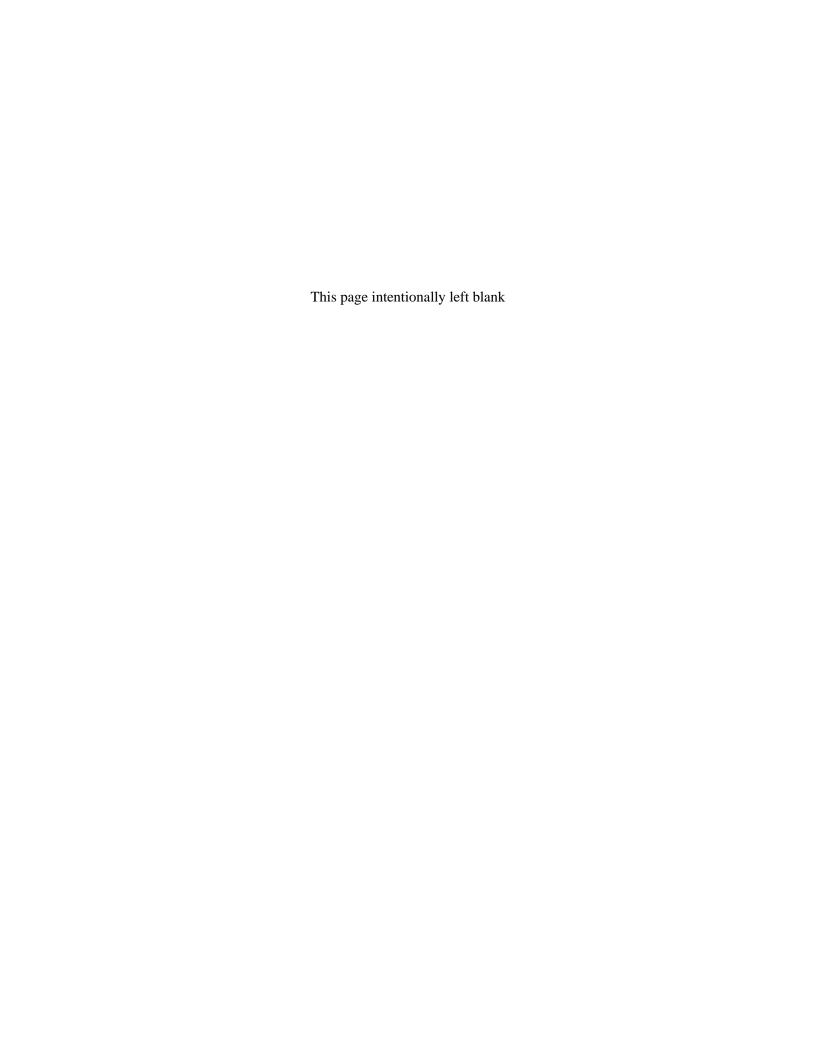
Tennessee Gas Pipeline Company, L.L.C. a Kinder Morgan company

Clean Water Act Section 401 Water Quality Certification
Northeast Energy Direct Project
Attachment K, Attachment A
Wetlands and Watercourses Report for Connecticut

Attachment K, Attachment A

Wetlands and Watercourses Report for Connecticut

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

Tennessee Gas Pipeline Company, L.L.C. 1001 Louisiana Street Houston, Texas 77002

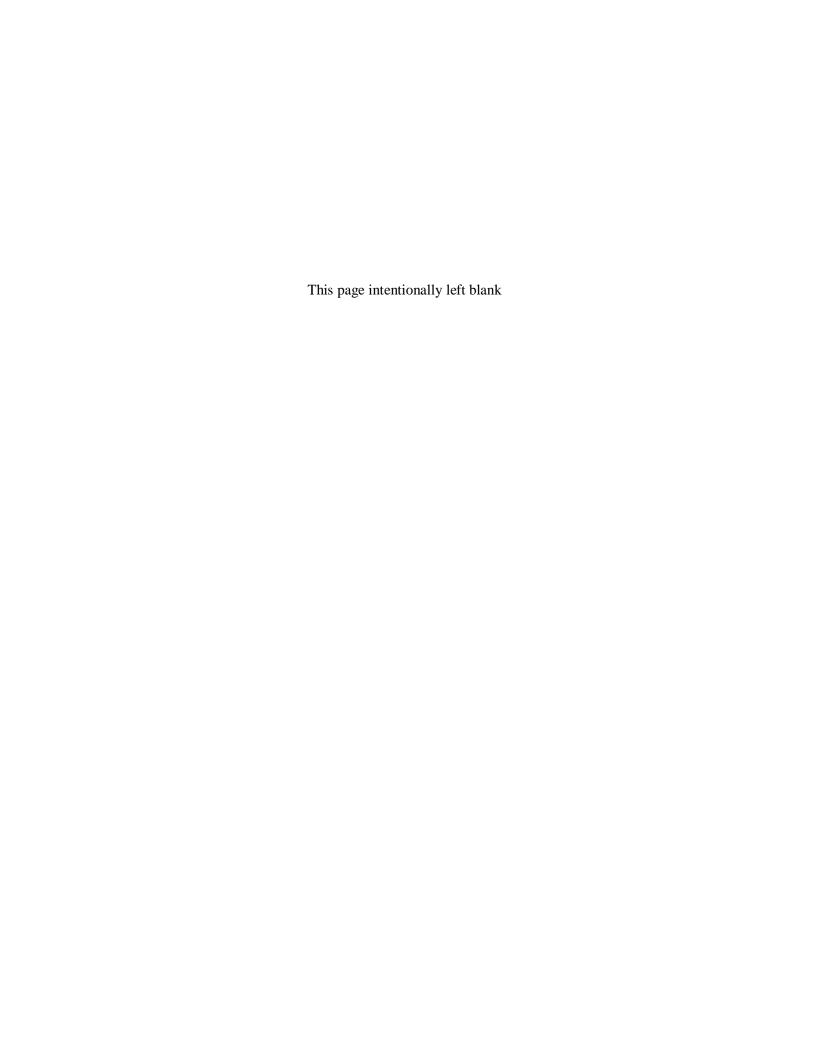


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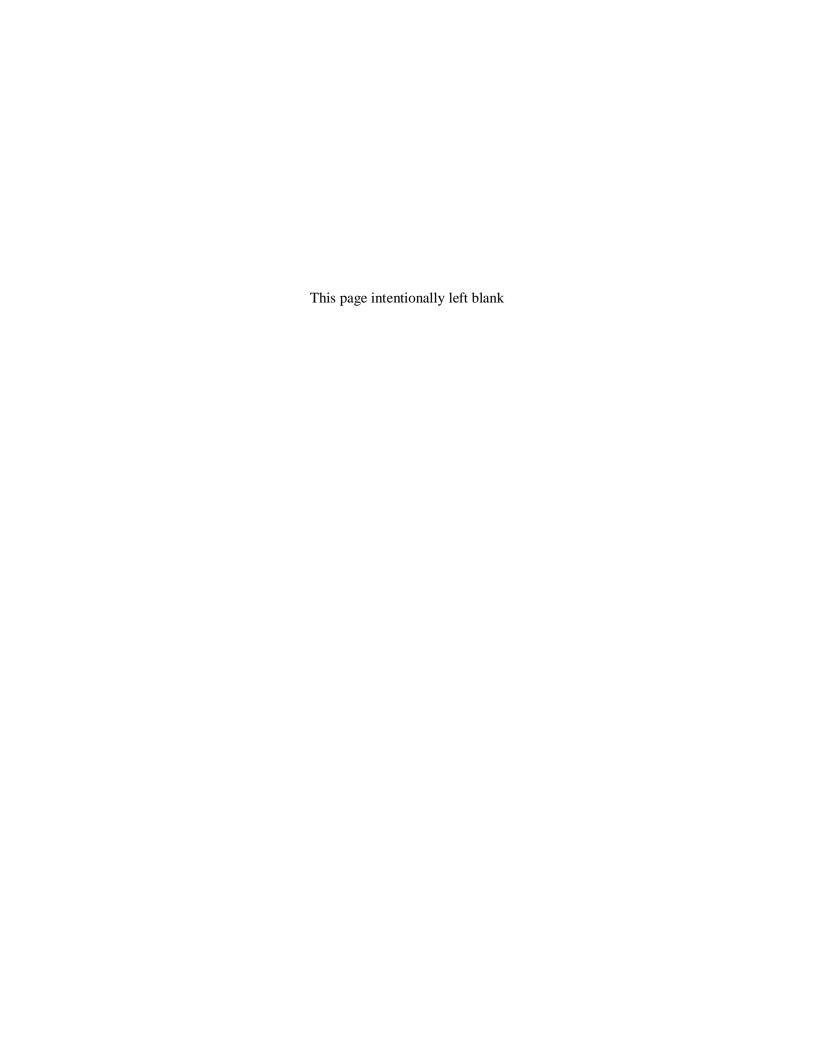
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1.0 INTRODUCTION

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 between 300 Line CT Loop, Segment S, MP 0.00 to MP

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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.



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

2g-2

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

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

Table 2g-1 Summary of Project Facilities in Connecticut

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

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

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

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

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

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

2.0 WETLAND AND WATERCOURSE REGULATIONS

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

2.1 SECTION 404 – CLEAN WATER ACT

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

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

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

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

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

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

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

2.2 CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION REGULATIONS

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

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

3.0 WETLAND AND WATERBODY DELINEATION PROCEDURES

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

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

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

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

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

3.1 WETLAND DELINEATION PROCEDURES

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

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

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

3.2 WATERBODY DELINEATION PROCEDURES

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

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

3.3 PRE-SURVEY DESKTOP INVESTIGATIONS

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

3.4 FIELD SURVEYS

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

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

County	Town	Abbreviation	Team	Feature	Feature Number	Boundary Line	Flag Number
	Bloomfield	BL					101 102
	East Granby	EG	A–Z	W – Wetland	001, 002,	100, 200, 300, etc.	101, 102, 103, etc.
Hartford	Farmington	FA	A1–Z1		003, etc.		201, 202,
	Simsbury	SM	A1-L1	S – Stream			201, 202, 203, etc.
	West Hartford	WH					203, etc.

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

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

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

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

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

Hydric 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)

- Digital Flora: National Wetland Plant List (Lichvar and Kartesz 2009). Indicators of hydrophytic vegetation are satisfied by the rapid assessment if all dominant species are rated as OBL or FACW (Indicator 1), the dominance test if more than 50% of the dominant species are OBL, FACW, and/or FAC (Indicator 2), or the prevalence index is less than or equal to 3.0 (Indicator 3) based on the USACE NCNE Regional Supplement (USACE 2012).
- *Hydrology:* Site hydrology was evaluated during field surveys by initially observing whether the soil at the surface was inundated or saturated. If the ground surface was dry, the depth to freestanding groundwater or saturated soil was measured, and the presence or absence of other indicators of wetland hydrology (e.g. drift lines, water-stained leaves, etc.) was noted. The wetland hydrology criterion was met if one or more primary or two or more secondary field indicators were present (USACE 2012). The wetland hydrology indicators are listed in Table 2g-4.

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

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

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

3.5 WETLAND CLASSIFICATION

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

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

• Palustrine Forested Wetlands (PFO)

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

• Palustrine Scrub-Shrub Wetlands (PSS)

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

• Palustrine Emergent Wetlands (PEM)

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

• Palustrine Open Water (POW)

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

3.6 POST-SURVEY DESKTOP ANALYSIS

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

4.0 RESULTS

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

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

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



Inventory and Delineation of Wetlands and Watercourses
Along the Connecticut Portion of the
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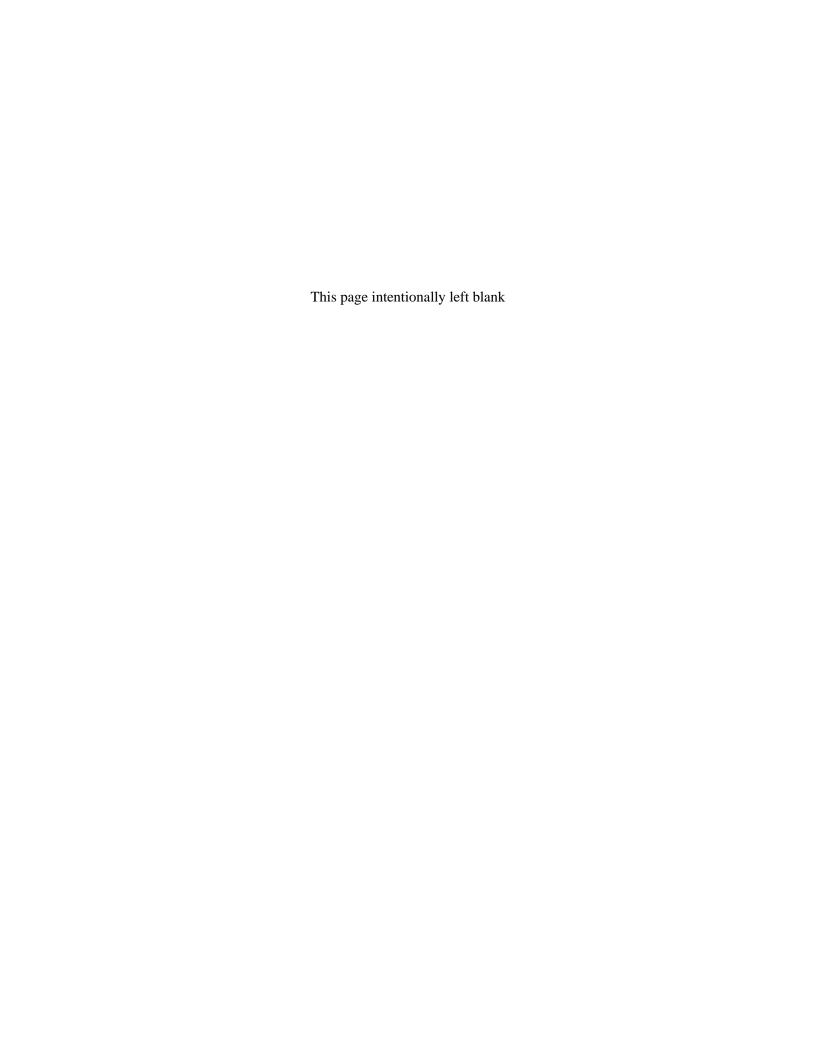
2g-12

Anthropic watercou	rses that were	e inventoried	included	those	with	culverts	and	corrugated	and	smooth
drainage pipes, reten	ition ponds, ai	nd anthropicf	arm ponds	S.						

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

5.0 REFERENCES

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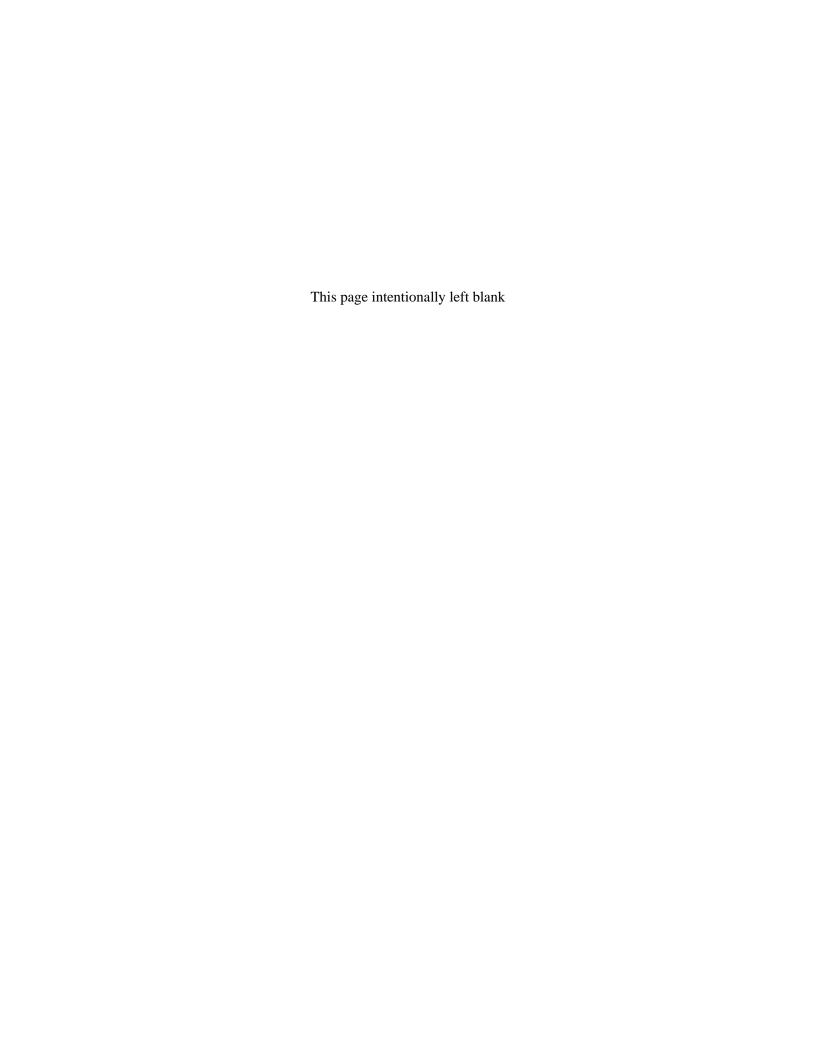


APPENDIX 2g-A

Tables

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

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



2g-A-1

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

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

Tennessee Gas Pipeline Company, L.L.C. a Kinder Morgan company

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

2g-A-2

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

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

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

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

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

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

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

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

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

Facility Name	Segment ¹	Nearest Milepost ²	Waterbody Identification Number ³	Waterbody Name ⁴	Waterbody Frequency Type ⁵	terbody Frequency Type ⁵ Water Quality Designation/Fishery Classification ⁶					
	Pipeline Facilities										
300 Line CT Loop	S	11.41	BL-P-S008	UNT to Farmington River	P	A	227				
300 Line CT Loop	S	11.35	BL-P-S010	UNT to Farmington River	P	A	1				
300 Line CT Loop	S	11.14	BL-P-S009	UNT to Farmington River	Ι	A	4				
300 Line CT Loop	S	10.18	BL-P-S007	UNT to Wash Brook	E	A	3				
300 Line CT Loop	S	9.69	BL-P-S005	UNT to Wash Brook	NF	A	64				
300 Line CT Loop	S	8.73	BL-P-S001	UNT to Wash Brook	Е						
300 Line CT Loop	S	7.71	BL-P-S002	UNT to Tumble Brook	NF						
300 Line CT Loop	S	7.46	BL-P-S003	UNT to Tumble Brook	P	A	5				
300 Line CT Loop	S	7.45	BL-B-S003	UNT to Tumble Brook	NF						
300 Line CT Loop	S	7.07	BL-P-S004	UNT to Tumble Brook	E	A	31				
300 Line CT Loop	S	6.57	BL-O-S001	UNT to Tumble Brook	Ι						
				Abovegrou	und Facilities						
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
				Contrac	ctor 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				

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 identification 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.



APPENDIX 2g-B

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

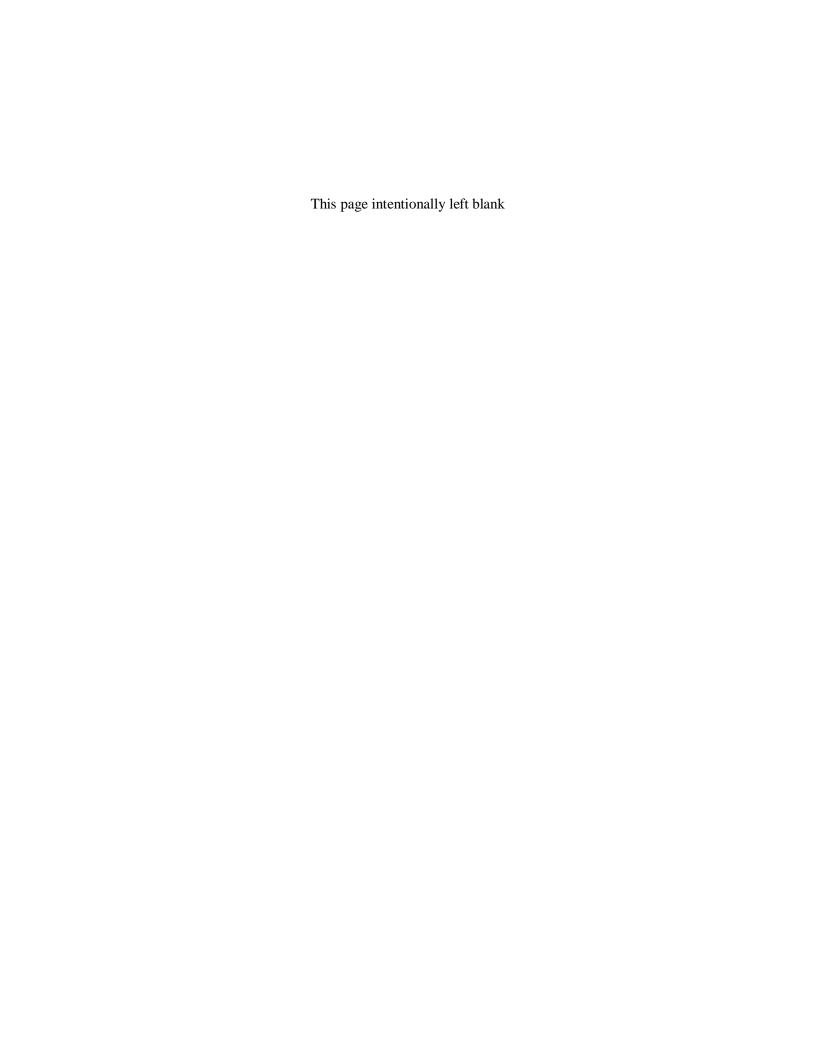
(provided under separate cover in Volume II, Appendix E of the FERC Environmental Report)



APPENDIX 2g-C

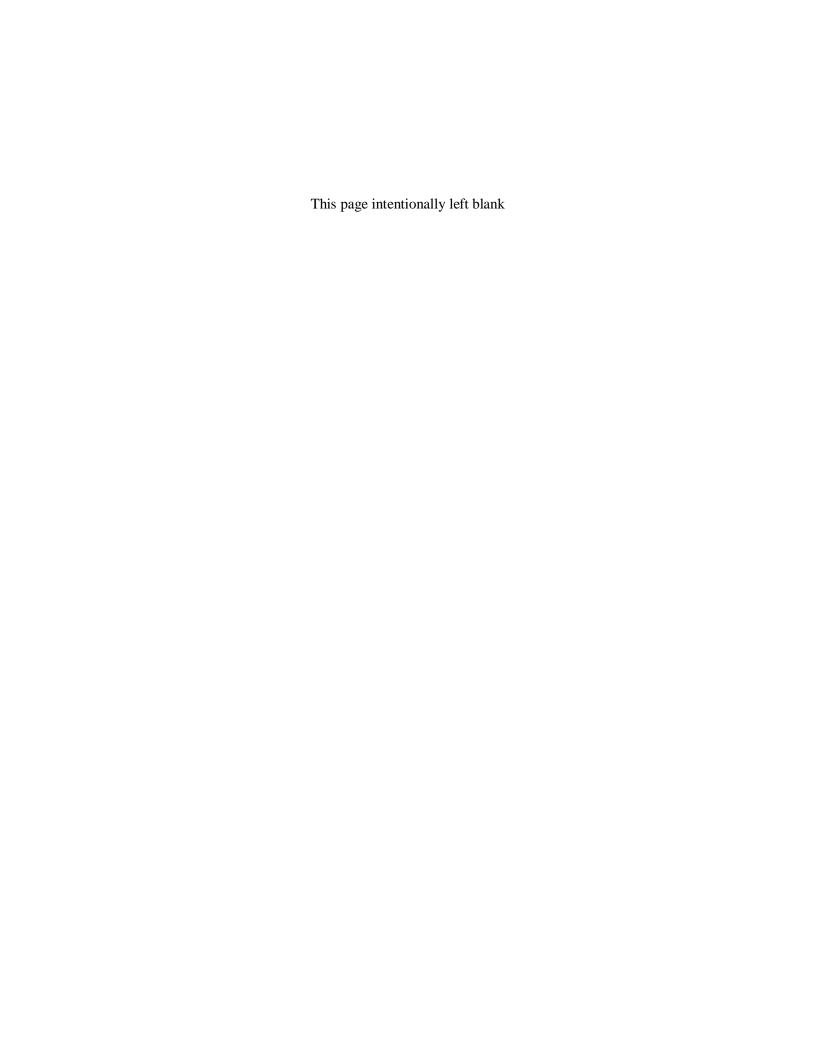
Wetland and Waterbody Locations Identified on Aerial Alignment Sheets

(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 - Northcentral and Northeast Region						
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other					
Project/Site: NED Milepost: 34569.5	County: Hartford Date: 11/17/2014					
Applicant/Owner: Kinder Morgan State: CT Sampling Point: BL-O-W001-PFO						
Investigators: AF CV Quad Name: Avon	Township: Bloomfield					
Logbook No.: 2014P2 Logbook Pg.: 88 Tract: 27940						
Landform (hillslope, terrace, etc.): HILLSIDE Local Rel	lief: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 20					
Subregion (LRR): Middle Atlantic Lat: 41.833938	Long: -72.781937 Datum: NAD83					
Soil Map Unit Name: Wethersfield loam, 3 to 15 percent slopes, extremely stony NWI Classification: Not mapped						
Are climatic / hydrologic conditions on the site typical for this time of year?: Yes No (If no, explain in Remarks.)						
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ■	No Are "Normal" Circumstances present? ☑ Yes ☐ No					
	-					
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?	Is the Sampled Area					
Hydric Soil Present?	within a Wetland?					
Wetland Hydrology Present?						
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 Water (A1) ☐ Water-Stained Leaves (B	9) Drainage Patterns (B10)					
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)	☐ Moss Trim Lines (B16)					
Saturation (A3)						
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C	☐ Hydrogen Sulfide Odor (C1) ☐ Crayfish Burrows (C8)					
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Saturation Visible on Aerial imagery (C						
☐ 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 Remark:	(S) 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): 3	Wetland Hydrology Present?					
Saturation Present?	☑ Yes □ No					
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available):						
VEGETATION						
Tree Stratum						
Plot Size: 30						
Scientific Name	% Cover Dominant Indicator Status					
Fraxinus americana Quercus rubra Fagus grandifolia	5 YES FACU 10 YES FACU 10 YES FACU					
То	otal Cover: 25					



1 10vidence, 111 02304				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Quercus alba Acer rubrum Carpinus caroliniana		5 5 10	YES YES YES	FACU FAC FAC
	Total Cover:	20	ı	ı
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Microstegium vimineum Carex stricta Polystichum acrostichoides		20 10 20	YES YES YES	FAC OBL FACU
	Total Cover:	50		
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: 4 (A)	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: 9 (B)	FACW Species	:: <u>0</u>	x 2 = <u>0</u>	
Specific Follows Fill Gradual	FAC Species:	<u>35</u>	x 3 = <u>105</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 44 (A/B)	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 = 3.32	
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 Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL	RI 02904								
SUIL									
Profile Descrip	ption: (Describe	the de	epth needed to	locum	ent the in	ndicator o	confirm the absence	e of indicators.)	
Depth	Matrix		Re	dox Fe	atures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Textu	е	Remarks
0-0.5	LEAF LITTER O HORIZON	100					ORGAN	IIC	
0.5-7	10YR2/2	100					SILT LO	AM	
7-15	7.5YR5/3	95	7.5YR4/6	5	С	M	SILT LO	AM	
15-20	7.5YR5/3	93	7.5YR4/6 5YR5/2	5 2	C D	M M	SILT LO	AM	
¹Type: C=Con	L centration, D=D∈	epletion	l n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
	dicators: (Appli	·	-						oblematic Hydric Soils³:
	`	cable t	•			•			·
Histosol (•			illRA 1		Surface (S			A10) (LRR K, L, MLRA 149B)
	pedon (A2)					(00) (I DI			Redox (A16) (LRR K, L, R)
☐ Black Hist			_			. , ,			Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		_	•	•	neral (F1) (e (S7) (LRR K, L, M)
	Layers (A5)			-	Gleyed Ma			_ ′	elow Surface (S8) (LRR K, L)
_ '	Below Dark Surfa	ace (A1	· —	•	d Matrix (I	•		_	urface (S9) (LRR K, L)
	k Surface (A12)		_		Dark Surfa			☐ Iron-Mangan	ese Masses (F12) (LRR K, L, R)
_	ucky Mineral (S1)			eplete	d Dark Su	ırface (F7)	l	☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
☐ Sandy Gl	eyed Matrix (S4)		☐ F	ledox I	Depressio	ns (F8)	l	☐ 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	face (S7) (LRR R	, MLRA	A 149B)					Other (Expla	in in Remarks)
³ Indicators of I	hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or proble	matic.	
Restrictive Lay	yer Present?		∕es 🗹 No	□ U	nknown		н	ydric Soil Prese	nt? ☑ Yes ☐ No
Remarks:									
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
Wetland Quali	ty: High		Moderate 🗹	Low			Isolated Wetland?	☑ Yes □	No 🔲 Unknown
General Comm	nents:								





Ν



WETLAND DETERMINATION FORM - Northcent	tral and Northeast Region							
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Tran	insmission Line							
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								
	Concave Convex None Slope%.: 0							
Subregion (LRR): Middle Atlantic Lat: 41.835531 I	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?:	No (If no, explain in Remarks.)							
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑ No A	Are "Normal" Circumstances present? ✓ Yes ✓ No							
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No								
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? ☐ Yes ☑ No	, , , , , , , , , , , , , , , , , , , ,							
Hydric Soil Present? IZI Ves I No	s the Sampled Area							
Will Wetland Hydrology Present? ✓ Yes ☐ No	rithin a Wetland?							
Field Wetland Classification: PFO								
Remarks:								
Tenung.								
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)								
✓ 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 R	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 Present?	Wetland Hydrology Present? ✓ Yes ☐ No							
Saturation Present? ✓ Yes ☐ No Depth (inches): 0 (includes capillary fringe)	<u> </u>							
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 rubra	1 NO FACU							
Carya glabra Ostrya virginiana	10 NO FACU 5 NO FACU							
Carya ovata	10 NO FACU							
Total Cover:	26							



Providence, Ri 02904				
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	ı		1	T.
Scientific Name		% Cover	Dominant	Indicator Status
Microstegium vimineum		20	YES	FAC
	Total Cover:	20		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 2 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species	: <u>10</u>	x 2 = <u>20</u>	
Species Across All Strata: 2 (B)	FAC Species:	<u>50</u>	x 3 = <u>150</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species	37	x 4 = <u>148</u>	
That Are OBL, FACW, or FAC: 100 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	97 (A)	318 (B)	
		Prevalence Index :	= B/A = 3.28	
Hydrophytic Vegetation Indicators:				
3 - Prevalence Index is ≤ 3.0	Usalrambutia \	la matation Draces	-42	71 N.
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)	Hydropnytic	egetation Preser	nt? ☐ Yes ⊡	☑ No
☐ Problematic Hydrophytic Vegetation¹ (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.)	SOIL									
Depth										
Color (moist) % Color (moist) % Type* Loc² Texture Remarks Color (moist) % Color (moist) % Type* Loc² Texture Remarks	Profile Descrip	tion: (Describe	the de	epth needed to	docum	ent the in	dicator o	r confirm the abse	nce of indicators.)	
0-12										
12-18	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Tex	ture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Coated Grains. CS=Covered Sand or Coated Grains. CS=Covered Grain Sand or CS=Covered Grain CS=Cove	0-12	10YR3/1	100					SILT I	OAM	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Polyvalue Below Surface (S8) (LRR R,										
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)	12-18	10YR4/2	90	5YR4/6	10	С	М	SILTY CL	AY LOAM	
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)										
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)	Type: C=Cond	L centration, D=De	pletion	, RM=Reduced	l Matrix,	CS=Cov	ered Sand	I or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
Histosol (A1)	**	· · · · · · · · · · · · · · · · · · ·	•							
Histic Epipedon (A2)	<u> </u>			*			•	:8) (I RR R		-
Black Histic (A3)	:	•					ounaco (C	(2) (2) (1)	_	
Hydrogen Sulfide (A4)				Пт	hin Da	ırk Surface	e (S9) (LR	R R MI RA 149B)	_	
Stratified Layers (A5)	_			_						
Depleted Below Dark Surface (A11)				_	-	-		(LIKICIK, L)	_	
Thick Dark Surface (A12)		• • •	ace (A1		-	-				
□ 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) □ Other (Explain in Remarks) □ Other (Explain in Remarks) □ 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	:			, <u> </u>	•	,				
□ Sandy Gleyed Matrix (S4) □ Redox Depressions (F8) □ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) □ Sandy Redox (S5) □ Red Parent Material (F21) □ Very Shallow Dark Surface (TF12) □ Dark Surface (S7) (LRR R, MLRA 149B) □ Other (Explain in Remarks) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Restrictive Layer Present? □ Yes ☑ No ☐ Unknown Hydric Soil Present? ☑ Yes ☐ No **Remarks: **Wetland Quality: ☐ High ☐ Moderate ☑ Low Isolated Wetland? ☑ Yes ☐ No ☐ Unknown				_						
Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Lestrictive Layer Present? Yes No Unknown Hydric Soil Present? Yes No **No **Lestrictive Layer Present?** **Lestrictive Layer Present?* **Lestric				_	-					
Stripped Matrix (S6)						200.000.0	(. 0)			
Dark Surface (S7) (LRR R, MLRA 149B)									_	
3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer Present?			MIRA	149B)					_ ′	,
Restrictive Layer Present?				•						iii iii rtomano)
Wetland Quality: ☐ High ☐ Moderate ☑ Low Isolated Wetland? ☑ Yes ☐ No ☐ Unknown		or riodone.	□ \	∕es ☑ No	□ ∪	Inknown			Hydric Soil Prese	nt? ☑ Yes 🗆 No
				∕es ☑ No	<u> </u>	Inknown			Hydric Soil Prese	nt? ☑ Yes ☐ No
General Comments:	Remarks:			_			nments:		Hydric Soil Prese	nt? ☑ Yes □ No
General Comments:	Remarks: Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		ments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		ments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
	Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		





W



WETLAND DETERMINATION FORM - North	central and Northeast Region
☐ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐	Transmission Line
Project/Site: NED Milepost: 35482.1 County	: Hartford Date: 11/17/2014
Applicant/Owner: Kinder Morgan State:	CT Sampling Point: BL-O-W003-UPL
Investigators: TP CV Quad Name: Avon Towns	hip: Bloomfield
Logbook No.: 2014O1 Logbook Pg.: 138 Tract: 27948	
Landform (hillslope, terrace, etc.): HILLSIDE Local Relief:	☐ Concave ☑ Convex ☐ None Slope%.: 3
Subregion (LRR): Middle Atlantic Lat: 41.835588	Long: -72.779418 Datum: NAD83
Soil Map Unit Name: Holyoke-Rock outcrop complex, 3 to 15 percent slopes	NWI Classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?:	☐ 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 poi	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? ☐ Yes ☑ No	
Hydric Soil Present? ☑ Yes ☐ No	Is the Sampled Area □ Yes ☑ No within a Wetland?
Wetland Hydrology Present? ☐ Yes ☑ No	Willing a Welland.
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 Liv	ring 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 S	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? ☐ 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	nspections), if available):



Providence, RI 02904			- 1	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Acer rubrum		15	YES	FAC
Acer saccharum Carya ovata		8 10	NO NO	FACU FACU
Quercus rubra Ulmus americana		10 25	NO YES	FACU FACW
omac amonoana	Total Cover:	68	1 .23	1 .7.6
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Carpinus caroliniana		10	YES	FAC
Rhamnus cathartica		20	YES	FAC
	Total Cover:	30		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Carpinus caroliniana		15	YES	FAC
Geum canadense	Total Cover:	3 18	NO	FAC
Woody Vine Stratum	Total Cover.	10		
Plot Size: 30				
Scientific Name	I	% Cover	Dominant	Indicator Status
Scientific Name		% Cover	Dominant	mulcator Status
	 Total Cover:			
Dominance Test Worksheet:		dex Worksheet:	Ad to 1	
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)	Total % Cover		Multiply by:	
Total Number of Dominant	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Species Across All Strata: 5 (B)	FACW Species FAC Species:		x 2 = 50 x 3 = 189	
Percent of Dominant Species	FACU Species:	63 28	x 3 = 189 x 4 = 112	
That Are OBL, FACW, or FAC: 100 (A/B)	UPL Species:	. <u>20</u> <u>0</u>	$x = \frac{112}{2}$ $x = 0$	
	Column Totals:		351 (B)	
		Prevalence Index		
	<u>'</u>	rievalence index	= B/A = <u>3.03</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 Prese	nt?	☑ No
, ,				
✓ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Demoder				
Remarks:				



