

APPENDIX M

Wetland Delineation Report

HUDSON HERITAGE PROJECT

3532 North Road
NYS Route 9

Town of Poughkeepsie
Dutchess County, New York

FINAL – December 11, 2015



Engineers
Land Surveyors
Planners
Environmental Professionals
Landscape Architects

Prepared for:

EFG/DRA Heritage LLC
47 River Road, Suite 200
Summit, NJ 07901

Wetland Delineation Report

HUDSON HERITAGE PROJECT

At the Former Hudson River Psychiatric Center (HRPC)
NYS Route 9

Town of Poughkeepsie
Dutchess County, New York

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Prepared by:

Chazen Engineering, Land Surveying & Landscape Architecture Co., D.P.C.

21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980

North Country Office
(518) 812-0513

Capital District Office
(518) 273-0055

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- Attachment B – Hydric Soils Report
- Attachment C – Wetland Determination Data Forms
- Attachment D – Photographs of the Project Site

LIMITATIONS: This wetland delineation report represents the professional opinion of The Chazen Companies regarding the extent and jurisdiction of aquatic resources on the Site and is non-binding on the US Army Corps of Engineers, NYSDEC, or Town of Poughkeepsie. Opinions presented in this report also apply to Site conditions and regulations existing only at the time of Chazen’s delineation and may not necessarily apply to future Site conditions and/or regulations, which may change over time. Reliance on this report without validation or approval by the regulatory agencies is solely at the risk of the Client.

1.0 CONTEXT OF SITE AND REPORT

The Project Site is located at the prior Hudson River Psychiatric Center (HRPC), located in the Town of Poughkeepsie, on the east side of NYS Route 9, with the southwest corner at Winslow Gate Road, extending northward to a location approximately 790 feet south of Big Meadow Lane.

The proposed project involves the construction of residential and commercial components. The residential component will include multi-family apartments, townhouses and single-family homes. The commercial component will include retail stores and a large box store that will serve as the commercial anchor tenant to the commercial development. In general, this construction is proposed within areas previously disturbed for the Hudson River Psychiatric Center (HRPC).

This Wetland Delineation Report is an Attachment to a larger Endangered and Threatened Species and Natural Resources Assessment Report (NRAR), prepared to support the Draft Environmental Impact Statement (DEIS) for the Hudson Heritage Project. During the September 4 and October 21, 2015 site inspections, Chazen reviewed the ecological communities on the site, completed a plant survey of the site, and delineated wetlands and aquatic resources on the site. The Endangered and Threatened Species and Natural Resource Assessment Report describes the various plant communities found on the Project Site, using the same community names as in the work of Tabak and Stevens (2008). It also provides figures and maps to illustrate various aspects of the project. In order to avoid duplication, figures, plant lists and descriptions of ecological communities are provided in the Endangered and Threatened Species and Natural Resource Assessment Report.

Figure 1, USGS Location Map (see Figures in NRAR) shows the location of the site on the Poughkeepsie and Hyde Park, NY USGS topographic quadrangles. The Project Site covers approximately 156 acres, which is a mix of previously developed land containing buildings, paved and landscaped areas associated with the former and abandoned HRPC, meadow areas mainly dominated by the invasive wormwood (*Artemisia vulgaris*), forested areas, which in many locations contain landscaping trees either planted or escaped, and a stream/riparian area located along a portion of the southern and southeastern property boundaries.

On September 4, 2015 and October 21, 2015, Chazen environmental scientists Jenna Sanford¹ and Richard Futyma delineated the boundaries of wetlands on the Project Site. The flags used to mark the location of the boundaries were located and mapped by Chazen land surveyors on October 27, 2015. That map is presented in Attachment A. No wetlands on the Project Site have been mapped previously by the New York Department of Environmental Conservation (NYSDEC) or National Wetland Inventory (NWI). A Class/Standard C stream is mapped on the Project Site by the NYSDEC.

2.0 MAPPED RESOURCES

2.1 Topography

As shown on Figure 1 USGS Location Map, the site is located west of NYS Route 9, and ranges in elevation from approximately 100 feet above sea level to 200 feet above sea level. The site slopes from the center northwest and southwest towards the Hudson River, and then southeast towards a ravine that runs along the southeastern property boundary. The site is rolling and more level in the eastern and southern portions, which have been developed with buildings associated with the prior Hudson River State Hospital. There are numerous roads and buildings shown on the USGS Topographic

¹ Jenna Sanford delineated on September 4, 2015 only.

Quadrangle in the southern and eastern portions of the site. The Project Site lies within the watershed of the Hudson River; the stream in the eastern and southern portions of the site drains to the Hudson River, located approximately 900 feet to the west.

2.2 Orthophotograph

As shown on Figure 2, Orthophoto, the site is largely developed, with the HRPC buildings located in the southern and eastern portions of the site surrounded by landscaping trees and lawn. Wooded areas are scattered throughout as shown by the darker areas on the orthophotograph, which are a mix of deciduous and coniferous trees. The orthophotograph also shows, in light brown, large open areas, which are herbaceous lawn or meadow areas. As discussed before, many of these areas are dominated by the invasive wormwood plant (*Artemisia vulgaris*). The open areas significantly fragment the wooded areas on the site.

The orthophotograph also shows the shopping plaza east of NYS Route 9 and the Marist Campus west of NYS Route 9. East of the site is a wooded area and an open lawn/meadow that has been extended into the woods, with residential lands further to the east. North of the site is a mix of wooded and residential areas. West of NYS Route 9 are residential areas, woods and a County Park (Quiet Cove) adjacent to the Hudson River.

2.3 Soils

As shown on Figure 3, Hydric Soil Map for the Project Site, and hydric soil ratings, and Figure 4, Soil Map², the following 12 soil units are mapped within the Project Site, and are described below (per the Dutchess County Soil Survey). Attachment B is a report on the hydric soils ratings.

- Dutchess-Cardigan complex, undulating, rocky (DwB)
 - Dutchess-Cardigan complex, rolling, rocky (DwC)
 - Hoosic gravelly loam, nearly level (HsA)
 - Hoosic gravelly loam, undulating (HsB)
 - Hoosic gravelly loam, 25 to 45 percent slopes (HsE)
 - Hoosic-Urban land complex, nearly level (HuA)
 - Hoosic-Urban land complex, undulating (HuB)
 - Nassau-Cardigan complex, undulating, very rocky (NwB)
 - Nassau-Cardigan complex, rolling, very rocky (NwC)
 - Nassau-Cardigan complex, hilly, very rocky (NwD)
 - Nassau-Rock Outcrop complex, steep (NxE)
 - Wayland silt loam (Wy)
-
- Dutchess-Cardigan complex, undulating, rocky (DwB) and rolling (DwC): This unit consists of very deep, well drained Dutchess soils and moderately deep, well drained Cardigan soils that formed in glacial till deposits. It is on hilltops and undulating till plains that are underlain by folded shale or bedrock. Dutchess soils are commonly on lower concave slopes and Cardigan soils are commonly on

² Faber, Marjorie. 1992. Soil Survey of Dutchess County, New York. United States Department of Agriculture, Natural Resources Conservation Service.

http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/new_york/NY027/0/Dutchess.pdf.

upper slopes, hilltops, and near areas of rock outcrop. This unit consists of about 40 percent Dutchess soils, 30 percent cardigan soils and 30 percent other soils and rock outcrop. Rock outcrop covers less than one to two percent of the surface. The Dutchess and Cardigan soils are in such an intricate pattern that they were not mapped separately. Both Dutchess and Cardigan soils are friable. The depth to the seasonal high water table is more than six feet and the depth to bedrock is more than 60 inches. These soils have approximately one percent of their coverage as hydric soils and so are identified as predominately non-hydric. Both Dutchess and Cardigan soils are friable soils in their upper part. A large expanse of DwC soil is mapped in the northwestern portion of the site. Smaller areas of DwB soil is mapped along the southern property boundary.

