Bartelso Bottoms

Wetland Mitigation Bank

<u>Addendum No. 3</u> to the

WFI-B Umbrella Mitigation Banking Instrument

MKUK-BB-2022-001

WFI HOLDINGS-B LLC
248 Southwoods Center
Columbia, IL 62236

March 28, 2022

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FORESTED WETLAND

INTRODUCTION

Pursuant to its WFI-B Umbrella Mitigation Banking Program Instrument (**UMBI**), WFI-B is establishing mitigation bank sites in multiple watersheds throughout the USACE St. Louis District of Illinois. The proposed Bartelso Bottoms Wetland Mitigation Bank (hereinafter, **BBWMB** or the **Bank Site**), which complies with the approved UMBI, is located in a floodplain of the Kaskaskia River in Clinton County, Illinois. The Bank Site is a total of 93.66 (+/-) acres situated on parcels of land that consist of prior converted cropland. This Bank Site is a complex of multiple parcels and owners: the Mueller Children's Real Estate Trust, Michael and Diane Mueller, and Timberline Preservation Trust parcels are all adjacent to each other; and the Daniel Loepker parcel is approximately 2.0 miles northeast of the other parcels:

Landowner	**Acres in BBWMB**
Mueller Children's Trust	19.87
Michael and Diane Mueller	16.83
Timberline Preservation Trust	31.96
Daniel Loepker	25.00
Total	**93.66**

The wetland mitigation bank plan will result in the re-establishment of bottomland hardwood mast producing oak/hickory forested wetlands on land that is currently in agricultural production, and the enhancement of existing bottomland forest that is both overstocked and lacks species diversity.

The Bank Site property was selected by WFI Holdings-B LLC (the **Sponsor**) because of its potential for beneficial water quality and wildlife habitat improvements to the watershed. Some of the attractive qualities of the Bank Site as a mitigation parcel include the low lying existing agricultural fields and the ability to increase habitat diversity in an agricultural environment through the development of the mitigation bank.

The Bank Site is ecologically suitable for forested wetland restoration. The Santa Fe Drainage Ditch lies in the middle of the Timberline property and adjacent to the Mueller Trust and Mike Mueller property. These properties are capable of supporting wetlands because there is sufficient hydrology that flows across the Bank Site which consists primarily of hydric soils. As a result, the Bank Site has great potential for increasing wetland habitat along the stream system.

The Bank Site's location along Santa Fe Drainage Ditch and proximity to the Kaskaskia River will create important benefits for the watershed as agricultural runoff will be filtered as it flows across the Bank Site. Additionally, floodwaters from the Kaskaskia River will utilize this Bank Site for storage and wetland functions by extending durations of flood waters and providing substantial wildlife benefits. Further, the re-established wetlands will decrease the amount of nutrients traveling to downstream waters by reducing the amount of sediment moving through the system.

This area can be ecologically improved by managing early successional woody species to stimulate the growth of the existing and more ecologically valuable late successional woody species and by the planting of tree and shrub species to increase species diversity. Restoring wetland areas will also increase habitat opportunities for species that require or frequent shallow ephemeral wetlands that include amphibians, reptiles, invertebrates, birds, and mammals.

Another important component of the Bank Site is its direct connectivity with Santa Fe Drainage Ditch within the Middle Kaskaskia watershed. This meets a need for sites mitigated in the regional watershed where impacts have been made and natural habitat lost due to human activity.

GUIDELINES AND RESPONSIBILITIES

The following information establishes guidelines and responsibilities for the establishment, use, operation, and maintenance of **BBWMB**. The Bank Site will be used for compensatory mitigation for unavoidable impacts to waters of the United States including wetlands, which result from activities authorized under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and other Federal, State or local wetland regulatory programs provided such use has met all applicable requirements and is authorized by the appropriate authority.

The Bank Site is proposed on a 93.66 acres (+/-) parcel situated along Santa Fe Drainage Ditch and in the floodplain of the Kaskaskia River, Clinton County, Illinois. Wetlands Forever, Inc. will be the management company that represents the Sponsor and performs the services specified herein for **BBWMB**.

The Bank Site is situated and developed to address the loss of wetland habitat. The Bank Site is compatible with adjacent land use, contributes to important local stream, terrestrial and wooded forest wetland functions, will be ecologically self-sustaining, and will be protected in perpetuity by an approved U.S. Army Corps of Engineers Conservation Easement.

BANK DEVELOPMENT

The majority of the Bank Site consists of hydric soils and lies within the floodplain of the Kaskaskia River. A wetland site evaluation was conducted by a wetland biologist and determined that the soils were mostly hydric, and the farmed portion is a prior converted cropland area. Historically, this property was and is hydrologically connected over a wide range of storm events to the Kaskaskia River within the Middle Kaskaskia watershed. The Bank Site will be developed with multiple types of habitat features: bottomland hardwood mast producing oak/hickory forest habitat, and hydrologic and water quality wetland functions. The vegetation types will follow elevational gradients that both exist and are to be created. Forrest Keeling Nursery RPM trees will be used to promote the Bank Site's forested component, which will support a variety of herbaceous vegetation throughout the year and may support migratory and endemic wetland species along the Kaskaskia River.

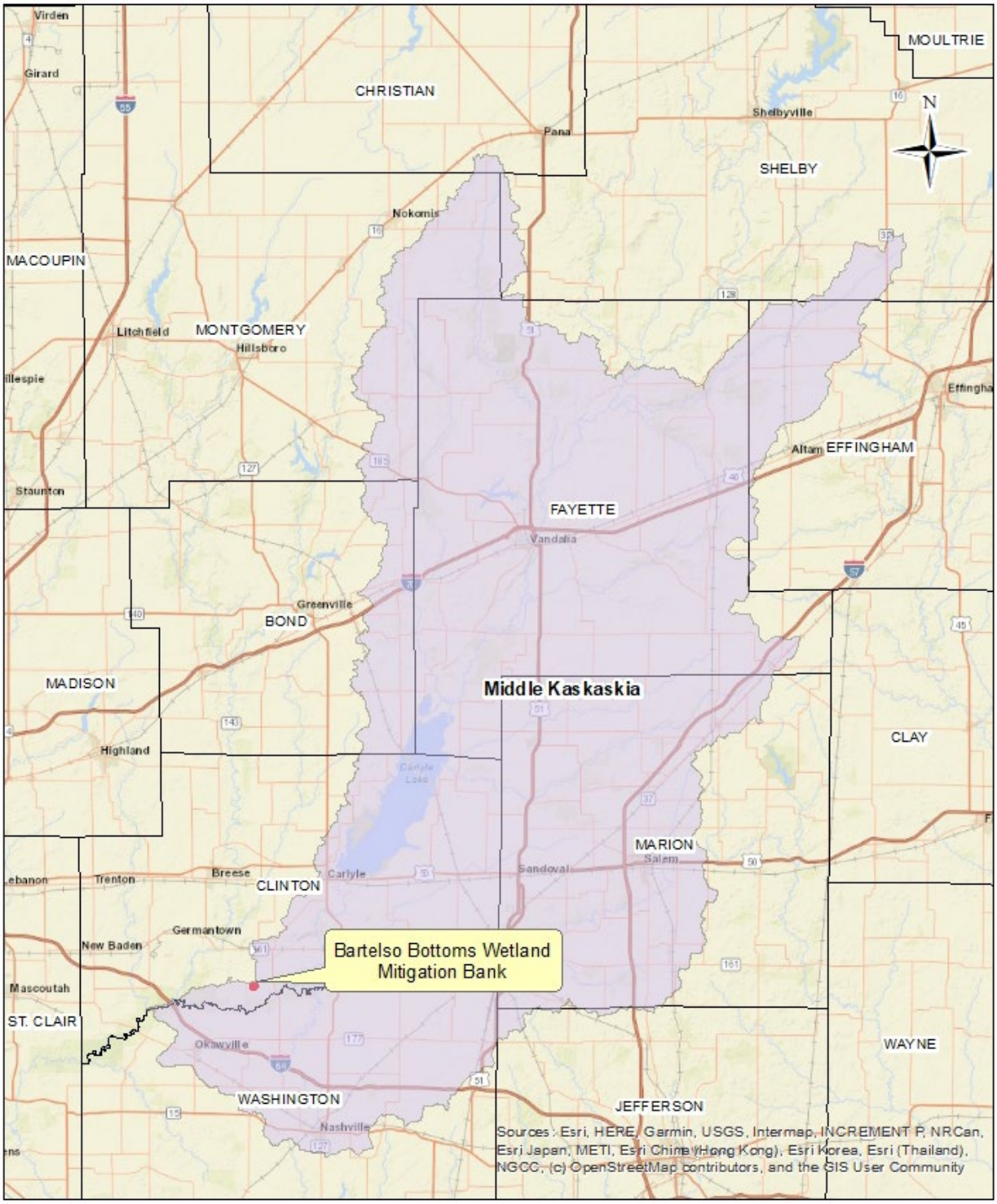
The hydrology of the Bank Site will be improved to extend duration and create micro-habitats utilizing the existing hydrologic regime. The hydrograph in this area is dictated by both natural and managed water control. The Bank Site is subject to the Kaskaskia River – Carlyle Lake Water

Control Management Curve managed by the Corps of Engineers, St. Louis District. Secondly, the Bank Site is subject to open flow coming from the Kaskaskia River and its tributaries that include Crooked Creek and Shoal Creek, whose confluence and floodplain are located within a two-mile radius of the Bank Site. The hydrograph of the Bank Site will be managed to affect the depth, duration, and extent of flooding. Flood entry followed by seasonal drying through the summer and fall will sustain productivity by recycling vegetation and nutrients. The current plan will result in the re-creation of a diverse forested wetland adjacent to the Kaskaskia River and enhanced ecological functions and values for the Middle Kaskaskia watershed.

OPERATION AND LONG-TERM MANAGEMENT

BBWMB is considered Private commercial (Entrepreneurial). The ownership requests that BBWMB be State of Illinois certified. The long-term management of BBWMB will be managed by HeartLands Conservancy and is intended to be self-sustaining due to its location and design. The enhancements made to the property will aid in increasing hydrologic connectivity.

Figure 1 – Location in Middle Kaskaskia Watershed



WATERSHED APPROACH TO MITIGATION BANK

Through the utilization of multiple documents from the State of Illinois, the USGS and the EPA, the following review has led to the identification of wetland types and locations for restoration efforts associated with the Middle and Upper Kaskaskia watersheds for future mitigation impacts.

A. Major Goals of the Watershed

State watershed needs identified wetland quality has likely declined statewide over the course of several decades (Stafford et al. 2010). These declines are not consistent throughout the state and among natural divisions; they are exacerbated by many factors along large rivers (Mills et al. 1966, Bellrose et al. 1979, 1983), but may impact all wetland systems. Thus, these restoration features support a more productive wetland community:

- Manage wetlands to promote native plant communities by removing, reducing or controlling invasive species, especially: Phragmites, purple loosestrife, reed canary-grass, Eurasian water milfoil, water hyacinth, narrow-leaf cattail, and others;

- Increase mast producing hardwoods (i.e., oak, hickory, pecan) within floodplain sites that will support these tree species;

- Reduction of undesirable plant species (river bulrush, cattail, perennial smartweed, etc.) in managed wetlands, manage for desirable seed producing annual plants;

- Increase historically abundant habitats, and duplicate historic habitat complexity and juxtaposition within wetlands (Stafford et al. 2010);

- Reduce sediment inputs into streams, rivers, and wetlands from row crop field through minimum tillage, vegetated waterways, buffers, and wetland restoration; and

- Maintain and increase water control in lakes and wetlands within river floodplains through managed or partial connections which will isolate habitats from growing-season floods yet allow movement of aquatic species when appropriate.

B. Mitigation Site Evaluation

The **BBWMB** consists of 93.66(+/-) acres that lies within Clinton County, Illinois, reference Appendix 1. The site encompasses the Kaskaskia River and the Santa Fe Levee Drainage District Ditch, which is a tributary to the Kaskaskia and Mississippi Rivers.

WFI Holdings-B LLC has the properties under contract. Currently, the only type of management on the site is agricultural row cropping (68.04 acres +/-) and over-stocked, low species diversity forested wetlands (25.62 acres +/-).

This Bank Site is well suited to support a bottomland hardwood forest that produces hard-mast tree species. This property supports major criteria for wetland functions, they are as follows:

- Property consists of hydric soils;
- Hydrology is present from Kaskaskia River flood water and Santa Fe Drainage Ditch;
- Adjacent property (reference site) supports obligate and facultative wet vegetation.

These attributes meet the goals of multiple Federal and State of Illinois watershed documents and will improve overall forested, scrub-shrub, and emergent wetland habitats and water quality attributes within the region.

C. Mitigation Site Threats

The short- and long-term threats of the Bank Site are few due to the site location and planned construction techniques. The major short-term threats (1 to 10 years) to the Bank Site consist of invasive species and poor tree survivability due to potential climate change (specifically drought). The utilization of cover crops and annual maintenance over the next 5+ years will effectively reduce the possibility of invasive vegetative species establishing on the site. The potential threat of climate change, reducing survivability of the forest establishment, is slight due to the quality of the trees being planted and the construction technique of short hydroperiod wetlands being utilized in those plantings.

The mitigation area is within the floodplain of the Kaskaskia River and the hydraulic regime is the most important factor influencing wetland type or class, including inhabitant plant species and community makeup with the occurrence of cyclical wet and dry periods.

The tree planting may incorporate the construction of mounds that trees will be planted upon. Planting on mounds will increase survivability of container trees by promoting root development due to air space associated with the mounds. Secondly, it may reduce mechanical damage caused by major precipitation events and freezing in the Fall/Winter. Using container trees (app. 4 feet in height) planted on mounds will reduce the frequency and duration of seedlings being overtopping during the growing season.

Long-term threats to the site would be altered forest management and acts of God relating to natural climatic occurrences (flood, drought, fire, tornados). As the Conservation Easement holder, HeartLands Conservancy will be able to identify altered forest management that is a detriment to the mitigation area within one calendar year. Thus, this management would be addressed immediately and should reduce any long-term effects to the forested mitigation area. Through the use of high-quality plant stock and construction techniques, the natural effects of flooding and drought are reduced. The natural effects of fire and tornados are more difficult to address; however, due to natural regeneration, a natural seed source will be present.

Figure 2 – Watershed Map

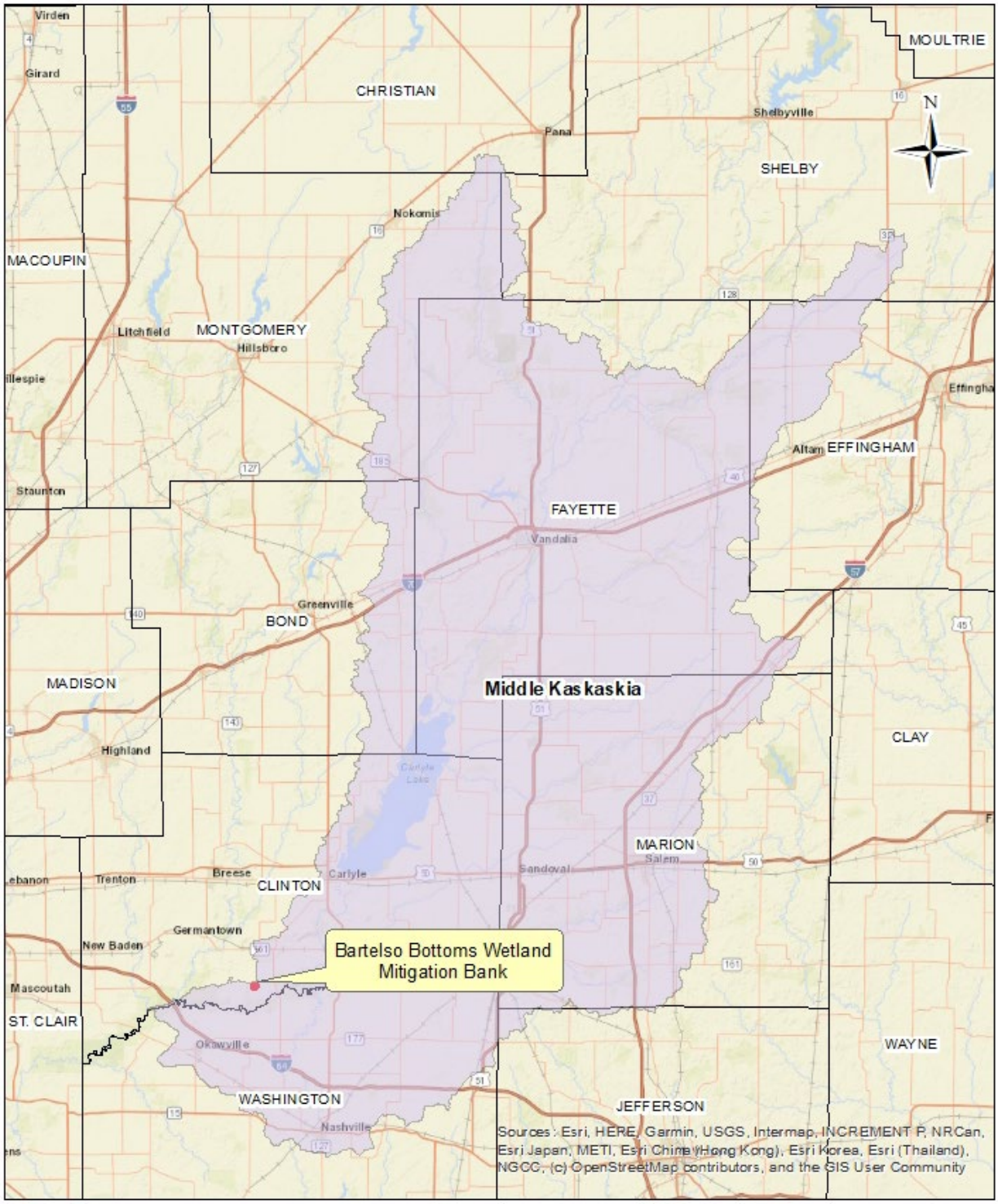
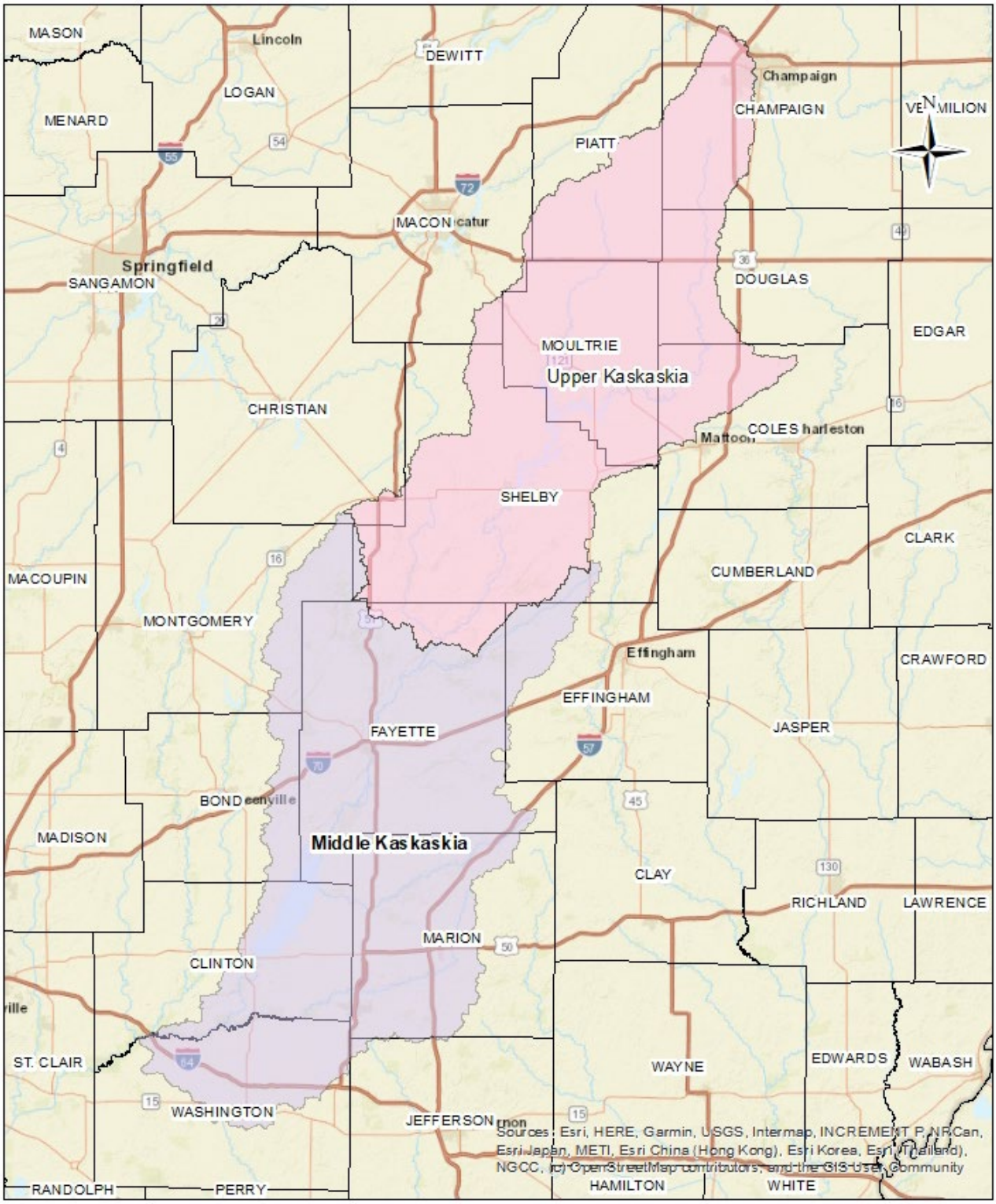


Figure 3 – Service Area



MIDDLE KASKASKIA / UPPER KASKASKIA AND ASSOCIATED HYDROLOGIC UNIT MAPS FOR ILLINOIS

The Hydrologic River Basin Numbers “07140202” and “07140201” (where occurring in Illinois, USACE St. Louis District).

- Middle Kaskaskia Counties:
  - Washington
  - Clinton
  - Marion
  - Fayette
  - Montgomery
  - Bond
  - Effingham

- Upper Kaskaskia Counties:
  - Fayette
  - Shelby
  - Christian
  - Effingham
  - Macon
  - Moultrie
  - Coles
  - Douglas
  - Platt
  - Champaign

MITIGATION PLAN REQUIREMENTS FOR BARTELSO BOTTOMS SITE

SECTION A – Goals and Objectives

GOAL – Wetland Mitigation Bank

Restore wetland habitat quality and quantity for wetland dependent wildlife and hydrophytic native plant species.

OBJECTIVE

- Increase food, shelter and breeding habitat for wildlife.
- Increase Bottomland Hardwood diversity, quality and hard mast tree dominance.
- Maintain and enhance the wetland hydroperiod to increase wetland functions and values.

GOAL – Wetland Mitigation Bank

Create areas of forested wetlands.

OBJECTIVE

- Nutrient removal/transformation.
- Reduce nutrient loading and increase nitrate fixation.
- Provide substrate for aquatic invertebrates as well as habitat for amphibians, reptiles, birds and mammals.

GOAL – Wetland Mitigation Bank

Compensatory Mitigation Site for Wetland Areas in the Middle Kaskaskia and Upper Kaskaskia watersheds.

OBJECTIVE

- An appropriate form of compensation where no feasible on-site mitigation opportunity exists.
- Where it can be clearly demonstrated that off-site mitigation would be more environmentally beneficial.
- Projects with minor impacts, and linear projects, which when considered cumulatively, would result in more than minimal impact.

GOAL – Wetland Mitigation Bank

Develop a wetland mitigation site to create and improve habitat conditions favorable for area sensitive, rare, threatened and endangered species endemic to the Service Area that increase the overall site floristic quality index (FQI).

OBJECTIVE

- Restore, enhance and preserve areas within the Kaskaskia River watersheds.
- Restore woody and herbaceous vegetation to create a continuum of plant species that increase the overall site floristic quality index (FQI).

SECTION B – Site Selection

The BBWMB is sited as 93.66 acres (+/-) in the Kaskaskia River floodplain in the Middle Kaskaskia watershed south of Bartelso in Clinton County, Illinois. Adjacent land uses include agriculture, forested bottomland hardwoods, and a forested PRM site established in 2016 by the Sponsor's representative, Wetlands Forever, Inc.

The Bank Site is situated and developed to address the loss of forested wetland habitat. The Bank Site is compatible with adjacent land use; contributes to important local stream, terrestrial and wooded forest functions; will be ecologically self-sustaining; and will be protected in perpetuity by an approved U.S. Army Corps of Engineers Conservation Easement.

The majority of the Bank Site consists of hydric soils and lies within the floodplain of the Kaskaskia River. Historically, this property was and is hydrologically connected over a wide range of events. The site will be developed focusing on restored hardwood bottomland forested wetlands. The vegetation types will follow very gentle grades that both exist and are to be created. The bottomland hardwood hard mast producing forest will establish a forested component in a highly agricultural setting. The wetland complex will support migratory and endemic wetland species during the fall and spring migrations during timely hydrologic events in the Middle Kaskaskia River watershed.

The hydrology of the Bank Site is intended to mirror the existing hydrologic regime, and through mounds creation, microhabitats across the Bank Site will improve hydrology and duration of saturation. The depth, duration, and extent of flooding in the restored wetland will be driven primarily by hydrograph of the Kaskaskia River and Santa Fe Drainage Ditch. The current plan will result in the re-establishment of a diverse bottomland hardwood forest adjacent to a creek corridor to enhance ecological functions and values for the Kaskaskia watershed.

The Bank Site will be developed to restore habitat that will support sustainability within the existing site and link adjacent habitat types for an increase in habitat function and connectivity.

The siting of the BBWMB will support aquatic habitat diversity, habitat connectivity, the existence of threatened or endangered species related to prior habitat loss, and other landscape scale functions.

SITE SOIL TYPES

The property consists of hydric soil in the floodplain of the Kaskaskia River just south of Bartelso, Illinois. The Bank Site consists of five major hydric soil types: Petrolia Silty Clay Loam (3288A),

Birds Silt Loam (3334A), Wagner Silt Loam (7026), Ridgeway Silt Loam (7434B2), and Raccoon Silt Loam (8109A).

Petrolia Silty Clay Loam consists of poorly drained soils formed in silty alluvium. Slopes range from 0-2%. Depth to the water table is 0-12 inches. This soil type is frequently flooded. This soil meets hydric criteria (mapping unit 3288A).

Birds Silt Loam consists of poorly drained soils formed in silty alluvium. Slopes range from 0-2%. Depth to water table is about 0-12 inches. This soil type is frequently flooded. This soil type meets hydric criteria (mapping unit 3334A).

Wagner Silt Loam consists primarily of poorly drained soils formed in alluvium. Slopes range from 0-2%. Depth to the water table is about 0-12 inches. This soil type is rarely flooded. This soil type meets hydric criteria (mapping unit 7026).

Ridgeway Silt Loam consists primarily of well drained soils in loess over sandy outwash. Slopes are 2-5%. The depth to the water table is more than 80 inches. This soil type is rarely flooded. This soil type does not meet hydric criteria (mapping unit 7434B2), however, site visits indicate hydric soil primary indicators.

Raccoon Silt Loam consists primarily of poorly drained soils formed in a mixture of loess and/or local silty alluvium. Slopes are 0-2%. The depth to the water table is 0-12 inches. This soil type is occasionally flooded. This soil type meets hydric criteria (mapping unit 8109A).

SOIL SURVEY CLINTON COUNTY, ILLINOIS – MITIGATION AREA SOIL SURVEY - See Figure 4, Soil Survey Map

Figure 4A – Soil Survey Maps

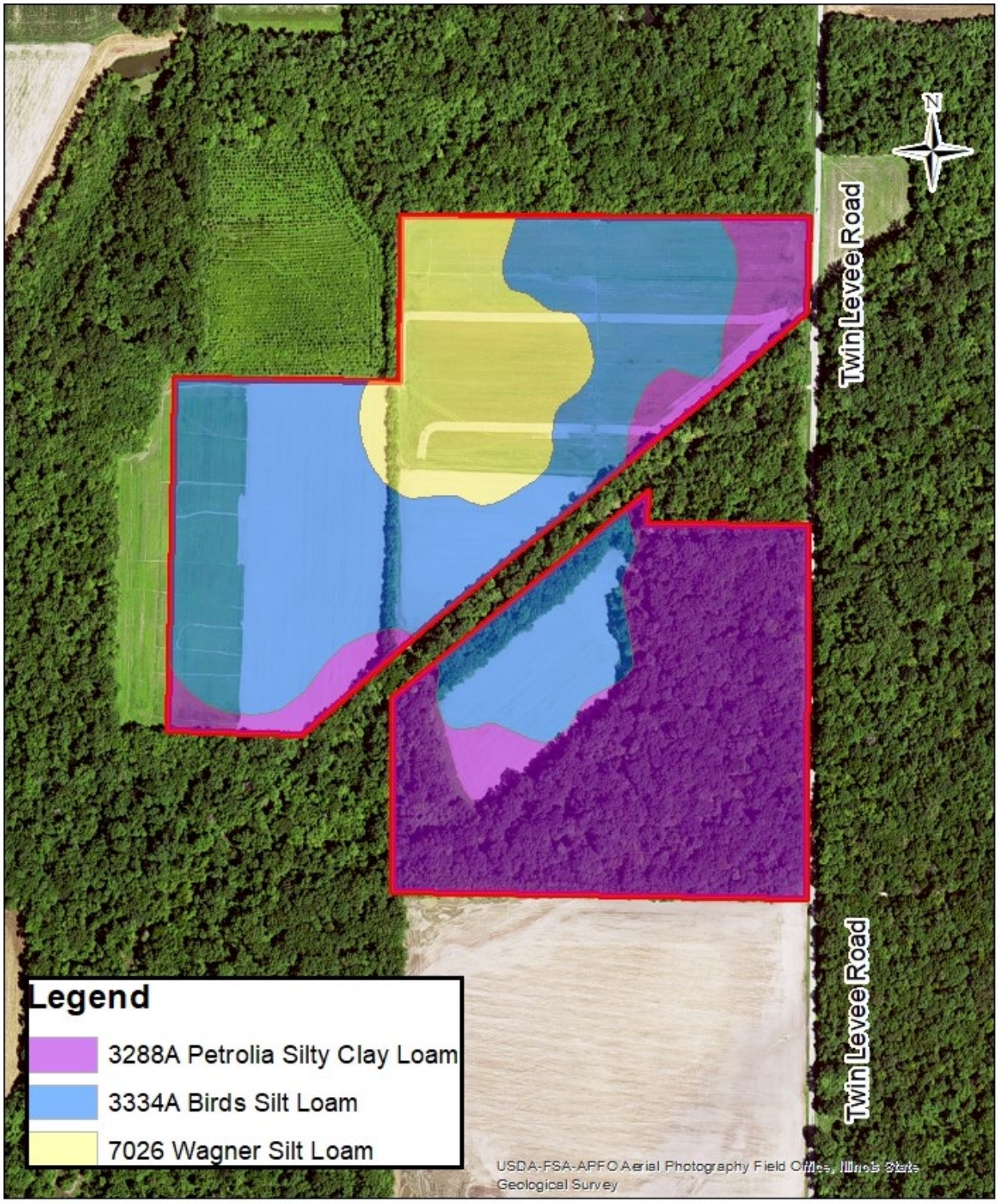


Figure 4B – Soil Survey Maps (continued)

Figure 5A – Aerial of Mitigation Bank Site

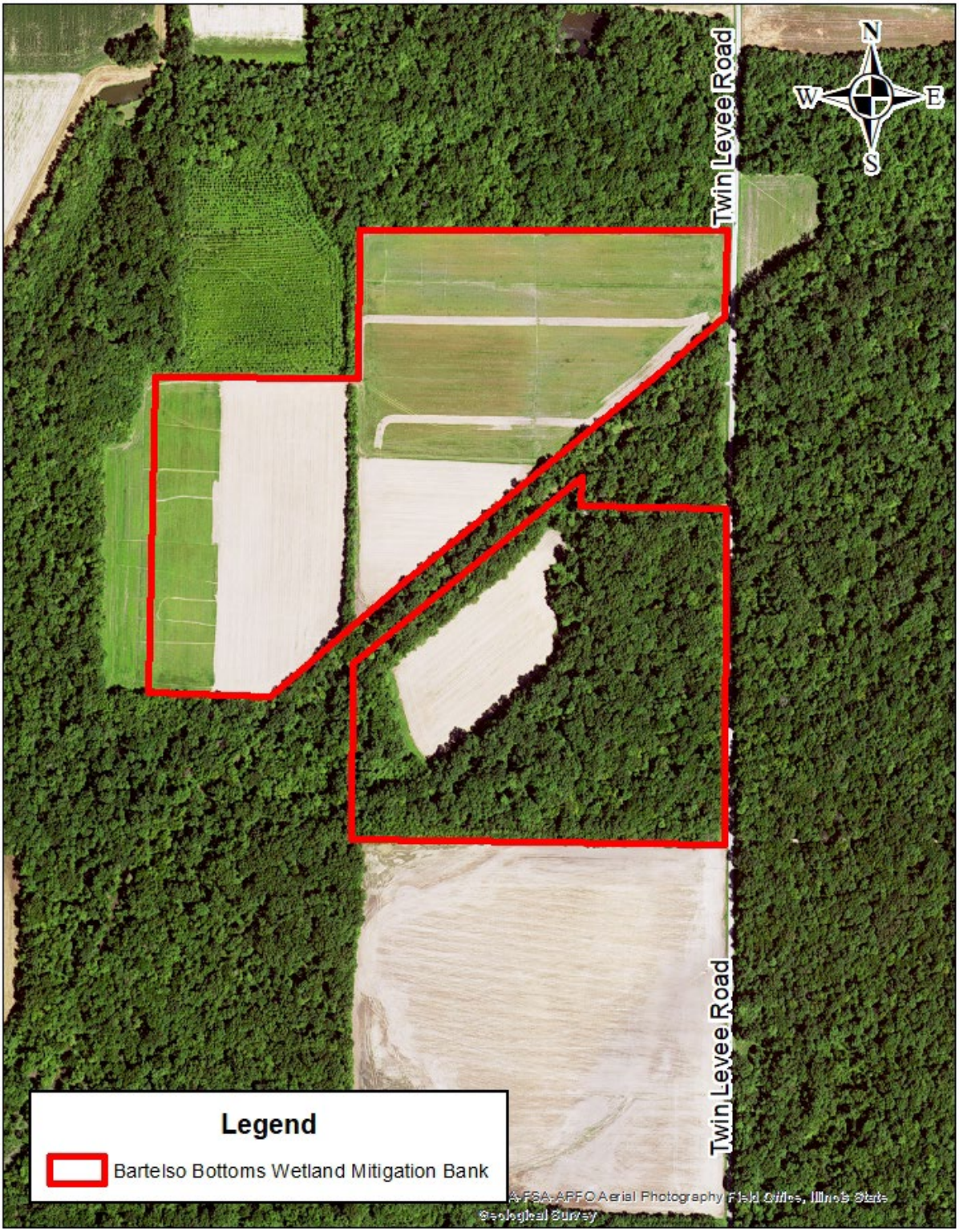


Figure 5B – Aerial of Mitigation Bank Site (Continued)

SECTION C – Site Protection Instrument

Whereas, WFI Holdings-B LLC has under contract 93.66 (+/-) acres of land in Clinton County, Illinois. A title commitment identifying ownership and easements related to the property is located in Appendix 2.

These tracts of land are located in and being a part of fractional Section 30, Township 1 North, Range 3 West and Section 21 Township 1 North, Range 3 West of the Third Principal Meridian, Clinton County, Illinois.

The Bank Site totals 93.66 (+/-) acres primarily consisting of Prior Converted Cropland that will be restricted property in perpetuity.

WFI Holdings-B LLC proposes to execute a conservation easement that has been modeled on the Corps of Engineers, Office of Counsel Approved Conservation Easement document (Appendix 3).

A signed and notarized copy of the conservation easement and associated exhibits will be sent to the St. Louis District, Corps of Engineers Regulatory Branch for review prior to commencement of any permitted work or within 60 days of the issuance of this permit, whichever occurs first. The recordation record will be sent to the Corps of Engineers, St. Louis District, Regulatory Branch and to the conservation easement grantee (Third Party) – HeartLands Conservancy, Belleville, Illinois, along with a copy of the executed easement mailed to the Corps' St. Louis District Regulatory Office.

Per the COE Approved Conservation Easement, Item 3 for Permitted Activities – Reference Long Term Management Plan for specific land use management activities that are permitted.

Signage will be posted around the perimeter of the Conservation Easement with adequate frequency, visibility, and proper height for viewing. Signage will be constructed of suitable materials to withstand climatic conditions. Signs will include the following language:

WETLAND MITIGATION AREA
DO NOT DISTURB
PERMIT NO. CE MVS-XXXX-XXX

Figure 6A – Mueller Children's Trust

Figure 6B – Michael and Diane Mueller

Figure 6C – Timberline Preservation Trust

Figure 6D – Daniel Loepker

SECTION D – Baseline Information

OVERVIEW

The Bank Site is classified as agricultural row cropping.

Project Description: The BBWMB will have a cumulative acreage of 93.66 acres (+/-) of restricted property in perpetuity. The proposed mitigation bank will consist of 68.04 acres (+/-) re-established forested wetlands and 25.62 acres (+/-) enhanced bottomland hardwood forest.

An existing wetland mitigation site (developed by Wetlands Forever, Inc.) that sits within 1 mile of this Bank Site provides a reference for BBWMB. It was planted in the Fall of 2016 as a 100% bottomland hardwood forest habitat. To-date, this site achieves successful survivability and diversity requirements. Through the development of this site, it was learned that trees planted on mounds perform well in this area; therefore, the BBWMB design will incorporate mounds to provide optimal tree growing conditions that should lead to high levels of survivability and growth rate.