T TOVIGETICE, I	(1 02304											
SOIL												
•	`	the d				dicator o	r confirm the	e absend	e of indicators.)			
Depth (inches)	Matrix			dox Fe				Textu	re		Rei	marks
(11101100)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		TOALG				
0-8	10YR2/2	100					:	SILT LC	PAM			
8-16	7.5YR6/4	95	5YR4/6	5	С	М	;	SILT LC	DAM			
16-22	7.5YR6/3	85	5YR4/6	10	С	М		LOAN	Л			
			10YR6/2	5	D	M						
¹Type: C=Cond	L centration, D=De	epletion	I n, RM=Reduced	Matrix,	CS=Cov	ered Sand	Lor Coated Gr	Grains.	² Location: PL=	Pore Linin	g, M=M	 latrix
•••			o all LRR's, unle						Indicators for Pr			
		ouble t				-	9) /I DD D				•	
_ `	,			/ILRA 1		Surface (S	8) (LRR R,		2 cm Muck (•
	pedon (A2)					(00) (I DI	D D M D A 44		Coast Prairie			•
☐ Black Hist							R R, MLRA 14				. , ,	(LRR K, L, R)
	Sulfide (A4)		_	•	•	` '	(LRR K, L)		Dark Surface			
	Layers (A5)			-	Gleyed Ma				Polyvalue Be		. , ,	
	Below Dark Surfa	ace (A1	_	•	d Matrix (•			Thin Dark Su		•	·
_	k Surface (A12)		_		Dark Surfa	. ,			_			(LRR K, L, R)
_	ıcky Mineral (S1))		Deplete	d Dark Su	ırface (F7)			☐ Piedmont Flo	oodplain So	oils (F19) (MLRA 149B)
	eyed Matrix (S4)		□ F	Redox [Depressio	ns (F8)				c (TA6) (MI	_RA 144	1A, 145, 149B)
☐ Sandy Re	dox (S5)								☐ Red Parent	Material (F2	21)	
☐ Stripped N	Matrix (S6)								□ Very Shallov	v Dark Surf	ace (TF	12)
□ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Rema	rks)	
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology m	nust be pr	esent, unle	ess disturbed o	or proble	ematic.			
Restrictive Lay	er Present?		Yes ☑ No	□ ∪	nknown							
								Н	lydric Soil Prese	nt? ✓	Yes	□ No
Remarks:												
Description of	Habitat Characte	ristics	Aquatic Diversity	or Ge	neral Com	ments:						
2000.191.01.01	. raznar emaracio	,		0. 00								
Wetland Qualit	tv: 🗖 High		Moderate	Low			Isolated We	letland?	☐ Yes 🗹	No 🗖	Unkn	nown
Wolland Qualit	.y. 🔲g	Ь.	viodorato 🔟	2011			iooiatoa wo	oliana.			Ontai	01111
General Comm	ents:											





ΝE



WETLAND DETERMINATION FORM - Northo	central and Northeast Region
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐	Transmission Line
Project/Site: NED Milepost: 34531.3 County:	Hartford Date: 11/17/2014
Applicant/Owner: Kinder Morgan State:	CT Sampling Point: BL-O-W001-UPL
Investigators: AF CV Quad Name: Avon Townsh	ip: Bloomfield
Logbook No.: 2014P2 Logbook Pg.: 89 Tract: 27940	
Landform (hillslope, terrace, etc.): HILLSIDE Local Relief:	☐ Concave ☑ Convex ☐ None Slope%.: 20
Subregion (LRR): Middle Atlantic Lat: 41.833905	Long: -72.782039 Datum: NAD83
Soil Map Unit Name: Wethersfield loam, 3 to 15 percent slopes, extremely stony	NWI Classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?:	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 poin	it 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? ☐ Yes ☑ No	within a wetianu:
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)	
☐ 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 Livi	ing 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 S	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? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☐ 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				
Plot Size: 30 Scientific Name				
Scientific Name				
		% Cover	Dominant	Indicator Status
Carya ovata Fagus grandifolia Quercus rubra Acer rubrum		25 5 20 5	YES NO YES NO	FACU FACU FACU FAC
Quercus alba	T 0	15	YES	FACU
0. 11. 101. 1.01.	Total Cover:	70		
Sapling/Shrub Stratum				
Plot Size: 15	1	0/ 0	1 5	l
Scientific Name		% Cover	Dominant	Indicator Status
Carpinus caroliniana	T / 10	10	YES	FAC
	Total Cover:	10		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	lex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 1 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species	: <u>0</u>	x 2 = <u>0</u>	
Species Across All Strata: 4 (B)	FAC Species:	<u>15</u>	x 3 = <u>45</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)	FACU Species:	<u>65</u>	x 4 = <u>260</u>	
That Ale ODL, FACW, OF FAC.	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	80 (A)	305 (B)	
	ı	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 ≤ 3.0				
4 - Morphological Adaptations¹ (Provide supporting	Hydrophytic V	egetation Prese	nt? ☐ Yes ဩ	7 No
data in Remarks or on a separate sheet)	,,	-g		
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



2011	02004											
SOIL												
Profile Descrip		the de	·			ndicator o	r confirm	he absen	nce of indicators.)			
Depth (inches)	Matrix		Red		atures			Text	ure		Rei	marks
(11101103)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		TOXI	uic			
0-0.5	ORGANIC LAYER	100						ORGA	ANIC			
0.5.6	10VD2/2	100						100	\\\A			
0.5-6	10YR3/3	100						LOA	AIVI			
6-24	7.5YR5/4	100						SILT L	.OAM			
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced I	Лatrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Linin	g, M=M	latrix
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ss otl	nerwise n	oted.)			Indicators for Pr	oblematic	Hydric	Soils ³ :
☐ Histosol (A	A1)		□ P	olyvalı	ue Below :	Surface (S	8) (LRR R		2 cm Muck (A10) (LRR	K, L, MI	LRA 149B)
☐ Histic Epip	pedon (A2)		N	LRA 1	49B)				☐ Coast Prairie	Redox (A	16) (LRF	R K, L, R)
☐ Black Hist	ic (A3)		пτ	hin Da	rk Surface	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Pe	at (S3) ((LRR K, L, R)
_	Sulfide (A4)		_			. , .	(LRR K, L)	•	☐ Dark Surface		. ,	
	Layers (A5)		_	•	Gleyed Ma	` ,	, , ,		☐ Polyvalue Be			
	Below Dark Surfa	ace (A1		-	d Matrix (I				☐ Thin Dark Su			
_	k Surface (A12)	,	_		Dark Surfa	•			_		·	(LRR K, L, R)
_	ıcky Mineral (S1)	,				ırface (F7)			_) (MLRA 149B)
_	eyed Matrix (S4)	'			Depressio					•	,	
			□ ¹	euux	Depressio	115 (1 0)				. , ,		4A, 145, 149B)
									Red Parent I		•	
	Matrix (S6)								☐ Very Shallov			12)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)						☐ Other (Expla	in in Rema	ırks)	
³ Indicators of h	nydrophytic vege	tation a	and wetland hydro	logy n	nust be pr	esent, unle	ess disturb	ed or prob	olematic.			
Restrictive Lay	er Present?		Yes ☑ No	_ U	Inknown				Hydric Soil Prese	nt?	Yes	☑ No
Remarks:												
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qualit	y: High		Moderate	_ow			Isolated	Wetland?	Yes 🗆	No 🗆	Unkn	iown
General Comm	ents:											





NW



WETLAND DETERMINATION FORM - No	thcentral and Northeast Region
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
Project/Site: NED Milepost: 37490.0 Co	unty: Hartford Date: 11/14/2014
Applicant/Owner: Kinder Morgan Sta	te: CT Sampling Point: BL-B-W007-PEM
Investigators: RW JW Quad Name: Avon To	wnship: Bloomfield
Logbook No.: 2014-2 Logbook Pg.: 130 Tract: 27878	
Landform (hillslope, terrace, etc.): DEPRESSION Local Relief:	✓ Concave ☐ Convex ☐ None Slope%.: 1
Subregion (LRR): Middle Atlantic Lat: 41.839917	Long: -72.775177 Datum: NAD83
Soil Map Unit Name: Ludlow silt loam, 3 to 8 percent slopes	NWI Classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?:	res 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 $\boldsymbol{\mu}$	point locations, transects, important features, etc.
Hydrophytic Vegetation Present? ✓ Yes ☐ No	
Hydric Soil Present? ☑ Yes ☐ No	Is the Sampled Area
Wetland Hydrology Present?	Willia Costalia
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)
☐ 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	g Living Roots (C3) Saturation Visible on Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C	Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Till	ed 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 Present?	Wetland Hydrology Present?
Saturation Present?	☑ Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previo	us inspections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Total	Cover:



Providence, Ri 02904				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Juncus effusus		5	NO	OBL
Carex sp Solidago gigantea		75 5	NA NO	NONE FACW
Onoclea sensibilis		5	NO	FACW
	Total Cover:	90		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			•
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 0 (A)	OBL Species:	<u>5</u>	x 1 = <u>5</u>	
Total Number of Dominant	FACW Species	: <u>10</u>	x 2 = <u>20</u>	
Species Across All Strata: 0 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)	FACU Species:	<u>0</u>	x 4 = <u>0</u>	
That Are OBL, FACW, or FAC: 0 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>15 (A)</u>	<u>25 (B)</u>	
	ı	Prevalence Index =	= B/A = <u>1.67</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	Hydronhytic V	egetation Preser	nt? ☑ Yes [□ No
data in Remarks or on a separate sheet)	riyaropiiyac v	regetation i reser	ıı: 🔽 les L	_ NO
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
1Indicators 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	ent the ir	ndicator o	r confirm t	he absen	ce of indicators.)	1		
Depth	Matrix		Red	dox Fe	atures			T			Damada	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Textu	ıre		Remarks	
0-10	7.5YR 4/2	95	7.5YR 4/6	5	С	М		SILT LO	OAM			
10-20	7.5YR 5/3	90	7.5YR 4/6	10	С	М		SILT LO	OAM			
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Lining	, M=Matrix	
-		cable t	o all LRR's, unle			•			Indicators for P		-	
Histosol (/	•			olyvalı 1LRA 1		Surface (S	8) (LRR R,		2 cm Muck (•
_	pedon (A2)				,				Coast Prairie			·
☐ Black Hist							R R, MLRA	. 149B)	5 cm Mucky			K, L, R)
I 🔲 📑	Sulfide (A4)		_	-	=		(LRR K, L)		☐ Dark Surface		•	
_	Layers (A5)		_	-	Gleyed Ma				Polyvalue B		` , `	<, L)
	Below Dark Surfa	ace (A1	_		d Matrix (•			Thin Dark St	` , ,		
	k Surface (A12)		_		Dark Surfa				☐ Iron-Mangar			•
	icky Mineral (S1))	_			urface (F7)			Piedmont Fl	•		•
	eyed Matrix (S4)		☐ F	kedox I	Depressio	ns (F8)			Mesic Spodi	. , ,		5, 149B)
☐ Sandy Re	, ,								Red Parent		•	
_ ``	Matrix (S6)								☐ Very Shallov		,	
_	ace (S7) (LRR R		•						Other (Expla	ain in Remari	(S)	
		tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbe	ed or probl	lematic.			
Restrictive Lay	ver Present?		Yes ☑ No	<u> </u>	Inknown			ı	Hydric Soil Prese	ent? ☑	Yes 🗆	No
Remarks:												
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qualit	y: 🔲 High		Moderate √	Low			Isolated	Wetland?	√ Yes □	No \square	Unknown	
General Comm	ents:											





NE



WETLAND DETERMINATION FORM - N	lorthcent	tral and No	ortheast Region	
Centerline Re-Route Access Road Ancillary Facility	☐ Tran	nsmission Line	Other	
· ·	County:	Hartford	Date:	11/14/2014
11 *** ** * * * * * * * * * * * * * * *	State: CT		oling Point: BL-B-W00	17-UPL
Investigators: RW JW Quad Name: Avon	Township:	Bloomfield		
Logbook No.: 2014-2 Logbook Pg.: 130 Tract: 27878				
Landform (hillslope, terrace, etc.): HILLSIDE Local Re	lief: C	Concave 🗹	Convex	Slope%.: 2
Subregion (LRR): Middle Atlantic Lat: 41.839970	L	_ong: -72.77	5346	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, expl	ain in Remarks.)	
Are Vegetation Soil or Hydrology significantly disturbed?	☑ No Ai	re "Normal" Circ	cumstances present?	✓ Yes ☐ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? [☑ No			
			_	_
SUMMARY OF FINDINGS - Attach site map showing sampling	g point lo	cations, trai	nsects, important	features, etc.
Hydrophytic Vegetation Present? ☐ Yes ☑ No	lo	the Sampled	Aron	
Hydric Soil Present? ☐ Yes ☑ No		ithin a Wetlar	1 1 VAC 1/	No
Wetland Hydrology Present? ☐ Yes ☑ No				
Field Wetland Classification: UPLAND PLOT				
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		<u>S</u>	Secondary Indicators (2 of	or more required)
Primary Indicators (minimum of one required; check all that apply)			☐ Surface Soil Cracks	(B6)
☐ Surface Water (A1) ☐ Water-Stained Leaves (B	9)		☐ Drainage Patterns (E	310)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			Moss Trim Lines (B1	6)
☐ Saturation (A3) ☐ Marl Deposits (B15)			☐ Dry-Season Water T	able (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C	C1)		Crayfish Burrows (Ca	3)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres a	long Living Ro	oots (C3)	Saturation Visible on	Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	n (C4)		☐ Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	Tilled Soils (C	C6) [Geomorphic Position	ı (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)			☐ Shallow Aquitard (D3	3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remark	(S)		☐ Microtopographic Re	lief (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 Hyd	Irology Present?	
Saturation Present?				Yes ☑ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre	evious inspect	tions), if availabl	le):	
Tromaine (2000)80 (1000)80 Data (0110am gage, momenting 1101, 401ar photos, p.o	Wiodo inopoot	ionoj, ii avaliabi	0).	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		10	YES	FAC
Prunus serotina Acer saccharum		5 5	YES YES	FACU FACU
Ulmus rubra		3	NO	FAC
To	otal Cover:	23		



Providence, Ri 02904				
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	1	% Cover	Dominant	Indicator Status
	Total Cover:		l	l
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Celastrus orbiculatus		50	YES	UPL
	Total Cover:	50	ı	I
Dominance Test Worksheet:	Prevalence Ind	lex Worksheet:		
Number of Dominant Species	Total % Cover of		Multiply by:	
That Are OBL, FACW, or FAC: 2 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species:	: <u>30</u>	x 2 = <u>60</u>	
Species Across All Strata: 5 (B)	FAC Species:	<u>13</u>	x 3 = <u>39</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)	FACU Species:	<u>10</u>	x 4 = <u>40</u>	
That Ale OBL, FACW, of FAC.	UPL Species:	<u>50</u>	x 5 = <u>250</u>	
	Column Totals:	<u>103 (A)</u>	389 (B)	
	F	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 ≤ 3.0				
4 - Morphological Adaptations¹ (Provide supporting	Hydrophytic V	egetation Presen	nt? ☐ Yes ☑	1 No
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.				
Remarks:				



11 02304																	7.5
otion: (Describe	the d	epth need	led to	docum	ent the ir	ndicator o	r confirm	he abser	nce of i	ndica	tors.)						
Matrix			Re	dox Fe	atures			_						_			
Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²		Text	ture					R	ema	rks	
7.5YR 4/3	100							SILTL	OAM			REI	FUSA				ES DUE T
L centration, D=De	 epletion	n, RM=Re	duced	Matrix,	CS=Cov	rered Sand	or Coated	Grains.	²Lc	cation	 : PL=	Pore	Lining	, M=l	 Matr	ix	
licators: (Appli	cable	to all LRR	's, unle	ess oth	nerwise n	oted.)			Indic	ators	for Pr	oblen	natic	Hydri	c Sc	oils³	
bedon (A2) sic (A3) Sulfide (A4) Layers (A5) Below Dark Surfa k Surface (A12) ucky Mineral (S1) eyed Matrix (S4) bdox (S5) Matrix (S6) ace (S7) (LRR R	, MLR	A 149B) and wetlan	L L L L L L L L L L L L L L L L L L L	MLRA 1 Thin Da Loamy I Loamy (Deplete Redox I Deplete Redox I	149B) Ark Surface Mucky Min Gleyed Mi d Matrix (i Dark Surfa d Dark Su Depressio	e (S9) (LRI neral (F1) (atrix (F2) F3) ace (F6) urface (F7) ons (F8)	R R, MLRA	149B)		Coast I Coa	Prairie Prairie Jucky Jucky	Redder Re	ox (A1 or Pea (LRR (LRR (S9) (lasses in Soi) (ML al (F2 Surfa Remar	6) (LFR (S3) K, L, K, L, C) (S8) LLRR (S6) (F12 (S6) (F112 (S7) (S7) (S7) (S7) (S7) (S7) (S7) (S7)	RR K M) (LR M) (LR K, L) (LF P) (LF P) (M H H H H H H H H H H H H H H H H H H H	K, L, KRR K KR K KR K KR K KR K KR K KR	R) (, L, R) (, L) (, L, R) (A 149B)
Habitat Characte	eristics,	Aquatic D	viversity	or Ge	neral Con	nments:											
ty: High		Moderate		Low			Isolated	Wetland?	· 🗆	Yes		No		Unk	now	'n	
ents:																	
	Matrix Color (moist) 7.5YR 4/3 centration, D=Dodicators: (Appliant) A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A12) Jucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R hydrophytic vege yer Present?	Matrix Color (moist) % 7.5YR 4/3 100 centration, D=Depletion dicators: (Applicable A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A k Surface (A12) Lacky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MLR. hydrophytic vegetation and present? Habitat Characteristics, ty:	Matrix Color (moist) % Color (n 7.5YR 4/3 100 centration, D=Depletion, RM=Redicators: (Applicable to all LRR A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A11) k Surface (A12) Locky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MLRA 149B) hydrophytic vegetation and wetlan yer Present?	Matrix Re Color (moist) % Color (moist) 7.5YR 4/3 100 centration, D=Depletion, RM=Reduced dicators: (Applicable to all LRR's, unlead) A1)	Matrix Redox Fe Color (moist) % Color (moist) % 7.5YR 4/3 100 centration, D=Depletion, RM=Reduced Matrix, dicators: (Applicable to all LRR's, unless off MLRA 1 pedon (A2) tic (A3) Thin Da Sulfide (A4) Loamy Layers (A5) Loamy Below Dark Surface (A11) Deplete k Surface (A12) Redox I cucky Mineral (S1) Deplete pedox (S5) Matrix (S6) Face (S7) (LRR R, MLRA 149B) hydrophytic vegetation and wetland hydrology in the person of the pers	Matrix Redox Features Color (moist) % Color (moist) % Type¹ 7.5YR 4/3 100	Atrix Redox Features Color (moist) % Color (moist) % Type¹ Loc² 7.5YR 4/3 100	Describe the depth needed to document the indicator or confirm to the lattice of the depth needed to document the indicator or confirm to the lattice of the depth needed to document the indicator or confirm to the lattice of the la	Detion: (Describe the depth needed to document the indicator or confirm the absertance Matrix Redox Features Text	Detion: (Describe the depth needed to document the indicator or confirm the absence of in the Matrix	Describe the depth needed to document the indicator or confirm the absence of indicated Matrix Redox Features Texture	potion: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Matrix	pation: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Matrix	Altrix Redox Features Texture Redox Features Redox Features Texture Refusal Refu	All Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Depleted Matrix (F2) Polyvalue Below Surface (F6) Iron-Manganese Masses (F12 Lock) Redox (S5) Metrix (S6) Metrix (S4) Metrix (S6) Metrix (S6)	Ation: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Matrix	Detion: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Matrix





WEST



WETLAND DETERMINATION FORM - N	orthcentral and Northeast Region
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
Project/Site: NED Milepost: 38857.4	County: Hartford Date: 11/13/2014
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-B-W006-PEM
Investigators: RW JW Quad Name: Avon	Township: Bloomfield
Logbook No.: 2014-2 Logbook Pg.: 126 Tract: 27876	
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Rel	ief: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.843361	Long: -72.773448 Datum: NAD83
Soil Map Unit Name: Wilbraham silt loam	NWI Classification: PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)
Are Vegetation ✓ Soil ☐ or Hydrology ☐ significantly disturbed? ☐	No Are "Normal" Circumstances present? ☑ Yes ☐ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important features, etc.
Hydrophytic Vegetation Present?	
Hydric Soil Present? ☑ Yes ☐ No	Is the Sampled Area within a Wetland? ☑ Yes □ No
Wetland Hydrology Present?	William & Wolland
Field Wetland Classification: PEM	
Remarks: VEG MOWED IN ROW, SHARED UPLAND PLOT BL-B-W005-U	PL
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 (C	1) Crayfish Burrows (C8)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres all	Coturation Visible on April images (CO)
☐ 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? ☐ Yes ☑ No Depth (inches):	
Water Table Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☑ Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre-	vious inspections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
То	tal Cover:



1 Tovidence, IXI 02004				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:	,		
Herb Stratum				
	ı	a. a	l 5	l
Scientific Name		% Cover	Dominant	Indicator Status
Carex stricta Phalaris arundinacea		20 20	YES YES	OBL FACW
Carex sp		60	NA	NONE
	Total Cover:	100		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:		I	I
Dominance Test Worksheet:		lex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)	Total % Cover	of:	Multiply by:	
	OBL Species:	<u>20</u>	x 1 = <u>20</u>	
Total Number of Dominant Species Across All Strata: 2 (B)	FACW Species	: <u>20</u>	x 2 = <u>40</u>	
oposico / in ottata.	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:	<u>0</u>	x 4 = <u>0</u>	
, , , , , , , , , , , , , , , , , , ,	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>40 (A)</u>	<u>60 (B)</u>	
	ı	Prevalence Index =	= B/A = <u>1.50</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 Presen	nt? ☑ Yes 🏻] No
data in Normania of on a separate sheety				
_				
Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



Matrix Color (moist)	the d	epth needed to						
Matrix Color (moist)	the d	epth needed to						
Matrix Color (moist)			docum	ent the ir	dicator o	r confirm the abser	nce of indicators.)	
` '		Re	dox Fe					
10)/0.0/0	%	Color (moist)	%	Type ¹	Loc²	Text	ture	Remarks
10YR 3/2	85	7.5YR 3/4	15	С	PL	SILTY CL/	AY LOAM	
5Y 5/1	90	10YR 4/6	10	С	M	FINE SANI	DY LOAM	
centration. D=De	l epletion	l	Matrix.	CS=Cov	l ered Sand	or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
								oblematic Hydric Soils³:
,		· ·			•	8) (I RR R		A10) (LRR K, L, MLRA 149B)
,					Surface (O	o) (ERRER,		Redox (A16) (LRR K, L, R)
		Пт	hin Da	rk Surface	(S9) (LRI	RR MIRA 149R)	_	Peat or Peat (S3) (LRR K, L, R)
						·		e (S7) (LRR K, L, M)
			-	-		(LIKIK IK, L)	_	elow Surface (S8) (LRR K, L)
• , ,	ace (A1		-	-				urface (S9) (LRR K, L)
	(***	_	•	•	•			ese Masses (F12) (LRR K, L, R)
		_					_ `	podplain Soils (F19) (MLRA 149B)
• , ,			•					c (TA6) (MLRA 144A, 145, 149B)
					(, ,			
, ,								/ Dark Surface (TF12)
	. MLRA	A 149B)						
		•	ology n	nuct bo pr	ocont unla	see dieturbad ar prob		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:			
ty:		Moderate	Low			Isolated Wetland?	P ☐ Yes ☑	No Unknown
nonto:								
	dicators: (Appli (A1) ipedon (A2) stic (A3) in Sulfide (A4) Layers (A5) Below Dark Surfark Surface (A12) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R hydrophytic vege yer Present?	dicators: (Applicable of (A1) ipedon (A2) stic (A3) in Sulfide (A4) Layers (A5) Below Dark Surface (A2) ucky Mineral (S1) leyed Matrix (S4) edox (S5) Matrix (S6) face (S7) (LRR R, MLRA hydrophytic vegetation a yer Present?	dicators: (Applicable to all LRR's, unlet (A1)	dicators: (Applicable to all LRR's, unless oth (A1)	dicators: (Applicable to all LRR's, unless otherwise n (A1)	dicators: (Applicable to all LRR's, unless otherwise noted.) (A1)	Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	dicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Pr





SOUTH



WETLAND DETERMINATION FORM - No	thcentral and Northeast Region	
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other	
Project/Site: NED Milepost: 38914.6 Co	nty: Hartford Date: 11/13/20	14
Applicant/Owner: Kinder Morgan Sta	e: CT Sampling Point: BL-B-W006-PFO	
Investigators: RW JW Quad Name: Avon To	rnship: Bloomfield	
Logbook No.: 2014-2 Logbook Pg.: 126 Tract: 27876		
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief	☑ Concave ☐ Convex ☐ None Slope%.:	0
Subregion (LRR): Middle Atlantic Lat: 41.843438	Long: -72.773171 Datum: NA	D83
Soil Map Unit Name: Broadbrook silt loam, 3 to 8 percent slopes	NWI Classification: PFO1	
Are climatic / hydrologic conditions on the site typical for this time of year?:	es 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	oint locations transacts important features	etc
Hydrophytic Vegetation Present? ✓ Yes ☐ No	ont locations, transcots, important reatures	
	Is the Sampled Area	
Hydric Soil Present? ✓ Yes ☐ No Wetland Hydrology Present? ✓ Yes ☐ No	within a Wetland? ✓ Yes ☐ No	
Field Wetland Classification: PFO		
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (2 or more req	uired)
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 alon	Living Roots (C3) Saturation Visible on Aerial ima	gery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (0	4) Stunted or Stressed Plants (D1))
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Till	_	
☐ 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 Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?	N.
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☑ Yes □	NO
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previo	s inspections), if available):	
VEGETATION		
Tree Stratum		
Plot Size: 30		
Scientific Name	% Cover Dominant Indicat	or Status
Acer rubrum	40 YES F	AC
Total	Cover: 40	



Sapling/Shrub Stratum	Dominant YES NO YES Dominant YES NO YES	Indicator Status FACU FAC FACW Indicator Status FACW OBL OBL FAC Indicator Status
Scientific Name	Dominant YES NO YES NO YES NO Dominant Dominant Multiply by: x 1 = 70 x 2 = 80	FACU FAC FACW Indicator Status FACW OBL OBL FAC
Rosa multiflora	Dominant YES NO YES NO YES NO Dominant Dominant Multiply by: x 1 = 70 x 2 = 80	FACU FAC FACW Indicator Status FACW OBL OBL FAC
Ulmus rubra 5 20 Total Cover: 35 Herb Stratum	Dominant YES NO YES NO YES NO Dominant Multiply by: x 1 = 70 x 2 = 80	FAC FACW Indicator Status FACW OBL OBL FAC
Herb Stratum	PES NO YES NO YES NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO Y	FACW OBL OBL FAC
Plot Size: 5 Scientific Name % Cover	PES NO YES NO YES NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO Y	FACW OBL OBL FAC
Scientific Name % Cover	PES NO YES NO YES NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO Y	FACW OBL OBL FAC
Phalaris arundinacea	PES NO YES NO YES NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO HOLD THE NO YES NO Y	FACW OBL OBL FAC
Epilobium coloratum	Dominant Building by: x 1 = \frac{70}{x 2 = \frac{80}{20}}	OBL OBL FAC
Woody Vine Stratum	: Multiply by: $x = 70$ $x = 80$	Indicator Status
Plot Size: 30 % Cover	: Multiply by: $x = 70$ $x = 80$	Indicator Status
Total Cover: Total Cover:	: Multiply by: $x = 70$ $x = 80$	Indicator Status
Total Cover: Dominance Test Worksheet: Prevalence Index Worksheet: Number of Dominant Species Total % Cover of: Total Number of Dominant Species Total Number of Dominant Species Across All Strata: 5 (B) FAC Species: 40 FAC Species: 55 Fac Species: 55 Fac Species: 10 Fac Species: 10	: Multiply by: $x = 70$ $x = 80$	Indicator Status
Dominance Test Worksheet: Number of Dominant Species Total % Cover of: That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species FACW Species: That Are OBL, FACW, or FAC: 80 (A/B) Facus Species: 10	Multiply by: x 1 = 70 x 2 = 80	
Dominance Test Worksheet: Number of Dominant Species Total % Cover of: That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species FACW Species: That Are OBL, FACW, or FAC: 80 (A/B) Facus Species: 10	Multiply by: x 1 = 70 x 2 = 80	
Number of Dominant Species That Are OBL, FACW, or FAC: 10	Multiply by: x 1 = 70 x 2 = 80	
Number of Dominant Species That Are OBL, FACW, or FAC: 10	Multiply by: x 1 = 70 x 2 = 80	
That Are OBL, FACW, or FAC: 1 (A) OBL Species: 70 FACW Species: 40 FAC Species: 55 Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) FACU Species: 10	$x 1 = \frac{70}{80}$ $x 2 = \frac{80}{100}$	
Total Number of Dominant Species Across All Strata: 5 (B) FACW Species: 40 FAC Species: 55 Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)	x 2 = <u>80</u>	
Species Across All Strata: FAC Species: 55 Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) FAC Species: 10	_	
Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) FACU Species: 10		
That Are OBL, FACW, or FAC:	x 4 = 40	
· -	x 5 = <u>0</u>	
Column Totals: 175 (A)	355 (B)	
Prevalence Inde:	. ,	
	2X = B/Y = <u>2.00</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 President Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)	sent? ☑ Yes [] No
☐ Problematic Hydrophytic Vegetation¹ (Explain)		
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Remarks:		



T TOVIGETICE, I	(1 02004								100000000000000000000000000000000000000
SOIL									
•		the d				dicator o	r confirm the abs	ence of indicators.)	1
Depth (inches)	Matrix				atures		Te	xture	Remarks
(11101103)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	10	Attare	remand
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	FINE SAI	NDY LOAM	
¹Type: C=Cond	L centration, D=De	pletion	I n, RM=Reduced I	Matrix,	CS=Cov	Lered Sand	or Coated Grains.	² Location: PL=	I =Pore Lining, M=Matrix
		<u> </u>	o all LRR's, unle						roblematic Hydric Soils ³ :
Histosol (/							8) (LRR R,		(A10) (LRR K, L, MLRA 149B)
_ `	pedon (A2)			ILRA 1		Surface (S	o) (LKK K,		e Redox (A16) (LRR K, L, R)
				hin Do	rk Curfood	(CO) (LDI	R R, MLRA 149B)	_	Peat or Peat (S3) (LRR K, L, R)
☐ Black Hist			_			. , .	,		
	Sulfide (A4)		_	•	•	` '	(LRR K, L)	_	e (S7) (LRR K, L, M)
	Layers (A5)	200 (44		-	Gleyed Ma				elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A	_	•	d Matrix (I	•		_	urface (S9) (LRR K, L)
_	k Surface (A12)		_		Dark Surfa	` '			nese Masses (F12) (LRR K, L, R)
_	icky Mineral (S1)			•		ırface (F7)		_	oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		☐ R	ledox I	Depressio	ns (F8)			ic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re								_	Material (F21)
	Matrix (S6)								w Dark Surface (TF12)
☐ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)					Other (Expla	ain in Remarks)
³ Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or pro	oblematic.	
Restrictive Lay	er Present?		Yes ☑ No	□ U	nknown				
								Hydric Soil Prese	ent? ☑ Yes 🗆 No
Remarks:							'		
Description of	Habitat Characte	ristics	Aquatic Diversity	or Ge	neral Com	ments:			
2 coonpaion on		,	riquano Errorony	0. 00					
Wetland Qualit	v· 🗖 High	IJ I	Moderate	l ow			Isolated Wetland	1? □ Yes ☑	No Unknown
Welland Qualit	y. 🔲 iligii	, IA	vioderate	LOW			isolatea Wetland	103 V	140 Gillalowii
General Comm	ents:								





SOUTH



WE	TLANI	D DE1	ΓERN	IINAT	ON F	FORM -	Northc	en	tral and	d No	ortheas	t Regior	1	
☑ Centerline ☐ Re-R	oute [Acce	ss Roa	ad 🔲	Ancill	lary Facility		Trai	nsmission	Line	☐ Oth	ner		
Project/Site: NED				Milepost:	3924	45.8	County:		Hartfor	rd		Date:	: 11/13/201	4
Applicant/Owner: Kinder Mo	rgan						State:	СТ		Samp	oling Poin	t BL-B-W	005-PFO	
Investigators: AF CV		Quad N	lame:	Avon			Townshi	p:	Bloom	field				
Logbook No.: 2014P2	Log	book Po	g.: 68		Tra	ct: 27876								
Landform (hillslope, terrace, e	etc.):	DEPR	ESSIC	N .		Local F	Relief:	7	Concave		Convex	☐ None	Slope%.:	0
Subregion (LRR): Middl	e Atlantic			La	t: 41.8	344138			Long: -	72.77	2446		Datum: NA	D83
Soil Map Unit Name: Wil	braham si	It loam									NWI CI	assification:	PSS1E	Ēd
Are climatic / hydrologic cond	litions on t	he site t	ypical f	or this tin	ne of ye	ear?:	✓ Yes		No (If no	o, expl	ain in Rem	arks.)		
Are Vegetation	□ or ⊢	lydrolog	у П	significa	antly dis	sturbed?	— ✓ No	Α	Are "Norma	al" Circ	cumstance	s present?	✓ Yes	☐ No
Are Vegetation Soil		lydrolog	_	naturall	y proble	ematic?	_ No							
, <u> </u>	_	, ,	_		, ,		_							
SUMMARY OF FINDIN	NGS - A	ttach	site n	nap sh	owing	g sampli	ng poin	t lo	cations	, tra	nsects,	importan	t features	, etc.
Hydrophytic Vegetation Prese	ent?	\checkmark	Yes	□ N	0			Io	the Com	anlad	Aroo			
Hydric Soil Present?			Yes	□ N	0			W	the Sam ithin a W	ipied /etlar	nd?	☑ Yes [□ No	
Wetland Hydrology Present?		$\overline{\mathbf{V}}$	Yes	□ N	0									
Field Wetland Classification:	PFC)												
Remarks:														
HYDROLOGY														
Wetland Hydrology Indicato	ors:									<u>S</u>	Secondary	Indicators (2	or more requ	uired)
Primary Indicators (minimum	of one red	quired; c	heck a	ll that app	oly)						Surface	e Soil Crack	s (B6)	
☐ Surface Water (A1)			[√ Wate	r-Stain	ed Leaves	(B9)				☐ Draina	ge Patterns	(B10)	
☐ High Water Table (A2)			[_ ☐ Aqua	itic Fau	ına (B13)					☐ Moss 7	rim Lines (E	316)	
✓ Saturation (A3)			[☐ Marl	Deposi	its (B15)					☐ Dry-Se	ason Water	Table (C2)	
□ Water Marks (B1)			[√ Hydr	ogen S	ulfide Odor	(C1)				Crayfis	h Burrows (C8)	
☐ Sediment Deposits (B2)			[Oxid	zed Rh	nizospheres	along Livir	ng R	Roots (C3)		Satura	tion Visible o	on Aerial imaç	gery (C9)
☐ Drift Deposits (B3)			[Pres	ence of	Reduced I	ron (C4)				Stunte	d or Stresse	d Plants (D1)	
☐ Algal Mat or Crust (B4)			[Rece	nt Iron	Reduction	in Tilled Sc	oils (C6)		Geomo	orphic Position	on (D2)	
☐ Iron Deposits (B5)			[Thin	Muck S	Surface (C7	")				Shallov	w Aquitard (I	D3)	
☐ Inundation Visible on A	rial Image	ery (B7)	[Othe	r (Expla	ain in Rema	arks)				Microto	pographic F	Relief (D4)	
□ Sparsely Vegetated Cor	ncave Surf	ace (B8)								☐ FAC-N	eutral Test ((D5)	
Field Observations:														
Surface Water Present?	☐ Yes	· 🗹	No I	Depth (in	ches):									
Water Table Present?	✓ Yes	_		Depth (in		0			Wetlan	d Hvd	Irology Pro	esent?		
Saturation Present?	✓ Yes	_		Depth (in	,	0				,			ĭ Yes □	No
(includes capillary fringe)		_		-1 - (,									
Remarks (Describe Recorded	Data (stre	eam gag	je, mon	itoring w	ell, aeri	al photos, p	orevious ins	spec	tions), if a	vailabl	le):			
VEGETATION														
Tree Stratum														
Plot Size: 30														
Scientific Name									% Co	over	D	ominant	Indicate	or Status
Quercus palustris Acer rubrum									15 30)		YES YES		AC AC
							Total Cove	r:	45	5				