- Hoosic gravelly loam nearly level (HsA), undulating (HsB), and 25 to 45 percent slopes (HsE): The Hoosic map unit consists of very deep, somewhat excessively drained soils that formed in glacial outwash deposits. It is on valley floors and outwash plains. Areas are irregularly shaped. Slopes are complex and are dependent upon the slope ratings identified above. Hoosic soils are friable. The depth to the seasonal high water table is more than six feet and the depth to bedrock is more than 60 inches. They have approximately five percent of their coverage as hydric soils, and so are identified as predominately non-hydric. On the Project Site, this soil is mapped along the northcentral property boundary and in the western center of the site north and south of the center drive into the site.
- Hoosic-Urban land complex, nearly level (HuA) and undulating (HuB): These units are deep and somewhat excessively drained. It is on valley floors and outwash plains. This unit consists of about 40 percent Hoosic soils, 35 percent urban land, and 25 percent other soils. The Hoosic soils and urban lands are in such an intricate pattern that they were not mapped separately. Areas are irregularly shaped or rectangular. The urban land area consists of lands covered by buildings, streets, parking lots and other impervious surfaces that obscure soil identification. The natural soil layers have been altered or mixed with non-soil material such as bricks, broken concrete or cinders. The Hoosic soils are friable; the urban fill may not be friable. The depth to the seasonal high water table is more than six feet and the depth to bedrock is more than 60 inches. These units have approximately five percent of its coverage as hydric soils, and so are identified as predominately non-hydric. On the Project Site, these soils are associated with the previously developed areas in the southern and eastern portions of the site.
- Nassau-Cardigan Complex, undulating very rocky (NwB), rolling very rocky (NwC), hilly very rocky (NwD): These units consist of shallow, somewhat excessively drained Nassau soils and moderately deep, well drained Cardigan soils that formed in glacial till deposits. It is on hilltops and undulating hill plains, upper slopes, and lower concave slopes that are underlain by folded shale bedrock. The unit consists of approximately 40 percent Nassau soils, 40 percent Cardigan soils and 20 percent other soils and rock outcrop. Rock outcrop covers two to ten percent of the soil surface. The Nassau and Cardigan soils and rock outcrop are in such an intricate pattern that they were not separated in mapping. Nassau soils are friable in the upper 16 inches. Cardigan soils are friable. The depth to the seasonal high water table is more than six feet and the depth to bedrock is between 20 and 40 inches for NwB and NwC, with depth to bedrock of ten to 20 inches in NwB. The NwB and NwC soils have approximately one percent hydric soil coverage, while the NwD soil has approximately ten percent hydric soil coverage, making all three soils predominately non-hydric. These soils are found in the northeast corner of the Project Site.

- **Nassau-Rock Outcrop complex, steep (NxE):** This soil consists of shallow somewhat excessively drained Nassau soils and areas of rock outcrop. It is on hills and sideslopes that are underlain by folded shale bedrock. This unit consists of approximately 45 percent Nassau soils, 30 percent rock outcrop and 25 percent other soils. The Nassau soils and areas of rock outcrop are in such an intricate pattern that they were not separated in mapping. Areas are elongated or irregularly shaped. Nassau soils are friable in the upper 16 inches. The depth to the seasonal high water table is more than six feet and the depth to bedrock is between ten to 20 inches. This soil has a five percent coverage by hydric soils, and so is identified as predominately non-hydric. The soil is mapped in the northwest corner of the site.
- **Wayland silt loam (Wy):** This unit consists of very deep, nearly level and poorly drained and very poorly drained Wayland soils that formed in alluvium deposits. It is on flood plains. Areas are elongated or irregularly shaped. Slopes range from zero to three percent. This soil has a depth to bedrock of more than 60 inches, and a depth to the seasonal high water table of +0.5 feet to 1 foot November through June. This soil has 88 percent coverage by hydric soils, and so is identified as predominately hydric. The soil is mapped along the southern and southeast property boundaries.

As indicated in Attachment B, the Wayland soil is predominantly hydric. The remaining soils are all identified as predominantly non-hydric (one to 32 percent coverage by hydric soils), with those soils having hydric soil coverage ranging from one to 10 percent.

2.4 Wetlands and Streams

Figure 5, Wetlands and Streams Map, illustrates the location of wetlands mapped by the US Fish and Wildlife Service under the National Wetlands Inventory (NWI), the NYSDEC under Environmental Conservation Law Article 24, Freshwater Wetlands Act and streams mapped under Environmental Conservation Law Article 15, Use and Protection of Waters.

There are no NYSDEC wetlands mapped within the Project Area. There are no National Wetland Inventory wetlands mapped within the project area. The NYSDEC maps a stream along the southern and eastern property boundaries. This stream is identified as having Classifications and Standards of Class C, meaning it is not regulated by the NYSDEC. This stream, and its associated wetlands would be regulated by the Corps of Engineers.

Aquatic resources (i.e., wetlands, streams, waterbodies) were delineated on the Project Site according to the methods in the Corps of Engineers delineation manual (Environmental Laboratory, 1987) and the regional supplement to that manual (USACOE, 2011).

In summary, the delineation identified the mapped stream and associated wetlands along the southern property boundary (Wetland A), and along the eastern property boundary (Wetland B), with another small wetland pocket (Wetland C) to the northwest of Wetland B. The stream enters the Project Site on the eastern property boundary via a culvert under the road/trail, and then continues south to a headwall. From this location, the stream is conveyed westward underground, under the old railroad line, and then underground southward, until it daylight in the eastern portion of Wetland A. From this location, the stream and wetland continue westward until it again is conveyed underground under the southern entrance road of the site as well as NYS Route 9. A final small seep wetland (Wetland D) was identified in the northwest portion of the site.