The wetland and waterbody delineation determined that the Bank Site's soils were hydric throughout the majority of the site. The soils consisted of five main classifications as identified in the USDA Soil Survey: Petrolia Silty Clay Loam (3288A, hydric), Birds Silt Loam (3334A, hydric), Wagner Silt Loam (7026, hydric), Ridgeway Silt Loam (7434B2, not hydric but primary indicators present), and Raccoon Silt Loam (8109A, hydric). Due to the agricultural activities associated with the site, there was little to no vegetation observed, resulting in an FQI for the Bank Site of less than 5 for 75% of the calendar year. However, in adjacent wetland sites, hydrophytic vegetation was present. Sufficient hydrology was observed within the Bank Site, but the hydrology is altered by agricultural management actions consisting of ditching and linking areas together for the purpose of draining the tillable acres of the Bank Site.

Agricultural row cropping is taking place on all tillable acres within the Bank Site. The surface area within the BBWMB boundaries is relatively flat and low-lying with an elevation 410.00-413.00 (+/-), reference Figure 6 for topographic maps.

This site will be re-established to bottomland hardwood forest. Reference Appendix 7 for the Wetland Delineation. The wetland determinations will identify the area that will be mapped, reference Map Figure 4.

Timberline Forest Inventory Summary

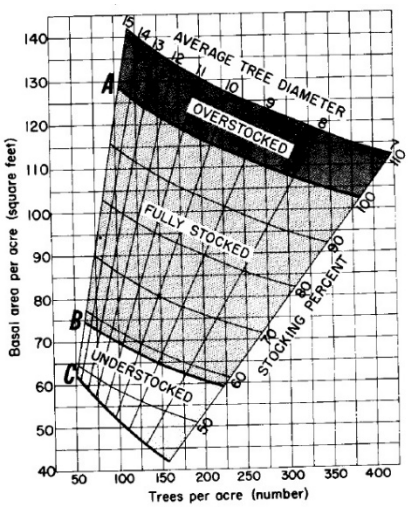
A forest inventory was done on this property, owned by Timberline Preservation Trust, on November 16, 2021. This property is located in Clinton County, Illinois, just south of Bartelso. The property consists of approximately 24.88 acres of bottomland hardwood forest. This property is in the floodplain of the Kaskaskia River. For this inventory, random sample plots within the interior of the forest were measured using a 10 Basal Area Factor prism.

This forest stand consists primarily of mature bottomland oak species with a maple and ash component. Pin Oak dominated the overstory with several other bottomland oak species (Overcup Oak, Swamp White Oak, and Bur Oak) co dominating. There is also lots of Green Ash present in the stand. The ash trees did not look like they were all dead from the Emerald Ash Borer (EAB), but there did seem to be some declining ash that were present. EAB has been detected within two miles of this forest, so EAB invasion is inevitable. A handful of small patches of Wintercreeper were found in this stand.

There was adequate oak regeneration in this stand on the forest floor, but it seemed like there is not enough sunlight that reaches the forest floor to allow these oak seedlings to break canopy. Removal of competition, such as less desirable tree species, is imperative for oak survivability for future generations.

Inventory Data:

Species	Trees / Acre	BA/Ac.	Ave. Diameter	Vol./Ac.
Boxelder	36	6	6	21
Bur Oak	1	1	36	136
Common Persimmon	14	5	8	27
Elm	86	10	5	58
Green Ash	42	41	13	2616
Hackberry	7	15	6	0
Overcup Oak	4	11	22	903
Pin Oak	16	225	17	2532
Silver Maple	50	18	8	337
Swamp White Oak	1	4	28	421
Totals (Doyle)	**336**	**136**	**9**	**7052**



The table above is the Gingrich Stocking Chart. This chart is used to determine the adequate stocking levels a healthy forest should have. From the inventory data, you can see that this stand is Over-Stocked (>110% stocking or above A-Level stocking), meaning there are too many trees in the area to sustain a healthy forest ecosystem. In a healthy forest, the proper stocking should be above the B-Level (60-100%), also known as Fully-Stocked. This means that the dominant, mature trees in this forest do not provide adequate sunlight to reach the forest floor, resulting in little to no oak/hickory regeneration in the understory.

To bring the stocking level of this forest into the B-Level, conducting a Forest Stand Improvement (FSI) on some of the mature, declining, and undesirable timber is needed. By conducting an FSI, future generations of oak and hickory species will have a fighting chance to reach canopy level and become dominant trees in the forest stand in the future.

There are plenty of den trees (trees with open cavities) throughout this forest stand. While den trees are bad for timber value, they provide excellent nesting and brooding habitat for animals such as raccoons, opossums, squirrels, bats such as Indiana Bat *(Myotis sodalis)* and Northern Long-Eared Bat *Myotis septentrionalis)*, and several bird species. The FSI activities will seek to maintain these cavity trees that provide nesting and cover for wildlife species. Specifically, bat species rely on trees with exfoliating bark to roost from April through October. In winter months, these bats migrate to caves and bluffs to hibernate. The trees that bats use for roosting will not be harvested so as to maintain proper habitat. These forestry practices would also provide ground cover due to all the debris to hit the forest floor. Many animals use this ground cover as protection against predators and nesting/bedding habitat.

This forest stand would benefit from FSI activities. Specifically, chainsaws will be used to double-girdle undesirable or low C-Value tree species such as ash, elm, and maple around hard mast producing tree species to promote apical growth and open canopy space. Following this will be the planting of high C-value RPM containerized oak, hickory, and pecan trees in the canopy openings left behind to increase tree species diversity and floristic quality index (FQI). The open canopy space will allow sunlight to reach the forest floor to promote the growth of the containerized plantings into the midstory to compete for sunlight and other important nutrients. These forestry activities would provide enhanced wildlife habitat and timber benefits to hopefully become a heathier, more sustainable forest ecosystem.

Environmental Site Assessment:

Based on the findings of the Phase I Environmental Site Assessment performed by ProGEA, Inc. on November 1, 2021, there are no recognized environmental conditions (RECs), as defined by ASTM in connection with the Bank Site.

Phase 1 Cultural Resource Survey:

A Phase 1 Cultural Resource Survey was performed by SCI Engineering in November 2021; no findings were considered to be significant, and SCI recommends clearance for the proposed project.

RIAM Evaluation System:

The site evaluation will conduct a RIAM evaluation system used for large scale dynamics attributes and anticipated ecological lift, as detailed below.

Easements:

See Appendix 2, Title Commitment.

An access easement that follows an existing farm road is included in the Mueller Children's Trust property. This easement is 15 feet wide and allows for access to the Michael Mueller property and the north end of the Timberline Preservation Trust property. This easement is excluded from the Bank Site.

An access easement along the southern boundary of the Timberline Preservation Trust property allows for additional access without affecting the Bank Site. This easement is excluded from the Bank Site.

The Santa Fe Levee and Drainage District owns the property that bisects the Timberline Preservation Trust property. The Santa Fe Levee and Drainage District is an adjacent landowner to Mueller Children's Trust and Michael Mueller property on the south.

Figure 7A – Topographical Maps of Bank Site

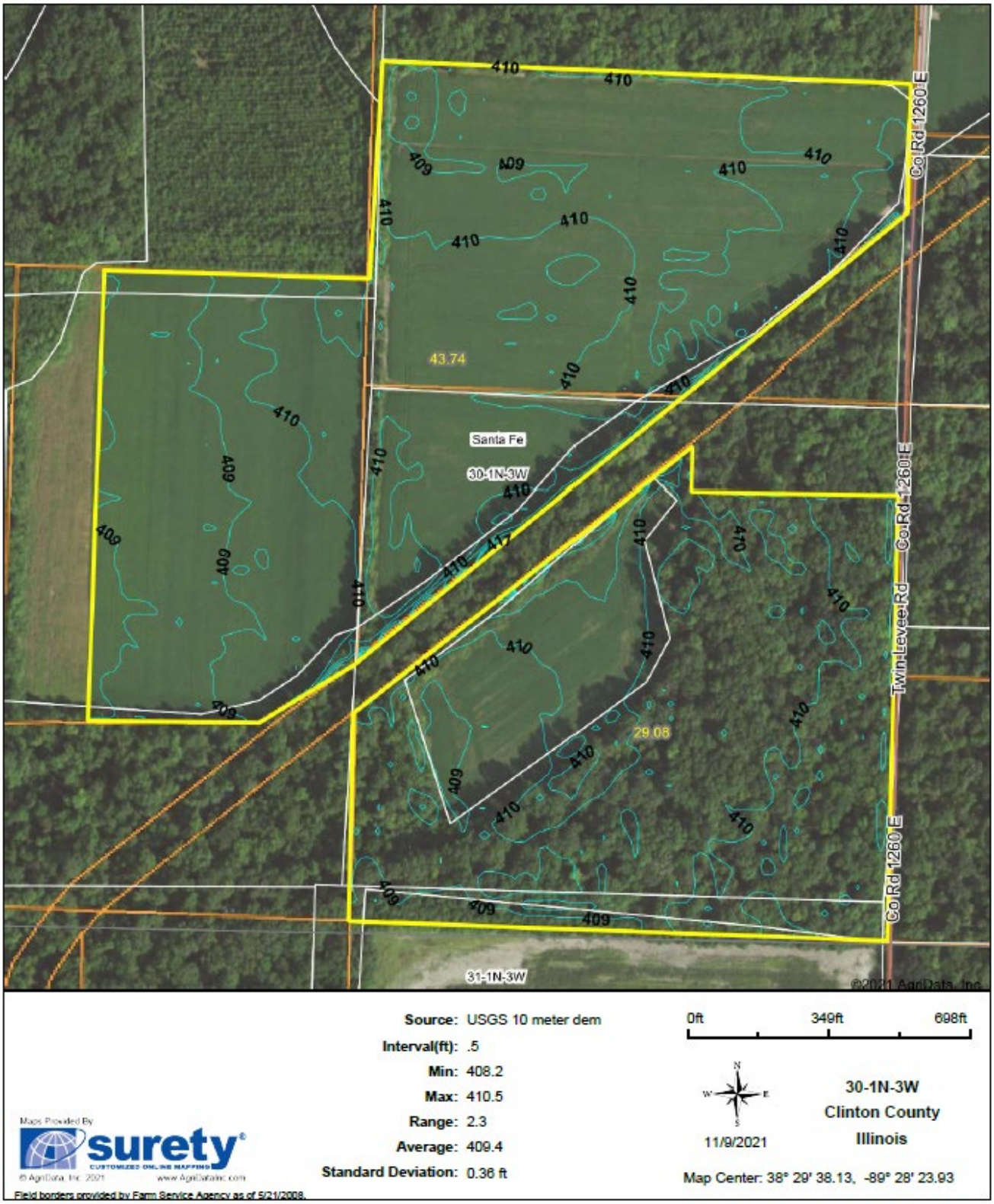


Figure 7B – Topographical Maps of Bank Site (continued)

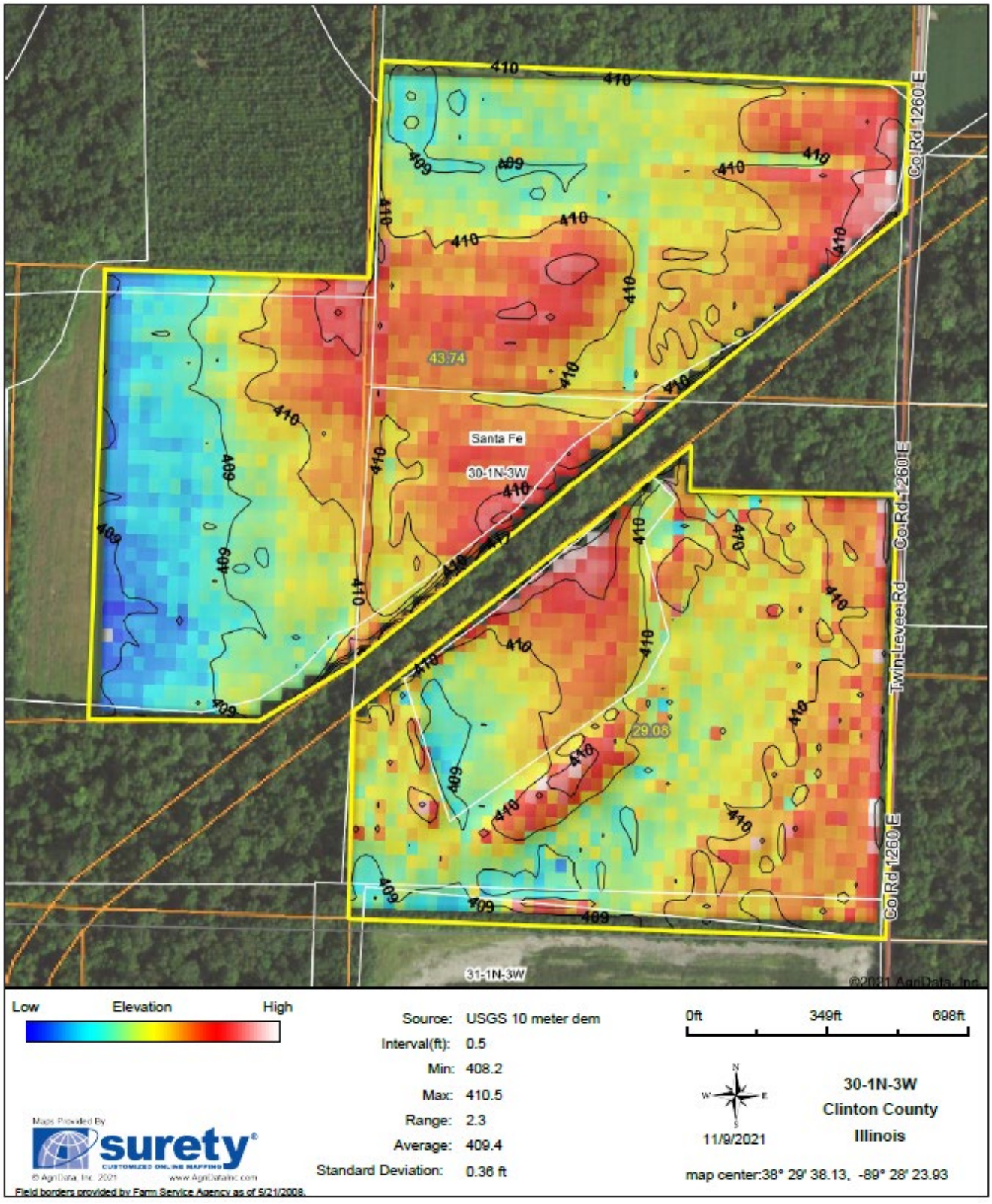


Figure 7C – Topographical Maps of Bank Site (continued)

Figure 7D – Topographical Maps of Bank Site (continued)

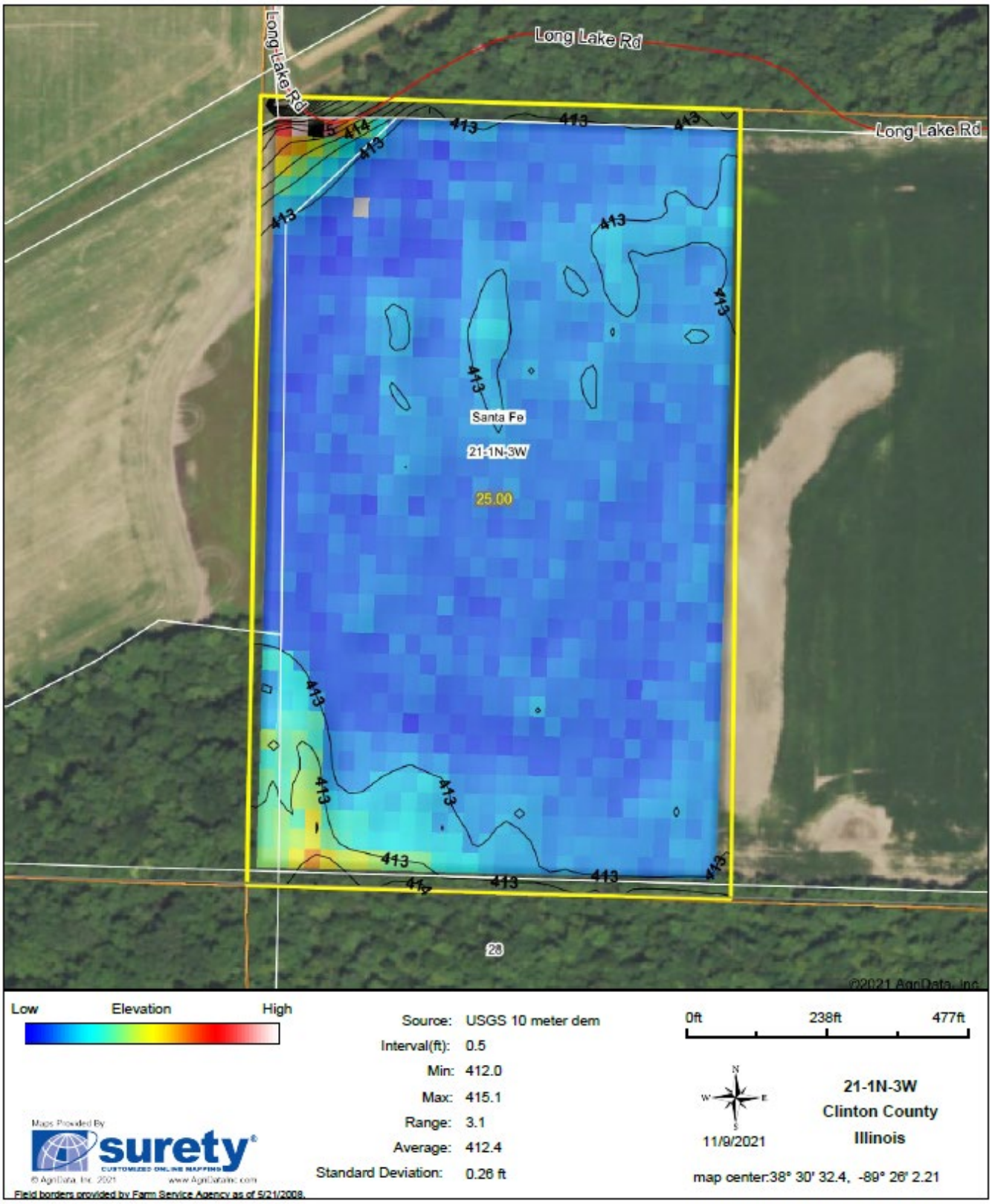


Figure 8A – Wetland Determination Sample Locations

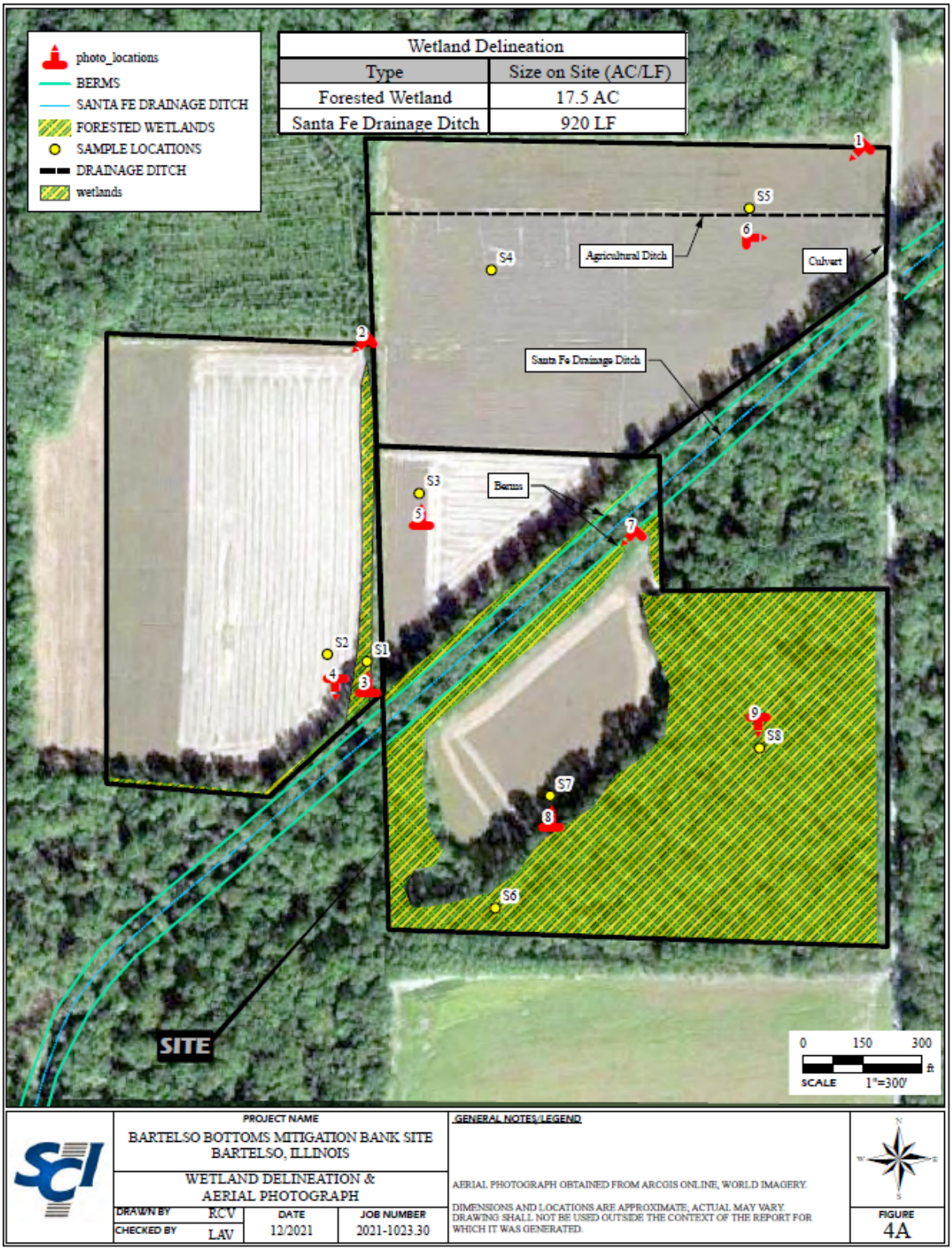
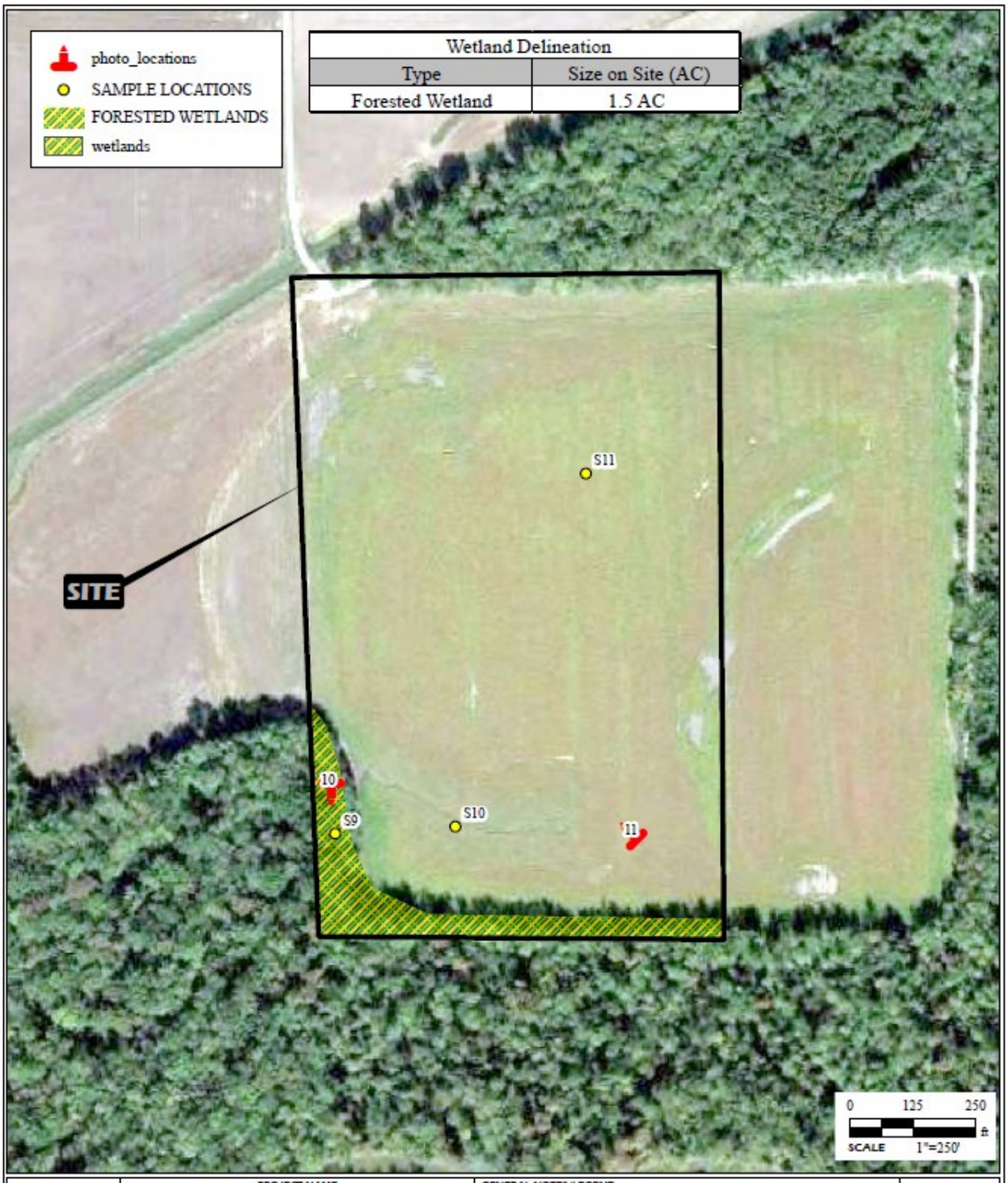


Figure 8B – Wetland Determination Sample Locations (continued)



PROJECT NAME: BARTELSO BOTTOMS MITIGATION BANK SITE, BARTELSO, ILLINOIS			GENERAL NOTES/LEGEND
WETLAND DELINEATION & AERIAL PHOTOGRAPH			AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE, WORLD IMAGERY.
DRAWN BY: RCV	DATE: 12/2021	JOB NUMBER: 2021-1023.30	DIMENSIONS AND LOCATIONS ARE APPROXIMATE, ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.
CHECKED BY: LAV			FIGURE 4B

BASELINE CONDITIONS EVALUATION PROCEDURE

The baseline conditions were evaluated using the Rapid Impact Assessment Method (RIAM) (Stein and Ambrose 1998). This functional assessment technique was selected because impacts to aquatic resources are assessed in a manner that is scientifically defensible, yet easy to implement by regulators, planners, and resource managers.

The six important ecological characteristics evaluated were endangered species habitat, structural diversity of habitat, spatial diversity of habitat, open space habitat, linear contiguity of habitat and adjacent habitats. The underlying goal of this ecological functional assessment technique is to evaluate the capacity of a habitat to perform a particular ecological function, such as provision of foraging or breeding habitat for birds or retention of suspended particulate matter. The goal of the impact assessment is to evaluate how a given activity has altered an ecosystem's capability to perform those functions. Impact assessment is integral to the U.S. Army Corps of Engineers regulatory program under Section 404 of the Clean Water Act of the United States. If the USACE used this Rapid Impact Assessment Method to assess the impacts of projects permitted under Section 404 it would be easy to determine if mitigation to the BBWMB was a desirable alternative for the permittee.

Six criteria were used in evaluating existing habitat of a wetland to perform major functions to a given activity at the project site (Stein and Ambrose 1998) and given a pre- and post-project rating of A, B, C, D, or E for each evaluation criterion, with A representing site conditions similar to a reference standard and E representing the most degraded condition. The reference standards were based on conditions typically found at local unimpacted sites. Pre-project ratings were based on aerial photographs, site visits, site descriptions and biological assessments. Post project rating was based on the assumption of the result obtained, when a given activity occurred, by best professional judgment of simple indices and current site conditions. For each criterion, the pre-project ratings were compared to the post-project rating to obtain an *impact score,* which reflected the impacts of the project on that criterion. This score was obtained by counting the change in the number of indicator levels after the project was completed. Impact scores could range from negative 4 for most severe degradation to positive 4 for the most extreme enhancement. Impact scores of zero reflected site conditions that were the same following implementation of the permitted activity as they were prior to the project being done. Although a rating of A represents a higher functional level than a rating of B, the significance of this difference may be difficult to establish. To address this question of resolution, the -3 and -4 columns were combined into a *Substantial Adverse Impact* column, the -2 and -1 columns into an *Adverse Impact* column and 0 into a *Minimal Impact* column. The +1 and +2 columns are grouped into *Enhancement* column, and +3 and +4 columns into *Substantial Enhancement* column.

This example is the impact evaluation, for a 404 permit of a project, for construction of a four-lane road across a creek and installation of two 3-m by 4.3-m concrete box culverts within the creek impacting 0.6 ha of waters of the United States. Prior to construction of the road crossing, the creek consisted of well-developed riparian habitat, surrounding freshwater marsh, supported by run off from an upland source. Once installed, the culverts provided only 0.3 to 0.6 vertical clearances between the streambed and the bottom of the bridge, eliminating most riparian

vegetation from the site. The habitat that was eliminated was suitable for the federally endangered King Rail *(Rallus elegans)* and Decurrent False Aster *(Boltonia decurrens).*

EXAMPLE

Criterion	Pre Project Rank	Post Project Rank	Impact Score
Endangered species habitat	C	E	-2
Structural diversity of habitats	A	D	-3
Spatial diversity of habitats	A	E	-4
Open space habitat	A	E	-4
Adjacent habitats	B	B	0
Linear contiguity of Habitats	A	E	-4

BARTELSO BOTTOMS WETLAND MITIGATION BANK (BBWMB)

The following evaluation is the BBWMB site using the Rapid Impact Assessment Method (RIAM). Current conditions (Pre Project Rank) were based on aerial photographs, site visits and biological assessment and the Post Project Rating was based on the assumption of the results obtained when a given activity occurred, by best professional judgment.

BARTELSO BOTTOMS WETLAND MITIGATION BANK

FORESTED WETLANDS

	Pre-Project Rank	**Post-Project Rank**	**Impact Score**	
Criterion				
Endangered species habitat	E	D	+1	ENHANCEMENT
Structural diversity of habitats	D	A	+3	SUBSTANTIAL ENHANCEMENT
Spatial diversity of habitats	D	A	+3	SUBSTANTIAL ENHANCEMENT
Open space habitat	D	A	+3	SUBSTANTIAL ENHANCEMENT
Adjacent habitats	D	B	+2	ENHANCEMENT
Linear contiguity of habitat	D	B	+2	ENHANCEMENT

INDICATOR LEVELS FOR EACH EVALUATION CRITERION

Criterion: Endangered Species Habitat

A: At least one endangered species observed or known to use the area for breeding.

B: Multiple endangered species observed or known to use/forage in area.

C: Suitable habitat type for multiple endangered species OR one endangered species observed or known to use area.

D: Suitable habitat type for one endangered species, but no endangered species observed or currently known to use area.

E: No endangered species habitat.

Criterion: Structural Diversity of Habitats

A: Exemplary structural diversity in all vegetated areas. Riparian areas composed of three distinct strata: ground and shrub cover, understory, and canopy. Dense stands of mature willow, silver maple, green ash, oaks, and/or cottonwood, interspersed with understory and herbaceous shrubs. Little to no exotic plant species present.

B: Two distinct strata in all vegetated areas. Dominated by wetland-type understory interspersed with herbaceous shrubs. May include interspersed, isolated willows, cottonwoods, and etc. OR Grasses and shrubs with patches of structurally diverse riparian vegetation (i.e., three distinct strata). No more than 15% of the vegetated area dominated by exotic plant species.

C: Grasses and shrubs interspersed with isolated patches of wetland-type understory or interspersed with isolated willows and/or cottonwoods. OR Monoculture of willow and/or cottonwoods with no associated understory. No more that 35% of the vegetated areas dominated by exotic plant species.

D: Mainly one stratum of grasses and herbaceous shrubs interspersed with common hydrophytic vegetation, such as cattails. Up to 60% coverage with exotic plant species.

E: No existing habitat value (e.g., concrete, developed, fully infested with exotic species or artificially landscaped).

Criterion: Spatial Diversity and Coverage of Habitats

A: Diverse riparian vegetation (e.g., at least 3 different genera of riparian vegetation present) covering between 75% and 100% of the site.

B: Diverse riparian vegetation covering between 30% and 75% of the site (e.g., strips or islands of riparian habitat interspersed in open space).

C: Diverse riparian vegetation covering up to 30% of the site AND/OR greater than 50% of the site covered with a monoculture of riparian vegetation.

D: Monoculture of riparian vegetation covering up to 50% of the site, interspersed among grasses, exotics, or bare ground.

E: No existing riparian vegetation (e.g., covered with upland grasses and scrub, bare ground, infested with exotics).

Criterion: Undeveloped Open Space Habitat

A: 80%-100% open space habitat of any quality

B: 60%-80% open space habitat of any quality

C: 40%-60% open space of any quality

D: 20%-40% open space of any quality

E: 0%-20% open space. Fully urbanized, concrete, developed residential or commercial cut.

Criterion: Adjacent Habitat (Floodplain Land-Use)

A: Completely surrounded by transitional upland habitat.

B: Adjacent to transitional upland habitat on one side and grassland, agriculture, or low quality open space on other side.

C: Adjacent to transitional upland habitat on one side and urban setting on the other side.

D: Surrounded by degraded grassland, agriculture, or other low-quality open space on at least

one side.

E: Completely surrounded by urban setting.

Criterion: Linear Contiguity of Habitats

A: Completely contiguous with comparable habitat on both ends of the site.

B: Contiguous with comparable habitat on one end of the site and adjacent to a different type of open space habitat on the other end of the site.

C: Contiguous with comparable habitat on one end of the site, but adjacent to urban setting on the other end of the site.

D: Isolated within a different type of open space habitat.

E: Completely isolated within an urban setting or completely urbanized site.

PARAMETERS USED TO DEVELOP EVALUATION CRITERIA

Endangered Species Habitat. Species richness and abundance is a common measure of habitat health (Harris). Fauna use of an area is often measured by surveying for presence or indications of presence (*e.g., tracks*, burrows). However, project files seldom contained comprehensive pre-project species surveys, and surveying for existing species richness was not practical due to time constraints and temporal variability in fauna site occupation. Review of Section 404 permits requires evaluation of the potential for a project to adversely affect a federally listed or proposed endangered or threatened species or their critical habitat. Therefore, information regarding the presence of endangered species or their habitat was readily available in project files. **Most federally listed species are endangered due to loss of specialized habitat that they require; therefore, assessing the presence of endangered species or their habitat can provide a useful indicator of the demise of regionally significant ecosystem (Eng. 1984). In addition, impacts to endangered species habitat may indicate that similar impacts are occurring to other habitat specialists that use comparable areas.**

Structural Diversity of Habitats. The stratification of vegetation into layers, including shrub cover, understory, and canopy, provides a variety of different habitats. This allows a diversity of organisms representing different trophic levels to coexist in a single site, thereby supporting a more complex and resilient food web (Warner and Hendrix). For example, diverse ground cover provides habitat for many insects that form the base of the food web, allowing higher trophic level organisms to use understory and canopy habitat that may be present (Erman). Gosselink et al. report that structural diversity within a site has been correlated with faunal diversity, especially for birds. Warner reports that the presence of a floristic structure consisting of three strata indicates that appropriate soil, moisture, and topographic conditions exist to support a "healthy" riparian system. Structural diversity of the vegetated portions of the project site was used as surrogate for general habitat suitability for an assortment of common species. Conversely, exotic species such as *Arundo donax* (Hickman) and *Tamarix* spp. have minimal habitat value and prohibit natural vegetation from establishing on a site (Meents et al.). **Therefore, presence of exotics was assumed to provide limited habitat value for both the structural and spatial diversity criteria. Because riparian habitats are typically patchy (Faber and Holland), the ratings for this criterion were based on only the vegetated portions of each site.**

Spatial Diversity and Coverage of Habitats. Riparian habitats are typically patchy, with an interspersion of different ecotones (Faber and Holland. This interspersion allows the activities of animals in dry sites to be more closely coupled to those in wet sites. A mosaic of habitat types provides a richer, more continuous food source for mobile fauna than that of a homogeneous habitat. For example, Doyle found a strong correlation between the extent of herbaceous and deciduous shrub cover in riparian habitats and the abundance and diversity of small mammals. Habitat mosaics also allow animals to fulfill several life functions at a single site (*e.g.,* foraging, escape, reproduction) (Warner and Hendrix, Gosselink et al.). Alpha diversity (diversity within a site) has been correlated to the ability of a patch to support a complex food web and allow interior

species, with specific habitat requirements, to thrive in the face of competition from generalist (Harris, Klopatek). **Assessment of changes to the spatial diversity of a project site provided information about impacts to a site's capability to support a variety of different faunal species.**

Undeveloped Open Space Habitat. The structure of a landscape mosaic influences the ability of organisms to move between discontinuous habitat patches (Wiens et al.). Movement may be more difficult through certain types of landscape, thus limiting accessibility to neighboring patches. Urban land uses, such as roads, housing or commercial development, act as barriers to movement and decrease the overall regional availability of habitat (Klopatek, Harris). **Therefore, project sites that contain appreciable open space habitat can provide areas for performance of life functions may be present regardless of the site's spatial or structural diversity. In addition, the portion of a project site that remains open space habitat can provide a metric for the conversion of natural landscape to urban landscape.**

Adjacent Habitat (Floodplain Land-Use). The ecological value of riparian habitats depends on their integration as units within the surrounding landscape (Gosselink et al.). Many organisms have complex life histories in which different stages required distinct habitats within a regional landscape to meet their life requirements (Harris). Therefore, continuity between riparian and upland habitat increases use by fauna and provides safe passage between riparian areas and adjacent upland (Gosselink et al.). Furthermore, the greater the edge area between riparian habitat and developed areas, the greater the potential negative impact from adjacent upland land-use (Warner and Hendrix). Additionally, many riparian plants require adjacent uplands as a floodplain for establishment of their propagules during flooding events (Scott et al). These floodplains also provide refuge for fauna during flooding (Gosselink et al.). **Therefore, changes to adjacent land-use are an important consideration for impacts to the quality of riparian habitat.**

Linear Contiguity of Habitats. Fragmentation and habitat loss are dominant causes of the decrease in biotic diversity of wetland species (Harris). Theories of island biogeography assert that disjunct patches connected by strips of protected habitat are preferable to isolated patches, and these corridors facilitate movement between patches (Diamond, Noss). This theory has been supported by the observation that many animals have a home range that exceeds the size of an individual habitat patch and require a means to move unmolested from one habitat patch to another. Without a system of travel corridors that allows these animals passage from one refuge to another, they will probably not occur in future landscapes (Harris). Even if partially disturbed, riparian corridors are vital to the successful migration of neotropical birds and other organisms (Croonquist and Brooks). In addition, habitat connectivity helps small populations (such as endangered species) maintain demographic and genetic integrity in the face of the isolation caused by habitat fragmentation (Frankel and Soule). Changes to linear contiguity affect not only corridors but also contribute to overall habitat fragmentation and decreases in patch size. This can be detrimental for resident as well as migrant species (Harris). **Therefore, impacts to linear contiguity are key parameters when assessing the impacts of permitted projects.**

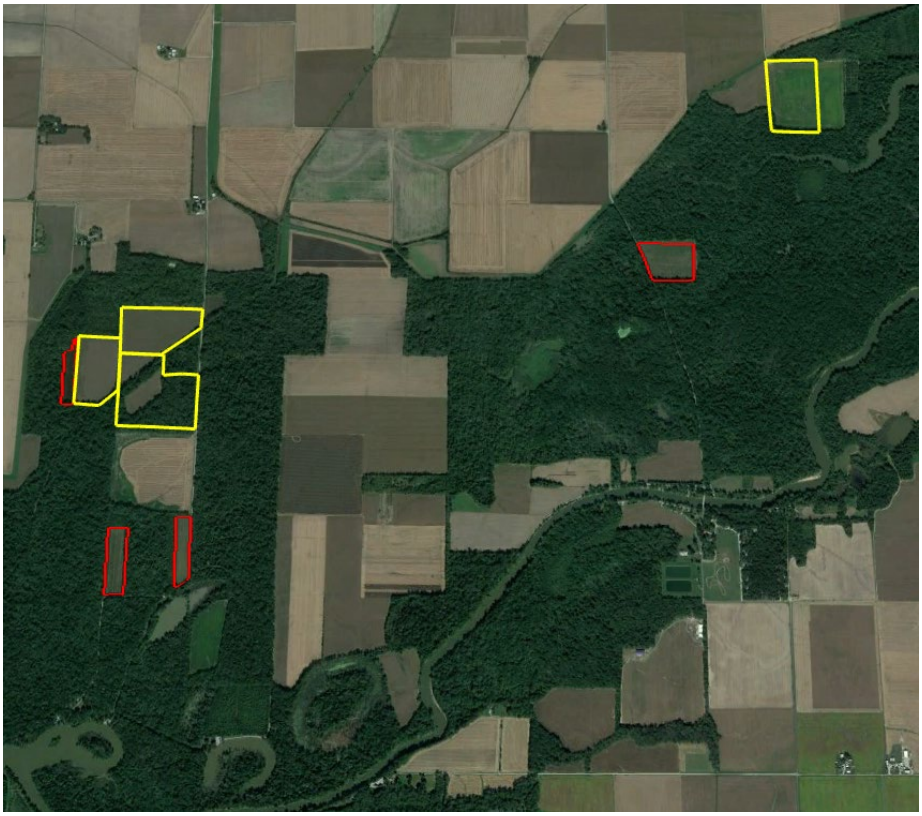
SITE HYDROLOGY

The hydrograph in this area is dictated by both natural and managed water control. The Bank Site is open to high water events associated with Crooked Creek and Shoal Creek and is also subject to interior watershed hydrology. This could consist of flooding due to precipitation or high-water events from Crooked Creek and Shoal Creek. This hydrograph will be managed to affect the depth, duration, and extent of flooding on the Bank Site. The Bank Site is also affected by the Carlyle Lake Water Control Curve. This managed upstream reservoir periodically floods the Bank Site for both short-term and extended durations.