	% Cover	Dominant	Indicator Status
		Dominant	Indicator Status
		Dominant	Indicator Status
	10		Indicator Status
	30 20 20	NO YES YES YES	FACW OBL FACW FACU
Total Cover:	80		,
	% Cover	Dominant	Indicator Status
	15 10 20	YES NO YES	FACW OBL OBL
	10 20	YES	FACW FACW
Total Cover:	75	!	1
	% Cover	Dominant	Indicator Status
Total Cover:		I	1
Prevalence Inc	dex Worksheet:		
		Multiply by:	
•			
-			
•			
•			
Column Totals:			
		= B/A = 2.05	
·	To valorico iliaox	<u> </u>	
Usalnombustio V	la matation Dracen		T No
Hydropnytic v	regetation Preser	tt? ☑ Yes L	⊔ мо
	Total Cover: Total Cover: Prevalence Inc Total % Cover: OBL Species: FACW Species: FACU Species: UPL Species: Column Totals:	% Cover 15 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 10 20 2	% Cover Dominant 15



Providence, R	1 02904											
SOIL												
Profile Descrip	tion: (Describe	the de	epth needed to d	docum	ent the ir	dicator o	r confirm the abser	nce of indicators.)	1			
Depth	Matrix		-		atures							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Text	ture	Remarks			
0.40	` ′		00.0. (0.0.)	,,,	.,,,,		CII T I	OAM				
0-10	10YR2/1	100					SILT L	LOAM				
10-20	GLEY1 5/10Y	60	7.5YR3/4	20	С	M	FINE S	SAND				
			5YR5/8 10YR6/8	10 10	C	M M						
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered 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 :												
			•			•	8) (I RR R		A10) (LRR K, L, MLRA 149B)			
= `	Histosol (A1) Polyvalue Below Surface (S8) (L MLRA 149B)											
= ' '	edon (A2)			ilia Da	l. 0f	(CO) (LD	D.D. MI DA 440D)					
☐ Black Hist							R R, MLRA 149B)		Peat or Peat (S3) (LRR K, L, R)			
	Sulfide (A4)			.oamy	Mucky Mir	neral (F1)	(LRR K, L)	☐ Dark Surfac	e (S7) (LRR K, L, M)			
☐ Stratified I	_ayers (A5)		☑ L	.oamy	Gleyed Ma	atrix (F2)		☐ Polyvalue B	elow Surface (S8) (LRR K, L)			
■ Depleted I	Below Dark Surfa	ace (A1	(1) 📝 C	Peplete	d Matrix (F3)		☐ Thin Dark S	urface (S9) (LRR K, L)			
☐ Thick Darl	k Surface (A12)		☐ R	Redox I	Dark Surfa	ce (F6)		☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)			
☐ Sandy Mu	icky Mineral (S1)			Peplete	d Dark Su	ırface (F7)		☐ Piedmont Fl	oodplain Soils (F19) (MLRA 149B)			
☐ Sandy Gle	eyed Matrix (S4)		□ F	Redox I	Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)			
☐ Sandy Re	dox (S5)							☐ Red Parent	Material (F21)			
☐ Stripped N	Matrix (S6)							_	w Dark Surface (TF12)			
= ''	ace (S7) (LRR R	MIRA	\ 149R)					_ '	ain in Remarks)			
			•				ess disturbed or prob		an in Remarks)			
Remarks:												
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qualit	y: 🗹 High		Moderate	Low			Isolated Wetland?	?	No 🔲 Unknown			
General Comm	ents:											





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WETLAND DETERMINATION FORM -	Northcentral and Northeast Region									
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other									
Project/Site: NED Milepost: 39435.5	County: Hartford Date: 11/13/2014									
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-B-W005-PEM									
Investigators: RW JW Quad Name: Avon	Township: Bloomfield									
Logbook No.: 2014-2 Logbook Pg.: 122 Tract: 27876										
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local R	elief: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 0									
Subregion (LRR): Middle Atlantic Lat: 41.844602	Long: -72.772094 Datum: NAD83									
Soil Map Unit Name: Wilbraham silt loam	NWI Classification: PSS1Ed									
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)									
Are Vegetation ✓ Soil or Hydrology significantly disturbed?	□ No Are "Normal" Circumstances present? ☑ Yes □ No									
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	☑ No									
SUMMARY OF FINDINGS - Attach site map showing sampling	ng point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? ☑ Yes ☐ No										
Hydric Soil Present? ☑ Yes ☐ No	ls the Sampled Area ☑ Yes □ No within a Wetland?									
Wetland Hydrology Present?	William a Wollana									
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)									
☐ 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	Crayfish Burrows (C8)									
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres	long Living Roots (C3) Saturation Visible on Aerial imagery (C9)									
☐ Drift Deposits (B3) ☐ Presence of Reduced In	n (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 Remai	ks) 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? ☑ Yes ☐ No									
Saturation Present? ☑ Yes ☐ No Depth (inches): 0 (includes capillary fringe)	V TeS □ NO									
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, processes and processes are stream gage).	evious inspections), if available):									
VEGETATION										
Tree Stratum										
Plot Size: 30										
Scientific Name	% Cover Dominant Indicator Status									
Т	otal Cover:									



1 Tovidence, IXI 02304				to the second second		
Sapling/Shrub Stratum						
Plot Size: 15						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:	'				
Herb Stratum						
Plot Size: 5						
Scientific Name	I	% Cover	Dominant	Indicator Status		
Phalaris arundinacea		10	YES	FACW		
Onoclea sensibilis		50	YES	FACW		
Cornus alba Symplocarpus foetidus		10 10	YES YES	FACW OBL		
Carex sp		30	NA	NONE		
	Total Cover:	110				
Woody Vine Stratum						
Plot Size: 30						
Scientific Name		% Cover	Dominant	Indicator Status		
	Total Cover:					
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:				
Number of Dominant Species That Are OBL FACW or FAC: 4 (A)	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: 4 (B)	FACW Species	: <u>70</u>	x 2 = <u>140</u>			
Species Across All Strata: 4 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>			
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:	: <u>0</u>	x 4 = <u>0</u>			
That Ale ODE, I AOW, OIT AO.	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	80 (A)	<u>150 (B)</u>			
	1	Prevalence Index =	B/A = <u>1.88</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	Hydrophytic V	/egetation Presen	t? ☑ Yes □	7 No		
data in Remarks or on a separate sheet)	,	ic Vegetation Present? 🗹 Yes 🗌 No				
☐ Problematic Hydrophytic Vegetation¹ (Explain)						
¹Indicators of hydric soil and wetland hydrology must be						
present, unless disturbed or problematic.						
Remarks:						



SOIL											
Profile Descrip	tion: (Describe	the d	epth needed to d	locum	ent the in	dicator o	confirm the abse	nce of indicators.)			
Depth (inches)	Matrix		Red	lox Fe	atures		Tex	hure	Remarks		
(11101162)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	rex	iui 5	I/CIIIaiv9		
0-3	10YR 3/1	100					ORG	ANIC			
3-10	10YR 4/1	85	10YR 4/6 5YR 3/6	5 10	C	M PL	FINE SANDY LOAM				
40.00	10)/D 0/4		40)/D 0/0	40							
10-20	10YR 3/1	90	10YR 3/3	10	С	PL	LO	AM			
¹Type: C=Cond	centration D-De	enletion	RM-Reduced I	Matrix	CS-Cov	ered Sand	or Coated Grains.	2l ocation: Pl -	Pore Lining, M=Matrix		
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	o all LRR's, unle				or coaled Grains.		roblematic Hydric Soils³:		
☐ Histosol (A						-	8) (LRR R,	_	A10) (LRR K, L, MLRA 149B)		
	pedon (A2)			ILRA 1		- Canada (C	0) (=,		e Redox (A16) (LRR K, L, R)		
☐ Black Hist			Пт	hin Da	rk Surface	e (S9) (LRI	R R, MLRA 149B)		Peat or Peat (S3) (LRR K, L, R)		
_	Sulfide (A4)						LRR K, L)		e (S7) (LRR K, L, M)		
☐ Stratified I	_ayers (A5)			oamy (Gleyed Ma	atrix (F2)	,	☐ Polyvalue Be	elow Surface (S8) (LRR K, L)		
☐ Depleted I	Below Dark Surfa	ace (A1		eplete	d Matrix (I	F3)		☐ Thin Dark Su	urface (S9) (LRR K, L)		
☐ Thick Darl	k Surface (A12)		□R	edox [Dark Surfa	ce (F6)		☐ Iron-Mangar	ese Masses (F12) (LRR K, L, R)		
☐ Sandy Mu	ıcky Mineral (S1)			eplete	d Dark Su	ırface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)		
☐ Sandy Gle	eyed Matrix (S4)		□ R	edox [Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)		
☐ Sandy Re	dox (S5)							☐ Red Parent	Material (F21)		
☐ Stripped Matrix (S6) ☐ Very Shallow Dark Surface (TF12)									v Dark Surface (TF12)		
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)					Other (Expla	iin in Remarks)		
3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Lay	er Present?		Yes ☑ No	□ U	nknown						
								Hydric Soil Prese	nt? ✓ Yes 🗆 No		
Remarks:							l l				
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	ments:					
Wetland Qualit	y: High	☑ 1	Moderate	_ow			Isolated Wetland?	Yes 🗹	No Unknown		
Conoral Comm	onto										
General Comm	ents:										





SOUTHWEST



WETLAND DETERMINATION FORM - N	lorthce	entral and N	ortheast Region	
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	□ ⊺	ransmission Line	Other	
Project/Site: NED Milepost: 39137.4	County:	Hartford	Date:	11/13/2014
Applicant/Owner: Kinder Morgan	State: 0	CT Sam	pling 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 Re	lief:	Concave 🗹	Convex None	Slope%.: 10
Subregion (LRR): Middle Atlantic Lat: 41.843814		Long: -72.7	72563	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, exp	plain in Remarks.)	
	☑ No	— Are "Normal" Ci	rcumstances present?	✓ Yes □ No
	⊒ ☑ No			
SUMMARY OF FINDINGS - Attach site map showing sampling	g point	locations, tra	ınsects, important	features, etc.
Hydrophytic Vegetation Present?	<u> </u>	•		· · · · · · · · · · · · · · · · · · ·
Hydric Soil Present? ☐ Yes ☑ No		Is the Sample		1 No
Wetland Hydrology Present? ☐ Yes ☑ No		within a Wetla	nd? 🗀 100 🔄	110
Field Wetland Classification: UPLAND PLOT				
Remarks:				
Tomano.				
HYDROLOGY			0 1 1 1 1 10	
Wetland Hydrology Indicators:			Secondary Indicators (2	
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks	
☐ Surface Water (A1) ☐ Water-Stained Leaves (B	9)		Drainage Patterns (I	•
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			Moss Trim Lines (B1	·
☐ Saturation (A3) ☐ Marl Deposits (B15)			☐ Dry-Season Water T	
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C	C1)		Crayfish Burrows (C	
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres al	long Living	g Roots (C3)	Saturation Visible or	n Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	n (C4)		Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	Tilled Soils	s (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 Remark	(s)			elief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D	05)
Field Observations:				
Surface Water Present?				
Water Table Present? ☐ Yes ☑ No Depth (inches):		Wetland Hy	drology Present?	v =
Saturation Present?			Ц	Yes ☑ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre	evious insp	ections), if availab	ole):	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Quercus rubra		10	YES	FACU
Acer rubrum	0	20	YES	FAC
To	otal Cover:	30		



or Status ACU ACU ACU ACU ACU ACU ACU ACU PL or Status ACU JPL ACU FAC
ACU ACU ACU ACU PL or Status ACU JPL ACU
ACU ACU ACU ACU PL or Status ACU JPL ACU
ACU ACU ACU PL or Status ACU JPL ACU
ACU JPL ACU
JPL ACU
or Status



1 TOVIGETICE, I	02004																	
SOIL																		
Profile Descrip	tion: (Describe	the d	epth need	ed to	docum	ent the in	ndicator o	r confirm	he abser	nce of	indica	tors.)					
Depth (inches)	Matrix			Re	dox Fe	atures			т •	tura						D	0=1	
(inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²		Text	iure						√em	arks	
0-20	5YR4/6	100							SANDY	LOA	Л							
¹Type: C=Cond	centration, D=De	epletion	n, RM=Re	duced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	2 <u>L</u>	ocation	n: PL	=Pore	Lining	j, M=	=Ma	trix	
Hydric Soil Ind	licators: (Appli	cable 1	o all LRR'	's, unle	ess oth	nerwise n	oted.)			Indi	cators	for P	robler	natic	Hyd	ric §	Soils	³:
Histosol (A	pedon (A2)			_ N	ILŔA 1	49B)	•	8) (LRR R R R, MLRA			2 cm N Coast 5 cm N	Prairi	e Red	ox (A1	6) (L	_RR	K, L,	<u>-</u>
☐ Hydrogen	Sulfide (A4)				oamy I	Mucky Mir	neral (F1)	(LRR K, L)			Dark S	Surfac	e (S7)	(LRR	K, L	., M)		
☐ Stratified I	_ayers (A5)				oamy (Gleyed Ma	atrix (F2)				Polyva	alue B	elow S	Surface	e (S8	3) (L	RR k	(, L)
☐ Depleted I	Below Dark Surfa	ace (A	l1)		eplete	d Matrix (I	F3)				Thin D	ark S	urface	(S9) (LRR	≀ K, '	L)	
☐ Thick Darl	k Surface (A12)			□ R	Redox [Dark Surfa	ace (F6)				Iron-M	langaı	nese N	/lasses	s (F1	2) (LRR	K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)				eplete	d Dark Su	ırface (F7)				Piedm	ont FI	loodpla	ain Soi	ils (F	[:] 19)	(MLF	RA 149B)
☐ Sandy Gle	eyed Matrix (S4)			□ F	Redox [Depressio	ns (F8)				Mesic	Spod	ic (TA6	3) (ML	RA 1	144/	۱, 14	5, 149B)
☐ Sandy Re	dox (S5)										Red P	arent	Materi	al (F2	1)			
☐ Stripped N	Matrix (S6)										Very S				•	TF1	2)	
☐ Dark Surfa	ace (S7) (LRR R	, MLR	4 149B)							\Box	Other	(Expla	ain in F	Remar	ks)			
_	nydrophytic vege		•	d hydro	ology m	nust be pr	esent unle	ess disturb	ed or prob	blema					,			
Restrictive Lay						nknown												
Restrictive Lay	er Fresent?	Ц	ies V	NO	⊔ ∘	IIKIIOWII				Hydr	ic Soil	Prese	ent?		Yes	s	V	No
Remarks:																		
Description of I	Habitat Characte	ristics,	Aquatic Di	iversity	or Ge	neral Com	nments:											
Wetland Qualit	y: High		Moderate		Low			Isolated	Wetland?	? [] Ye	s 🗆	N o		Un	nkno	wn	
General Comm	ents:																	





NW



WETLAND DETERMINATION FORM - N	Northce	ntral and No	rtheast Region	
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	□ Tr	ransmission Line	Other	
Project/Site: NED Milepost: 40197.2	County:	Hartford	Date:	11/12/2014
Applicant/Owner: Kinder Morgan	State: C	T Samp	oling Point: BL-B-W0	04-PFO
Investigators: AF CV Quad Name: Avon	Township:	Bloomfield	-	
Logbook No.: 2014P2 Logbook Pg.: 60 Tract: 27917	I			
Landform (hillslope, terrace, etc.): DEPRESSION Local Re	elief: 🗹	Concave	Convex None	Slope%.: 10
Subregion (LRR): Middle Atlantic Lat: 41.844908		Long: -72.76	9135	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, expl	ain in Remarks.)	
Are Vegetation ☐ Soil ☐ or Hydrology 🔽 significantly disturbed? ┃	□ No	Are "Normal" Circ	cumstances present?	✓ Yes □ No
	_ √ No			
SUMMARY OF FINDINGS - Attach site map showing samplin	g point l	ocations, trai	nsects, important	features, etc.
Hydrophytic Vegetation Present? ☑ Yes ☐ No			_	
Hydric Soil Present? ☑ Yes ☐ No		ls the Sampled within a Wetlan	Area ⊿d? ☑ Yes □	l No
Wetland Hydrology Present? ☑ Yes ☐ No		William a violiam		
Field Wetland Classification: PFO				
Remarks: BERM FARM POND NORTH OF US				
HYDROLOGY				
Wetland Hydrology Indicators:		<u>s</u>	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 (E	39)		☐ Drainage Patterns (I	310)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			Moss Trim Lines (B1	6)
✓ Saturation (A3)			☐ Dry-Season Water T	able (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C	8)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres a	long Living	Roots (C3)	Saturation Visible or	n Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iro	n (C4)		Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	Tilled Soils	s (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 Remark	(S)		☐ Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D	95)
Field Observations:				
Surface Water Present?				
Water Table Present?		Wetland Hyd	rology Present?	
Saturation Present?			M	Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre	evious inspe	ections), if availabl	e):	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Thuja occidentalis		5	NO	FACW
Acer rubrum To	otal Cover:	30 35	YES	FAC



T TOVIGETICE, THE OZSOT				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Cornus amomum Lonicera morrowii Rosa multiflora		20 20 10	YES YES YES	FACW FACU FACU
Note material	Total Cover:	50	120	17100
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Onoclea sensibilis Epilobium coloratum Carex stricta		10 5 20	YES NO YES	FACW OBL OBL
	Total Cover:	35	!	ı
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>25</u>	x 1 = <u>25</u>	
Total Number of Dominant	FACW Species	: <u>35</u>	x 2 = <u>70</u>	
Species Across All Strata: 6 (B)	FAC Species:	<u>30</u>	x 3 = <u>90</u>	
Percent of Dominant Species	FACU Species:	30	x 4 = <u>120</u>	
That Are OBL, FACW, or FAC: 67 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:		305 (B)	
		Prevalence Index =	, ,	
Hadron katis Vonetation la disease.		Tevalence macx -	<u> 2.04</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 Presen	t? ☑ Yes [] No
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



SOIL	SOIL											
Profile Descrip	tion: (Describe	the d	epth needed to	docum	ent the in	ndicator o	r confirm th	e absen	ce of indicators.)			
Depth	Matrix		Red	dox Fe	atures			- .			5 .	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Textu	ле		Remarks	3
0-8	10YR2/1	100						SILT LO	MAC			
8-18	GLAY1 5/10Y	60	7.5YR3/4 5YR5/8 10YR5/6	20 10 10	CCC	M M M	VE	ERY FINI	E SAND			
¹Type: C=Cond	centration, D=De	l epletior	n, RM=Reduced				l I or Coated 0	Grains.	² Location: PL=	 =Pore Lining	, M=Matrix	
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ess oth	nerwise n	oted.)			Indicators for P	roblematic I	Hydric Soils	s³:
☐ Histosol (A	A1)					Surface (S	8) (LRR R,		□ 2 cm Muck (A10) (LRR k	K, L, MLRA 1	149B)
☐ Histic Epip	pedon (A2)		N	ILRA 1	149B)				☐ Coast Prairie	e Redox (A1	6) (LRR K, L	_, R)
■ Black Hist	ic (A3)		ПΤ	hin Da	rk Surface	e (S9) (LR	R R, MLRA	149B)	☐ 5 cm Mucky	Peat or Pea	t (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 I	_ayers (A5)			oamy	Gleyed Ma	atrix (F2)			☐ Polyvalue B	elow Surface	e (S8) (LRR	K, L)
☐ Depleted I	Below Dark Surfa	ace (A1	I1) 🗹 🖸	eplete	d Matrix (I	F3)			☐ Thin Dark S	urface (S9) (LRR K, L)	
☐ Thick Darl	k Surface (A12)		□R	ledox I	Dark Surfa	ace (F6)			☐ Iron-Mangar	ese Masses	(F12) (LRR	K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)			eplete	d Dark Su	ırface (F7)			☐ Piedmont Fl	oodplain Soi	ls (F19) (ML	RA 149B)
✓ Sandy Gle	eyed Matrix (S4)		☐ F	Redox I	Depressio	ns (F8)			☐ Mesic Spodi	c (TA6) (ML	RA 144A, 14	15, 149B)
☐ Sandy Re	dox (S5)								□ Red Parent	Material (F2	1)	
☐ Stripped N	Matrix (S6)								□ Very Shallov	v Dark Surfa	ce (TF12)	
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Remar	ks)	
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed	d or probl	lematic.			
Restrictive Lay		<u> </u>	Yes ☑ No					ı	Hydric Soil Prese	ent? ☑	Yes 🗆	No
REFUSAL AT	18" DUE TO STO	ONE										
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qualit	y: 🗹 High	<u> </u>	Moderate	Low			Isolated W	Vetland?	☐ Yes 🗹	No 🗖	Unknown	
General Comm	ents:											





ΝE



WETLAND DETERMINATION FORM - Nor	thcentral a	and North	neast Regio	n		
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmissi	ion Line	Other			
Project/Site: NED Milepost: 40297.2 Cou	unty: Har	tford	Date	e: 11/12/2014	1	
Applicant/Owner: Kinder Morgan Sta	te: CT	Sampling	Point: BL-B-V	V004-UPL		
Investigators: DF JW Quad Name: Avon Tow	vnship: Bloo	omfield				
Logbook No.: 2014-2 Logbook Pg.: 59 Tract: 27962						
Landform (hillslope, terrace, etc.): HILLSLOPE Local Relief:	☐ Concav	/e ☑ Con	ivex None	e Slope%.:	20	
Subregion (LRR): Middle Atlantic Lat: 41.845240	Long:	-72.768567	7	Datum: NAD	083	
Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes		١	NWI Classification	: Not map	pped	
Are climatic / hydrologic conditions on the site typical for this time of year?:	es No (I	f no, explain i	n Remarks.)			
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑	No Are "No	rmal" Circums	stances present?	✓ Yes	☐ No	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No					
SUMMARY OF FINDINGS - Attach site map showing sampling p	oint locatio	ns, transe	ects, importa	nt features,	etc.	
Hydrophytic Vegetation Present? ☐ Yes ☑ No						
Hydric Soil Present? ☐ Yes ☑ No	is the S within a	ampled Are Wetland?	^{ea} □ Yes	☑ No		
Wetland Hydrology Present? ☐ Yes ☑ No						
Field Wetland Classification: UPLAND PLOT						
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Seco	ndary Indicators (2 or more requi	ired)	
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Crac	ks (B6)		
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9)			Drainage Patterns	s (B10)		
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			Moss Trim Lines (B16)		
☐ Saturation (A3) ☐ Marl Deposits (B15)			Dry-Season Wate	r Table (C2)		
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)			Crayfish Burrows	(C8)		
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along	Living Roots (C					
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C	(C4) Stunted or Stressed Plants (D1)					
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tille	lled 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:					<u></u>	
Surface Water Present? Yes No Depth (inches):						
Water Table Present? Yes No Depth (inches):	Wet	land Hydrolo	ogy Present?] Yes ☑	No	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)				_ res ⊻	NO	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous	us inspections), i	if available):				
VEGETATION						
Tree Stratum						
Plot Size: 30						
Scientific Name	%	Cover	Dominant	Indicato	r Status	
Juniperus virginiana		30	YES	FAG	CU	
Total (Cover:	30		,		



1 10VIde1166, 1(1 02304							
Sapling/Shrub Stratum							
Plot Size: 15							
Scientific Name		% Cover	Dominant	Indicator Status			
Lonicera morrowii Ligustrum vulgare Berberis thunbergii		20 10 5	YES NO NO	FACU FACU FACU			
Rubus fruticosus		30	YES	UPL			
	Total Cover:	65					
Herb Stratum							
Plot Size: 5							
Scientific Name		% Cover	Dominant	Indicator Status			
Plantago major		20	YES	FACU			
Viola sororia Trifolium repens		5 10	NO YES	FAC FACU			
	Total Cover:	35	ı	!			
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: 0 (A)	Total % Cover	of:	Multiply by:				
That Are OBL, FACW, or FAC: 0 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>				
Total Number of Dominant Species Across All Strata: 5 (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 That Are OBL, FACW, or FAC: 0 (A/B)	FACU Species:	9 <u>5</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 \	Hydrophytic Vegetation Present?					
data in Normania di dii a deparate di deti							
☐ Problematic Hydrophytic Vegetation¹ (Explain)							
¹Indicators of hydric soil and wetland hydrology must be							
present, unless disturbed or problematic.							
Remarks:							



SOIL												
Profile Descri	rofile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix		Re	dox Fe	atures				6 .			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Text	ure	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	М	SANDY	LOAM				
¹Type: C=Con	centration, D=De	epletion	n, RM=Reduced	Matrix,	, CS=Cov	ered Sand	or Coated Grains.	²Location: PL=	Pore Lining, M=Matrix			
Hydric Soil In	dicators: (Appli	cable 1	to all LRR's, unle	ess oth	herwise n	oted.)		Indicators for Pr	oblematic Hydric Soils³:			
☐ Histosol (A1)					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 His	tic (A3)		П 1	hin Da	ark Surface	e (S9) (LRI	R R, MLRA 149B)	☐ 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)			
☐ Hydroger	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) 🔲 🛭	Deplete	ed Matrix (F3)		☐ Thin Dark Su	ırface (S9) (LRR K, L)			
☐ Thick Dar	k Surface (A12)		□ F	Redox I	Dark Surfa	ace (F6)		☐ Iron-Mangan	ese Masses (F12) (LRR K, L, R)			
☐ Sandy M	ucky Mineral (S1))		Deplete	ed Dark Su	urface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)			
☐ Sandy GI	eyed Matrix (S4)		□ F	Redox I	Depressio	ns (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 Sur	face (S7) (LRR R	, MLR	A 149B)					☐ Other (Expla	in in Remarks)			
3Indicators of	hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or prob	lematic.				
Remarks:								Hydric Soil Prese	nt? ☐ Yes ☑ No			
Description of	Habitat Characte	eristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Quali	ty: High		Moderate	Low			Isolated Wetland?	☐ Yes ☐	No Unknown			
General Comn	nents:											





SOUTH



WETLAND DETERMINATION FORM - No	orthcentral and Northeast Region				
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other				
Project/Site: NED Milepost: 42758.9	County: Hartford Date: 11/12/2014				
Applicant/Owner: Kinder Morgan	state: CT Sampling Point: BL-B-W002-PEM				
Investigators: RW JW Quad Name: Avon T	ownship: Bloomfield				
Logbook No.: 2014-2 Logbook Pg.: 112 Tract: 27983					
Landform (hillslope, terrace, etc.): DEPRESSION Local Relie	ef: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 1				
Subregion (LRR): Middle Atlantic Lat: 41.852107	Long: -72.767831 Datum: NAD83				
Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes	NWI Classification: Not mapped				
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ✓	No Are "Normal" Circumstances present? ☑ Yes ☐ No				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No				
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important features, etc.				
Hydrophytic Vegetation Present?					
Hydric Soil Present?	Is the Sampled Area				
Wetland Hydrology Present?					
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) ☐ Aquatic Fauna (B13)					
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 alo	ng Living Roots (C3) Saturation Visible on Aerial imagery (C9)				
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	on (C4) Stunted or Stressed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in T	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 Present?	Wetland Hydrology Present?				
Saturation Present?	☑ Yes □ No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, prev	ious inspections), if available):				
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name	% Cover Dominant Indicator Status				
Tota	al Cover:				



Providence, Ri 02904				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:	ļ		I
Herb Stratum				
Plot Size: 5	T.		i	1
Scientific Name		% Cover	Dominant	Indicator Status
Onoclea sensibilis Phalaris arundinacea		10 90	NO YES	FACW FACW
Trialans arunumacea	Total Cover:	100	123	TAGW
Woody Vine Stratum	Total Covol.	100		
Plot Size: 30				
	1			1
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	lay Warkshoot		
	Total % Cover of		Multiply by	
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)			Multiply by:	
Total Number of Dominant	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Species Across All Strata: 1 (B)	FACW Species:		x 2 = <u>200</u>	
Percent of Dominant Species	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:		x 4 = <u>0</u>	
	UPL Species:	<u>0</u>	x 5 = 0	
	Column Totals:	<u>100 (A)</u>	<u>200 (B)</u>	
	F	Prevalence Index =	= B/A = 2.00	
Hydrophytic Vegetation Indicators:				
✓ 1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%				
✓ 3 - Prevalence Index is ≤ 3.0				
4 - Morphological Adaptations¹ (Provide supporting	Hydrophytic V	egetation Presen	nt? ☑ Yes [□ No
data in Remarks or on a separate sheet)	,	ogotumom recom	🖸 103 [_ NO
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



SOIL									
Profile Descrip	tion: (Describe	the de	epth needed to	docum	ent the in	ndicator o	r confirm the abse	nce of indicators.)	
Depth	Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Text	ture	Remarks
0-9	2.5Y 4/1	92	5YR 3/4	8	С	PL	SILT L	OAM	
9-20	5YR 6/1	85	10YR 4/6	15	С	М	FINE SAN	DY LOAM	
Type: C=Cond	centration, D=De	pletion	l	Matrix,	CS=Cov	ered Sand	l or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
**	· · · · · · · · · · · · · · · · · · ·	•	o all LRR's, unle						oblematic Hydric Soils³:
☐ Histosol (A			·			•	88) (LRR R,		A10) (LRR K, L, MLRA 149B)
_	pedon (A2)			/ILRA 1		oundo (C	(2.00)	_	Redox (A16) (LRR K, L, R)
☐ Black Hist			П	hin Da	ırk Surface	- (S9) (LR	R R, MLRA 149B)	_	Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)						(LRR K, L)		e (S7) (LRR K, L, M)
	_ayers (A5)		_	-	Gleyed Ma		(LKK K, L)	_	elow Surface (S8) (LRR K, L)
_	-ayers (A3) Below Dark Surfa	ace (Δ1	=	-	d Matrix (I			_	irface (S9) (LRR K, L)
_	k Surface (A12)	~00 (A I		•	Dark Surfa	•		_	ese Masses (F12) (LRR K, L, R)
_	cky Mineral (S1)		_			ice (F6) irface (F7)			oodplain Soils (F12) (LRR K, L, R)
_ ′	eyed Matrix (S4)		_	•	Depressio		,		
☐ Sandy Re			L '	redux i	Depressio	115 (1 0)			(TA6) (MLRA 144A, 145, 149B)
									Material (F21)
	Matrix (S6)	MIDA	\ 440D\						Dark Surface (TF12)
_	ace (S7) (LRR R		·				ess disturbed or prob		in in Remarks)
estrictive Lay	er Present?	\	∕es 🗹 No	□ ∪	Inknown			Hydric Soil Prese	nt? ☑ Yes ☐ No
	er Present?		∕es 🗹 No	<u> </u>	Inknown			Hydric Soil Prese	nt? ☑ Yes ☐ No
Remarks:			Yes ☑ No Aquatic Diversity			nments:		Hydric Soil Prese	nt? ☑ Yes ☐ No
Remarks: Description of I	Habitat Characte	ristics,	Aquatic Diversity			nments:	Isolated Wetland?		nt?
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks:	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		
Remarks: Description of I Wetland Qualit	Habitat Characte y:	ristics,	Aquatic Diversity	or Ge		nments:	Isolated Wetland?		





NORTH



WETLAND DETERMINATION FORM - No	rthcentral an	d Northeast Region					
		_					
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	Transmission	Line Other					
Project/Site: NED Milepost: 42501.4 Co	ounty: Hartfo	ord Date:	11/12/2014				
Applicant/Owner: Kinder Morgan St.	tate: CT	Sampling Point: BL-B-W0	02-UPL				
Investigators: RW JW Quad Name: Avon To	ownship: Bloom	nfield					
Logbook No.: 2014-2 Logbook Pg.: 112 Tract: 27987							
Landform (hillslope, terrace, etc.): SIDESLOPE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 10							
Subregion (LRR): Middle Atlantic Lat: 41.851388 Long: -72.767850 Datum: NAD83							
Soil Map Unit Name: Broadbrook silt loam, 15 to 25 percent slopes NWI Classification: Not mapped							
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If n	o, explain in Remarks.)					
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑	No Are "Norm	al" Circumstances present?	✓ Yes ☐ No				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No						
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations	s, transects, important	teatures, etc.				
Hydrophytic Vegetation Present?	ls the Sar	mpled Area					
Hydric Soil Present? ☐ Yes ☑ No	within a V		No				
Wetland Hydrology Present? ☐ Yes ☑ 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 (B	310)				
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			6)				
☐ Saturation (A3) ☐ Marl Deposits (B15)		Dry-Season Water T	able (C2)				
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1))	Crayfish Burrows (C	8)				
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres alon	ng 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) ☐ Recent Iron Reduction in Til	lled Soils (C6)	☐ Geomorphic Position	n (D2)				
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)		☐ Shallow Aquitard (Di	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?							
Water Table Present?	Wetlar	nd Hydrology Present?					
Saturation Present?			Yes ☑ No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previo	ous inspections), if a	available):					
	. ,,	,					
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name	% C	over Dominant	Indicator Status				
Carya ovata	1		FACU				
Prunus serotina Quercus rubra	2 2		FACU FACU				
Fagus grandifolia	1		FACU				
Total	l Cover: 6	0					



Sapling/Shrub Stratum				
. 5				
Plot Size: 15	1			
Scientific Name		% Cover	Dominant	Indicator Status
Acer saccharum		10	YES	FACU
Fagus grandifolia	T 1 1 0	5	YES	FACU
	Total Cover:	15		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Total Cover:			
	Total Cover.			
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		Multiply by:	
That Are OBL, FACW, or FAC: 0 (A)	OBL Species:			
Total Number of Dominant	•	<u>0</u>	x 1 = <u>0</u>	
Species Across All Strata: 4 (B)	FACW Species		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: 0 (A/B)	FACU Species:	. <u>75</u>	x 4 = 300	
That the oble, interview, or interview	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	75 (A)	300 (B)	
	1	Prevalence Index :	= B/A = 4.00	
Hadaankadia Vanatatian Indiantana				
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	Hydrophytic V	egetation Preser	nt? ☐ Yes ☐	7 No
data in Remarks or on a separate sheet)		_		
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



1 TOVIGETICE, I	11 02004								A CONTRACTOR OF THE PARTY OF TH
SOIL									
Profile Descrip	tion: (Describe	the de	epth needed to	locum	ent the in	dicator o	r confirm the abse	ence of indicators.)	1
Depth	Matrix		Red	dox Fe	atures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Tex	ture	Remarks
0-3	10YR 3/1	100					LO	AM	
3-12	10YR 4/4	100					SII T	LOAM	REFUSAL AT 12 INCHES DUE TO
0 12	10110 1// 1	100					O.E.	207 1111	ROCKS
1Type: C-Con	contration D_D	plotion	PM-Roduced	Motrix		orod Sond	or Coated Grains.	21 continue DL	-Pera Lining M-Metriy
	· · · · · · · · · · · · · · · · · · ·	•					or Coaled Grains.		=Pore Lining, M=Matrix
•	`	cable t	to all LRR's, unle			,			roblematic Hydric Soils ³ :
Histosol (/	A1)			olyval ILRA 1		Surface (S	8) (LRR R,	2 cm Muck ((A10) (LRR K, L, MLRA 149B)
☐ Histic Epip	pedon (A2)				02)			☐ Coast Prairie	e Redox (A16) (LRR K, L, R)
■ Black Hist	ic (A3)		ПΤ	hin Da	rk Surface	e (S9) (LRI	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 I	_ayers (A5)			oamy	Gleyed Ma	atrix (F2)		☐ Polyvalue B	elow Surface (S8) (LRR K, L)
☐ Depleted	Below Dark Surfa	ace (A1	11) 🔲 🗅	eplete	d Matrix (I	F3)		☐ Thin Dark S	urface (S9) (LRR K, L)
☐ Thick Dar	k Surface (A12)		□R	edox l	Dark Surfa	ace (F6)		☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)
☐ Sandy Mu	icky Mineral (S1)			eplete	d Dark Su	ırface (F7)		☐ Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
☐ Sandy Gle	eyed Matrix (S4)		□ R	edox	Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re	dox (S5)							☐ Red Parent	Material (F21)
☐ Stripped N	Matrix (S6)								w Dark Surface (TF12)
	ace (S7) (LRR R	. MLRA	A 149B)						ain in Remarks)
_			·	ology n	nuet ha nr	ecent unla	ess disturbed or pro		,
					•	Coort, ariic	Jos distarbed or pro	biematic.	
Restrictive Lay	er Present?	□ \	Yes ☑ No	п г	Inknown				
								Hydric Soil Prese	ent? ☐ Yes ☑ No
Remarks:									
Description of	Habitat Characte	ristics.	Aquatic Diversity	or Ge	neral Com	nments:			
, , , ,		,	,						
Wetland Qualit	y: High		Moderate	Low			Isolated Wetland	? □ Yes □	No Unknown
Wolland Qualit	,. 🗀g	ш.	viodorato 🛅				iodiated Wotland	00 _	THE CHIMICIAN
General Comm	ents:								