3.0 DESCRIPTION OF WETLANDS AND STREAMS

The identification of wetlands and delineation of their boundaries was carried out according to the methods in the Corps of Engineers delineation manual (Environmental Laboratory, 1987) and the regional supplement to that manual (USACOE, 2011). Points on the wetland boundaries were marked using pieces of vinyl flagging tape tied to trees and shrubs, each of which was given an ID number consisting of a letter identifying the line plus a sequential number. A map depicting the wetland boundary is presented in Attachment A. Specific details of vegetative strata, hydrology and soils are provided on the datasheets in Attachment C. Photographs of these wetlands are provided in Attachment D. Following are brief descriptions of the wetlands delineated on the Project Site. Table 1 lists the area on the Project Site, centroid coordinates (WGS84 datum), and Cowardin Class of each wetland and stream delineated.

Given the dry summer, it was requested that methodology be provided regarding the delineation of wetlands in the summer, especially in dry conditions. The delineation of wetlands involves a review of vegetation, soils, and hydrology to determine whether there are positive indicators for all three parameters within the wetland area, which are not present in the adjacent uplands. The location where one or more of these parameters is no longer present is the location where the wetland boundary is established. For streams, the wetland/upland boundary is established along the Ordinary High Water Mark. Vegetation is not likely to be strongly impacted by a period of summer drought. The distribution of vegetation within a plant community would not change appreciably by a short term drought event; certainly trees and shrubs would not show the impacts of such a short-term event, and herbaceous vegetation that had sprouted in the spring under hydrologic normal conditions, would continue to be present. Likewise, soils will not change within summer in response to a drought event. It would take much more than one season of dry conditions to remove positive indicators of hydric soils. With regard to hydrology, there are numerous primary and secondary hydrologic indicators, which include indicators that would be present in drought conditions, such as surface soil cracks, algal mats or crusts, sediment deposits. In this case, a water table was present within 6 inches of the surface in Wetland A; a thin muck surface was present at the datapoint for Wetland B, and there was saturation to the surface and standing water in Wetland D. The droughty conditions did not impact the delineation, and the datasheets identified that “normal conditions” were present.

Wetland A is a riparian wetland associated with the stream running along the southern boundary of the Project Site. In this stream valley wetland, there are different patches in which the dominant plants vary among common reed, reed canary grass, Japanese stilt grass, and rice cut grass. The stream flowing through this wetland is identified as perennial, approximately 463 feet long. The stream varies from about 2.5 to 3.5 feet wide, with a gravelly to sandy bottom. There are 69 flags on line A, which surrounds this wetland. A 25-foot wide Town of Poughkeepsie regulated buffer is located around this wetland, and is 1.25 acres in size.

Wetland B is also associated with a part of the stream that runs along the eastern and southern sides of the Project Site. This wetland is confined to the space between the old railroad grade, which is high and steep-sided, and an old roadbed, which rises only a few feet above the wetland. The stream runs through the southern part of this area, entering the Project Site from a culvert near flags B-1/B-20 and running southward to flags B-23/B-24, where it enters a headwall culvert under the railroad grade. There is little wetland vegetation associated with the stream, which is about 3 to 4 feet wide and has a bottom covered mainly with gravel and cobbles. Wetland vegetation is confined to the area north of the stream (i.e., north of flags B-2/B-20), and includes areas dominated by common reed and by

Japanese stilt grass. Other common plants include bristly buttercup, white avens, and northern spicebush. Some relatively large American sycamores exist in the northern part of the wetland. Wetland B, which defines this area, begins and ends on the property line that runs along the base of the railroad grade. The stream portion in this wetland is approximately 121 feet in length. Wetland B is approximately 0.242 acre, and the Town-regulated buffer area is 0.572 acre.

Wetland C is essentially small a northern extension of Wetland B, from which it has been separated by a small ridge of fill. Its vegetation is similar to that of Wetland B. There are seven flags on line C, which surrounds this wetland. Wetland C is approximately 0.054 acre and is adjacent to Wetland B. The 25-foot wide Town regulated buffer is approximately 0.155 acre in size.

Wetland D is the spring seepage wetland described above. The wetland starts as a broad seepage zone, which gradually becomes more of a channel as water flows westward. At the point where it leaves the Project Site, the stream flowing out of the wetland is about two feet wide, and its bottom has gravel, cobbles, and small boulders. The stream is identified as 55 feet in length within the wetland. The flow is identified as perennial; flow, albeit minimal, was observed during the September site visit, during a dry period. Wetland D, with 11 flags, begins and ends on the property line. It is 0.101 acre in size. A 25-foot wide Town Buffer (0.204 acre) has also been placed around this wetland.

Table 1. Aquatic Resources on the Project Site

Wetland or Stream	On-site area (acre)	Centroid (on or adjacent to Project Site)		Cowardin Class	Stream Type/Length
		Latitude	Longitude		
Wetland A	0.680 acre	41° 34.644	73° 55.796	PEM1/SS1	Perennial 463 LF
Wetland B	0.242 acre	41° 43.779	73° 55.575	PEM1/SS1	Perennial 121 LF
Wetland C	0.054 acre	41° 43.859	73° 55.549	PEM1/SS1	None Adjacent to Wetland B
Wetland D	0.101 acre	41° 44.061	73° 55.995	PF01B	Perennial 55 LF

4.0 JURISDICTION OVER WETLANDS ON PROJECT SITE

It appears that all of the waters delineated here are under the jurisdiction of the Army Corps of Engineers. Wetlands A and B are immediately adjacent to a perennial tributary to the Hudson River, a Traditionally Navigable Water, and are approximately 600 to 900 feet from the Hudson River. Wetland C is adjacent to Wetland B, separated by a small filled berm. The perennial tributary and the adjacency of the wetlands is an adequate connection (i.e., “significant nexus”) for the Corps to take jurisdiction over these wetlands. Similarly, Wetland D flows off-site to a roadside drainage/stream, located off-site that then appears to flow to the Hudson River

The waters on site are not regulated by the NYSDEC, given that the wetlands are too small (less than 12.4 acres) for jurisdiction under Environmental Conservation Law Article 24, Freshwater Wetlands. The

stream in Wetland A/B is not regulated by the NYSDEC as it is mapped as a Class/Standards C stream, and is thus not regulated.

The Town of Poughkeepsie has adopted a local Aquatic Resource Protection Law under Chapter 116 of the Town Code. Under Section 116-4, Definitions, the Town of Poughkeepsie defines "Buffer Area." The "buffer for all streams other than Wappinger Creek shall be 25 feet from the stream bank." A "stream" is defined as "any watercourse which appears as a solid blue line on the 2003 Aquatic Resources Map for the Town." Based on this definition, it would appear that Wetlands A and B, both of which contain the perennial stream that flows along the southern and eastern boundaries of the site, would be subject to this buffer. Since Wetland C is located adjacent to Wetland B, a 25 foot buffer has also been placed around Wetland C. Wetland D is 0.101 acre in size, and flow from this wetland appears to be carried by a perennial watercourse. A 25 foot buffer has been placed around Wetland D.