Soil properties, observations of flooding, drainage patterns, soil saturation and hydrophytic plant species all indicate that the area has the required hydrology to support a wetland community.

Though the Bank Site has hydrologic conditions available, the current management is designed to increase agricultural production. Existing drain ditches utilized during agricultural production will be either removed or abandoned to assist in restoring hydrology within the Bank Site.

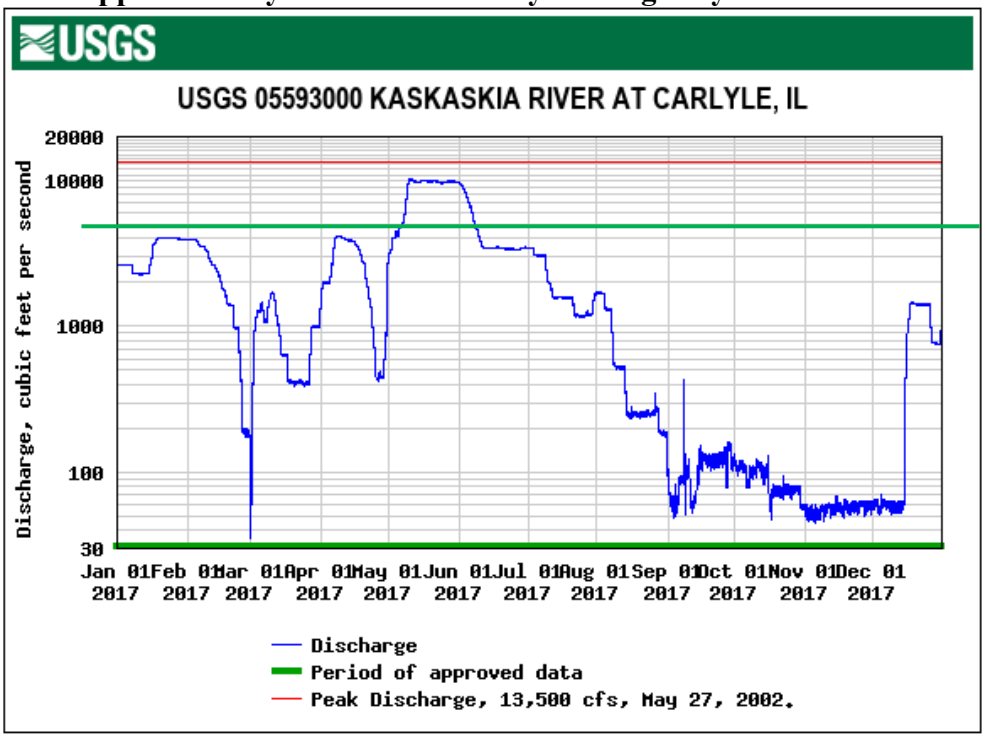
The Sponsor and its representative, Wetlands Forever, Inc., have significant experience developing approximately 30 acres of PRM wetland mitigation sites in 2016 in the Kaskaskia River bottoms near this Bank Site, including one PRM site directly adjacent to the Bank Site. All PRM sites are meeting hydrology performance criteria. See map below for PRM sites (red) and their proximity to the Bank Site (yellow) and the Kaskaskia River.



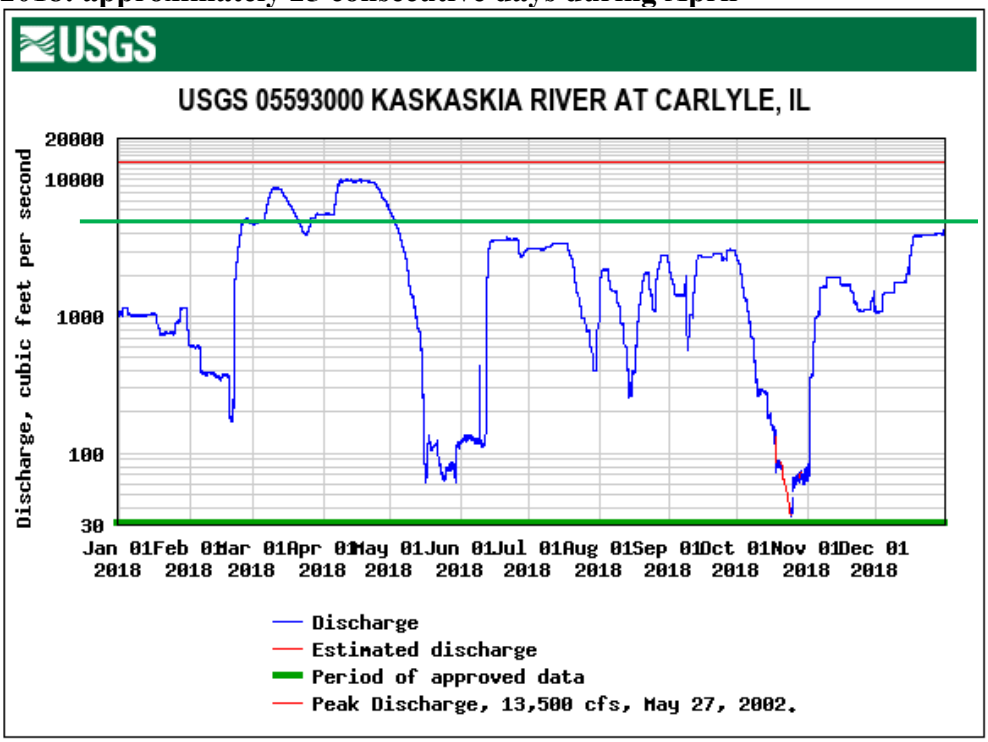
This experience has demonstrated that when nearby USGS gage 055930000 on the Kaskaskia River at Carlyle, IL reaches or exceeds 5,000 cubic feet per second of discharge, this specific area receives flood waters and therefore hydrology.

Below are annual charts for the period 2017-2021 showing that this gage consistently exceeds 5,000 cubic feet per second of discharge (solid green line) for extended periods during the early- to mid-growing season:

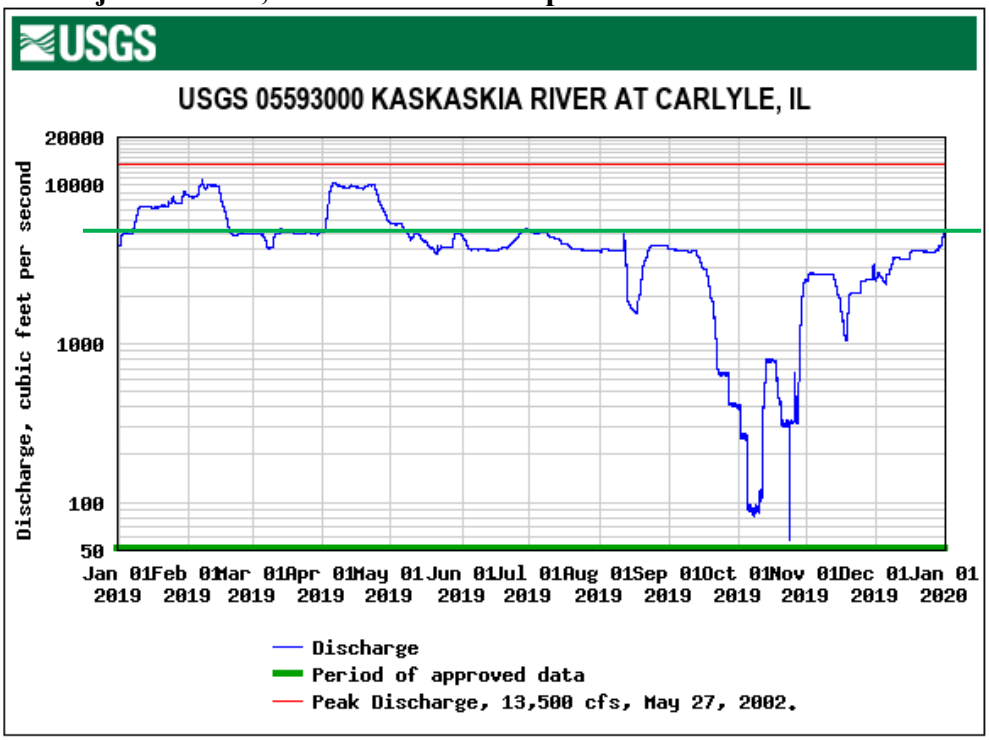
2017: approximately 30 consecutive days during May / June



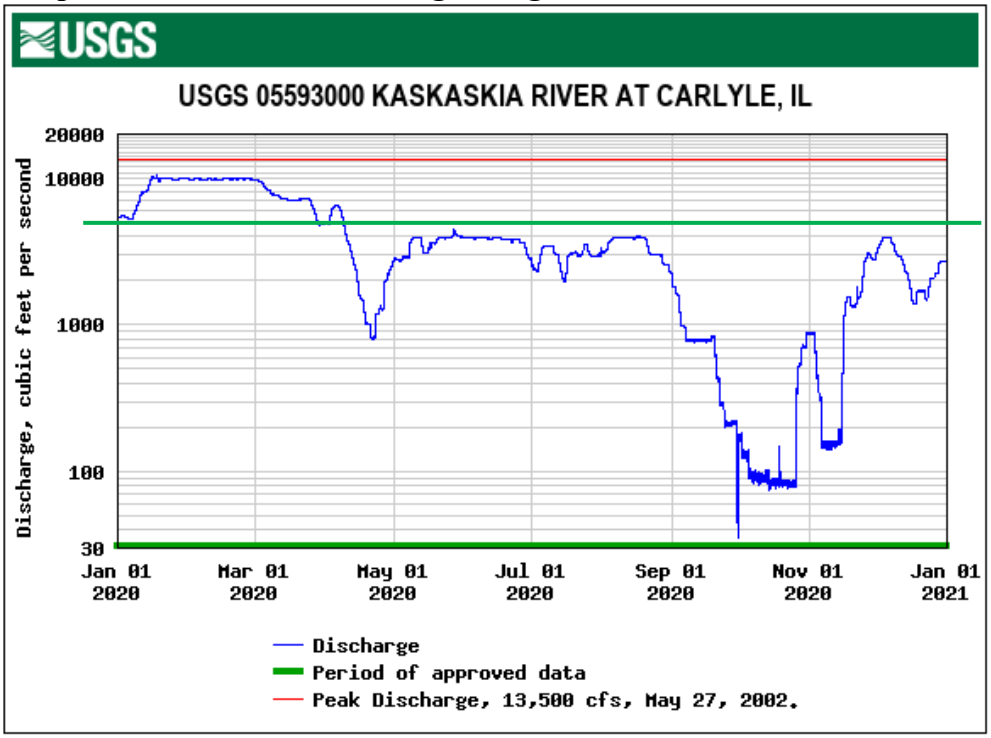
2018: approximately 25 consecutive days during April



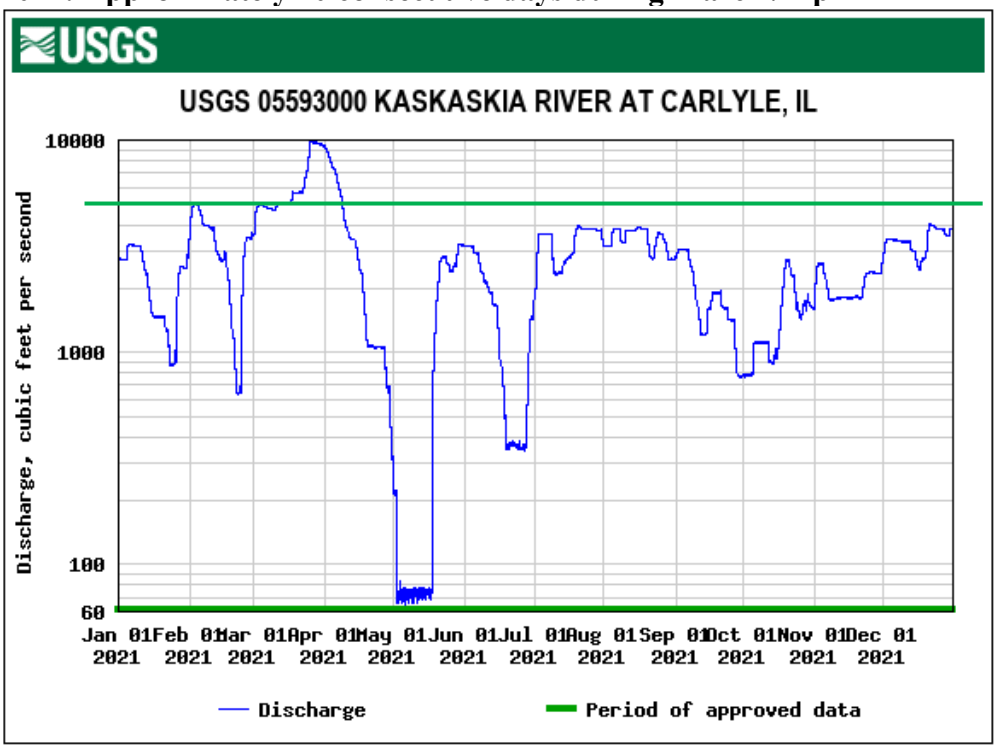
2019: approximately 30 consecutive days during April, with the remainder of the growing season just below 5,000 for an extended period of time



2020: Approximately 30 days during April, preceded by a sustained period at 10,000 cubic feet per second from January to March, and followed by readings of just below 5,000 cubic feet per second for much of the growing season



2021: Approximately 20 consecutive days during March / April



SECTION E - Determination of Credits

One of the goals of the WFI-B Umbrella Mitigation Banking Instrument is to restore ecological integrity to Bank Sites using designs that re-establish natural / historic functions to former wetlands and restore / re-establish original physical attributes to accommodate watershed effects. The BBWMB will strive to re-establish forested habitat that is similar to the Kaskaskia River Watershed, which supports the largest contiguous bottomland hardwood forest in the state of Illinois.

Thus, the Sponsor proposes utilizing the process of re-establishment through positively manipulating the affected soils, vegetation, and hydrology on the Bank Site. These actions will improve the physical, chemical, and biological traits of the Bank Site. This site has a long history of agriculture and its management objectives on soil elevations being flattened or leveled, elimination of native vegetative diversity, and reductions of duration of hydrology through ditching associated with Santa Fe Drainage Ditch for the main purpose of manipulating the site for improved agricultural yields. This site currently generates an FQI of less than 10 for the majority of the year due to agricultural operations. Our plan is to re-establish this site into a functioning bottomland hardwood mast producing forest to increase diversity and FQI at the Bank Site.

The same methodology will be used to assess both credits and debits. We determined that an appropriate functional assessment methodology is impractical to employ, thus acreage will be used as a surrogate for measuring function for the wetland habitats.

The number of credits (acres/credits) reflect the difference between site conditions under the with- and without-bank scenarios.

BBWMB will generate 80.85 wetland credits.

BREAKDOWN OF CREDIT RATIOS:

FORESTED

Re-establishment (100%): 68.04 acres = 68.04 credits

Total: 68.04 Credits

Justification: The credit justification is based on the agricultural acreage being removed from row cropping, planted at a greater than 51% of the area with bottomland hardwoods and modifications to increase hydrologic conditions at the site. Hydrology will be modified through berms and mounds that provide added elevation thus modifying hydrology as it is associated with forested restoration. Secondly, hydrology will be modified through both eradication of agricultural ditches and addition of raised berms/mounds that will provide longer inundation and microhabitat on the Bank Site. This planting increases the FQI of the acres and reduces forest fragmentation along Kaskaskia River. When complete, this activity will result in a net gain in aquatic resource area and function.

ENHANCED FORESTED

Enhancement (50%): 25.62 acres = 12.81 credits

Total: 12.81 Credits

Justification: This credit justification is based on the existing forested acreage being restored into a healthier oak/hickory bottomland forest. This forest stand is significantly overstocked and of low quality. Approximately 37% of the total volume is made up of green ash trees, which will be compromised in the near-to-midterm due to the presence of the Emerald Ash Borer within 2 miles of the site. Most of the remaining volume is dominated by a single species (pin oak), resulting in minimal plant diversity. The existing mature trees in this forest are so dominant that they are not allowing adequate sunlight to reach the forest floor, resulting in little to no oak / hickory regeneration in the understory. This forest lacks the ability to sustain a healthy ecosystem and requires multiple actions to create 1) proper B-level stocking, 2) increased plant diversity and quality, 3) enhanced wildlife habitat, and 4) an environment in which future generations of oak and hickory species will have a fighting chance to reach canopy level to become dominant trees in the forest stand in the future.

To that end, the Sponsor will complete several actions to achieve the above goals:

- Sponsor will conduct a Forest Stand Improvement (FSI) using chainsaws to double-girdle undesirable or low C-Value tree species around hard mast producing tree species to promote apical growth.
- Sponsor will plant high C-Value RPM containerized oak, hickory, and pecan trees (approximately 10-20 per acre, on average as-needed) to increase the plant diversity and FQI of the forest stand.
- Sponsor will conduct FSI on declining ash, elm, and maple species to open canopy space to allow sunlight to reach the forest floor to promote the growth of oak seedlings into the midstory to compete for more sunlight and other important nutrients.
- Trees subject to FSI actions will enhance wildlife habitat opportunities for multiple species. This project will create approximately 7 cavity trees per acre, targeting declining trees that are already present in the stand.

TOTAL CREDITS GENERATED FOR BBWMB:

Wetland Credits: 80.85

Habitat Type	**Acreage**	**Total Credits**
Forested (PFO)	68.04	68.04
Enhanced Forested (PFO)	25.62	12.81
Wetland: Total	**93.66**	**80.85**

SECTION F – Mitigation Work Plan

Project Description: BBWMB is made up of prior converted cropland and over-stocked, mature bottomland hardwood forest. The Bank Site will have a cumulative acreage of 93.66 (+/-) of restricted property in perpetuity.

Whereas, under this Banking Instrument, the Sponsor will establish and/or maintain 93.66 (+/-) acres of wetland habitat in accordance with the provisions of this Banking Instrument and the Bank Mitigation Work Plan and shall then maintain the Bank in such condition for a minimum of 7 years in accordance with the Bank Closure Procedures.

An excluded access easement along the southern boundary of the Timberline Preservation Trust will have no adverse impacts to the Bank Site. The access easement in the Mueller Children's Trust property will provide access to the Timberline Preservation Trust northern acreage above Santa Fe Ditch and to Michael Mueller property. In general, the access easement areas will have no impact on the Bank Site and look to maintain the existing hydrology regime, thereby not affecting the hydrology on the easements.

In Appendix 4 there are various construction maps and features for this project.

FORESTED WETLANDS

To prepare for unpredictable flooding and duration, the plan calls for a mix of vegetation that can tolerate a wide range of water levels. The proposed plan for improving hydrology across the Bank Site is to establish mounds for tree planting survivability. Mounds are created by modifying unconnected berms created on site, as described below. The construction of mounds will create microhabitats in and around the mounds that receive tree plantings, which provides additional hydrology duration during precipitation and short-term flood events.

Construction Feature Techniques:

In addition to in-situ planting (at existing elevations), the following tillage techniques will be utilized during the construction of the Bank Site to provide microtopographic features and allow for the inclusion of less flood-tolerant tree species for greater planting diversity. Techniques utilized are determined by site-specific surface elevations, hydrology patterns across the Bank Site, and specific tree species being planted. The construction method for these techniques will utilize a tractor-pulled rice levee plow, excavator, or dozer to manage the in-situ material.

It is important to note that not all trees (and sites) require these techniques; rather, some areas of the Bank Site may benefit from employing these techniques. All constructed features will be detailed in an as-built report post-construction.

Unconnected Berms: The first tillage technique to be used by the Sponsor is to construct berms (raised beds) of existing soil materials. Constructed berms will be approximately seven (7) feet wide, forty-five (45) feet long, and six (6) inches tall. The unconnected berms shall be approximately forty (40) feet apart, allowing for flood flowage in and around the forested planting so that restriction of the natural drainage of the site or impounding water during high rainfall periods of flooding does not occur. Row(s) of trees will be planted in-situ in between each berm to maintain required 20x20 foot spacing.

Mounds: Following this, mound construction is performed by modifying a constructed berm. A box blade (hydraulic) follows the alignment of the berm periodically raising and lowering the box blade to pick up berm material and place on another section of berm. This process (along with the tractor height and a harrow) breaks the constructed berm into mounds approximately 5 feet wide by 8 feet long with a height just over one foot. Then a cultipacker piece of equipment is similarly driven over the constructed mound that slightly compacts the mound to an elevation of approximately eight (8) inches (construction grade). This mound will settle an additional 2 inches over the next year to a final grade of approximately six (6) inches. These mounds are not connected to any other feature and allow floodwater to move in and around the feature freely.

Other features in managing hydrology will consist of removing agricultural drainage ditches. Spring and fall rainfall plus annual flooding will provide soil saturations to support hydrophytic vegetation without mechanical means or intervention by the Sponsor. These actions focus on providing a streamlined approach to reach a climax forest status in a shorter timeframe than the typical 180 years (+) normal successional model.

EHANCED FORESTED WETLANDS

This forest stand (24.12 acres of "Timberline" parcel and 1.50 acres of "Loepker" parcel) requires a forest stand improvement (FSI). The FSI will utilize chainsaws to double-girdle undesirable or low C-value species (maples, box elder, and green ash), and the planting of containerized oak and hickory trees in the canopy openings left behind, resulting in an increase in tree species diversity and the increase in overall Floristic Quality Index rating. These openings (which are greater than 0.25 acres within this forested stand) will receive hard mast oak and hickory plantings as a regeneration component at approximately 10-20 trees per acre as deemed necessary. These forest management activities will provide improved wildlife habitat and other forestry benefits to improve and promote a healthier, more sustainable forest ecosystem (reference the Forest Management Plan).

Relating to bat species, specifically the Indiana bat *(Myotis sodalis)* and Northern Long-eared Bat *(Myotis septentrionalis)*, the Sponsor will forego actions in sensitive areas during roosting

months as these species rely on trees with exfoliating bark to roost from April through October. In the winter months, bats migrate to caves and bluffs to hibernate for the winter.

The Sponsor will conduct a Forest Stand Improvement (FSI) using chainsaws to double-girdle undesirable trees; trees will not be harvested in the stand.

SITE RE-ESTABLISHMENT OF HYDROLOGY

As stated in the Baseline Conditions, the hydrograph in this area is dictated by both natural and managed water control. The Bank Site is open to high water events associated with Crooked Creek and Shoal Creek and is also subject to interior watershed hydrology. This could consist of flooding due to precipitation or high-water events from Crooked Creek and Shoal Creek. This hydrograph will be managed to affect the depth, duration, and extent of flooding on the Bank Site. The Bank Site is also affected by the Carlyle Lake Water Control Curve. This managed upstream reservoir periodically floods the Bank Site for both short-term and extended durations.

Though the Bank Site has hydrologic conditions available, the historical management was designed to increase agricultural production. Existing drain ditches utilized during agricultural production will be modified through small berm construction (< 8 inches in height) to redirect interior water drainage across the site, thus extending duration of interior hydrologic conditions. Further, agricultural ditches will be filled or broken to support the extended duration of interior hydrology. This improvement to hydrology will result in the reestablishment of historical hydrology across the Bank Site and increasing historical depressional drainage locations within the Bank Site. Reference figures below.

Figure 9A – Berm / Mound Construction

Area 1: 30 rows of berms/mounds @ 40' centers
Area 2: 11 rows of berms/mounds @ 40' centers
Area 3: 16 rows of berms/mounds @ 40' centers

Figure 9B – Berm / Mound Construction (continued)

Area 4: 16 rows of berms/mounds @ 40' center

Figure 10A – Restored Hydrology

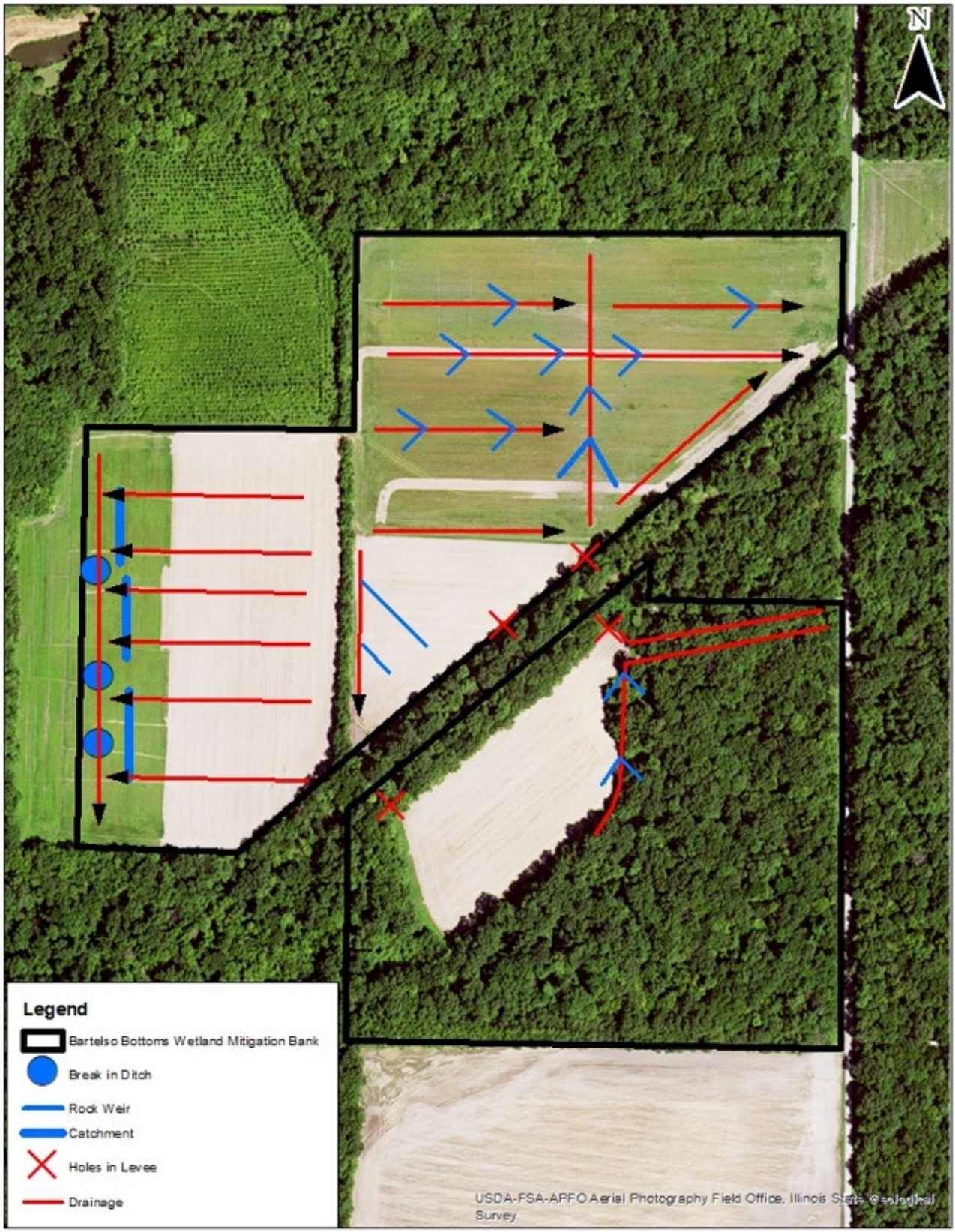


Figure 10B – Restored Hydrology (continued)

MITIGATION PLAN

Bottomland Hardwood Forest

Carya illinoinensis (Northern Pecan), Carya aquata (Water Hickory), Quercus bicolor (Swamp White Oak), Quercus palustris (Pin Oak), Quercus nuttallii (Nuttall Oak), Quercus lyrata (Overcup Oak), Crataegus viridis (Green Hawthorne), Platanus occidentalis (Sycamore), Celtis laevigata (Sugar Berry), Cephalanthus occidentalis (Button Bush), Forestoiera acuminata (Swamp Privit), Quercus phellos (Willow Oak), Diospyros virginiana (Persimmon), Taxodium distichum (Bald Cypress), Gymnocladus dioicus (Kentucky Coffee), etc.

Tree Plantings

MAST BOTTOMLAND HARDWOOD PLANTINGS

This area will follow all recommendations outlined in the WFI-B Umbrella Mitigation Banking Instrument (**UMBI**) for tree planting requirements. The forested planting equates to twenty-foot by twenty foot (20 ft x 20 ft) spacing equaling 109 trees/acre.

Forested Wetland = 68.04-acres x 109 trees/acre = 7,417 trees (+/-)

Figure 11A – Mitigation Plan Map

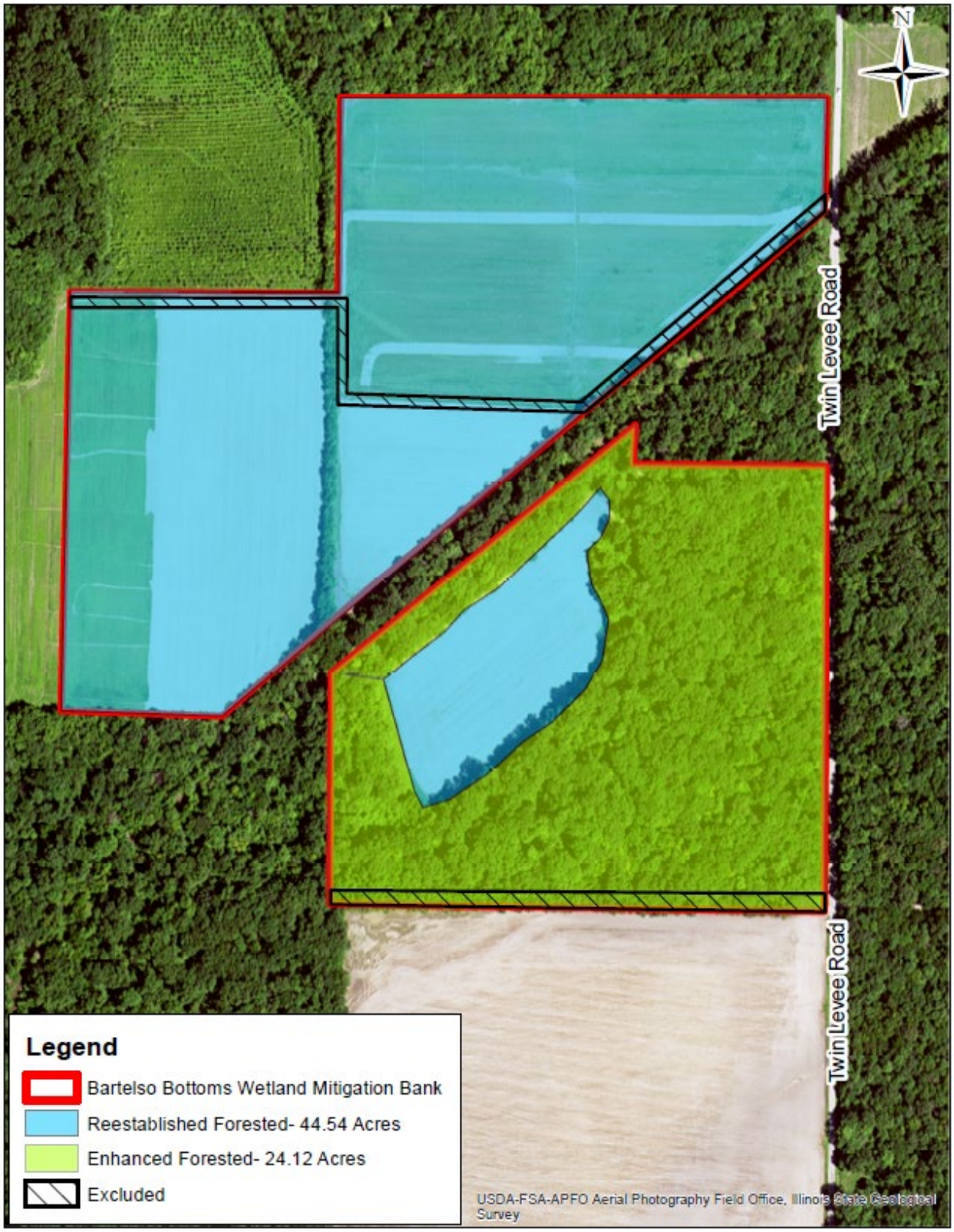
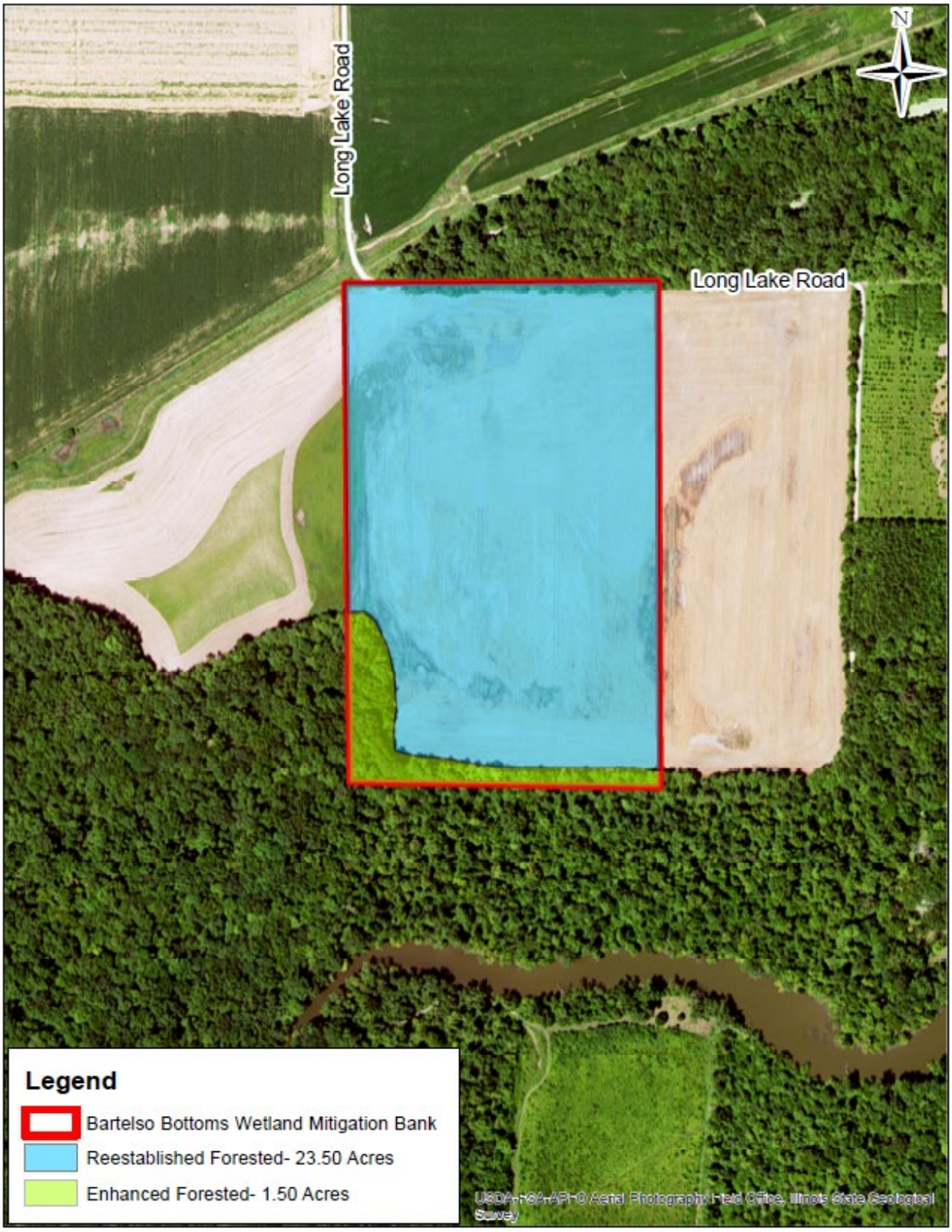


Figure 11B – Mitigation Plan Map (Continued)



Bartelso Bottoms Forested Wetland Tree Planting

***Tree Varieties**	*Trees per Acre*	**Forested Wetland:**	
		Acres Planted	***Total Trees***
Pin Oak (Quercus palustris)	15	68.04	**1,021**
Sycamore (Platanus occidentalis)	5	68.04	**340**
Willow Oak (Quercus phellos)	5	68.04	**340**
Northern Pecan (Carya Illinoensis)	10	68.04	**681**
Swamp White Oak (Quercus bicolor)	5	68.04	**340**
Green Hawthorne (Crataegus viridis.)	5	68.04	**340**
Shellbark Hickory (Carya laciniosa)	5	68.04	**340**
Button Bush (Cephalanthus occidentalis)	10	68.04	**681**
Persimmon (Diospyros virginiana)	4	68.04	**272**
Overcup Oak (Quercus lyrata)	12	68.04	**817**
Water hickory (Carya aquatic)	4	68.04	**272**
Sugarberry (Celtis laevigata)	4	68.04	**272**
Nuttall Oak (Quercus nuttallii)	10	68.04	**681**
Swamp Privit (Forestiera acuminate)	4	68.04	**272**
Bald Cypress (Taxodium distichum)	7	68.04	**476**
Kentucky coffee (Gymnocladus dioicus)	4	68.04	**272**
Totals	**109**		**7,417**

***Hardmast trees for berm planting**

SECTION G – Operation and Maintenance Plan

The BBWMB restoration area is designed to be self-sustaining once the mitigation work plan is complete. The BBWMB's Operation and Maintenance will reflect the approved UMBI plans for the WFI-B UMBI.