NORTHEAST



WETLAND DETERMINATION FORM - Northcentral and Northeast Region							
│ Centerline	ansmission Line						
Project/Site: NED Milepost: 44767.1 County:	Hartford Date: 11/10/2014						
Applicant/Owner: Kinder Morgan State: C1							
Investigators: RW JW Quad Name: Avon Township:	Bloomfield						
Logbook No.: 2014-2 Logbook Pg.: 94 Tract: 27753							
Landform (hillslope, terrace, etc.): DEPRESSION Local Relief:	Concave Convex None Slope%.: 0						
Subregion (LRR): Middle Atlantic Lat: 41.856189	Long: -72.763084 Datum: NAD83						
Soil Map Unit Name: Wilbraham silt loam NWI Classification: PFO1E							
Are climatic / hydrologic conditions on the site typical for this time of year?:	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 transacts important features atc						
Hydrophytic Vegetation Present?	cations, transects, important reatures, etc.						
	s the Sampled Area						
	vithin a Wetland?						
Wetland Hydrology Present? ✓ Yes No Field Wetland Classification: PFO							
Remarks:							
Ivenidias.							
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)							
✓ Saturation (A3)	□ Dry-Season Water Table (C2)						
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)	☐ 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? ☐ Yes ☑ No Depth (inches):							
Water Table Present? ✓ Yes ☐ No Depth (inches): 16	Wetland Hydrology Present? ✓ Yes □ No						
Saturation Present? ☑ Yes ☐ No Depth (inches): 16 (includes capillary fringe)	_ 100 <u>_</u> 100						
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 Quercus palustris	30 YES FAC 5 NO FACW						
Populus sp	5 NO FACU						
Ulmus rubra Total Cover:	10 YES FAC						
Total Cover.	00						



Providence, RI 02904			- 2	ALCOM
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Alnus incana		5	NO	FACW
Rosa multiflora indera benzoin		20 20	YES YES	FACU FACW
onicera morrowii		2 3	NO NO	FACU UPL
Tuonymus alatus	 Total Cover	50	NO	OPL
	Total Cover.	50		
erb Stratum				
lot Size: 5			ı	ı
cientific Name		% Cover	Dominant	Indicator Status
Solidago gigantea Symplocarpus foetidus		5 10	NO YES	FACW OBL
Carex sp		20	NA	NONE
	Total Cover:	35		
oody Vine Stratum				
lot Size: 30				
cientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Oominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
lumber of Dominant Species	Total % Cover	of:	Multiply by:	
hat Are OBL, FACW, or FAC: 4 (A)	OBL Species:	<u>10</u>	x 1 = <u>10</u>	
otal Number of Dominant	FACW Species	s: <u>35</u>	x 2 = <u>70</u>	
Species Across All Strata: 5 (B)	FAC Species:	<u>40</u>	x 3 = <u>120</u>	
Percent of Dominant Species	FACU Species	: <u>27</u>	x 4 = <u>108</u>	
That Are OBL, FACW, or FAC: 80 (A/B)	UPL Species:	<u>3</u>	x 5 = <u>15</u>	
	Column Totals:		323 (B)	
		Prevalence Index	* *	
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 Prese	ent? ☑ Yes I	□ No
Problematic Hydrophytic Vegetation¹ (Explain)				
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



Providence, F	1 02904													
SOIL														
Profile Descrip	otion: (Describe	the de	epth needed to d	locum	ent the ir	ndicator o	r confirm th	ne absen	ice o	indicators.)				
Depth	Matrix				atures					/				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2		Textu	ure			Rer	marks	
0-10	7.5YR 2.5/1	92	7.5YR 3/4	8	C	PL		SILT LO	ΩΔΜ					
0-10	7.511(2.5/1	92	7.5113/4	0		FL		SILT L	.OAIVI					
10-16	5YR 4/3	90	7.5YR 4/6	10	С	М	SA	NDY CLA	AY L	MAC				
16-20	5YR 4/3	85	5YR 3/4	10	С	М		SANDY	LOA	V				
			2.5Y 5/2 10YR 5/8	3 2	D C	M M								
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced I	Matrix,	CS=Cov	ered Sand	l or Coated	Grains.	2[_ocation: PL=	Pore Linin	g, M=M	atrix	
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, unle	ss otl	nerwise n	oted.)			Ind	cators for Pr	oblematic	Hvdric	Soils ³	:
_						•	0\ /I DD D		_			-		
Histosol (/	•			illRA 1		Suriace (S	8) (LRR R,			2 cm Muck (
	pedon (A2)									Coast Prairie				
☐ Black Hist	` ,						R R, MLRA	149B)		5 cm Mucky				, L, R)
	Sulfide (A4)			oamy	Mucky Mir	neral (F1) ((LRR K, L)			Dark Surface	e (S7) (LRF	₹ K, L, M	i)	
☐ Stratified I	Layers (A5)			oamy	Gleyed Ma	atrix (F2)				Polyvalue Be	elow Surfac	ce (S8) (LRR K	, L)
☐ Depleted	Below Dark Surfa	ace (A1	(1) 🔽 D	eplete	d Matrix (F3)				Thin Dark Su	ırface (S9)	(LRR K	, L)	
▼ Thick Dar	k Surface (A12)		☐ R	edox l	Dark Surfa	ace (F6)				Iron-Mangan	ese Masse	es (F12)	(LRR Ł	(, L, R)
☐ Sandy Mu	ıcky Mineral (S1)			eplete	d Dark Su	ırface (F7)				Piedmont Flo	odplain So	oils (F19) (MLR	A 149B)
☐ Sandy Gle	eyed Matrix (S4)		□ R	edox l	Depressio	ns (F8)				Mesic Spodie	(TA6) (M	LRA 144	A, 145	, 149B)
☐ Sandy Re	dox (S5)									Red Parent I	Material (F	21)		
☐ Stripped N	Matrix (S6)								П	Very Shallow	Dark Surf	ace (TF	12)	
	ace (S7) (LRR R	. MLRA	A 149B)						П	Other (Expla		-	,	
_			and wetland hydro	Joan n	ouat ha ar	ocont unic	oo diaturba	d or prob	_			,		
Restrictive Lay	ver Present?		Yes ☑ No	-	Inknown			1	Hydr	ic Soil Prese	nt? ☑	Yes	_ r	No
Remarks:														
5														
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:								
Wetland Qualit	y: 🗹 High		Moderate	_ow			Isolated V	Vetland?		T Yes	No 🗌	Unkn	own	
General Comm	ents:													
General Comm	ents.													





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WETLAND DETERMINATION FORM -	Northcentral a	and Northeast Regi	on				
☐ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmiss	sion Line					
Project/Site: NED Milepost: 44788.5	County: Ha	rtford Da	ate: 11/10/2014				
Applicant/Owner: Kinder Morgan	State: CT	Sampling Point: BL-B	-W001-PEM				
Investigators: AF CV Quad Name: Avon	Township: Blo	pomfield					
Logbook No.: 2014P2 Logbook Pg.: 39 Tract: 27753	ı						
Landform (hillslope, terrace, etc.): DEPRESSION Local F	elief: 🗹 Conca	ve Convex No	ne Slope%.: 0				
Subregion (LRR): Middle Atlantic Lat: 41.856376	Long:	-72.763265	Datum: NAD83				
Soil Map Unit Name: Wilbraham silt loam NWI Classification: PFO1E							
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes ☐ No((If no, explain in Remarks.)					
Are Vegetation Soil □ or Hydrology □ significantly disturbed?	. — □ No Are "No	ormal" Circumstances present	?				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	☑ No	•					
The vegetation Soil of Hydrology hatdraily problematic:	V NO						
SUMMARY OF FINDINGS - Attach site map showing sampli	g point location	ons, transects, import	ant features, etc.				
Hydrophytic Vegetation Present? ☑ Yes ☐ No							
Hydric Soil Present? ☑ Yes ☐ No	Is the S	Sampled Area a Wetland? ☑ Yes	□ No				
Wetland Hydrology Present? ☑ Yes ☐ No	Within	a Welland.					
Field Wetland Classification: PEM							
Remarks: ROW MOWED							
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indicators	s (2 or more required)				
Primary Indicators (minimum of one required; check all that apply)		☐ Surface Soil Cra	acks (B6)				
☐ Surface Water (A1) ☐ Water-Stained Leaves	39)	Drainage Patter	ns (B10)				
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			s (B16)				
✓ Saturation (A3) ☐ Marl Deposits (B15)		□ Dry-Season Wa	ter Table (C2)				
✓ Water Marks (B1) ☐ Hydrogen Sulfide Odor	C1)	☐ Crayfish Burrow	s (C8)				
☐ Sediment Deposits (B2) ☑ Oxidized Rhizospheres	along Living Roots (C3) Saturation Visib	le on Aerial imagery (C9)				
☐ Drift Deposits (B3) ☐ Presence of Reduced In	on (C4)	☐ Stunted or Stres	ssed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction	Tilled Soils (C6)	☐ Geomorphic Po	, ,				
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)		Shallow Aquitar	•				
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Rema	ks)	☐ Microtopograph	ic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Te	st (D5)				
Field Observations:			_				
Surface Water Present?							
Water Table Present? ☐ Yes ☑ No Depth (inches):	Wet	tland Hydrology Present?	☑ Voc □ No				
Saturation Present?			✓ Yes □ No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, p	evious inspections),	if available):					
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name	%	6 Cover Dominant	Indicator Status				
Quercus palustris		5 YES	FACW				
Ostrya virginiana		1 NO	FACU				
	otal Cover:	6					



1 10VIde1100, 111 02304				to the state of the state of
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	İ	% Cover	Dominant	Indicator Status
Onoclea sensibilis		30	YES	FACW
Carex stricta		30	YES	OBL
Phalaris arundinacea	T-4-LO	20	YES	FACW
W 1 M 2	Total Cover:	80		
Woody Vine Stratum				
Plot Size: 30	1		1	I
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species That Are OBL. FACW. or FAC: 4 (A)	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 4 (A)	OBL Species:	<u>30</u>	x 1 = <u>30</u>	
Total Number of Dominant Species Across All Strata: 5 (B)	FACW Species	: <u>55</u>	x 2 = <u>110</u>	
Species Across All Strata: 5 (B)	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>	
That 740 052, 1707, 01170.	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>91 (A)</u>	<u>164 (B)</u>	
	ı	Prevalence Index :	= B/A = <u>1.80</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	Hydrophytic V	egetation Preser	nt? ☑ Yes □	7 No.
data in Remarks or on a separate sheet)	,	ogetation i recor	🖸 163 🗅	1 110
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



ption: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	confirm the abser	nce of indicators.)	
Matrix		Re	dox Fe	atures				6
Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Text	ure	Remarks
10YR2/1	90	2.5YR3/6	10	С	PL	CLAY I	LOAM	
10YR4/6	80	10YR2/2 2.5YR3/6	15 5	CC	PL PL	SANDY CL	AY LOAM	
centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	rered Sand	or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
dicators: (Appli	cable t	to all LRR's, unle	ess oth	nerwise n	oted.)		Indicators for Pr	oblematic Hydric Soils³:
A1)		□ F	Polyvalı	ue Below	Surface (S	8) (LRR R,	A10) (LRR K, L, MLRA 149B)	
pedon (A2)		N	/ILRA 1	49B)			☐ Coast Prairie	Redox (A16) (LRR K, L, R)
tic (A3)		П 1	hin Da	rk Surface	e (S9) (LRI	R R, MLRA 149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Sulfide (A4)			oamy l	Mucky Mir	neral (F1)	LRR K, L)	☐ Dark Surface	e (S7) (LRR K, L, M)
Layers (A5)			oamy (Gleyed Ma	atrix (F2)		☐ Polyvalue Be	elow Surface (S8) (LRR K, L)
Below Dark Surfa	ace (A1	11) 🔽 🖸	Deplete	d Matrix (F3)		☐ Thin Dark Su	ırface (S9) (LRR K, L)
rk Surface (A12)		□ F	Redox [Dark Surfa	ace (F6)		☐ Iron-Mangan	ese Masses (F12) (LRR K, L, R)
ucky Mineral (S1)			Deplete	d Dark Su	urface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
eyed Matrix (S4)		☐ F	Redox I	Depressio	ns (F8)		☐ Mesic Spodie	c (TA6) (MLRA 144A, 145, 149B)
edox (S5)							☐ Red Parent I	Material (F21)
Matrix (S6)							□ Very Shallow	Dark Surface (TF12)
face (S7) (LRR R	, MLRA	A 149B)					Other (Expla	in in Remarks)
hydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or prob	olematic.	
							nyunc son Frese	nt? ☑ Yes □ No
Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
ty: High	☑ 1	Moderate	Low			Isolated Wetland?	Yes 🗹	No Unknown
nents:								
	Matrix Color (moist) 10YR2/1 10YR4/6 Incentration, D=Decentration, D=Decent	Matrix Color (moist)	Matrix Re Color (moist) % Color (moist) 10YR2/1 90 2.5YR3/6 10YR4/6 80 10YR2/2 2.5YR3/6 Incentration, D=Depletion, RM=Reduced dicators: (Applicable to all LRR's, unlocators: (A3)	Matrix Redox Fe Color (moist) % Color (moist) % 10YR2/1 90 2.5YR3/6 10 10YR4/6 80 10YR2/2 15 2.5YR3/6 5 Incentration, D=Depletion, RM=Reduced Matrix, dicators: (Applicable to all LRR's, unless other (A1)	Matrix Redox Features Color (moist) % Color (moist) % Type¹ 10YR2/1 90 2.5YR3/6 10 C 10YR4/6 80 10YR2/2 15 C 2.5YR3/6 5 C Incentration, D=Depletion, RM=Reduced Matrix, CS=Coverage of Composition (A1)	Matrix Redox Features Color (moist) % Color (moist) % Type¹ Loc² 10YR2/1 90 2.5YR3/6 10 C PL 10YR4/6 80 10YR2/2 15 C PL 2.5YR3/6 5 C PL Incentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand dicators: (Applicable to all LRR's, unless otherwise noted.) (A1) Polyvalue Below Surface (Simulated Matrix (A3) Thin Dark Surface (Simulated Matrix (A3) Company Mucky Mineral (F1) (A3) Company Mucky Mineral (F1) (A4) Company Mucky Mineral (F1) (A4) Company Gleyed Matrix (F2) Company Gleyed Matrix (F3) (F4) Company Gleyed Matrix (F3) (F4) Company Gleyed Matrix (F3) (F4) Company Gleyed Matrix (F4) (F5) (F6) (F7) (F7) (F8) (F8) (F8) (F8) (F8) (F8) (F8) (F8	Matrix Redox Features Color (moist) % Color (moist) % Type¹ Loc² 10YR2/1 90 2.5YR3/6 10 C PL CLAY I 10YR4/6 80 10YR2/2 15 C PL SANDY CL 2.5YR3/6 5 C PL SANDY CL 10YR4/6 80 10YR2/2 15 C PL SANDY CL 2.5YR3/6 5 C PL SANDY CL (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) (A4) Camy Mucky Mineral (F1) (LRR K, L) (A5) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) (A6) Camy Mucky Mineral (F1) (LRR K, L) (A7) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) (A8) Camy Mucky Mineral (F1) (LRR K, L) (A9) Camy Gleyed Matrix (F2) (A9) Camy Gleyed Matrix (F3) (A1) Camy Gleyed Matrix (F3) (A	Color (moist)







WETLAND DETERMINATION FORM - 1	Northcen	ntral and No	rtheast Region				
Centerline Re-Route Access Road Ancillary Facility		ansmission Line	Other				
Project/Site: NED Milepost: 44510.4	County:	Hartford	Date:	11/10/2014			
Applicant/Owner: Kinder Morgan	State: C1		oling Point: BL-B-W00	01-UPL			
Investigators: RW JW Quad Name: Avon	Township:	Bloomfield					
Logbook No.: 2014-2 Logbook Pg.: 94 Tract: 27753							
Landform (hillslope, terrace, etc.):	elief:	Concave 🔽	Convex	Slope%.: 5			
Subregion (LRR): Middle Atlantic Lat: 41.855812 Long: -72.763907 Datum: NAD83							
Soil Map Unit Name: Broadbrook silt loam, 8 to 15 percent slopes NWI Classification: Not mapped							
Are climatic / hydrologic conditions on the site typical for this time of year?:	ĭ Yes □	No (If no, expla	ain in Remarks.)				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed?	✓ No /	Are "Normal" Circ	cumstances present?	✓ Yes ☐ No			
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	√ No						
CUMMARY OF FINDINGS AND I STORY							
SUMMARY OF FINDINGS - Attach site map showing sampling	ig point ic	ocations, trar	nsects, important	teatures, etc.			
Hydrophytic Vegetation Present? ☐ Yes ☑ No	Is	s the Sampled	Area				
Hydric Soil Present? ☐ Yes ☑ No		within a Wetlan	1 1 VAC 1/	No			
Wetland Hydrology Present? Yes V No							
Field Wetland Classification: UPLAND PLOT							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:		<u>S</u>	Secondary Indicators (2 of	or more required)			
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks	(B6)			
☐ Surface Water (A1) ☐ Water-Stained Leaves (Fig. 1)	39)		Drainage Patterns (E	310)			
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			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 a	along Living F	Roots (C3)	Saturation Visible on	Aerial imagery (C9)			
☐ Drift Deposits (B3) ☐ Presence of Reduced Iro	on (C4)		Stunted or Stressed	Plants (D1)			
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	Tilled Soils	(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 Remar	ks)		☐ Microtopographic Re	elief (D4)			
☐ Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D	5)			
Field Observations:							
Surface Water Present?							
Water Table Present? ☐ Yes ☐ No Depth (inches):		Wetland Hvd	rology Present?				
Saturation Present?		•		Yes ☑ No			
· · · · · · · · · · · · · · · · · · ·	evieve != ==	otiona) ifii ! !	-\·				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pr	evious insped	ections), if available	е):				
VEGETATION							
Tree Stratum							
Plot Size: 30							
Scientific Name		% Cover	Dominant	Indicator Status			
Quercus rubra		5	YES	FACU			
Populus sp		3	NO	FACU			
Acer saccharum Prunus serotina		10	YES YES	FACU FACU			
Т	otal Cover:	23	1	ı			



Providence, Ri 02904			- 1	
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	1	% Cover	Dominant	Indicator Status
- Coleman Name		70 Cover	Dominant	indicator Status
	Total Cover:			
Mandy Vina Ctratum	Total Cover.			
Woody Vine Stratum Plot Size: 30				
	1	0/ 0	l Daminant	
Scientific Name		% Cover	Dominant	Indicator Status
	T / 10			
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	Total % Cover of	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>0</u>	x 2 = <u>0</u>	
oposios / toroso / til ottata.	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)	FACU Species:	<u>33</u>	x 4 = <u>132</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	33 (A)	<u>132 (B)</u>	
	F	Prevalence Index :	$= B/A = \underline{4.00}$	
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	Hydronhytic V	egetation Preser	nt? ☐ Yes ☑	7 No
data in Remarks or on a separate sheet)	nyaropnyaro t	ogotation i rocci	🗀 les 🗷	_ NO
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Demorto				
Remarks:				



T TOVIGETICE, I	1 02304								The second second
SOIL									
Profile Descrip	otion: (Describe	the de	epth needed to d	locum	ent the in	dicator o	confirm the abser	nce of indicators.)	
Depth	Matrix		Redox Features				_		D I
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Text	ture	Remarks
0-14	7.5YR 3/3	100					FINE SANI	DY LOAM	
14-20	7.5YR 3/4	100					FINE SANI	DY LOAM	
¹Type: C=Cond	L centration D=De	enletion	RM=Reduced	Matrix	CS=Cov	ered Sand	or Coated Grains.	²l ocation: Pl =	 =Pore Lining, M=Matrix
	· · · · · · · · · · · · · · · · · · ·	•	•				or obtained ortaine.		
-		cable t	o all LRR's, unle			-	0) (1 DD D		roblematic Hydric Soils³:
Histosol (A	•			oiyvai ILRA 1		Surrace (S	8) (LRR R,	_	A10) (LRR K, L, MLRA 149B)
	pedon (A2)							_	e Redox (A16) (LRR K, L, R)
☐ Black Hist							R R, MLRA 149B)		Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		· —	-	=	neral (F1) (LRR K, L)	_	e (S7) (LRR K, L, M)
☐ Stratified I	Layers (A5)			oamy	Gleyed Ma	atrix (F2)		☐ Polyvalue Be	elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A1	_		d Matrix (I			☐ Thin Dark Su	urface (S9) (LRR K, L)
☐ Thick Darl	k Surface (A12)		☐ R	edox l	Dark Surfa	ace (F6)		☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)			eplete	d Dark Su	ırface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
☐ Sandy Gle	eyed Matrix (S4)		□ F	edox	Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re	dox (S5)							☐ Red Parent	Material (F21)
☐ Stripped M	Matrix (S6)							□ Very Shallov	v Dark Surface (TF12)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	(149B)					Other (Expla	iin in Remarks)
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or prob	olematic.	
Remarks:								Hydric Soil Prese	nt? ☐ Yes ☑ No
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
Wetland Qualit	y: High		Moderate	Low			Isolated Wetland?	Yes 🗆	No Unknown
General Comm	ents:								





SW



WE.	TLAN	D D	ETER	RMINATION FORM - 1	Northce	entral and I	Northeast Reg	ion	
☑ Centerline ☐ Re-Ro	ute	□ A	cess R	Road		ransmission Lin	e		
Project/Site: NED				Milepost: 45759.4	County:	Hartford	С	Date: 11/11/201	4
Applicant/Owner: Kinder Mor	gan				State:	CT Sa	mpling Point: BL-I	P-W002-PFO	
Investigators: AF CV		Quad	d Name	: Avon	Township	: Bloomfield	b		
Logbook No.: 2014P2	Lo	gbook	Pg.: 4	9 Tract: 27753					
Landform (hillslope, terrace, et	tc.):		PRESS AINAG		elief: 🔽	Concave	Convex N	one Slope%.:	0
Subregion (LRR): Middle	Atlantic	:		Lat: 41.858625		Long: -72	.761542	Datum: NAI	D83
Soil Map Unit Name: Sciti	co, Sha	ker, ar	nd Mayl	oid soils			NWI Classificat	tion: Not ma	pped
Are climatic / hydrologic condit	tions on	the sit	e typica	al for this time of year?:	Yes	☐ No (If no, e	xplain in Remarks.)		
Are Vegetation Soil	or	Hydrol	ogy [significantly disturbed?	☑ No	Are "Normal" (Circumstances preser	nt? ☑ Yes	☐ No
Are Vegetation Soil	— □ or	Hydrol	ogy [naturally problematic?	— ☑ No				
SUMMARY OF FINDIN	_ GS - /	Attac	h site	e map showing samplin	_	locations, t	ransects, impor	tant features	, etc.
Hydrophytic Vegetation Preser	nt?		√ Ye	es 🔲 No					
Hydric Soil Present?			√ Ye	es 🔲 No		Is the Sampl		s □ No	
Wetland Hydrology Present?			ー ☑ Ye	es 🔲 No		within a Wet	iand? —	_	
Field Wetland Classification:	PF	-							
Remarks:									
HYDROLOGY									
Wetland Hydrology Indicator	s:						Secondary Indicato	rs (2 or more requ	<u>iired)</u>
Primary Indicators (minimum c	of one re	equire	t; checl	call that apply)			☐ Surface Soil C	racks (B6)	
☐ Surface Water (A1)				✓ Water-Stained Leaves (B)	39)		□ Drainage Patte	erns (B10)	
☐ High Water Table (A2)				Aquatic Fauna (B13)			☐ Moss Trim Line	es (B16)	
✓ Saturation (A3)				Marl Deposits (B15)			□ Dry-Season W	ater Table (C2)	
					C1)		☐ Crayfish Burro	ws (C8)	
☐ Sediment Deposits (B2)				Oxidized Rhizospheres a	along Livin	g Roots (C3)	☐ Saturation Visi	ble on Aerial imag	ery (C9)
☐ Drift Deposits (B3)				☐ Presence of Reduced Iro	on (C4)		☐ Stunted or Stre	essed Plants (D1)	
☐ Algal Mat or Crust (B4)				☐ Recent Iron Reduction in	Tilled Soi	ls (C6)	☐ Geomorphic P	osition (D2)	
☐ Iron Deposits (B5)				☐ Thin Muck Surface (C7)			☐ Shallow Aquita	ırd (D3)	
☐ Inundation Visible on Aer	ial Imag	ery (B	7)	Other (Explain in Remar	ks)			hic Relief (D4)	
☐ Sparsely Vegetated Cond	cave Su	rface (B8)				☐ FAC-Neutral T	est (D5)	
Field Observations:									
Surface Water Present?	☐ Ye	s 🗹	No	Depth (inches):					
Water Table Present?	▼ Ye	s 🔲	No	Depth (inches): 15		Wetland F	lydrology Present?	-	
Saturation Present? (includes capillary fringe)	√ Ye	s 🔲	No	Depth (inches): 0				☑ Yes □	No
Remarks (Describe Recorded	Data (st	ream ç	jage, m	ionitoring well, aerial photos, pr	evious insp	pections), if avail	able):		



VEGETATION				
Tree Stratum				
Plot Size: 30	1		1	1
Scientific Name		% Cover	Dominant	Indicator Status
Quercus rubra Carpinus caroliniana		10 15	YES YES	FACU FAC
Quercus palustris Ostrya virginiana		20 10	YES YES	FACW FACU
Ostrya virginiana	 Total Cover:	55	TES	FACO
Sapling/Shrub Stratum	Total Gover.			
Plot Size: 15				
Scientific Name	1	% Cover	Dominant	Indicator Status
Lindera benzoin		20	YES	FACW
Lonicera morrowii		10	YES	FACU
Rosa multiflora Berberis thunbergii		5 10	NO YES	FACU FACU
	Total Cover:	45		ı
Herb Stratum				
Plot Size: 5				
Scientific Name	I	% Cover	Dominant	Indicator Status
Carex stricta		25	YES	OBL
Onoclea sensibilis		10	YES	FACW
	Total Cover:	35		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	lex Worksheet:		
Number of Dominant Species	Total % Cover of	of:	Multiply by:	
That Are OBL, FACW, or FAC: 5 (A)	OBL Species:	<u>25</u>	x 1 = <u>25</u>	
Total Number of Dominant Species Across All Strata: 9 (B)	FACW Species	<u>50</u>	x 2 = <u>100</u>	
Species Across All Strata: 9 (B)	FAC Species:	<u>15</u>	x 3 = <u>45</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 56 (A/B)	FACU Species:	<u>45</u>	x 4 = <u>180</u>	
That Ale OBE, I AGW, OF I AG.	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>135 (A)</u>	350 (B)	
	F	Prevalence Index	x = B/A = 2.59	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
2 - Dominance Test is > 50%				
2 - Dominance Test is > 50%3 - Prevalence Index is ≤ 3.0	Hydronhytic V	agetation Press	ont? ☑ Voc □	□ No
2 - Dominance Test is > 50%3 - Prevalence Index is ≤ 3.0	Hydrophytic V	egetation Prese	ent? ☑ Yes [□ No
 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting 	Hydrophytic V	egetation Prese	ent? ☑ Yes [□ No
 ✓ 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 Prese	ent? ☑ Yes [□ No
 ✓ 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 Prese	ent? ☑ Yes [□ No



Providence, F	KI 02904								
SOIL									
Profile Descrip	otion: (Describe	the de	epth needed to	docum	ent the ir	ndicator o	r confirm the ab	sence of indicators.	
Depth	Matrix		-		atures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Т	exture	Remarks
0-1	7.5YR2.5/1	100	Color (molety	- , ,	.,,,,		05	RGANIC	
0-1	7.51K2.5/1	100					l Or	RGAINIC	
1-18	7.5YR2.5/3	70	2.5YR3/6 2.5YR6/8	20 10	D C	PL M	SILTY	CLAY LOAM	
¹ Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated Grains	s. ² Location: PL:	=Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Appli	cable t	o all LRR's, unle	ess otl	nerwise n	oted.)		Indicators for P	roblematic Hydric Soils³:
Histosol (A	A1)					Surface (S	88) (LRR R,	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
☐ Histic Epi	pedon (A2)		N	/ILRA 1	149B)			☐ Coast Prairi	e Redox (A16) (LRR K, L, R)
■ Black Hist	tic (A3)		П	hin Da	ırk 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)			-	Gleyed Ma			☐ Polyvalue B	elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A1	_	-	d Matrix (urface (S9) (LRR K, L)
	k Surface (A12)	`	_	•	Dark Surfa	•			nese Masses (F12) (LRR K, L, R)
	ıcky Mineral (S1))	_			urface (F7)		_	oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)			-	Depressio				ic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re					2 op. 000.0	(. 0)		_	Material (F21)
Ξ ΄	Matrix (S6)								w Dark Surface (TF12)
		MID/	\ 140P\						
_	ace (S7) (LRR R		·				ess disturbed or p		ain in Remarks)
Remarks:									
REFUSAL AT	18" DUE TO STO	ONE							
Description of	Habitat Characte	ristics.	Aquatic Diversity	or Ge	neral Con	nments:			
		,	,,,,,,						
Wetland Qualit	ty: High	7 1	Moderate	Low			Isolated Wetlar	nd? ☐ Yes 🗹	No 🔲 Unknown
General Comm	ients:								





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WE	TLAN	D DET	ERM	IINATI	ION FORM	- Northce	entral a	nd No	rtheast F	Region		
Centerline Re-R	oute [] Acce	ss Roa		-	<u> </u>	Fransmissi		☐ Other			
Project/Site: NED			N	/lilepost:	45954.3	County:		tford		Date:	11/11/201	14
Applicant/Owner: Kinder Mo	organ					State:	СТ		oling Point:	BL-P-W0	02-PEM	
Investigators: RW JW		Quad N	ame: A	Avon		Township	: Bloc	omfield				
Logbook No.: 2014-2	Log	book Pg	ı.: 104		Tract: 27753	3						
Landform (hillslope, terrace,	etc.):	DEPR	ESSIO	N	Local	Relief: ✓	Concav	/e □	Convex [None	Slope%.:	0
Subregion (LRR): Middl	e Atlantic			Lat	t: 41.859146		Long:	-72.76	1352		Datum: NA	D83
Soil Map Unit Name: Sc	itico, Shak	er, and I	Maybid	soils					NWI Class	sification:	Not ma	apped
Are climatic / hydrologic cond	litions on t	he site ty	pical fo	or this tim	ne of year?:	✓ Yes	☐ No (If	f no, expl	ain in Remarl	(s.)		
Are Vegetation ✓ Soil	□ or F	lydrology	/ П	significa	antly disturbed?	□ No	Are "Nor	rmal" Circ	cumstances p	resent?	 ✓ Yes	☐ No
Are Vegetation	or H	lydrolog	/ 🗆	naturally	y problematic?	— ☑ No						
SUMMARY OF FINDI	NGS - A	ttach	site m	nap sh	owing samp	ling point	locatio	ns, trai	nsects, im	portant	t features	, etc.
Hydrophytic Vegetation Pres	ent?	\checkmark	Yes	□ No	0							
Hydric Soil Present?			Yes	□ No	0		Is the Sawithin a	•	1./1	Yes [] No	
Wetland Hydrology Present?			Yes	□ No	0		within a	i vveliai	iu :			
Field Wetland Classification:	PEI	Л										
Remarks: VEG MOV	VED IN RO	DW O										
HYDROLOGY												
Wetland Hydrology Indicate	nrs.							5	Secondary Inc	licators (2	or more requ	uired)
		auirod: o	hock al	l that ann	alv)			Г	☐ Surface S	Soil Cracks	(B6)	
Primary Indicators (minimum	or one re	quireu, c	_		• •	- (DO)				Patterns (. ,	
Surface Water (A1)					er-Stained Leaves	s (B9)				n Lines (B	•	
High Water Table (A2)			L		atic Fauna (B13)						Table (C2)	
Saturation (A3)			L		Deposits (B15)	(04)				Burrows (C		
Water Marks (B1)				_ ·	ogen Sulfide Odo		D	_		·	n Aerial imag	nery (C9)
Sediment Deposits (B2)			<u>v</u>		ized Rhizosphere	-	g Roots (C	,3) - [_		l Plants (D1)	
Drift Deposits (B3)					ence of Reduced		. (00)			hic Positio	` ′	
Algal Mat or Crust (B4)				_	ent Iron Reduction		IS (C6)	_		quitard (D	, ,	
Iron Deposits (B5)		(DZ)		_	Muck Surface (C	•			_	graphic R	•	
Inundation Visible on A	_		. [_ Otnei	r (Explain in Rem	narks)			FAC-Neu	•	` '	
Sparsely Vegetated Co	ncave Sur	ace (B8))					_	_ 17.01400	1141 1051 (1	30)	
Field Observations:												
Surface Water Present?	☐ Yes	√ 1	No E	Depth (inc	ches):							
Water Table Present?	☐ Yes	√ 1	No E	Depth (inc	ches):		Wetl	land Hyd	rology Prese	ent?	_	
Saturation Present? (includes capillary fringe)	☐ Yes	s √ 1	No E	Depth (ind	ches):					✓	Yes □	No
Remarks (Describe Recorded	Data (str	eam gag	e, moni	toring we	ell, aerial photos,	previous insp	pections), i	if availabl	le):			
VEGETATION												
Tree Stratum												
Plot Size: 30												
Scientific Name							%	Cover	Dom	inant	Indicate	or Status
						Total Cover	:		1		1	



1 TOVIGOTICO, TAT 02304				the second second
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Phalaris arundinacea		85	YES	FACW
Persicaria sagittata Cornus alba		2 3	NO NO	OBL FACW
Phragmites australis		5	NO	FACW
Carex stricta	Total Cover:	5 100	NO	OBL
Woody Vine Stratum	Total Cover.	100		
Plot Size: 30				
Scientific Name	ı	% Cover	Dominant	Indicator Status
Scientific (Name		76 COVEI	Dominant	Indicator Status
	Total Cover:	I		
Danimana Tart Wadahart		dex Worksheet:		
Dominance Test Worksheet:	Total % Cover		Multiply by	
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)			Multiply by:	
Total Number of Dominant	OBL Species: FACW Species	<u>7</u> s: <u>93</u>	$x 1 = \frac{7}{}$ x 2 = 186	
Species Across All Strata: 1 (B)	FAC Species:	o. <u>95</u> <u>0</u>	x 3 = 0	
Percent of Dominant Species	FACU Species:		x 4 = 0	
That Are OBL, FACW, or FAC: 100 (A/B)	UPL Species:	. <u>v</u> <u>0</u>	$x = \underline{0}$ $x = \underline{0}$	
	Column Totals:		193 (B)	
		Prevalence Index =	, ,	
Undershirtie Vandation Indicators		r revalence index =	. D/A = 1.95	
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	t? ☑ Yes □] No
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				
Remains.				