There is no work proposed in any of these aquatic resources or within their Town-regulated buffers.

5.0 LITERATURE CITED

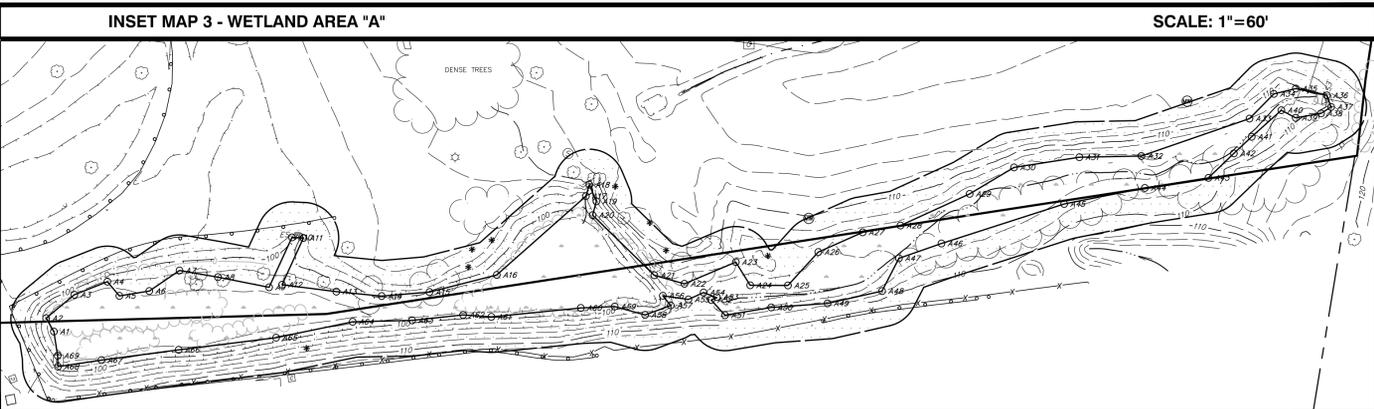
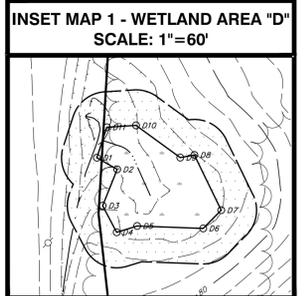
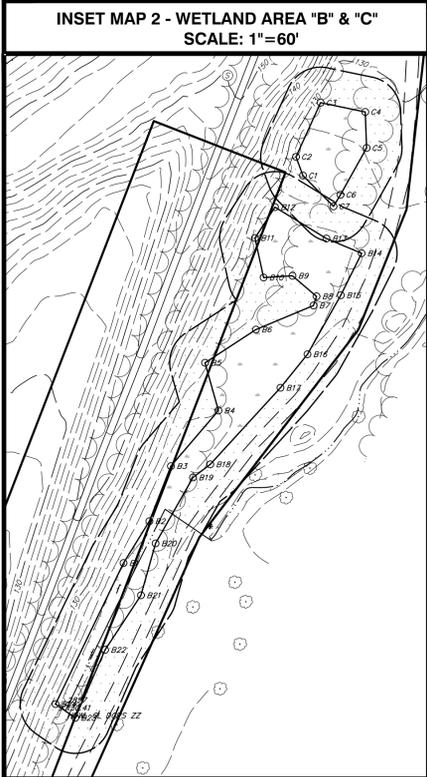
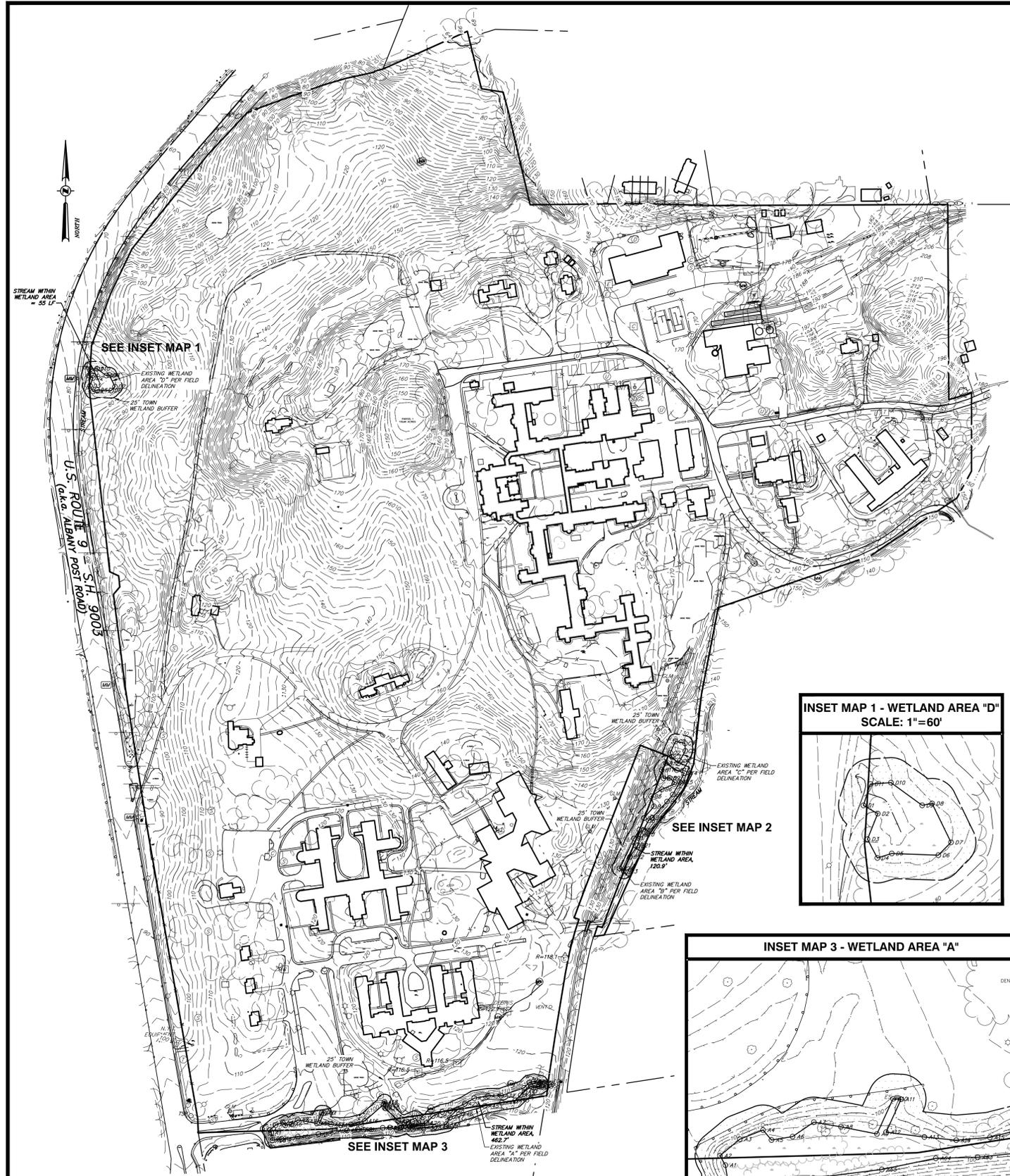
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ATTACHMENT A