WFI Holdings-B LLC will be responsible for maintenance activities until wetland performance standards are determined to be met.

Typical Maintenance Operations to include the following:

- Mowing
- Invasive species control utilizing herbicide spraying

SECTION H – Ecological Performance Standards

The BBWMB's Ecological Performance Standards will reflect the approved UMBI plans for the WFI-B UMBI.

The performance standards listed below will be used to measure or assess whether the Bank Site is developing into the desired resource type and providing the expected functions. These performance standards will be applied to determine the success of this compensatory mitigation activity.

The Bank Site should meet the standards for vegetative cover and hydrology outlined in Table 1 below. Please note that Table 1 details the performance standards for multiple resource types as approved in the UMBI. Those resource types specific to this Bank Site are highlighted in blue.

Table 1. Performance Standards

Target	1-3-year Performance Standards	4-7 (further) -year Performance Standards
Vegetative Success for Wetland Areas: Emergent (PEM)	At least 75% of the vegetative cover consists of native hydrophytic vegetation suitable for the proposed areas water regime and site potential. No single occurrence of invasive species shall exceed 0.25 contiguous acre in area even if the overall abundance of invasive species is less than 25%. **Hydrology:** No more than 5% of the wetland shall consist of a contiguous "unvegetated open water" area measured no later than September 15th of each monitoring year.	At least 75% of the vegetative cover consists of native hydrophytic vegetation suitable for the proposed areas water regime and site potential. Minimum of 10 hydrophytic plant species per acre. The 10 species must also be native perennial species. In addition, no single occurrence of invasive species shall exceed 0.10 contiguous acre in area even if the overall abundance of invasive species is less than 10%. **Hydrology:** No more than 5% of the wetland shall consist of a contiguous "unvegetated open water" area measured no later than September 15th of each monitoring year
Vegetative Success for Wetland Areas: Scrub-Shrub (PSS)	Performance standards for this habitat type will be proposed on a site-by-site basis and will generally mirror either the Emergent or Forested, depending upon site-specific parameters. No single occurrence of invasive species shall exceed 0.10 contiguous acre in area even if the overall abundance of invasive species is less than 10%.	
Vegetative Success for Wetland Areas: Forested (PFO)	Sponsor will comply with the St. Louis District Mitigation Tree Planting Guidance, Estimated Guidance from 2017. Note that only 20% of the surviving trees after monitoring may be from natural recruitment. In addition, trees re-planted within the previous two years will not count towards the survivability metric. No single occurrence of invasive species shall exceed 0.10 contiguous acre in area even if the overall abundance of invasive species is less than 10%. **Hydrology:** No more than 5% of the wetland shall consist of a contiguous "unvegetated open water" area measured no later than September 15th of each monitoring year	
Stream- In-Stream	Monitoring will include the establishment of eight fixed photo stations (pins) along the bank, 2 per reach. These pins will be measured in relationship to the current position of the bank toe or top of bank, which will show any erosion or deposition. Monitoring reports will note the presence of toe undercutting, lateral bank movement, and overall rock structure stability. Due to the method of stabilization and the existing bank conditions, some changes in bank conditions may continue to occur as the bank establishes a stable slope. The stabilization will be determined successful if the rock structures remain functionally in place following high flow events, and the bank line does not move beyond what would reasonably be expected for normal stream dynamics and morphology. To assess the performance of the grade control structures, a channel cross section will be taken at each photo station, when stream conditions allow, to monitor any changes in the shape of the stream channel.	Performance for the stream structures will be evaluated by the stability of the structures. Sites deemed not to create any instability for the stream channel shall the considered to meet performance standards for stream stability. A Rapid Bioassessment Protocol (RBP) determination will be utilized to determine overall ecologic lift for the in stream reaches. The RBP will be performed every year and be compared to the baseline RBP for the project. The RBP will be the main criteria for ecological performance. Specific stream performance standards beyond what are proposed in this document may be developed on a site-by-site basis as bank sites are proposed. A macroinvertebrates analysis may be conducted for each project, a baseline and at year 4 analysis can be evaluated for overall lift of macroinvertebrates.

Target	1-3-year Performance Standards	4-7 (further) -year Performance Standards
Stream- Riparian Area	Sponsor will comply with the St. Louis District Mitigation Tree Planting Guidance, Estimated Guidance from 2017. Note that only 20% of the surviving trees after monitoring may be from natural recruitment. In addition, trees re-planted within the previous two years will not count towards the survivability metric. No single occurrence of invasive species shall exceed 0.10 contiguous acre in area even if the overall abundance of invasive species is less than 10%.	
Buffer Areas	No single occurrence of invasive species shall exceed 0.10 contiguous acre in area even if the overall abundance of invasive species is less than 10%. Additional buffer performance standards may be added on a site by site basis depending upon site-specific parameters.	
RIAM	Between years five to seven, verify if pre-project assessment in Section D meets post project ranking as determined by best professional judgment.	

PLANTING PERFORMANCE STANDARDS

The BBWMB's Planting Performance Standards will reflect the approved UMBI plans for the WFI-B UMBI.

SECTION I – Monitoring Requirements

The BBWMB's Monitoring Requirements will reflect the approved UMBI plans for the WFI-B UMBI.

A seven (7) year monitoring program will be initiated after installation of the planting material for each phase. The WFI Holdings-B LLC Environmental Scientist shall conduct all monitoring.

SECTION J – Long-Term Management Plan

The BBWMB's Long-Term Management Plan will reflect the approved UMBI plans for the WFI-B UMBI.

The Bank Site will have a long-term management plan that focuses on the survival and success of the forested wetlands being restored. Long-term management will be implemented after the performance standards are met.

Landowner: WFI Holdings-B LLC

Long Term Steward for BBWMB: HeartLands Conservancy

Conservation Easement Holder for USACE: HeartLands Conservancy

STRUCTURE OF LONG-TERM FINANCING

Long-term financing for HeartLands Conservancy's services is referenced in Appendix 6. An endowment in the amount of $44,500 will be used for any maintenance requirements once the performance standards have been met after submittal of the closeout report. Based upon financing and anticipated forested management action, the non-diminishing endowment will have financial stability in perpetuity.

PROVISIONS FOR LONG-TERM MANAGEMENT AND MAINTENANCE
LONG-TERM CARE

The Bank Site has been designed to be self-sustaining, therefore, long-term care is deemed to be minimal once the project has met the specified performance standards. However, a management and maintenance plan is located in Appendix 5 to address the minimal management requirements of the project.

SECTION K – Adaptive Management Plan

The BBWMB's Adaptive Management Plan will reflect the approved UMBI plans for the St. Louis WFI-B UMBI.

SECTION L – Financial Assurances

The BBWMB's Financial Assurances will reflect the approved UMBI plans for the WFI-B UMBI.

The Bank Site will have a plan of financial assurances and long-term management that focuses on the survival and success of the forested wetlands being restored. Financial Assurances will support the project during construction and monitoring while long-term management will be implemented after the performance standards are met.

CONSTRUCTION FINANCIAL ASSURANCES

The Sponsor agrees to provide the following financial assurances for the work described in the Banking Instrument and in Appendix 6, Financial Assurances.

The Sponsor will be the responsible party for the financial assurances of the Bank Site. These assurances will be of sufficient substance to ensure the proposed compensatory mitigation will be successfully completed in a manner consistent with the performance standards agreed upon by the MBRT and the Sponsor. Any financial instrument will be in place prior to commencement of any permitted activity associated with the Bank Site.

As seen in Appendix 6, the total construction and monitoring cost of the Bank Site through the monitoring period is anticipated to be $175,000, which includes forested wetland construction expenses and yearly monitoring. To provide financial assurance protection for these costs, the Sponsor will purchase a casualty insurance policy to protect the Bank Site in the event of non-compliance. This policy will ensure sufficient funds are available to a third party should the Bank Site be deemed non-compliant and declared in default by the USACE. Funds would be made available to a third party to restore the Bank Site's compliance once a claim has been filed by the USACE. Upon execution of the MBI, the Sponsor will purchase this policy through Conservation United to meet the short-term financial assurance requirements. A draft policy of this insurance can be found in Appendix 6.

STRUCTURE OF LONG-TERM FINANCING ENDOWMENT

HeartLands Conservancy has been identified as the long-term manager/steward.

An endowment in the amount of Forty-Four Thousand Five Hundred Dollars ($44,500) will be completely funded to an interest accruing account at Project Close-out of BBWMB. Based upon financing and anticipated forested management action, the non-diminishing endowment will have financial stability in perpetuity.

Long-term financing for HeartLands Conservancy's services is outlined above and referenced in Appendix 5.

- An Endowment will be established along with Financial Assurances component of the project;
- The Total Endowment funding at Project Close-Out will be $44,500; at an estimated return rate of 6% which generates $35,200/ten years.
- WFI Holdings-B LLC recommends a stepped funding strategy for this project's Endowment. The strategy will consist of two major activities; 1) A Fixed Annual Payment and 2) A Final Endowment Funding at Project Close-Out.
- Fixed Annual Payments in the amount of $2,000 per year
    - Timing of Annual Payment: within 90 days of beginning of calendar year for prior calendar year (example: annual payment for 2023 to be made by end of March 2024).
- Final Endowment Funding action to fund the remainder of Endowment
    - Timing of Final Endowment: Project Close-Out
    - Amount: equal to an amount to bring the endowment to a total of $44,500.
        - Total Endowment Funding, less sum of Fixed Annual Payments, less sum of interest earned
        - Shall not exceed a maximum of Total Endowment Funding ($44,500) less sum of Fixed Annual Payments

- Total Endowment funding at time of Project Close-Out: $44,500;
- WFI Holdings-B LLC will fund a TSI/Pruning Management action at Close-out.

PROVISIONS FOR LONG-TERM MANAGEMENT AND MAINTENANCE

LONG-TERM CARE

The Bank Site has been designed to be self-sustaining, therefore, long-term care is deemed to be minimal once the Bank Site has met the specified performance standards. However, a management and maintenance plan is located in Appendix 5 to address the minimal management requirements.

SECTION M – Credit Release Schedule for the Bank Site

The BBWMB's Credit Release Schedule will reflect the approved UMBI plans for the WFI-B UMBI. The BBWMB generates 80.85 wetland credits.

Wetland Credits:

Description	Release %	Credits
Bank Approval	15%	12.13
Construction Complete	25%	20.21
Hydrology Confirmation	15%	12.13
Year 3 Performance Standards	15%	12.13
Year 4 Performance Standards	15%	12.13
Year 5-7 Performance Standards	15%	12.12
Total	**100%**	**80.85**

The Sponsor shall submit a statement to the Corps St. Louis District each time credits are debited, or additional credits are approved. If requested, the Corps will distribute the statement to other members of the MBRT. At a minimum, the Sponsor shall submit an annual ledger to the Corps for distribution to all members of the MBRT, showing all transactions at the BBWMB for the previous year.

Please see below for example tracking logs.

Bartelso Bottoms Wetland Mitigation Bank

Managed By: WFI Holdings-B LLC

INDIVIDUAL CREDIT DEBIT LOG

USACE Permit Number: CE-MVS-2022-xxxx

WFI Holdings-B LLC Tracking Code: MKUK-BARTELSO BOTTOMS (BB)-2022-01

Type	Approved Credits	Debits this Transaction	Total Debits to Date	Balance of Credits
Wetland	80.85	0.0	0.0	80.85
Total	**80.85**	**0.0**	**0.0**	**80.85**

Bartelso Bottoms Wetland Mitigation Bank

Managed By: WFI Holdings-B LLC

WETLAND CREDITS YEARLY BALANCE LOG

Credits Yearly Balance	Name of Debitor and DA Permit Number	Wetland Credits Debited	WFI Holdings-B Tracking Code
2021	Company ABC	2.1	MKUK-BB-2022-001
2021	Company XYZ	0.3	MKUK-BB-2022-001
2022	Company 123	1.1	MKUK-BB-2022-001
2022			
2023			
2024			

Middle Kaskaskia, Upper Kaskaskia River Service Area

Managed By: WFI Holdings-B LLC

WETLAND AND STREAM CREDITS YEARLY BALANCE LOG

Credits Yearly Balance	Name of Debitor and DA Permit Number	Wetland Credits Debited	WFI Holdings-B Tracking Code
2021	Company ABC	2.1	MKUK-BB-2022-001
2021	Company XYZ	0.0	MKUK-BB-2022-002
2021	Company Bravo	2.2	MKUK-BB-2022-001
2022	Company 123	1.1	MKUK-BB-2022-001
2022			
2023			
2024			

WFI-B UMBI

Managed By: WFI Holdings-B LLC

WETLAND AND STREAM CREDITS YEARLY BALANCE LOG

Credits Yearly Balance	Name of Debitor and DA Permit Number	Wetland Credits Debited	WFI Holdings-B Tracking Code
2021	Company ABC	2.1	MKUK-BB-2022-001
2021	Company XYZ	0.0	MKUK-BB-2022-002
2021	Company Bravo	1.2	ABPP-??-2021-001
2021	Company Charlie	0.0	BM-??-2021-001
2022	Company 123	1.1	MKUK-BB-2022-001
2022			
2023			
2024			

SECTION N – Default and Closure Provisions

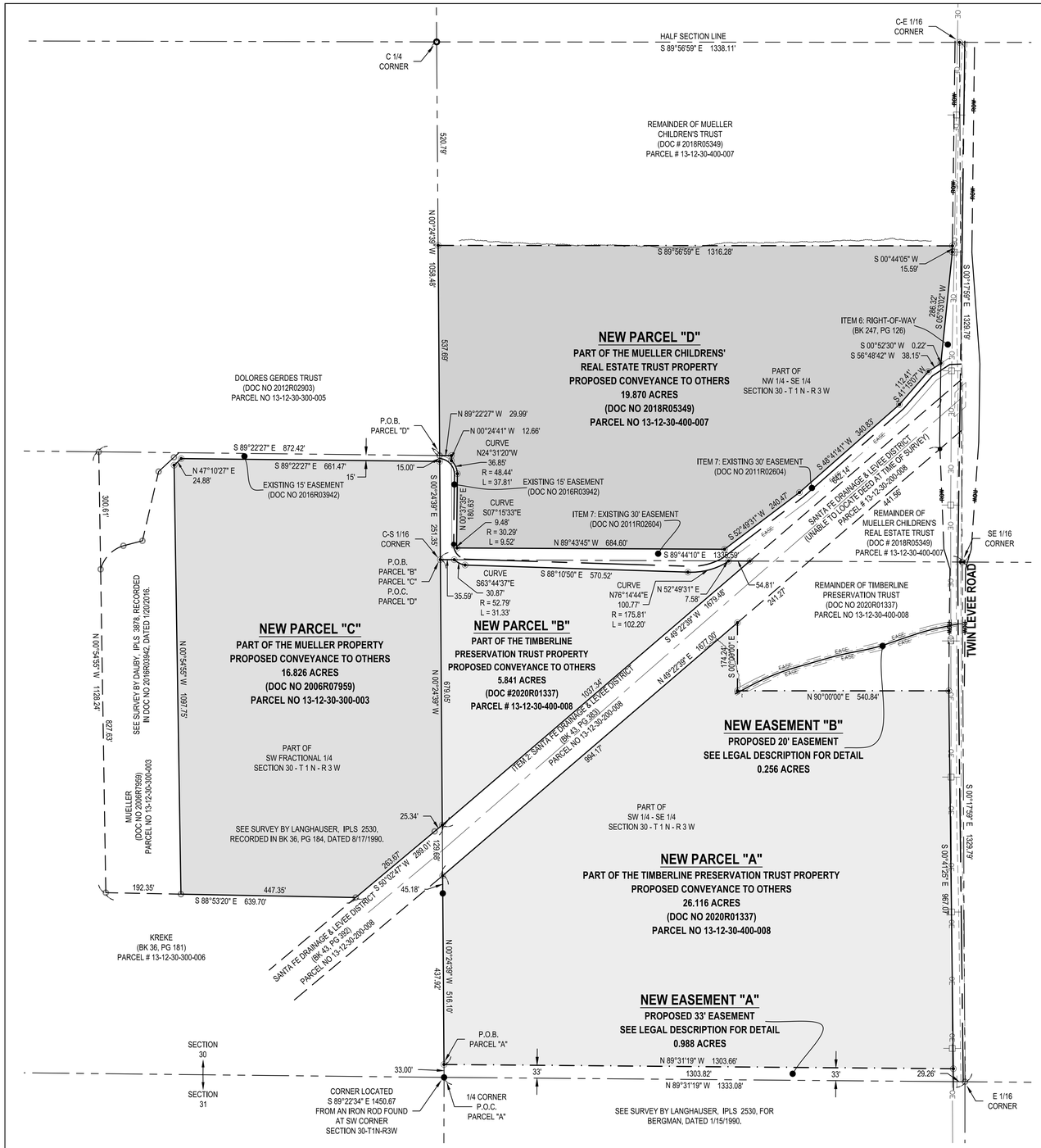
The BBWMB's Default and Closure Provisions will reflect the approved UMBI plans for the WFI-B UMBI.

SECTION O – FORCE MAJEURE

The BBWMB's Force Majeure will reflect the approved UMBI plans for the WFI-B UMBI.

Appendix 1

Survey – Plat



SURVEYOR'S NOTES & REFERENCES:

1. PURPOSE OF THE SURVEY: TO CREATE THE NEW PARCELS AS SHOWN HEREIN FOR A PROPOSED CONVEYANCE TO OTHERS.
2. FIELD WORK WAS COMPLETED FOR THIS SURVEY ON X/XX/2021.
3. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
4. THIS SURVEYOR WAS PROVIDED WITH A TITLE REPORT BY COMMUNITY TITLE, CTE FILE NUMBERS: BR210665, BR210665A, BR210665B.
5. I SET OR FOUND THE CORNER MONUMENTS AS SHOWN ON THE PLAT.
6. THIS SURVEYOR HAS NOT MADE AN INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OR OWNERSHIP TITLE EVIDENCE FOR THIS TRACT OF LAND.
7. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, DATED MAY 1982 (JOB # 82-2160).*
8. *REFERENCE IS MADE TO A MONUMENT RECORD BY LANGHAUSER, IPLS 2530, RECORDED IN BOOK 1, PAGE 318, DATED 5/9/1985.*
9. *REFERENCE IS MADE TO A SURVEY BY SHEATHELM, IPLS 2065, RECORDED IN DOCUMENT NUMBER 286515, DATED 10/15/1987.*
10. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, FOR HENREY BERGMAN, DATED 1/15/1990.*
11. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN BOOK 36, PAGE 184, DATED 8/17/1990.*
12. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN DOCUMENT NUMBER 97R03001, DATED 5/22/1997.*
13. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN DOCUMENT NUMBER 98R5636, DATED 8/6/1998.*
14. *REFERENCE IS MADE TO A SURVEY BY NETEMEYER, IPLS 2704, RECORDED IN DOCUMENT NUMBER 2009R08964, DATED 6/1/2009.*
15. *REFERENCE IS MADE TO A SURVEY BY DAUBY, IPLS 3878, RECORDED IN DOCUMENT NUMBER 2016R03942, DATED 1/20/2016.*
16. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN DOCUMENT NUMBER 2017R04218, DATED 9/6/2017.*
17. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN DOCUMENT NUMBER 2017R04293, DATED 9/14/2017.*
17. *REFERENCE IS MADE TO A SURVEY BY LANGHAUSER, IPLS 2530, RECORDED IN DOCUMENT NUMBER 2017R05253, DATED 11/9/2017.*
18. *REFERENCE IS MADE TO A SURVEY BY NETEMEYER, IPLS 2704, RECORDED IN DOCUMENT NUMBER 2019R04844, DATED 11/1/2019.*

FEET
0 75 150

N

BEARINGS ARE REFERENCED TO ILLINOIS STATE PLANE COORDINATES - WEST ZONE NAD 83

LEGEND

- IRON PIPE FOUND
- IRON ROD FOUND
- IRON PIN WITH ALUM. CAP SET
- PK NAIL SET IN PAVEMENT
- COMPUTED POINT
- PROPERTY LINE
- NEW LINE
- SECTION LINE
- CENTERLINE OF ROAD
- LOT LINE
- RIGHT-OF-WAY LINE
- EASEMENT LINE
- CENTERLINE OF DITCH
- UTILITY POLE
- OHE OVERHEAD ELECTRIC LINE
- P.O.B. POINT OF BEGINNING
- P.O.C. POINT OF COMMENCEMENT

DESCRIPTION OF SURVEY - NEW PARCEL "A"

26.116 ACRES - PART OF THE TIMBERLINE PRESERVATION TRUST PROPERTY

A PARCEL OF LAND BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2020R01337 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE TIMBERLINE PRESERVATION TRUST, DATED 3/26/2020. SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A PIPE FOUND AT THE SOUTHWEST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE N 00° 24' 39" W 33.00 FEET ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET; THENCE N 00° 24' 39" W 483.10 FEET CONTINUING ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION, PASSING AN IRON PIE FOUND AT 473.92 FEET, TO AN IRON ROD SET IN THE SOUTH LINE OF THE SANTA FE DRAINAGE DISTRICT PROPERTY (BOOK 43, PAGE 383); THENCE N 49° 22' 39" E 994.17 FEET ALONG THE SOUTH LINE OF SAID SANTA FE DRAINAGE DISTRICT PROPERTY TO AN IRON ROD SET; THENCE ALONG NEW LINES THE FOLLOWING TWO (2) CALLS: THENCE S 00° 00' 00" E 174.24 FEET TO AN IRON ROD SET; THENCE N 90° 00' 00" E 540.84 FEET TO AN IRON ROD SET IN THE WEST RIGHT-OF-WAY LINE OF TWIN LEVEE ROAD; THENCE S 00° 41' 25" E 967.07 FEET ALONG SAID WEST RIGHT-OF-WAY LINE TO AN IRON ROD SET; THENCE N 89° 31' 19" W 1303.66 FEET ALONG A NEW LINE 33.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION TO THE POINT OF BEGINNING.

SAID PARCEL TO CONTAIN 26.116 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID PARCEL BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

DESCRIPTION OF SURVEY - NEW PARCEL "B"

5.841 ACRES - PART OF THE TIMBERLINE PRESERVATION TRUST PROPERTY

A PARCEL OF LAND BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2020R01337 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE TIMBERLINE PRESERVATION TRUST, DATED 3/26/2020. SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD SET AT THE NORTHWEST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE S 89° 44' 10" E 35.59 FEET ALONG THE NORTH LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET; THENCE ALONG NEW LINES THE FOLLOWING FOUR (4) CALLS: THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 63° 44' 37" E 30.87 FEET, A RADIUS OF 52.79 FEET, AND AN ARC LENGTH OF 31.33 FEET TO AN IRON ROD SET; THENCE S 88° 10' 50" E 570.52 FEET TO AN IRON ROD SET; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING N 76° 14' 44" E 100.77 FEET, A RADIUS OF 175.81 FEET, AND AN ARC LENGTH OF 102.20 FEET TO AN IRON ROD SET; THENCE N 52° 49' 31" E 7.58 FEET TO AN IRON ROD SET IN THE NORTH LINE OF SAID QUARTER-QUARTER SECTION; THENCE S 89° 44' 10" E 54.81 FEET TO AN IRON ROD SET IN THE NORTH LINE OF THE SANTA FE DRAINAGE AND LEVEE DISTRICT PROPERTY (BOOK 43, PAGE 383); THENCE S 49° 22' 39" W 1037.34 FEET ALONG THE NORTH LINE OF THE SANTA FE DRAINAGE AND LEVEE DISTRICT PROPERTY TO AN IRON ROD SET IN THE WEST LINE OF SAID QUARTER-QUARTER SECTION; THENCE N 00° 24' 39" W 679.05 FEET ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION TO THE POINT OF BEGINNING.

SAID PARCEL TO CONTAIN 5.841 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID PARCEL BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

DESCRIPTION OF SURVEY - NEW PARCEL "C"

16.826 ACRES - PART OF THE MUELLER PROPERTY

A PARCEL OF LAND BEING A PART OF THE SOUTHWEST FRACTIONAL QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2006R 07959 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE MICHAEL P. AND DIANE M. MUELLER, DATED 12/4/2006. SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD SET AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION; THENCE S 00° 24' 39" E 679.05 FEET ALONG THE EAST LINE OF SAID SOUTHWEST FRACTIONAL QUARTER SECTION TO AN IRON ROD SET AT THE NORTHEAST CORNER THE SANTA FE DRAINAGE AND LEVEE DISTRICT PROPERTY (BOOK 43, PAGE 392); THENCE S 50° 02' 47" W 289.01 FEET ALONG THE NORTH LINE OF SAID SANTA FE DRAINAGE AND LEVEE DISTRICT PROPERTY, PASSING AN IRON ROD FOUND AT 25.34 FEET, TO AN IRON ROD FOUND AT A CORNER OF THE DONALD AND JEAN KREKE PROPERTY (BOOK 36, PAGE 181); THENCE N 88° 53' 20" W 447.35 FEET ALONG A NORTH LINE OF SAID KREKE PROPERTY TO AN IRON ROD FOUND AT THE SOUTHEAST CORNER OF A WETLANDS MITIGATION AREA (DOCUMENT NUMBER 2016R03942); THENCE N 00° 54' 55" W 1097.75 FEET ALONG THE EAST LINE OF SAID WETLANDS MITIGATION AREA TO AN IRON ROD SET AT THE SOUTHWEST CORNER OF AN EXISTING 15.00 FEET EASEMENT (DOCUMENT NUMBER 2016R03942); THENCE ALONG SAID EASEMENT THE FOLLOWING TWO (2) CALLS: THENCE N 47° 10' 27" E 24.88 FEET TO AN IRON ROD SET; THENCE S 89° 22' 27" E 661.47 FEET TO AN IRON ROD SET IN THE EAST LINE OF SAID SOUTHWEST FRACTIONAL QUARTER SECTION; THENCE S 00° 24' 39" E 251.35 FEET ALONG THE EAST LINE OF SAID SOUTHWEST FRACTIONAL QUARTER SECTION TO THE POINT OF BEGINNING.

SAID PARCEL TO CONTAIN 16.826 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID PARCEL BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

DESCRIPTION OF SURVEY - NEW PARCEL "D"

19.870 ACRES - PART OF THE MUELLER CHILDREN'S REAL ESTATE TRUST PROPERTY

A PARCEL OF LAND BEING A PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2018R05349 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE MUELLER CHILDREN'S REAL ESTATE TRUST, DATED 12/7/2018. SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN IRON ROD SET AT THE SOUTHWEST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE N 00° 24' 39" W 266.35 FEET ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION, PASSING AN IRON ROD SET AT 251.35 FEET, TO AN IRON ROD FOUND AT THE SOUTHEAST CORNER OF THE DELORES GERDES TRUST PROPERTY (DOCUMENT NUMBER 2012R02903), THIS BEING THE POINT OF BEGINNING; THENCE N 00° 24' 39" W 537.69 FEET CONTINUING ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET; THENCE S 89° 56' 59" E 1316.28 FEET ALONG A NEW LINE TO AN IRON ROD SET IN THE WEST RIGHT-OF-WAY LINE OF TWIN LEVEE ROAD; THENCE ALONG SAID WEST RIGHT-OF-WAY LINE THE FOLLOWING THREE (3) CALLS: THENCE S 00° 44' 05" W 15.59 FEET TO AN IRON ROD SET; THENCE S 05° 53' 02" W 286.32 FEET TO AN IRON ROD SET; THENCE S 00° 52' 30" W 0.22 FEET TO AN IRON ROD SET IN THE NORTH LINE OF AN EXISTING 30.00 FEET EASEMENT (DOCUMENT NUMBER 2011R02604); THENCE ALONG THE NORTH LINE OF SAID EXISTING 30.00 FEET EASEMENT THE FOLLOWING FIVE (5) CALLS: THENCE S 56° 48' 42" W 38.15 FEET TO AN IRON ROD SET; THENCE S 41° 15' 07" W 112.41 FEET TO AN IRON ROD SET; THENCE S 48° 41' 41" W 340.83 FEET TO AN IRON ROD SET; THENCE S 52° 49' 31" W 240.47 FEET TO AN IRON ROD SET; THENCE N 89° 43' 45" W 684.60 FEET TO AN IRON ROD SET IN THE EAST LINE OF AN EXISTING 15.00 FEET EASEMENT (DOCUMENT NUMBER 2016R03942); THENCE ALONG THE EAST LINE OF SAID EXISTING 15.00 FEET EASEMENT THE FOLLOWING THREE (3) CALLS: THENCE ALONG A CURVE TO THE RIGHT WITH CHORD BEARING N 07° 15' 33" W 9.48 FEET, A RADIUS OF 30.29 FEET, AND AN ARC LENGTH OF 9.52 FEET AN IRON ROD SET; THENCE N 00° 37' 35" E 180.63 FEET TO AN IRON ROD SET; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING N 24° 31' 20" W 36.85 FEET, A RADIUS OF 48.44 FEET, AND AN ARC LENGTH OF 37.81 FEET TO AN IRON ROD SET IN THE EAST LINE OF AN EXISTING 30.00 FEET EASEMENT (DOCUMENT NUMBER 2011R02604); THENCE ALONG SAID EXISTING 30.00 FEET EASEMENT THE FOLLOWING TWO (2) CALLS: THENCE N 00° 24' 41" W 12.66 FEET TO AN IRON ROD SET; THENCE N 89° 22' 27" W 29.99 FEET TO THE POINT OF BEGINNING.

SAID PARCEL TO CONTAIN 19.870 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID PARCEL BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

DESCRIPTION OF NEW EASEMENT "A"

0.988 ACRES - PART OF THE TIMBERLINE PRESERVATION TRUST PROPERTY

AN EASEMENT FOR RIGHTS OF INGRESS AND EGRESS, BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2020R01337 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE TIMBERLINE PRESERVATION TRUST, DATED 3/26/2020. SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A PIPE FOUND AT THE SOUTHWEST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE N 00° 24' 39" W 33.00 FEET ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET; THENCE S 89° 31' 19" E 1303.66 FEET ALONG A NEW LINE 33.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET IN THE WEST RIGHT-OF-WAY LINE OF TWIN LEVEE ROAD; THENCE S 00° 41' 25" E 33.01 FEET ALONG SAID WEST RIGHT-OF-WAY LINE TO A POINT IN THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION, SAID POINT BEING N 89° 31' 19" W 29.26 FEET FROM AN IRON ROD FOUND AT THE SOUTHEAST CORNER OF SAID QUARTER -QUARTER SECTION; THENCE N 89° 31' 19" W 1303.82 FEET ALONG THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION TO THE POINT OF BEGINNING.

SAID EASEMENT TO CONTAIN 0.988 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID EASEMENT BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

DESCRIPTION OF NEW EASEMENT "B"

0.256 ACRES - PART OF THE TIMBERLINE PRESERVATION TRUST PROPERTY

AN EASEMENT FOR RIGHTS OF INGRESS AND EGRESS, BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 30, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID EASEMENT IS PART OF THE PROPERTY DESCRIBED AND RECORDED IN DOCUMENT NUMBER 2020R01337 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE TIMBERLINE PRESERVATION TRUST, DATED 3/26/2020. SAID EASEMENT BEING TWENTY (20) FEET IN WIDTH, TEN (10) FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A NAIL SET AT THE NORTHEAST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE S 00° 17' 59" E 158.07 FEET ALONG THE EAST LINE OF SAID QUARTER-QUARTER SECTION TO A POINT; THENCE S 89° 42'01" W 11.34 FEET ALONG A REFERENCE LINE TO THE CENTERLINE OF SAID EASEMENT, THIS BEING THE POINT OF BEGINNING AND EASTERN TERMINUS OF SAID EASEMENT; THENCE ALONG SAID EASEMENT THE FOLLOWING NINE (9) CALLS: THENCE S 77° 47' 44" W 57.24 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 74° 57' 01" W 50.11 FEET, A RADIUS OF 512.00 FEET, AND AN ARC LENGTH OF 50.13 FEET TO A POINT; THENCE S 71° 17' 28" W 78.29 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT WITH CHORD BEARING S 74° 22' 34" W 57.48 FEET, A RADIUS OF 451.49 FEET, AND AN ARC LENGTH OF 57.52 FEET TO A POINT; THENCE S 78° 45' 42" W 47.90 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 76° 05' 25" W 59.06 FEET, A RADIUS OF 709.79 FEET, AND AN ARC LENGTH OF 59.07 FEET TO A POINT; THENCE S 73° 55' 04" W 91.70 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 66° 53' 38" W 125.65 FEET, A RADIUS OF 622.23 FEET, AND AN ARC LENGTH OF 125.86 FEET TO A POINT; THENCE S 61° 57' 10" E 15.85 FEET TO A POINT, THIS BEING THE WESTERN TERMINUS OF SAID EASEMENT.

SAID EASEMENT TO CONTAIN 0.256 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID EASEMENT BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

SURVEYOR'S CERTIFICATE:

I, AARON M. DAUBY, BEING AN ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 035-003878 AND BEING AN EMPLOYEE OF ASATURIAN EATON AND ASSOCIATES, DO HEREBY CERTIFY THAT AT THE REQUEST OF MIH MANAGEMENT SERVICES I HAVE CAUSED A SURVEY TO BE MADE AND A PLAT TO BE DRAWN UNDER MY DIRECTION OF THE TRACT AND LAND SHOWN AND DESCRIBED ON THIS PLAT OF SURVEY. SIGNED AND SEALED THIS XXTH DAY OF NOVEMBER, 2021.