Providence, F	KI 02904								
SOIL									
Profile Descrip	otion: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	r confirm the ab	sence of indicators.)	1
Depth	Matrix			dox Fe					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	1	Texture	Remarks
0-7	7.5YR 3/2	92	7.5YR 3/4	8	С	PL	SIL	LT LOAM	
7-20	5YR 4/2	90	7.5YR 4/6	10	С	М	FINE S	SANDY LOAM	
¹Type: C=Cond	L centration, D=De	l epletior	l n, RM=Reduced	Matrix,	CS=Cov	ered Sand	lor Coated Grain	ns. ² Location: PL:	L =Pore Lining, M=Matrix
			o all LRR's, unle						roblematic Hydric Soils ³ :
Histosol (-	8) (LRR R,		(A10) (LRR K, L, MLRA 149B)
= `	pedon (A2)			/ILRA 1		ounace (e	o) (ERREIK,		e Redox (A16) (LRR K, L, R)
☐ Histic Epip☐ Black Hist			Пт	hin Da	ırk Surfacı	e (S0) (I P	R R, MLRA 149B		Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)								e (S7) (LRR K, L, M)
	Layers (A5)		Ξ.	-	Gleyed Ma		(LRR K, L)	_	
	Layers (A5) Below Dark Surfa	ace /^	_	•	d Matrix (` ,			elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L)
	k Surface (A12)	ACE (A	_			·		_	
_	ıcky Mineral (S1)		_		Dark Surfa	urface (F7)			nese Masses (F12) (LRR K, L, R)
	eyed Matrix (S4)								oodplain Soils (F19) (MLRA 149B)
	-		Ц,	(edox i	Depressio	iiis (Fo)			ic (TA6) (MLRA 144A, 145, 149B)
	* *								Material (F21)
	Matrix (S6)	MID	\ 440D\						w Dark Surface (TF12)
	ace (S7) (LRR R		and wetland hydro					_	ain in Remarks)
Restrictive Lay					Inknown	-		•	
Danada								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 Wetla	and? ☐ Yes ☑	No Unknown
General Comm	ente:								
General Comm	ients:								





SOUTH



WETLAND DETERMINATION FORM - North	central and Northeast Region
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐	Transmission Line
Project/Site: NED Milepost: 45667.4 Count	y: Hartford Date: 11/11/2014
Applicant/Owner: Kinder Morgan State:	CT Sampling Point: BL-P-W002-UPL
Investigators: RW JW Quad Name: Avon Towns	ship: 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?:	☐ No (If no, explain in Remarks.)
Are Vegetation ✓ Soil or Hydrology significantly disturbed? N	Are "Normal" Circumstances present?
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No	
SUMMARY OF FINDINGS - Attach site map showing sampling po	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? ☐ Yes ☑ No	
Hydric Soil Present?	Is the Sampled Area □ Yes ☑ No within a Wetland?
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) ☐ 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 L	iving 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 Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☐ Yes ☑ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous	nspections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Total Co	ver:



Providence, Ri 02904			- 1	
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:	l	l	
11.1.0				
Herb Stratum				
Plot Size: 5	1		ı	I
Scientific Name		% Cover	Dominant	Indicator Status
Galium mollugo Phleum pratense		30 60	YES YES	FACU FACU
Rosa multiflora		10	NO NO	FACU
	Total Cover:	100		'
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
- Colonial Maria		70 00101	Dominant	maioator Otatuo
	Total Cover:		I	I
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	Total % Cover of	of:	Multiply by:	
That Are OBL, I ACW, OF I AC.	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 2 (B)	FACW Species:	<u>0</u>	x 2 = <u>0</u>	
Species Across All Strata: 2 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)	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:	130 (A)	550 (B)	
	F	Prevalence Index =	= B/A = 4.23	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
2 - Dominance Test is > 50%				
3 - Prevalence Index is ≤ 3.0				
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Preser	nt? ☐ Yes 🗹	☑ No
uata ili Remarks oi on a separate sneet)				
☐ Problematic Hydrophytic Vegetation¹ (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		Red	dox Fe							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ure	Remarks		
0-8	7.5YR 3/2	100					SILT L	.OAM			
8-20	7.5YR 4/6	100					SILT L	.OAM			
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated Grains.	² Location: PL=	=Pore Lining, M=Matrix		
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ess oth	nerwise n	oted.)		Indicators for Pr	roblematic Hydric Soils ³ :		
☐ Histosol (A	1 1)			olyvalı 1LRA 1		Surface (S	8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)		
☐ Histic Epip	pedon (A2)		IV	ILIXA I	430)			☐ Coast Prairie	e Redox (A16) (LRR K, L, R)		
■ Black Hist	ic (A3)		□ ⊺	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 l	Mucky Mir	neral (F1)	(LRR K, L)	☐ Dark Surface	e (S7) (LRR K, L, M)		
	_ayers (A5)		_	oamy	Gleyed Ma	atrix (F2)		☐ Polyvalue Be	elow Surface (S8) (LRR K, L)		
	Below Dark Surfa	ace (A1	_		d Matrix (I	•			urface (S9) (LRR K, L)		
	k Surface (A12)		_		Dark Surfa			_ `	nese Masses (F12) (LRR K, L, R)		
=	icky Mineral (S1)					ırface (F7)			oodplain Soils (F19) (MLRA 149B)		
: _	eyed Matrix (S4)		□ F	Redox I	Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)		
☐ Sandy Re									Material (F21)		
	Matrix (S6)								v Dark Surface (TF12)		
	ace (S7) (LRR R		·						in in Remarks)		
Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pre	esent, unle	ess disturbed or prob	olematic.			
Restrictive Lay	er Present?		Yes 🗹 No	□ u	Inknown			Hydric Soil Prese	ent? ☑ Yes ☐ No		
Remarks:											
Description of	Hahitat Characte	rietice	Aquatic Diversity	or Ga	neral Com	mente:					
2000p		,	riqualio Errorony	0. 00							
Wetland Qualit	y: High		Moderate	Low			Isolated Wetland?	Yes 🗆	No 🔲 Unknown		
General Comm	ents:										





NW



WETLAND DETERMINATION FORM - N	lorthcentral and Northeast Region
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
Project/Site: NED Milepost: 49794.4	County: Hartford Date: 11/15/2014
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-P-W001-PFO
Investigators: AF CV Quad Name: Avon	Township: Bloomfield
Logbook No.: 2014P2 Logbook Pg.: 83 Tract: 27959	
Landform (hillslope, terrace, etc.): VALLEY Local Re	lief: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.868916	Long: -72.756061 Datum: NAD83
Soil Map Unit Name: Scitico, Shaker, and Maybid soils	NWI Classification: PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? [No Are "Normal" Circumstances present?
Are Vegetation	☑ No
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? ✓ Yes ☐ No	<u> </u>
Hydric Soil Present? ☑ Yes ☐ No	Is the Sampled Area
Wetland Hydrology Present? ✓ Yes ☐ No	within a wetiand?
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) ☐ Water-Stained Leaves (B	9) 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 (C	C1) Crayfish Burrows (C8)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres all	long Living Roots (C3) Saturation Visible on Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	n (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 Remark	(S) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?	
Water Table Present? ☑ Yes ☐ No Depth (inches):	Wetland Hydrology Present?
Saturation Present?	☑ Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre	evious inspections), if available):



Providence, RI 02904			- 1	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Ostrya virginiana		15	YES	FACU
Fagus grandifolia Tsuga canadensis		15 5	YES NO	FACU FACU
Pinus strobus Acer rubrum		10 25	NO YES	FACU FAC
	Total Cover:	70	1 .=0	1
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Lindera benzoin		30	YES	FACW
	Total Cover:	30	I	I
Herb Stratum				
Plot Size: 5				
Scientific Name	I	% Cover	Dominant	Indicator Status
Carex comosa		% Cover 10	YES	OBL
Sphagnum sp		25	NA	NONE
Phalaris arundinacea Carex Iupulina		10 20	YES YES	FACW OBL
Onoclea sensibilis		20	YES	FACW
	Total Cover:	85		
Noody Vine Stratum				
Plot Size: 30			1	1
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species	Total % Cover		Multiply by:	
That Are OBL, FACW, or FAC: 6 (A)	OBL Species:	30	x 1 = 30	
Total Number of Dominant	FACW Species		$x = \frac{30}{120}$	
Species Across All Strata: 8 (B)	FAC Species:	. <u>35</u> <u>25</u>	$x 3 = \frac{75}{}$	
Percent of Dominant Species	FACU Species:		x 4 = 180	
That Are OBL, FACW, or FAC: 75 (A/B)	UPL Species:		x 5 = 0	
	Column Totals:		405 (B)	
		Prevalence Index		
Hydrophytic Vogotetion II-diastass		TOVAIGNOE INUEX	- D/N - 2.33	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
2 - Dominance Test is > 50%				
3 - Prevalence Index is ≤ 3.0 4 March belorical Advantational (Possible supportion)		/		
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	Hydrophytic V	egetation Prese	nt? ☑ Yes [」 No
_				
☐ Problematic Hydrophytic Vegetation¹ (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 Redox Features (inches) Color (moist) % Color (moist) % Type! Loc2 Texture Remarks											
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Tex	ture	Remarks		
0-6	5YR2.5/1	100					SILT L	-OAM			
6-20	G;EY2 6/10BG	80	10YR6/8	20	С	М	FINE SAN	DY LOAM			
		•	*				or Coated Grains.		Pore Lining, M=Matrix		
		cable t	o all LRR's, unle						oblematic Hydric Soils³:		
Histosol (A	,			'olyvalı ∕ILRA 1		Surface (S	8) (LRR R,		A10) (LRR K, L, MLRA 149B)		
Histic Epip						(00) (10)		_	Redox (A16) (LRR K, L, R)		
☐ Black Hist							R R, MLRA 149B)		Peat or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)		_	-	-		(LRR K, L)	_	e (S7) (LRR K, L, M)		
	_ayers (A5)	/ ^ 4	_	-	Gleyed Ma				elow Surface (S8) (LRR K, L)		
	Below Dark Surfa	ice (A			d Matrix (I				urface (S9) (LRR K, L)		
	c Surface (A12) cky Mineral (S1)		_		Dark Surfa				ese Masses (F12) (LRR K, L, R)		
	eyed Matrix (S4)		_	•		ırface (F7)			podplain Soils (F19) (MLRA 149B)		
✓ Sandy Gle Sandy Re			□ F	YEUUX I	Depressio	115 (1 0)			C (TA6) (MLRA 144A, 145, 149B)		
☐ Stripped N									Material (F21) Dark Surface (TF12)		
	ace (S7) (LRR R,	MIDA	\ 1/0R)						in in Remarks)		
_			·	ology n	nuct bo pr	ocont unl	ess disturbed or prob		iii iii Kemaney		
							Joe dictarbed of pro-	Siomano.			
Restrictive Lay	er Fresent?	□ `	Yes ☑ No	□ ∪	nknown			Hydric Soil Prese	nt? ☑ Yes ☐ No		
Remarks:							1				
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:					
Wetland Qualit	y: 🗹 High		Moderate	Low			Isolated Wetland?	Yes 🗹	No 🔲 Unknown		
General Comm	ents:										





S



WE	TLA	ND [DET	ERM	IINA ⁻	TIO	N F	ORM -	· North	cer	ntral a	nd N	orth	neast	Re	gion			
☑ Centerline ☐ Re-R	oute		Acces	s Roa	d [⊐ A	ncilla	ry Facility	у 🗆] Tra	ansmissi	on Line] Oth	ner				
Project/Site: NED				N	Milepos	st:	50508	3.2	Count	y:	Har	tford				Date:	11/15/2	2014	
Applicant/Owner: Kinder Mo	organ								State:	C.	Т	Sam	pling	Poin	t: Bl	P-W0	001-PEM		
Investigators: AF CV		Qu	ıad Na	me: A	Avon				Towns	ship:	Bloo	omfield							
Logbook No.: 2014P2	L	Logboo	ok Pg.	: 84			Tract	: 28006											
Landform (hillslope, terrace,	etc.):	N	/EADO	OW				Local	Relief:	V	Concav	′е 🔲	Con	vex		None	Slope%.	: ()
Subregion (LRR): Middl	e Atlan	tic			L	.at:	41.87	0702			Long:	-72.7	5499	5			Datum: I	NAD83	
Soil Map Unit Name: Sci	itico, Sh	naker,	and M	laybid	soils								1	WI CI	assific	ation:	Not	mappe	ed
Are climatic / hydrologic cond	litions o	on the	site ty	pical fo	or this t	ime o	of yea	r?:	√ Yes	Г	1 No (I	f no, exp	olain i	n Rem	arks.)				
Are Vegetation ✓ Soil		or Hydr	roloav	П	sianifi	cantl	v distu	urbed?	No	, –	- Are "No	rmal" Cir	rcum	stances	s pres	ent?	√ Y	es [¬ No
Are Vegetation Soil	_	or Hydr		_	natura				☑ No						•		_		_
SUMMARY OF FINDI	NGS -	· Atta	ıch s	ite m	nap s	how	/ing	sampl	ing poi	int le	ocatio	ns, tra	anse	cts, i	impo	ortan	t featur	es, et	c.
Hydrophytic Vegetation Prese			$\overline{\mathbf{V}}$	Yes		No		-						-	-				
Hydric Soil Present?			_ √	Yes	П	No					s the S	•		ea 🔽	71 Y	es [□No		
Wetland Hydrology Present?			☑	Yes	_	No				٧	vithin a	Wetla	nd?	Ŀ		00 <u>L</u>			
Field Wetland Classification:	F	PEM																	
Remarks: MOWED F																			
	ILLD																		
HYDROLOGY													0		l1!	4 (0			1)
Wetland Hydrology Indicato	ors:													-			or more r	equired	1)
Primary Indicators (minimum	of one	requir	red; ch	neck al	l that a	pply)							_	Surface			. ,		
☐ Surface Water (A1)] Wa	ter-S	taine	d Leaves	(B9)					Draina	ge Pa	tterns ((B10)		
☐ High Water Table (A2)] Aq	uatic	Fauna	a (B13)						Moss T	rim Li	ines (B	16)		
✓ Saturation (A3)] Ma	rl De	posits	(B15)						Dry-Se	ason	Water	Table (C2)	
□ Water Marks (B1)				v	7 Hy	droge	en Sul	fide Odo	r (C1)					Crayfis	h Bur	rows (0	C8)		
☐ Sediment Deposits (B2)					Ox	idized	d Rhiz	osphere	s along Li	iving	Roots (C	(3)		Saturat	tion Vi	isible o	n Aerial in	nagery	(C9)
☐ Drift Deposits (B3)] Pre	esenc	e of F	Reduced	Iron (C4)					Stunte	d or S	tressed	d Plants (E	01)	
☐ Algal Mat or Crust (B4)					Re	cent	Iron R	Reduction	in Tilled	Soils	(C6)			Geomo	rphic	Positio	on (D2)		
☐ Iron Deposits (B5)] Thi	n Mu	ck Su	ırface (C	7)					Shallov	v Aqu	itard (E	03)		
☐ Inundation Visible on A	erial Ima	agery ((B7)		Oth	ner (E	xplair	n in Rem	arks)					Microto	pogra	aphic R	telief (D4)		
☐ Sparsely Vegetated Cor	ncave S	Surface	e (B8)									١		FAC-N	eutral	Test (I	D5)		
Field Observations:																			
Surface Water Present?		Yes [√ N	lo D	Depth (i	inche	s):												
Water Table Present?	V	Yes [□ N	lo [Depth (inche	s):	0			Wet	land Hy	drolo	gy Pre	esent	?			
Saturation Present? (includes capillary fringe)	V	Yes [□ N	lo [Depth (inche	s):	0									Yes	□ N	0
Remarks (Describe Recorded	l Data (stream	n gage	e, moni	toring	well,	aerial	photos,	previous	inspe	ctions),	if availat	ole):						
VEGETATION																			
Tree Stratum																			
Plot Size: 30																			
Scientific Name											%	Cover		D	omina	ınt	India	cator St	tatus
											<u> </u>		\dashv						
									Total Co	ver:	1		- 1				1		



1 100100100, 101 02304				
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	ĺ	% Cover	Dominant	Indicator Status
Persicaria sagittata		10	NO	OBL
Phalaris arundinacea		80	NO	FACW
Typha angustifolia	T	20	YES	OBL
	Total Cover:	110		
Woody Vine Stratum				
Plot Size: 30			ı	I
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species	Total % Cover of	of:	Multiply by:	
That Are OBL, FACW, or FAC: 2 (A)	OBL Species:	<u>40</u>	x 1 = <u>40</u>	
Total Number of Dominant	FACW Species:	<u>80</u>	x 2 = <u>160</u>	
Species Across All Strata: 2 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species	FACU Species:	<u>0</u>	x 4 = <u>0</u>	
That Are OBL, FACW, or FAC: 100 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:		200 (B)	
	_	Prevalence Index =		
H. Lo. J. C. W. et al. J. Parter		Tevalence index -	- <u>1.01</u>	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)	Hydrophytic V	egetation Presen	nt? ☑ Yes 🏻] No
data in Nemarks of on a separate sheet)				
Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



	(1 02004											
SOIL												
Profile Descrip	otion: (Describe	the d	epth needed to	docum	ent the ir	ndicator o	r confirm th	e absen	ce of indicators.)			
Depth	Matrix		Re	edox Fe	atures							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ıre		Rema	arks
0-8	5YR3/2	90	2.5YR3/6	10	D	PL		SILT L	OAM			
8-10	2.5YR4/2	90	2.5YR3/6	10	D	PL		SANDY LOAM				
0.0	2.0		2.0					0,				
10.20	10VP6/4	F0	10YR5/6	20	-	M		SAN	ID.			
10-20	10YR6/4	50	10185/6	20	С	IVI		SAIN	טו			
10-20	2.5YR4/3	20	2.5YR3/6	10	С	М		SANDY	LOAM			
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated (Grains.	² Location: PL=	Pore Linin	g, M=Mat	trix
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, uni	ess oth	nerwise n	oted.)			Indicators for Pr	oblematic	Hydric S	Soils³:
Histosol (A	A1)		П	Polvvalı	ue Below	Surface (S	8) (LRR R,		2 cm Muck (A10) (LRR	K. L. MLF	RA 149B)
= `	pedon (A2)			MLRA 1		04.1400 (0	0) (=,		☐ Coast Prairie			•
	` ,			Thin Do	rle Courfe e	- (CO) (I DI	D D MI DA	1.40D)				
☐ Black Hist	` '						R R, MLRA	149B)	5 cm Mucky		. , .	
	Sulfide (A4)		·	Loamy I	Mucky Mir	neral (F1) ((LRR K, L)		☐ Dark Surface	e (S7) (LRF	₹ K, L, M)	
☐ Stratified	Layers (A5)			Loamy (Gleyed Ma	atrix (F2)			☐ Polyvalue Be	elow Surfac	:е (S8) (LI	RR K, L)
Depleted	Below Dark Surfa	ace (A1	I1) 🗹 I	Deplete	d Matrix (F3)			☐ Thin Dark Su	ırface (S9)	(LRR K, I	_)
☐ Thick Dar	k Surface (A12)			Redox [Dark Surfa	ace (F6)			☐ Iron-Mangan	ese Masse	s (F12) (L	_RR K, L, R)
☐ Sandy Mu	ıcky Mineral (S1))		Deplete	d Dark Su	ırface (F7)			☐ Piedmont Flo	odplain Sc	oils (F19)	(MLRA 149B)
☐ Sandy Gl	eyed Matrix (S4)			Redox [Depressio	ns (F8)				•		A, 145, 149B)
☐ Sandy Re					- 000.0	(. 0)						1, 140, 1400)
									Red Parent I		•	
☐ Stripped I	Matrix (S6)								☐ Very Shallow	Dark Surf	ace (TF12	2)
□ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						☐ Other (Expla	in in Rema	.rks)	
³ Indicators of I	nydrophytic vege	tation a	and wetland hydr	rology m	nust be pr	esent, unle	ess disturbed	d or prob	lematic.			
Restrictive Lay	er Present?		Yes √ No	ΠV	nknown							
•		_		_					Hydric Soil Prese	nt? ✓	Yes [□ No
									riyuric 30ii Frese	iit: [V]	res L	□ No
Remarks:												
Description of	Habitat Characte	ristics,	Aquatic Diversit	y or Ge	neral Con	nments:						
·			·	•								
Wetland Qualit	tv: ☑ High		Moderate	Low			Isolated V	Vetland?	☐ Yes 🗹	No □	Unknov	wn
Welland Quali	ıy. 🔽 riigii	ш'	vioderate 🔟	LOW			isolateu v	veliariu:	☐ les [v]	1NO L	OTIKITO	WII
General Comm	ents:											





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WETLAND DETERMINATION FORM - North	thcentra	al and No	rtheast Region		
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transı	mission Line	Other		
Project/Site: NED Milepost: 46104.7 Cou	inty:	Hartford	Date:	11/10/2014	
Applicant/Owner: Kinder Morgan Stat	te: CT	Samp	ling Point: BL-P-W0	01-UPL	
Investigators: AF CV Quad Name: Avon Tow	nship:	Bloomfield	-	 -	
Logbook No.: 2014P2 Logbook Pg.: 41 Tract: 28776					
Landform (hillslope, terrace, etc.): ROADSIDE Local Relief:	☐ Co	oncave 🗹	Convex None	Slope%.: 5	
Subregion (LRR): Middle Atlantic Lat: 41.859605	Lo	ng: -72.76	1359	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?:	es 🔲 l	No (If no, expl	ain in Remarks.)		
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? 🗹	No Are	"Normal" Circ	cumstances present?	✓ Yes □ No	
	No				
SUMMARY OF FINDINGS - Attach site map showing sampling p	oint loca	ations, trai	nsects, important	features, etc.	
Hydrophytic Vegetation Present? ☐ Yes ☑ No			-		
Hydric Soil Present? ☐ Yes ☑ No	Is th	he Sampled nin a Wetlar	Area ☐ Yes ☑	Ĩ No	
Wetland Hydrology Present? ☐ Yes ☑ No	witr	nin a wetiar	ia? — *** =	•	
Field Wetland Classification: UPLAND PLOT					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		<u>s</u>	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 (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	Living Roc	ots (C3)	Saturation Visible or	n Aerial imagery (C9)	
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C-	4)	☐ Stunted or Stressed Plants (D1)			
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tille	ed Soils (C6	₆₎ [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 (D	05)	
Field Observations:					
Surface Water Present? ☐ Yes ☑ No Depth (inches):					
Water Table Present? ☐ Yes ☑ No Depth (inches):		Wetland Hyd	rology Present?	v = 1	
Saturation Present?			Ц	Yes ☑ No	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previou	is inspectio	ns), if availabl	e):		
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name		% Cover	Dominant	Indicator Status	
Quercus rubra		1	NO	FACU	
Juniperus virginiana Total C	Cover:	20 21	YES	FACU	



1 TOVIGETICE, THE OZOOT				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora		25 2	YES NO	FACU
Lonicera morrowii	Total Cover:	2 27	NO	FACU
	Total Cover.			
Herb Stratum				
Plot Size: 5	1		I.	I
Scientific Name		% Cover	Dominant	Indicator Status
Trifolium pratense Euthamia graminifolia		20 5	YES NO	FACU FAC
Plantago major		10	YES	FACU
Phalaris arundinacea Daucus carota		5 5	NO NO	FACW FACU
	Total Cover:	45	ı	ı
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	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: 0 (A)	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: 4 (B)	FAC Species:	<u>5</u>	x 3 = <u>15</u>	
Percent of Dominant Species That Are OBL FACW or FAC: 0 (A/B)	FACU Species:	<u>83</u>	x 4 = <u>332</u>	
That Are OBL, FACW, or FAC: 0 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	93 (A)	357 (B)	
	1	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	Hydrophytic V	egetation Preser	nt? □ Yes ि	71 No.
data in Remarks or on a separate sheet)	. iyar opiiya o	ogotation i roos.	🗀 163 🖟	_ 110
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



1 TOVIGETICE, I	1 02304													
SOIL														
Profile Descrip	tion: (Describe	the de	epth need	ed to	docum	ent the ir	ndicator o	r confirm t	he abser	nce of indicators.))			
Depth (inches)	Matrix			Re	dox Fe	atures			Tout			Remarks		
(inches)	Color (moist)	%	Color (m	oist)	%	Type ¹	Loc ²		Text	uie		Kei	ııaıKS	
0-12	5YR3/4	100						SANDY LOAM						
¹Type: C=Cond	centration, D=De	epletion	, RM=Red	duced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL:	=Pore Linin	g, M=M	atrix	
Hydric Soil Inc	licators: (Appli	cable t	o all LRR'	s, unle	ess oth	nerwise n	oted.)			Indicators for P	roblematio	Hydric	Soils ³	·:
☐ Black Hist	pedon (A2) sic (A3)			_ ı	∕ILŔA 1 ¹hin Da	49B) rk Surface	e (S9) (LR	8) (LRR R, R R, MLRA		2 cm Muck (Coast Prairi	e Redox (A	16) (LRF eat (S3) (R K, L, (LRR K	R)
	Sulfide (A4)			_	-	-		(LRR K, L)		☐ Dark Surfac			-	
_	Layers (A5)			_	-	Gleyed Ma				Polyvalue B				., L)
_	Below Dark Surfa	ace (A1	1)	_	-	d Matrix (-			☐ Thin Dark S		•		
	k Surface (A12)					Dark Surfa				☐ Iron-Mangar			•	•
	icky Mineral (S1))		_	•		ırface (F7)			Piedmont FI	•			·
_	eyed Matrix (S4)			☐ F	Redox [Depressio	ns (F8)			☐ Mesic Spodi			IA, 145	5, 149B)
☐ Sandy Re										Red Parent		•	4.0	
	Matrix (S6)									☐ Very Shallov			12)	
_	ace (S7) (LRR R		-							Other (Expla	ain in Rema	arks)		
3Indicators of h	nydrophytic vege	tation a	ind wetland	d hydro	ology m	nust be pr	esent, unle	ess disturbe	ed or prob	olematic.				
Restrictive Lay	er Present?	<u> </u>	∕es √	No	<u> </u>	nknown				Hydric Soil Prese	ent?	Yes	V	No
Remarks:														
REFUSAL AT	12" DUE TO STO	ONE												
Description of	Habitat Characte	ristics,	Aquatic Di	versity	or Ge	neral Com	nments:							
Wetland Qualit	y: High		Moderate		Low			Isolated	Wetland?	Yes 🗆	No 🗆] Unkn	own	
General Comm	ents:													
General Comm	ents:													





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WETLAND DETERMINATION FORM - Northcent	WETLAND DETERMINATION FORM - Northcentral and Northeast Region						
	insmission Line						
Project/Site: NED Milepost: 53008.9 County:	Hartford Date: 11/18/2014						
Applicant/Owner: Kinder Morgan State: CT							
Investigators: AF CV Quad Name: Tariffville Township:	Bloomfield						
Logbook No.: 2014P2							
	Concave Convex None Slope%.: 5						
Subregion (LRR): Middle Atlantic Lat: 41.877132	Long: -72.752061 Datum: NAD83						
Soil Map Unit Name: Cheshire fine sandy loam, 3 to 8 percent slopes	NWI Classification: Not mapped						
Are climatic / hydrologic conditions on the site typical for this time of year?: ✓ Yes □	No (If no, explain in Remarks.)						
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑ No A	Are "Normal" Circumstances present?						
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No							
CUMMADY OF FINIDINGS. Attack site man showing compling point le							
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transects, important features, etc.						
Hydrophytic Vegetation Present? ✓ Yes ☐ No	s the Sampled Area						
Hydric Soil Present?	rithin a Wetland? ✓ Yes ☐ No						
Wetland Hydrology Present? ✓ Yes ☐ 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) ☑ Water-Stained Leaves (B9)	☐ Drainage Patterns (B10)						
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)							
✓ 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 R	ng Living Roots (C3) Saturation Visible on Aerial imagery (C9)						
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4)	on (C4) Stunted or Stressed Plants (D1)						
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (a 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)							
□ Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present?	Waller III July Brown						
Water Table Present? ☐ Yes ☑ No Depth (inches): Saturation Present? ☑ Yes ☐ No Depth (inches): 6	Wetland Hydrology Present? ✓ Yes □ No						
Saturation Present? ☑ Yes ☐ No Depth (inches): 6 (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						
Fraxinus pennsylvanica	10 NO FACW						
Acer rubrum Carpinus caroliniana	20 YES FAC 10 NO FAC						
Total Cover:	55						



1 Tovidence, IXI 02004				1 6 1 2 1 1 1 1 1
Sapling/Shrub Stratum				
Plot Size: 15	1		1	
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora Lindera benzoin		15 30	YES YES	FACU FACW
2012011	Total Cover:	45	0	
W 1 0: 4				
Herb Stratum				
Plot Size: 5	1	24.2	1 5	l
Scientific Name		% Cover	Dominant	Indicator Status
Sphagnum sp	T-t-I C	10	NA	NONE
W LV St.	Total Cover:	10		
Woody Vine Stratum				
Plot Size: 30	1		1	l
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	lex Worksheet:		
Number of Dominant Species That Are OBL FACW or FAC: 3 (A)	Total % Cover of	of:	Multiply by:	
That Are OBL, FACW, or FAC: 3 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species	: <u>55</u>	x 2 = <u>110</u>	
Species Across All Strata: 4 (B)	FAC Species:	<u>30</u>	x 3 = <u>90</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)	FACU Species:	<u>15</u>	x 4 = <u>60</u>	
That Are OBL, I AGW, or I Ac.	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	100 (A)	260 (B)	
	F	Prevalence Index	$= B/A = \underline{2.60}$	
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	Hydrophytic V	egetation Prese	nt? ☑ Yes 🗆] No
data in Remarks or on a separate sheet)				-
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



Providence, R	RI 02904											
SOIL												
Profile Descrip	tion: (Describe	the de	epth needed to	docum	ent the ir	ndicator o	r confirm the al	bsenc	e of indicators.)			
Depth	Matrix		Re	dox Fe	atures							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²		Textur	e		Rema	arks
0-8	7.5YR3/2	90	10YR6/8	10	С	М	SI	ILT LO	AM			
8-20	7.5YR4/4	80	10YR6/8 2.5YR3/6	10 10	C D	M PL	SI	ILT LO	AM			
¹Type: C=Cond	centration. D=De	epletion	l n, RM=Reduced	Matrix.	CS=Cov	l /ered Sand	l Lor Coated Grai	ins.	²Location: PL=	Pore Lining	ı. M=Maí	trix
		-	o all LRR's, unle						Indicators for Pi			
		cabic t				-	:0\ /I DD D	_			•	
= :	•			ILRA 1		Surface (S	88) (LRR R,		2 cm Muck (·
_	pedon (A2)			'-:- D-	-l- C	- (CO) (LD	D D MI DA 4401		Coast Prairie			·
☐ Black Hist							R R, MLRA 149I		5 cm Mucky			RR K, L, R)
	Sulfide (A4)		_	-	-		(LRR K, L)		Dark Surface			
	_ayers (A5)		_	-	Gleyed Ma				Polyvalue Be		. , .	
	Below Dark Surfa	ace (A1	_		d Matrix ([Thin Dark Su			
	k Surface (A12)		_		Dark Surfa	` ,		[☐ Iron-Mangar			
	icky Mineral (S1)			eplete	d Dark Su	urface (F7)		[☐ Piedmont Flo	oodplain So	ils (F19)	(MLRA 149B)
_	eyed Matrix (S4)		□ F	Redox I	Depressio	ns (F8)		[c (TA6) (ML	.RA 144A	, 145, 149B)
☐ Sandy Re	dox (S5)							[Red Parent	Material (F2	1)	
☐ Stripped N	Matrix (S6)							[□ Very Shallov	v Dark Surfa	ace (TF12	2)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)					[Other (Expla	in in Remar	ks)	
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unl	ess disturbed or	proble	matic.			
Remarks:								Н	ydric Soil Prese	nt? ☑	Yes [□ No
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:						
Wetland Qualit	y: 🗹 High		Moderate	Low			Isolated Wetla	and?	☐ Yes ☑	No 🗖	Unknov	wn
General Comm	ents:											





NW



WETLAND DETERMINATION FORM - Nort	hcentral and	Northeast Region	1	
	Transmission Li	ine Other		
Project/Site: NED Milepost: 53013.9 Cour	nty: Hartford	Date:	11/18/2014	
Applicant/Owner: Kinder Morgan State		ampling Point: BL-P-W	005-UPL	
Investigators: AF CV Quad Name: Tariffville Town	nship: Bloomfie			
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	2.751866	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?:	s No (If no,	explain in Remarks.)		
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑ 1	lo Are "Normal"	Circumstances present?	☑ Yes ☐ No	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ 1	١o			
CHMMADY OF FINDINGS. Attack site man showing compling to	int locations	transacta impartan	t factures ats	
SUMMARY OF FINDINGS - Attach site map showing sampling po	onit locations,	transects, importan	t leatures, etc.	
Hydrophytic Vegetation Present? ☐ Yes ☑ No	Is the Samp	oled Area	7	
Hydric Soil Present?	within a We		∆ No	
Wetland Hydrology Present? ☐ Yes ☑ 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 Crack	s (B6)	
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9)		□ Drainage Patterns	(B10)	
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			316)	
☐ 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	n (C4) Stunted or Stressed Plants (D1)			
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled	Soils (C6)	☐ Geomorphic Position	on (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:				
	Wotland	Hydrology Present?		
Water Table Present? ☐ Yes ☑ No Depth (inches): Saturation Present? ☐ Yes ☑ No Depth (inches):	vvetiand		Yes ☑ No	
(includes capillary fringe)				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous	s inspections), if ava	ailable):		
VEGETATION				
Tree Stratum Plot Size: 30				
••	0/ 0	Dominant	Indicator Status	
Scientific Name	% Cove		Indicator Status	
Fagus grandifolia Acer saccharum	20 5	YES NO	FACU FACU	
Quercus rubra Pinus strobus	20	YES NO	FACU FACU	
Total C	ı	1		



T TOVIGETICE, THE OZSOT						
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		
Lindera berizoni	Total Cover:	50	140	TAOW		
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 Ind	ex Worksheet:				
Number of Dominant Species	Total % Cover of	of:	Multiply by:			
That Are OBL, FACW, or FAC: 0 (A)	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: 4 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>			
Percent of Dominant Species	FACU Species:	<u>91</u>	x 4 = <u>364</u>			
That Are OBL, FACW, or FAC: 0 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>			
	Column Totals:	96 (A)	374 (B)			
	F	Prevalence Index				
Hadaaahada Vaastadaa la diastaas	<u> </u>	Tovalorico iridox	- <u>5,7</u> (- <u>0.00</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 Present? ☐ Yes ☑ No					
☐ Problematic Hydrophytic Vegetation¹ (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 de	epth needed to d	locum	ent the ir	ndicator o	r confirm t	he absen	ce of indicators.)			
Depth	Matrix		Red	dox Fe	atures							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2		Text	ure		Rei	marks
0-4	10YR2/1	100						ORGA	NIC			
4-8	10YR4/4	100					SANDY LOAM					
40	101114/4	100					S/11/2 / 20/1111					
	10)/51/0	400					SANDY LOAM					
8-20	10YR4/6	100						SANDY	LOAM			
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Linin	g, M=M	latrix
Hydric Soil Inc	dicators: (Appli	cable t	o all LRR's, unle	ss otl	nerwise n	oted.)			Indicators for Pr	oblematio	Hydric	Soils ³ :
☐ Histosol (/	A1)		□Р	olyvalı	ue Below	Surface (S	8) (LRR R,		2 cm Muck (A10) (LRR	K, L, M	LRA 149B)
_ `	pedon (A2)			ILŔA 1		,	, ,		☐ Coast Prairie			•
☐ Black Hist			Пт	hin Da	ırk Surface	- (S9) (I R	R R, MLRA	149R)				(LRR K, L, R)
	Sulfide (A4)		_				(LRR K, L)	1100)	☐ Dark Surface		, ,	
				-	-		(LIXIX IX, L)		_	. , .		•
	Layers (A5)	(^4	_	-	Gleyed Ma				Polyvalue Be		. , ,	•
	Below Dark Surfa	ace (A i	_	•	d Matrix (•			Thin Dark Su		•	
_	k Surface (A12)		_		Dark Surfa	` '			_			(LRR K, L, R)
_	ıcky Mineral (S1))		eplete	d Dark Su	ırface (F7)			☐ Piedmont Flo	oodplain S	ils (F19	9) (MLRA 149B)
☐ Sandy Gle	eyed Matrix (S4)			ledox l	Depressio	ns (F8)				c (TA6) (M	LRA 144	4A, 145, 149B)
☐ Sandy Re	edox (S5)								☐ Red Parent I	Material (F	21)	
☐ Stripped I	Matrix (S6)								□ Very Shallov	v Dark Surf	ace (TF	12)
☐ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Rema	ırks)	
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbe	ed or prob	lematic.			
Restrictive Lay	ver Present?		Yes √ No		Inknown							
ivestrictive Lay	er i resent:	ш	163 🔽 110	_ ~	TIKITOWIT				Uhadaia Cail Bassa	40 🗖		
									Hydric Soil Prese	nt?	Yes	☑ No
Remarks:												
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qualit	ty: 🔲 High		Moderate	Low			Isolated '	Wetland?	☐ Yes ☐	No 🔽	Unkr	iown
	, _		_							_		
General Comm	ents:											





W



WETLAND DETERMINA	TION FORM - N	lorthcer	ntral and N	ortheast Regi	on	
✓ Centerline ☐ Re-Route ☐ Access Road [☐ Ancillary Facility	☐ Tra	ansmission Line	Other		
Project/Site: NED Milepos	st: 57789.2	County:	Hartford	D	ate: 07/24/2015	
Applicant/Owner: Kinder Morgan		State: C	T Sam	pling Point: BL-N	I-W006-PFO	
Investigators: JM JW Quad Name: Windso	or Locks	Township:	Bloomfield			
Logbook No.: 2015-2 Logbook Pg.: 13	Tract: 27942					
Landform (hillslope, terrace, etc.): Depression	Local Re	elief: 🗹	Concave	Convex No	one Slope%.: 0	
Subregion (LRR): Middle Atlantic L	_at: 41.887466		Long: -72.7	42106	Datum: NAD83	
Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percen	t slopes			NWI Classificati	ion: Not mapped	
Are climatic / hydrologic conditions on the site typical for this t	time of year?:	Yes _	No (If no, exp	olain in Remarks.)		
Are Vegetation ☐ Soil ☐ or Hydrology ☐ signifi	icantly disturbed?	√ No	Are "Normal" Ci	rcumstances presen	ıt? ☑ Yes 🔲 No	
Are Vegetation Soil or Hydrology natura	ally problematic? [√ No				
SUMMARY OF FINDINGS - Attach site map s	howing samplin	g point l	ocations, tra	ansects, import	ant features, etc.	
Hydrophytic Vegetation Present? ✓ Yes ☐	No					
Hydric Soil Present? ☑ Yes ☐	No		ls the Sample within a Wetla		i □ No	
Wetland Hydrology Present? ✓ Yes ☐	No					
Field Wetland Classification: PFO						
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indicator	rs (2 or more required)	
Primary Indicators (minimum of one required; check all that a	apply)			☐ Surface Soil Cr	acks (B6)	
☐ Surface Water (A1) ☑ Wa	ater-Stained Leaves (B	39)		□ Drainage Patte	rns (B10)	
☐ High Water Table (A2) ☐ Aq	uatic Fauna (B13)				s (B16)	
☐ Saturation (A3) ☐ Ma	arl Deposits (B15)			☐ Dry-Season Wa	ater Table (C2)	
☐ Water Marks (B1) ☐ Hy	drogen Sulfide Odor (0	C1)		☐ Crayfish Burrow	vs (C8)	
☐ Sediment Deposits (B2) ☐ Ox	idized Rhizospheres a	long Living	Roots (C3)	☐ Saturation Visit	ole on Aerial imagery (C9)	
☐ Drift Deposits (B3) ☐ Pre	esence of Reduced Iro					
☐ Algal Mat or Crust (B4) ☐ Re	cent Iron Reduction in	<u> </u>				
☐ Iron Deposits (B5) ☐ Thi	in Muck Surface (C7)		Shallow Aquitard (D3)			
☐ Inundation Visible on Aerial Imagery (B7) ☐ Oth	her (Explain in Remark	s) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)				✓ FAC-Neutral Te	est (D5)	
Field Observations:						
	inches):					
· `	inches):		Wetland Hy	drology Present?	☑ Yes □ No	
Saturation Present? ☐ Yes ☑ No Depth (includes capillary fringe)	inches):				v ies □ No	
Remarks (Describe Recorded Data (stream gage, monitoring	well, aerial photos, pre	evious inspe	ections), if availa	ole):		
VEGETATION						
Tree Stratum						
Plot Size: 30						
Scientific Name			% Cover	Dominant	Indicator Status	
Acer rubrum			90	YES	FAC	
	To	otal Cover:	90	•	•	