Wetland Delineation Map



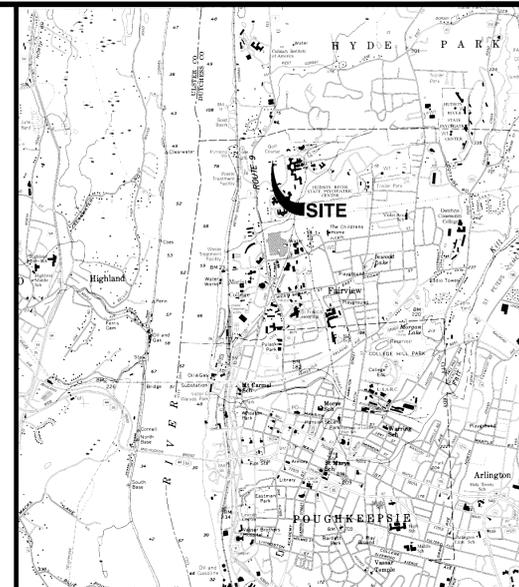
LEGEND:

EXISTING CONDITIONS:

- — — — — PROPERTY LINE NO PHYSICAL BOUNDS
- — — — — ADJACENT PROPERTY LINE
- 110 — — — — — EXISTING MAJOR CONTOUR
- — — — — EXISTING MINOR CONTOUR
- ▭ EXISTING BUILDING
- — — — — EXISTING GUIDERAIL
- x — x — x — EXISTING FENCE
- o — o — o — EXISTING STONE WALL
- o — o — o — EXISTING TREE LINE
- o — o — o — EXISTING BRUSH LINE
- OHW — — — — — EXISTING OVERHEAD WIRES

SYMBOLS:

- ⊕ EXISTING SIGN
- ⊕ EXISTING SIGN
- ⊕ EXISTING REFLECTOR MARKER
- ⊕ EXISTING MILE MARKER
- ⊕ EXISTING POST
- ⊕ EXISTING CONIFEROUS TREE
- ⊕ EXISTING DECIDUOUS TREE
- ⊕ EXISTING TREE STUMP
- ⊕ EXISTING SHRUB
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING CLEANOUT
- ⊕ EXISTING DRAINAGE MANHOLE
- ⊕ EXISTING CATCH BASIN
- ⊕ EXISTING YARD DRAIN
- ⊕ EXISTING END SECTION
- ⊕ EXISTING ELECTRIC MANHOLE
- ⊕ EXISTING ELECTRIC HAND HOLE
- ⊕ EXISTING ELECTRIC METER
- ⊕ EXISTING ELECTRIC BOX
- ⊕ EXISTING GUY WIRE
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING UTILITY POLE W/ LIGHT
- ⊕ EXISTING LIGHT POLE
- ⊕ EXISTING PANEL/SWITCH BOX
- ⊕ EXISTING CONDUIT TO/FROM UNDERGROUND
- ⊕ EXISTING GAS METER
- ⊕ EXISTING GAS STRUCTURE
- ⊕ EXISTING GAS VALVE
- ⊕ EXISTING WATER MANHOLE
- ⊕ EXISTING WELL
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING AUTO SPKLR. HYDRANT
- ⊕ EXISTING WATER SHUT OFF VALVE
- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING TELEPHONE MANHOLE
- ⊕ EXISTING TELEPHONE PEDESTAL
- ⊕ EXISTING UNKNOWN MANHOLE
- ⊕ EXISTING MONITORING WELL
- ⊕ EXISTING WETLAND FLAG



SITE LOCATION: 1"=1000'
SOURCE: U.S.G.S. POUGHKEEPSIE QUADRANGLE

NOTES:

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION.

SUBJECT TO ALL EASEMENTS OF RECORD.

CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS AS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATION SHALL RUN ONLY TO THE PERSON SO NOTED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS, OR SUBSEQUENT OWNERS.

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WETLANDS SHOWN HEREON AS PER FIELD DELINEATION ON SEPTEMBER 4, 2015 BY THE CHAZEN COMPANIES AND SURVEY LOCATION COMPLETED BY CHAZEN ENGINEERING & LAND SURVEYING CO., P.C. ON OCTOBER 27, 2015.

TAX PARCEL NUMBERS:

1. TAX PARCEL 6163-03-011149

AREA TABLE		
SURVEY LIMITS	178.696 ACRES	7,783,979 SQ. FT.
LOT 011149	155.899 ACRES	6,790,980 SQ. FT.
WETLAND "A"	0.680 ACRE	29,633 SQ. FT.
WETLAND "A" BUFFER	1.249 ACRES	54,406 SQ. FT.
WETLAND "B"	0.242 ACRE	10,520 SQ. FT.
WETLAND "B" BUFFER	0.572 ACRE	24,935 SQ. FT.
WETLAND "C"	0.054 ACRE	2,346 SQ. FT.
WETLAND "C" BUFFER	0.155 ACRE	6,754 SQ. FT.
WETLAND "D"	0.101 ACRE	4,407 SQ. FT.
WETLAND "D" BUFFER	0.204 ACRE	8,871 SQ. FT.

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I HEREBY CERTIFY THAT THIS SURVEY MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED OCTOBER 27, 2015 AND THAT THIS SURVEY MAP WAS MADE BY ME OR UNDER MY DIRECTION, AND CONFORMS WITH THE MINIMUM STANDARD OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

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Office Locations:

Dutchess County Office:
21 Fox Street
Poughkeepsie, New York 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street
Troy, New York 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road
Queensbury, New York 12804
Phone: (518) 812-0513

rev.	date	description

HUDSON HERITAGE - 3532 NORTH ROAD

WETLAND DELINEATION MAP

TOWN OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed FJM checked SJA
date 11/12/15 scale 1"=200'
project no. 81402.00
sheet no. **WD1**
1 OF 1

ATTACHMENT B

Hydric Soils Report

Hydric Rating by Map Unit—Dutchess County, New York
(Figure 3 Hydric Soils Map HRPC)