AARON M. DAUBY, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003878
LICENSE EXPIRES 11-30-2022

AARON M. DAUBY 035003878 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS CARBONDALE, IL

Sheet Title: BOUNDARY SURVEY

Project Title: PART OF THE SE 1/4 SECTION 30, T1N-R3W CLINTON COUNTY, ILLINOIS

ASATURIAN EATON and Associates INC.
ENGINEERING and LAND SURVEYING
1440 Old West Main, P.O. Box 369, Carbondale, IL 62901

JOB NO: 3939
DRAWN BY: AD
DATE: 11/X/2021
REVISIONS:

1

OF X SHEETS

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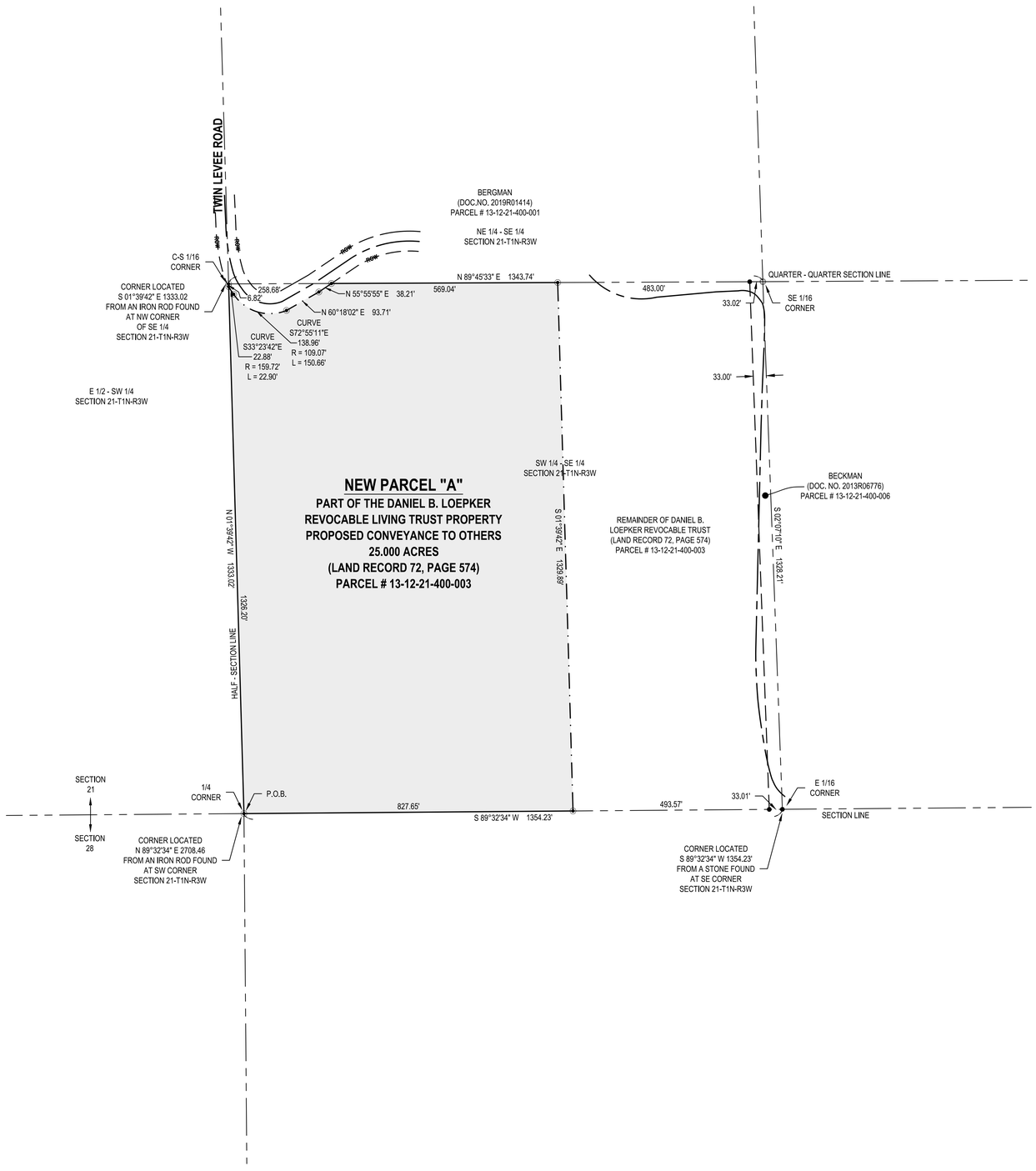


LEGEND

- IRON ROD FOUND
- IRON PIN WITH ALUM. CAP SET
- COMPUTED POINT
- PROPERTY LINE
- SECTION LINE
- CENTERLINE OF ROAD
- RIGHT-OF-WAY LINE
- P.O.B. POINT OF BEGINNING

FEET
0 75 150

N

BEARINGS ARE REFERENCED TO ILLINOIS STATE PLANE COORDINATES - WEST ZONE NAD 83

SURVEYOR'S NOTES & REFERENCES:

1. PURPOSE OF THE SURVEY: TO CREATE THE NEW PARCEL AS SHOWN HEREIN FOR A PROPOSED CONVEYANCE TO OTHERS.
2. FIELD WORK WAS COMPLETED FOR THIS SURVEY ON X/XX/2021.
3. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
4. THIS SURVEYOR WAS PROVIDED WITH A LETTER REPORT BY COMMUNITY TITLE, CTE FILE NUMBER: BR210665C.
5. I SET OR FOUND THE CORNER MONUMENTS AS SHOWN ON THE PLAT.
6. THIS SURVEYOR HAS NOT MADE AN INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OR OWNERSHIP TITLE EVIDENCE FOR THIS TRACT OF LAND.
7. *REFERENCE IS MADE TO A MONUMENT RECORD BY HILMES, IPLS 1775, RECORDED IN BOOK 1, PAGE 201, DATED 1/22/1980.*
8. *REFERENCE IS MADE TO A SURVEY BY JONES, IPLS 2087, FOR SANTA FE DRAINAGE AND LEVEE DISTRICT, DATED 1994.*
9. *REFERENCE IS MADE TO A SURVEY BY NETEMEYER, IPLS 2704, RECORDED IN DOCUMENT NUMBER 2012R06325, DATED 10/15/2012.*
10. *REFERENCE IS MADE TO A SURVEY BY RATERMANN, IPLS 3667, RECORDED IN DOCUMENT NUMBER 2012R07265, DATED 11/29/2012.*
11. *REFERENCE IS MADE TO A SURVEY BY NETEMEYER, IPLS 2704, RECORDED IN DOCUMENT NUMBER 2019R04823, DATED 11/1/2019.*

DESCRIPTION OF SURVEY - NEW PARCEL "E"

25.000 ACRES - PART OF THE DANIEL B. LOEPKER REVOCABLE LIVING TRUST PROPERTY

A PARCEL OF LAND BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 1 NORTH, RANGE 3 WEST OF THE THIRD PRINCIPAL MERIDIAN. SAID PARCEL PART OF THE PROPERTY DESCRIBED AND RECORDED IN LAND RECORD 72, PAGE 574 IN THE CLINTON COUNTY COURT HOUSE IN THE NAME OF THE DANIEL B. LOEPKER REVOCABLE LIVING TRUST, DATED 7/23/1992. SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE AT AN IRON ROD SET AT THE SOUTHWEST CORNER OF SAID QUARTER-QUARTER SECTION; THENCE N 01° 39' 42" W 1326.20 FEET ALONG THE WEST LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET IN THE SOUTH RIGHT-OF-WAY LINE OF LONG LAKE ROAD; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE THE FOLLOWING FOUR (4) CALLS: THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 33° 23' 42" E 22.88 FEET, A RADIUS OF 159.72 FEET, AND AN ARC LENGTH OF 22.90 FEET TO AN IRON ROD SET; THENCE ALONG A CURVE TO THE LEFT WITH CHORD BEARING S 72° 55' 11" E 138.96 FEET, A RADIUS OF 109.07 FEET AND AN ARC LENGTH OF 150.66 FEET TO AN IRON ROD SET; THENCE N 60° 18' 02" E 93.71 FEET TO AN IRON ROD SET; THENCE N 55° 55' 55" E 38.21 FEET TO AN IRON ROD SET IN THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION; THENCE N 89° 45' 33" E 569.04 FEET ALONG THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION TO AN IRON ROD SET; THENCE S 01° 39' 42" E 1329.89 FEET ALONG A NEW LINE TO AN IRON ROD SET IN THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION; THENCE S 89° 32' 34" W 827.65 FEET ALONG THE SOUTH LINE OF SAID QUARTER-QUARTER SECTION TO THE POINT OF BEGINNING.

SAID PARCEL TO CONTAIN 25.000 ACRES, MORE OR LESS, PER SURVEY BY AARON M. DAUBY, IL PROFESSIONAL LAND SURVEYOR NO. 3878, DATED 11/XX/2021.

SAID PARCEL BEING SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, RECORDED OR OTHERWISE. ALL SITUATED IN THE COUNTY OF CLINTON, STATE OF ILLINOIS.

SURVEYOR'S CERTIFICATE:

I, AARON M. DAUBY, BEING AN ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 035-003878 AND BEING AN EMPLOYEE OF ASATURIAN EATON AND ASSOCIATES, DO HEREBY CERTIFY THAT AT THE REQUEST OF MIH MANAGEMENT SERVICES I HAVE CAUSED A SURVEY TO BE MADE AND A PLAT TO BE DRAWN UNDER MY DIRECTION OF THE TRACT AND LAND SHOWN AND DESCRIBED ON THIS PLAT OF SURVEY. SIGNED AND SEALED THIS XXTH DAY OF NOVEMBER, 2021.

AARON M. DAUBY, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003878
LICENSE EXPIRES 11-30-2022

AARON M DAUBY
035003878
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
CARBONDALE, IL

Sheet Title: BOUNDARY SURVEY

Project Title: PART OF THE SW 1/4 - SE 1/4
SECTION 21, T1N-R3W
CLINTON COUNTY, ILLINOIS

ASATURIAN EATON and Associates INC.
ENGINEERING and LAND SURVEYING
1440 Old West Main, P.O. Box 369, Carbondale, IL 62901

JOB NO: 3939
DRAWN BY: AD
DATE: 11/X/2021
REVISIONS:

2

OF 2 SHEETS

Appendix 2

Title Commitment and Chain of Title

Community Title

397 N 4th St.

Breese, IL 62230

618-526-7750

Letter Report	
Customer , **Attn:**	CTE File Number: **BR210665B** Order Regarding: **Mueller Children's Real Estate Trust dated September 9, 2018**

Issue Date: **October 5, 2021**

	From	To
Search Period :	**June 15, 1906**	**October 13, 2021**

Legal Description:

The Northwest Quarter (NW 1/4) of the Southeast Quarter (SE 1/4) in Section Thirty (30), Township One (1) North, Range Three (3) West of the 3rd Principal Meridian, situated in Clinton County, Illinois. EXCEPTING THEREFROM that part conveyed to the Santa Fe Road District in Deed dated August 27, 1987 and recorded October 15, 1987 in Deed Record 247 Page 126 as Document No. 286514 described as follows: Part of the Northwest Quarter of the Southeast Quarter of Section Thirty (30), Township One (1) North, Range Three (3) West of the Third (3rd) Principal Meridian, Clinton County, Illinois, more fully described as follows: Beginning at the Southeast Corner of the Northwest Quarter, Southeast Quarter of Section 30, thence N. 89 degrees 42 minutes 38 seconds W. along the South line of the Northwest Quarter, Southeast Quarter of Section 30 a distance of 36.76 feet; thence N. 16 degrees 54 minutes 00 seconds W. a distance of 34.69 feet; thence N. 02 degrees 12 minutes 36 seconds W. a distance of 275.49 feet; thence N. 00 degrees 54 minutes 40 seconds E. a distance of 200.00 feet; thence N. 05 degrees 55 minutes 12 seconds E. a distance of 286.32 feet; thence S. 89 degrees 05 minutes 20 seconds E. a distance of 21.11 feet; thence S. 00 degrees 15 minutes 49 seconds E. a distance of 793.12 feet to the point of beginning.

Except any interest in the coal, oil, gas and other mineral rights underlying the land which have been heretofore conveyed or reserved in prior conveyances, and all rights and easements in favor of the estate of said coal, oil gas and other minerals, if any.

PPN: 13-12-30-400-007

Property Address	Parcel Number
Twin Levee Rd., Bartelso, IL 62218	13-12-30-400-007

Last Grantee of Record:

The Mueller Children's Real Estate Trust dated Septemer 9, 2018

Items of Record:

1. **Warranty Deed executed by David Ahrens Sr. (Widower) to John H. Mueller, dated June 8, 1906 and recorded June 15, 1906 in Deed Record 41 Page 446 as Docunment No. 10987. (Note: Death of John Mueller February 27, 1920. No probate or will in Clinton County records.)**

2. **Warranty Deed executed by Miss Annie R. Mueller, a spinster and B.J. Mueller, a Bachelor and Mary E. Gebke, a widow to Joseph C. Mueller and Mary C. Mueller, his wife, not in tenancy in common, but in joint tenancy, dated September 18, 1964 and recorded September 25, 1964 in Deed Record 127 Page 139 as Document No. 186669. (Note: Death of Joseph C. Mueller January 6, 1970. No probate or will in Clinton County records.)**

3. **Warranty Deed executed by Mary C. Mueller, a widow, Marcel A. Mueller and Loretta Mueller, his wife, and John H. Mueller and Mary Mueller, his wife to Joseph B. Mueller and Mary Mueller, his wife, as joint tenants and not as tenants in common, with right of survivorship, dated December 15, 1972 and recorded December 26, 1972 in Deed Record 161 Page 393 as Document No. 215491.**

4. **Quit Claim Deed executed by Mary A. Mueller to Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller and Judy Gilbreth, dated April 28, 1983 and recorded May 3, 1983 in Deed Record 222 Page 133 as Document No. 260125.**

5. **Quit Claim Deed executed by Joseph B. Mueller to Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller and Judy Gilbreth, dated April 20, 1983 and recorded May 3, 1983 in Deed Record 222 Page 134 as Document No. 260126.**

6. **Deed For Rightof Way for Public Road Purposes executed by Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller, and Judy Gilbreth to the Santa Fe Road District for public road purposes, dated August 27, 1987 and recorded October 15, 1987 in Deed Record 247 Page 126 as Document No. 286514.**

7. **Easement For Ingress and Egress over and across NW 1/4 SE 1/4 Section 30, T1N, R3W, executed by Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller, and Judy Gilbreth to Michael P. Mueller and Diane M. Mueller, as joint tenants with right of survivorship, not as tenants in common, dated April 27, 2011 and recorded April 28, 2011 as Document No. 2011R02604. (For further particulars, see record.)**

8. **Warranty Deed In Trust dated December 4, 2018 and recorded December 7, 2018 as Document No. 2018R05349, executed by Diana Schmidt, Melvin Mueller, Daniel Mueller, Sharon Mueller, Michael Mueller, Mark Mueller and Judith Gilbreth to Daniel Mueller and Judith Gilbreth, as Co-Trustees under the provisions of a trust agreement dated the 9th day of September, 2018 and known as The Mueller Children's Real Estate Trust.**

9. **Memorandum of Option to Purchase Conservation Easement executed by Daniel Mueller and Judith Gilbreth as Co-Trustees of The Mueller Children's Real Estate Trust dated the 9th day of September 2018 to WFI Holdings-RCB LLC, a Delaware limited liability company, dated August 23, 2021 and recorded August 30, 2021 as Document No. 2021R05748. (For further particulars, see record.)**

10. **Terms, powers, provisions and limitations of the Trust under which title to said property is held.**

11. **Premises lie within the Santa Fe Drainage & Levee District and may subject to regulations and assessments therein.**

12. **Existing unrecorded leases and tenancies and all rights thereunder of the lessees and tenants and of any person claiming by, through or under lessees.**

13. **Any and all easements, restrictions, outstanding oil, gas and mineral rights, and rights to aboriginal antiquities of record, but omitting restrictions, if any, based on race, color, religion,sex, handicap, familial status, or national origin.**

14. **All rights and easements in favor of the holder of any interest in the mineral estate or any party claiming by, through, or under said holder.**

15. **Rights of the Public, the State of Illinois, the County, the Township and the Municipality in and to that part of the premises taken, used, or dedicated for roads or highways.**

16. **Rights of way for drainage ditches, drain tiles, feeders, laterals and underground pipes, if any.**

17. **Easement for public and quasi-public utilities, if any.**

18. **No examination has been made of the mineral title. Coverage shall not be construed as including the title to minerals underlying the subject premises.**

19. **Attention is directed to ordinances and regulations relating to connections, charges, liens for use of any public sewerage, water or other utility system serving the land referred to herein. We call attention to the fact that all sewer and utility bills should be obtained from the offices supplying the service. We indicate only recorded liens.**

20. **Taxes for the year 2020 are assessed in the amount of $261.66 and are now paid. Permanent Parcel # 13-12-30-400-007**

There were no Liens or Judgments found of record in the Recorder of Deeds Office in Clinton County, Illinois.

The Company has delivered this Commitment and/or Policy to the proposed insured and/or insured by electronic means. All signatures contained herein are to be effective under the provisions of Section 5-110 of the Illinois Electronic Commerce Security Act (5 ILCS 175/5-110).

The parcel ID numbers and legal description provided have been taken from the last items of public record in the applicable county. Any liability for any damage relating to the information provided in this Report, and/or the requested recording of any document related to this Report is strictly limited to the amount paid.

Highland Community Title, LLC (Breese)

By 

Community Title

397 N 4th St.

Breese, IL 62230

618-526-7750

Letter Report	
Customer , **Attn:**	CTE File Number: **BR210665B** Order Regarding: **Mueller Children's Real Estate Trust dated September 9, 2018**

Issue Date: **October 5, 2021**

	From	To
Search Period :	**June 15, 1906**	**October 13, 2021**

Legal Description:

The Northwest Quarter (NW 1/4) of the Southeast Quarter (SE 1/4) in Section Thirty (30), Township One (1) North, Range Three (3) West of the 3rd Principal Meridian, situated in Clinton County, Illinois. EXCEPTING THEREFROM that part conveyed to the Santa Fe Road District in Deed dated August 27, 1987 and recorded October 15, 1987 in Deed Record 247 Page 126 as Document No. 286514 described as follows: Part of the Northwest Quarter of the Southeast Quarter of Section Thirty (30), Township One (1) North, Range Three (3) West of the Third (3rd) Principal Meridian, Clinton County, Illinois, more fully described as follows: Beginning at the Southeast Corner of the Northwest Quarter, Southeast Quarter of Section 30, thence N. 89 degrees 42 minutes 38 seconds W. along the South line of the Northwest Quarter, Southeast Quarter of Section 30 a distance of 36.76 feet; thence N. 16 degrees 54 minutes 00 seconds W. a distance of 34.69 feet; thence N. 02 degrees 12 minutes 36 seconds W. a distance of 275.49 feet; thence N. 00 degrees 54 minutes 40 seconds E. a distance of 200.00 feet; thence N. 05 degrees 55 minutes 12 seconds E. a distance of 286.32 feet; thence S. 89 degrees 05 minutes 20 seconds E. a distance of 21.11 feet; thence S. 00 degrees 15 minutes 49 seconds E. a distance of 793.12 feet to the point of beginning.

Except any interest in the coal, oil, gas and other mineral rights underlying the land which have been heretofore conveyed or reserved in prior conveyances, and all rights and easements in favor of the estate of said coal, oil gas and other minerals, if any.

PPN: 13-12-30-400-007

Property Address	Parcel Number
Twin Levee Rd., Bartelso, IL 62218	13-12-30-400-007

Last Grantee of Record:

The Mueller Children's Real Estate Trust dated Septemer 9, 2018

Items of Record:

1. **Warranty Deed executed by David Ahrens Sr. (Widower) to John H. Mueller, dated June 8, 1906 and recorded June 15, 1906 in Deed Record 41 Page 446 as Docunment No. 10987. (Note: Death of John Mueller February 27, 1920. No probate or will in Clinton County records.)**

2. **Warranty Deed executed by Miss Annie R. Mueller, a spinster and B.J. Mueller, a Bachelor and Mary E. Gebke, a widow to Joseph C. Mueller and Mary C. Mueller, his wife, not in tenancy in common, but in joint tenancy, dated September 18, 1964 and recorded September 25, 1964 in Deed Record 127 Page 139 as Document No. 186669. (Note: Death of Joseph C. Mueller January 6, 1970. No probate or will in Clinton County records.)**

3. **Warranty Deed executed by Mary C. Mueller, a widow, Marcel A. Mueller and Loretta Mueller, his wife, and John H. Mueller and Mary Mueller, his wife to Joseph B. Mueller and Mary Mueller, his wife, as joint tenants and not as tenants in common, with right of survivorship, dated December 15, 1972 and recorded December 26, 1972 in Deed Record 161 Page 393 as Document No. 215491.**

4. **Quit Claim Deed executed by Mary A. Mueller to Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller and Judy Gilbreth, dated April 28, 1983 and recorded May 3, 1983 in Deed Record 222 Page 133 as Document No. 260125.**

5. **Quit Claim Deed executed by Joseph B. Mueller to Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller and Judy Gilbreth, dated April 20, 1983 and recorded May 3, 1983 in Deed Record 222 Page 134 as Document No. 260126.**

6. **Deed For Rightof Way for Public Road Purposes executed by Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller, and Judy Gilbreth to the Santa Fe Road District for public road purposes, dated August 27, 1987 and recorded October 15, 1987 in Deed Record 247 Page 126 as Document No. 286514.**

7. **Easement For Ingress and Egress over and across NW 1/4 SE 1/4 Section 30, T1N, R3W, executed by Diana Schmidt, Melvin Mueller, Michael Mueller, Daniel Mueller, Sharon Mueller, Mark Mueller, and Judy Gilbreth to Michael P. Mueller and Diane M. Mueller, as joint tenants with right of survivorship, not as tenants in common, dated April 27, 2011 and recorded April 28, 2011 as Document No. 2011R02604. (For further particulars, see record.)**

8. **Warranty Deed In Trust dated December 4, 2018 and recorded December 7, 2018 as Document No. 2018R05349, executed by Diana Schmidt, Melvin Mueller, Daniel Mueller, Sharon Mueller, Michael Mueller, Mark Mueller and Judith Gilbreth to Daniel Mueller and Judith Gilbreth, as Co-Trustees under the provisions of a trust agreement dated the 9th day of September, 2018 and known as The Mueller Children's Real Estate Trust.**

9. **Memorandum of Option to Purchase Conservation Easement executed by Daniel Mueller and Judith Gilbreth as Co-Trustees of The Mueller Children's Real Estate Trust dated the 9th day of September 2018 to WFI Holdings-RCB LLC, a Delaware limited liability company, dated August 23, 2021 and recorded August 30, 2021 as Document No. 2021R05748. (For further particulars, see record.)**

10. **Terms, powers, provisions and limitations of the Trust under which title to said property is held.**

11. **Premises lie within the Santa Fe Drainage & Levee District and may subject to regulations and assessments therein.**

12. **Existing unrecorded leases and tenancies and all rights thereunder of the lessees and tenants and of any person claiming by, through or under lessees.**

13. **Any and all easements, restrictions, outstanding oil, gas and mineral rights, and rights to aboriginal antiquities of record, but omitting restrictions, if any, based on race, color, religion,sex, handicap, familial status, or national origin.**

14. **All rights and easements in favor of the holder of any interest in the mineral estate or any party claiming by, through, or under said holder.**

15. **Rights of the Public, the State of Illinois, the County, the Township and the Municipality in and to that part of the premises taken, used, or dedicated for roads or highways.**

16. **Rights of way for drainage ditches, drain tiles, feeders, laterals and underground pipes, if any.**

17. **Easement for public and quasi-public utilities, if any.**

18. **No examination has been made of the mineral title. Coverage shall not be construed as including the title to minerals underlying the subject premises.**

19. **Attention is directed to ordinances and regulations relating to connections, charges, liens for use of any public sewerage, water or other utility system serving the land referred to herein. We call attention to the fact that all sewer and utility bills should be obtained from the offices supplying the service. We indicate only recorded liens.**

20. **Taxes for the year 2020 are assessed in the amount of $261.66 and are now paid. Permanent Parcel # 13-12-30-400-007**

There were no Liens or Judgments found of record in the Recorder of Deeds Office in Clinton County, Illinois.

The Company has delivered this Commitment and/or Policy to the proposed insured and/or insured by electronic means. All signatures contained herein are to be effective under the provisions of Section 5-110 of the Illinois Electronic Commerce Security Act (5 ILCS 175/5-110).

The parcel ID numbers and legal description provided have been taken from the last items of public record in the applicable county. Any liability for any damage relating to the information provided in this Report, and/or the requested recording of any document related to this Report is strictly limited to the amount paid.

Highland Community Title, LLC (Breese)

By 

Community Title

397 N 4th St.

Breese, IL 62230

618-526-7750

Letter Report	
Customer , **Attn:**	CTE File Number: **BR210665A** Order Regarding: **Timberline Preservation Trust dated March 21, 2020**

Issue Date: **October 5, 2021**

	From	To
Search Period :	**December 2, 1895**	**October 13, 2021**

Legal Description:

The Southwest Quarter of the Southeast Quarter of Section Thirty (30) in Township One North, Range Three West of the Third Principal Meridian, Clinton County, Illinois.

Except any interest in the coal, oil, gas and other mineral rights underlying the land which have been heretofore conveyed or reserved in prior conveyances, and all rights and easements in favor of the estate of said coal, oil gas and other minerals, if any.

Situated in Clinton County, Illinois

PPN: 13-12-30-400-008

Property Address	Parcel Number
Twin Levee Rd., Bartleso, IL 62218	13-12-30-400-008

Last Grantee of Record:

Timberline Preservation Trust dated March 21, 2020

Items of Record:

1. **Warranty Deed executed by Cornelia A. Vernon and George Vernon, her husband to David Ahrens, dated November 30, 1895 and recorded December 2, 1895 in Deed Record 32 Page 249.**

2. Release executed by David Ahrens, Sr. and Wilhemina Ahrens, his wife to the The Santa Fe Drainage and Levee District, dated August 5, 1912 and recorded September 9, 1914 in Deed Record 43 Page 383. (For further particulars, see record.)

3. Warranty Deed executed by Wilhelmina Ahrens, widow of David Ahrens, deceased to Henry Dinkelmann, as Executor of Last Will and Testament of said David Ahrens, deceased, dated April 29, 1914 and recorded May 8, 1914 in Deed Record 49 Page 273.

4. Executor's Deed executed by Henry Dinkelmann, Executor of the Last Will and Testament of David Ahrens, deceased to Joseph Bergmann, dated October 17, 1914 and recorded June 10, 1940 in Deed Record 72 Page 531 as Document No. 71859. (Note: Death and Estate of Joseph Bergmann; Date of Death March 16, 1932.)

5. Warranty Deed executed by Leo Bergmann and Elizabeth Bergmann, his wife to Viola Hustedde dated June 27, 1944 and recorded June 27, 1944 in Deed Record 77 Page 423 as Document No. 87817.

6. Warranty Deed executed by Viola Hustedde, a single person to Elizabeth Bergmann, dated June 27, 1944 and recorded June 27, 1944 in Deed Record 77 Page 424 as Document No. 87818.

7. Warranty Deed executed by Elizabeth Bergmann, an unmarried widow to William J. Hermeling, dated March 9, 1949 and recorded March 30, 1949 in Deed Record 86 Page 108.

8. Warranty Deed executed by William J. Hermeling to William J. Hermeling for Life with the remainder to Martha Book and Loretta Schoendienst, as tenants in common and not as joint tenants, dated April 19, 1974 and recorded May 27, 1974 in Deed Record 168 Page 473 as Document No. 221230. (Note: William J. Hermeling Date of Death July 9, 1980.)

9. Warranty Deed executed by Martha Book and Loretta Schoendienst, the sole surviving heirs of William Hermeling, deceased to Henry Bergmann, Jr., Melvin Mueller, Daniel Mueller, Mark Mueller, Mike Mueller, Dan Gilbreth, Donald Kreke, James Mueller, Joe Hermes, William Deien, dated November 12, 1981 and recorded November 19, 1981 in Deed Record 214 Page 7 as Document No. 253795.

10. Warranty Deed executed by Mark Mueller, an undivided one-twentieth interest to William Mueller, dated November 1, 1982 and recorded November 30, 1982 in Deed Record 220 Page 49 as Document No. 258029.

11. Warranty Deed executed by Henry F. Bergmann, an undivided one twentieth interest to Anthony T. Jansen, dated November 15, 1982 and recorded November 30, 1982 in Deed Record 220 Page 50 as Document No. 258030.

12. Quit Claim Deed executed by Donald Kreke; Michael Mueller; Melvin Mueller; Dan Mueller; Dan Gilbreth; Mark Mueller; Henry Bergmann; William Deien; Joe Hermes; James Mueller; Anthony Jansen; and William Mueller to an undivided 15% interest to Henry F. Bergmann; an undivided 10% interest to Melvin Mueller; an undivided 10% interest to Michael Mueller; an undivided 10% interest to Dan Mueller; an undivided 10% interest to Donald Kreke; an undivided 10% interest to Dan Gilbreth; an undivided 10% interest to James Mueller; an undivided 5% interest to Mark Mueller; an undivided 5% interest to William Mueller; an undivided 5% interest to William Deien; an undivided 5%

interest to Joe Hermes; and an undivided 5% interest to Anthony Jansen, dated November 20, 1982 and recorded November 30, 1982 in Deed Record 220 Page 51 as Document No. 258031.

13. Warranty Deed executed by Henry F. Bergmann, a single person, an undivided one twentieth interest to Jeffrey G. Hoh, dated June 5, 1984 and recorded July 12, 1984 in Deed Record 228 Page 402 as Document No. 268304.

14. Note: Joseph Hermes Date of Death February 11, 2006. No Will or Probate. See Affidavit of Heirship #2017R05340.

15. Warranty Deed executed by Anthony T. Jansen, an undivided one twentieth interest to Jeffery G. Hoh, dated March 30, 2009 and recorded April 6, 2009 as Document No. 2009R02776.

16. Quit Claim Deed executed by Jill M. Holtgrave, a divorced person and not remarried to Henry F. Bergmann, dated October 5, 2010 and recorded October 15, 2010 as Document No. 2010R05867. (Note: This deed represents a division of marital property pursuant to the terms of a Judgment of Dissolution of Marriage in case number 09-D-230, St. Clair County, Illinois)

17. Quit Claim Deed dated May 24, 2012 and recorded May 29, 2012 as Document No. 2012R03311, executed by Deborah G. Hermes, widow of Joseph M. Hermes a/k/a Joe Hermes, and not since remarried to The Deborah G. Hermes Living Trust.

18. Affidavit of Heirship dated November 1, 2017 and recorded November 14, 2017 as Document No. 2017R05340, executed by Deborah G. Hermes, widow and wife of Joseph M. Hermes. Note: Deborah G. Hermes and Ann Hermes, only heirs at law of Joseph M. Hermes.

19. Quit Claim Deed dated October 25, 2017 and recorded November 14, 2017 as Document No. 2017R05341, executed by Deborah G. Hermes, a widow and not remarried and Ann Hermes, a single person, an undivided one-twentieth interest as tenant in common to Deborah G. Hermes.

20. Quit Claim Deed to Trust dated March 21, 2020 and recorded March 26, 2020 as Document No. 2020R01337, executed by William Mueller; Deborah Hermes; Jeffrey G. Hoh; Melvin Mueller; Henry F. Bergmann; Michael Mueller; Dan Mueller; Donald Kreke; Dan Gilbreth; James Mueller; William Deien; and Mark Mueller to Mark Mueller, as trustee of the Timberline Preservation Trust dated March 21, 2020.

21. Memorandum of Option to Purchase Conservation Easement dated July 26, 2021 and recorded August 18, 2021 as Document No. 2021R05396, executed by Mark Mueller as Trustee of the Timberline Preservation Trust dated March 21, 2020 to WFI HOLDINGS-RCB LLC, a Delaware limited liability company.

22. Interest of the Deborah G. Hermes Living Trust by Quit Claim Deed recorded as Document No. 2012R03311.

23. Terms, powers, provisions and limitations of the Trust under which title to said property is held.

24. **Premises lie within the Santa Fe Drainage & Levee District and may subject to regulations and assessments therein.**

25. **Existing unrecorded leases and tenancies and all rights thereunder of the lessees and tenants and of any person claiming by, through or under lessees.**

26. **Any and all easements, restrictions, outstanding oil, gas and mineral rights, and rights to aboriginal antiquities of record, but omitting restrictions, if any, based on race, color, religion,sex, handicap, familial status, or national origin.**

27. **All rights and easements in favor of the holder of any interest in the mineral estate or any party claiming by, through, or under said holder.**

28. **Rights of the Public, the State of Illinois, the County, the Township and the Municipality in and to that part of the premises taken, used, or dedicated for roads or highways.**

29. **Rights of way for drainage ditches, drain tiles, feeders, laterals and underground pipes, if any.**

30. **Easement for public and quasi-public utilities, if any.**

31. **No examination has been made of the mineral title. Coverage shall not be construed as including the title to minerals underlying the subject premises.**

32. **Attention is directed to ordinances and regulations relating to connections, charges, liens for use of any public sewerage, water or other utility system serving the land referred to herein. We call attention to the fact that all sewer and utility bills should be obtained from the offices supplying the service. We indicate only recorded liens.**

33. **Taxes for the year 2020 are assessed in the amount of $350.54 and are now paid. Permanent Parcel # 13-12-30-400-008**

There were no Liens or Judgments found of record in the Recorder of Deeds Office in Clinton County, Illinois.

The Company has delivered this Commitment and/or Policy to the proposed insured and/or insured by electronic means. All signatures contained herein are to be effective under the provisions of Section 5-110 of the Illinois Electronic Commerce Security Act (5 ILCS 175/5-110).

This Report is given for informational purposes only, is not a guarantee or opinion of title, and does not insure any of the interested parties. A title commitment and policy would require a further search of the public records. The parcel ID numbers and legal description provided have been taken from the last items of public record in the applicable county. Any liability for any damage relating to the information provided in this Report, and/or the requested recording of any document related to this Report is strictly limited to the amount paid.

By Melinda Kimler

Community Title

397 N 4th St.

Breese, IL 62230

618-526-7750

Letter Report	
Customer , **Attn:**	CTE File Number: **BR210665C** Order Regarding: **Daniel B. Loepker Revocable Living Trust**

Issue Date: **October 18, 2021**

	From	To
Search Period :	**July 30, 1914**	**October 14, 2021**

Legal Description:

The Southwest Quarter of the Southeast Quarter of Section 21, Township One North, Range Three West of the Third Principal Meridian, Clinton County, Illinois. EXCEPTING THEREFROM the East Thirty-three feet of the Southwest Quarter of the Southeast Quarter of Section 21, Township One North, Range Three West of the Third Principal Meridian, as conveyed by Warranty Deed to Long Lake Club recorded in Deed Record 206 at Page 143 of the records of Clinton County, Illinois.

Except any interest in the coal, oil, gas and other mineral rights underlying the land which have been heretofore conveyed or reserved in prior conveyances, and all rights and easements in favor of the estate of said coal, oil gas and other minerals, if any.

PPN: 13-12-21-400-003

Property Address	Parcel Number
Long Lake Rd., Bartelso, IL 62218	13-12-21-400-003

Last Grantee of Record:

Daniel B. Loepker Revocable Living Trust

Items of Record:

1. **Warranty Deed executed by John A. List and Lena List, his wife to Matilda Kohrmann, a widow, dated Jul 28, 1914 and recoded July 30, 1914 in Deed Record 49 Page 338 as**

Document No. 24093.

2. Note: Death of Anna Matilda Determan Kohrmann on December 26, 1940. Estate of Matilda Kohrmann. (Property to Henry Kohrmann)

3. Quit Claim Deed (Minerals) executed by W. F. Riehemann, a bachelor to Henry Kohrmann, dated May 18, 1942 and recorded June 25, 1942 in Deed Record 75 Page 180 as Document No. 80880.

4. Note: Death of Henry Kohrmann on January 25, 1964. Estate of Henry Kohrmann Case #64-P-11. (Property to Edward H. Kohrmann, Sr.)

5. Warranty Deed (Coal) executed by Edward H. Kohrmann, Sr. and Emma Kohrmann, husband and wife to First City National Bank of Houston, Trustee, dated October 11, 1968 and recorded May 24, 1972 in Deed Record 158 Page 335 as Document No. 213000.

6. Warranty Deed executed by Edward H. Kohrmann, Sr. and Emma Kohrmann, husband and wife, individually and as spouse of each other to Edward H. Kohrmann, Sr. and Emma Kohrmann, husband and wife, not in tenancy in common but as joint tenants with full right of survivorship, dated January 19, 1973 and recorded January 19, 1973 in Deed Record 162 Page 33 as Document No. 215761.

   Note: Death of Emma Kohrmann April 7, 1975.
   Note: Death of Edward H. Kohrmann February 17, 1980

7. Warranty Deed executed by Edward H. Kohrmann, Sr. and Emma Kohrmann, husband and wife to Long Lake Club, dated April 14, 1970 and recorded July 14, 1980 in Deed Record 206 Page 143 as Document No. 247912. (Exception Deed)

8. Executor's Deed executed by Virgil Kohrmann, as Executor of the last will and testament of The Estate of Edward H. Kohrmann, Sr., deceased, to Daniel B. Loepker, a married man, individually, dated August 6, 1980 and recorded August 7, 1980 in Deed Record 206 Page 359 as Document No. 248210.

9. Quit Claim Deed dated July 22, 1992 and recorded July 23, 1992 in Land Record 72 on Page 574 as Document No. 92R4424, executed by Daniel B. Loepker and Christine Loepker, husband and wife to Daniel B. Loepker, as Trustee of the Daniel B. Loepker Revocable Living Trust.

10. Terms, powers, provisions and limitations of the Trust under which title to said property is held.

11. Existing unrecorded leases and tenancies and all rights thereunder of the lessees and tenants and of any person claiming by, through or under lessees.

12. Any and all easements, restrictions, outstanding oil, gas and mineral rights, and rights to aboriginal antiquities of record, but omitting restrictions, if any, based on race, color, religion,sex, handicap, familial status, or national origin.

13. All rights and easements in favor of the holder of any interest in the mineral estate or any party claiming by, through, or under said holder.

14. **Rights of the Public, the State of Illinois, the County, the Township and the Municipality in and to that part of the premises taken, used, or dedicated for roads or highways.**

15. **Rights of way for drainage ditches, drain tiles, feeders, laterals and underground pipes, if any.**

16. **Easement for public and quasi-public utilities, if any.**

17. **No examination has been made of the mineral title. Coverage shall not be construed as including the title to minerals underlying the subject premises.**

18. **Attention is directed to ordinances and regulations relating to connections, charges, liens for use of any public sewerage, water or other utility system serving the land referred to herein. We call attention to the fact that all sewer and utility bills should be obtained from the offices supplying the service. We indicate only recorded liens.**

19. **Taxes for the year 2020 are assessed in the amount of $617.16 and are now paid. Permanent Parcel # 13-12-21-400-003**

There were no Liens or Judgments found of record in the Recorder of Deeds Office in Clinton County, Illinois.

The Company has delivered this Commitment and/or Policy to the proposed insured and/or insured by electronic means. All signatures contained herein are to be effective under the provisions of Section 5-110 of the Illinois Electronic Commerce Security Act (5 ILCS 175/5-110).

This Report is given for informational purposes only, is not a guarantee or opinion of title, and does not insure any of the interested parties. A title commitment and policy would require a further search of the public records. The parcel ID numbers and legal description provided have been taken from the last items of public record in the applicable county. Any liability for any damage relating to the information provided in this Report, and/or the requested recording of any document related to this Report is strictly limited to the amount paid.

Highland Community Title, LLC (Breese)

By Melinda Kimler

Appendix 3

Conservation Easement

CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given this_____ day of _____, 202__, (“Effective Date”) by **WFI Holdings-B LLC**, having an address of **248 Southwoods Center, Columbia, IL 62236** ("Grantor") to **HeartLands Conservancy**, an Illinois non-profit corporation, having an address of **3 High Street, Belleville, IL 62220** ("Grantee"). As used herein, the term "Grantor" shall include any and all heirs, successors, or assigns of the Grantor, and all subsequent owners of the Property (as hereinafter defined), and the term "Grantee" shall include any successor or assignee of Grantee.

