Wetland Delineation Report for the Black Diamond Solar Project Christian County, Illinois

Final Report

Prepared for:

Swift Current Energy

745 Atlantic Avenue, Floor 8
Boston, Massachusetts 02111

Prepared by:

Emily Stulik and T. Travis Brown

Western EcoSystems Technology, Inc.
408 West Sixth Street
Bloomington, Indiana 47404

August 18, 2020

WEST Inc.

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STUDY PARTICIPANTS

Meredith Rodriguez	Project Manager
Travis Brown	Research Biologist
Emily Stulik	Biologist
Martin Viereckl	GIS Analyst
Carissa Goodman	Technical Editor

REPORT REFERENCE

Stulik, E. and T. T. Brown. 2020. Wetland Delineation Report for the Black Diamond Solar Project, Christian County, Illinois. Final Report. Prepared for Swift Current Energy, Boston, Massachusetts. Prepared by Western EcoSystems Technology, Inc. (WEST), Bloomington, Indiana. August 2020.

ACKNOWLEDGEMENTS

Thank you to Dave Fowler, Matt Birchby, Stephanie Fowler, Daniel Sheehan, and all the staff and landowners at the Black Diamond Solar Project for the opportunity to work on this project.

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region*, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

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BACKGROUND

Swift Current Energy (Swift Current) requested that Western EcoSystems Technology, Inc. (WEST) complete a delineation of potentially jurisdictional waters within the leased land proposed for development of the Black Diamond Solar Project (Project). This report describes the potentially jurisdictional wetland features that are present in the Project and the data used to identify those features.

STUDY AREA

The Project is located in Christian County, Illinois, north and west of Tovey, Illinois. State Road 104 bisects the project (Figure 1). The Project is located within all or portions of the following townships:

- Christian Township T13N R3W, Sections 17, 18, 19, 20, 7, 8, 5, 6
- Christian Township T14N R3W Sections 31, 32
- Sangamon Township T13N R4W Section 12

The Project falls within the Central Corn Belt Plains (54) Level III Ecoregion, which has historically been characterized by flat to rolling plains with a mosaic of bluestem prairie and oak-hickory forest (Environmental Protection Agency 2017). The Project is located within the Town of Tovey-Clear Creek watershed, 071300070401.

The study area, which consists of parcels where land access was available within the Project Boundary, encompasses approximately 2,080 acres (ac; 841.7 hectares [ha]; Figure 2). The study area boundary hugs the edge of the forest/shrub fringe adjacent to Sangchris Lake. The wetland delineation did not extend past the study area boundary or into the forested buffer of Sangchris Lake.

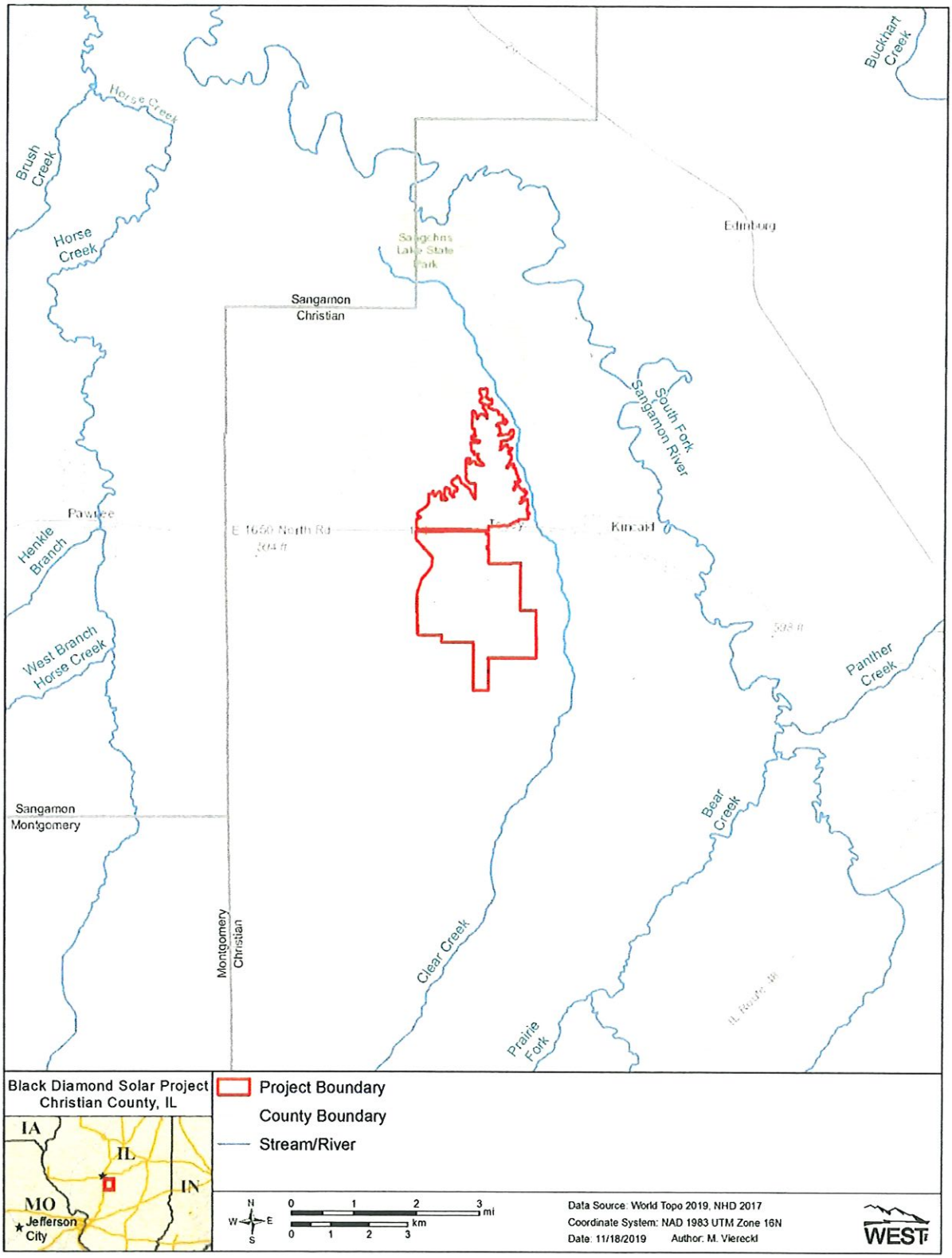

Figure 1. Overview of the proposed Black Diamond Solar Project area location in Christian County, Illinois.

