low			Isolated	Wetland	d? 🔲 Yes 🗖] No 🔲 Unknown
General Comm	ients:									

PHOTOS







WETLAND DETERMINATION FORM - Northcentra	al and Northeast Region
Centerline Re-Route Access Road Accillary Facility Transr	mission 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:	oncave 🗹 Convex 🔲 None Slope%.: 10
Subregion (LRR): Middle Atlantic Lat: 41.928907 Lot	ong: -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?: Ves I Yes	No (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology significantly disturbed? No Are	e "Normal" Circumstances present? ☑ Yes □ No
Are Vegetation Soil or Hydrology naturally problematic? No	
SUMMARY OF FINDINGS - Attach site map showing sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Ves V No	
Is the Hydric Soil Present? ☐ Yes ☑ No	he Sampled Area
Wetland Hydrology Present? Yes No	hin a Wetland?
Field Wetland Classification: UPLAND PLOT	
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres along Living Roo	ots (C3) Saturation Visible on Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6	6) Geomorphic Position (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches)	
Water Table Present? \Box Ves \Box No Depth (inches):	Wetland Hydrology Present?
Saturation Present? \Box Yes ∇ No Depth (inches):	☐ Yes ☑ No
(includes capillary fringe)	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspectio	ons), if available):



VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Quercus alba Acer rubrum Betula populifolia Liriodendron tulipifera Tsuga canadensis Acer saccharinum	T. 10	1 1 30 1 20 10	NO YES YES NO YES NO	FACU FAC FAC FACU FACU FACW
	I otal Cover:	63		
Sapiing/Shrub Stratum				
	1	% Cover	Dominant	Indianter Status
		% 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:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: <u>2 (A)</u>	Total % Cover	of:	Multiply by:	
Total Number of Dominant	OBL Species:	<u>U</u> 10	$X^{1} = \underline{0}$	
Species Across All Strata: <u>4 (B)</u>	FACW Species	s. <u>10</u> 31	$x^2 = \frac{20}{20}$	
Percent of Dominant Species	FACU Species	· 48	$x = \frac{33}{20}$	
That Are OBL, FACW, or FAC: <u>50 (A/B)</u>	UPL Species	. <u>40</u>	$x = \frac{132}{132}$	
	Column Totals:	<u>⊂</u> 89 (A)	305 (B)	
		Brovalanco Indox -	- B/A	
			= b/A = <u>5.45</u>	
A - Rapid Test for Hydrophytic Vegetation				
$3 - Prevalence index is \le 3.0$	lludeen kuden ((anatatian Daaran		й м.
4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)	Hydrophytic V	egetation Preser	nt? ∐ Yes ⊮	1 No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to d	docum	nent the in	ndicator o	r confirm t	he absen	ce of indicators.)	
Depth	Matrix		Re	dox Fe	eatures					- ·
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	1	lexti	ure	Remarks
0-8	7.5YR4/2	100						SANDY	LOAM	
8-18	7.5YR4/6	100						SANDY	LOAM	
¹ Type: C=Con	centration, D=De	epletior	n, RM=Reduced	Matrix	, CS=Cov	vered Sand	d or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Applie	cable 1	to all LRR's, unle	ess ot	herwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A1)			olyval ILRA ´	ue Below 149B)	Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)					(20) (15)		((0.5))	Coast Prairie	e Redox (A16) (LRR K, L, R)
	tic (A3)			hin Da	ark Surfac	e (S9) (LR	R R, MLRA	. 149B)		Peat or Peat (S3) (LRR K, L, R)
Hydrogen				oamy	Mucky Mi	neral (F1)	(LRR K, L)			e(S7) (LRR K, L, M)
	Layers (AD) Below Dark Surfr			ualiiy Ionlota	oleyea M ad Matrix (auix (F∠) (F3)				urface (SQ) (LRR K, L)
	k Surface (A12)	A) 305		edov	Dark Surf	- 3) ACE (F6)				ALAC (JY) (LAR R, L)
Sandy Mi	ucky Mineral (S1)			enlete	ad Dark Su	urface (F7)				nodolain Soils (F19) (MI RA 149R)
Sandy Gl	eved Matrix (S4)	,		edox	Depressio	ons (F8)				c (TA6) (MI RA 144A 145 149B)
□ Sandy Re	edox (S5)			louon	2 0010000				Red Parent	Material (F21)
□ Stripped I	Matrix (S6)								Very Shallov	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLR/	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic vege	tation a	and wetland hydro	ology r	nust be pr	esent, unl	ess disturbe	ed or prob	lematic.	
Restrictive Lay	ver Present?		Yes 🔽 No	Πι	Jnknown					
				-					Hydric Soil Prese	ent? 🔲 Yes 🗹 No
Remarks:										
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	eneral Con	nments:				
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated	Wetland?	🗋 Yes 🗋	No 🔲 Unknown
General Comm	nents:									