Map Scale: 1:7,070 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Hydric Rating by Map Unit—Dutchess County, New York
(Figure 3 Hydric Soils Map HRPC)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 12, Sep 23, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2011—Apr 16, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Dutchess County, New York (NY027)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DwB	Dutchess-Cardigan complex, undulating, rocky	1	0.0	0.0%
DwC	Dutchess-Cardigan complex, rolling, rocky	1	31.4	19.2%
DxB	Dutchess-Cardigan-Urban land complex, undulating, rocky	1	0.1	0.0%
HsA	Hoosic gravelly loam, nearly level	5	2.2	1.3%
HsB	Hoosic gravelly loam, undulating	5	40.3	24.6%
HsC	Hoosic gravelly loam, rolling	5	0.0	0.0%
HsE	Hoosic gravelly loam, 25 to 45 percent slopes	5	1.3	0.8%
HuA	Hoosic-Urban land complex, nearly level	5	27.9	17.0%
HuB	Hoosic-Urban land complex, undulating	5	37.9	23.1%
NwB	Nassau-Cardigan complex, undulating, very rocky	1	0.2	0.1%
NwC	Nassau-Cardigan complex, rolling, very rocky	1	8.3	5.0%
NwD	Nassau-Cardigan complex, hilly, very rocky	10	1.9	1.1%
NxE	Nassau-Rock outcrop complex, steep	5	9.4	5.7%
Wy	Wayland silt loam	88	3.1	1.9%
Totals for Area of Interest			163.9	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

ATTACHMENT C

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 9/4/2015
 Applicant/Owner: _____ State: NY Sampling Point: W-A-13
 Investigator(s): Richard Futyma & Jenna Sanford Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): valley of small stream Local Relief (concave, convex, none): _____ Slope %: 2
 Subregion (LRR or MLRA): _____ Latitude: 41.726986 ° N Longitude: 73.931008 ° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: <u>Wetland A</u>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of 2)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

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

Remarks:
 Surface water in stream ~5 feet from soil sample hole

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 NONE				Number of Dominant Species
2				That Are OBL, FACW, or FAC: <u>2</u> (A)
3				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
5				
6				
7				
(50%/20% = 0 / 0)	<u>0</u>			= Total Cover
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <i>Salix discolor</i>	<u>5</u>	Yes	FACW	Total % Cover of:
2				OBL species _____ x 1 _____
3				FACW species _____ x 2 _____
4				FAC species _____ x 3 _____
5				FACU species _____ x 4 _____
6				UPL Species _____ x 5 _____
7				Column Totals: _____ (A) _____ (B)
(50%/20% = 2.5 / 1)	<u>5</u>			= Total Cover
				Prevalence Index = B/A = _____



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1 <i>Leersia oryzoides</i>	75	yes	OBL	<input checked="" type="checkbox"/> Rapid Test for Hydrophytic Vegetation
2 <i>Glyceria</i> sp.	6	no	OBL	<input type="checkbox"/> Dominance test is >50%
3 <i>Impatiens capensis</i>	5	no	FACW	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
4 <i>Lythrum salicaria</i>	4	no	OBL	<input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet)
5 <i>Panicum punctatum</i>	4	no	OBL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6 <i>Panicum sagittatum</i>	3	no	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 <i>Pilea pumila</i>	2	no	FACW	
(50%/20% = 50 / 20)	99 = Total Cover			
Woody Vine Stratum (Plot size: _____)				Definitions of Vegetation Strata:
1 _____				Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
2 _____				Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.
3 _____				Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4 _____				Woody Vines: All woody vines greater than 3.28 ft in height.
5 _____				
6 _____				
7 _____				
(50%/20% = 0 / 0)	0 = Total Cover			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

RPF Photos 10 + 11

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	5 Y 3/1	100					fine sandy mucky silt, more mucky at depth	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed):	Hydric Soil Present?
Type: _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): _____	

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 9/4/2015
 Applicant/Owner: _____ State: NY Sampling Point: U-A-13
 Investigator(s): Richard Futyma & Jenna Sanford Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local Relief (concave, convex, none): _____ Slope %: 15
 Subregion (LRR or MLRA): _____ Latitude: 41.726986 ° N Longitude: 73.931008 ° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

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

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Robinia pseudoacacia</u>	30	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2 <u>Platanus occidentalis</u>	25	Yes	FACW	
3 <u>Acer saccharum</u>	20	Yes	FACU	Total Number of Dominant Species Across All Strata: <u>9</u> (B)
4 <u>Catalpa speciosa</u>	15	No	FACU	
5 <u>Juglans nigra</u>	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
6 _____				
7 _____				
(50%/20% = 48 / 19)	95 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Juglans nigra</u>	20	Yes	FACU	Total % Cover of: _____ Multiply by: _____
2 <u>Rhamnus cathartica</u>	20	Yes	FAC	
3 <u>Robinia pseudoacacia</u>	15	Yes	FACU	OBL species _____ x 1 _____
4 <u>Prunus pensylvanica</u>	5	No	FACU	FACW species _____ x 2 _____
5 _____				FAC species _____ x 3 _____
6 _____				FACU species _____ x 4 _____
7 _____				UPL Species _____ x 5 _____
(50%/20% = 30 / 12)	60 = Total Cover			Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = #DIV/0!

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Parthenocissus quinquefolia</i>	50	Yes	FACU	
2 <i>Toxicodendron radicans</i>	30	No	FAC	
3 <i>Vitis riparia</i>	3	No	FAC	
4 <i>Celtis occidentalis</i>	2	No	FAC	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 43 / 17)	85 = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
1 <i>Celastrus orbiculatus</i>	5	Yes	UPL	
2 <i>Vitis riparia</i>	3	Yes	FAC	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 4 / 1.6)	8 = Total Cover			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

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

RPF Photo 12

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10 YR 3/4	100					gravelly sandy loam	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 9/4/2015
 Applicant/Owner: _____ State: NY Sampling Point: W-A-30
 Investigator(s): Richard Futyma & Jenna Sanford Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): small stream valley Local Relief (concave, convex, none): concave Slope %: 2
 Subregion (LRR or MLRA): _____ Latitude: 41.727959° N Longitude: 73.928966° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of 2)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Surface water in the stream is 5 feet from the soil test hole.	

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Platanus occidentalis</u>	<u>5</u>	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	Prevalence Index worksheet:
7 _____	_____	_____	_____	
(50%/20% = <u>2.5</u> / <u>1</u>)	<u>5</u> = Total Cover	_____	_____	Total % Cover of: _____ Multiply by:
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	_____	_____	_____	OBL species _____ x 1 _____
1 <u>Robinia pseudoacacia</u>	<u>7</u>	Yes	FACU	FACW species _____ x 2 _____
2 <u>Lindera benzoin</u>	<u>5</u>	Yes	FACW	FAC species _____ x 3 _____
3 <u>Juglans nigra</u>	<u>2</u>	no	FACU	FACU species _____ x 4 _____
4 _____	_____	_____	_____	UPL Species _____ x 5 _____
5 _____	_____	_____	_____	Column Totals: <u>0</u> (A) <u>0</u> (B)
6 _____	_____	_____	_____	Prevalence Index = B/A = <u>#DIV/0!</u>
7 _____	_____	_____	_____	
(50%/20% = <u>7</u> / <u>2.8</u>)	<u>14</u> = Total Cover	_____	_____	