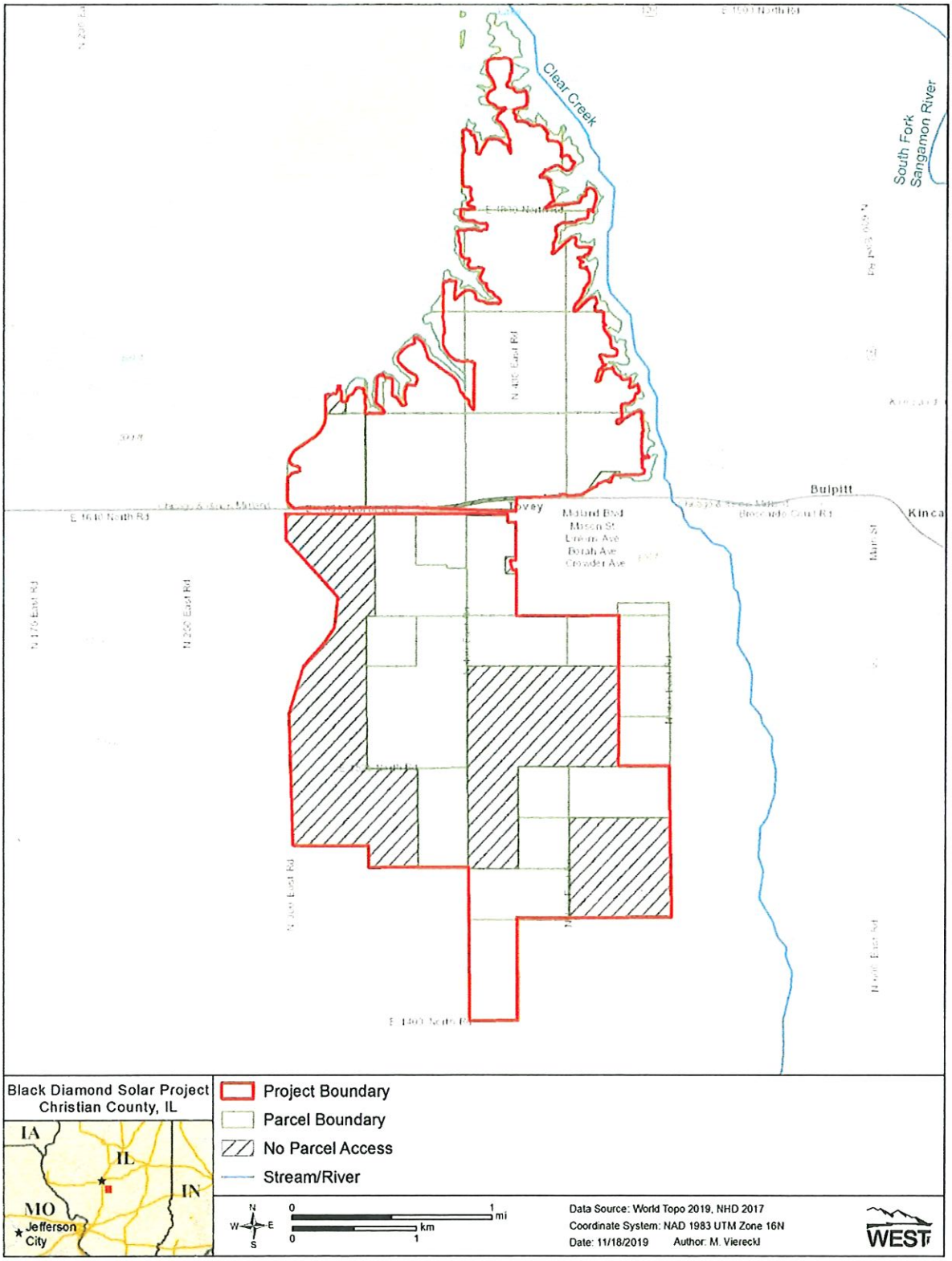

Figure 2. Topographic map of the study area for the proposed Black Diamond Solar Project in Christian County, Illinois.

METHODS

Wetland and Waterbody Survey

Desktop review and fieldwork were completed by seasoned ecologists who are trained in wetland delineation and plant identification. Prior to conducting fieldwork, WEST ecologists reviewed US Geological Survey (USGS) topographic maps, soil survey information from the US Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), US Fish and Wildlife Service National Wetlands Inventory (NWI) maps, National Hydrography Dataset (NHD) mapping, and the Federal Emergency Management Agency's National Flood Hazard Layer Viewer for indications of wetland or waterbody presence. In the field, WEST ecologists used protocols established by the US Army Corps of Engineers (USACE) to assess the study area for features that meet the wetland or waterbody criteria. These features were delineated in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and additional information provided within the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (USACE 2010). The USACE manuals emphasize a three-parameter approach to identify wetlands, including the presence of wetland hydrology, hydrophytic vegetation, and hydric soils.

Hydrology

Wetland hydrology indicators provide evidence that an area is at least periodically saturated or inundated by water. Examples of hydrology indicators include surface water, saturation, watermarks, drift lines, water-borne sediment deposits, water-stained leaves, and drainage patterns (USACE 2010). If present, hydrology indicators were recorded at each data point.

Vegetation

Hydrophytic plants are adapted to wetland conditions. Plant species nomenclature and indicator status were assigned according to the Midwest regional sub-list of *The National Wetland Plant List* (USACE 2018). A species list was compiled for each data point and an assessment of the dominant species was made to determine if the sample plot supported wetland vegetation.

Soils

Hydric soils have developed under reducing conditions caused by prolonged and repeated saturation or inundation. Hydric soil characteristics include a variety of hydric soil indicators described in the regional supplement (USACE 2010). The soils at each data point were examined for hydric soil indicators by digging a soil pit at least 16.0 inches (40.6 centimeters) below the surface (unless prevented by rock/hardpan).

These methods were applied to establish the presence and extent of wetlands. The delineated wetlands were classified according to methodologies set forth in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979).

Fieldwork for the Project was conducted from November 6 to November 8, 2019. Data point locations and wetland boundaries were recorded with an Arrow 100 Submeter Global

Positioning System (GPS) receiver. Ecologists were granted access to the majority of parcels within the study area. Any parcels within the study area not identified by Swift Current prior to the field survey were not accessed on November 6 – 8, 2019.

When potentially jurisdictional features were encountered in the study area, the boundaries of the features were recorded within the study area to aid in construction planning. All drainage features within the study area were reviewed to determine if they were Potential Waters of the US. Potential Waters of the US were identified by the presence of a definable bed and bank, ordinary high water mark, evidence of flow, surface connection to a Waters of the US, and/or presence of areas that met the USACE criteria for wetlands (USACE 2007).

SITE CONDITIONS

The Project is located on private land actively used for corn (*Zea mays*) and soybean (*Glycine max*) production. The Project spans both sides of IL Route 104 to the north and south. Sangchris Lake borders the northern border of the study area. The topography of the study area is mostly flat. Existing vegetation in the Project consists of grassy roadside vegetation, managed agricultural fields, forest bordering Sangchris Lake, and a grassy border between managed fields and the forested lake edge.

Climatic and hydrologic conditions at the Project were normal for the time of year. Springfield, IL, approximately 15 miles (mi; 24.1 kilometers [km]) northwest of the site, received a trace amount of precipitation and snowfall the week of the survey, according to month-to-date data in the daily climate report for Springfield. (National Oceanic and Atmospheric Administration 2019). Total rainfall during the previous month of October was 1.51 inches (in; 3.8 centimeter [cm]) greater than normal. A record daily snowfall of 2.3 in (5.8 cm) was recorded on October 31st, one week prior to the field survey.

RESULTS

Desktop Review

Soils

According to the USDA NRCS Web Soil Survey, 99.9% of the study area is underlain by hydric soils (Table 1; Figure 3). Ipava silt loam, 0 to 2 percent slopes, is the dominant soil type and is mapped over half of the Project area (Table 1; Figure 3).

Table 1. Soil type composition and hydric status of soils present within the Proposed Black Diamond Solar Project in Christian County, Illinois.

Map Unit Symbol	Map Unit Name	Acres in Project Area	Percent of Project Area[a]	Hydric Soil Rating[b]
43A	Ipava silt loam, 0 to 2 percent slopes	1,556.1	51.7%	Yes
50A	Virden silty clay loam, 0 to 2 percent slopes	875.2	29.1%	Yes
86B	Osco silt loam, 2 to 5 percent slopes	306.3	10.2%	Yes
705B	Buckhart silt loam, 2 to 5 percent slopes	104.2	3.5%	Yes
259C2	Assumption silt loam, 5 to 10 percent slopes, eroded	65.3	2.2%	Yes
45A	Denny silt loam, 0 to 2 percent slopes	38.9	1.3%	Yes
249A	Edinburg silty clay loam, 0 to 2 percent slopes	30.5	1.0%	Yes
244A	Hartsburg silty clay loam, 0 to 2 percent slopes	26.2	0.9%	Yes
675B	Greenbush silt loam, 2 to 5 percent slopes	4.4	0.1%	Yes
W	Water	2.7	0.1%	No
897C2	Bunkum-Atlas silt loams, 5 to 10 percent slopes, eroded	0.6	0.0%	No
Totals for Area of Interest[c]		**3,011.00**	**100.0%**	

[a] Soil composition generated from the USDA NRCS (2017a).

[b] Hydric status as indicated by the National Hydric Soils List (USDA NRCS 2017b).

[c] Totals may not be exactly equal the sum of values in columns due to rounding.

National Wetlands Inventory Wetlands and Waterways

A review of USGS topographic, NWI, and NHD sources indicated several emergent and forested wetlands and streams are mapped within the study area (Figure 4). Sangchris Lake is the largest waterbody mapped adjacent to the study area. When land access was granted, all mapped wetlands and waterways were investigated in the field to verify the presence of wetlands and streams in the study area. Mapped NWI wetlands located in the southwest portion of the study area could not be verified in the field due to lack of land access.