PHOTOS



SW



WETLAND DETERMINATION FORM - North	ncen	ntral and	Northeast	Region	
☑ Centerline] Tra	ansmission L	_ine 🔲 Othe	er	
Project/Site: NED Milepost: 39184.0 Count	ty:	Hartford	1	Date:	11/18/2014
Applicant/Owner: Kinder Morgan State:	C	т s	Sampling Point:	BL-O-W0	04-PEM
Investigators: TP JW Quad Name: Avon Towns	ship:	Bloomfie	eld		
Logbook No.: 2014-1 Logbook Pg.: 142 Tract: 27876					
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief:		Concave	Convex	None None	Slope%.: 3
Subregion (LRR): Middle Atlantic Lat: 41.843737		Long: -7	72.772199		Datum: NAD83
Soil Map Unit Name: Wilbraham silt Ioam			NWI Cla	ssification:	Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes		No (If no,	, explain in Rema	ırks.)	
Are Vegetation 🔲 Soil 🗹 or Hydrology 🗹 significantly disturbed? 🔲 No	0	Are "Normal	" Circumstances	present?	🗹 Yes 🔲 No
Are Vegetation 🔲 Soil 🔲 or Hydrology 🔲 naturally problematic? 🗹 No	0				
SUMMARY OF FINDINGS - Attach site map showing sampling po	int lo	ocations.	transects. i	mportant	features. etc.
Hydrophytic Vegetation Present? Yes No		,	· · · · · · · · · · · · · · · · · · ·		· · · · · · , · · · ·
Hvdric Soil Present?	ls	s the Sam	pled Area	Yes 🗆	No
Wetland Hydrology Present?	v	within a We	etland?		
Field Wetland Classification: PEM					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary II	ndicators (2 o	or more required)
Primary Indicators (minimum of one required; check all that apply)			Surface	Soil Cracks	(B6)
□ Surface Water (A1) □ Water-Stained Leaves (B9)			Drainag	e Patterns (E	310)
High Water Table (A2)			Moss Tr	im Lines (B1	6)
Saturation (A3) Marl Deposits (B15)			Dry-Sea	ison Water T	able (C2)
□ Water Marks (B1) □ Hydrogen Sulfide Odor (C1)			Crayfish	Burrows (C	8)
Sediment Deposits (B2) Oxidized Rhizospheres along L	iving I	Roots (C3)	Saturati	on Visible or	Aerial imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)			Stunted	or Stressed	Plants (D1)
Algal Mat or Crust (B4)	Soils	(C6)	Geomoi	phic Position	ו (D2)
□ Iron Deposits (B5) □ Thin Muck Surface (C7)			Shallow	Aquitard (D	3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks)			Microto	ographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Ne	utral Test (D	5)
Field Observations					
Field Observations:					
Sunace water Present? The res violation Depth (inches):			l liberta de sus Des		
water lable Present? ✓ Yes ☐ No Depth (inches): 18		wetland	i Hydrology Pre	sent?	Yes 🛛 No
(includes capillary fringe)				_	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous	inspe	ctions), if av	ailable):		
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name		% Cov	ver Do	minant	Indicator Status
Acer saccharinum		15		(ES	FACW
Total Co	ver:	15	I		



Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Alnus incana		2	NO	FACW
	Total Cover:	10	TES	FACO
Plet Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
		15	YES	FACU
Juncus effusus		5	NO	OBL
Glechoma hederacea		8	NO	FACU
Phalaris canariensis Festuca rubra		15 10	YES YES	FACU FACU
Solidago rugosa		5	NO	FAC
	Total Cover:	68		
Woody Vine Stratum				
Plot Size: 30	1		1	
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
	Potal Cover.			
Dominance Test Worksneet:	Tetal % Cover d	lex worksneet:		
That Are OBL, FACW, or FAC: <u>1 (A)</u>		ы. Е		
Total Number of Dominant	OBL Species:	<u>5</u>	x = 5	
Species Across All Strata: <u>6 (B)</u>	FACW Species	. <u>17</u> 5	$x^2 = \frac{34}{16}$	
Percent of Dominant Species	FAC Species:	<u>c</u>	$x_{3} = \frac{15}{12}$	
That Are OBL, FACW, or FAC: <u>17 (A/B)</u>	FACU Species:	00	$x 4 = \frac{272}{2}$	
		<u>U</u>	$x = \underline{0}$	
	Column Totals:	<u>95 (A)</u>	<u>326 (B)</u>	
	F	Prevalence Index =	= B/A = <u>3.43</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
2 - Dominance Test is > 50%				
3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Preser	nt? I Yes □] No
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