1 Tovidence, IXI 02004				1. 10. 10. 10. 10. 10. 10. 10. 10. 10. 1
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Rosa multiflora		5	NO	FACU
Prunus serotina Viburnum dentatum		10 5	NO NO	FACU FAC
Lindera benzoin		65	YES	FACW
	Total Cover:	85		
Herb Stratum				
Plot Size: 5				
	ı	0/ 0	l 5 · .	1
Scientific Name		% Cover	Dominant	Indicator Status
Impatiens capensis Onoclea sensibilis		5 15	NO YES	FACW FACW
Toxicodendron radicans		15	YES	FAC
	Total Cover:	35		
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:		1	1
Dominance Test Worksheet:	Prevalence Inc	lex Worksheet:		
Number of Dominant Species	Total % Cover		Multiply by:	
That Are OBL, FACW, or FAC: 4 (A)	OBL Species:	<u>0</u>	x 1 = 0	
Total Number of Dominant	FACW Species			
Species Across All Strata: 4 (B)	•			
Percent of Dominant Species	FAC Species:	<u>110</u>	x 3 = <u>330</u>	
That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:		x 4 = <u>60</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	210 (A)	<u>560 (B)</u>	
	F	Prevalence Index =	= B/A = 2.67	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%				
✓ 3 - Prevalence Index is ≤ 3.0				
4 - Morphological Adaptations¹ (Provide supporting	Hydronhytic V	egetation Preser	nt? ☑ Yes [] No
data in Remarks or on a separate sheet)	,	ogotumo	🖭 103 🗜	_ 140
☐ 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	Matrix		Red	dox Fe	atures		Texture					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2			Remarks			
0-8	7.5YR 3/2	100					FINE SAN	DY LOAM				
8-20	7.5YR 5/3	93	7.5YR 3/2 7.5YR 5/6	2 5	υО	M M	SANDY	LOAM				
¹Type: C=Concentration, D=Depletion, RM=Rec				Matrix,	CS=Cov	ered 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	☐ Histosol (A1) ☐ Polyvalue Below Surface (S8) (LRR R, ☐ 2 cm Muck (A10) (LRI						A10) (LRR K, L, MLRA 149B)					
☐ Histic Ep	Histic Epipedon (A2) MLRA 149B) Coas					☐ Coast Prairie	e Redox (A16) (LRR K, L, R)					
☐ Black His	tic (A3)		ПΤ	hin Da	rk Surface	e (S9) (LR	R R, MLRA 149B)	5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)			
☐ Hydroger	Sulfide (A4)			oamy I	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	Below Surface (S8) (LRR K, L)			
☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3) ☐ Thin Dark Surface (S9) (LF								ırface (S9) (LRR K, L)				
☐ Thick Da	rk Surface (A12)		□R	Redox [Dark Surfa	ace (F6)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
☐ Sandy M	ucky Mineral (S1)			eplete	d Dark Su	ırface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)			
☐ Sandy G	eyed Matrix (S4)		□ F	Redox [Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)			
☐ Sandy R	edox (S5)							✓ Red Parent I	Red Parent Material (F21)			
☐ Stripped	Stripped Matrix (S6) Very Shallo							w Dark Surface (TF12)				
☐ Dark Sur	face (S7) (LRR R	, MLRA	A 149B)					Other (Expla	in in Remarks)			
3Indicators of	hydrophytic vege	tation a	and wetland hydro	ology m	nust be pr	esent, unle	ess disturbed or prob	olematic.				
Remarks:								Hydric Soil Prese	nt? ☑ Yes □ No			
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:						
Wetland Qual	ty: High		Moderate ☑	Low			Isolated Wetland?	Yes 🗖	No 🔲 Unknown			
General Comr	nents:											





NORTH



WETLAND DETERMINATION FORM - No	orthcent	ral and No	ortheast Region	Y	
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Tran	smission Line	Other		
Project/Site: NED Milepost: 57746.4 C	County:	Hartford	Date:	07/24/2015	
Applicant/Owner: Kinder Morgan S	State: CT	Samp	oling Point: BL-N-W	006-PEM	
Investigators: JM JW Quad Name: Windsor Locks T	ownship:	Bloomfield			
Logbook No.: 2015-2 Logbook Pg.: 12 Tract: 27942				_	
Landform (hillslope, terrace, etc.): Flat Local Relie	ef: C	Concave	Convex 🗹 None	Slope%.: 0	
Subregion (LRR): Middle Atlantic Lat: 41.887409	L	.ong: -72.74	2245	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, expl	ain in Remarks.)		
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑	No Ar	re "Normal" Circ	cumstances present?	✓ Yes 🔲 No	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No				
SUMMARY OF FINDINGS - Attach site map showing sampling	noint loc	cations trai	neacte importan	t foatures etc	
	point ioc	Janons, mai	nisects, importan	t reatures, etc.	
	Is	the Sampled	Area 📈 Vac F	7 No.	
Hydric Soil Present?	wit	thin a Wetlar	nd? ☑ Yes [□ No	
Field Wetland Classification: PEM					
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		<u>s</u>	Secondary Indicators (2	or more required)	
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks	s (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	C1) Crayfish Burrows (C8)				
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres alo	along Living Roots (C3) Saturation Visible on Aerial imagery (C9)				
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	on (C4) Stunted or Stressed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in T	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)		5	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 Depth (inches): (includes capillary fringe)			☑	Yes □ No	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previ	ious inspecti	ions), if availabl	le):		
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name		% Cover	Dominant	Indicator Status	
Acer rubrum		10	YES	FAC	
Tota	al Cover:	10	ı	1	



Providence, Rt 02904					
Sapling/Shrub Stratum					
Plot Size: 15					
Scientific Name		% Cover	Dominant	Indicator Status	
	Total Cover:	I			
	Total Gover.				
Herb Stratum					
Plot Size: 5					
Scientific Name		% Cover	Dominant	Indicator Status	
Euthamia graminifolia		20	YES	FAC	
Carex lurida Eutrochium purpureum		10 45	NO YES	OBL FAC	
Impatiens capensis		15	NO	FACW	
Eupatorium pilosum		10	NO	FACW	
	Total Cover:	100			
Woody Vine Stratum					
Plot Size: 30					
Scientific Name		% Cover	Dominant	Indicator Status	
	Total Cover:		1	ı	
Dominance Test Worksheet:	Provalence Ind	lex Worksheet			
	Total % Cover of	dex Worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)			Multiply by:		
T. (1) (5)	OBL Species:	<u>10</u>	x 1 = <u>10</u>		
Total Number of Dominant Species Across All Strata: 3 (B)	FACW Species:		x 2 = <u>50</u>		
	FAC Species:	<u>75</u>	x 3 = 225		
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:	<u>0</u>	x 4 = 0		
	UPL Species:	<u>0</u>	x 5 = 0		
	Column Totals:	<u>110 (A)</u>	285 (B)		
	F	Prevalence Index =	= B/A = <u>2.59</u>		
Hydrophytic Vegetation Indicators:					
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 Present? ✓ Yes ☐ No				
data in Normania of on a separate sheety					
Problematic Hydrophytic Vegetation¹ (Explain)					
¹ Indicators of hydric soil and wetland hydrology must be					
present, unless disturbed or problematic.					
Remarks:					



T TOVIGETICE, T	11 02004								A CONTRACTOR OF THE CONTRACTOR
SOIL									
Profile Descrip	tion: (Describe	the d	epth needed to	docum	ent the in	ndicator o	r confirm the abse	nce of indicators.)	1
Depth	Matrix		Red	dox Fe	atures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Tex	ture	Remarks
0-12	7.5YR 3/2	100					FINE SAN	IDY LOAM	
12-20	7.5YR 4/2	95	5YR 4/4	5	С	M	FINE SAN	IDV I OAM	
12-20	7.511(4/2	95	311(4/4	3		IVI	I INC SAN	IDT LOAW	
		L							
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated Grains.	² Location: PL=	=Pore Lining, M=Matrix
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ess oth	nerwise n	oted.)		Indicators for P	roblematic Hydric Soils³:
☐ Histosol (A	A1)					Surface (S	8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Histic Epip	pedon (A2)		IV.	ILRA 1	149B)			☐ Coast Prairie	e Redox (A16) (LRR K, L, R)
■ Black Hist	ic (A3)		ПΤ	hin Da	rk Surface	e (S9) (LRI	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 I	_ayers (A5)		-	-	Gleyed Ma			☐ Polyvalue B	elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A1	–	•	d Matrix (I	` ,			urface (S9) (LRR K, L)
	k Surface (A12)		· —	-	Dark Surfa	-			nese Masses (F12) (LRR K, L, R)
_	icky Mineral (S1)		_			urface (F7)			oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		_			, ,			
	. ,		□ ʰ	CUUX I	Depressio	110 (FO)			c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re								_	Material (F21)
	Matrix (S6)							_ '	v Dark Surface (TF12)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)					☐ Other (Expla	ain in Remarks)
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or pro	blematic.	
Remarks:									
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
Wetland Qualit	y: 🔲 High	י ם	Moderate 🗹	Low			Isolated Wetland	? ☑ Yes 🗖	No 🔲 Unknown
General Comm	ents:								





NORTH



WETLAND DETERMINATION FORM - N	lorthcen	tral and No	ortheast Region	1
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Tra	ansmission Line	☐ Other	
Project/Site: NED Milepost: 57923.6	County:	Hartford	Date:	07/24/2015
Applicant/Owner: Kinder Morgan	State: CT	T Sam	oling Point: BL-N-W	006-UPL
Investigators: JM JW Quad Name: Windsor Locks	Township:	Bloomfield		 -
Logbook No.: 2015-2 Logbook Pg.: 10 Tract: 27942				
Landform (hillslope, terrace, etc.): Flat Local Rel	lief:	Concave \square	Convex None	Slope%.: 0
Subregion (LRR): Middle Atlantic Lat: 41.887727		Long: -72.74	1749	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	lain in Remarks.)	
Are Vegetation Soil or Hydrology significantly disturbed?		Are "Normal" Cir	cumstances present?	✓ Yes □ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	_			
SUMMARY OF FINDINGS - Attach site map showing sampling	n noint la	ocations tra	nsects importan	t features etc
Hydrophytic Vegetation Present? ✓ Yes ☐ No	g point io	Journollo, tru	nocoto, importan	
Hydric Soil Present?	Is	s the Sampled	I Area ☐ Yes ⓑ	7 No
Wetland Hydrology Present? ☐ Yes ☑ No	w	vithin a Wetlaı	nd? Lifes E	<u>ı</u> NO
Field Wetland Classification: UPLAND PLOT				
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		<u> </u>	Secondary Indicators (2	or more required)
Primary Indicators (minimum of one required; check all that apply)		[Surface Soil Crack	s (B6)
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9	9)	[☐ Drainage Patterns	(B10)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)		[Moss Trim Lines (E	316)
☐ Saturation (A3) ☐ Marl Deposits (B15)		[☐ Dry-Season Water	Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C	21)	[Crayfish Burrows (C8)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres all	long Living F	Roots (C3)	Saturation Visible of	on Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	n (C4)	[Stunted or Stresse	d Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	Tilled Soils ((C6)	Geomorphic Position	
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)		[Shallow Aquitard (I	03)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks	s)	[Microtopographic F	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 Hyd	drology Present?	
Saturation Present?			L	Yes ☑ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre-	vious inspec	ctions), if availab	le):	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Acer rubrum		50	YES	FAC
То	tal Cover:	50		



Providence, Ri 02904				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Acer rubrum Lindera benzoin		10 45	NO YES	FAC FACW
Endord Delizoni	Total Cover:	55	120	17.000
Herb Stratum				
Plot Size: 5	I		l -	1
Scientific Name		% Cover	Dominant	Indicator Status
Impatiens capensis Lindera benzoin		15 10	YES YES	FACW FACW
Onoclea sensibilis	T	15	YES	FACW
	Total Cover:	40		
Woody Vine Stratum				
Plot Size: 30	1		l	1
Scientific Name		% Cover	Dominant	Indicator Status
	Tetal O			
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind			
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)	Total % Cover of		Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 5 (B)	FACW Species		x 2 = <u>170</u>	
Percent of Dominant Species	FAC Species:	<u>60</u>	x 3 = <u>180</u>	
That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:		x 4 = <u>0</u>	
	UPL Species:	<u>0</u>	x 5 = 0	
	Column Totals:	<u>145 (A)</u>	<u>350 (B)</u>	
	F	Prevalence Index =	= B/A = <u>2.41</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 Presen	it? ☑ Yes [□ No
data in Remarks of on a separate sneet)				
_ 5				
Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:	1			



Depth
Color (moist)
Color (moist)
Color (moist) % Color (moist) % Type Loc FINE SANDY LOAM 8-20 7.5YR 3/2 100 SANDY LOAM 8-20 7.5YR 5/4 97 5YR 4/4 3 C M SANDY LOAM **Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. **Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)
8-20
**Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)
**Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. **Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.)
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1)
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1)
Histosol (A1)
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
□ 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) □ 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 Gleyed Matrix (S4) □ Redox Depressions (F8) □ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) □ Sandy Redox (S5) □ Red Parent Material (F21) □ Very Shallow Dark Surface (TF12) □ Dark Surface (S7) (LRR R, MLRA 149B) □ Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer Present? □ Yes ☑ No □ No Hydric Soil Present? □ Yes ☑ No Proposition of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality: □ High □ Moderate □ Low Isolated Wetland? □ Yes □ No □ Unknown
□ Depleted Below Dark Surface (A11) □ Depleted Matrix (F3) □ Thin Dark Surface (S9) (LRR K, L) □ 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 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) □ Other (Explain in Remarks) □ 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 □ Unknown Hydric Soil Present? □ Yes ☑ No □ Unknown Unknown □ Yes □ No □ Unknown □ Yes □ Yes □ No □ Unknown □ Yes □ Yes □ No □
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) □ Red Parent Material (F21) □ Stripped Matrix (S6) □ Very Shallow Dark Surface (TF12) □ Dark Surface (S7) (LRR R, MLRA 149B) □ Other (Explain in Remarks) □ 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 □ Unknown □ No □ Unkno
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer Present?
Restrictive Layer Present?
Hydric Soil Present?
Wetland Quality: ☐ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☐ No ☐ Unknown
General Comments:





NE



WETLAND DETERMINATION FORM -	Northcentral and Northeast Region
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
Project/Site: NED Milepost: 58544.5	County: Hartford Date: 07/24/2015
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-N-W007-PEM
Investigators: JM JW Quad Name: Windsor Locks	Township: Bloomfield
Logbook No.: 2015-2 Logbook Pg.: 8 Tract: 27942	
Landform (hillslope, terrace, etc.): Depression Local R	elief: 🗹 Concave 🗌 Convex 🔲 None Slope%.: 1
Subregion (LRR): Middle Atlantic Lat: 41.888733	Long: -72.739915 Datum: NAD83
Soil Map Unit Name: Windsor loamy sand, 3 to 8 percent slopes	NWI Classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed?	☑ No Are "Normal" Circumstances present? ☑ Yes □ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	☑ No
SUMMARY OF FINDINGS - Attach site map showing sampling	ng point locations, transects, important features, etc.
Hydrophytic Vegetation Present?	
Hydric Soil Present?	ls the Sampled Area ☑ Yes ☐ No within a Wetland?
Wetland Hydrology Present?	
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)	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 (C3) Saturation Visible on Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced In	on (C4) Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction i	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 Remains	ks) Microtopographic Relief (D4)
☐ Sparsely Vegetated Concave Surface (B8)	✓ FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?	
Water Table Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?
Saturation Present?	✓ Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, page 1)	evious inspections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
	otal Cover:



1 Tovidence, IXI 02004				the second second
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Viburnum dentatum		5	YES	FAC
	Total Cover:	5		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Symplocarpus foetidus		75	YES	OBL
Impatiens capensis		25	YES	FACW
Scirpus cyperinus Onoclea sensibilis		1 5	NO NO	OBL FACW
	Total Cover:	106		I
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			l
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)	Total % Cover	of:	Multiply by:	
That Ale Obl., FACW, or FAC.	OBL Species:	<u>76</u>	x 1 = <u>76</u>	
Total Number of Dominant Species Across All Strata: 3 (B)	FACW Species	: <u>30</u>	x 2 = <u>60</u>	
Spesies / iologo / iii Guatai	FAC Species:	<u>5</u>	x 3 = <u>15</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:	: <u>0</u>	x 4 = <u>0</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>111 (A)</u>	<u>151 (B)</u>	
		Prevalence Index =	B/A = <u>1.36</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	Hydrophytic \	/egetation Presen	t? ☑ Yes [] No
data in Remarks or on a separate sheet)				
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				
Nemans.				



OC!									100000000000000000000000000000000000000
SOIL									
•		the d	·			dicator o	r confirm the a	bsence of indicators.)	
Depth (inches)	Matrix				atures			Texture	Remarks
(11101100)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		TOXICIO	romano
0-2	7.5YR 2.5/1	100					FINE	SANDY LOAM	
2-4	7.5YR 4/1	100					SA	NDY LOAM	
4-20	7.5YR 4/2	95	5YR 4/4	5	С	М	SA	NDY LOAM	
¹Tvpe: C=Cond	L centration. D=De	L epletion	l n, RM=Reduced I	Matrix.	CS=Cov	L ered Sand	or Coated Gra	ins. ² Location: PL=	L =Pore Lining, M=Matrix
•••		•	o all LRR's, unle						roblematic Hydric Soils³:
		ouble t				-	o) / DD D		•
Histosol (/	•			ILRA 1		Surface (S	8) (LRR R,	=	A10) (LRR K, L, MLRA 149B)
	pedon (A2)					(00) (I DI	. D. M. D. 440	<u> </u>	e Redox (A16) (LRR K, L, R)
☐ Black Hist			_				R R, MLRA 149	· = ·	Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)			-	-		(LRR K, L)	_	e (S7) (LRR K, L, M)
	Layers (A5)	/* :	_	-	Gleyed Ma				elow Surface (S8) (LRR K, L)
	Below Dark Surfa	ace (A1	_		d Matrix (I	,		_	urface (S9) (LRR K, L)
_	k Surface (A12)		_		Dark Surfa			=	nese Masses (F12) (LRR K, L, R)
_	icky Mineral (S1)		_			ırface (F7)		☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		□ R	edox I	Depressio	ns (F8)			c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re								☐ Red Parent I	Material (F21)
☐ Stripped N	Matrix (S6)							□ Very Shallow	v Dark Surface (TF12)
□ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)					Other (Expla	in in Remarks)
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	logy n	nust be pr	esent, unle	ess disturbed or	r problematic.	
Restrictive Lay	er Present?		res ☑ No ∣	□ U	nknown				
								Hydric Soil Prese	ent? ☑ Yes ☐ No
Remarks:									
D			A (1 D) 11						
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	iments:			
		_	<u> </u>						
Wetland Qualit	y: 📙 High	Ш	Moderate 🗹	_ow			Isolated Wetl	land? ∐ Yes ☑	No Unknown
General Comm	ents:								





EAST



WETLAND DETERMINATION FORM - No	rthcentral and Northeast Region				
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other				
Project/Site: NED Milepost: 58473.0 Co	ounty: Hartford Date: 07/24/2015				
Applicant/Owner: Kinder Morgan St	ate: CT Sampling Point: BL-N-W007-UPL				
Investigators: JM JW Quad Name: Windsor Locks To	ownship: Bloomfield				
Logbook No.: 2015-2 Logbook Pg.: 9 Tract: 27942					
Landform (hillslope, terrace, etc.): Flat Local Relief	f: Concave Convex Mone Slope%.: 0				
Subregion (LRR): Middle Atlantic Lat: 41.888638	Long: -72.740140 Datum: NAD83				
Soil Map Unit Name: Windsor loamy sand, 3 to 8 percent slopes	NWI Classification: Not mapped				
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑	No Are "Normal" Circumstances present? ☑ Yes ☐ No				
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑	No				
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? ☐ Yes ☑ No	In the Country of Amer				
Hydric Soil Present? ☐ Yes ☑ No	ls the Sampled Area □ Yes ☑ No within a Wetland?				
Wetland Hydrology Present? ☐ Yes ☑ 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) ☐ 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 alor	ng Living Roots (C3) Saturation Visible on Aerial imagery (C9)				
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (on (C4) Stunted or Stressed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Til	lled 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 Present?	Wetland Hydrology Present?				
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☐ Yes ☑ No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous previo	ous inspections), if available):				
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name	% Cover Dominant Indicator Status				
Total	Cover:				



Providence, Ri 02904				
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Onoclea sensibilis		10	NO	FACW
Toxicodendron radicans		15 5	NO NO	FAC FACW
Impatiens capensis Prunus serotina		1	NO NO	FACU
Geum canadense Phalaris arundinacea		10 50	NO YES	FAC FACW
Trada to di di la massa	Total Cover:	91	123	171011
Noody Vine Stratum				
Plot Size: 30				
Scientific Name	I	% Cover	Dominant	Indicator Status
		/0 GOVEI	Dominant	mulcator Status
	 Total Cover:		I	
Dominance Test Worksheet:		lex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)	Total % Cover		Multiply by:	
	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 1 (B)	FACW Species		x 2 = <u>130</u>	
Paraget of Dominant Species	FAC Species:	<u>25</u>	x 3 = <u>75</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species:		x 4 = <u>4</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>91 (A)</u>	<u>209 (B)</u>	
		Prevalence Index	$= B/A = \underline{2.30}$	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%				
4 - Morphological Adaptations¹ (Provide supporting	Hydrophytic \	egetation Prese	nt? 🗌 Yes 🗄	☑ No
data in Remarks or on a separate sheet)				
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



T TOVIGETICE, I	(1 0200+								
SOIL									
Profile Descrip	otion: (Describe	the de	epth needed to	locum	ent the in	ndicator o	confirm the abse	ence of indicators.)	1
Depth	Matrix		Re	dox Fe	atures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	lex	cture	Remarks
0-10	7.5YR 3/2	100					FINE SAN	IDY LOAM	
10-20	7.5YR 5/6	100					FINE SAN	IDY LOAM	
1Typo: C-Cond	contration D-D	nlotion	PM-Poducod	Matrix	CS-Cov	orod Sand	or Coated Grains.	2l ocation: DL	 =Pore Lining, M=Matrix
	· · · · · · · · · · · · · · · · · · ·		-				or Coaled Grains.		
-		cable t	o all LRR's, unle			-			roblematic Hydric Soils ³ :
☐ Histosol (A	A1)			olyval ILRA 1		Surface (S	8) (LRR R,	2 cm Muck ((A10) (LRR K, L, MLRA 149B)
☐ Histic Epip	pedon (A2)				02)			☐ Coast Prairie	e Redox (A16) (LRR K, L, R)
■ Black Hist	ic (A3)		П	hin Da	ark Surface	e (S9) (LRI	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 I	Layers (A5)			oamy	Gleyed Ma	atrix (F2)		□ Polyvalue B	elow Surface (S8) (LRR K, L)
☐ Depleted I	Below Dark Surfa	ace (A1	1) 🔲 🖸	eplete	ed Matrix (I	F3)		☐ Thin Dark S	urface (S9) (LRR K, L)
☐ Thick Darl	k Surface (A12)		□ F	edox l	Dark Surfa	ace (F6)		☐ Iron-Mangar	nese Masses (F12) (LRR K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)			eplete	ed Dark Su	ırface (F7)		☐ Piedmont Fl	oodplain Soils (F19) (MLRA 149B)
☐ Sandy Gle	eyed Matrix (S4)		F	edox	Depressio	ns (F8)		☐ Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re	dox (S5)							_ :	Material (F21)
	Matrix (S6)							_	w Dark Surface (TF12)
	ace (S7) (LRR R	МІРА	140R)					= '	ain in Remarks)
_			•						an in Kemarks)
andicators of r	iyaropriyiic vege	lation a	ind welland nydro	nogy i	nust be pr	esent, unie	ess disturbed or pro	Diemauc.	
Pomorko:								Hydric Soil Prese	ent? ☐ Yes ☑ No
Remarks:									
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
Wetland Qualit	y: High		Moderate	Low			Isolated Wetland	?	No 🔲 Unknown
General Comm	ente:								
General Comm	lerits.								





SW



WETLAND DETERMINATION FORM -	Northcer	ntral and No	rtheast Region	
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Tra	ransmission Line	☐ Other	
Project/Site: NED Milepost: 59582.4	County:	Hartford	Date:	07/24/2015
Applicant/Owner: Kinder Morgan	State: C	Sampl	ing Point: BL-N-W00	03-PFO
Investigators: JM JW Quad Name: Windsor Locks	Township:			
Logbook No.: 2015-2 Logbook Pg.: 4 Tract: 27866				
Landform (hillslope, terrace, etc.): Depression Local F	Relief: 🗹	Concave	Convex None	Slope%.: 1
Subregion (LRR): Middle Atlantic Lat: 41.888665		Long: -72.736	669	Datum: NAD83
Soil Map Unit Name: Saco silt loam			NWI Classification:	PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year?:	√ Yes Γ	■ No (If no, expla	in in Remarks.)	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed?		Are "Normal" Circu	umstances present?	▼ Yes □ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?	✓ No		·	
The vegetation coil of Hydrology hatdraily problematic:	V NO			
SUMMARY OF FINDINGS - Attach site map showing sampli	ng point l	locations, tran	sects, important	features, etc.
Hydrophytic Vegetation Present? ☑ Yes ☐ No				
Hydric Soil Present? ☑ Yes ☐ No	I	Is the Sampled a within a Wetland	Area d? ☑ Yes □	No
Wetland Hydrology Present? ☑ Yes ☐ No	•	within a wettan	u:	
Field Wetland Classification: PFO				
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:		Se	econdary Indicators (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)		Drainage Patterns (E	310)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)			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 (C	8)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres	along Living	Roots (C3)	Saturation Visible on	Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced I	ron (C4)		Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction	in Tilled Soils	s (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 Rema	rks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave Surface (B8)		☑	FAC-Neutral Test (D	5)
Field Observations:				
Surface Water Present?				
Water Table Present? ☑ Yes ☐ No Depth (inches): 8		Wetland Hydr	ology Present?	
Saturation Present? ☑ Yes ☐ No Depth (inches): 0 (includes capillary fringe)			✓	Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, p	revious inspe	ections), if available	e):	
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Quercus rubra		30	YES	FACU
Acer rubrum		15	YES	FAC
	Total Cover:	45		



Rosa multiflora	-				
Scientific Name	nt Size: 15				
10					
Linders benzoin	entific Name		% Cover	Dominant	Indicator Status
Piot Stratum	dera benzoin mamelis virginiana		50 10	YES NO	FACU FACW FACU FACW
Plot Size: 5 Scientific Name		Total Cover:	100	•	
Piot Size: 5 Scientific Name	rh Stratum				
Scientific Name % Cover Dominant Indicator Symplocarpus foetidus 80 YES OE Inpatiens capensis 10 NO FAC Total Cover: 90					
Symplocarpus foetidus		1	% Cover	Dominant	Indicator Status
Total Cover: 90 NO FAC					OBL
Plot Size: 30 Scientific Name				_	FACW
Piot Size: 30 Scientific Name Total Cover: Prevalence Index Worksheet: Total % Cover of: Multiply by: Total % Cover of: Multiply by: OBL Species: 80		Total Cover:	90		
Total Cover:	ody Vine Stratum				
Total Cover: Dominance Test Worksheet: Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL \$ Species: 80	ot Size: 30				
Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4.(A) Total % Cover of: Multiply by: OBL Species: 80 x 1 = 80 FACW Species: 90 x 2 = 180 FACW Species: 15 x 3 = 45 FAC Species: 15 x 3 = 45 FAC Species: 50 x 4 = 200 UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators:	ientific Name		% Cover	Dominant	Indicator Status
Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4.(A) Total % Cover of: Multiply by: OBL Species: 80 x 1 = 80 FACW Species: 90 x 2 = 180 FACW Species: 15 x 3 = 45 FAC Species: 15 x 3 = 45 FAC Species: 50 x 4 = 200 UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators:					
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80		Total Cover:	'	1	1
Number of Dominant Species That Are OBL, FACW, or FAC: 4.(A) Total Number of Dominant Species Across All Strata: 5.(B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Total % Cover of: OBL Species: 80 x 1 = 80 FACW Species: 90 x 2 = 180 FACU Species: 50 x 4 = 200 UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: Hydrophytic Vegetation Present? Yes No	ominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
That Are OBL, FACW, or FAC: 4 (A) OBL Species: 80	Imber of Dominant Species	Total % Cover	of:	Multiply by:	
Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) FACW Species: 90 x 2 = 180 FAC Species: 15 x 3 = 45 FACU Species: 50 x 4 = 200 UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? Yes No No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	at Are OBL, FACW, or FAC: 4 (A)				
Species Across All Strata: 5.(B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrophytic Vegetation □ 2 - Dominance Test is > 50% □ 3 - Prevalence Index is ≤ 3.0 □ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? □ Yes □ No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	otal Number of Dominant			· —	
Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B) FACU Species: 50 x 4 = 200 UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? Yes No No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	pecies Across All Strata: 5 (B)	•			
That Are OBL, FACW, or FAC: UPL Species: 0 x 5 = 0 Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? ✓ Yes No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be		-			
Column Totals: 235 (A) 505 (B) Prevalence Index = B/A = 2.15 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrophytic Vegetation □ 2 - Dominance Test is > 50% □ 3 - Prevalence Index is ≤ 3.0 □ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? ☑ Yes □ No □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	at Are OBL, FACW, or FAC: 80 (A/B)	•			
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				-	
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 Present? ✓ Yes □ No Indicators of hydric soil and wetland hydrology must be 			Prevalence index	. = B/A = <u>2.15</u>	
 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 Present? ✓ Yes No ¹Indicators of hydric soil and wetland hydrology must be 					
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 Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be					
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? Yes No No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	2 - Dominance Test is > 50%				
data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be					
¹Indicators of hydric soil and wetland hydrology must be		Hydrophytic \	egetation Prese	ent? ☑ Yes [□ No
	Problematic Hydrophytic Vegetation¹ (Explain)				
Remarks:	emarks:				



ioviderice, iv	1 02304								
OIL									
rofile Descrip	tion: (Describe	the d	epth needed te	o docum	ent the in	ndicator o	r confirm the abse	nce of indicators.)	
Depth	Matrix		F	Redox Fe	atures				
(inches)	Color (moist)	%	Color (moist)) %	Type ¹	Loc2	Tex	ture	Remarks
0-20	7.5YR 2.5/1	100					ORG	ANIC	
vpe: C=Cond	centration, D=De	pletion	⊥ า. RM=Reduc∈	ed Matrix.	. CS=Cov	l /ered Sand	I or Coated Grains.	² Location: PL=	L—————————————————————————————————————
dric Soil Ind	licators: (Appli	cable t	to all LRR's. u	nless otl	herwise n	noted.)		Indicators for P	roblematic Hydric Soils³:
Histosol (A						•	8) (LRR R,		(A10) (LRR K, L, MLRA 149B)
•	edon (A2)			MLRA 1		- Cuacc (C	(2 ,		e Redox (A16) (LRR K, L, R)
Black Hist			п	Thin Da	ark Surfac	e (S9) (LR	R R, MLRA 149B)		Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)						(LRR K, L)		e (S7) (LRR K, L, M)
	_ayers (A5)			-	Gleyed M		(=, =)		elow Surface (S8) (LRR K, L)
•	Below Dark Surfa	ace (A1	_	-	ed Matrix (urface (S9) (LRR K, L)
•	Surface (A12)	(-	Dark Surfa			_	nese Masses (F12) (LRR K, L, R)
•	cky Mineral (S1)					urface (F7)		_	oodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		Ī	•	Depressio	,		_	ic (TA6) (MLRA 144A, 145, 149B)
Sandy Re					200.000.0	(. 0)		_	Material (F21)
	Matrix (S6)							_	w Dark Surface (TF12)
	ace (S7) (LRR R	. MLRA	A 149B)					_ ′	ain in Remarks)
_			•	drology r	nuet he nr	resent unla	ess disturbed or pro		an minonamo,
etrictivo I av	er Present?		Yes ☑ No	П	Jnknown				
emarks:									
escription of I	Habitat Characte	ristics,	Aquatic Divers	sity or Ge	neral Con	nments:			
etland Qualit	y: High	V I	Moderate	Low			Isolated Wetland	? ☐ Yes 🗹	No Unknown
eneral Comm	ents:								





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WETLAND DETERMINATION FORM - Northcentral and Northeast Region							
☐ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other						
Project/Site: NED Milepost: 59660.6	County: Hartford D	ate: 07/24/2015					
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-N	-W003-UPL					
Investigators: JM JW Quad Name: Windsor Locks	Township: Windsor						
Logbook No.: 2015-2 Logbook Pg.: 5 Tract: 27866							
Landform (hillslope, terrace, etc.): Slope - mid Local F	ief: ☐ Concave ☑ Convex ☐ No	one Slope%.: 3					
Subregion (LRR): Middle Atlantic Lat: 41.888871	Long: -72.736584	Datum: NAD83					
Soil Map Unit Name: Saco silt loam	NWI Classificati	on: 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 presen	t? 🔽 Yes 🔲 No					
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?							
The vegetation coil of Frydrology hatdraily problematic:] 140						
SUMMARY OF FINDINGS - Attach site map showing sampli	point locations, transects, import	ant features, etc.					
Hydrophytic Vegetation Present? ☐ Yes ☑ No							
Hydric Soil Present? ☐ Yes ☑ No	Is the Sampled Area □ Yes within a Wetland?	☑ No					
Wetland Hydrology Present? ☐ Yes ☑ No	within a Wetland:						
Field Wetland Classification: UPLAND PLOT							
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicator	s (2 or more required)					
Primary Indicators (minimum of one required; check all that apply)	☐ Surface Soil Cr	acks (B6)					
Surface Water (A1) Water-Stained Leaves	Drainage Patte	rns (B10)					
High Water Table (A2) Aquatic Fauna (B13)	☐ Moss Trim Line	s (B16)					
Saturation (A3) Marl Deposits (B15)	☐ Dry-Season Wa	ater Table (C2)					
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor	1) Crayfish Burrov	vs (C8)					
Sediment Deposits (B2)	Coturation Visit	ole on Aerial imagery (C9)					
☐ Drift Deposits (B3) ☐ Presence of Reduced I	Chuntad or Chra	ssed Plants (D1)					
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction	Tilled Soils (C6) Geomorphic Po	sition (D2)					
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7	☐ Shallow Aquita	rd (D3)					
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Rema	Microtopograph	ic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)	☐ FAC-Neutral Te	est (D5)					
Field Observations:							
Surface Water Present? Yes No Depth (inches):							
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present?	☐ Yes ☑ No					
Saturation Present? Yes No Depth (inches): (includes capillary fringe)		_ 165 <u>E</u> 140					
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, p	vious inspections), if available):						
VEGETATION							
VEGETATION							
Tree Stratum							
Plot Size: 30	1	1					
Scientific Name	% Cover Dominant	Indicator Status					
Quercus alba Acer saccharum	10 NO 20 YES	FACU FACU					
Carya glabra	30 YES	FACU					
	tal Cover: 60						



Providence, Ri 02904			1	
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Alnus incana		20	YES	FACW
	Total Cover:	20	I	l
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		ı
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Scientific Ivaine		76 COVEI	Dominant	mulcator Status
	Total C			l
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	lex Worksheet:		
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)	Total % Cover of	of:	Multiply by:	
That Ale Obl., FACW, of FAC.	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 4 (B)	FACW Species:	<u>20</u>	x 2 = <u>40</u>	
Species Across All Strata: 4 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL. FACW. or FAC: 25 (A/B)	FACU Species:	<u>150</u>	x 4 = <u>600</u>	
That Are OBL, FACW, or FAC: 25 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>170 (A)</u>	640 (B)	
		Prevalence Index	= B/A = 3.76	
II. Look de Weerstelle II. Person		Tovalorico iridox	- birt - <u>0.10</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	Hydrophytic V	egetation Prese	nt? 🗌 Yes 🛚	∐ No
data in Remarks or on a separate sheet)				
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