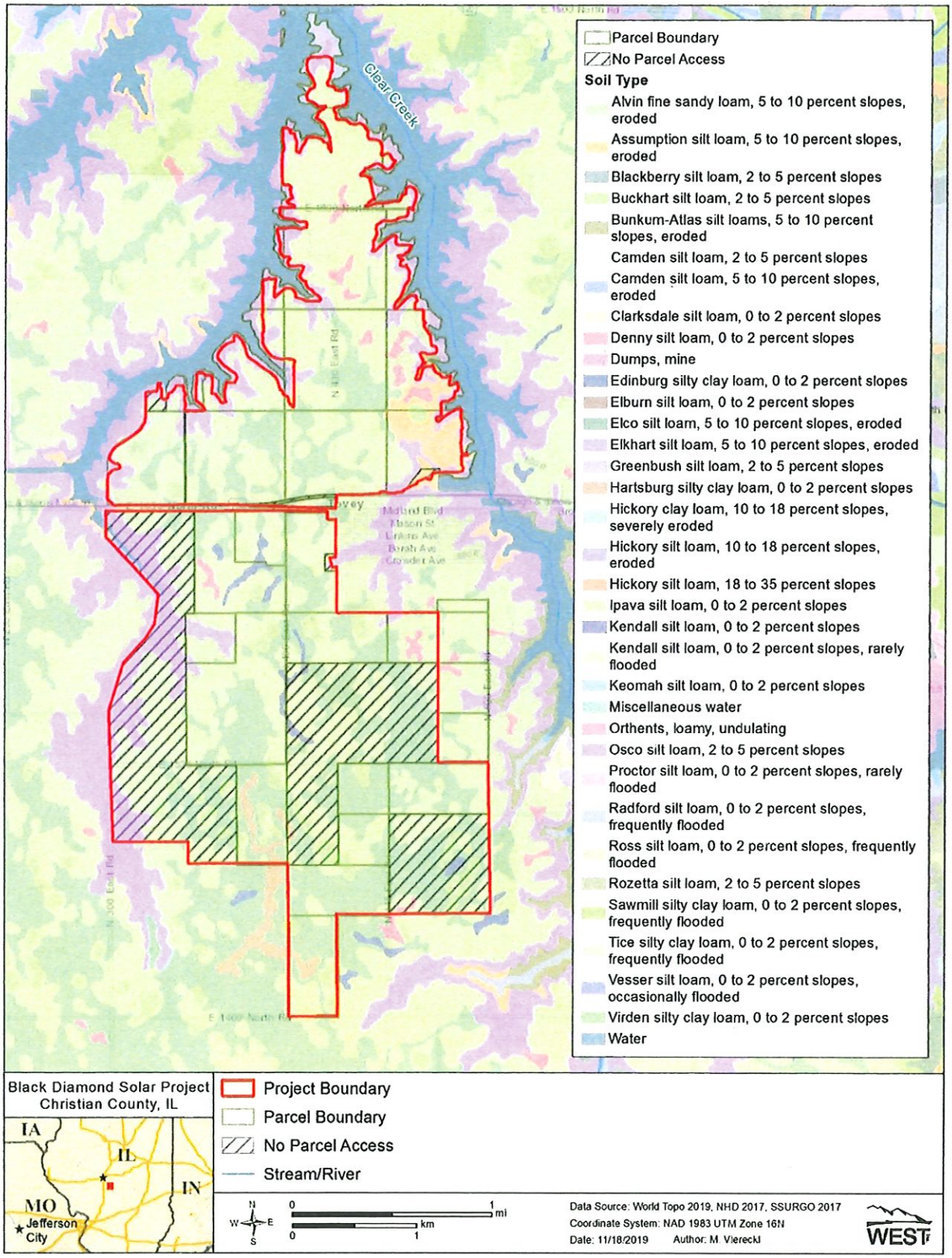

Figure 3. Soil types mapped within the proposed Black Diamond Solar Project, Christian County, Illinois.

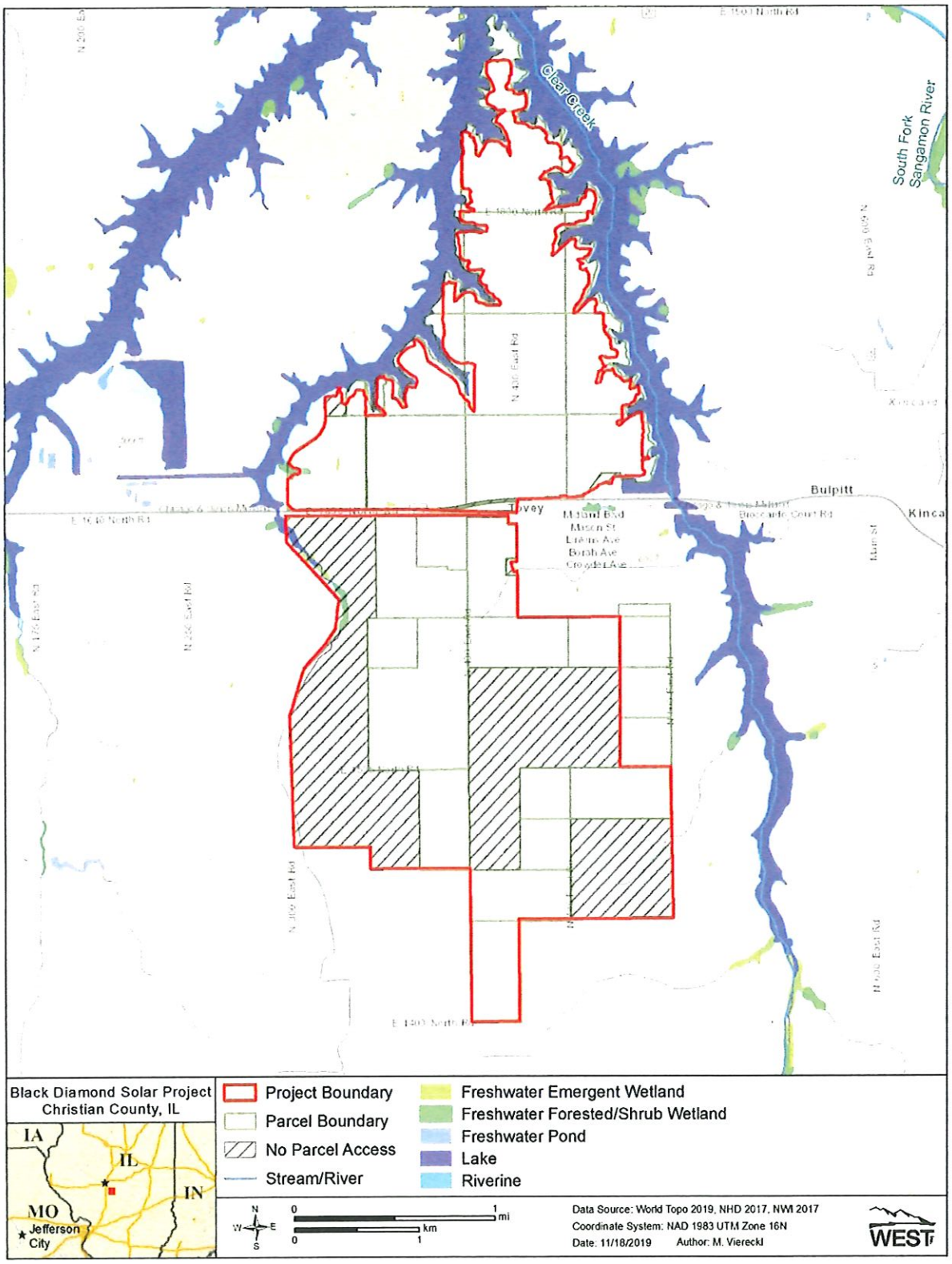

Figure 4. National Wetlands Inventory mapping within the Proposed Black Diamond Solar Project area, Christian County, Illinois.

Field Delineation

In total, one waterway and eleven wetlands were field-verified and delineated within the study area. All delineated wetlands met all three indicators necessary for a positive wetland determination. Wetland data forms and photographs are provided in Appendix A.

Streams

Stream 1 is a grass-lined swale with a defined bed, bank, and ordinary high water mark (OHWM). It is located in the southwest Project north of Route 104. Stream 1 is piped under a paved, private road where it drains adjacent agricultural fields to Sangchris Lake about 250 feet (ft; 76.2 meter [m]) north of the road. A segment of the stream is piped underground in a reed canary grass (*Phalaris arundinacea*) – dominated field north of the road. The dominant substrate is silt and clay with some sparse grass and vegetation in the channel. The streambanks are dominated by *Phalaris arundinacea* and Pennsylvania smartweed *(Persicaria pensylvanica)*. Stream 1 exhibited intermittent flow and is classified as a riverine intermittent, seasonally flooded, excavated waterway (R4SBCx). Approximately 178.3 linear ft of Stream 1 flows in the study area. The OHWM of Stream 1 is approximately 3 ft wide and six in deep.

Wetlands

Eleven wetlands were delineated within the study area, including eight emergent wetlands, three farmed emergent wetlands, and one forested wetland (Table 2, Figure 5). The majority of delineated wetlands are low, *Phalaris*-dominated grassy areas bordering adjacent agricultural fields and the forested border of Sangchris Lake. These wetlands often extend outside of the study area and drain to Sangchris Lake. In total, 20 data points were sampled in the Project (Appendix A).

Emergent Wetlands: Wetlands 1 through 5, Wetlands 8 and 11

Seven emergent, seasonally flooded wetlands classified as PEM1C were delineated in the study area. Wetland 1 and 5 are mapped as PFO1Ah, Palustrine Forested, Broad-Leaved Deciduous, Temporarily Flooded, Diked/Impounded wetlands in the NWI, but are more indicative of emergent, temporarily flooded wetlands (PEM1C) based on field observations (Table 2; Figure 6). All wetlands are low, grassy areas dominated by *P. arundinacea* and exhibited the hydric soil indicator redox dark surface. Hydrology indicators included drainage patterns, geomorphic position, oxidized rhizospheres on living roots, and high water table. All emergent wetlands extend outside the study area and drain to Sangchris Lake.

Farmed Emergent Wetlands: Wetlands 6, 9, and 10.