SOIL										
Profile Descrip	otion: (Describe	the d	epth needed to a	locum	ent the ir	ndicator o	r confirm t	he abser	nce of indicators.)	
Depth	Matrix		Re	dox Fe	atures			T 4		Descedu
(incries)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ure	Remarks
0-14	7.5YR 3/3	100						LOA	AM	
14-30	10YR 2/2	100						SILT L	OAM	
30-35	10YR 6/2	95	5YR 4/6	5	С	м	VERY	Y FINE S	ANDY LOAM	
¹ Type: C=Cond	centration, D=De	pletior	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, unle	ess otl	nerwise n	oted.)			Indicators for P	roblematic Hydric Soils ³ :
Histosol (A	A1)			olyval	ue Below	Surface (S	8) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		N	ILRA 1	49B)				Coast Prairie	e Redox (A16) (LRR K, L, R)
Black Hist	tic (A3)		т 🛛	hin Da	irk Surface	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)			oamy	Mucky Mir	neral (F1)	(LRR K, L)		Dark Surface	e (S7) (LRR K, L, M)
Stratified	Layers (A5)			oamy	Gleyed Ma	atrix (F2)			Polyvalue Be	elow Surface (S8) (LRR K, L)
Depleted	Below Dark Surfa	ace (A1	I1) 🔲 🗆	eplete	d Matrix (F3)			Thin Dark Su	urface (S9) (LRR K, L)
Thick Dar	k Surface (A12)		D F	ledox l	Dark Surfa	ace (F6)			Iron-Mangar	nese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)			eplete	d Dark Su	urface (F7)			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		D F	Redox	Depressio	ns (F8)			Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
Sandy Re	dox (S5)								Red Parent	Material (F21)
Stripped I	Matrix (S6)								Very Shallow	v Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	ain in Remarks)
³ Indicators of I	nydrophytic veget	tation a	and wetland hydro	ology r	nust be pr	esent, unle	ess disturbe	ed or prob	olematic.	
Restrictive Lay	ver Present?		Yes 🗹 No	- u	Inknown				Hydric Soil Prese	ent? 🗹 Yes 🗌 No
Remarks:										
PROBLEMATI	C SOIL, DEEP N	IUCKY	FILL SOIL							
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Corr	nments:				
Wetland Qualit	ty: 🔲 High		Moderate 🗹	Low			Isolated	Wetland?	Yes 🗹	No 🔲 Unknown
General Comm	ients:									

PHOTOS





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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: <u>N</u> NE E SE SW <u>N</u> W <u>N</u> W S M No Flow
OHWM Width (ft.): 3.0
Sinuosity: Deraided 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.): Left: ✓ 0-2 □ 2-4 □ 4-6 □ 6-8 □ 8+ (looking downstream) Directory Direct
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Bank Slope (%): Left: 20 (looking downstream) 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 Dank Root Systems D Fringing Wetlands ¹
Undercut Banks 🗹 Overhanging Trees/Shrubs 🗌 None
Aquatic Organisms Observed:
Channel Condition:
Dikes/Berms Excessive Bank Erosion N/A Other
Habitat Characteristics, Aquatic and Terrestrial Diversity Description:
Stream Quality: 🔲 High 🔲 Moderate 🗹 Low
Comments:



SW



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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: Ø Stream Pond Lake Borrow Pit Ag Ditch Other: Stream Flow: Fast Moderate Slow Very Slow None None Flow Type: Perennial (Flows year round) Intermittent (Flows <3 months) None None Stream Flow: N NE E SE SW W NW S No Flow OHWM Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Popth (in.): </th
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 Stream Flow: N NE E SE SW W NW S No Flow OHWM Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Support 0.0 Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 0.0 OHWM Indicators:
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: Ø 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)
State: CT County: Hartford Quad Name: Avon Logbook No.: 2014P2 Logbook Pg.: 70 Tract No.: 27919 Waterbody Type: Ø 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)
Logbook No.: 2014P2 Logbook Pg.: 70 Tract No.: 27919 Waterbody Type: Ø 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)
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 only in response to rainfall) None Direction of Flow: N N R E SE SW W NW S No Flow OHWM Width (ft.): 20.0 Variaght N/A N N N N N No Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 No Flow OHWM Indicators: CLEAR NATURAL LINE ON BANK No Stream Depth (in.): 0 OHWM Indicators: CLEAR NATURAL LINE ON BANK 8+ Bank Slope (%): 0 2-2 2-4 4-6 6-8 8+ Iooking downstream Left: 90 90 90 90
Stream Flow:
Flow Type: Perennial (Flows year round) Intermittent (Flows <3 months) None Direction of Flow: N N N R R SR SW NV NV S No Flow OHWM Width (ft.): 20.0 V Nd endering Straight N/A N/A No Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 V S V V No Stream Depth (in.): 0 V Vater Surface (At Crossing Location)(ft.): 0.0 V
Seasonal (Continuous flow >3 months)
Direction of Flow: N N N E SE SW N NW S No Flow OHWM Width (ft.): 20.0 Braided Meandering Straight N/A Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Depth (in.): 0 0 Vater Surface (At Crossing Location)(ft.): 0.0 OHWM Indicators: CLEAR NATURAL LINE ON BANK Eft: 0 2-4 4-6 6-8 8+ Bank Height (ft.): (looking downstream) Left: 90 2-4 4-6 6-8 8+ Bank Slope (%): Left: 90 Image: Stream
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 0 OHWM Indicators: CLEAR NATURAL LINE ON BANK Bank Height (ft.): (left: 0 2-4 4-6 6-8 8+ (looking downstream) Left: 0 2-4 4-6 6-8 8+ Qualitative Attributes Left: 90 2 2-4 4-6 6-8 8+
Sinuosity: Braided Meandering Straight N/A Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Depth (in.): 0 0 0 OHWM Indicators: CLEAR NATURAL LINE ON BANK 0.0 Bank Height (ft.): 0 2.4 4.6 6.8 8+ (looking downstream) Left: 0.2 2.4 4.6 6.8 8+ Bank Slope (%): Left: 90 1.4.6 1.6.8 8+ Qualitative Attributes V V V V V V
Stream Width (ft.): 20.0 Water Surface (At Crossing Location)(ft.): 0.0 Stream Depth (in.): 0 0 OHWM Indicators: CLEAR NATURAL LINE ON BANK Bank Height (ft.): (looking downstream) Left: Ø 2-4 4-6 6-8 8+ Bank Slope (%): (looking downstream) Left: Ø 4-6 6-8 8+ Qualitative Attributes Left: 90 4-6 6-8 8+
Stream Depth (in.): 0 OHWM Indicators: CLEAR NATURAL LINE ON BANK Bank Height (ft.): (looking downstream) Left: Image: Organization of the stress o
OHWM Indicators: CLEAR NATURAL LINE ON BANK Bank Height (ft.): 0-2 2-4 4-6 6-8 8+ (looking downstream) 0-2 2-4 4-6 6-8 8+ Bank Slope (%): 0-2 2-4 4-6 6-8 8+ (looking downstream) Left: 90 90 90 90 Qualitative Attributes End End End End End End
Bank Height (ft.): (looking downstream) Left: ☑ 0-2 □ 2-4 □ 4-6 □ 6-8 □ 8+ Bank Slope (%): (looking downstream) Left: 90 □ □ □ - □ 6-8 □ 8+ Qualitative Attributes Left: 90 □ □ □ □ 0 □ □ □ □ □ □ □ 0 □<
(looking downstream) Right: 0 2-4 4-6 6-8 8+ Bank Slope (%): Left: 90 90 Right: 90 1000 1000 Qualitative Attributes 1000 1000 1000 1000 1000
Bank Slope (%): (looking downstream) Left: 90 Right: 90 Qualitative Attributes
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
Aquatic Organisms Observed:
Channel Condition:
☐ Dikes/Berms
Habitat Characteristics, Aquatic and Terrestrial Diversity Description:
Stream Quality: 🔲 High 🗹 Moderate 🔲 Low
Lomments:
Comments:
comments:
comments:
Comments:







W





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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
Lailude/Longitude. 41.043002, 42.17217
Lachook No.: 2014-2 Logbook Pa.: 124 Tract No.: 27876
Waterbody Type: Stream Pond Lake Borrow Pit Ag Ditch Other:
Stream Flow: Fast Moderate Slow Very Slow Mone
Flow Type: Perennial (Flows year round) Intermittent (Flows <3 months) Image: None
Seasonal (Continuous flow >3 months)
Direction of Flow:
OHWM Width (ft.): 400.0
Sinuosity:
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.): Left: □ 0-2 ☑ 2-4 □ 4-6 □ 6-8 □ 8+
(looking downstream) Right: □ 0-2 ☑ 2-4 □ 4-6 □ 6-8 □ 8+
Bank Slope (%): Left: 50
(tooking downstream) 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 %: SILIS: 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:
Dikes/Berms Excessive Bank Frosion V N/A Other
nabilat Characteristics, Aquatic and Terrestrial Diversity Description.
Stream Quality: 🔲 High 🗹 Moderate 🔲 Low
Comments:
Photos





SOUTH



Waterbody Data Form Feature ID: BL-P-S003
🗆 Conterline 🗖 Re Route 🗖 Access Read 🗖 Aprillan Escility 🗖 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: C1 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: Image: Perennial (Flows year round) Image: Intermittent (Flows <3 months) Image: None
Seasonal (Continuous flow >3 months)
Direction of Flow: □ N □ NE □ E ☑ SE □ SW □ W □ NW □ S □ No Flow
OHWM Width (ft.): 5.0
Sinuosity: Deraided 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.): Left: ☑ 0-2 □ 2-4 □ 6-8 □ 8+ (looking downstream) □ <td< td=""></td<>
Right: ₩ 0-2 2-4 4-6 6-8 8+
Bank Slope (%): Left: 90 (looking downstream) 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 Ø Bank Root Systems Ø 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:



NE



NW





SE





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 Mone
Flow Type: Perennial (Flows year round) Intermittent (Flows <3 months) Image: The second secon
Seasonal (Continuous flow >3 months)
Direction of 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.): Left: ☑ 0-2 2-4 4-6 6-8 8+
Right: ☑ 0-2 □ 2-4 □ 4-6 □ 6-8 □ 8+
Bank Slope (%): Left: 10
Right: 70
Qualitative Attributes
Water Appearance: Clear Turbid Sheen on Surface Floating Algal Mats No Flow Slightly Turbid Very Turbid Image: 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:





SOUTH



Waterbody Da	Ita Form Feature ID: BL-P-S001
r Centerline	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	l atitude: 41.85966572.76158
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:
	Fast Moderate Slow Very Slow None
Flow Type:	Perennial (Flows year round)
	Seasonal (Continuous flow >3 months) P Epnemeral (Flows only in response to rainfall)
OHWM Width (ft.):	3.0 Desided III Meandering III Straight III N/A
Stream Width (ft.):	1.0 vvater Surface (At Crossing Location)(it.): 1.0
OHWM Indicators:	U CLEAR NATURAL LINE ON BANK
Bank Hoight (ft):	
(looking downstream)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Bank Slope (%):	Left: 0
(looking downstream)	Right: 0
Qualitative Attributes	
Water Appearance:	Clear Turbid Sheen on Surface Floating Algal Mats 🗹 No Flow
Slightly Turl	oid 🔲 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 INone
Aquatic Organisms Obse	erved:
Channel Condition:	Channelization/Braiding Unnatural Straightening Downcutting
	Dikes/Berms Excessive Bank Erosion N/A Other
Habitat Characteristics, <i>I</i>	Aquatic and Terrestrial Diversity Description:
Stream Quality:	₫ High
Comments:	