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Phalaris arundinacea</i>	85	Yes	FACW	
2 <i>Microstegium vimineum</i>	10	No	FAC	
3 <i>Impatiens capensis</i>	5	no	FACW	
4 <i>Lythrum salicaria</i>	4	No	OBL	
5 _____				
6 _____				
7 _____				
(50%/20% = 52 / 21)	104	= Total Cover		
Woody Vine Stratum (Plot size: _____)				
1 _____				
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = 0 / 0)	0	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	5Y 2.5/1	100					sandy, silty muck	
8-15	5Y 2.5/1	100					sandy muck	

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

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input checked="" type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 9/4/2015
 Applicant/Owner: _____ State: NY Sampling Point: U-A-30
 Investigator(s): Richard Futyma & Jenna Sanford Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): valley slope Local Relief (concave, convex, none): concave Slope %: 70
 Subregion (LRR or MLRA): _____ Latitude: 41.727959° N Longitude: 73.928966° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of 2)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 NONE				Number of Dominant Species
2				That Are OBL, FACW, or FAC: <u>1</u> (A)
3				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)
5				
6				
7				
(50%/20% = 0 / 0)	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <i>Robinia pseudoacacia</i>	<u>3</u>	Yes	FACU	Total % Cover of:
2 <i>Populus deltoides</i>	<u>2</u>	Yes	FAC	OBL species _____ x 1 _____
3 <i>Platanus occidentalis</i>	<u>1</u>	no	FACW	FACW species _____ x 2 _____
4				FAC species _____ x 3 _____
5				FACU species _____ x 4 _____
6				UPL Species _____ x 5 _____
7				Column Totals: _____ (A) _____ (B)
(50%/20% = 3 / 1.2)	<u>6</u>	= Total Cover		Prevalence Index = B/A = #DIV/0!



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Lotus corniculatus</i>	45	Yes	FACU	
2 <i>Schedonorus arundinaceus</i>	25	Yes	FACU	
3 <i>Microstegium vimineum</i>	10	No	FAC	
4 <i>Euthamia graminifolia</i>	5	No	FAC	
5 <i>Artemisia vulgaris</i>	5	No	UPL	
6 <i>Oenothera biennis</i>	1	No	FACU	
7				
(50%/20% = 46 / 18)	91	= Total Cover		Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: _____)				
1 <i>Celastrus orbiculatus</i>	30	yes	UPL	
2				
3				
4				
5				
6				
7				
(50%/20% = 15 / 6)	30	= Total Cover		Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/4	100					fine sandy loam	with some gravel
4+								too rocky or gravelly to dig.

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

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 10/21/2015
 Applicant/Owner: _____ State: NY Sampling Point: W-B-14
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): valley flat Local Relief (concave, convex, none): Concave Slope %: 1
 Subregion (LRR or MLRA): LRR R Latitude: 41.73058° N Longitude: 73.92614° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: PEM/PFO

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? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

<p>Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Water (A1)</td><td><input type="checkbox"/> Water Stained Leaves (B9)</td></tr> <tr><td><input type="checkbox"/> High Water Table (A2)</td><td><input type="checkbox"/> Aquatic Fauna (B13)</td></tr> <tr><td><input type="checkbox"/> Saturation (A3)</td><td><input type="checkbox"/> Marl Deposits (B15)</td></tr> <tr><td><input type="checkbox"/> Water Marks (B1)</td><td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td></tr> <tr><td><input type="checkbox"/> Sediment Deposits (B2)</td><td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td></tr> <tr><td><input type="checkbox"/> Drift Deposits (B3)</td><td><input type="checkbox"/> Presence of Reduced Iron (C4)</td></tr> <tr><td><input type="checkbox"/> Algal Mat or Crust (B4)</td><td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td></tr> <tr><td><input type="checkbox"/> Iron Deposits (B5)</td><td><input checked="" type="checkbox"/> Thin Muck Surface (C7)</td></tr> <tr><td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td><td><input type="checkbox"/> Other (Explain in Remarks)</td></tr> <tr><td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td><td></td></tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of 2)</p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
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<input type="checkbox"/> Microtopographic Relief (D4)																																
<input checked="" type="checkbox"/> FAC-Neutral Test (D5)																																
<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Platanus occidentalis</u>	85	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2 <u>Liriodendron tulipifera</u>	10	No	FACU	
3 _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
4 _____				
5 _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
6 _____				
7 _____				
(50%/20% = 48 / 19)	95 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Lindera benzoin</u>	10	Yes	FACW	Total % Cover of: _____ Multiply by: _____
2 <u>Rosa multiflora</u>	5	Yes	FACU	
3 <u>Celtis occidentalis</u>	5	Yes	FAC	OBL species _____ x 1 _____
4 _____				FACW species _____ x 2 _____
5 _____				FAC species _____ x 3 _____
6 _____				FACU species _____ x 4 _____
7 _____				UPL Species _____ x 5 _____
(50%/20% = 10 / 4)	20 = Total Cover			Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Microstegium vimineum</i>	80	Yes	FAC	
2 <i>Ranunculus hispidus</i>	5	No	FAC	
3 <i>Fraxinus pennsylvanica</i> (seedlings)	4	No	FACW	
4 <i>Solidago gigantea</i>	3	No	FACW	
5 <i>Geum canadense</i>	2	No	FAC	
6 _____				
7 _____				
(50%/20% = 47 / 19)	94	= Total Cover		
Woody Vine Stratum (Plot size: _____)				
1 <i>Celastrus orbiculatus</i>	5	Yes	UPL	
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = 2.5 / 1)	5	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					silt loam w/ humus	
3-12	10YR3/2	75	10YR 3/6	25	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 10/21/2015
 Applicant/Owner: _____ State: NY Sampling Point: U-B-14
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): old roadbed Local Relief (concave, convex, none): _____ Slope %: 1
 Subregion (LRR or MLRA): LRR R Latitude: 41.73058° N Longitude: 73.92614° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

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

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Juglans nigra</u>	65	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2 <u>Fraxinus pennsylvanica</u>	10	No	FACW	
3 <u>Acer platanoides</u>	5	No	UPL	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	Prevalence Index worksheet:
(50%/20% = 40 / 16)	80 = Total Cover	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	_____	_____	_____	Total % Cover of: _____ Multiply by:
1 <u>Fraxinus pennsylvanica</u>	2	Yes	FACW	
2 _____	_____	_____	_____	OBL species _____ x 1 _____ 0
3 _____	_____	_____	_____	FACW species _____ x 2 _____ 0
4 _____	_____	_____	_____	FAC species _____ x 3 _____ 0
5 _____	_____	_____	_____	FACU species _____ x 4 _____ 0
6 _____	_____	_____	_____	UPL Species _____ x 5 _____ 0
7 _____	_____	_____	_____	Column Totals: <u>0</u> (A) <u>0</u> (B)
(50%/20% = 1 / 0.4)	2 = Total Cover	_____	_____	Prevalence Index = B/A = #DIV/0!