Wetlands 6, 9 and 10 are all farmed wetlands located in depressions within active, cultivated agricultural fields (Figures 6 – 8). All three wetlands are disturbed/atypical due to crop production. Surface water was present at each wetland and all wetlands met indicators for hydrology and hydric soils. Wetlands 9 and 11 were dominated by hydrophytic vegetation such as roughfruit amaranth (*Amaranthus tuberculatus)*, barnyard grass (*Echinochloa crus-galli)*, and rough cocklebur (*Xanthium stumarium*). . Hydrophytic vegetation was not present at Wetland 6 despite hydric soil and wetland hydrology indicators; therefore, the procedure described under

"problematic hydrophytic vegetation" in the Midwest regional supplement (USACE 2010) was used to determine whether hydrophytic vegetation would likely be present under undisturbed conditions (data point DP6w, Appendix A).

Forested Wetland: Wetland 7

One wetland, Wetland 7, was delineated and classified as a forested, temporarily flooded, PFO1A wetland (Table 2; Figure 6). The herbaceous stratum of Wetland 7 is dominated by *P. arundinacea*, but trees such as hackberry (*Celtis occidentalis*) and honey locust (*Gleditsia triacanthos*) were present and comprise 40% absolute cover of the survey plot. Surface water and a water table 16 in (40.6 cm) deep were observed at Wetland 7.

Table 2. Characteristics of wetlands delineated within the proposed Black Diamond Solar Project study area.

Wetland Number	Data Point	Type	Delineated Acreage	Waters of the US?[1]
Wetland 1	DP 1w	PEM1C	0.68	Yes
Wetland 2	DP 2w	PEM1C	0.79	Yes
Wetland 3	DP 3w	PEM1C	0.08	Yes
Wetland 4	DP 4w	PEM1C	0.35	Yes
Wetland 5	DP 5w	PEM1C	0.06	Yes
Wetland 6	DP 6w	PEM1Af	1.13	No
Wetland 7	DP 7w	PFO1C	0.14	Yes
Wetland 8	DP 8w	PEM1C	0.11	Yes
Wetland 9	DP 9w	PEM1Af	1.00	No
Wetland 10	DP 10w	PEM1Af	1.29	No
Wetland 11	DP 11w	PEM1C	0.12	Yes
Total			**5.74**	

PEM1C = Palustrine emergent persistent wetland, seasonally flooded; PEM1Af = Palustrine emergent persistent wetland, temporarily flooded, farmed; PFO1C = Palustrine forested, broad-leaved deciduous, seasonally flooded.

[1] Determination is based on best judgment and guidelines set forth by USACE. The final determination of jurisdictional waters is ultimately made by the appropriate regulatory staff of USACE.

Uplands

In total, nine data points were recorded in sample plots that lacked wetland indicators necessary for a positive wetland determination. Uplands in the study area were primarily vegetated by agricultural row crops (*Zea mays* and *Glycine max*), and upland grasses and forbs including tall fescue (*Schedonorus arundinaceus*) and goldenrod (*Solidago* sp). Most upload points were paired with a corresponding wetland point to delineate the wetland boundary. DP12u was sampled in a NWI-mapped R4SBC riverine wetland, but did not support hydric soils.

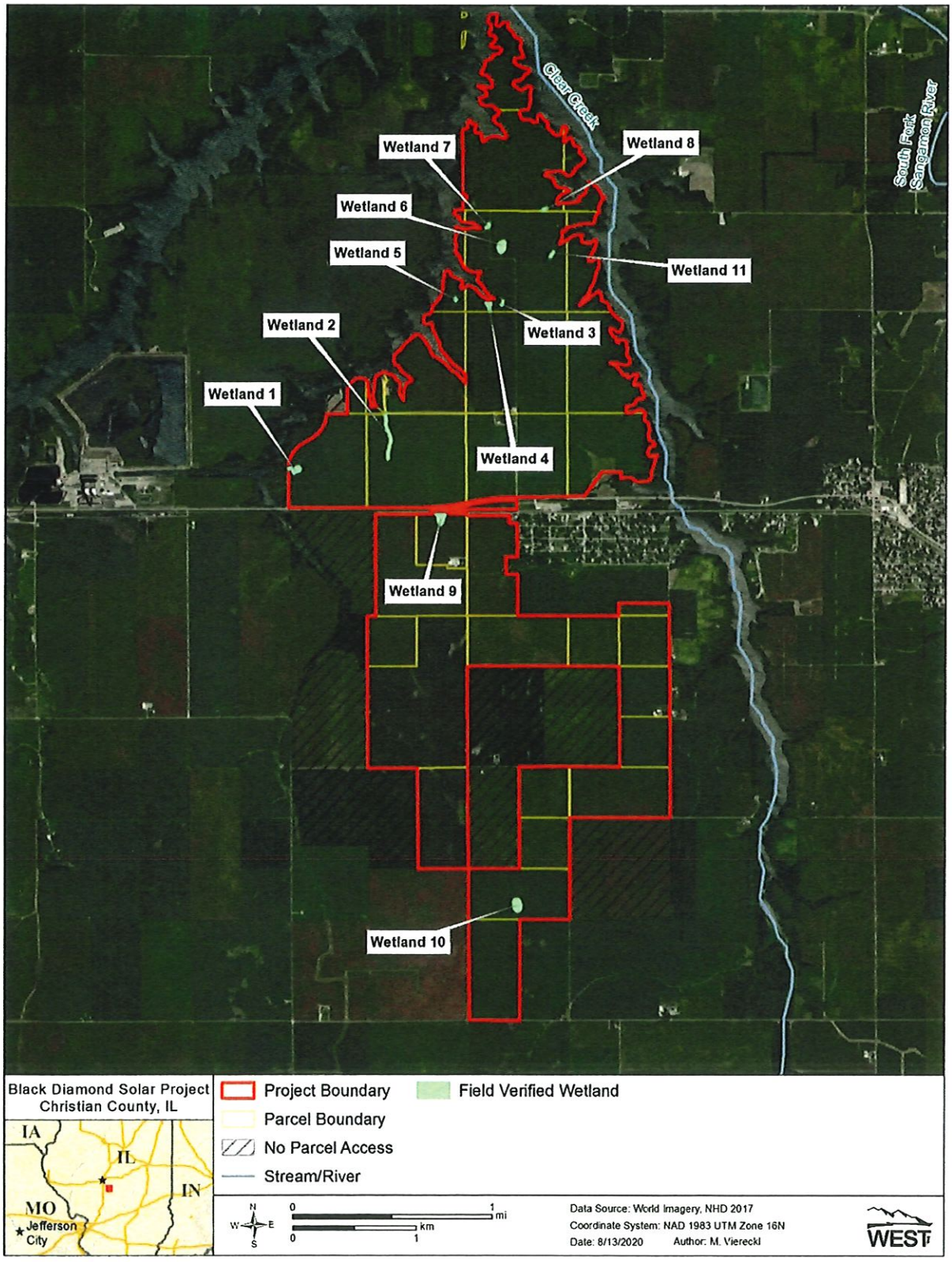

Figure 5. Overview of field-verified streams and wetlands intersecting the Proposed Black Diamond Solar Project study area.