NW



SW





SE





Waterbody Data Form	1	Feature ID: BL-P-S005
☑ Centerline	Access Road 🔲 Ancillary Facility 🔲 Transr	nission Line 🔲 Other
 Date: 11/15/2014 8:54:27 AM (Client/Project Name: NED	Milepost: 49216.2
Investigators: AF CV	Latitude/Longitude: 41.867579, -72.7	75724
State: CT County:	Hartford Qu	ad Name: Avon
Logbook No.: 2014P2 Logbook F	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: Derennial (Flo	ows year round)	s <3 months)
Seasonal (Co	ontinuous flow >3 months)	only in response to rainfall)
Direction of Flow:		NW S S No Flow
OHWM Width (ft.): 30.0		
Sinuosity: Draided	Meandering Straight V/A	
Stream Width (ft.): 30.0	Water Surface (At Crossing Location)(ft.): 30.	0
Stream Depth (in.): 6-12		
OHWM Indicators: BENT, MAT	TED OR MISSING VEGETATION	
Bank Height (ft.):	0-2 2-4 4-6 6-8 8+	
Right:	0-2 2-4 4-6 6-8 8+	
Bank Slope (%): Left: 5		
Right: 5		
Water Appearance: V Clear Slightly Turbid V Stream Substrate %: VEGETAT MUCK:	'ery Turbid Greenish Color Obvious FION: 10% 90%	Surface Scum Other:
Aquatic Habitats:		
☐ Sand Bar ☐ Gravel	Riffles In-stream Emergent Pla	ants
☐ Gravel Bar ☐ Deep F	Pools In-stream Submerged F	Plants
Mud Bar Bank F	Root Systems Fringing Wetlands ¹	
Undercut Banks D Overha	anging Trees/Shrubs	
Aquatic Organisms Observed:		
Channel Condition:	inelization/Braiding Unnatural Straightening	Downcutting
Dikes	J/Berms Excessive Bank Erosion	N/A Other
Habitat Characteristics, Aquatic and T	errestrial Diversity Description:	
Stream Quality: IZ High		
Comments:		
Photos		







Waterbody Data Form Feature ID: BL-P-S007
🗹 Centerline 🔲 Re-Route 🔲 Access Road 🔲 Ancillary Facility 🔲 Transmission Line 🔲 Other
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 Ø NW S No Flow
OHWM Width (ft.): 3.0
Sinuosity: Data 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.): Left: ☑ 0-2 □ 2-4 □ 6-8 □ 8+ (looking downstream) □ <td< td=""></td<>
Right: ₩ 0-2 L 2-4 L 4-6 L 6-8 L 8+
Bank Slope (%): Left: 20 (looking downstream) Right: 20
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:
Dikes/Berms Excessive Bank Erosion N/A Other
Habitat Characteristics, Aquatic and Terrestrial Diversity Description:
Stream Quality: 🔲 High 🔲 Moderate 🗹 Low
Comments:



W



Ν




Е





Waterbody Data Form Feature ID: BL-P-S009
Conterline D Re Route D Access Read D Accillage Cocility D Transmission Line D 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)
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.): Left: ☑ 0-2 □ 2-4 □ 4-6 □ 6-8 □ 8+
(looking downstream) Right: ☑ 0-2 □ 2-4 □ 4-6 □ 6-8 □ 8+
Bank Slope (%): Left: 100 (looking downstream) Right: 100
Slightly Turbid Very Turbid Greenish Color Obvious Surface Scum Other: 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
O
comments:



NORTH



EAST



SOUTH

AECOM





Waterbody Da	ta Form Feature ID: BL-P-S010
✓ Centerline	Route 🔲 Access Road 🔲 Ancillary Facility 🔲 Transmission Line 🔲 Other
Date: 11/19/2014 2:09:3	4 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)
	Seasonal (Continuous flow >3 months)
Direction of Flow:	
OHWM Width (ft.):	1.0
Sinuosity:	Braided Meandering Straight N/A
Stream Width (ft.):	Water Surface (At Crossing Location)(ft.): 1.0
Stream Depth (in.):	1-3
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.):	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:	Image: Clear Turbid Sheen on Surface Floating Algal Mats No Flow Did Very Turbid Greenish Color Obvious Surface Scum Other: 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 V Fringing Wetlands
Aquatic Organisms Obse	irved:
Channel Condition:	Channelization/Braiding Unnatural Straightening Downcutting
	Dikes/Berms Excessive Bank Erosion N/A Other
Habitat Characteristics, A	Aquatic and Terrestrial Diversity Description:
Stream Quality:	1 High Doderate Low
Comments:	
Photos	













Waterbody Data Form Feature ID: BL-P-S008
🗆 Centerline 🗖 Re-Route 🗖 Access Road 🗖 Appillan/Espility 🗖 Transmission Lina 🗖 Other
Date: 11/10/2014 12:00:46 PM Client/Project Name: NED
Latitudo/ opaitudo: 41 800877 -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: Image: Perennial (Flows year round) Image: Intermittent (Flows <3 months) Image: None
Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall)
Direction of Flow: N NE E Ø SW NW S No Flow
OHWM Width (ft.): 290.0
Sinuosity: Draided 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 (tt.): Left. 0 -2 ✓ 2 -4 1 4-6 6-8 6+ (looking downstream) Right: 0 -2 ✓ 2 -4 0 -6 6-8 8+
(looking downstream) 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
✓ Undercut Banks ✓ Overhanging Trees/Shrubs
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:

Photos



NE



NW





SE