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <i>Microstegium vimineum</i>	60	Yes	FAC	
2 <i>Artemisia vulgaris</i>	50	Yes	UPL	
3 <i>Hesperis matronalis</i>	5	No	FACU	
4 <i>Geum canadense</i>	3	No	FAC	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 59 / 24)	118 = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
1 <i>Celastrus orbiculatus</i>	3	Yes	UPL	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 1.5 / 0.6)	3 = Total Cover			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 2/1	100					gravelly coarse sand - udorthent	
14+							too dense to dig easily.	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	
<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	
<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: The soil is a udorthent, for it is fill that was used to construct a roadbed.



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 10/21/2015
 Applicant/Owner: _____ State: NY Sampling Point: W-D-8
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillside seep Local Relief (concave, convex, none): concave Slope %: 2
 Subregion (LRR or MLRA): LRR r Latitude: 41.73414° N Longitude: 73.93332° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: PFO

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? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or hydrology naturally problematic? (If needed, explain any answers in remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of 2)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: A stream with surface water was about 10 feet from the soil test hole.

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Acer platanoides</u>	25	Yes	UPL	Number of Dominant Species
2 <u>Salix x sepulcralis</u>	15	Yes	FACW	That Are OBL, FACW, or FAC: <u>4</u> (A)
3 <u>Carya cordiformis</u>	10	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
4 _____				Percent of Dominant Species
5 _____				That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
6 _____				
7 _____				
(50%/20% = 25 / 10)	50	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Acer platanoides</u>	15	Yes	UPL	Total % Cover of: _____ Multiply by: _____
2 <u>Lindera benzoin</u>	7	Yes	FACW	OBL species _____ x 1 _____
3 _____				FACW species _____ x 2 _____
4 _____				FAC species _____ x 3 _____
5 _____				FACU species _____ x 4 _____
6 _____				UPL Species _____ x 5 _____
7 _____				Column Totals: _____ (A) _____ (B)
(50%/20% = 11 / 4.4)	22	= Total Cover		Prevalence Index = B/A = _____



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1 <i>Symplocarpus foetidus</i>	5	Yes	OBL	
2 <i>Pilea pumila</i>	1	No	FACW	
3 <i>Ranunculus hispidus</i>	1	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	Definitions of Vegetation Strata:
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height.
(50%/20% = 3.5 / 1.4)	7 = Total Cover			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
(50%/20% = 0 / 0)	0 = Total Cover			

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

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	100					silty muck	
8-12	2.5Y 3/1	95	10YR 3/4	5	C	M	loamy fine sand	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input checked="" type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 81402.00 Hudson Heritage City/County: Town of Poughkeepsie, Dutchess County Sampling Date: 10/21/2015
 Applicant/Owner: _____ State: NY Sampling Point: U-D-8
 Investigator(s): Richard Futyma Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local Relief (concave, convex, none): concave Slope %: 10
 Subregion (LRR or MLRA): _____ Latitude: 41.73414° N Longitude: 73.93332° W Datum: WGS 84
 Soil Map Unit Name: _____ NWI Classification: _____

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

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____		
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

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

VEGETATION - Use Scientific Names of Plants.

Tree Stratum (Plot size: <u>20' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Acer saccharum</u>	50	Yes	FACU	Number of Dominant Species _____ (A)
2 <u>Acer platanoides</u>	25	Yes	UPL	That Are OBL, FACW, or FAC: _____ (A)
3 <u>Carya ovata</u>	15	No	FACU	Total Number of Dominant Species _____ (B)
4 <u>Liriodendron tulipifera</u>	10	No	FACU	Species Across All Strata: _____ (B)
5 <u>Carpinus caroliniana</u>	5	No	FAC	Percent of Dominant Species _____
6 _____				That Are OBL, FACW, or FAC: <u>#DIV/0!</u> (A/B)
7 _____				
(50%/20% = 53 / 21)	105 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>10' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 <u>Acer saccharum</u>	10	Yes	FACU	Total % Cover of: _____ Multiply by:
2 _____				OBL species _____ x 1 _____ 0
3 _____				FACW species _____ x 2 _____ 0
4 _____				FAC species _____ x 3 _____ 0
5 _____				FACU species _____ x 4 _____ 0
6 _____				UPL Species _____ x 5 _____ 0
7 _____				Column Totals: _____ 0 (A) _____ 0 (B)
(50%/20% = 5 / 2)	10 = Total Cover			Prevalence Index = B/A = <u>#DIV/0!</u>

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Vegetation (continued)

	Absolute % Cover	Dominant Species?	Indicator Status	
Herb Stratum (Plot size: <u>5' radius</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 <u>Vinca minor</u>	40	Yes	NL	
2 <u>Carya cordiformis</u> (seedlings)	1	No	FAC	
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = <u>21</u> / <u>8.2</u>)	<u>41</u>	= Total Cover		Definitions of Vegetation Strata: Tree: Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub: Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb: All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines: All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1 _____				
2 _____				
3 _____				
4 _____				
5 _____				
6 _____				
7 _____				
(50%/20% = <u>0</u> / <u>0</u>)	<u>0</u>	= Total Cover		

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

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TX6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
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Remarks:

ATTACHMENT D

Photographs of the Wetlands at the Project Site



Photo 1. View of Wetland A looking east from near Flag A1. Taken 9/4/2015.



Photo 2. View of Wetland A near Flag A16. Taken 9/4/2015.



Photo 3. View of Wetland A from near Flag A28. Taken 9/4/2015.



Photo 4. View of Wetland A looking west from near Flag A30, where a Data Point was taken. Taken 9/4/2015.



Photo 5. View of Wetland A looking east from near Flag A30, where a Data Point was taken.
Taken 9/4/2015.



Photo 6. View of Wetland A near Flag A35. Taken 9/4/2015.



Photo 7. View of Wetland A looking east from near Flag A50. Taken 9/4/2015.



Photo 8. View of Wetland A looking west from near Flag A50. Taken 9/4/2015.



Photo 9. View of Wetland A from near Flag A57. Taken 9/4/2015.



Photo 10. View of Wetland A looking east from near Flag A65. Taken 9/4/2015.



Photo 11. View of Wetland A looking west from near Flag A65. Taken 9/4/2015.



Photo 12. View of Wetland A looking east from near Flag A68. Taken 9/4/2015.



Photo 13. View looking south from Flag B-1 (on right) where stream enters from the east on the left hand side of photo. Additional wetlands are located behind (north) of the photographer.



Photo 14. View northward at Flags B-23/B-24 at headwall structure where stream flows in and under railroad embankment in left side of photo. From here, stream is conveyed underground to Wetland A.



Photo 15. View of wetland datapoint from flag B-14.



Photo 16. View of upland datapoint from flag B-14.



Photo 17. View of Wetland C at Flag C-1, located in left side of photo (red circle).



Photo 18. View west from Flag D8, where data was taken of Wetland D.



Photo 19. View west of Wetland D, towards NYS Route 9.



Photo 20. View of uplands from Wetland D.