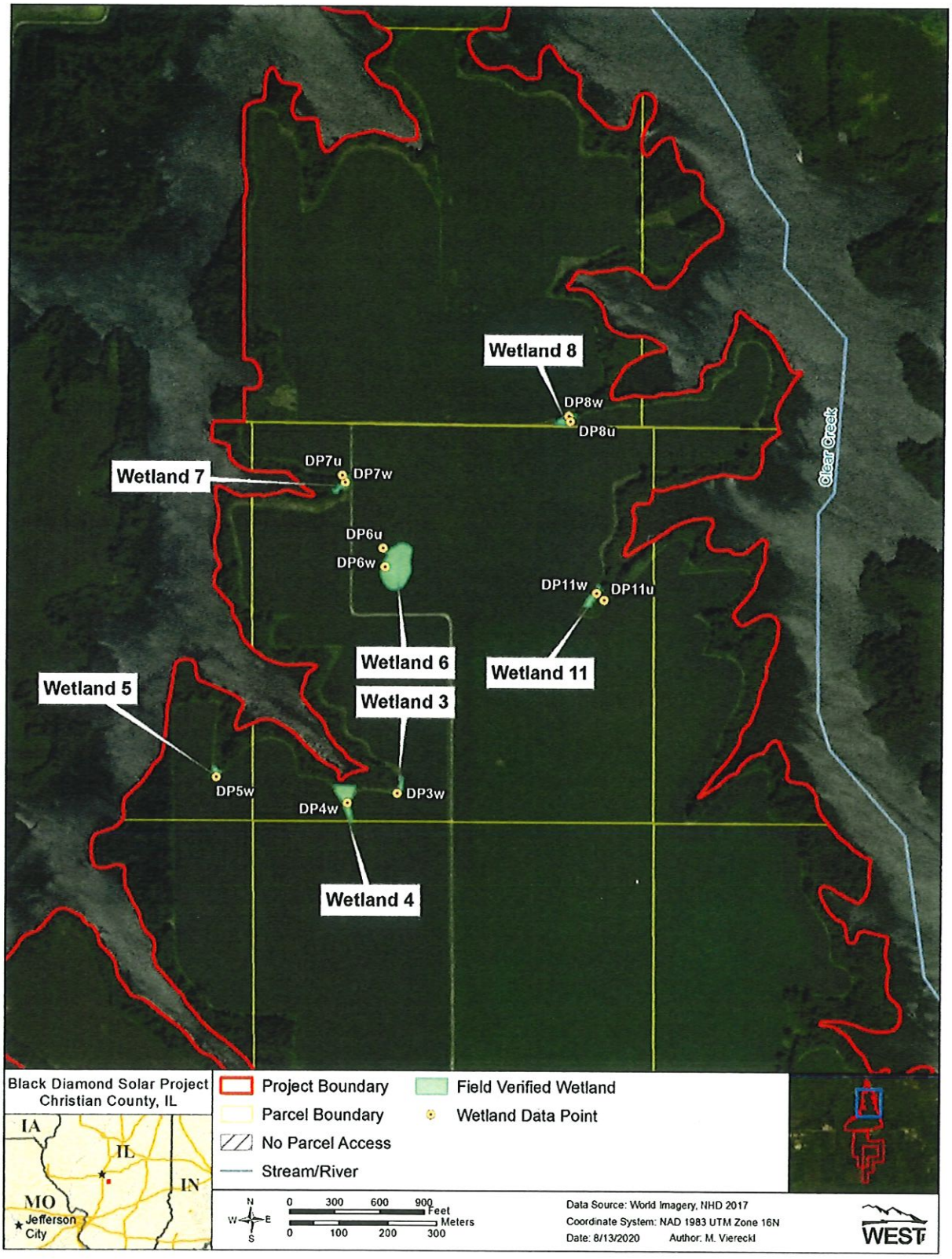

Figure 6. Detailed view of field-verified wetlands at the Proposed Black Diamond Solar Project study area.

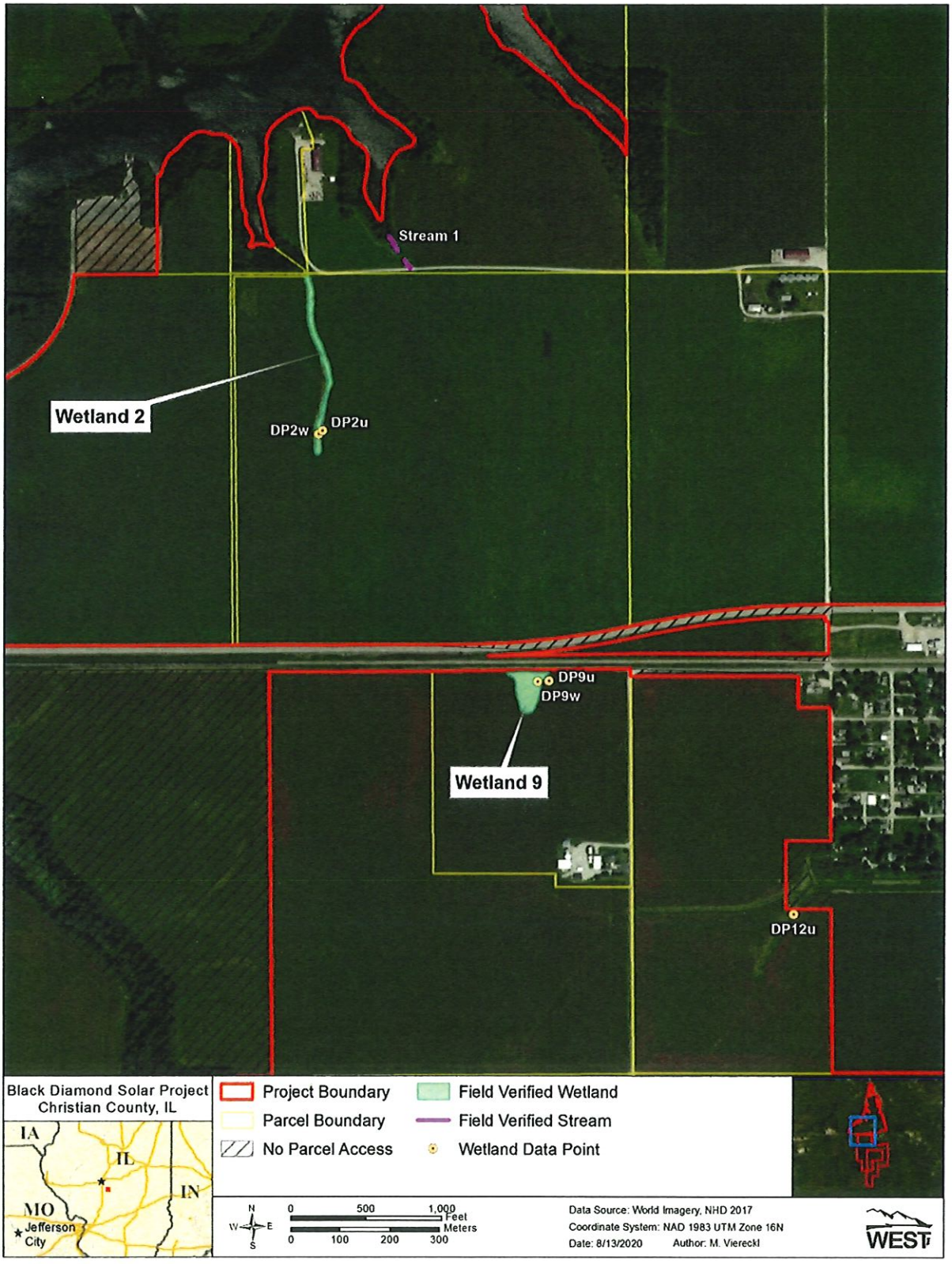

Figure 7. Detailed view of field-verified wetlands at the Proposed Black Diamond Solar Project study area.

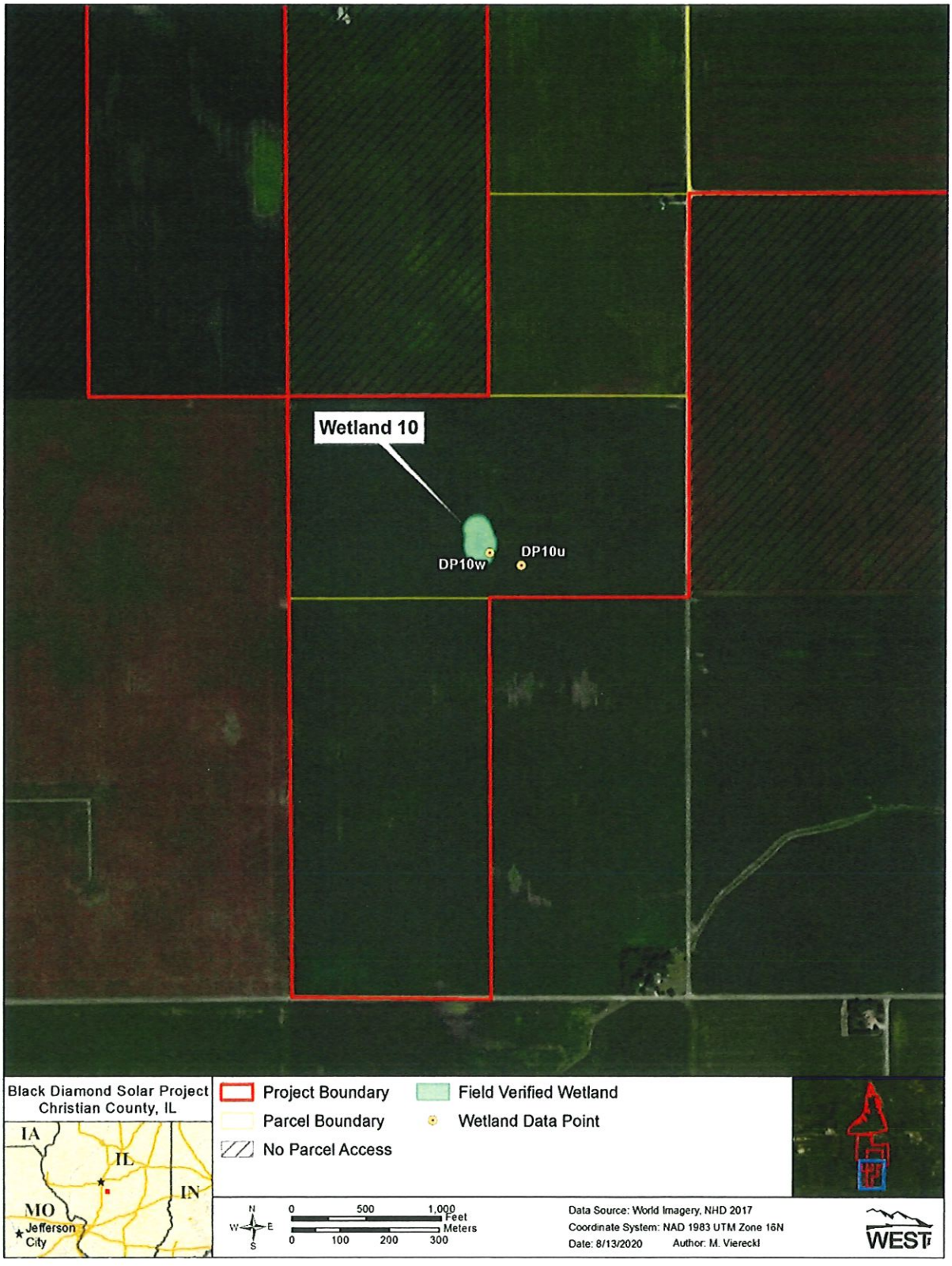

Figure 8. Detailed view of field-verified wetlands at the Proposed Black Diamond Solar Project study area.