WITNESSETH:

WHEREAS, Grantor is the sole owner in fee simple title of certain lands situated in Clinton County, ILLINOIS, more particularly described in Exhibit A attached hereto and incorporated herein ("Property"), and

WHEREAS, Department Permit No. [MVS-xxxx-xxx] of the U.S. Army Corps of Engineers ("Corps") (hereinafter referred to as the "Permit") authorizes certain activities which affect waters of the United States; and

WHEREAS, the permits require that Grantor preserve, enhance, restore, or mitigate wetlands or uplands located on the Property and under the jurisdiction of the Corps; and

WHEREAS, Grantor, in consideration of the issuance of the permits to construct and operate the permitted activity, and as an inducement to Grantee and the Corps to issue the Permits, is willing to grant a perpetual Conservation Easement over the Property.

NOW THEREFORE, in consideration of the above and mutual covenants, terms conditions, and restrictions contained herein, together with other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, Grantor hereby voluntarily grants and conveys a perpetual Conservation Easement for and in favor of Grantee upon the property, which shall run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature, and character of this Conservation Easement shall be as follows:

1. **Purpose:** The purpose of this Conservation Easement is to retain and maintain land or water areas on the Property in their natural, vegetative, hydrologic, scenic, open, agricultural, or wooded condition and to retain such areas as suitable habitat for fish, plants, or wildlife. Those wetland or upland areas that are to be restored, enhanced, or created pursuant to the Permit shall be retained and maintained in the restored, enhanced, or created condition required by the Permit.

2. **Rights of Grantee:** The following rights are conveyed to Grantee and the Corps by this easement:

a. The right to take action to preserve and protect the environmental value of the Property;

b. The right to prevent any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement, and to require the restoration of areas or features of the Property that may be damaged by any inconsistent activity or use;

c. The right to enter upon and inspect the Property in a reasonable manner and at reasonable times to determine if Grantor is complying with the covenants and prohibitions contained in this Conservation Easement; and

d. The right to proceed at law or in equity to enforce the provisions of this Conservation Easement, and to prevent the occurrence of any of the prohibited activities hereinafter set forth.

3. **Prohibited Uses:** Except for restoration, creation, enhancement, maintenance, and monitoring activities, or surface water management improvements, which are permitted or required by the Permit, the following activities are prohibited on the Property:

a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground, or the construction or placing of structures below the ground that may impact the surface of the Property, however, nothing contained herein shall prohibit Grantor from installing hunting blinds;

b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;

c. Removal or destruction of trees, shrubs, or other vegetation, except as may be permitted by the Permit, and except for the removal of invasive, nuisance, exotic, or non-native vegetation in accordance with a maintenance plan approved by Grantee;

d. Planting of invasive, nuisance, exotic, or non-native plants as listed by the State of ILLINOIS;

e. Exploration for, or extraction of, oil or gas in such a manner as to affect the surface, or excavation, dredging, or removal of coal, loam, peat, gravel, soil, rock, or other material substance, except as may be permitted or required by the Permit;

f. Use of motorized and non-motorized vehicles, the keeping or riding of horses, grazing, livestock confinement, or other surface use that may affect the natural condition of the Property, except for vehicle use for purposes of maintenance and upkeep, or as otherwise may be permitted or required by the Permit; provided, however, vehicle use as necessary to remove wild game harvested from the Property is not prohibited;

g. Tilling, plowing, planting of crops, digging, mining, or other activities that are or may be detrimental to drainage, flood control, water conservation, water quality, erosion control, soil conservation, or fish and wildlife habitat preservation, including but not limited to ditching, diking, and fencing, except as permitted or required by the Permit;

h. The extraction of water from the Property or adjacent properties owned by Grantor, or the impoundment of water on the Property or on adjacent properties owned by Grantor, so as to affect the hydrology of the Property;

i. Acts or uses detrimental to the aforementioned retention and maintenance of land or water areas;

j. Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance; and

k. The subdivision of the Property.

4. **Reserved Rights:** Grantor reserves all rights as owner of the Property, including the right to engage in uses of the Property that are not prohibited herein and that are not inconsistent with any Corps rule, criteria, permit, or the intent and purposes of this Conservation Easement.

5. **Taxes:** Grantor shall pay any and all applicable real property taxes and assessments levied by competent taxing authority on the Property.

6. **Maintenance:** Grantor and Grantee agree that the party identified as the Long Term Steward in the Final Mitigation Banking Instrument associated with the Permit (the "Long Term Steward") shall operate, maintain and keep up the Property consistent with the purpose of this Conservation Easement and as required by the Permit. The Long Term Steward shall remove from the Property any invasive, nuisance, exotic, or non-native plants as listed by the State of ILLINOIS and shall maintain the hydrology of the Property as it currently exists or as otherwise required by the Permit.

7. **Hazardous Waste:** Grantor covenants that as of the Effective Date it has not received written notice of any hazardous substances or toxic waste that exists or has been generated, treated, stored, used, disposed of, or deposited in or on the Property, nor has Grantor received written notice of any underground storage tanks on the Property. Grantor shall be responsible for any and all necessary costs of remediation of any hazardous materials on the Property of which Grantor has received written notice as of the Effective Date.

8. **Public Access:** No right of access by the general public to any portion of the Property is conveyed by this Conservation Easement, and Grantor further covenants not to hold any portion of the Property open to general use by the public except with the written permission of the Corps and Grantee.

9. **Liability:** Grantor shall continue to retain all liability for any injury or damage to the person or property of third parties that may occur on the Property arising from ownership of the Property. Neither Grantor, nor any person claiming by or through Grantor, shall hold Grantee or the Corps liable for any damage or injury that may occur on the Property.

10. **Recording Requirements:** Grantor shall record this Conservation Easement in the official records of Clinton County, ILLINOIS, and any party shall have the right to re-record it at any time Grantee or the Corps may require to preserve their rights. Grantor shall pay all recording costs, fees and taxes necessary at any time to record this Conservation Easement in the public records. Grantor shall thereafter insert the terms and restrictions of this Conservation Easement ("Restrictions") in any subsequent deed or other legal instrument by which Grantor divests himself/herself/itself of any interest in the Property, and shall provide a photocopy of the recorded Conservation Easement to the new owner(s).

11. **Enforcement:** The terms and conditions of this Conservation Easement may be enforced in an action at law or equity by the Grantee or the Corps against the Grantor or any other party violating or attempting to violate the Restrictions. Enforcement of this Conservation Easement shall be at the reasonable discretion of the Grantee or the Corps, and any forbearance on behalf of Grantee or the Corps to exercise its or their rights hereunder in the event of any breach by Grantor shall not be deemed or construed to be a waiver of rights. Any costs incurred in enforcing, judicially or otherwise, the terms, provisions, and restrictions of this Conservation Easement, including without limitation, the costs of suit, and attorney's fees, shall be borne by and recoverable against the non-prevailing party in such proceedings, except that such costs shall not be recoverable against the Corps. In addition, if the Grantee or the Corps shall prevail in an enforcement action, such party shall also be entitled to recover that party's cost of restoring the land to the natural vegetative and hydrologic condition existing at the time of execution of these Restrictions or to the vegetative and hydrologic condition required by the Permits.

12. **Assignment of Rights:** Grantee shall hold this Conservation Easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this Conservation Easement, except to another legal entity qualified to hold such interests under applicable state and federal laws and committed to holding this Conservation Easement exclusively for the purposes stated herein. Grantee shall notify the Corps in writing of any intention to reassign this Conservation Easement to a new grantee at least sixty (60) days in advance thereof, and the Corps must accept the assignment in writing. The new grantee shall then deliver a written acceptance to the Corps. The assignment instrument must then be recorded and indexed in the same manner as any other instrument affecting title to real property and a copy of the assignment instrument shall be furnished to the Corps. Failure to comply with the assignment procedure herein stated shall result in invalidity of the assignment. In the event of dissolution of the Grantee or any successor, or failure for sixty (60) days or more to execute the obligations of this Conservation Easement, the Grantee shall transfer this Conservation Easement to a qualified and willing grantee. Upon failure of the Grantee or any successor to so transfer the Conservation Easement, the Corps shall have the right to sue to force such an assignment to a grantee to be identified by the Court.

13. **Successors:** The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of the parties hereto and their respective personal representatives, heirs, successors, and assigns, and shall continue as a servitude running in perpetuity with the Property.

14. **Notices:** All notices, consents, approvals, or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.

15. **Severability:** If any provision of this Conservation Easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this Conservation Easement shall not be affected thereby, as long as the purpose of the Conservation Easement is preserved.

16. **Alteration or Revocation:** This Conservation Easement may be amended, altered, released, canceled, or revoked only by written agreement between the parties hereto or their heirs, assigns, or successors in interest, which shall be filed in the public records of Clinton County, ILLINOIS. No action shall be taken, however, without advance written approval thereof by the Corps. Corps approval shall be by letter attached as an exhibit to the document amending, altering, canceling, or revoking the Conservation Easement, and said letter shall be informal and shall not require notarization. It is understood and agreed that Corps approval requires a minimum of sixty (60) days written notice, and that the Corps may require substitute or additional mitigation, a separate conservation easement or alternate deed restrictions, or other requirements as a condition of approval. Any amendment, alteration, release, cancellation, or revocation together with written Corps approval thereof shall then be filed in the public records of Clinton County, ILLINOIS, within thirty (30) days thereafter.

17. **Controlling Law:** The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of ILLINOIS.

TO HAVE AND TO HOLD unto Grantee forever. The covenants, terms, conditions, restrictions, and purpose imposed with this Conservation Easement shall be binding upon Grantor, and shall continue as a servitude running in perpetuity with the property.

GRANTOR FURTHER COVENANTS that Grantor is lawfully seised of said Property in fee simple; that the Property is free and clear of all encumbrances that are inconsistent with the terms of this Conservation Easement and that no mortgages or other liens exist; that Grantor has good right and lawful authority to convey this Conservation Easement, and that it hereby fully warrants and defends the title to the Conservation Easement hereby conveyed against the lawful claims of all persons whomsoever. Notwithstanding this last paragraph of the Conservation Easement, Grantor shall have the right to mortgage the Property so long as any such mortgage is subordinated to the Conservation Easement.

IN WITNESS WHEREOF, the Grantor has executed this Conservation Easement this ____ day of _____, 20___.

Signed in the presence of:

_____

Print Witness Name: _____

_____

Print Witness Name: _____

GRANTOR:

WFI Holdings-B LLC
a Delaware limited liability company

By: _____
Print: _____
Title: _____

STATE OF ILLINOIS)
) ss
COUNTY OF MONROE)

I, the undersigned, a Notary Public in and for said County and State aforesaid, DO HEREBY CERTIFY that _____ as _____ of WFI HOLDINGS-B LLC, a Delaware limited liability company, personally known to me or sufficiently proven to me, to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and Notarial Seal, this ____ day of _____, 202__.

_____

Print Name: _____

NOTARY PUBLIC, STATE OF ILLINOIS

My Commission: _____

IN WITNESS WHEREOF, the Grantee has executed this Conservation Easement this ___ day of _____, 20___.

GRANTEE:

HEARTLANDS CONSERVANCY
an Illinois non-profit corporation

By: _____
Print: _____
Title: _____

STATE OF ILLINOIS)
) ss
COUNTY OF _____)

I, the undersigned, a Notary Public in and for said County and State aforesaid, DO HEREBY CERTIFY that _____ as _____ OF HEARTLANDS CONSERVANCY, an Illinois non-profit corporation, personally known to me or sufficiently proven to me, to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and Notarial Seal, this ____ day of _____, 202__.

_____
Print Name: _____
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission: _____

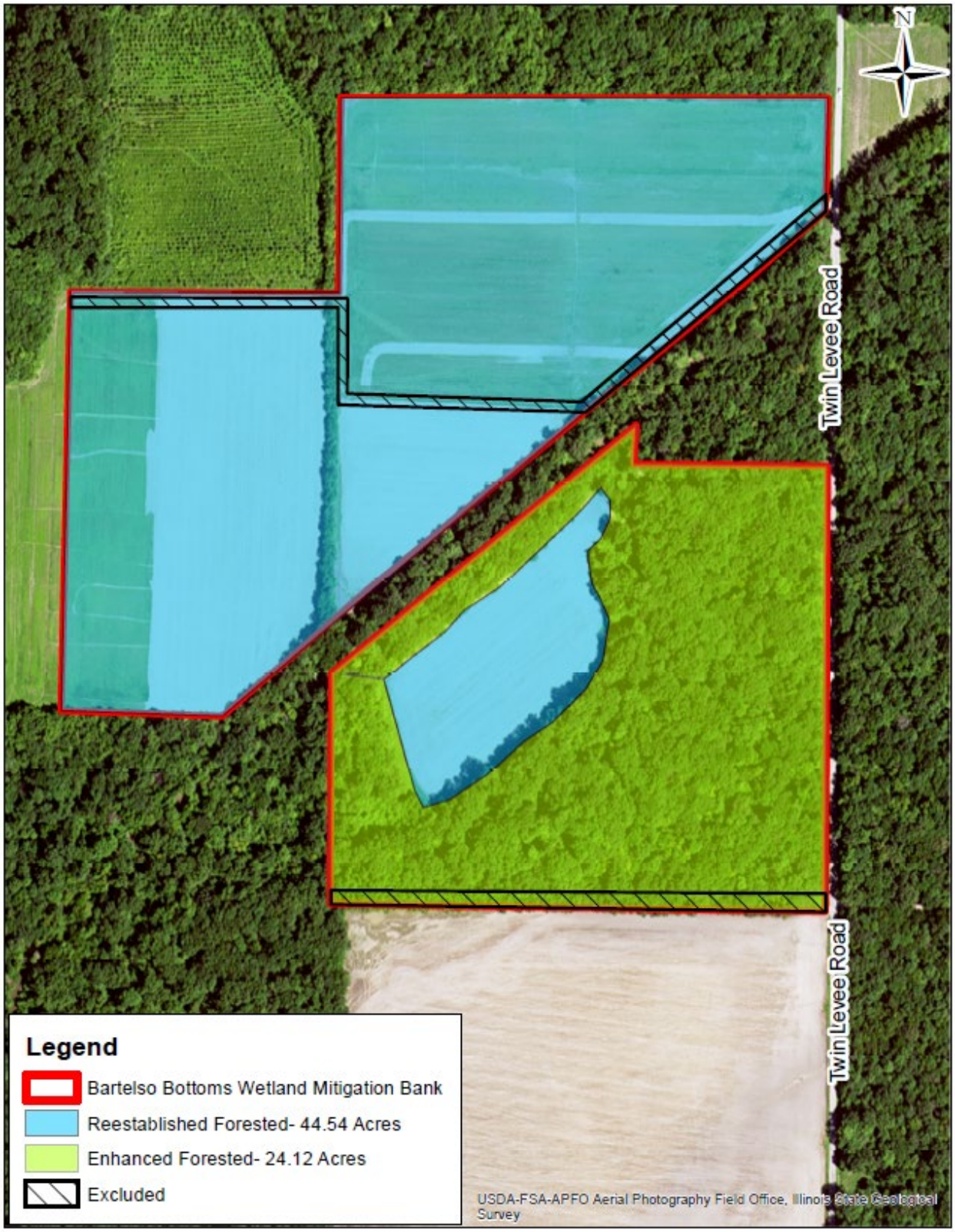
EXHIBIT A

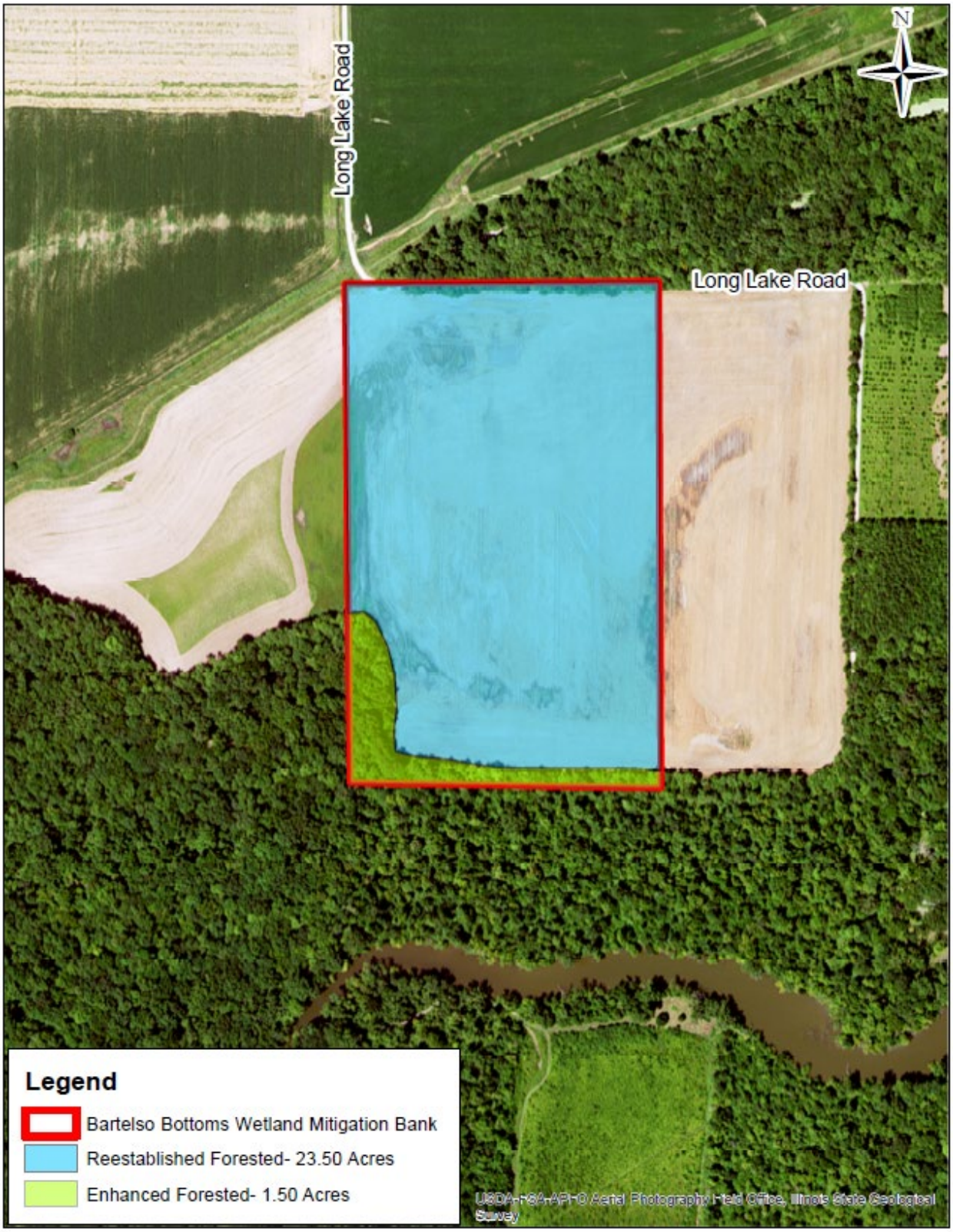
LEGAL DESCRIPTION OF PROPERTY

[Insert legal description of Conservation Easement Area(s)]

Appendix 4

Mitigation Work Plan Drawings


N
Twin Levee Road
Twin Levee Road
Legend
Bartelso Bottoms Wetland Mitigation Bank
Reestablished Forested- 44.54 Acres
Enhanced Forested- 24.12 Acres
Excluded
USDA-FSA-APFO Aerial Photography Field Office, Illinois State Geological Survey


Long Lake Road
Long Lake Road
N
Legend
Bartelso Bottoms Wetland Mitigation Bank
Reestablished Forested- 23.50 Acres
Enhanced Forested- 1.50 Acres
USDA-FSA-APFO Aerial Photography Field Office, Illinois State Geological Survey

Appendix 5

Long-Term Management and Maintenance Plan Agreement

LONG-TERM MANAGEMENT AND MAINTENANCE PLAN AGREEMENT

BARTELSO BOTTOMS WETLAND MITIGATION BANK

This Plan will guide the long-term management of the Bartelso Bottoms Wetland Mitigation Bank, sponsored by WFI Holdings-B LLC in Clinton County, Illinois.

The Plan takes effect when the performance standards have been met and the Project Close-out Report is approved by the USACE – St. Louis District Regulatory Branch. Initial estimate for when the Long-Term Management Plan is scheduled to begin is 2029. WFI Holdings-B LLC established an endowment (reference Financial Assurances Appendix 6) to fund long-term management at the Mitigation Site by the Long-Term Steward (Heartlands Conservancy - Steward). Following transfer of management responsibilities upon Mitigation Bank closure, WFI Holdings-B LLC to the Steward, authority and responsibility for implementing the long-term management plan will reside with the Steward.

LONG-TERM MANAGEMENT GOALS AND OBJECTIVES

The Mitigation Bank possesses wetland habitat and wildlife values important to the Steward, the people of the State of Illinois, and the people of the United States. The Mitigation Bank provides high quality restored and enhanced wetlands and contains jurisdictional waters of the United States and the State of Illinois. Individually and collectively, these habitat and wildlife values comprise the "Conservation Values" of the Mitigation Bank.

The goal of long-term management is to ensure that the Conservation Values of the Mitigation Site are managed, monitored and maintained over the long term by transferring management responsibilities to a qualified long-term Steward upon Mitigation Bank closure. Long-term management is intended to be adaptive, as defined in the federal mitigation rule (U.S. Army Corps of Engineers 2008) cited below:

Adaptive management means the development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those

projects. It requires consideration of the risk, uncertainty, and dynamic nature of compensatory mitigation projects and guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a compensatory mitigation project and the identification and implementation of measures to rectify those problems.

The wetlands at the Mitigation Bank will not be altered without obtaining all appropriate permits and clearances from regulatory agencies.

Long-term management is intended to promote the long-term functionality of forested wetlands.

Long-term management objectives for the Mitigation Bank are as follows:

- Maintain diverse forested wetland communities dominated by native species;
- Establishment of a Climax Bottomland Hardwood Forest;
- Maintain improved habitat conditions for wildlife.

Limits of Responsibility

The Steward will not be responsible for Mitigation Bank failure attributed to natural catastrophes such as flood, drought, disease, regional pest infestation, and others that are beyond their reasonable control. Active management is not expected for ecological change that comes about as a result of processes such as climate change, fluctuating river levels, and sedimentation due to overbank flood deposits that may affect the wetlands. Over time, natural successional processes will occur that may reduce wetland functioning or reduce wetland area.

LONG-TERM MANAGEMENT AND MAINTENANCE

The Plan describes long-term management needs, roles and responsibilities of the Steward. The Steward will retain qualified staff and/or contractors with adequate ecological and biological qualifications to manage the Mitigation Bank. Prior to taking over management of the Mitigation Bank, the Steward will have ample time to work with WFI Holdings-B LLC while the Mitigation Bank remains under WFI Holdings-B LLC's management responsibility in order for the Steward to become comfortable with the tasks associated with long term Mitigation Bank management. Permits necessary to implement management actions on the Mitigation Bank will be held by the Steward in the form of the Conservation Easement. The Steward will be compensated by WFI Holdings-B LLC through an Endowment for management, maintenance and monitoring period associated with the conservation easement. The management and maintenance endowment will provide financial support of long-term operations and maintenance associated with a forested wetland, riparian corridor. However, the Steward, at their discretion, may provide a higher level of monitoring and operation and maintenance than is described in this plan.

The Conservation Easement (CE) holder (HeartLands Conservancy) and the Long-Term Steward (HeartLands Conservancy) will be responsible for the management of the site for various activities. Specifically, these include encroachment enforcement such as signage, dumping, trespassing activities according to the CE and other prohibited actions. The general condition of the site will be addressed by HeartLands Conservancy as the Steward of the ecological condition of the site for operations and maintenance of the site.

The restoration site's long-term management should reflect activities that are associated with long-term timberland management. The bank sponsor employed a Consulting Forester, Mr. Matt Thompson, Bartelso, IL to develop a long-term management plan for the site, specifically Item 6 - Planned Management Activity Schedule for Forestry Practices, attached.

MONITORING

General Monitoring Protocol

Long-term monitoring will employ adaptive management of the Mitigation Bank. Since the wetlands are intended to be self-sustaining, performance standards are purposefully less rigorous than those identified and used during Mitigation Bank establishment and operational period. Unless otherwise noted, monitoring will occur annually during the growing season in order to trigger necessary management activities that will protect wetland functions and to maintain a consistent annual record of wetland conditions. More frequent monitoring visits, such as a spring, mid-summer, and fall visit, are recommended in order to manage the site. Reports will be submitted to the USACE – St. Louis District Regulatory Branch for a period of five (5) years following the close-out report. There will be no requirement to submit monitoring reports to the regulatory agencies after the five years of submissions. The Steward will have access to the monitoring reports prepared by WFI Holdings-B LLC during the (pre-close out) 7-year performance monitoring period.

Hydrology Monitoring

The primary source of hydrology for the Bank Site is via flood waters of the Kaskaskia River and back waters of the Santa Fe Drainage Ditch. Monitoring of wetland hydrology in the general region of the Mitigation Bank wetlands will ensure that wetland hydrology continues to be present on the site, a requirement for the persistence of the wetlands. To determine whether a stable hydrologic condition exist between the site and the Kaskaskia River/Santa Fe Drainage Ditch, the Steward will collect data utilizing the USACE Wetland Determination Data Forms. Surficial observations and soil samples will be taken annually and entered into the Data Forms. The site will be photo-documented annually in late spring or early summer, capturing indicators of hydrologic function, hydrophytic vegetation, saturated soils, standing water, macroinvertebrates, stressed upland vegetation, and sediment deposits.

Vegetation Monitoring

The cover of native herbaceous wetland plants is expected to be self-sustaining by Mitigation Bank Closure and the end of the performance standard monitoring and will not be monitored over the long-term. However, the cover of invasive non-native plants, and estimated stem counts of native woody plants along the edges of the wetlands will be monitored over the long-term.

Non-native Invasive Species

The establishment and spread of invasive non-native species is one of the greatest long-term threats to the functioning of the Mitigation Bank. The Steward will monitor the Mitigation Site as necessary to meet the intent of the Illinois Department of Natural Resources for its Noxious Weed Policy as identified in the Conservation Easement. Any non-regulated weed control activities, such as non-chemical weed removal, will commence without regulatory input. During Mitigation Bank establishment, invasive weed control will be conducted. New infestations of noxious weed species should be identified during the annual inspection and a management strategy employed to eliminate the invasive species.

LONG-TERM MANAGEMENT AND MAINTENANCE PLAN AGREEMENT

BARTELSO BOTTOMS WETLAND MITIGATION BANK

HEARTLANDS CONSERVANCY

By:_____

PROJECT MANAGER, REGULATORY

BRANCH, U.S. ARMY CORPS OF

ENGINEERS

By:_____

WFI HOLDINGS-B LLC

MITIGATION BANK SPONSOR

By:_____

Heartlands Conservancy LTMF Calculation:

Land Management and Maintenance Costs

NOTE: Enter values in blue-shaded cells. Click on individual Tasks and Descriptions for additional guidance.

Management and Maintenance Tasks	Description	Regular Staff (hours)	Short-term Staff (hours)	Quantity	Unit	Unit Cost	Extended Cost	Recurrence Interval (years)	Annual Cost	Subtotal
Infrastructure Maintenance and Replacement										$ 217.76
Travel expenses recurring annually	Number of trips annually			2	# trips	$ 139.20	$ 139.20	5	$ 27.84	
	Overnight stays for annual site visit(s)			0	# nights					
	Allowance for meals (# of days) for annual site visit(s)			0	# days					
Travel expenses (non-annual trips)	Number of trips			1	# trips	$ 69.60	$ 69.60	5	$ 13.92	
	Overnight stays for site visit(s)			0	# nights					
	Allowance for meals (# of days) for site visit(s)			0	# days					
Site visit	Inspect boundaries, signs, other infrastructure. Include prep time, travel time and time on-site.	0	0		hours		$ -	1	$ -	
Remove trash and rectify trespass, vandalism	Trash removal and addressing trespass, vandalism	0	2		hours		$ 136.00	1	$ 136.00	
Replace fence	Materials or Contract Amount				linear ft	$ -	$ -	1	$ -	
	Labor or Staff Oversight				hours		$ -		$ -	
Replace signs	Material (add description)			1	ea	$ 200.00	$ 200.00	5	$ 40.00	
	Labor (may be included in annual site visit)				hours		$ -		$ -	
Other (select from drop-down)	Materials or Contract Amount				ea	$ -	$ -	1	$ -	
	Labor or Staff Oversight				hours		$ -		$ -	
Equipment daily use rate	Vehicle (add description)				day	$ -	$ -	1	$ -	
	Other (select from drop-down list)				day	$ -	$ -	1	$ -	
Equipment replacement	Vehicle (add description)				ea	$ -	$ -	1	$ -	
	Other (select from drop-down list)				ea	$ -	$ -	1	$ -	
Ecological Management										$ 1,186.07
Travel expenses	Number of trips annually			0	# trips	$ -	$ -	1	$ -	
	Overnight stays for annual site visit(s)			0	# nights					
	Allowance for meals (# of days) for annual site visit(s)			0	# days					
Travel expenses (non-annual trips)	Number of trips			1	# trips	$ 69.60	$ 69.60	3	$ 23.20	
	Overnight stays for site visit(s)			0	# nights					
	Allowance for meals (# of days) for site visit(s)			0	# days					
Update management plan	Review and update management plan	6	1		hours		$ 578.00	5	$ 115.60	
Ecological monitoring	Monitoring T&E species, inventories, reporting	1	6		hours		$ 493.00	1	$ 493.00	
	Supplies			50	ea	$ 0.60	$ 30.00		$ 30.00	
Invasive species control (plants)	Materials or Contract Amount			1	ea	$ 200.00	$ 200.00	3	$ 66.67	
	Labor or Staff Oversight	1	4		hours		$ 357.00		$ 119.00	
Nuisance wildlife control	Materials or Contract Amount			1	ea	$ 200.00	$ 200.00	5	$ 40.00	
	Labor or Staff Oversight	0	2		hours		$ 136.00		$ 27.20	
Prescribed fire	Cost of burn (burn plan, implementation of burn, follow-up monitoring)			0	ea	$ -	$ -	1	$ -	
	Staff oversight of contract	0	0		hours		$ -		$ -	
	Annual training and recertification costs			0	ea	$ -	$ -	1	$ -	
Vegetation management	Materials or Contract Amount			1	ea	$ 1,000.00	$ 1,000.00	5	$ 200.00	
	Labor or Staff Oversight	1	4		hours		$ 357.00		$ 71.40	
Supplies	Small equipment & supplies				ea	$ -	$ -	1	$ -	
Other (add description)	Materials or Contract Amount				ea	$ -	$ -	1	$ -	
	Labor or Staff Oversight				hours		$ -		$ -	
Occupancy										$ 200.00
Property taxes	Taxes, drainage assessments, other fees			1	ea	$ -	$ -	1	$ -	
Insurance				1	ea	$ 200.00	$ 200.00	1	$ 200.00	
Other fees	eg. utilities, water rights			1	ea	$ -	$ -	1	$ -	
									ANNUAL COST SUBTOTAL:	$ 1,603.83

Forest Management Plan
For:

Bartelso Bottoms Wetland Mitigation Bank
WFI Holdings-B, LLC
c/o Michael Thompson
PO Box 6
Bartelso, Illinois 62218
(618) 204-0199

Prepared by:

Thompson Resource Management, LLC
P.O Box 5
Bartelso, Illinois 62218
(618) 335-3066

STAND 1: RE-ESTABLISHMENT (68.04 acres)

Forest Management Plan for Bartelso Bottoms Wetland Mitigation Bank

STAND 1: RE-ESTABLISHMENT (68.04 acres)

1. Goals and Resource Concerns:

A. Stand Objectives:

- Re-establish a native oak/hickory species forest through the planting of high-quality trees.
- Maintain a healthy herbaceous cover crop free of invasive species and other non-native vegetation.
- Create a healthy stream ecosystem by protecting banks from erosion and reduced sediment deposition.

2. Location and Description of Property:

A. Section 30 and Section 21, Township 1 North- Range 3 West, Santa Fe Township, Clinton County.
   a. Stand 1 (re-established): 68.04 acres
B. Surrounding land use is: Forest and agricultural fields.
C. Boundary: The boundaries are marked.
D. Easements: There are known easements on the property.

3. Detailed Stand Descriptions and Analysis

This wetland mitigation bank consists of several parcels owned by several landowners. The property acreages are as follows:

Name of Landowner	Acres in Bank Site
• Mueller Trust	19.93
• Mike Mueller	17.20
• Timberline Group	34.31
• Dan Loepker	24.64

Approximately 93.66 acres are going into a wetland mitigation bank. Of this 93.66 acres, Stand 1 is 68.04 acres currently in row crop production. Trees will be planted in this stand to reintroduce native wetland tree species.

The Santa Fe Drainage District runs on the south side of these properties. All these parcels are within the floodplain of the Kaskaskia River. No invasive species were found on the initial site visit of this property.

Soil types:

- 3334A Birds Silt Loam 0-2% slopes. Frequently flooded. Site Index for Pin Oak-90. Average annual growth: 72 cubic feet/acre per year.
- 3288A Petrolia Silty Clay Loam 0-2% slopes. Frequently flooded. Site Index for Pin Oak-90. Average annual growth: 72 cubic feet/acre per year.
- 7026 Wagner Silt Loam 0-2% slopes. Rarely flooded. Site Index for Pin Oak- 70. Average annual growth: 57 cubic feet/acre per year.
- 7434B2 Ridgeway Silt Loam 2-5% slopes. Rarely flooded Site Index for White Oak- 85. Average annual growth: 72 cubic feet/acre per year.
- 8109A Raccoon Silt Loam 0-2% slopes. Occasionally flooded. Site Index for Pin Oak-80. Average annual growth: 57 cubic feet/acre per year.

Detailed Stand Recommendations:

Stand 1: Re-Established Wetlands – 68.04 acres

A. The long-term goals for this property are to create and maintain a healthy forested wetland community consisting of native hard mast producing tree species, such as oak and hickory. To achieve these goals, proper management and maintenance will need to be performed to assure a healthy forest ecosystem. Some of these will include:

1. **Tree Planting**

   A mixture high quality native tree species will be planted on this property at 109 RPM trees/acre. This tree planting will consist of multiple oak species, hickory species, and other wetland tree species.

2. **Invasive Species Management:**

   Invasive species can quickly take over a forest stand. If left untreated, invasive species can completely shade out the forest floor. This makes any oak regeneration virtually impossible because oaks and most other desirable tree species require ample sunlight. When spraying invasive species, **make sure to read and follow all herbicide directions.**

   Reed Canary Grass, Phragmites, and Multiflora Rose are some potential invasive species that are prevalent in wetland ecosystems. In converted agricultural fields, it is important to establish a cover crop of native grasses or clover to discourage invasive species invasion. Getting control of these invasive species is imperative to a successful tree planting. Control methods include:

   - **Reed Canary Grass**: To control, mow late in mid-September, followed by the application of 5% glyphosate in October (after big bluestem is dormant) can help to control reed canary grass. Because reed canary grass productivity is reduced by

shade, planting native shrubs or wetland trees in areas of chemically-treated grass may be effective.

- **Phragmites**: For foliar application, apply 1-1.5% aquatic glyphosate in water (up to 6 pints per acre). Alternatively, 1-1.5% solution of aquatic Imazapyr, such as Habitat (up to 6 pints per acre) can be used for a more effective yet more costly treatment than glyphosate. Imazapyr and glyphosate may be combined 1:1 and mixed with water to make a 1-1.5% solution (3 pints glyphosate, 3 pints imazapyr per acre). Optimal treatment time is in the fall during flowering. Plants may be mowed to the ground or burned 6 weeks prior to treatment and allowed to regrow until 24 inches or more in height to make application easier. Always read and follow the herbicide label before initiating treatment. Mowing stands without herbicide treatment will increase the density of phragmites. The deep lateral root system makes digging an inefficient method of control. Burning stands without herbicide treatments will also increase the density of phragmites.
- **Multiflora Rose**: For foliar applications, multiflora rose is controlled by spraying in the spring with 3 ounces roundup per gallon of water in the spring before the native vegetation leaf's out.

3. Timber Stand Improvement (TSI):

A TSI is an important forestry practice that is used to improve the forest through the removal of lower quality trees. This allows the future generation of crop trees to utilize the open space to acquire more nutrients and sunlight. The goal of a TSI is to grow a productive forest with healthy and desirable tree species. A **Crop Tree** is a tree that has been selected for a future harvest. These trees are generally higher in value than other trees surrounding them. A **Crop Tree Release** is the removal of any undesirable tree species around future crop trees. This ensures that the crop trees receive ample sunlight and nutrients from the reduced competition of less desirable species.

For the first 1-10 years, mowing 15-20-foot strips between the rows of trees will reduce the woody invasion of wind-blown tree species (ash, maple, cottonwood). Properly staking and marking where the planted trees are in the rows is important for mowing to be able to see them in the future.

To increase the chance of desirable natural regeneration, cut and treat every non-crop tree that exists under and around the tree species you are managing for.

TSI Objectives include:

- Release approximately 60 trees in forested wetland area of various bottomland hardwood species, preferably planted oak species, hickories, and pecans.
- Remove undesirable species to promote apical dominance in planted crop trees.
- Maintain the tree planting within the B-Level stocking to promote a healthy forest stand.