T TOVIGETICE, I	(1 0200+								The second second		
SOIL											
Profile Descrip	otion: (Describe	the de	epth needed to	locum	ent the in	dicator o	confirm the abse	nce of indicators.)	1		
Depth	Matrix		Re	dox Fe	atures		_				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Tex	ture	Remarks		
0-6	7.5YR 3/2	100					FINE SAN	IDY LOAM			
6-20	7.5YR 5/6	100					FINE SAN	IDY LOAM			
0 20	7.511(5/6	100					THE OAK	IDT EO/IIVI			
1T 0. 0. 0			DM Dadward	\ 4 = 4 = ¹ = 1	00.0			21 ti DI	Dan Linia M. Matrix		
, , , , , , , , , , , , , , , , , , ,		•	<u>'</u>		<u> </u>		or Coated Grains.		=Pore Lining, M=Matrix		
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ess otl	herwise n	oted.)		Indicators for P	roblematic Hydric Soils³:		
☐ Histosol (A	A1)			olyval 1LRA 1		Surface (S	8) (LRR R,	2 cm Muck ((A10) (LRR K, L, MLRA 149B)		
☐ Histic Epip	pedon (A2)		IV.	ILKA	1496)			☐ Coast Prairie	e Redox (A16) (LRR K, L, R)		
■ Black Hist	ic (A3)		П	hin Da	ark Surface	e (S9) (LRI	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 I	Layers (A5)			oamy	Gleyed Ma	atrix (F2)		Polyvalue Below Surface (S8) (LRR K, L)			
☐ Depleted I	Below Dark Surfa	ace (A1	=	-	ed Matrix (I			☐ Thin Dark Surface (S9) (LRR K, L)			
	k Surface (A12)	,	_		Dark Surfa			☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
_	ıcky Mineral (S1)		_			ırface (F7)			oodplain Soils (F19) (MLRA 149B)		
_	eyed Matrix (S4)		_	•	Depressio	, ,		_	. , , , , , , , , , , , , , , , , , , ,		
			ш .	CUUX	Depressio	113 (1 0)		=	ic (TA6) (MLRA 144A, 145, 149B)		
								_	Material (F21)		
	Matrix (S6)							= ′	w Dark Surface (TF12)		
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	(149B)					☐ Other (Expla	ain in Remarks)		
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or pro	blematic.			
Restrictive Lay	er i resent:	□ \	∕es [∕] No	п г	Jnknown			Hydric Soil Prese	ent? ☐ Yes ☑ No		
Remarks:											
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:					
	_		_						_		
Wetland Qualit	y:	□ N	Moderate	Low			Isolated Wetland	?	No Unknown		
General Comm	ents:										





NW



WETLAND DETERMINATION FORM - Northcentral and Northeast Region								
WEILAND DETERMINATION FORM - Northcentral and Northeast Region								
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐	Transmission Line							
Project/Site: NED Milepost: 60426.8 County.	Hartford Date: 11/20/2014							
Applicant/Owner: Kinder Morgan State:	CT Sampling Point: BL-N-W002-PFO							
Investigators: AF CV Quad Name: Windsor Locks Townsh	nip: Windsor							
Logbook No.: 2014P2 Logbook Pg.: 124 Tract: 27865								
Landform (hillslope, terrace, etc.): DEPRESSION Local Relief:	☑ Concave ☐ Convex ☐ None Slope%.: 10							
Subregion (LRR): Middle Atlantic Lat: 41.891002	Long: -72.736206 Datum: NAD83							
Soil Map Unit Name: Merrimac sandy loam, 3 to 8 percent slopes	NWI Classification: Not mapped							
Are climatic / hydrologic conditions on the site typical for this time of year?:	☐ No (If no, explain in Remarks.)							
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑ No	Are "Normal" Circumstances present? ✓ Yes ✓ N							
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No								
SUMMARY OF FINDINGS - Attach site map showing sampling poir	nt locations, transects, important features, etc.							
Hydrophytic Vegetation Present?	In the Commission Area							
Hydric Soil Present?	Is the Sampled Area							
Wetland Hydrology Present?								
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) ☐ 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 Liv	ing 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 S	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?								
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	spections), if available):							
VEGETATION								
Tree Stratum								
Plot Size: 30								
Scientific Name	% Cover Dominant Indicator Status							
Acer rubrum	20 YES FAC							
Fraxinus americana Quercus rubra	10 YES FACU 15 YES FACU							
Total Cove	er: 45							



Providence, Ri 02904			- 1	
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Lindera benzoin Cornus amomum		30 20	YES YES	FACW FACW
Comus amomum	Total Cover:	50	ILS	TACW
	Total Gover.			
Herb Stratum				
Plot Size: 5	1		ı	ı
Scientific Name		% Cover	Dominant	Indicator Status
Equisetum hyemale Onoclea sensibilis		20 20	YES YES	FAC FACW
	Total Cover:	40	I	l
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
		1	NO	FACU
	Total Cover:	1	I	
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species	Total % Cover of		Multiply by:	
That Are OBL, FACW, or FAC: 5 (A)	OBL Species:	<u>0</u>	x 1 = 0	
Total Number of Dominant	FACW Species:		x 2 = 140	
Species Across All Strata: 7 (B)	FAC Species:	<u>40</u>	x 3 = 120	
Percent of Dominant Species	FACU Species:		x 4 = 104	
That Are OBL, FACW, or FAC: 71 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	136 (A)	364 (B)	
	F	Prevalence Index =	= B/A = 2.68	
Hydrophytic Vegetation Indicators:				
1 - Rapid Test for Hydrophytic Vegetation				
✓ 2 - Dominance Test is > 50%				
✓ 3 - Prevalence Index is ≤ 3.0				
	Hydronbytic V	egetation Preser	nt? ☑ Yes □	1 No
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)	riyaropiiyiic v	egetation Fresei	it: 🔽 fes L] NO
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



Todile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators.) Depth (inches)	TOVIGOTICO, I	11 02307								
Depth	SOIL									
Color (moist)	Profile Descrip	otion: (Describe	the de	epth needed to	docum	ent the ir	ndicator o	confirm the abser	nce of indicators.)	
Color (moist)	Depth	Matrix		Re	dox Fe	atures				
Fype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Coated Grains Co	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. CS=Covered Sand or Caated Grains. CS=Covered Grain Sand or Caated Grains. CS=Covered Grain Sand or Caated Grai	0-6	7.5YR2.5/1	100					SILT L	.OAM	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. CS=Covered Sand or Caated Grains. CS=Covered Grain Sand or Caated Grains. CS=Covered Grain Sand or Caated Grai										
ydric Soll Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)	6-20	7.5YR4/6	100					SANDY	LOAM	
ydric Soll Indicators: (Applicable to all LRR's, unless otherwise noted.) Histosol (A1)										
ydric Soll Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Solls*: Histosol (A1)	Type: C=Cond	L centration, D=De	epletion	l n, RM=Reduced	Matrix,	L CS=Cov	ered Sand	or Coated Grains.	² Location: PL=	Pore Lining, M=Matrix
Histosol (A1)		· · · · · · · · · · · · · · · · · · ·	•	•		-				
Histic Epipedon (A2) Histic Epipedon (A2)	<u>-</u>			•			•	8) (I RR R		-
Black Histic (A3)	_	•					- Curiaco (C	0) (= ,	_	
Hydrogen Sulfide (A4)				П	Γhin Da	ark Surface	e (S9) (LRI	R R. MLRA 149B)	_	
Stratified Layers (A5)								·		
Depleted Below Dark Surface (A11)					-	-				
Thick Dark Surface (A12)			ace (A1		-	-				, , , , , , , , , , , , , , , , , , , ,
Sandy Mucky Mineral (S1)			,	_	•	•	•			
Sandy Gleyed Matrix (S4)	_	, ,)	_						
Sandy Redox (S5)				_					_	
Stripped Matrix (S6)		dox (S5)		_		·	, ,			
Dark Surface (S7) (LRR R, MLRA 149B)	☐ Stripped N	Matrix (S6)							_	
Plandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Bestrictive Layer Present?		ace (S7) (LRR R	, MLR/	A 149B)					☐ Other (Expla	uin in Remarks)
Pestrictive Layer Present?	_			•	ology r	nust he nr	esent unle	ess disturbed or prob		,
Wetland Quality: ☑ High ☐ Moderate ☐ Low Isolated Wetland? ☐ Yes ☑ No ☐ Unknown	Remarks:							l		
	Description of	Habitat Characte	ristics,	Aquatic Diversity	y or Ge	eneral Com	ments:			
Seneral Comments:	Wetland Qualit	y: 🗹 High		Moderate	Low			Isolated Wetland?	Yes 🔽	No Unknown
	Canaral Camm	onto:								
	Jeneral Comm	ienis.								





SE



WETLAND DETERMINATION FORM - N	Northcentral and Northeast Region			
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other			
Project/Site: NED Milepost: 60327.1	County: Hartford Date: 11/20/2014			
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: BL-N-W002-UPL			
Investigators: AF CV Quad Name: Windsor Locks	Township: Windsor			
Logbook No.: 2014P2 Logbook Pg.: 125 Tract: 27865				
Landform (hillslope, terrace, etc.): RIPARIAN DRAINAGE Local Re	elief: Concave C Convex None Slope%.: 0			
Subregion (LRR): Middle Atlantic Lat: 41.890745	Long: -72.736329 Datum: NAD83			
Soil Map Unit Name: Sudbury sandy loam, 0 to 5 percent slopes	NWI Classification: Not mapped			
Are climatic / hydrologic conditions on the site typical for this time of year?:	Yes No (If no, explain in Remarks.)			
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? [✓ No Are "Normal" Circumstances present? ✓ Yes ☐ No			
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? [✓ No			
SUMMARY OF FINDINGS - Attach site map showing samplin	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? ☐ Yes ☑ No	within a Wettanu:			
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 (E	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 a	along Living Roots (C3) Saturation Visible on Aerial imagery (C9)			
☐ Drift Deposits (B3) ☐ Presence of Reduced Iro	on (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 Remark	Microtopographic Relief (D4)			
☐ Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present?				
Water Table Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?			
Saturation Present? ☐ Yes ☑ No Depth (inches): (includes capillary fringe)	☐ Yes ☑ No			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pre	evious inspections), if available):			



Providence, RI 02904				
VEGETATION				
Tree Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
Betula populifolia		10	YES	FAC
Betula papyrifera Pinus strobus		1 20	NO YES	FACU FACU
Quercus alba		10	NO	FACU
Tsuga canadensis Quercus rubra		15 15	NO YES	FACU FACU
	Total Cover:	71		
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Pinus strobus		25	YES	FACU
Lindera benzoin		5	NO	FACW
	Total Cover:	30		
Herb Stratum				
Plot Size: 5				
Scientific Name		% Cover	Dominant	Indicator Status
Dendrolycopodium dendroideum		20	YES	FACU
	Total Cover:	20		1
Noody 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: 1 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant Species Across All Strata: 5 (B)	FACW Species	: <u>5</u>	x 2 = <u>10</u>	
Species Across All Strata: 5 (B)	FAC Species:	<u>10</u>	x 3 = <u>30</u>	
Percent of Dominant Species That Are OBL_FACW_or FAC: 20 (A/B)	FACU Species:	<u>106</u>	x 4 = <u>424</u>	
That Are OBL, FACW, or FAC: 20 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	<u>121 (A)</u>	<u>464 (B)</u>	
		Prevalence Index	= B/A = 3.83	
Hydrophytic Vegetation Indicators:			<u></u>	
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 Prese	nt? 🗌 Yes 🛭	☑ No
☐ Problematic Hydrophytic Vegetation¹ (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				
Depth (inches) Matrix Redox Features Color (moist) % Color (moist) % Type¹ Loc² 0-6 7.5YR3/2 100 SILT LOAM 6-20 7YR4/6 100 SANDY LOAM				
Color (moist) % Color (moist) % Type¹ Loc² Texture Remarks 0-6 7.5YR3/2 100 SILT LOAM SILT LOAM 6-20 7YR4/6 100 SANDY LOAM				
0-6 7.5YR3/2 100 SILT LOAM 6-20 7YR4/6 100 SANDY LOAM				
6-20 7YR4/6 100 SANDY LOAM				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand or Coated Grains. ² Location: PL=Pore Lining, M=Matrix				
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Sand of Coaled Grains.				
Hydric Soil Indicators: (Applicable to all LRR's, unless otherwise noted.) Indicators for Problematic Hydric Soils	! :			
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 1 MLRA 149B)	49B)			
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	(, 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	(, L)			
☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3) ☐ Thin Dark Surface (S9) (LRR K, L)				
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6) ☐ Iron-Manganese Masses (F12) (LRR	= ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			
□ Sandy Mucky Mineral (S1) □ Depleted Dark Surface (F7) □ Piedmont Floodplain Soils (F19) (ML	•			
□ Sandy Gleyed Matrix (S4) □ Redox Depressions (F8) □ Mesic Spodic (TA6) (MLRA 144A, 14	,			
□ Sandy Redox (S5)	-,,			
Stripped Matrix (S6) Stripped Matrix (S6)				
□ Dark Surface (S7) (LRR R, MLRA 149B) □ Other (Explain in Remarks)				
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
Restrictive Layer Present?	No			
Hydric Soil Present? ☐ Yes ☑	140			
Remarks:				
Remarks:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
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Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
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Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				
Remarks: Description of Habitat Characteristics, Aquatic Diversity or General Comments: Wetland Quality:				





SE



WETLAND DETERMINATION FORM -	Northcentral and Northeast Region
☑ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
Project/Site: NED Milepost: 73669.4	County: Hartford Date: 11/21/2014
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: WI-P-W001-PEM
Investigators: AF CV Quad Name: Windsor Locks	Township: Windsor
Logbook No.: 2014P2 Logbook Pg.: 137 Tract: 27835	
Landform (hillslope, terrace, etc.): DEPRESSION Local R	elief: 🗹 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	ng point locations, transects, important features, etc.
Hydrophytic Vegetation Present?	
Hydric Soil Present?	Is the Sampled Area
Wetland Hydrology Present?	
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) ☐ Aquatic Fauna (B13)	
✓ 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 In	on (C4) Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction i	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 Rema	rks) 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 (includes capillary fringe)	☑ Yes □ No
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, p	revious inspections), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
7	otal Cover:



1 Tovidence, IXI 02504				
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 effusus Scirpus cyperinus Carex lupulina	Total Cover:	10 20 15 10 10 20 30 20 25	NO YES NO NO YES YES YES YES	OBL OBL FACW FACW OBL FACW OBL OBL OBL
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: 5 (A)	OBL Species:	<u>115</u>	x 1 = <u>115</u>	
Total Number of Dominant Species Across All Strata: 5 (B)	FACW Species	s: <u>45</u>	x 2 = <u>90</u>	
Species Across All Strata: 5 (B)	FAC Species:	<u>0</u>	x 3 = <u>0</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)	FACU Species	: <u>0</u>	x 4 = <u>0</u>	
	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	160 (A)	<u>205 (B)</u>	
		Prevalence Index =	= B/A = <u>1.28</u>	
Hydrophytic Vegetation Indicators:				
☑ 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	it? ☑ Yes [] No
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Remarks:				



Providence, R	1 02904									
SOIL										
Profile Descrip	tion: (Describe	the de	epth needed to d	docum	ent the ir	ndicator o	r confirm the	absen	ce of indicators.)	
Depth	Matrix		Red	atures		.				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Text	ure	Remarks
0-16	7.5YR 4/2	80	10YR 6/8 2.5YR 4/6	10 10	C D	M PL		LOA	M	LOAM FILL
¹Type: C=Cond	entration, D=De	epletion	n, RM=Reduced I	Matrix,	CS=Cov	ered Sand	l or Coated G	rains.	² Location: PL=	Pore Lining, M=Matrix
Hydric Soil Ind	icators: (Appli	cable t	o all LRR's, unle	ess oth	nerwise n	oted.)			Indicators for Pr	oblematic Hydric Soils³:
☐ Histosol (A	A1)		ПР	olyvalı	ue Below	Surface (S	8) (LRR R,		☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Histic Epip	,			ILŔA 1		(-	-/(/		_ `	e 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										
	Sulfide (A4)		_			neral (F1)		- /		e (S7) (LRR K, L, M)
	ayers (A5)		_	-	Gleyed M		(=, =)			elow Surface (S8) (LRR K, L)
_	Below Dark Surfa	ace (A1	=		d Matrix (_ ′	urface (S9) (LRR K, L)
	Surface (A12)	,			Dark Surfa	•			_	ese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)								podplain Soils (F19) (MLRA 149B)		
_	eyed Matrix (S4)				Depressio				_	c (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)								Red Parent Material (F21)		
☐ Stripped N	Matrix (S6)								_	Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B)									_ ·	in in Remarks)
_			and wetland hydro	ology n	nust he nr	esent unle	ess disturbed	or prob	_	,
Restrictive Lay					nknown					
									Hydric Soil Prese	nt? ☑ Yes ☐ No
Remarks:										
REFUSAL AT1	6" DUE TO STO	NE								
Description of H	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:				
Wetland Qualit	y:		Moderate √	Low			Isolated W	etland?	☐ Yes 🗹	No ☐ Unknown
Welland Quality	y. 🔲 mgm	ш.	vioderate [V]	LOW			isolated W	ctiaria:		No Dimiowii
General Comm	ents:									





SW



WETLAND DETERMINATION FORM - N	lorthcentral and Northeast Region				
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other				
Project/Site: NED Milepost: 73505.4	County: Hartford Date: 11/21/2014				
Applicant/Owner: Kinder Morgan	State: CT Sampling Point: WI-P-W001-UPL				
Investigators: AF CV Quad Name: Windsor Locks	Township: Windsor				
Logbook No.: 2014P2 Logbook Pg.: 138 Tract: 27835					
Landform (hillslope, terrace, etc.): HILLSIDE Local Re	slief: ☐ 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				
CUMMARY OF FINDINGS. Assorbeits many abouting a second in	and the other translation for the other of				
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? ☐ Yes ☑ No	Is the Sampled Area				
Hydric Soil Present? ✓ Yes ☐ No	within a Wetland? ☐ Yes ☑ No				
Wetland Hydrology Present? ✓ Yes No					
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 (E	Drainage Patterns (B10)				
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)					
✓ Saturation (A3)	☐ Dry-Season Water Table (C2)				
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)				
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres a	along Living Roots (C3) Saturation Visible on Aerial imagery (C9)				
☐ Drift Deposits (B3) ☐ Presence of Reduced Iro	(C4) Stunted or Stressed Plants (D1)				
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in	_				
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	Shallow Aquitard (D3)				
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remark	(S) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present?					
Water Table Present? ☐ Yes ☑ No Depth (inches):	Wetland Hydrology Present?				
Saturation Present?	☑ Yes □ No				
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, pro	evious inspections), if available):				
VEGETATION					
Tree Stratum					
Plot Size: 30					
Scientific Name	% Cover Dominant Indicator Status				
Т	otal Cover:				



Sapling/Shrub Stratum	FACU						
Scientific Name % Cover Dominant Rosa multiflora Elaeagnus angustifolia 10 YES YES Total Cover: 30 Herb Stratum Plot Size: 5 Scientific Name % Cover Dominant Phalaris arundinacea Daucus carota Schizachyrium scoparium 5 NO Schizachyrium scoparium 25 YES	FACU						
Rosa multiflora 10 YES Elaeagnus angustifolia 20 YES Total Cover: 30 Herb Stratum Plot Size: 5 5 Scientific Name % Cover Dominant Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	FACU						
Elaeagnus angustifolia 20 YES Total Cover: 30 Herb Stratum Plot Size: 5 Scientific Name % Cover Dominant Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	FACÜ						
Total Cover: 30							
Herb Stratum Plot Size: 5 5 Scientific Name % Cover Dominant Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	Indicator Status						
Plot Size: 5 5 Scientific Name % Cover Dominant Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	Indicator Status						
Scientific Name % Cover Dominant Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	Indicator Status						
Phalaris arundinacea 20 YES Daucus carota 5 NO Schizachyrium scoparium 25 YES	Indicator Status						
Daucus carota 5 NO Schizachyrium scoparium 25 YES							
	FACW UPL						
Tragana vesca	FACU UPL						
Euthamia graminifolia 25 YES	FAC						
Total Cover: 85							
Noody 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: $\frac{2 \text{ (A)}}{}$ OBL Species: $\underline{10}$ x 1 = $\underline{10}$							
Total Number of Dominant Species Across All Strata: 5 (B) FACW Species: 20 x 2 = 40							
FAC Species: <u>25</u> x 3 = <u>75</u>							
Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B) FACU Species: 55 x 4 = 220							
UPL Species: <u>15</u> x 5 = <u>75</u>							
Column Totals: <u>125 (A)</u> <u>420 (E</u>	<u>3)</u>						
Prevalence Index = B/A = 3.36							
Hydrophytic Vegetation Indicators:							
1 - Rapid Test for Hydrophytic Vegetation							
2 - Dominance Test is > 50%							
☐ 3 - Prevalence Index is ≤ 3.0							
4 - Morphological Adaptations¹ (Provide supporting Hydrophytic Vegetation Present? Yes	Hydrophytic Vegetation Present? ☐ Yes ☑ No						
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.							
Remarks:							
Remarks:							



1 TOVIGETICE, IV																		
SOIL																		
Profile Descrip	tion: (Describe	the d	epth need	ed to	docum	ent the ir	ndicator o	r confirm	he absen	nce of	indica	ators.)					
Depth	Matrix			Re	dox Fe	atures			Tout							Daw		
(inches)	Color (moist)	%	Color (m	noist)	%	Type ¹	Loc ²		Text	uie						r.em	narks	
0-12	7.5YR 4/2	100							SANDY	LOA	И							
¹Type: C=Cond	centration, D=De	epletion	ı, RM=Red	duced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	2	ocation	n: PL	=Pore	Lining	j, M	l=Ma	ıtrix	
Hydric Soil Ind	licators: (Appli	cable t	o all LRR'	s, unle	ess oth	nerwise n	oted.)			Indi	cators	for F	roble	matic	Нус	Iric S	3oils	³:
☐ Histosol (A	A1) pedon (A2)				olyvalu ILRA 1		Surface (S	8) (LRR R						(LRR I				
■ Black Hist	ic (A3)			ПΤ	hin Da	rk Surface	e (S9) (LR	R R, MLRA	149B)		5 cm l	Mucky	/ Peat	or Pea	at (S	33) (L	RR I	K, L, R)
☐ Hydrogen	Sulfide (A4)				oamy I	Mucky Mir	neral (F1)	(LRR K, L)			Dark S	Surfac	ce (S7)	(LRR	. K, I	L, M)	,	
☐ Stratified L	_ayers (A5)				oamy (Gleyed Ma	atrix (F2)				Polyva	alue E	Below S	Surface	e (S	8) (L	.RR Ł	K, L)
☐ Depleted I	Below Dark Surfa	ace (A1	l1)		eplete	d Matrix (F3)				Thin D	ark S	Surface	(S9)	LRI	RK,	L)	
☐ Thick Dark	k Surface (A12)				Redox [Dark Surfa	ace (F6)				Iron-M	langa	nese N	/lasses	s (F	12) (LRR	K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)						ırface (F7)					_						RA 149B)
☐ Sandy Gle	eyed Matrix (S4)			_ F	Redox [Depressio	ns (F8)						-					5, 149B)
☐ Sandy Re	dox (S5)						•					-	•	ial (F2				,
☐ Stripped N	Matrix (S6)										Very S	Shallo	w Darl	k Surfa	ace	(TF1	2)	
☐ Dark Surfa	ace (S7) (LRR R	, MLR	A 149B)								Other	(Expl	ain in I	Remar	rks)			
3Indicators of h	nydrophytic vege	tation a	and wetlan	d hydro	ology m	nust be pr	esent, unle	ess disturb	ed or prob	olema	tic.							
Restrictive Lay	er Present?		Yes √	No	U	nknown												
		_			_ ~					Hvdr	ic Soil	Pres	ent?	$\overline{\mathbf{A}}$	Υe			No
										,				ت			_	110
Remarks:																		
	12" DUE TO STO	ONE																
Description of I	Jahitat Charasta	riotico	A questio D	i a rait.		noral Com												
Description of i	Habitat Characte	ilistics,	Aqualic Di	iversity	or Ge	nerai Con	intents.											
Wetland Qualit	y: High	_ ı	Moderate		Low			Isolated	Wetland?	· [] Ye	s 🗀] No		U	nkno	wn	
General Comm	ents:																	
Ochoral Comm	onio.																	





SW



WETLAND DETERMINATION FORM - Northcent	tral and Northeast Region
∇ Centerline	nsmission Line
Project/Site: NED Milepost: 75290.3 County:	Hartford Date: 11/20/2014
Applicant/Owner: Kinder Morgan State: CT	
Investigators: A FCV Quad Name: Windsor Locks Township:	East Granby
Logbook No.: 2014P2	
	Concave Convex None Slope%.: 0
	Long: -72.717247 Datum: NAD83
Soil Map Unit Name: Raypol silt loam	NWI Classification: PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year?:	No (If no, explain in Remarks.)
	Are "Normal" Circumstances present?
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No	
The regions of the descriptions, and the region of the	
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? ☑ Yes ☐ No	the Compled Aven
	s the Sampled Area vithin a Wetland? ☑ Yes □ No
Wetland Hydrology Present? ☑ Yes ☐ 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)
	Drainage Patterns (B10)
□ Surface Water (A1) □ Water-Stained Leaves (B9)	Moss Trim Lines (B16)
High Water Table (A2) Aquatic Fauna (B13)	☐ Dry-Season Water Table (C2)
✓ Saturation (A3)	Crayfish Burrows (C8)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)	— Cotomotion (Co)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living R	Stunted or Stressed Plants (D1)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4)	Commentia Position (DO)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (I	Shallow Aquitard (D3)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	☐ Microtopographic Relief (D4)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks)	FAC-Neutral Test (D5)
Sparsely Vegetated Concave Surface (B8)	
Field Observations:	
Surface Water Present?	
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 inspec	ctions), if available):
VEGETATION	
Tree Stratum	
Plot Size: 30	
Scientific Name	% Cover Dominant Indicator Status
Quercus alba	20 YES FACU
Fraxinus americana Betula populifolia	25 YES FACU 25 YES FAC
Quercus palustris	20 YES FACW
Total Cover:	90



Providence, Ri 02904			- 1	
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	1	% Cover	Dominant	Indicator Status
Sphagnium sp		20	NA	NONE
opnognum sp	Total Cover:	20	14/	NONE
Woody Vine Stratum	Total Gover.			
Plot Size: 30				
Scientific Name	1	% Cover	Dominant	Indicator Status
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			
Dominance Test Worksheet:	Prevalence Ind	ex Worksheet:		
Number of Dominant Species	Total % Cover of		Multiply by:	
That Are OBL, FACW, or FAC: 3 (A)	OBL Species:	<u>0</u>	x 1 = <u>0</u>	
Total Number of Dominant	FACW Species:		x 2 = <u>90</u>	
Species Across All Strata: 5 (B)	FAC Species:	<u>25</u>	x 3 = <u>75</u>	
Percent of Dominant Species	FACU Species:		x 4 = 180	
That Are OBL, FACW, or FAC: 60 (A/B)	UPL Species:	<u> </u>	x 5 = <u>0</u>	
	Column Totals:		345 (B)	
		Prevalence Index		
		revalence index	= B/A = <u>3.00</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 🗆] No
add in romano or on a osparato orosty				
☐ Problematic Hydrophytic Vegetation¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



1 TOVIGETICE, I	02304											
SOIL												
Profile Descrip		the d				ndicator o	r confirm t	he absen	ce of indicators.)			
Depth (inches)	Matrix		Red	dox Fe				Text	ıre		Rer	marks
(11101103)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		TOXII				nano
0-4	10YR2/1	100						SANDY	LOAM			
4-16	7.5YR4/1	80	10YR5/8	20	С	М		SANDY	LOAM			
16-20	7.5YR4/1	70	10YR5/8	15 15	C	M		SANDY	LOAM			
			2.5YR4/6	15		M						
¹Type: C=Cond	centration, D=De	epletion	n, RM=Reduced	Matrix,	CS=Cov	ered Sand	or Coated	Grains.	² Location: PL=	Pore Linin	g, M=M	atrix
Hydric Soil Inc	licators: (Appli	cable t	o all LRR's, unle	ess oth	nerwise n	oted.)			Indicators for Pr	oblematic	Hydric	Soils ³ :
☐ Histosol (A	A1)		□ P	olyvalı	ue Below	Surface (S	8) (LRR R,		□ 2 cm Muck (A10) (LRR	K, L, ML	_RA 149B)
☐ Histic Epi	pedon (A2)		N	ILRA 1	149B)				☐ Coast Prairie	Redox (A	16) (LRF	₹ K, L, R)
☐ Black Hist	ic (A3)		ПΤ	hin Da	rk Surface	e (S9) (LR	R R, MLRA	149B)	5 cm Mucky	Peat or Pe	at (S3) (LRR K, L, R)
☐ Hydrogen	Sulfide (A4)			oamy l	Mucky Mir	neral (F1)	(LRR K, L)		☐ Dark Surface	e (S7) (LRR	K, L, M	l)
Stratified	Layers (A5)			oamy (Gleyed Ma	atrix (F2)			☐ Polyvalue Be	elow Surfac	e (S8) (LRR K, L)
□ Depleted	Below Dark Surfa	ace (A1	I1) 🗹 🖸	eplete	d Matrix (F3)			☐ Thin Dark Su	ırface (S9)	(LRR K,	, L)
☐ Thick Dar	k Surface (A12)		□ R	Redox [Dark Surfa	ace (F6)			☐ Iron-Mangan	ese Masse	s (F12)	(LRR K, L, R)
☐ Sandy Mu	ıcky Mineral (S1)			eplete	d Dark Su	ırface (F7)			☐ Piedmont Flo	oodplain Sc	oils (F19) (MLRA 149B)
☐ Sandy Gl	eyed Matrix (S4)			Redox I	Depressio	ns (F8)			☐ Mesic Spodi	c (TA6) (ML	_RA 144	A, 145, 149B)
☐ Sandy Re	dox (S5)								☐ Red Parent I	Material (F2	21)	
☐ Stripped I	Matrix (S6)								□ Very Shallov	/ Dark Surfa	ace (TF	12)
☐ Dark Surf	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	in in Rema	rks)	
3Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbe	d or prob	lematic.			
Restrictive Lay	ver Present?		Yes √ No	 П U	Inknown			•				
rtooti lotivo Luj	or r roodine.	_	.00 🖭 110	_ ~					Hydric Soil Prese	nt2 🖂	Voc	□ No
									riyuric oon r rese	<u>v</u>	Yes	□ NO
Remarks:												
Nemarks.												
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Con	nments:						
	—		=						-			
Wetland Qualit	y: 🔽 High		Moderate	Low			Isolated	Wetland?	☐ Yes ☐	No 🔲	Unkn	own
General Comm	ents:											





Ε



WETLAND DETERMINATION FORM - Northcentral and Northeast Region	
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other	
Project/Site: NED Milepost: 75343.4 County: Hartford Date: 11/20/2014	
Applicant/Owner: Kinder Morgan State: CT Sampling Point: EG-P-W001-UPL	
Investigators: AF CV Quad Name: Windsor Locks Township: East Granby	
Logbook No.: 2014P2 Logbook Pg.: 133 Tract: 27778	
Landform (hillslope, terrace, etc.): HILLSIDE DRAUNAGE Local Relief: ☐ Concave ☑ Convex ☐ None Slope%.: 1)
Subregion (LRR): Middle Atlantic Lat: 41.928907 Long: -72.717020 Datum: NAD83	
Soil Map Unit Name: Raypol silt loam NWI Classification: Not mapped	i
Are climatic / hydrologic conditions on the site typical for this time of year?:	
Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? ☑ No Are "Normal" Circumstances present? ☑ Yes ☐	No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	-
Hydrophytic Vegetation Present? ☐ Yes ☑ No Is the Sampled Area ☐ Yes ☑ Yes	
Hydric Soil Present?	
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 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 (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 Present? ☐ Yes ☑ No Depth (inches): Wetland Hydrology Present?	
Saturation Present?)
(includes capillary fringe)	
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available):	



Pice Stratum Pice	1 1 30 1 20 10	NO YES YES NO YES	FACU FAC FAC FACU FACU
Roder Rode	1 1 30 1 20 10	NO YES YES NO YES	FACU FAC FAC FACU FACU
Scientific Name	1 1 30 1 20 10	NO YES YES NO YES	FACU FAC FAC FACU FACU
1	1 1 30 1 20 10	NO YES YES NO YES	FACU FAC FAC FACU FACU
1	1 30 1 20 10	YES YES NO YES	FAC FAC FACU FACU
Banula populificial	30 1 20 10	YES NO YES	FAC FACU FACU
1 NO FACU Total Cover: 1 NO FACU	1 20 10	NO YES	FACU FACU
10	10		
Total Cover: 63	1	-	ı FACW
Pict Size: 15 Scientific Name			
Total Cover: Total Cover: Dominant Indicator Status			
Form Face	i		
Pict Stratum	% Cover	Dominant	Indicator Status
Piot Size: 5 Scientific Name			
Plot Size: 5 Scientific Name	:	ı	ı
Scientific Name % Cover Dominant Indicator Status Polystichum acrostichoides 25 YES FACU Total Cover: 25 Total Cover: 25 Problematic Hydrophytic Vegetation Fracular of Dominant Species Scientific Name % Cover Dominant Indicator Status Vitis labruscana 1 NO FACU Dominance Test Worksheet: Number of Dominant Species Total Cover of: Multiply by: Total Number of Dominant Species OBL Species: 0 x 1 = 0 FACW Species: 10 x 2 = 20 FAC Species: 31 x 3 = 93 Percent of Dominant Species FACU Species: 48 x 4 = 192 UPL Species: 0 x 5 = 0 0 Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators:			
Polystichum acrostichoides 25			
Total Cover: 25	% Cover	Dominant	Indicator Status
Plot Size: 30 Scientific Name	25	YES	FACU
Piot Size: 30 Scientific Name	: 25		
Scientific Name			
Total Cover: 1 Total Cover: 1 Total Cover: 1			
Total Cover: 1 Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species: 0 x1 = 0 FACW Species: 10 x2 = 20 FAC Species: 11 x3 = 93 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Indicators (Explain) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be	% Cover	Dominant	Indicator Status
Dominance Test Worksheet: Prevalence Index Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2.(A) Total Number of Dominant Species Across All Strata: 4.(B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) FACU Species: 10	1	NO	FACU
Number of Dominant Species That Are OBL, FACW, or FAC: 2_(A) Total Number of Dominant Species Across All Strata: 4_(B) Percent of Dominant Species That Are OBL, FACW, or FAC: 2_(A) Percent of Dominant Species That Are OBL, FACW, or FAC: 5_0 (A/B) FACW Species: 1_0	: 1		
That Are OBL, FACW, or FAC: 2.(A) OBL Species: 0 x1 = 0 FACW Species: 10 x2 = 20 FAC Species: 31 x3 = 93 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) FACU Species: 0 x5 = 0 Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	e Index Worksheet:		
OBL Species: 0 x1 = 0 Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) OBL Species: 0 x1 = 0 FACW Species: 31 x3 = 93 FACU Species: 48 x4 = 192 UPL Species: 0 x5 = 0 Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: Hydrophytic Vegetation Present? Yes ✓ No	ver of:	Multiply by:	
Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) FAC Species: 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) 1 Indicators of hydric soil and wetland hydrology must be	es: <u>0</u>	x 1 = <u>0</u>	
FAC Species: 31 x 3 = 93 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) FACU Species: 48 x 4 = 192 UPL Species: 0 x 5 = 0 Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrophytic Vegetation □ 2 - Dominance Test is > 50% □ 3 - Prevalence Index is ≤ 3.0 □ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	cies: <u>10</u>	x 2 = <u>20</u>	
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) FACU Species: 48	es: 31	x 3 = 93	
That Are OBL, FACW, or FAC: UPL Species: 0 x5 = 0 Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? Yes No No		x 4 = 192	
Column Totals: 89 (A) 305 (B) Prevalence Index = B/A = 3.43 Hydrophytic Vegetation Indicators: □ 1 - Rapid Test for Hydrophytic Vegetation □ 2 - Dominance Test is > 50% □ 3 - Prevalence Index is ≤ 3.0 □ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present? □ Yes ☑ No Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be			
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 Present? □ Yes ☑ No □ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	-	-	
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 Present?	Prevalence Index	= B/A = <u>3.43</u>	
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 Present?			
3 - Prevalence Index is ≤ 3.0 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present?			
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Hydrophytic Vegetation Present?			
data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be			
Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be	tic Vegetation Prese	nt? 🗌 Yes 🛭	 No
¹Indicators of hydric soil and wetland hydrology must be			
¹Indicators of hydric soil and wetland hydrology must be			
nomano.			
Remarks:	re	25 r: 25 % Cover	25 YES