CONCLUSIONS

Although much of the study area is underlain by hydric soil types (Table 1), nearly all land within the Project has been converted to agricultural use through extensive drainage alteration and tile installation. Land in the study area drains to the adjacent Sanchris Lake, and the forested/shrub border of the lake supports wetlands, including some that extend into the study area. In total, 11 wetlands and one stream were delineated in the study area.

Under the new WOTUS definition that took effect June 22, 2020[1], standing bodies of open water that contribute surface water flow to a traditionally navigable water in a typical year, either directly or through one or more tributaries or Waters of the US, are considered jurisdictional Waters of the US. Adjacent wetlands must have surface water connection to WOTUS, be in the flood zone of WOTUS, or be separated by a natural structure from WOTUS. Non-jurisdictional waters include ephemeral features, groundwater supported waters, farm and roadside ditches (if they do not replace natural waterways), prior converted croplands, artificially irrigated areas, storm water features, among others (USACE and US Environmental Protection Agency [USEPA] 2020).

Based on WEST's interpretation of the new WOTUS definition, eight of the 11 delineated wetlands and Stream 1 are likely to be considered jurisdictional Waters of the US, due to their proximity and surface connection to Sangchris Lake, a WOTUS. Sangchris Lake empties to the Sangamon River, a traditionally navigable waterway, via the South Fork Sangamon River (USACE 2007). In contrast, Wetlands 6, 9, and 10 are isolated wetland depressions in agriculture fields, and are unlikely to be considered jurisdictional Waters of the US.

At this time, final project design is not available in order to calculate wetland impacts; however, dredge or fill materials placed in WOTUS will require a Section 404 permit from the USACE. The USACE nationwide permit program provides an expedited permit process for specific activities that result in limited impacts to WOTUS, including wetlands. A solar facility may qualify for Nationwide permit 51 – Land-based renewal energy projects if impacts are less than 0.5 ac and less than 300 linear ft of stream. NWP 51 requires notification to USACE if impacts exceed 0.1 ac. NWP 51 directs users to apply NWP 12 – Utility Lines or NWP 14 – Linear Transportation if only these infrastructure components will impact WOTUS. NWP 12 may be used for utility lines and associated infrastructure such as substations, poles, or access roads. This permit has a 0.5 acre limit, with notification to USACE required for mechanized clearing in forested wetland, crossings exceeding 500 ft, lines placed parallel to stream beds, impacts exceeding 0.1 ac, permanent access roads above grade (located in WOTUS for a distance greater than 500 ft), or permanent access roads with impervious materials. NWP 12 considers each waterbody crossing a single and complete project, though this determination may be subject to interpretation of the district engineer depending on characteristics of the relevant

[1] 85 Federal Register 22250 (April 21, 2020). As of the date on this report, numerous lawsuits challenging the new rule are pending (King and Northey 2020), which could result in a temporary stay of the new WOTUS rule while litigation proceeds. If the new rule is revoked, jurisdictional determinations may change.

waters and distances between crossings. NWP 14 is typically used for roads that are not specifically required for construction, access, or ongoing maintenance of utility lines or substations. Similar authorization and notification thresholds exist between NWP 12 and 14, with two notable differences: any wetland impact requires notification under NWP 14, and stream channel impacts are limited to 300 linear ft for Section 401 certification. All NWPs have 32 General Permit conditions that should be reviewed as part of the permit strategy planning (USACE 2017).

In addition to the federal USACE regulations, the state of Illinois has a variety of laws and acts that may apply to wetland and waterbody impacts, including Clean Water Act Section 401 Water Quality Certification which is overseen by the Illinois EPA. Illinois EPA has granted conditional Water Quality Certification for all USACE NWPs. If a Pre-Construction Notification is required, a joint permit application will need to be submitted to ensure coverage across all regulatory agencies, including the Illinois EPA and Illinois Department of Natural Resources (USACE 2011).

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Appendix A. US Army Corps of Engineers Midwest Region Datasheets and Photographs

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP1w

Investigator(s): ES, JW Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° Lat.: 39.593211 Long.: -89.477061 Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes NWI classification: PEM1C

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 ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Phalaris arundinacea	99	☑ 99.0%	FACW
2. Solidago gigantea	1	☐ 1.0%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 2.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

* Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP1w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100						Silty Clay	
4-24	10YR	3/1	78	7.5YR	3/3	10	C	PL	Silty Clay	
+mottle	10YR	5/6	10	10YR	6/1	2	D	M	Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	2
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP1w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8454.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8457.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP1u

Investigator(s): ES, JW | Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° | Lat.: 39.593264 | Long.: -89.477011 | Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes | NWI classification: None

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 ( ) No (•)	**Is the Sampled Area within a Wetland?** Yes ( ) No (•)
Hydric Soil Present?	Yes ( ) No (•)	
Wetland Hydrology Present?	Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Elymus virginicus	2	[ ] 2.0%	FACW
2. Phalaris arundinacea	30	[✓] 30.0%	FACW
3. Solidago altissima	2	[ ] 2.0%	FACU
4. Zea mays	66	[✓] 66.0%	UPL
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	32	x 2 =	64
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	66	x 5 =	330
Column Totals:	100 (A)		402 (B)

Prevalence Index = B/A = 4.020

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (•)

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP1u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					Silty Clay Loam	
12-18	10YR 3/2	60	7.5YR 3/3	10	C	M	Silty Clay Loam	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP1u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8468.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: -89.477011 Lat/Northing: 39.593264

Description:

Photo File: DSCN8470.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP2w

Investigator(s): ES, JW Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° Lat.: 39.594226 Long.: -89.468758 Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes NWI classification: PEM1C

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 ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Salix interior	3	☑ 30.0%	FACW
2. Elaeagnus umbellata	7	☑ 70.0%	UPL
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Phalaris arundinacea	90	☑ 90.0%	FACW
2. Phragmites australis	2	☐ 2.0%	FACW
3. Solidago altissima	5	☐ 5.0%	FACU
4. Cornus alba	3	☐ 3.0%	FACW
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	7	x 5 =	35
Column Totals:	110 (A)		251 (B)

Prevalence Index = B/A = 2.282

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP2w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/1	100					Silty Clay	
3-16	10YR	3/1	78	7.5YR	3/4	10	C	PL	Silty Clay
+mottle	10YR	5/4	10	7.5YR	5/1	2	D	M	Silty Clay

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	3	
Water Table Present?	Yes ◉	No ○	Depth (inches):	5	**Wetland Hydrology Present?** Yes ◉ No ○
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	0	

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

Remarks:

Plot ID: DP2w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8476.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8477.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP2u

Investigator(s): ES, JW | Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 39.594289 | Long.: -89.468669 | Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes | NWI classification: None

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 ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)				
1. Elaeagnus umbellata	1	[ ]	100.0%	UPL
2.	0	[ ]	0.0%	
3.	0	[ ]	0.0%	
4.	0	[ ]	0.0%	
5.	0	[ ]	0.0%	
	1	= Total Cover		
Herb Stratum (Plot size: 5ft)				
1. Schedonorus arundinaceus	40	[✓]	38.1%	FACU
2. Trifolium pratense	15	[ ]	14.3%	FACU
3. Agrostis gigantea	15	[✓]	14.3%	FACW
4. Setaria viridis	10	[ ]	9.5%	UPL
5. Bromus inermis	25	[✓]	23.8%	FACU
6.	0	[ ]	0.0%	
7.	0	[ ]	0.0%	
8.	0	[ ]	0.0%	
9.	0	[ ]	0.0%	
10.	0	[ ]	0.0%	
	105	= Total Cover		
Woody Vine Stratum (Plot size: 15ft)				
1.	0	[ ]	0.0%	
2.	0	[ ]	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	11	x 5 =	55
Column Totals:	106 (A)		405 (B)

Prevalence Index = B/A = 3.821

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP2u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/2	100						Silty Clay	
3-16	10YR	3/1	91	10YR	3/4	5	C	M	Silty Clay	
+mottle	10YR	5/1	2	7.5YR	5/4	2	C	M	Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP2u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8495.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8497.JPG Orientation: -facing

Lat Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP3w

Investigator(s): ES, JW Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° Lat.: 39.604923 Long.: -89.458153 Datum: WGS 84

Soil Map Unit Name: Osco silt loam, 2 to 5 percent slopes NWI classification: PEM1C