Forestry Glossary:

- **Basal Area (BA)**- The cross-sectional area in square feet of tree trunk, when measured 4.5 feet above ground. This measurement is used to estimate stocking of trees per acre.
- **Board Foot (BF)**- A unit of wood measuring one inch thick by 12 inches by 12 inches (144 cubic inches)
- **Canopy**- The entire layer of tree crowns within a stand of trees. Canopies can be subdivided into over story (the dominant upper tree crowns) and under story (the lower, sub level tree crowns).
- **Competition**- The struggle among trees and other vegetation for sunlight, energy, water, nutrients, growing space, and other site resources.
- **Cord**- A stack of round or split wood containing 128 cubic feet of wood, bark, and air space. A standard cord measures 4 feet high x 4 feet wide x 8 feet long.
- **Crop Tree**- A tree of desirable higher value species whose crown is within or just below the overstory. A crop tree should be well formed and free from defects, insects, or disease.
- **Crown**- All the branches, limbs, needles, or leaves of an individual tree. All of the crowns in a stand of trees comprise the canopy.
- **Cull**- A tree or log that has a defect that makes it unusable for its original intended purpose. Defects can include crooked trunks, rotten wood, and hollowed/forked trunks.
- **Defect-** Any tree that has any imperfections that affect the quality and health of the specific tree (crooked, holes in trees, tree tops busted, etc.)
- **Diameter at Breast Height (DBH)**- The standard measure used in forestry for measuring tree diameter, 4.5 feet above the ground.
- **Merchantable**- Term used to describe some aspect of how valuable a tree is. A non-merchantable tree has no commercial value.
- **Mixed Stand**- A stand of trees where less than 80% of trees in the overstory canopy are of one species.
- **Overstory**- The highest layer of tree canopy within a stand of trees.
- **Reforestation**- A specific method of regenerating a forest by the planting of individual trees or seeds.
- **Reproduction**- Young trees which can grow to become the primary component of the next stand of trees.
- **Residual Stand**- The crop trees or cull tree left standing after a cutting.
- **Site Index**- A relative measure if a sites productivity potential based upon tree height at a specific based age, usually 25-50 years. A site index of 45 is considered poor and a site index of 105 is considered very good for a tree species.
- **Stand**- A manageable group of trees that occupies a specific area and often is of uniform age, species, and condition.
- **Stocking**- A relative number of trees or volume per acre. Stands can be under stocked, fully stocked, or over stocked.

- **Timber Stand Improvement (TSI)-** Actions taken to improve the health, quality, and vigor of a stand of trees. Examples may include improvement cutting, prescribed burning, crop tree release, control of competition, or other forestry practices as warranted by the site conditions and owner's goals.
- **Understory**- The sub layer of a tree canopy that exists beneath the overstory.

Forest Management Plan
For:

Bartelso Bottoms Wetland Mitigation Bank
WFI Holdings-B, LLC
c/o Michael Thompson
PO Box 6
Bartelso, Illinois 62218
(618) 204-0199

Prepared by:

Thompson Resource Management, LLC
P.O Box 5
Bartelso, Illinois 62218
(618) 335-3066

STAND 2: ENHANCEMENT (24.12 acres)

Forest Management Plan for Bartelso Bottoms Wetland Mitigation Bank

STAND 2: ENHANCEMENT (24.12 acres)

1. Goals and Resource Concerns:

B. Stand Objectives:
- Re-establish a native oak/hickory species forest through the planting of high-quality trees.
- Maintain a healthy herbaceous cover crop free of invasive species and other non-native vegetation.
- Create a healthy stream ecosystem by protecting banks from erosion and reduced sediment deposition.

2. Location and Description of Property:

E. Section 30 and Section 21, Township 1 North- Range 3 West, Santa Fe Township, Clinton County.
   a. Stand 2 (enhancement bottomland hardwood forest): 24.12 acres

F. Surrounding land use is: Forest and agricultural fields.

G. Boundary: The boundaries are marked.

H. Easements: There are known easements on the property.

3. Detailed Stand Descriptions and Analysis

Soil types:
- 3334A Birds Silt Loam 0-2% slopes. Frequently flooded. Site Index for Pin Oak-90. Average annual growth: 72 cubic feet/acre per year.
- 3288A Petrolia Silty Clay Loam 0-2% slopes. Frequently flooded. Site Index for Pin Oak-90. Average annual growth: 72 cubic feet/acre per year.

Stand 2: Enhanced Wetlands – 24.12 acres

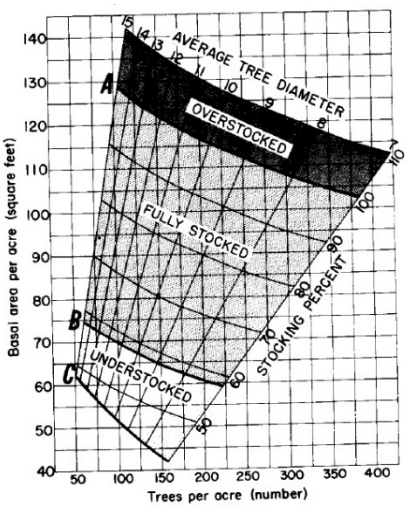
A. This forest stand consists primarily of mature bottomland oak species with a maple and ash component. Pin Oak dominated the overstory with several other bottomland oak species (Overcup Oak, Swamp White Oak, and Bur Oak) co-dominating. There is also lots of Green Ash present in the stand. The ash trees did not look like they were all dead from the Emerald Ash Borer (EAB), but there did seem to be some declining ash that were present. EAB has been detected within two miles of this forest, so EAB invasion is inevitable. A handful of small patches of Wintercreeper were found in this stand.

   There was adequate oak regeneration in this stand on the forest floor, but it seemed like there is not enough sunlight that reaches the forest floor to allow these oak seedlings to break canopy. Removal of competition, such as less desirable tree species, is imperative for oak survivability for future generations.

Inventory Data:

Species	Trees/ Acre	BA/Ac.	Ave. Diameter	Vol./Ac.
Boxelder	36	6	6	21
Bur Oak	1	1	36	136
Common Persimmon	14	5	8	27
Elm	86	10	5	58
Green Ash	42	41	13	2,616
Hackberry	7	15	6	0
Overcup Oak	4	11	22	903
Pin Oak	16	225	17	2532
Silver Maple	50	18	8	337
Swamp White Oak	1	4	28	421
Totals (Doyle)	**336**	**136**	**9**	**7,052**

Gingrich Stocking Chart:



The table above is the Gingrich Stocking Chart. This chart is used to determine the adequate stocking levels a healthy forest should be. From the inventory data, you can see that this stand is Over-Stocked (>110% stocking or above A-Level stocking), meaning there are too many trees in the area to sustain a healthy forest ecosystem. In a healthy forest, the proper stocking should be above the B-Level (60-100%), also known as Fully-Stocked. This means that the dominant, mature trees in this forest do not provide adequate sunlight to reach the forest floor, resulting in little to no oak/hickory regeneration in the understory.

To bring the stocking level of this forest into the B-Level, conducting a Forest Stand Improvement (FSI) on some of the mature, declining, and undesirable timber is needed, so that future generations of oak and hickory species will have a fighting chance to reach canopy level and become dominant trees in the forest stand in the future.

Stand Management Objectives

- Girdle declining timber to open enough canopy to allow sunlight and nutrients to reach the forest floor;
- Create Group Openings (¼ - 1 acre in size) within the interior of the forest to allow pockets of oak seedlings to grow into the canopy;
- Maintain these Group Openings by conducting yearly maintenance to provide ample growing space for desired tree species (oak, hickory, pecan);
- Maintain the forest stand in the B-Level stocking, which is the ideal stocking for a healthy productive forest (see **Gingrich Stocking Table** above).

Stand Management Recommendations:

This forest stand is over-stocked with large diameter Green Ash, Pin Oak, Swamp White Oak, and Silver Maple. To achieve an overall healthy bottomland hardwood forest full of oaks and desirable bottomland species, declining and mature timber will need to be girdled to create space in the canopy for future crop trees. An FSI to affect these declining and mature trees will be conducted to ensure this growing space.

During the FSI, 4-6 **Group Openings** (¼-1 acre in size each) will be designed to promote the existing oak seedlings that have been suppressed due to lack of sunlight and competition from shade tolerant tree species. In each of the Group Openings, 10-25 (depending on size of group opening) oak, hickory, and pecan RPM saplings will be planted in conjunction with the existing seedlings.

After the FSI, yearly maintenance will be done in the Group Openings to ensure adequate oak survivability. If no management is done after these openings are created, there is a likely chance that other soft mass tree species (Silver Maple, Cottonwood, Sycamore) could grow over top of desired oak species and eventually kill them out. Clearing a 10-15 foot radius around these oaks will provide enough sunlight to allow apical growth.

FSI Projections:

Girdling mature and declining timber will open up the canopy enough to allow more sunlight to hit the forest floor.

Almost 70% of Green Ash will be targeted due to the onset of Emerald Ash Borer (EAB). No oak species will be removed from this timber stand to retain a healthy, younger generation of oak trees.

Best Management Practices (**BMP's**) will be used if any timber is removed. BMP's are designed to protect forests, soil, and water resources while still utilizing the forest product. Some examples of BMP's are:

- The construction of water bars on degraded slopes to direct water from skid trails that can cause erosion problems and sediment deposition into streams;
- Clean up of any chemicals, oil, or fuel that leak from equipment;
- Install stream crossings using materials that are clean, non-erodible, and non-toxic to aquatic life.
- Fix any ruts that are greater than 50 foot long and greater than 8 inches deep.

All forestry management will be conducted and approved by a professional forester.

Wildlife Value:

There are plenty of den trees (trees with open cavities) throughout this forest stand. While den trees are bad for timber value, they provide excellent nesting and brooding habitat for animals such as raccoons, opossums, squirrels, and several bird species. Trees with exfoliating bark are beneficial for bat species, such as Indiana Bat (*Myotis sodalis*) and Northern Long-Eared Bats (*Myotis septentrionalis*). These bat species use the exfoliating bark for roosting habitat between April and November. Typically, in the beginning of November, the bats will fly to caves and bluffs to hibernate for the winter months. No bat trees will be cut during the spring/summer months to ensure proper habitat for roosting bat species. Any forest management techniques will seek to reduce any impacts with trees associated with bat habitat. In any type of timber activity, these cavity trees would remain to provide nesting and cover for wildlife.

Forestry Glossary:

- **Basal Area (BA)**- The cross-sectional area in square feet of tree trunk, when measured 4.5 feet above ground. This measurement is used to estimate stocking of trees per acre.
- **Board Foot (BF)**- A unit of wood measuring one inch thick by 12 inches by 12 inches (144 cubic inches)
- **Canopy**- The entire layer of tree crowns within a stand of trees. Canopies can be subdivided into over story (the dominant upper tree crowns) and under story (the lower, sub level tree crowns).
- **Competition**- The struggle among trees and other vegetation for sunlight, energy, water, nutrients, growing space, and other site resources.
- **Cord**- A stack of round or split wood containing 128 cubic feet of wood, bark, and air space. A standard cord measures 4 feet high x 4 feet wide x 8 feet long.
- **Crop Tree**- A tree of desirable higher value species whose crown is within or just below the overstory. A crop tree should be well formed and free from defects, insects, or disease.
- **Crown**- All the branches, limbs, needles, or leaves of an individual tree. All of the crowns in a stand of trees comprise the canopy.
- **Cull**- A tree or log that has a defect that makes it unusable for its original intended purpose. Defects can include crooked trunks, rotten wood, and hollowed/forked trunks.
- **Defect-** Any tree that has any imperfections that affect the quality and health of the specific tree (crooked, holes in trees, tree tops busted, etc.)
- **Diameter at Breast Height (DBH)**- The standard measure used in forestry for measuring tree diameter, 4.5 feet above the ground.
- **Merchantable**- Term used to describe some aspect of how valuable a tree is. A non-merchantable tree has no commercial value.
- **Mixed Stand**- A stand of trees where less than 80% of trees in the overstory canopy are of one species.
- **Overstory**- The highest layer of tree canopy within a stand of trees.
- **Reforestation**- A specific method of regenerating a forest by the planting of individual trees or seeds.
- **Reproduction**- Young trees which can grow to become the primary component of the next stand of trees.
- **Residual Stand**- The crop trees or cull tree left standing after a cutting.
- **Site Index**- A relative measure if a sites productivity potential based upon tree height at a specific based age, usually 25-50 years. A site index of 45 is considered poor and a site index of 105 is considered very good for a tree species.
- **Stand**- A manageable group of trees that occupies a specific area and often is of uniform age, species, and condition.
- **Stocking**- A relative number of trees or volume per acre. Stands can be under stocked, fully stocked, or over stocked.

- **Timber Stand Improvement (TSI)-** Actions taken to improve the health, quality, and vigor of a stand of trees. Examples may include improvement cutting, prescribed burning, crop tree release, control of competition, or other forestry practices as warranted by the site conditions and owner's goals.
- **Understory**- The sub layer of a tree canopy that exists beneath the overstory.

Illinois Nature Preserves Invasive Species List*	
Invasive Species Common Name	**Latin Name**
Autumn olive	*Elaeagnus umbellata*
Black locust	*Robinia pseudoacacia*
Exotic Buckthorns: Common, Glossy, Dahurian, Japanese, and Chinese Buckthorn	*Rhamnus cathartica, R. frangula, R. davurica, R. japonica, and R. utilis*
Bush Honeysuckles: Tartarian, Morrow's, Belle, and Amur Honeysuckle	*Lonicera tatarica , L. morrowii, L. x bella Zabel, and L. maackii*
Canada thistle	*Cirsium arvense*
Crown vetch	*Coronilla varia*
Fescue	*Festuca pratensis*
Garlic mustard	*Alliaria petiolata*
Japanese honeysuckle	*Lonicera japonica*
Johnson grass	*Sorghum halepense*
Leafy spurge	*Euphorbia esula*
Moneywort	*Lysimachia nummularia*
Multiflora rose	*Rosa multiflora*
Osage orange	*Maclura pomifera*
Purple loosestrife	*Lythrum salicaria*
Quaking aspen	*Populus tremuloides*
Reed canary grass	*Phalaris arundinacea*
Round-leaved bittersweet	*Celastrus orbiculatus*
Siberian elm	*Ulmus pumila*
Smooth sumac	*Rhus glabra*
Sweet clover (white and yellow)	*Melilotus alba and Melilotus officinalis*
Cut-leaved and common teasel	*Dipsacus laciniatus and Dipsacus sylvestris*
White poplar	*Populus alba*
Wild parsnip	*Pastinaca sativa*
Wintercreeper (climbing euonymus)	*Euonymus fortunei*
Kentucky bluegrass	*Poa pratensis*
Smooth brome	*Bromus inermis*
Honey locust	*Gleditsia triacanthos*
White mulberry	*Morus alba*
Kudzu	*Pueraria lobata*
Sericea lespedeza	*Lespedeza cuneata*
Gray dogwood	*Cornus racemosa*
Tree-of-heaven	*Ailanthus altissima*
Chinese yam	*Dioscorea oppositifolia*
Spotted knapweed	*Centaurea maculosa*
Phragmites	*Phragmites australis*
Japanese Stilt Grass	*Microstegium vimineum*
Japanese Hops	*Humulus japonicus*
Musk Thistle	*Carduus nutans*
Dame's Rocket	*Hesperis matronalis*
* https://www2.illinois.gov/dnr/INPC/Pages/INPCManagementGuidelines.aspx	

Appendix 6

Third Party Agreement, Draft Casualty Insurance Policy, and Construction Estimate

THIRD-PARTY RESPONSIBILITY AGREEMENT

THIRD-PARTY RESPONSIBILITY AGREEMENT

WHEREAS, HeartLands Conservancy is not-for-profit corporation organized under the laws of the State of Illinois and,

WHEREAS, HeartLands Conservancy has obtained approval of their Board of Directors for their participation and execution of this Agreement, and

WHEREAS, WFI Holdings-B LLC, hereinafter referred to as the "Sponsor" has drafted and executed a Mitigation Bank Instrument/Plan for the purpose of establishing a Wetland Mitigation Bank on real estate located in Clinton County, Illinois, and

WHEREAS, the said Bartelso Bottoms Wetland Mitigation Bank, hereinafter referred to as the Mitigation Bank, requires the sponsor to undertake certain activities and sets certain performance standards relative to the real estate upon which the mitigation site project is located and further authorized the U. S. Army Corps of Engineers (USACE) to monitor the activity and performance of the sponsor concerning those requirements, and

WHEREAS, the USACE and the Mitigation Bank Instrument required financial assurances from the sponsor for the performance of their obligations there under.

THEREFORE IT IS STIPULATED AND AGREED TO BY AND BETWEEN THE PARTIES AS FOLLOWS:

1. The Sponsor shall obtain a casualty insurance policy from Conservation United payable to HeartLands Conservancy in the form and content agreeable to the Sponsor, HeartLands Conservancy and the USACE.

2. The insurance policy shall be conditioned on the Sponsor performing its obligations under the Mitigation Site Plan.

3. If payment of all or any portion of the proceeds of the insurance policy is received by HeartLands Conservancy, then HeartLands Conservancy shall apply said funds toward the completion of the obligations of the Mitigation Site Plan.

HeartLands Conservancy

By:_____

PROJECT MANAGER,
REGULATORY BRANCH, U.S.
ARMY CORPS OF
ENGINEERS

By:_____

WFI HOLDINGS-B LLC,
MITIGATION BANK SPONSOR
MANAGER

By:_____

DRAFT CASUALTY INSURANCE POLICY

COMPENSATORY MITIGATION INSURANCE

THIS FORM PROVIDES CLAIMS MADE AND REPORTED COVERAGE. PLEASE READ THE ENTIRE FORM CAREFULLY.

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties, and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the **Named Insured** shown in the Declarations, and any other person or organization qualifying as an **Insured** under this policy. The words "we", "us", and "our" refer to the Company providing this insurance. "You" and "your" do not refer to the **Authorizing Agency.** Other than headings, words and phrases that appear in bold have special meaning. Refer to **SECTION II - DEFINITIONS**.

This policy provides Claims Made and Reported Coverage and has **Claim** reporting requirements. Coverage provided herein only applies to a **Claim** first made against the **Named Insured** during the **Policy Period,** and reported to us in writing during the **Effective Coverage Period** in which the **Claim** is made. This policy does not include a duty to defend or to pay defense costs. Notice of a **Default** or **Deficiency Notice** is not a **Claim** and does not trigger coverage under the policy.

The application, filed and approved **Mitigation Plan**, **Mitigation Instrument**, supplemental materials, and information submitted therewith, are the basis of this policy and are incorporated into and constitute a part of this policy. Any materials and information received in application for the policy will be maintained on file with the Company and shall be deemed to be attached to the policy as if physically attached. As a condition precedent to coverage, it is agreed by all **Insureds** that the statements made in the application and supplemental materials are representations made on behalf of all **Insureds**, that they are material, and that this policy is issued by the Company in reliance upon the truth of such representations.

In consideration of the payment of the premium and the undertaking of the **Insured(s)** to pay the Indemnification Obligation in the Indemnification Endorsement attached to this policy, and subject to the Limits of Insurance set out in **SECTION IV – LIMITS OF INSURANCE** and the Declarations, and the exclusions, conditions, and other terms of this policy, the Company agrees with the **Insured(s)** as follows:

SECTION I – INSURING AGREEMENT

To pay on behalf of the **Named Insured** the amount of **Financial Assurances** for which the **Named Insured** becomes legally obligated to pay as a result of a **Claim** first made against it during the **Policy Period,** by reason of a **Default** under a **Mitigation Instrument**, to which this insurance applies, provided that, as a condition precedent to coverage, the **Claim** is reported, in writing, to the Company by the **Named Insured** or by the **Authorizing Agency** on the **Named Insured's** behalf during the **Effective Coverage Period** in which the **Claim** is first made against the **Named Insured**.

We will have the right to adjust, pay or settle any **Claim** seeking **Financial Assurances** as described in **SECTION V – REPORTING, ADJUSTMENT & SETTLEMENT**; and

We may at our discretion investigate any **Default** and settle any **Claim** that may result. But:

1. The amount we will pay for **Financial Assurances** under this policy is limited as described in **SECTION IV – LIMITS OF INSURANCE;** and
2. Our obligation to adjust, pay or settle any **Claim** under an **Effective Coverage Period** ends when we have paid the limit of insurance applicable to that **Effective Coverage Period,** in the payment or settlement of **Financial Assurances**.

SECTION II - DEFINITIONS

1. **Adaptive Management Plan** means the development of a management strategy that results in a written plan as defined in 33 CFR 332.4(c)(12) or Applicable State Regulation scheduled in the Declarations to the policy, that anticipates likely challenges associated with **Compensatory Mitigation Projects** and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those projects.
2. **Authorizing Agency** means the Department of the Army, the U.S. Army Corps of Engineers, the District Engineer, or other person, entity or agency designated by the Department of the Army, that retains the sole and final authority under 33 CFR 332 or any state agency that retains sole and final authority under Applicable State Regulations

scheduled in the Declarations to the policy, to negotiate, determine, approve and enforce the terms of the **Mitigation Instrument**, and any other documents established thereunder.

3. **Claim** means a written demand received by the **Named Insured** from the **Authorizing Agency**, or from the **Authorizing Agency** on the **Named Insured's** behalf seeking payment of **Financial Assurances** as a result of a **Default** under the **Mitigation Instrument**.

4. **Compensatory Mitigation** as defined in 33 CFR 332.2 or Applicable State Regulation scheduled in the Declarations to the policy, means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

5. **Compensatory Mitigation Project** means the site or sites scheduled in the Declarations to the policy at which the **Named Insured** is implementing a **Mitigation Plan** approved by the **Authorizing Agency** under 33 CFR 332 or Applicable State Regulation scheduled in the Declarations to the policy.

6. **Default** means a written and final determination made by the **Authorizing Agency** that the **Named Insured** has failed to successfully complete construction activities and/or has failed to achieve the **Performance Standards**, as applicable, in accordance with the **Mitigation Plan**, at a **Compensatory Mitigation Project** site scheduled in the Declarations to the policy, but only if such determination is made following:

   (1) a period of time as determined by the **Authorizing Agency** in accordance with applicable **Compensatory Mitigation** regulations after the **Authorizing Agency** has issued a **Deficiency Notice** for that **Mitigation Plan** or **Compensatory Mitigation Project** site, and

   (2) the **Named Insured's** best efforts to mitigate any deficiencies identified by the **Authorizing Agency** in any prior **Deficiency Notice** for that **Mitigation Plan** or **Compensatory Mitigation Project** site for the purpose of preventing the **Default**.

   Default shall not include any determination by the **Authorizing Agency** that the **Named Insured** has failed to comply with, or breached, any other term or condition of the **Mitigation Instrument** or other document thereunder, other than the construction activities and/or **Performance Standards,** as applicable, in a **Mitigation Plan** for a **Compensatory Mitigation Project** site scheduled in the Declarations to the policy, or any resultant suspension or termination of the **Mitigation Instrument** as a result of such non-compliance or breach.

7. **Deficiency Notice** means a written notice issued by the **Authorizing Agency** to the **Named Insured**:

   (1) advising that it is not progressing towards, or on track to, successfully complete construction and/or meeting the **Performance Standards** in accordance with the **Mitigation Plan** for a **Compensatory Mitigation Project** site; and

   (2) requesting that the **Named Insured** implement measures to correct the deficiencies, including but not limited to implementation of an **Adaptive Management Plan**, or modifications to the existing **Mitigation Plan**, and/or

   (3) modifying, decreasing or suspending credit sales of the **Mitigation Site** until the **Named Insured** successfully completes measures to correct deficiencies in the implementation of a **Mitigation Plan** for a **Compensatory Mitigation Project** site.

8. **Effective Coverage Period** means the term set forth in the Declarations to the policy.

9. **Financial Assurances** means the amount of reasonable and necessary costs to remedy a **Default** determination and **Claim** made by the **Authorizing Agency**, which amount shall be determined by the lesser of the following:

   (1) **Mitigation Expenses** required to successfully complete the **Compensatory Mitigation** at the **Compensatory Mitigation Project** site from which the **Default** has been determined; or

   (2) **Mitigation Expenses** required to provide replacement **Compensatory Mitigation** at another site; or

   (3) the actual costs to purchase replacement mitigation credits from another mitigation site and any legal fees associated with the purchase.

   All subject to the Limit of Liability shown on the Declarations to the policy, associated with the **Effective Coverage Period** in effect at the time of the issuance of a **Deficiency Notice** which, despite the **Named Insured's** best efforts, ultimately results in a **Default** determination and **Claim** made by the **Authorizing Agency**.

   Mitigation Expenses under (1) and (2) above means the direct costs of engineers, contractors and subcontractors, to design, plan, engineer, construct, and implement the **Compensatory Mitigation** work at the site, exclusive of profit or markup of any kind by, or in favor of, the **Named Insured**. Direct costs may include reasonable administrative and management costs incurred by such engineers, contractors, and subcontractors, but only to the extent such costs are directly and exclusively allocable to the actual **Compensatory Mitigation** work being performed at the site,

   Mitigation Expenses under (2) above includes the cost to acquire a replacement property and includes legal fees associated with the acquisition.

Mitigation Expenses under (1) and (2) above shall not include: (i) any costs for insurance or bonds, including those costs attendant to securing and reporting in connection with such insurance and bonds; (ii) legal fees of any kind, except those noted in (2) and (3) above; (iii) costs related to reporting and other obligations under this policy, and (iv) any costs, charges or expenses (including salaries, benefits, or fringes) of the **Named Insured**, unless such costs are directly attributable to the implementation of the tasks and activities for the **Compensatory Mitigation** and the Company has approved and consented to the work and costs prior to them being incurred.

10. **Insured** means:
    (1) The **Named Insured** but only with respect to liability incurred from the **Default** of a **Mitigation Instrument** to which this insurance applies;
    (2) The **Named Insured's** current or former members and partners, and their spouses, but only with respect to liability incurred from the **Named Insured's Default** of a **Mitigation Instrument,** to which this insurance applies;
    (3) The **Named Insured's** current or former directors, executive officers, and stockholders, and their spouses, but only with respect to liability incurred from the **Named Insured's Default** of a **Mitigation Instrument,** to which this insurance applies.
11. **Mitigation Site** means the site, or suite of sites, where aquatic resources are being restored, reestablished, established, created, enhanced, and/or preserved as part of the **Compensatory Mitigation Project** governed by the **Mitigation Instrument,** as scheduled in the Declarations to the policy.
12. **Mitigation Instrument** means the legal document scheduled in the Declarations to the policy, provided that such document is prepared, approved, filed, and documented in compliance with applicable law.
13. **Mitigation Plan** means the plan prepared by the **Named Insured** per 33 CFR 332.4 c(2) through c(14), or Applicable State Regulation scheduled in the Declarations to the policy, and approved by the **Authorizing Agency**, for **Compensatory Mitigation** to be performed at each **Compensatory Mitigation Project** site as scheduled in the Declarations to the policy.
14. **Named Insured** means the entity listed in the Declarations to the policy that has executed the approved **Mitigation Instrument**.
15. **Policy Period** means the period set forth in the Declarations to the policy, or any shorter period arising as a result of cancellation or termination of the policy.
16. **Performance Standards** as defined in 33 CFR 332.2 or Applicable State Regulation scheduled in the Declarations to the policy, means observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a **Compensatory Mitigation Project** meets its objectives. **Performance Standards** also mean the completion of initial construction and planting in accordance with the **Mitigation Plan.**

SECTION III – EXCLUSIONS

This insurance does not apply to **Claims, Defaults,** or **Financial Assurances** based upon, arising out of, or relating to:

1. Force Majeure, or any natural catastrophe or disaster, as defined in the **Mitigation Instrument**;
2. Liability assumed by the **Named Insured** under any contract or agreement, including but not limited to liability for payment of attorney's fees, termination fees, consequential or liquidated damages, or liabilities of another pursuant to any indemnification agreement, except for liability to pay **Financial Assurances** as a result of a **Default** under a **Mitigation Instrument.**
3. Any legal fees, costs, or expenses (including expert or consultant fees) incurred in the defense of any liability or obligation of the **Named Insured** for any reason.
4. Fluctuation in, short fall of, or devaluation of, the monetary value of, or marketability of, mitigation credits (or other equivalent credits), or of any real property, including a site at which **Compensatory Mitigation** is being performed, or is planned to be performed, under the **Mitigation Instrument**.

SECTION IV – LIMITS OF INSURANCE

1. The "Policy Aggregate" Limit of Insurance shown in the Declarations and the rules below fix the most we will pay on behalf of the **Named Insured** for the **Compensatory Mitigation Site** shown in the Declarations and described by the **Mitigation Plan** regardless of the number of **Defaults**, **Claims**, **Financial Assurances**, **Mitigation Plans**, or **Compensatory Mitigation Project** sites.

2. The "Total All Claims" Limit set forth in the Declarations for each **Effective Coverage Period** is the most we will pay on behalf of the **Named Insured** for **Financial Assurances** as a result of all **Claims** first made against the **Named Insured** during the **Policy Period**, where a **Deficiency Notice** that results in the **Default** and **Claim**, is first issued by the **Authorizing Agency** during the scheduled **Effective Coverage Period**, and is first reported in writing to us, during that same scheduled **Effective Coverage Period.**

3. Subject to item 2 above, the "Per Claim" Limit set forth in the Declarations is the most we will pay on behalf of the **Named Insured** for **Financial Assurances** as a result of any one **Claim** first made against the **Named Insured** during the **Policy Period**, where a **Deficiency Notice** that results in the **Default** and **Claim**, is first issued by the **Authorizing Agency** during the scheduled **Effective Coverage Period,** and is first reported in writing to us, during that same scheduled **Effective Coverage Period.**

4. Subject to items 2 and 3 above, the maximum Limits of Insurance we will pay for any **Claim** made during the **Policy Period** shall be the limits corresponding to the scheduled **Effective Coverage Period** stated in the Declarations, in which the **Deficiency Notice** that results in the **Default** and **Claim** is first made against the **Named Insured** and reported to us in writing during that same scheduled **Effective Coverage Period**.

   At the end of each **Effective Coverage Period**, the Limit of Insurance shall expire and will no longer be available for payment of any new or additional **Claim** resulting from a **Deficiency Notice** not already issued by the **Authorizing Agency** against the **Named Insured** and reported to us in writing before expiration of the **Effective Coverage Period.** If the **Named Insured** resolves the **Deficiency Notice** issued during the **Effective Coverage Period** to the satisfaction of the **Authorizing Agency** in writing, and the **Effective Coverage Period** has expired, the limit of insurance for that **Effective Coverage Period** shall no longer be available for future **Claims**.

   At the end of each **Effective Coverage Period**, the limit of available insurance shall also be replaced by the "Per Claim" Limit and "Total All Claims" Limit scheduled in the subsequent **Effective Coverage Period.**

5. One or more **Claims** made against the **Named Insured,** and reported in writing to the Company, that arise out of the same, interrelated, repeated, or associated **Defaults** in a single **Mitigation Plan**, or at a single **Compensatory Mitigation Project** site, shall be considered a single **Claim**, and the Company's total liability for **Financial Assurance** from that **Claim** shall be subject to the Limits of Insurance corresponding to the "Per Claim" Limit for the **Effective Coverage Period** set forth in the Declarations (or any reduced or modified Limit established by endorsement to this policy) and effective at the time the initial **Deficiency Notice** that results in the **Claim** was first issued by the **Authorizing Agency** against the **Named Insured** and first reported in writing to the Company during that same **Effective Coverage Period**.

SECTION V – REPORTING, ADJUSTMENT & SETTLEMENT

1. **NOTICE OF A DEFICIENCY**

   The **Named Insured** shall provide written notice to the Company as soon as possible of any **Deficiency Notice** received by the **Named Insured** from the **Authorizing Agency.** The **Named Insured** shall forward to the **Company** a copy of the **Deficiency Notice** and any other communication or information related thereto, including the following:

   (1) Details of the **Compensatory Mitigation Project** site and **Mitigation Plan** for which the **Deficiency Notice** was received;

   (2) The **Named Insured's** plan to remedy the deficiencies noted by the **Authorizing Agency,** including any planned modifications to the **Mitigation Plan** and/or its **Adaptive Management Plan** in order to prevent a **Default** under the **Mitigation Instrument**;

   (3) Any other information necessary for the Company to understand the circumstances surrounding the **Deficiency Notice** and/or the **Named Insured's** plan to meet the applicable **Performance Standards** and prevent a **Default** under the **Mitigation Instrument**.

   The **Named Insured** shall have the duty to use its best efforts to mitigate a **Deficiency Notice** in order to prevent a **Default** under the **Mitigation Instrument.** The Company shall have the right to investigate any **Deficiency Notice.** The **Named Insured** shall cooperate with the Company's investigation, and make available upon the Company's request, documents for review and personnel for interview, all without charge to the Company. A **Deficiency Notice** is not a **Claim** and shall not trigger coverage under the policy.

2. NOTICE OF A DEFAULT or CLAIM

The **Named Insured** shall provide immediate written notice to the **Company** of any **Claim** made against the **Named Insured**, or of any determination by the **Authorizing Agency** that the **Named Insured** is in **Default** of the **Mitigation Instrument.** The **Named Insured** shall immediately forward to the Company every demand, notice, or other communication related to the **Claim** or the determination of **Default** as well as the following information**:**

(1) Details of the **Compensatory Mitigation Project** site and **Mitigation Plan** determined to be in **Default** and for which the **Claim** is being made;

(2) An explanation of the events and circumstances leading to the **Default,** including the specific basis and reasons upon which the **Default** has been determined;

(3) A description of the mitigation efforts undertaken to prevent or cure the **Default** (and the deficiencies leading thereto), including a detailed description of the amount of funds expended and the type of activity conducted;

(4) An estimate of the costs necessary to cure the **Default**;

(5) Any other information necessary for the Company to understand the circumstances surrounding the **Default** or **Claim**.

The Company shall have the right to investigate any **Default** or **Claim** noticed under the policy**.** The **Named Insured** shall cooperate with the Company's investigation and, upon the Company's request, shall assist in the investigation and settlement of the **Claim**, and make available to the Company, documents for review and personnel for interview, all without charge to the Company. Notice of a **Default** is not a **Claim** and shall not trigger coverage under the policy**.**

In the event that the **Authorizing Agency** first provides notice of a **Claim** to the Company, the Company may investigate and pay or adjust such claim as provided herein in its sole discretion without any duty to make inquiry of the **Insured** with respect to the **Claim**, and such payment or adjustment shall reduce the Limits of Liability remaining under the policy. The **Insured** shall not be released from any of its obligations to the Company under this policy by virtue of any such payment or adjustment, including its duties to indemnify the Company pursuant to the Indemnification Endorsement attached to this policy.

3. CLAIM ADJUSTMENT AND SETTLEMENT

The **Insured(s)** agree that the Company shall have the right to adjust, pay or settle any **Claim**, to which this insurance applies, at its sole discretion, without the **Insured(s)** consent, subject to the available and remaining Limits of Insurance for the applicable **Effective Coverage Period**, and that such adjustment, payment, or settlement may include, but not be limited to, the following actions:

(1) Payment of reasonable and necessary **Financial Assurances** to a designee or standby trust, as approved by the **Authorizing Agency**, for distribution by such designee or trustee to complete the **Compensatory Mitigation** in accordance with the **Insured's** legal responsibility under the **Mitigation Instrument**, pursuant to the **Authorizing Agency's** authority under the **Mitigation Instrument** and/or 33 CFR 332 or Applicable State Regulation scheduled in the Declarations to the policy; or

(2) Payment of reasonable and necessary **Financial Assurances** to a replacement contractor, as approved by the **Authorizing Agency** or its designee, and subject to the Company's written consent and approval, to either perform replacement **Compensatory Mitigation** at another site or to complete the **Compensatory Mitigation** at the **Compensatory Mitigation Project** site from which the **Default** has been determined, whichever is less.

The Company may make such inquiries and investigations of the **Claim** as it deems expedient, including inquiries to the **Named Insured** or the **Authorizing Agency** regarding the **Claim**, and payment of **Financial Assurances**. The **Insured(s)** agree that no **Claim** or **Financial Assurances** will be paid without the prior written consent and approval of the **Authorizing Agency**, and that the Company shall incur no liability to the **Insured(s)** resulting from such inquiries and/or resulting from the non-payment of any **Claim** or **Financial Assurances** for which the **Authorizing Agency** has not consented and/or approved. The **Insured(s)** shall not admit liability or settle any **Claim** without the Company's consent. The **Insured(s)** shall not be released from any of their duties or obligations to the Company under this policy by virtue of any payment or adjustment of a **Claim** by the Company, including the **Insured(s)** duties to indemnify the Company, according to the Indemnification Endorsement attached to this policy.

SECTION VI – CONDITIONS

1. LEGAL ACTION AGAINST THE COMPANY

No action shall lie against the Company unless, as a condition precedent thereto, there shall have been full compliance with all of terms of this policy, nor until the amount of the **Named Insured's** obligation to pay shall have been finally determined either by judgment against the **Named Insured** after actual trial or by written agreement of the **Named Insured**, the **Authorizing Agency** and the Company. No person or organization shall have any right under

this policy to join the Company as a party to any action against any **Insured** to determine the **Insured's** liability, nor shall the Company be impleaded by any **Insured** or its legal representative.

2. TRANSFER OF POLICY

Your rights and duties under this policy may not be assigned or transferred without our written consent.

3. BANKRUPTCY

Bankruptcy or insolvency of the **Named Insured** will not relieve the Company of its obligations under this policy, nor shall it relieve the **Insured(s)** of their indemnification obligations to the Company.

4. RENEWAL, CANCELLATION AND TERMINATION

(1) The Company may renew this policy at its sole discretion, pursuant to the Company's rates, rules, underwriting guidelines and underwriting decisions in effect as of the expiration date of the **Policy Period**. Renewal of this policy will not be in effect unless the Company issues a written quote and binder outlining the terms of coverage and the **Named Insured** accepts such terms in writing.

(2) The Company may cancel the policy by mailing to the **Named Insured** at the last known address, and the **Authorizing Agency**, written notice of not less than One Hundred and Twenty days (120) before such cancellation shall be effective. The notice shall include the reason for cancellation which may include:

a. The policy is no longer needed;

b. Non-payment of premium;

c. Fraud, material misrepresentation or intentional concealment of information which increases the risk originally insured; or

d. The **Insured**'s failure to comply with the terms and conditions of this policy including the failure to pay any premium when due.

(3) Upon release by the **Authorizing Agency** pursuant to applicable law, the **Insured** may cancel the policy by mailing or delivering written notice to us stating when the cancellation shall be effective.

(4) Termination by other than cancellation:

The policy may terminate without the approval of the **Authorizing Agency** at the earlier of:

a. The expiration date of the policy as shown in the Declarations to the policy;

b. A written acknowledgement, certification or other legally equivalent determination by the **Authorizing Agency** that the **Mitigation Site** has closed after having met the **Performance Standards** set forth in the **Mitigation Instrument**.