T TOVIGETICE, I	(1 0200+								
SOIL									
Profile Descrip	otion: (Describe	the de	epth needed to	docum	ent the in	dicator o	r confirm the ab	sence of indicators.)
Depth	Matrix		Re	dox Fe	atures			_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	T	Texture	Remarks
0-8	7.5YR4/2	100					SAN	IDY LOAM	
8-18	7.5YR4/6	100					SAN	IDY LOAM	1
0 10	7.511(4/0	100					0/114	DI LOMM	
1T 0. 0		-1-4:	DM Dadward	N 4 4 i	00.0				Dans Linia a. M. Matrix
		•	, RM=Reduced				or Coated Grain		=Pore Lining, M=Matrix
Hydric Soil Ind	licators: (Appli	cable t	o all LRR's, unle	ess otl	herwise n	oted.)		Indicators for P	Problematic Hydric Soils ³ :
☐ Histosol (A	A1)			olyval ILRA 1		Surface (S	8) (LRR R,	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
☐ Histic Epip	pedon (A2)		IV.	ILKA	1496)			Coast Prairi	ie Redox (A16) (LRR K, L, R)
■ Black Hist	ic (A3)		П	hin Da	ark Surface	e (S9) (LRI	R R, MLRA 149B	3) 🔲 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen	Sulfide (A4)			oamy	Mucky Mir	neral (F1)	(LRR K, L)	□ Dark Surface	ce (S7) (LRR K, L, M)
☐ Stratified I	Layers (A5)			oamy	Gleyed Ma	atrix (F2)		☐ Polyvalue B	Below Surface (S8) (LRR K, L)
☐ Depleted I	Below Dark Surfa	ace (A1		-	ed Matrix (I				Surface (S9) (LRR K, L)
	k Surface (A12)	,	_	•	Dark Surfa				nese Masses (F12) (LRR K, L, R)
_	ıcky Mineral (S1)		_			ırface (F7)			loodplain Soils (F19) (MLRA 149B)
_	eyed Matrix (S4)		_	•	Depressio				. , , , , , , , , , , , , , , , , , , ,
			ш .	(GUUX	Depressio	113 (1 0)			lic (TA6) (MLRA 144A, 145, 149B)
_									Material (F21)
	Matrix (S6)							= '	w Dark Surface (TF12)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)					Other (Expl	ain in Remarks)
³ Indicators of h	nydrophytic vege	tation a	and wetland hydro	ology n	nust be pr	esent, unle	ess disturbed or p	oroblematic.	
Remarks:								Hydric Soil Prese	ent? ☐ Yes ☑ No
Description of	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	nments:			
		•							
Wetland Qualit	y: High		Moderate	Low			Isolated Wetla	nd?	No Unknown
General Comm	ents:								





SW



WETLAND DETERMINATION FORM - Northcer	ntral and No	ortheast Region	
✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Tra	ansmission Line	☐ Other	
Project/Site: NED Milepost: 39184.0 County:	Hartford	Date:	11/18/2014
Applicant/Owner: Kinder Morgan State: C	T Sam	pling Point: BL-O-WO	004-PEM
Investigators: TP JW Quad Name: Avon Township:	Bloomfield	·	
Logbook No.: 2014-1 Logbook Pg.: 142 Tract: 27876			
Landform (hillslope, terrace, etc.): DRAINAGE WAY Local Relief:	Concave 🗹	Convex None	Slope%.: 3
Subregion (LRR): Middle Atlantic Lat: 41.843737	Long: -72.77	72199	Datum: NAD83
Soil Map Unit Name: Wilbraham silt loam		NWI Classification:	Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year?:	No (If no, exp	lain in Remarks.)	
Are Vegetation ☐ Soil ☑ or Hydrology ☑ significantly disturbed? ☐ No	Are "Normal" Cir	cumstances present?	✓ Yes ☐ No
Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? ☑ No			
SUMMARY OF FINDINGS - Attach site map showing sampling point to	ocations, tra	nsects, important	t features, etc.
Hydrophytic Vegetation Present? ✓ Yes ☐ No			
Hydric Soil Present?	s the Sampled] No
Wetland Hydrology Present? ✓ Yes ☐ No	within a Wetla	nd? 🗀 .ss E	
Field Wetland Classification: PEM			
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:	<u>!</u>	Secondary Indicators (2	or more required)
Primary Indicators (minimum of one required; check all that apply)	I	Surface Soil Cracks	s (B6)
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9)	I	□ Drainage Patterns (B10)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13)	I	Moss Trim Lines (B	16)
✓ Saturation (A3)	I	☐ Dry-Season Water	Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)	I	Crayfish Burrows (0	28)
☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living	Roots (C3)	Saturation Visible o	n Aerial imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4)	I	Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position	n (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	I	☐ Shallow Aquitard (□	03)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks)	I		elief (D4)
☐ Sparsely Vegetated Concave Surface (B8)	I	FAC-Neutral Test (I	D5)
Field Observations:			
Surface Water Present? ☐ Yes ☑ No Depth (inches):			
Water Table Present? ✓ Yes No Depth (inches): 18	Wetland Hve	drology Present?	
Saturation Present? ☑ Yes ☐ No Depth (inches): 8	,	☑	Yes No
(includes capillary fringe)			
Remarks (Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspe	ections), if availab	ole):	
VEGETATION			
VEGETATION			
Tree Stratum			
Plot Size: 30	0/ 00::07	Dominant	Indicator Status
Scientific Name Acer saccharinum	% Cover	Dominant YES	Indicator Status FACW
Acer saccnarmum Total Cover:	15	IES	FACW
i dal Cover.	13		



1 TOVIGOTICO, TAT 02004			11	
Sapling/Shrub Stratum				
Plot Size: 15				
Scientific Name		% Cover	Dominant	Indicator Status
Alnus incana		2 10	NO YES	FACW FACU
Elaeagnus angustifolia	Total Cover:	10	163	FACO
Herb Stratum				
Plot Size: 5	ı		ı	I
Scientific Name		% Cover	Dominant	Indicator Status
Trifolium repens Juncus effusus		15 5	YES NO	FACU OBL
Taraxacum officinale Glechoma hederacea		10 8	YES NO	FACU FACU
Phalaris canariensis		15	YES	FACU
Festuca rubra Solidago rugosa		10 5	YES NO	FACU FAC
	Total Cover:	68		ı
Woody Vine Stratum				
Plot Size: 30				
Scientific Name		% Cover	Dominant	Indicator Status
	Total Cover:			ı
Dominance Test Worksheet:	Prevalence Inc	dex Worksheet:		
Number of Dominant Species	Total % Cover	of:	Multiply by:	
That Are OBL, FACW, or FAC: 1 (A)	OBL Species:	<u>5</u>	x 1 = <u>5</u>	
Total Number of Dominant	FACW Species	s: <u>17</u>	x 2 = <u>34</u>	
Species Across All Strata: 6 (B)	FAC Species:	<u>5</u>	x 3 = <u>15</u>	
Percent of Dominant Species That Are OBL FACW or FAC: 17 (A/B)	FACU Species	: <u>68</u>	x 4 = <u>272</u>	
That Are OBL, FACW, or FAC: 17 (A/B)	UPL Species:	<u>0</u>	x 5 = <u>0</u>	
	Column Totals:	95 (A)	326 (B)	
		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	Hydrophytic \	/egetation Presen	t? ✓ Yes □] No
data in Remarks or on a separate sheet)		J		_
✓ Problematic Hydrophytic Vegetation¹ (Explain)				
¹Indicators of hydric soil and wetland hydrology must be				
present, unless disturbed or problematic.				
Remarks:				



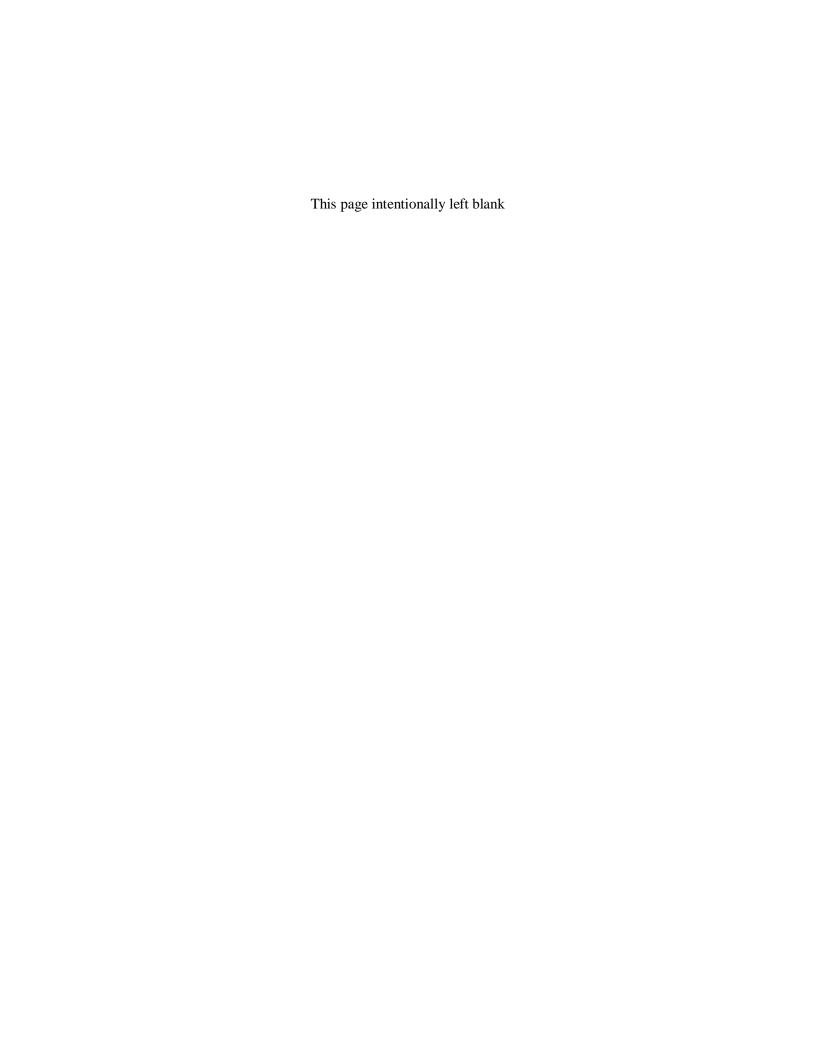
SOIL										
Profile Descrip	tion: (Describe	the de	epth needed to d	locum	ent the in	dicator o	r confirm t	he absen	ce of indicators.)	
Depth (inches)	Matrix		Red	lox Fe	atures			Textu	Ire	Remarks
(IIICHES)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2		TEXIL		Remarks
0-14	7.5YR 3/3	100						LOA	M	
44.00	10) (D. 0) (0	400						011 = 1		
14-30	10YR 2/2	100						SILT LO	DAM	
30-35	10YR 6/2	95	5YR 4/6	5	С	M	VED	/ EINIE Q/	NDY LOAM	
30-33	10111 0/2	95	31K 4/0	5	C	IVI	VER	I FINE SF	ANDT LOAW	
¹Type: C=Cond	centration. D=De	epletion	. RM=Reduced I	Matrix.	CS=Cov	ered Sand	or Coated	Grains.	²Location: PL=	Pore Lining, M=Matrix
			o all LRR's, unle							roblematic Hydric Soils³:
Histosol (A						-	8) (LRR R,		☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pedon (A2)		_ N	ILŔA 1	49B)	,	, ,		_	e Redox (A16) (LRR K, L, R)
■ Black Hist	ic (A3)		□т	hin Da	rk Surface	e (S9) (LRI	R R, MLRA	149B)	☐ 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen	Sulfide (A4)			oamy I	Mucky Mir	neral (F1) ((LRR K, L)		☐ Dark Surface	e (S7) (LRR K, L, M)
☐ Stratified L	_ayers (A5)			oamy (Gleyed Ma	atrix (F2)			☐ Polyvalue Be	elow Surface (S8) (LRR K, L)
☐ Depleted I	Below Dark Surfa	ace (A1	11) 🔲 D	eplete	d Matrix (I	F3)			☐ Thin Dark Su	urface (S9) (LRR K, L)
☐ Thick Dark	k Surface (A12)		☐ R	edox [Dark Surfa	ice (F6)			☐ Iron-Mangan	nese Masses (F12) (LRR K, L, R)
☐ Sandy Mu	icky Mineral (S1)			eplete	d Dark Su	ırface (F7)			☐ Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
☐ Sandy Gle	eyed Matrix (S4)		□R	edox [Depressio	ns (F8)			☐ Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Re	dox (S5)								☐ Red Parent I	Material (F21)
☐ Stripped N	Matrix (S6)								□ Very Shallov	v Dark Surface (TF12)
☐ Dark Surfa	ace (S7) (LRR R	, MLRA	A 149B)						Other (Expla	ain in Remarks)
3Indicators of h	nydrophytic veget	tation a	and wetland hydro	logy n	nust be pre	esent, unle	ess disturbe	ed or probl	ematic.	
Restrictive Lay	er Present?		res ☑ No	□ U	nknown					
								ı	Hydric Soil Prese	ent? ☑ Yes ☐ No
Remarks:										
PROBLEMATION	C SOIL, DEEP M	1UCKY	FILL SOIL							
Description of I	Habitat Characte	ristics,	Aquatic Diversity	or Ge	neral Com	ments:				
Wetland Qualit	y: High		Moderate 🗹	_ow			Isolated '	Wetland?	☐ Yes 🗹	No Unknown
General Comm	ents:									
Ochiciai Comm	crito.									





APPENDIX 2g-E

Army Corps of Engineers Waterbody Data Sheets and Photographs





Waterbody D	Data Form Feature ID: BL-O-S001
✓ Centerline ☐ F	Re-Route Access Road Ancillary Facility Transmission Line Other
Date: 11/17/2014 10:4	44:50 AM Client/Project Name: NED Milepost: 34580.5
Investigators: AF C	V Latitude/Longitude: 41.833977, -72.78188
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 2014F	P2 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
Г	Seasonal (Continuous flow >3 months) □ Ephemeral (Flows only in response to rainfall)
Direction of Flow:	□ N □ NE □ E □ SE □ SW □ W □ NW □ S ☑ No Flow
OHWM Width (ft.):	3.0
Sinuosity:	□ Braided □ Meandering ☑ Straight □ N/A
Stream Width (ft.):	2.0 Water Surface (At Crossing Location)(ft.): 0.0
Stream Depth (in.):	0
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.):	Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
(looking downstream)	Right: 🗹 0-2 🔲 2-4 🔲 4-6 🔲 6-8 🔲 8+
Bank Slope (%): (looking downstream)	Left: 20 Right: 20
Qualitative Attributes	
Water Appearance:	☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats 📝 No Flow
Slightly T	
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
	☐ Bank Root Systems ☐ Fringing Wetlands¹
☐ Undercut Banks	✓ Overhanging Trees/Shrubs ☐ None
Aquatic Organisms Ob	served:
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other
Habitat Characteristics	s, Aquatic and Terrestrial Diversity Description:
Stream Quality:	☐ High ☐ Moderate ☑ Low
Comments:	



SW



NE







	Data Form Feature ID: BL-P-S004
☑ Centerline ☐	Re-Route Access Road Ancillary Facility Transmission Line Other
Date: 11/13/2014 1:	:33:57 PM Client/Project Name: NED Milepost: 37234.4
Investigators: AF	CV Latitude/Longitude: 41.839362, -72.77576
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 201	4P2 Logbook Pg.: 70 Tract No.: 27919
Waterbody Type:	☑ Stream ☐ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:
Stream Flow:	☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None
Flow Type:	☐ Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☐ None
	☐ Seasonal (Continuous flow >3 months) ☐ Ephemeral (Flows only in response to rainfall)
Direction of Flow:	N NE E SE SW W NW S No Flow
OHWM Width (ft.):	20.0
Sinuosity:	☐ Braided ☐ Meandering ☑ Straight ☐ N/A
Stream Width (ft.):	20.0 Water Surface (At Crossing Location)(ft.): 0.0
Stream Depth (in.):	0
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.):	Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
(looking downstream)	Right: 🗹 0-2 🔲 2-4 🔲 4-6 🔲 6-8 🔲 8+
Bank Slope (%): (looking downstream)	Left: 90 Right: 90
Qualitative Attributes	
☐ Slightly Stream Substrate %:	
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar	□ Deep Pools □ In-stream Submerged Plants
L Clavel Bai	_
☐ Mud Bar	☑ Bank Root Systems ☐ Fringing Wetlands¹
_	
☐ Mud Bar	ks 🗹 Overhanging Trees/Shrubs 🔲 None
☐ Mud Bar ☑ Undercut Banl	ks 🗹 Overhanging Trees/Shrubs 🔲 None
☐ Mud Bar ☑ Undercut Bani Aquatic Organisms (ks 🗹 Overhanging Trees/Shrubs 🔲 None Observed:
Mud Bar ✓ Undercut Bank Aquatic Organisms (Channel Condition:	ks



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Waterbody D	Data Form Feature ID: BL-B-S003
✓ Centerline ☐ F	Re-Route Access Road Ancillary Facility Transmission Line Other
Date: 11/13/2014 10:0	O3:11 AM Client/Project Name: NED Milepost: 39168.9
Investigators: RW J	W Latitude/Longitude: 41.843662, -72.77217
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 2014-	2 Logbook Pg.: 124 Tract No.: 27876
Waterbody Type:	☐ Stream ☑ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:
Stream Flow:	☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None
Flow Type:	Perennial (Flows year round) ☐ Intermittent (Flows <3 months) ☑ None
	Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall)
Direction of Flow:	□ N □ NE □ E □ SE □ SW □ W □ NW □ S ☑ No Flow
OHWM Width (ft.):	400.0
Sinuosity:	☐ Braided ☐ Meandering ☐ Straight ☑ N/A
Stream Width (ft.):	100.0 Water Surface (At Crossing Location)(ft.): 100.0
Stream Depth (in.):	36-48
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.): (looking downstream)	Left: □ 0-2 ☑ 2-4 □ 4-6 □ 6-8 □ 8+
(looking downstream)	Right: 0-2 2 2-4 4-6 6-8 8+
Bank Slope (%): (looking downstream)	Left: 50 Right: 50
Qualitative Attributes	
Water Appearance:	✓ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly T	urbid ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other:
Stream Substrate %:	SILTS: 100%
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools ☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems
☐ Undercut Banks	
Azustia Ozganiama Oh	FDOCS FIGURADULTS FIGURALISES INVESTED DATES
Aquatic Organisms Ob	
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☑ N/A ☐ Other
Habitat Characteristics	s, Aquatic and Terrestrial Diversity Description:
Stream Quality:	☐ High ☑ Moderate ☐ Low
Comments:	





SOUTH



Stream Flow: Flow Type: Flow Type: Flow Type: Flow Type: Flow: Stream Width (ft.): Sinuosity: Fream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): Flooking downstream	AM
Investigators: AF CV State: CT Logbook No.: 2014P2 Waterbody Type: Stream Flow: Flow Type: Stream Flow: Flow Type: Stream Width (ft.): Sinuosity: Estream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): [Investigation of Stream Page 14 (ft.)]: [Investigation	Latitude/Longitude: 41.844236, -72.77235 County: Hartford Quad Name: Avon Logbook Pg.: 65 Tract No.: 27876 Stream Pond Lake Borrow Pit Ag Ditch Other: Fast Moderate Slow Very Slow None Perennial (Flows year round) Intermittent (Flows <3 months) None Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall) N NE E SE SW W NW S No Flow 5.0 Braided Meandering Straight N/A O Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
State: CT Logbook No.: 2014P2 Waterbody Type: Stream Flow: Flow Type: Flow Type: Flow Type: Stream Flow: Stream Width (ft.): Sinuosity: Estream Width (ft.): 5.0 Stream Depth (in.): OHWM Indicators: Bank Height (ft.): [looking downstream]	County:
Waterbody Type: S Stream Flow: Flow Type: S Direction of Flow: OHWM Width (ft.): Sinuosity: E Stream Width (ft.): 5.0 Stream Depth (in.): OHWM Indicators: Bank Height (ft.): L (looking downstream)	Logbook Pg.: 65 Tract No.: 27876 Stream
Waterbody Type: Stream Flow: Flow Type: Flow Type: Flow Type: Flow Type: Flow Type: Stream Width (ft.): Stream Width (ft.): Stream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): [looking downstream]	Stream
Stream Flow: Flow Type: Flow Type: Flow Type: Flow Type: Flow: Great Stream Width (ft.): Stream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): [looking downstream]	Fast Moderate Slow Very Slow None Perennial (Flows year round) Intermittent (Flows <3 months) None Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall) N NE E SE SW W NW S No Flow 5.0 Braided Meandering Straight N/A Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
Flow Type: F Direction of Flow: OHWM Width (ft.): Sinuosity:	Perennial (Flows year round)
Direction of Flow: OHWM Width (ft.): Sinuosity: Stream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): (looking downstream)	Seasonal (Continuous flow >3 months)
Direction of Flow: OHWM Width (ft.): Sinuosity: Stream Width (ft.): 5.0 Stream Depth (in.): OHWM Indicators: Bank Height (ft.): (looking downstream)	SE SE SW W NW S No Flow 5.0 Braided Meandering Straight N/A Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
OHWM Width (ft.): Sinuosity: Stream Width (ft.): Stream Depth (in.): OHWM Indicators: Bank Height (ft.): (looking downstream)	5.0 Braided Meandering Straight N/A Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
Sinuosity: Stream Width (ft.): 5.0 Stream Depth (in.): OHWM Indicators: Bank Height (ft.): (looking downstream)	Braided Meandering Straight N/A Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
Stream Width (ft.): 5.0 Stream Depth (in.): OHWM Indicators: Bank Height (ft.):	0 Water Surface (At Crossing Location)(ft.): 5.0 6-12 CLEAR NATURAL LINE ON BANK
Stream Depth (in.): OHWM Indicators: Bank Height (ft.): (looking downstream)	6-12 CLEAR NATURAL LINE ON BANK
OHWM Indicators: Bank Height (ft.):	CLEAR NATURAL LINE ON BANK
Bank Height (ft.):	
(looking downstream) —	
· • • • • • • • • • • • • • • • • • • •	Left: 0 0-2
	Right: 0 0-2 2-4 4-6 6-8 8+
(looking downstroam)	Left: 90 Right: 90
Qualitative Attributes	
Stream Substrate %:	d ☐ Very Turbid ☐ Greenish Color ☐ Obvious Surface Scum ☐ Other: 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
	☑ Bank Root Systems ☑ Fringing Wetlands¹
✓ Undercut Banks	✓ Overhanging Trees/Shrubs
Aquatic Organisms Observ	ved:
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other
	Aquatic and Terrestrial Diversity Description: High
Comments:	





NE



NW







Waterbody	/ Data Form Feature ID: BL-P-S002
✓ Centerline	Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other
Date: 11/12/2014 2	2:09:38 PM Client/Project Name: NED Milepost: 40773.0
Investigators: DF	F JW Latitude/Longitude: 41.846687, -72.76863
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 20	014-2 Logbook Pg.: 57 Tract No.: 27962
Waterbody Type:	☐ Stream ☑ Pond ☐ Lake ☐ Borrow Pit ☐ Ag Ditch ☐ Other:
Stream Flow:	☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None
Flow Type:	Perennial (Flows year round) Intermittent (Flows <3 months)
	Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall)
Direction of Flow:	□ N □ NE □ E □ SE □ SW □ W □ NW □ S ☑ No Flow
OHWM Width (ft.):	200.0
Sinuosity:	☐ Braided ☐ Meandering ☐ Straight ☑ N/A
Stream Width (ft.):	200.0 Water Surface (At Crossing Location)(ft.): 200.0
Stream Depth (in.):	24-36
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.):	Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
(looking downstream)	Right: 🗹 0-2 🔲 2-4 🔲 4-6 🔲 6-8 🔲 8+
Bank Slope (%): (looking downstream)	Left: 10 Right: 70
Qualitative Attribute	-
Slightl Stream Substrate %	
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
— ☐ Gravel Bar	✓ Deep Pools ☐ In-stream Submerged Plants
 ☐ Mud Bar	☐ Bank Root Systems ☐ Fringing Wetlands¹
☐ Undercut Bar	
Aquatic Organisms	Observed: NONE
Channel Condition:	: Channelization/Braiding Unnatural Straightening Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☑ N/A ☐ Other
Stream Quality: Comments:	tics, Aquatic and Terrestrial Diversity Description:





SOUTH



Waterbody	Data Form Feature ID: BL-P-S001
✓ Centerline	Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other
Date: 11/11/2014 1	0:49:09 AM Client/Project Name: NED Milepost: 46098.3
Investigators: AF	CV Latitude/Longitude: 41.859665, -72.76158
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 20°	14P2 Logbook Pg.: 46 Tract No.: 28776
Waterbody Type:	Stream Pond Lake Borrow Pit Ag Ditch Other:
Stream Flow:	☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None
Flow Type:	 □ Perennial (Flows year round) □ Intermittent (Flows <3 months) □ Seasonal (Continuous flow >3 months) □ Ephemeral (Flows only in response to rainfall)
Direction of Flow:	□ N □ NE □ E □ SE □ SW □ W ☑ NW □ S □ No Flow
OHWM Width (ft.):	3.0
Sinuosity:	
<u>-</u>	
Stream Width (ft.):	1.0 Water Surface (At Crossing Location)(ft.): 1.0
Stream Depth (in.):	0 CLEAR NATURAL LINE ON BANK
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.): (looking downstream)	Left:
	Right: 🛂 0-2 📋 2-4 📋 4-6 📋 6-8 📋 8+
Bank Slope (%): (looking downstream)	
Qualitative Attribute	S
☐ Slightly Stream Substrate %	y Turbid
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools ☐ In-stream Submerged Plants
■ Mud Bar	☐ Bank Root Systems ☑ Fringing Wetlands¹
☐ Undercut Ban	ks Dverhanging Trees/Shrubs None
Aquatic Organisms	Observed:
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other
Habitat Characterist Stream Quality: Comments:	ics, Aquatic and Terrestrial Diversity Description: High



NW



SW



A=COM



Waterbody	Data Form Feature ID: BL-P-S005
✓ Centerline □	Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other
Date: 11/15/2014 8:	:54:27 AM Client/Project Name: NED Milepost: 49216.2
Investigators: AF	CV Latitude/Longitude: 41.867579, -72.75724
State: CT	County: Hartford Quad Name: Avon
Logbook No.: 201	4P2 Logbook Pg.: 80 Tract No.: 27960
Waterbody Type:	Stream Pond Lake Borrow Pit Ag Ditch Other:
Stream Flow:	☐ Fast ☐ Moderate ☐ Slow ☐ Very Slow ☑ None
Flow Type:	Perennial (Flows year round) Intermittent (Flows <3 months) None
Direction of Flow:	Seasonal (Continuous flow >3 months) Ephemeral (Flows only in response to rainfall)
	_ N _ NE _ E _ SE _ SW _ W _ NW _ S ☑ No Flow
OHWM Width (ft.):	30.0
Sinuosity:	☐ Braided ☐ Meandering ☐ Straight ☑ N/A
Stream Width (ft.):	30.0 Water Surface (At Crossing Location)(ft.): 30.0
Stream Depth (in.):	6-12
OHWM Indicators:	BENT, MATTED OR MISSING VEGETATION
Bank Height (ft.): (looking downstream)	Left: ☑ 0-2 ☐ 2-4 ☐ 6-8 ☐ 8+ Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+
Bank Slope (%): (looking downstream)	Left: 5 Right: 5
Qualitative Attributes	-
Water Appearance: Slightly Stream Substrate %:	
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools ☐ In-stream Submerged Plants
Mud Bar	☐ Bank Root Systems ☐ Fringing Wetlands¹
Undercut Bank	ks Overhanging Trees/Shrubs None
Aquatic Organisms (Observed:
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other
Habitat Characteristi	ics, Aquatic and Terrestrial Diversity Description:
Stream Quality: Comments:	☑ High ☐ Moderate ☐ Low
Photos	







Waterbody	Data Form Feature ID: BL-P-S007
✓ Centerline	Re-Route
Date: 11/18/2014 1	2:51:29 PM Client/Project Name: NED Milepost: 53580.0
Investigators: AF	CV Latitude/Longitude: 41.878605, -72.75129
State: CT	County: Hartford Quad Name: Tariffville
Logbook No.: 20°	14P2 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) □ Seasonal (Continuous flow >3 months) ☑ Ephemeral (Flows only in response to rainfall)
Direction of Flow:	
OHWM Width (ft.):	3.0 — Project — — Meandaring — E/ Straight — — N/A
Sinuosity:	□ Braided □ Meandering ☑ Straight □ N/A
Stream Width (ft.):	3.0 Water Surface (At Crossing Location)(ft.): 3.0
Stream Depth (in.):	3-6
OHWM Indicators:	CLEAR NATURAL LINE ON BANK
Bank Height (ft.): (looking downstream)	Left: 0-2 0-2 4 0 4-6 0 6-8 8+
(Right: 0-2 0-2 4-6 6-8 8+
Bank Slope (%): (looking downstream)	Left: 20 Right: 20
Qualitative Attribute	S
Stream Substrate %	/ Turbid
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
☐ Gravel Bar	☐ Deep Pools ☐ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems ☐ Fringing Wetlands¹
☐ Undercut Ban	
Aquatic Organisms	Observed:
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting
	☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other
Stream Quality: Comments:	ics, Aquatic and Terrestrial Diversity Description: ☐ High ☐ Moderate ☑ Low



W



Ν



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Ε



Waterbody D	Pata Form Feature ID: BL-P-S009
☑ Centerline ☐ R	e-Route
Date: 7/24/2015 2:29:2	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	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)
	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 (%): (looking downstream)	Left: 100 Right: 100
Qualitative Attributes	
Water Appearance:	☐ Clear ☐ Turbid ☐ Sheen on Surface ☐ Floating Algal Mats ☐ No Flow
☐ Slightly Tu	
Stream Substrate %:	SILTS: 100%
Aquatic Habitats:	
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants
Gravel Bar	□ Deep Pools □ In-stream Submerged Plants
☐ Mud Bar	☐ Bank Root Systems
☐ Undercut Banks	☐ Overhanging Trees/Shrubs ☐ None
Aquatia Organisms Ob	served: NONE
Aquatic Organisms Obs	
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:	





NORTH



EAST



SOUTH





vale bouy	Data Form Feature ID: BL-F	P-S010
✓ Centerline □	Re-Route Access Road Ancillary Facility Transmission Line Other	
Date: 11/19/2014 2:	:09:34 PM	0130.8
Investigators: AF	CV Latitude/Longitude: 41.890229, -72.73654	
State: CT	County: Hartford Quad Name: Windsor Locks	
Logbook No.: 201	4P2 Logbook Pg.: 120 Tract No.: 27865	
Waterbody Type:	☑ Stream □ Pond □ Lake □ Borrow Pit □ Ag Ditch □ Other:	
Stream Flow:	☐ Fast ☐ Moderate ☑ Slow ☐ Very Slow ☐ None	
Flow Type:	✓ Perennial (Flows year round) ☐ Intermittent (Flows <3 months)	
Direction of Flow:	✓ N ☐ NE ☐ E ☐ SE ☐ SW ☐ W ☐ NW ☐ S ☐ No Flow	
	1.0	
OHWM Width (ft.):		
Sinuosity:	□ Braided □ Meandering ☑ Straight □ N/A	
Stream Width (ft.):	1.0 Water Surface (At Crossing Location)(ft.): 1.0	
Stream Depth (in.):	1-3	
OHWM Indicators:	CLEAR NATURAL LINE ON BANK	
Bank Height (ft.): (looking downstream)	Left: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+ Right: ☑ 0-2 ☐ 2-4 ☐ 4-6 ☐ 6-8 ☐ 8+	
Bank Slope (%): (looking downstream)	Left: 80 Right: 80	
Qualitative Attributes		
Water Appearance: Slightly Stream Substrate %:		☐ No Flow
Aquatic Habitats:		
☐ Sand Bar	☐ Gravel Riffles ☐ In-stream Emergent Plants	
☐ Gravel Bar	☐ Deep Pools ☐ In-stream Submerged Plants	
Mud Bar	☐ Bank Root Systems ☐ Fringing Wetlands¹	
✓ Undercut Bank	ks 🗹 Overhanging Trees/Shrubs 🔲 None	
Aquatic Organisms C	Observed:	
Aquatic Organisms C	Observed: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting	
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting	
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting ☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other	
Channel Condition:	☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting ☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other	
Channel Condition: Habitat Characteristi	Channelization/Braiding Unnatural Straightening Downcutting Dikes/Berms Excessive Bank Erosion N/A Other ics, Aquatic and Terrestrial Diversity Description:	













	Waterbody Data Form	Feature ID: BL-P-S008
Date: 11/19/2014 12/09/46 PM		
	✓ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility	☐ Transmission Line ☐ Other
State: CT	Date: 11/19/2014 12:09:46 PM Client/Project Name: NED	Milepost: 60443.4
Difference Continue Continu	1000000000000000000000000000000000000	
Waterbody Type: Stream Pond Lake Borrow Pit Ag Ditch Other:		Quad Name: Windsor Locks
Stream Flow:	Logbook No.: 2014P2 Logbook Pg.: 116 Tract No.: 27865	
Flow Type:	Waterbody Type: ☑ Stream □ Pond □ Lake □ I	Borrow Pit Ag Ditch Other:
Seasonal (Continuous flow >3 months)	Stream Flow: Fast Moderate Slow	/ery Slow None
Direction of Flow:	Flow Type: Perennial (Flows year round) Inter	mittent (Flows <3 months)
OHWM Wildth (ft.):	☐ Seasonal (Continuous flow >3 months) ☐ Ephe	emeral (Flows only in response to rainfall)
Sinuosity:		W NW S No Flow
Stream Width (ft.):	OHWM Width (ft.): 290.0	
Stream Depth (in.):	Sinuosity: Braided Meandering Straight	N/A
OHWM Indicators: CLEAR NATURAL LINE ON BANK Shake Shak	Stream Width (ft.): 282.0 Water Surface (At Crossing Location)(ft.): 282.0
Bank Height (ft.): (looking downstream)	Stream Depth (in.): 60+	
Right: 0-2 2-4 4-6 6-8 8+	OHWM Indicators: CLEAR NATURAL LINE ON BANK	
Right:	(looking downstream)	
Clocking downstream Right: 90	Right: U 0-2 V 2-4 U 4-6 U 6-8	8+
Qualitative Attributes Water Appearance:	(looking downstroom)	
Water Appearance:	- Night. 90	
GRAVEL: 15% COBBLES: 25% OTHER: 10% SILTS: 25% SANDS: 25% SANDS: 25% Aquatic Habitats: Gravel Bar Gravel Bank Root Systems Fish Undercut Banks Overhanging Trees/Shrubs None Aquatic Organisms Observed: FISH Channel Condition: Channelization/Braiding Unnatural Straightening Downcutting Dikes/Berms Diversity Description: Stream Quality: High Moderate Low		
Stream Substrate %: GRAVEL: 15% COBBLES: 25% OTHER: 10% SILTS: 25% SANDS: 25% SANDS: 25% Aquatic Habitats: Gravel Bar Gravel Bar Deep Pools In-stream Emergent Plants Fringing Wetlands¹ Undercut Banks Overhanging Trees/Shrubs None Aquatic Organisms Observed: FISH Channel Condition: Channelization/Braiding Dikes/Berms Excessive Bank Erosion N/A Other Bark Rod Systems Excessive Bank Erosion N/A Other Channelization/Braidins Downcutting Excessive Bank Erosion N/A Other		
COBBLES: 25% OTHER: 10% SILTS: 25% SANDS: 25		Obvious Surface Scum
Gravel Bar	COBBLES: 25% OTHER: 10% SILTS: 25%	
Gravel Bar	Aquatic Habitats:	
Gravel Bar	·	Emergent Plants
Mud Bar ☑ Bank Root Systems ☑ Fringing Wetlands¹ ☑ Undercut Banks ☑ Overhanging Trees/Shrubs ☐ None Aquatic Organisms Observed: FISH Channel Condition: ☐ Channelization/Braiding ☐ Unnatural Straightening ☐ Downcutting ☐ Dikes/Berms ☐ Excessive Bank Erosion ☐ N/A ☐ Other Habitat Characteristics, Aquatic and Terrestrial Diversity Description: Stream Quality: ☐ High ☐ Moderate ☐ Low		
Aquatic Organisms Observed: FISH Channel Condition: Channelization/Braiding Dikes/Berms Downcutting N/A Other Habitat Characteristics, Aquatic and Terrestrial Diversity Description: Stream Quality: High Moderate Low		
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		
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		
Dikes/Berms	<u> </u>	
Habitat Characteristics, Aquatic and Terrestrial Diversity Description: Stream Quality: High Moderate Low		
Stream Quality: High		ank Erosion
Comments:	·	
	Comments:	



NE



NW



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