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 ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1. Gleditsia triacanthos	15	☑ 75.0%	FACU
2. Acer saccharinum	5	☑ 25.0%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Gleditsia triacanthos	3	☑ 37.5%	FACU
2. Cornus alba	5	☑ 62.5%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	8	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Apocynum cannabinum	2	☐ 2.1%	FAC
2. Phalaris arundinacea	94	☑ 96.9%	FACW
3. Rubus occidentalis	1	☐ 1.0%	UPL
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	97	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	104	x 2 =	208
FAC species	2	x 3 =	6
FACU species	18	x 4 =	72
UPL species	1	x 5 =	5
Column Totals:	125 (A)		291 (B)

Prevalence Index = B/A = 2.328

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP3w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/2	100					Silty Clay Loam	
4-16	10YR	3/2	60	10YR	5/6	5	C	M	Silty Clay Loam
+mottle	10YR	4/2	25	7.5YR	3/3	10	C	PL	Silty Clay Loam

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☑ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP3w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8546.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8547.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP3w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8568.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 06-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP4w

Investigator(s): ES, JW | Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° | Lat.: 39.604742 | Long.: -89.459338 | Datum: WGS 84

Soil Map Unit Name: Osco silt loam, 2 to 5 percent slopes | NWI classification: PEM1C

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1. Acer saccharinum	5	✓ 100.0%	FACW
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Gleditsia triacanthos	1	✓ 100.0%	FACU
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	1	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Solidago gigantea	1	1.0%	FACW
2. Solidago altissima	1	1.0%	FACU
3. Phalaris arundinacea	100	✓ 98.0%	FACW
4.	0	0.0%	
5.	0	0.0%	
6.	0	0.0%	
7.	0	0.0%	
8.	0	0.0%	
9.	0	0.0%	
10.	0	0.0%	
	102	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	0.0%	
2.	0	0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	106	x 2 =	212
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	108 (A)		220 (B)

Prevalence Index = B/A = 2.037

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP4w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	75	7.5YR 3/4	20	C	PL	Silty Clay Loam	
+mottle			10YR 5/1	5	D	M	Silty Clay Loam	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉ No ○	Depth (inches):	2
Water Table Present?	Yes ◉ No ○	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ◉ No ○	Depth (inches):	0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP4w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8558.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8556.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP4w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8562.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8563.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP5w

Investigator(s): ES, JW Section, Township, Range: S 6 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° Lat.: 39.605207 Long.: -89.462440 Datum: WGS 84

Soil Map Unit Name: Osco silt loam, 2 to 5 percent slopes NWI classification: PEM1C

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 (•) No ( )	**Is the Sampled Area within a Wetland?** Yes (•) No ( )
Hydric Soil Present?	Yes (•) No ( )	
Wetland Hydrology Present?	Yes (•) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Gleditsia triacanthos	3	[✓] 50.0%	FACU
2. Lonicera maackii	3	[✓] 50.0%	UPL
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	6	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Phalaris arundinacea	100	[✓] 98.0%	FACW
2. Toxicodendron radicans	2	[ ] 2.0%	FAC
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	102	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	2	x 3 =	6
FACU species	3	x 4 =	12
UPL species	3	x 5 =	15
Column Totals:	108 (A)		233 (B)

Prevalence Index = B/A = 2.157

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (•) No ( )

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP5w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR	3/2	100						Silty Clay	
5-16	10YR	3/2	83	7.5YR	3/3	10	C	PL	Silty Clay	
+mottle	10YR	5/2	2	10YR	5/6	5	C	M	Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP5w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8573.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8571.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP5w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8575.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP6w

Investigator(s): ES, JW Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 39.609042 Long.: -89.458458 Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes NWI classification: PEM1Af

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 ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Cultivated cropland with saturated soil and standing water, recently tilled, Zea mays, tiling presumed

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Zea mays	25	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	25	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	25 (A)		125 (B)

Prevalence Index = B/A = 5.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

Vegetation disturbed, atypical due to active cultivation. Site lacks natural plant community but would likely support hydrophytic vegetation in typical/undisturbed situation due to presence of hydric soils and hydrology.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP6w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	4/1	98	7.5YR	3/3	2	C	PL	Silty Clay Loam	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	5
Water Table Present?	Yes ◉	No ○	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP6w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8596.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8598.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP6u

Investigator(s): ES, JW | Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 39.609379 | Long.: -89.458513 | Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes | NWI classification: None

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 ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Active agricultural field

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Zea mays	50	[✓] 100.0%	UPL
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	50	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP6u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR	3/2	100					Silty Clay Loam	
8-16	10YR	3/2	99	10YR	5/1	1	D	M	Silty Clay Loam

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP6u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8601.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8602.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP7w

Investigator(s): ES, JW | Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Swale | Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° | Lat.: 39.610581 | Long.: -89.459416 | Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes | NWI classification: PFO1C

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1. Gleditsia triacanthos	20	✓ 50.0%	FACU
2. Populus deltoides	5	12.5%	FAC
3. Celtis occidentalis	10	✓ 25.0%	FAC
4. Morus alba	5	12.5%	FAC
5.	0	0.0%	
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Lonicera maackii	15	✓ 83.3%	UPL
2. Gleditsia triacanthos	3	16.7%	FACU
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	18	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Phalaris arundinacea	100	✓ 100.0%	FACW
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
6.	0	0.0%	
7.	0	0.0%	
8.	0	0.0%	
9.	0	0.0%	
10.	0	0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	0.0%	
2.	0	0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	20	x 3 =	60
FACU species	23	x 4 =	92
UPL species	15	x 5 =	75
Column Totals:	158 (A)		427 (B)

Prevalence Index = B/A = 2.703

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP7w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/2	100						Silty Clay	
4-10	10YR	3/2	90	7.5YR	3/4	10	C	PL	Silty Clay	
10-16	10YR	5/2	88	7.5YR	3/4	10	C	PL	Silty Clay	
+mottle				10YR	5/1	2	D	M	Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	12
Water Table Present?	Yes ◉	No ○	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP7w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8608.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8616.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP7w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8617.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP7u

Investigator(s): ES, JW Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° Lat.: 39.610710 Long.: -89.459484 Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes NWI classification: None

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 ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1. Gleditsia triacanthos	10	✓ 31.3%	FACU
2. Prunus serotina	5	☐ 15.6%	FACU
3. Juglans nigra	15	✓ 46.9%	FACU
4. Morus alba	2	☐ 6.3%	FAC
5.	0	☐ 0.0%	
	32	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Lonicera maackii	30	✓ 93.8%	UPL
2. Gleditsia triacanthos	2	☐ 6.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	32	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Setaria faberi	15	☐ 18.8%	FACU
2. Schedonorus arundinaceus	50	✓ 62.5%	FACU
3. Solidago altissima	5	☐ 6.3%	FACU
4. Glechoma hederacea	10	☐ 12.5%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	80	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	112	x 4 =	448
UPL species	30	x 5 =	150
Column Totals:	144 (A)		604 (B)

Prevalence Index = B/A = 4.194

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP7u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR	3/2	100					Silty Clay Loam	
5-16	10YR	3/2	97	7.5YR	3/4	3	C	PL	Silty Clay Loam

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP7u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8632.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8633.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP8w

Investigator(s): ES, JW | Section, Township, Range: S 32 T 14N R 3W

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 39.611793 | Long.: -89.454104 | Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes | NWI classification: PEM1C

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	35	☑ 100.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Lonicera maackii	10	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	10	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Setaria viridis	5	☐ 6.0%	UPL
2. Trifolium pratense	7	☐ 8.3%	FACU
3. Echinochloa crus-galli	20	☑ 23.8%	FACW
4. Carex vulpinoidea	20	☑ 23.8%	FACW
5. Acer saccharinum	2	☐ 2.4%	FACW
6. Schedonorus arundinaceus	15	☑ 17.9%	FACU
7. Scirpus atrovirens	15	☑ 17.9%	OBL
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	84	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	77	x 2 =	154
FAC species	0	x 3 =	0
FACU species	22	x 4 =	88
UPL species	15	x 5 =	75
Column Totals:	129 (A)		332 (B)

Prevalence Index = B/A = 2.574

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

n

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP8w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	85	7.5YR 3/4	10	C	PL	Silty Clay Loam	
+mottle			10YR 5/1	5	D	M	Silty Clay Loam	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉ No ○	Depth (inches):	4
Water Table Present?	Yes ○ No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○ No ◉	Depth (inches):	

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP8w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8670.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8665.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP8u

Investigator(s): ES, JW Section, Township, Range: S 32 T 14N R 3W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 39.611694 Long.: -89.454065 Datum: WGS 84

Soil Map Unit Name: Ipava silt loam, 0 to 2 percent slopes NWI classification: None

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 ( ) No (•)	Is the Sampled Area within a Wetland? Yes ( ) No (•)
Hydric Soil Present?	Yes (•) No ( )	
Wetland Hydrology Present?	Yes ( ) No (•)	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	35	✓ 100.0%	FACW
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Lonicera maackii	30	✓ 100.0%	UPL
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	30	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Schedonorus arundinaceus	40	✓ 38.8%	FACU
2. Echinochloa crus-galli	5	4.9%	FACW
3. Trifolium pratense	15	14.6%	FACU
4. Setaria viridis	5	4.9%	UPL
5. Eleusine indica	35	✓ 34.0%	FACU
6. Agrostis gigantea	3	2.9%	FACW
7.	0	0.0%	
8.	0	0.0%	
9.	0	0.0%	
10.	0	0.0%	
	103	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	0.0%	
2.	0	0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	43	x 2 =	86
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	35	x 5 =	175
Column Totals:	168 (A)		621 (B)

Prevalence Index = B/A = 3.696

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (•)

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP8u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	100						
4-16	10YR	3/1	92	7.5YR	3/4	5	C	PL	
+mottle	10YR	5/8	3						

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP8u Photo Path: C:\WetForm\Joliet\Black Diamond\Photos\

Photo File: DSCN8679.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8680.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP9w

Investigator(s): ES, JW | Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 39.589734 | Long.: -89.463568 | Datum: WGS 84

Soil Map Unit Name: Virden silty clay loam, 0 to 2 percent slopes | NWI classification: PEM1Af

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
recently harvested soybean field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Zea mays	25	[✓] 38.5%	UPL
2. Amaranthus tuberculatus	20	[✓] 30.8%	OBL
3. Echinochloa crus-galli	20	[✓] 30.8%	FACW
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	65	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	65 (A)		185 (B)

Prevalence Index = B/A = 2.846

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP9w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	93	10YR 5/1	5	D	M	Silty Clay	
+mottle			7.5YR 3/4	2	C	PL	Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 2

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP9w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8701.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8696.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP9w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8705.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP9u

Investigator(s): ES, JW Section, Township, Range: S 7 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 39.589748 Long.: -89.463307 Datum: WGS 84

Soil Map Unit Name: Virden silty clay loam, 0 to 2 percent slopes NWI classification: None

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 ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
recently harvested soybean field

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Zea mays	50	☑ 100.0%	UPL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	50	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP9u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	100						
6-18	10YR	3/1	92	7.5YR	3/4	1	C	PL	Silty Clay
+mottle				10YR	5/1	7	D	M	Silty Clay

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP9u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8707.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 08-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP10w

Investigator(s): ES, JW Section, Township, Range: S 20 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° Lat.: 39.561632 Long.: -89.456423 Datum: WGS 84

Soil Map Unit Name: Virden silty clay loam, 0 to 2 percent slopes NWI classification: PEM1Af

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:
wetland is depression in cultivated ag field, wetland itself not cultivated

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Xanthium strumarium	25	[✓] 38.5%	FAC
2. Echinochloa crus-galli	30	[✓] 46.2%	FACW
3. Amaranthus tuberculatus	10	[ ] 15.4%	OBL
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	65	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	30	x 2 =	60
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	65 (A)		145 (B)

Prevalence Index = B/A = 2.231

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

* Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP10w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR	3/1	100					Clay	
16-20	10YR	3/1	100					Clay	
20-24	10YR	3/1	97	2.5Y	6/6	3	C	M	Clay

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☑ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	1
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	16

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP10w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8729.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8732.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP10w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8734.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 08-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP10u

Investigator(s): ES, JW Section, Township, Range: S 20 T 13N R 3W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 39.561405 Long.: -89.455664 Datum: WGS 84

Soil Map Unit Name: Virden silty clay loam, 0 to 2 percent slopes NWI classification: None

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 ( ) No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Hydric Soil Present?	Yes ( ) No (●)	
Wetland Hydrology Present?	Yes ( ) No (●)	

Remarks:
Cultivated cropland

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Glycine max	80	[✓] 100.0%	UPL
2.	0	[ ] 0.0%	
3.	0	[ ] 0.0%	
4.	0	[ ] 0.0%	
5.	0	[ ] 0.0%	
6.	0	[ ] 0.0%	
7.	0	[ ] 0.0%	
8.	0	[ ] 0.0%	
9.	0	[ ] 0.0%	
10.	0	[ ] 0.0%	
	80	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	[ ] 0.0%	
2.	0	[ ] 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	80	x 5 =	400
Column Totals:	80 (A)		400 (B)

Prevalence Index = B/A = 5.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP10u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	98	7.5YR 3/4	2	C	M	Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP10u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8740.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8742.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP10u

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8741.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond | City/County: Christian | Sampling Date: 08-Nov-19

Applicant/Owner: Swift Current | State: Illinois | Sampling Point: DP11w

Investigator(s): ES, JW | Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Lowland | Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° | Lat.: 39.608569 | Long.: -89.453425 | Datum: WGS 84

Soil Map Unit Name: Osco silt loam, 2 to 5 percent slopes | NWI classification: PEM1C

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 (●) No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Hydric Soil Present?	Yes (●) No ( )	
Wetland Hydrology Present?	Yes (●) No ( )	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1. Populus deltoides	5	✓ 20.0%	FAC
2. Acer saccharinum	20	✓ 80.0%	FACW
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Elaeagnus umbellata	15	✓ 75.0%	UPL
2. Gleditsia triacanthos	5	✓ 25.0%	FACU
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
	20	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Spartina pectinata	1	1.0%	FACW
2. Phalaris arundinacea	100	✓ 99.0%	FACW
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
6.	0	0.0%	
7.	0	0.0%	
8.	0	0.0%	
9.	0	0.0%	
10.	0	0.0%	
	101	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	0.0%	
2.	0	0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	121	x 2 =	242
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	15	x 5 =	75
Column Totals:	146 (A)		352 (B)

Prevalence Index = B/A = 2.411

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP11w

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	100					Silty Clay Loam	
6-16	10YR	3/1	93	7.5YR	3/3	5	C	PL	Silty Clay Loam
+mottle				10YR	5/1	2	D	M	Silty Clay Loam

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP11w Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8756.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8759.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP11w

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8762.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8757.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 08-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP11u

Investigator(s): ES, JW Section, Township, Range: S 5 T 13N R 3W

Landform (hillslope, terrace, etc.): Shoulder slope Local relief (concave, convex, none): flat

Slope: 2.0% / 1.1 ° Lat.: 39.608442 Long.: -89.453243 Datum: WGS 84

Soil Map Unit Name: Osco silt loam, 2 to 5 percent slopes NWI classification: None

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 ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharinum	15	✔ 75.0%	FACW
2. Populus deltoides	5	✔ 25.0%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1. Elaeagnus umbellata	10	✔ 66.7%	UPL
2. Gleditsia triacanthos	5	✔ 33.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	15	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Solidago altissima	40	✔ 25.8%	FACU
2. Cornus alba	15	☐ 9.7%	FACW
3. Rubus occidentalis	10	☐ 6.5%	UPL
4. Schedonorus arundinaceus	80	✔ 51.6%	FACU
5. Cirsium discolor	10	☐ 6.5%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	155	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	135	x 4 =	540
UPL species	20	x 5 =	100
Column Totals:	190 (A)		715 (B)

Prevalence Index = B/A = 3.763

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

-

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP11u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	85					Silty Clay Loam	
+mottle	10YR 5/4	15					Silty Clay Loam	
8-16	10YR 3/2	83	7.5YR 3/4	2	C	PL	Silty Clay Loam	
+mottle	10YR 5/4	15					Silty Clay Loam	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

Plot ID: DP11u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8779.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8781.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Black Diamond City/County: Christian Sampling Date: 07-Nov-19

Applicant/Owner: Swift Current State: Illinois Sampling Point: DP12u

Investigator(s): ES, JW Section, Township, Range: S 8 T 13N R 3W

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° Lat.: 39.585518 Long.: -89.457519 Datum: WGS 84

Soil Map Unit Name: Virden silty clay loam, 0 to 2 percent slopes NWI classification: R4SBC

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 ◉	No ○	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
mapped as NHD flowline and NWI Riverine, but now grassy ag. drainage swale

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5ft)			
1. Phalaris arundinacea	0	☐ 0.0%	FACW
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratum (Plot size: 15ft)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = 0.000

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP12u

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR	2/1	100					Silty Clay	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
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- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
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- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ○	No ◉	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

Plot ID: DP12u Photo Path: C:\WetForm\Jolie\Black Diamond\Photos\

Photo File: DSCN8716.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: Lat/Northing:

Description:

Photo File: DSCN8713.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: Lat/Northing:

Description:

Plot ID: DP12u

Photo Path: C:\WetForm\Jolie\Black Diamond\Pho

Photo File: DSCN8714.JPG Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

No Photo

Photo File: None.bmp Orientation: -facing

Long/Easting: Lat/Northing:

Description:

Appendix B. Stream Photographs

Photograph 1. Stream 1 (S1), facing southeast. S1 drains agriculture fields to Sangchris Lake

Photograph 2. Stream 1 (S1), where it emerges via pipe culvert from underground

Photograph 3. S1 flowing to Sangchris Lake, facing northwest.

Photograph 4. S1 flowing to Sangchris Lake, facing northwest.