(5) The minimum earned premiums due for this policy shall be calculated in accordance with the following:

a. The minimum earned premium due for this policy is the percentage shown on the Declarations to the policy.

b. In the event of cancellation of this policy by the Company for reasons other than nonpayment of premium, the earned premium for this policy shall be computed on a pro-rata basis.

c. Premiums applicable to any subsequent endorsements will be in addition to the minimum premium shown in the Declarations to the policy.

Cancellation or termination of the policy shall be subject to release of the Company by the **Authorizing Agency**. Upon the effective date of such release, all obligations on the part of the Company hereunder shall automatically cease and neither the **Authorizing Agency** nor the **Insured** shall have further recourse against the Company with respect to unpaid **Financial Assurances**, including existing or future liabilities or obligations arising from **Claim(s)** previously reported or pending under the policy.

5. CHANGES

Notice to any agent or knowledge possessed by any agent or by any other person shall not effect a waiver or change in any part of this policy or estop the Company from asserting any right under the terms of this policy; nor shall the terms of this policy be waived or changed, except by endorsement issued by the Company to form a part of this policy with the prior approval of the **Authorizing Agency**.

6. COOPERATION

The **Named Insured** shall cooperate with the Company, and offer all reasonable assistance in the Company's investigations. The Company may require that the **Named Insured** submit to examination under oath, and attend hearings, depositions and trials. In the course of investigation, the Company may require written statements or the **Named Insured**'s attendance at meetings with the Company. The **Insured** must assist the Company in effecting settlement, securing and providing evidence and obtaining the attendance of witnesses.

7. COVERAGE TERRITORY

The coverage provided under this policy shall only apply to **Mitigation Sites** located within the United States of America.

8. AUDIT AND INSPECTION

(1) We may examine and audit your books and records as they relate to this policy at any time during the policy period and up to three (3) years after the end of the policy period;

(2) We may be permitted but not obligated to, interview persons employed by you; or

(3) We shall be permitted but not obligated to inspect, sample and monitor the **Named Insured's Mitigation Site** during the **Policy Period** or any time thereafter. Neither our right to make inspections, sample and monitor nor the actual undertaking thereof nor any report thereon shall constitute an undertaking, on behalf of the **Named Insured** or others, to determine or warrant that the **Mitigation Site** or operations are safe, healthful, or conform to acceptable engineering practice or are in compliance with any law, rule or regulation. The **Named Insured** agrees to provide appropriate personnel to assist our representatives during any inspection.

9. OTHER INSURANCE

(1) This insurance is primary, except when (2) below applies.

(2) This insurance is excess:

a. When stated in the Declarations to apply in excess of, or contingent upon the absence of, other appropriate instruments; or

b. Over any other bonds, reserves, escrows, trust funds, credits, or valid and collectible insurance available to the **Named Insured** to cover **Claims** for **Financial Assurances** under the **Mitigation Instrument**; or

c. Over any other appropriate instruments applicable to cover **Claims** for **Financial Assurances** under the **Mitigation Instrument**.

When this insurance is excess over other valid and collectible appropriate instruments, the Company shall be obligated to pay only its share of the applicable amount and shall not contribute with such instruments.

The **Insured** shall promptly, upon the request of the Company, provide the Company with copies of all such instruments or documentation.

10. MATERIAL CHANGE IN RISK

In consideration of the Company's acceptance of this insurance, the **Named Insured** hereby agrees the **Named Insured** must notify the Company, in writing, of any changes in the **Mitigation Instrument**, including changes in the credits release schedule, or any other information that materially changes the risk from that originally assumed by the Company at policy inception.

11. SOLE AGENT

The **Named Insured** shown in the Declarations shall act on behalf of, and serve as the sole agent for, all **Insureds** with respect to the return or payment of any premiums, the issuance by the Company of the policy, the receipt or acceptance of any endorsements issued to form a part of the policy, or the receiving of any notices from the Company required by this policy.

12. SUBROGATION

In the event of any payment under this policy by the Company, the Company shall be subrogated to all of the rights of recovery that the **Insured(s)** may have against any person or organization and the **Insured(s)** shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The **Insured(s)** shall do nothing to prejudice such rights.

Bartelso Bottoms Wetland
Mitigation Bank

Post Construction
Estimate:

	Description	Units	Unit Costs	Total Cost
1.00	Construction			
1.10	Construction (Dirt work and trees)	60	$2,000.00	$120,000.00
2.00	Annual Monitoring (8 years)			
2.10	Monitoring (years)	8	$5,000.00	$40,000.00
3.00	Post Construction O&M			
3.10	Operation and Maintenance (yrs)	8	$1,000.00	$8,000.00
4.00	Final Delineation Report			
4.10	Report	1	$7,000.00	$7,000.00
TOTAL				**$175,000.00**

Appendix 7
Wetland Delineation

SCI ENGINEERING, INC.
650 Pierce Boulevard
O'Fallon, Illinois 62269
618-624-6969
www.sciengineering.com

Wetland and Waterbody Delineation Report

BARTELSO BOTTOMS MITIGATION BANK SITE
BARTELSO, ILLINOIS

December 13, 2021

Prepared for:

WFI HOLDINGS LLC

SCI No. 2021-1023.30

SCI ENGINEERING, INC.
EARTH • SCIENCE • SOLUTIONS
GEOTECHNICAL
ENVIRONMENTAL
NATURAL RESOURCES
CULTURAL RESOURCES
CONSTRUCTION SERVICES

December 13, 2021

Linden Graber
WFI Holdings LLC
248 Southwoods Center
Columbia, Illinois 62236

RE: Wetland and Waterbody Delineation Report
Bartelso Bottoms Mitigation Bank Site
Bartelso, Illinois
SCI No. 2021-1023.30

Dear Linden Graber:

SCI Engineering, Inc. (SCI) is pleased to submit the following report entitled *Wetland and Waterbody Delineation Report – Bartelso Bottoms Mitigation Bank Site – Bartelso, Illinois*, dated December 2021. Our services consisted of a review of available resource maps and a site reconnaissance survey to document wetland and waterbody features within the project study area. An executive summary of the report is provided below:

- SCI conducted a wetland and waterbody delineation of the site on November 24, 2021.
- The site was found to contain one perennial tributary and three forested wetland areas that will likely be considered waters of the United States (WOTUS) as identified under the definitions described in Section 328.3 of the Code of Federal Regulations. Prior converted cropland areas were also found but will not likely be considered WOTUS.

The attached report should be read in its entirety. We appreciate the opportunity to provide you with our natural resource services. You may reach me at (618) 206-3038 or sbillings@sciengineering.com if you have any questions or concerns.

Respectfully,

SCI ENGINEERING, INC.

Michael S. Holm
Field Scientist

Scott E. Billings
Senior Project Scientist

MSH/SEB/rah

\\SCISTCFPS01\Projects\2021\2021-1023 Bartelso Bottoms Mitigation Bank\NR\2021-1023.30 Bartelso Bottoms Delineation Report.docx

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Wetland and Waterbody Delineation Report

BARTELSO BOTTOMS MITIGATION BANK SITE
BARTELSO, ILLINOIS

1.0 INTRODUCTION

SCI Engineering, Inc. (SCI) was retained by WFI Holdings LLC to conduct a wetland and waterbody delineation within the above-referenced study area (approximately 93.5 acres). Our scope of services included performing site reconnaissance to characterize the soils, vegetation, and hydrology for the delineation of wetlands and waterbodies. Our services were provided in general accordance with our proposal dated September 10, 2021.

Based on our field exploration, the site was found to contain two forested wetland areas and a perennial tributary. Rivers, perennial and intermittent tributaries, ephemeral streams, abutting and adjacent wetlands, impoundments of jurisdictional waters, and some ponds and lakes are considered waters of the United States (WOTUS) as identified under the definitions described in Section 328.3 of the *Code of Federal Regulations (33 CFR*). Any impact to a WOTUS, including filling, crossing, piping, relocating, or discharging into, will require a Section 404 Permit from the U.S. Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification from Illinois Environmental Protection Agency (IEPA). The USACE has the sole authority to determine if any of the features would be under their jurisdiction.

2.0 SITE LOCATION

The approximate 93.5-acre project area includes four separate tracts and is generally situated south of Bartelso, Illinois. Three tracts are located along Twin Levee Road approximately 2.6 miles south of Bartelso, Illinois, while the fourth tract is located along Long Lake Road, and south of Twin Bridge Road. For the three adjacent tracts, the site is bound by Twin Levee Road to the east and undeveloped forest stands to the north, south, and west. The tract along Long Lake Road is primarily bound by undeveloped forest stands and agricultural fields. The *Vicinity and Topographic Map* depicting the site location is enclosed as Figure 1.

3.0 DESKTOP REVIEW

3.1 United States Geological Survey

The United States Geological Survey (USGS) topographic map depicts the Santa Fe Drainage Ditch, which drains southwest from under Twin Levee Road between the three tracts along Twin Levee Road. The drainage ditch then drains offsite towards the southwest until it's confluence with the Kaskaskia River.

The tracts appear to drain southeast and northwest towards the drainage ditch. The tract along Long Lake Road is generally flat with a blue line tributary identified to the northwest and Long Lake to the south. The *USGS topographic map* is enclosed as Figure 1.

3.2 National Wetlands Inventory

The *National Wetlands Inventory (NWI) Map* illustrates one riverine system (R5UBH) and one forested wetland community (PFO1A) within the three adjacent tracts. Additionally, a forested wetland community (PFO1A) is mapped along the northern and southern boundaries of the northeast tract. The *NWI Map* is enclosed as Figures 2A and 2B.

3.3 Web Soil Survey

The Natural Resources Conservation Service (NRCS) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov) was utilized to determine the soil types and hydric rating of the soils mapped within the project site. Hydric soils are described as those soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season. Soils mapped within the project site are summarized in Table 3.1 below and are depicted on Figures 2A and 2B.

Table 3.1 – Soil Map Unit List and Hydric Rating

Soil Map Unit Name	Hydric rating
Birds silt loam, 0 to 2 percent slopes, frequently flooded	90% Hydric
Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded	95% Hydric
Raccon silt loam, 0 to 2 percent slopes, occasionally flooded	100% Hydric
Wagner silt loam, rarely flooded	100% Hydric

3.4 Federal Emergency Management Agency Flood Insurance Rate Map

Review of the *Flood Insurance Rate Map* panel map 17027C0325D (Effective date: August 2, 2007) and 17027C0200D (Effective date: August 2, 2007) depicts all four of the project tracts within the special flood hazard area Zone A. The *Federal Emergency Management Agency (FEMA) Flood Map* is included as Figure 3.

4.0 SITE RECONNAISSANCE

On November 24, 2021, SCI conducted a field exploration to delineate the extent of wetlands and waterbodies that exist within the project study area. Suspect areas within the survey limits were explored for wetland and waterbody characteristics utilizing methods as described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (*Version 2.0*). During the on-site visit, the weather was sunny and the high temperature for the day was approximately 60 degrees Fahrenheit. Using the USACE Antecedent Precipitation Tool, the area was experiencing normal conditions, as shown in Appendix C. There was approximately 0.12 inches of rainfall within the week prior to the site visit.

The site primarily exists as active agricultural fields and hardwood forest stands. The Santa Fe Drainage Ditch drains through the three tracts along Twin Levee Road. The agricultural fields in the Twin Levee Road tracts were recently plowed and trenches were added to facilitate draining. The agricultural field in the tract along Long Lake Road was only partially plowed. The forested areas were primarily dominated by American elm (*Ulmus americana*), pin oak (*Quercus palustris*), silver maple (*Acer saccharinum*), common hackberry (*Celtis occidentalis*) and swamp white oak (*Quercus bicolor*). The site is generally bound by agricultural fields and forest stands.

5.0 CONDITION SUMMARY

A photographic summary of the representative site conditions is included as Appendix A. The *Routine Wetland Determination Data Forms* are enclosed as Appendix B. Our site visit confirmed the presence of forested wetland areas and one tributary that would likely be considered jurisdictional by the USACE. The following discussion provides a narrative description of the wetland areas and identified waterbodies. In addition, our findings are illustrated on the enclosed *Figures 4A and 4B - Wetland Delineation and Aerial Photograph*.

Forested Wetlands: A total of approximately 19 acres of forested wetland habitat were identified within the project survey area. A majority of the forested wetland areas is located south of the Santa Fe Drainage Ditch as well as a tree line between the agricultural fields north of Santa Fe Drainage Ditch and in the southwest corner of the tract along Long Lake Road. The forested community in the three Twin Levee Road tracts possesses vegetation dominated by American elm, pin oak (*Quercus palustris*), Shumard oak (*Quercus shumardii*), swamp white oak (*Quercus* bicolor), common hackberry (*Celtis occidentalis*), bristly greenbrier (*Smilax hispida*), and common beggar-ticks (*Bidens frondose*). The community in the forest wetland of the tract along Long Lake Road consisted of silver maple (*Acer saccharinum*), green ash

(*Fraxinus pennsylvanica*), American elm, pin oak, and common hackberry. Soils possessing a hydric soil indicator of a depleted matrix were observed throughout the wetland area. The forested wetland areas possessed saturated soils and water-stained leaves, as well as additional wetland indicators including drainage patterns, geomorphic position and a positive Fac-neutral test. Based on the observed characteristics and the hydrologic surface connection of the wetland area of the southwest tracts to Santa Fe Drainage Ditch and the wetland area of the northeast tract to Long Lake, it is likely that the USACE would consider the observed wetland areas to be jurisdictional features.

Prior Converted Cropland: The agricultural fields located within the three tracts along Twin Levee Road were recently plowed and trenches have previously been dug to facilitate surface water drainage. The field in the tract along Long Lake Road was partially plowed, but the entire field had been harvested. Review of historic aerial photographs show these fields have been farmed for several decades. No vegetation was observed in the fields along Twin Levee Road. A low percent of vegetative coverage was observed in the non-plowed sections of field along Long Lake Road, which included soybean (*Glycine max*), rough cocklebur (*Xanthium strumarium*), and switchgrass (*Panicum virgatum*). Soils possessing a hydric soil indicator of a depleted matrix and redox depressions were observed throughout the wetland area. The fields contained surface water and saturated soils in various locations, as well as additional wetland indicators including drainage patterns, and geomorphic position. Based on the observed characteristics and recent farming activities, it is likely that the USACE would consider the agricultural areas as prior converted cropland, which is not typically regulated by the USACE.

Santa Fe Drainage Ditch, a perennial tributary, drains southwest between the three tracts along Twin Levee Road. The tributary drains through the site for approximately 920 linear feet (LF) before draining off-site to the southwest. Two berms, approximately 10 feet in height, are located along either side of the drainage ditch. The remaining section of the tributary drains through a hardwood riparian corridor consisting of pin oak, silver maple, river birch, common hackberry, and honeysuckle. The stream substrate was not able to be observed due to high water levels at time of our site visit. Collected stream data includes:

- Top of bank (TOB) –30 and 35 feet
- Ordinary High-Water Mark (OHWM) – 20 to 25 feet
- Water width – 18 to 20 feet
- Bank height – 10 to 12 feet

6.0 CONCLUSION

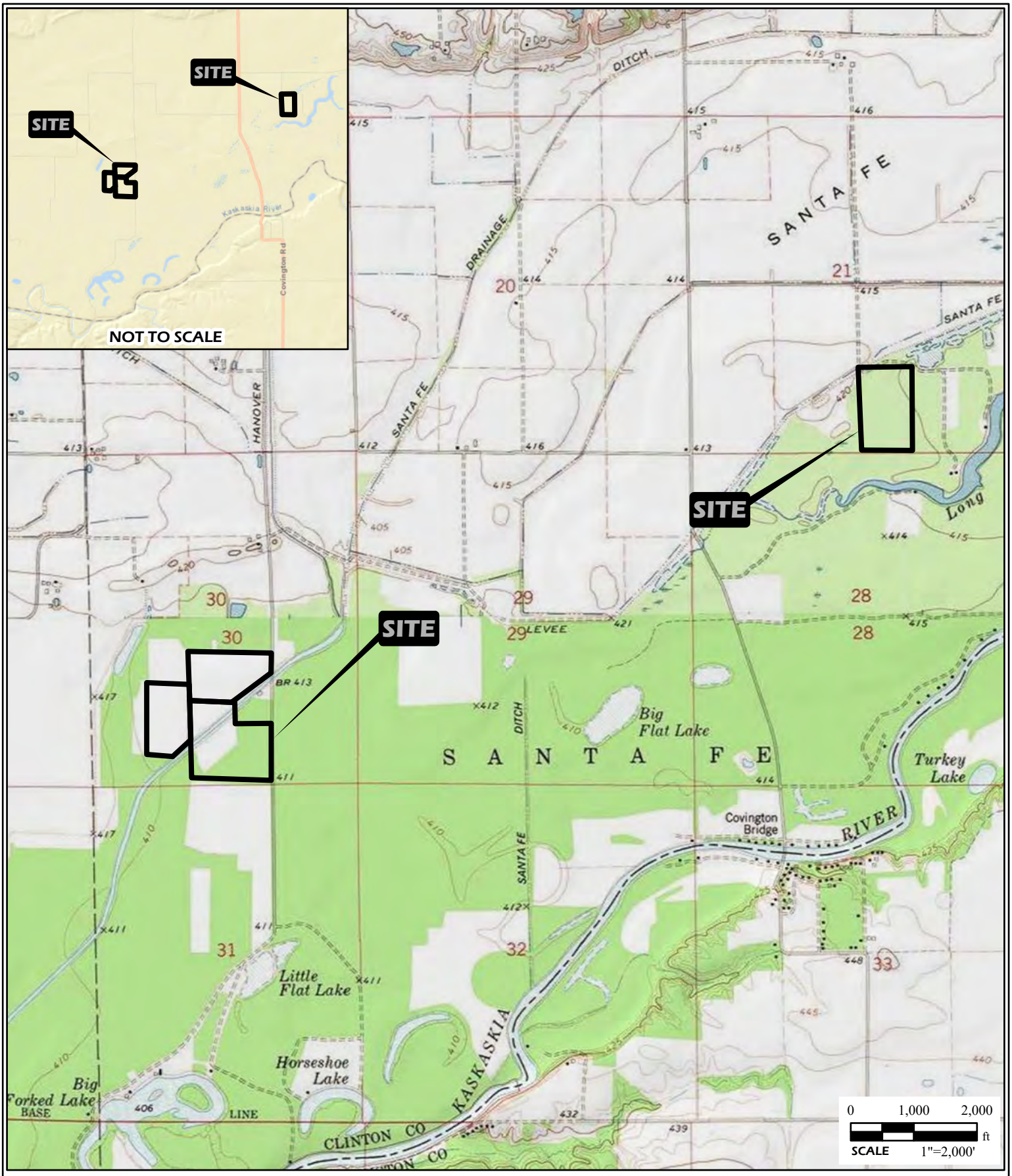
During our November 24, 2021 wetland and waterbody delineation field survey, SCI identified three forested wetland areas totaling approximately 19 acres and one perennial tributary, identified as the Santa Fe Drainage Ditch, within the project site. The wetlands and tributary will likely be considered waters of the United States as identified under the definitions described in Section 328.3 of the Code of Federal Regulations. The prior converted cropland identified within the agricultural fields will likely be considered non-jurisdictional based on the NWPR. Overall, it appears that the project site has the potential to support wetland creation and riparian buffer establishment as part of the proposed mitigation bank.

7.0 LIMITATIONS

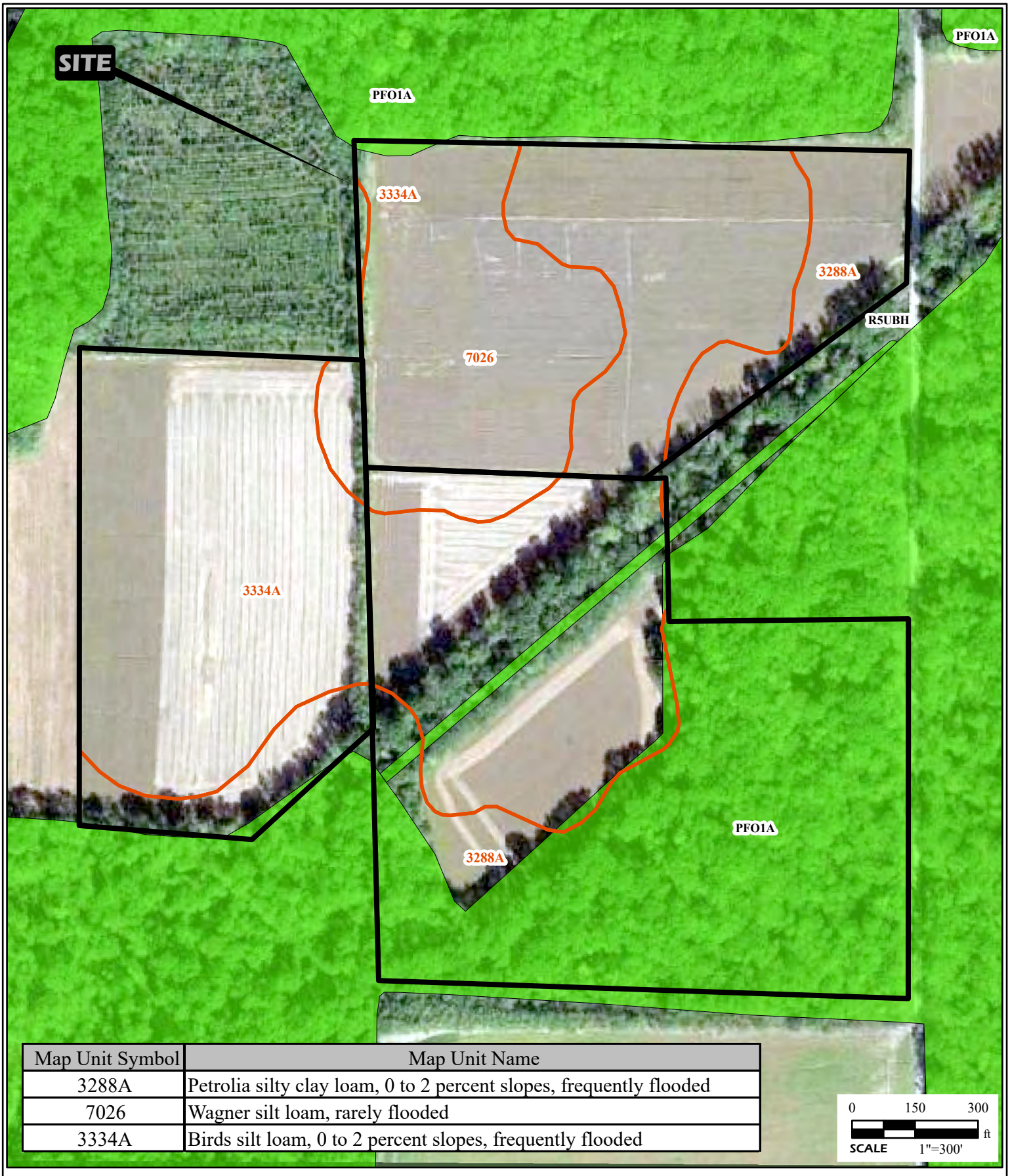
This report has been prepared for the exclusive use of WFI Holdings LLC. SCI is not responsible for independent conclusions or recommendations made by others. The USACE has the sole authority to determine if any of the features identified would be under their jurisdiction. Furthermore, written consent must be provided by SCI should anyone other than our client wish to excerpt or rely on the contents of this report. The findings of this report are valid as of the present date of the delineation. SCI is not responsible for surveys, calculations, or plans that were prepared by others.

This delineation is based on professional experience in the approved methodology and from experience with the USACE; however, this delineation does not constitute a jurisdictional determination of waters of the United States. This delineation has been based on the professional experience of SCI staff and our interpretation of USACE regulations at 33 CFR 328.3 and joint USACE/Environmental Protection Agency guidance documents. While, SCI believes our delineation to be accurate, final authority to interpret the regulations and to issue or deny a permit lies solely with the USACE. SCI in no way guarantees the acquisition of a permit from the USACE and/or IEPA, if it is deemed necessary.

Changes in surface and subsurface conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, the broadening of knowledge, or other reasons. Accordingly, the findings of this report may be invalidated in whole or in part by changes outside our control.



PROJECT NAME BARTELSO BOTTOMS MITIGATION BANK SITE BARTELSO, ILLINOIS				GENERAL NOTES/LEGEND USGS TOPOGRAPHIC MAP BECKEMEYER, ILLINOIS QUADRANGLE DATED 1969 5' CONTOURS ADDIEVILLE, ILLINOIS QUADRANGLE DATED 1974 5' CONTOURS STREET MAP HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_STREET_MAP
VICINITY AND TOPOGRAPHIC MAP				
DRAWN BY RCV	DATE	JOB NUMBER		FIGURE
CHECKED BY LAV	12/2021	2021-1023.30		1



Map Unit Symbol	Map Unit Name
3288A	Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded
7026	Wagner silt loam, rarely flooded
3334A	Birds silt loam, 0 to 2 percent slopes, frequently flooded

0 150 300 ft
SCALE 1"=300'

PROJECT NAME
BARTELSO BOTTOMS MITIGATION BANK SITE
BARTELSO, ILLINOIS

NATIONAL WETLAND INVENTORY &
USDA SOIL SURVEY MAP

DRAWN BY	RCV	DATE	JOB NUMBER
CHECKED BY	LAV	12/2021	2021-1023.30

GENERAL NOTES/LEGEND

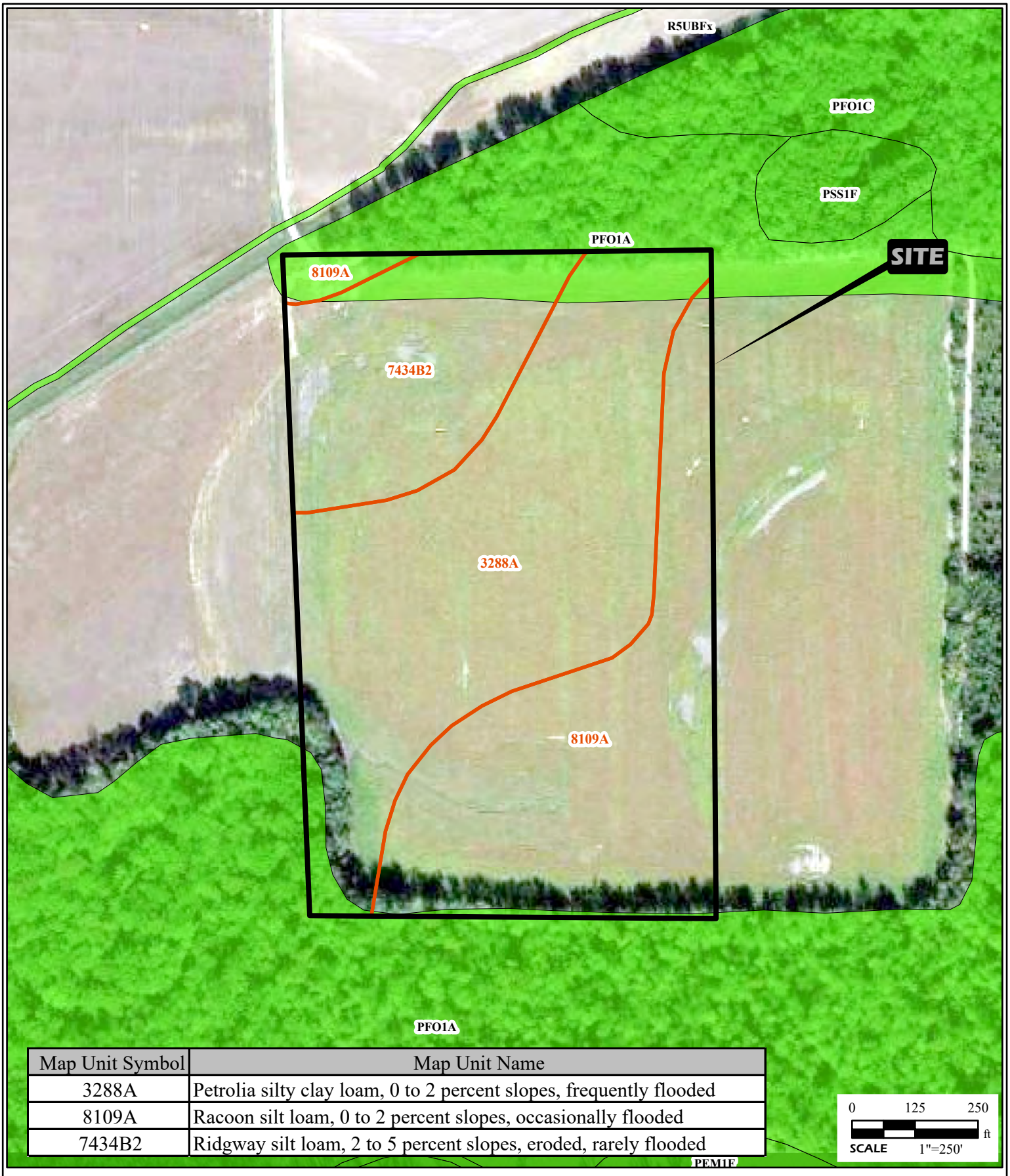
SOILS DATA OBTAINED FROM https://websoilsurvey.sc.egov.usda.gov/

IL WETLAND DATA OBTAINED FROM https://www.fws.gov/wetlands/

AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE, WORLD IMAGERY. DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.

N W E S

FIGURE
2A



Map Unit Symbol	Map Unit Name
3288A	Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded
8109A	Racoon silt loam, 0 to 2 percent slopes, occasionally flooded
7434B2	Ridgway silt loam, 2 to 5 percent slopes, eroded, rarely flooded

0 125 250
ft
SCALE 1"=250'

SCI

PROJECT NAME
BARTELSO BOTTOMS MITIGATION BANK SITE
BARTELSO, ILLINOIS

NATIONAL WETLAND INVENTORY &
USDA SOIL SURVEY MAP

DRAWN BY	RCV	DATE	JOB NUMBER
CHECKED BY	LAV	12/2021	2021-1023.30

GENERAL NOTES/LEGEND

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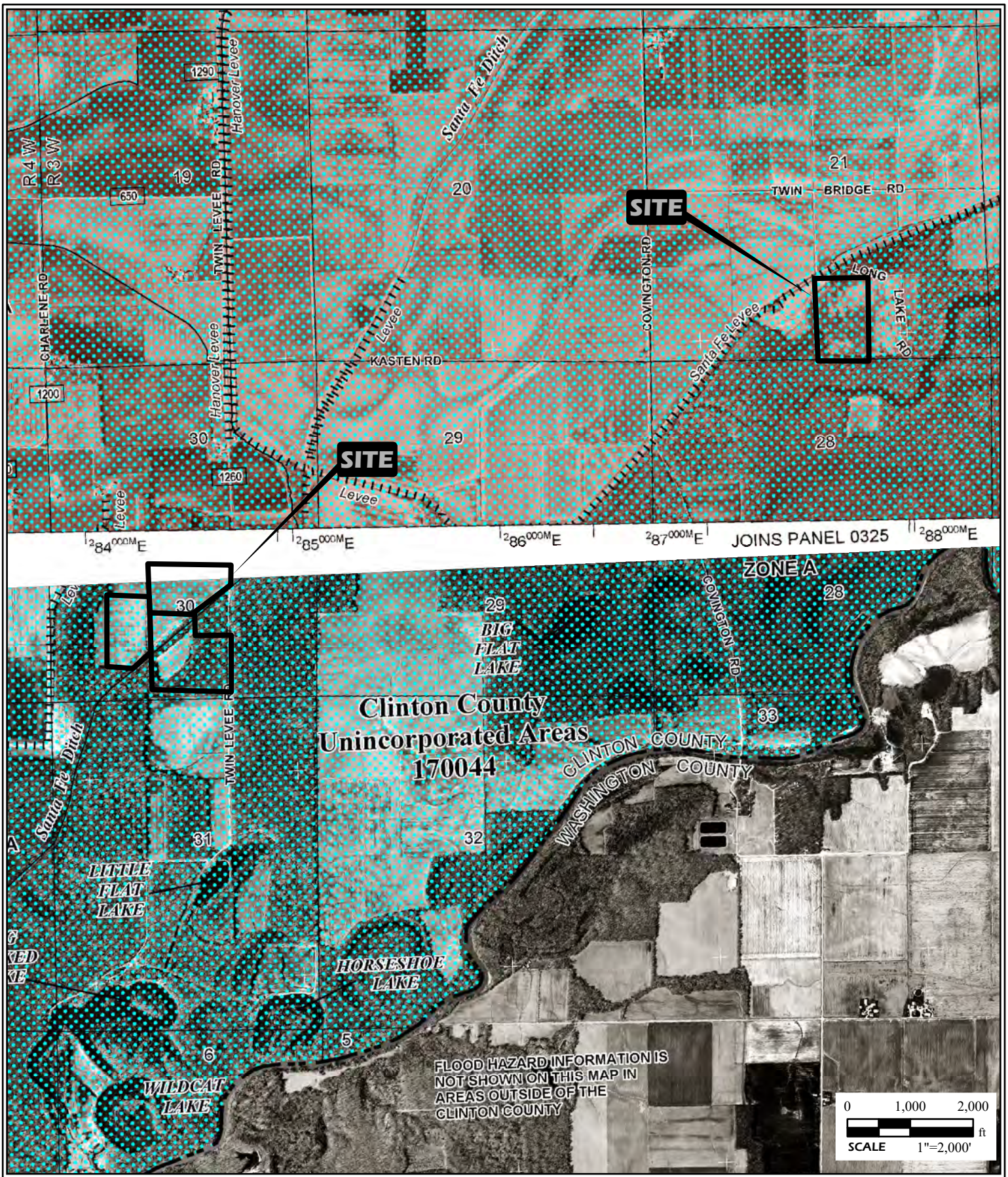
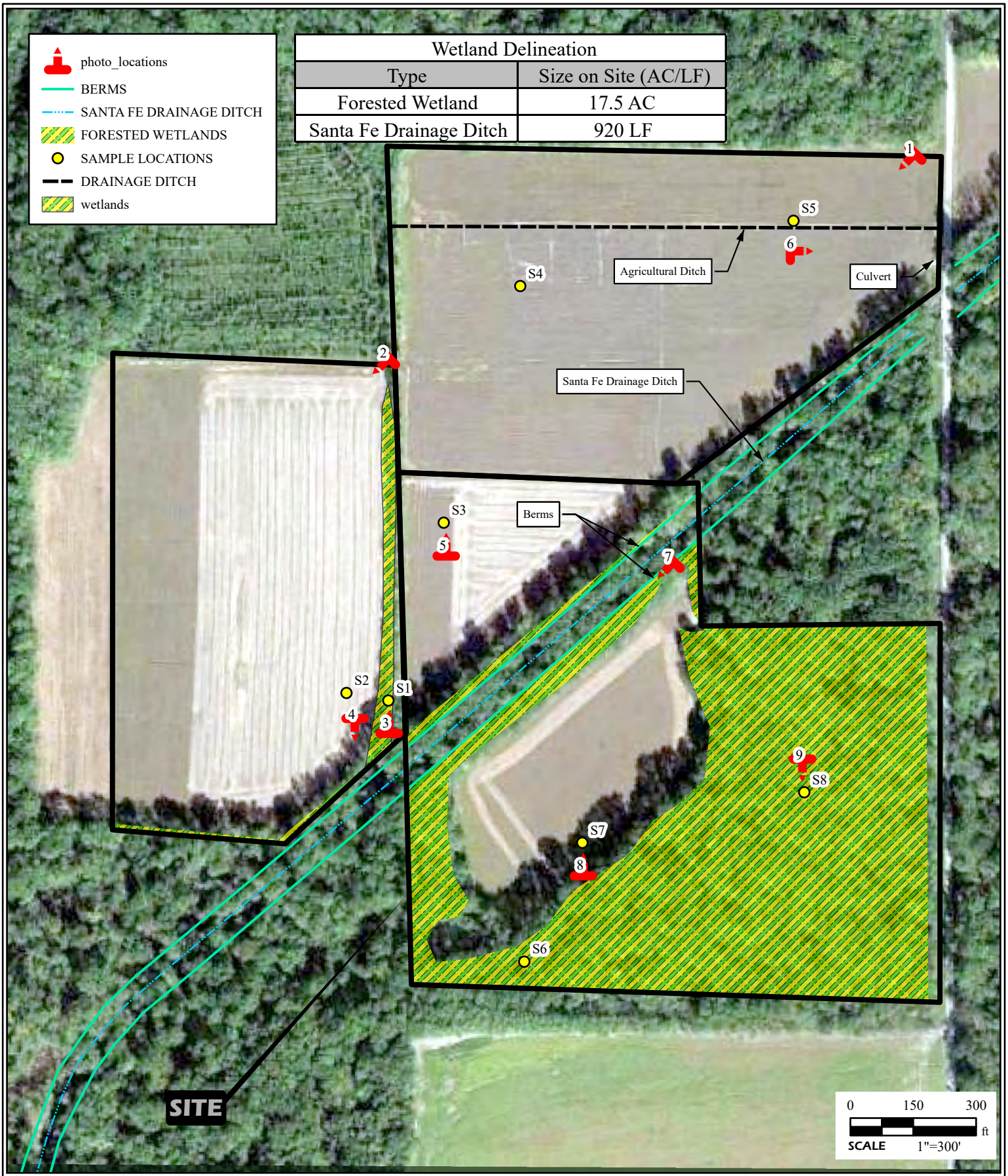
FIGURE
2B



SCI	PROJECT NAME BARTELSO BOTTOMS MITIGATION BANK SITE BARTELSO, ILLINOIS			GENERAL NOTES/LEGEND CLINTON COUNTY, ILLINOIS PANEL: 17027C0325D, 17027C0200D EFFECTIVE DATE: 08/02/2007 DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.	N W E S
	FEMA FLOOD MAP				
	DRAWN BY: RCV CHECKED BY: LAV	DATE 12/2021	JOB NUMBER 2021-1023.30		FIGURE 3



PROJECT NAME: BARTELSO BOTTOMS MITIGATION BANK SITE BARTELSO, ILLINOIS			
WETLAND DELINEATION & AERIAL PHOTOGRAPH			
DRAWN BY: RCV	DATE: 12/2021	JOB NUMBER: 2021-1023.30	
CHECKED BY: LAV			

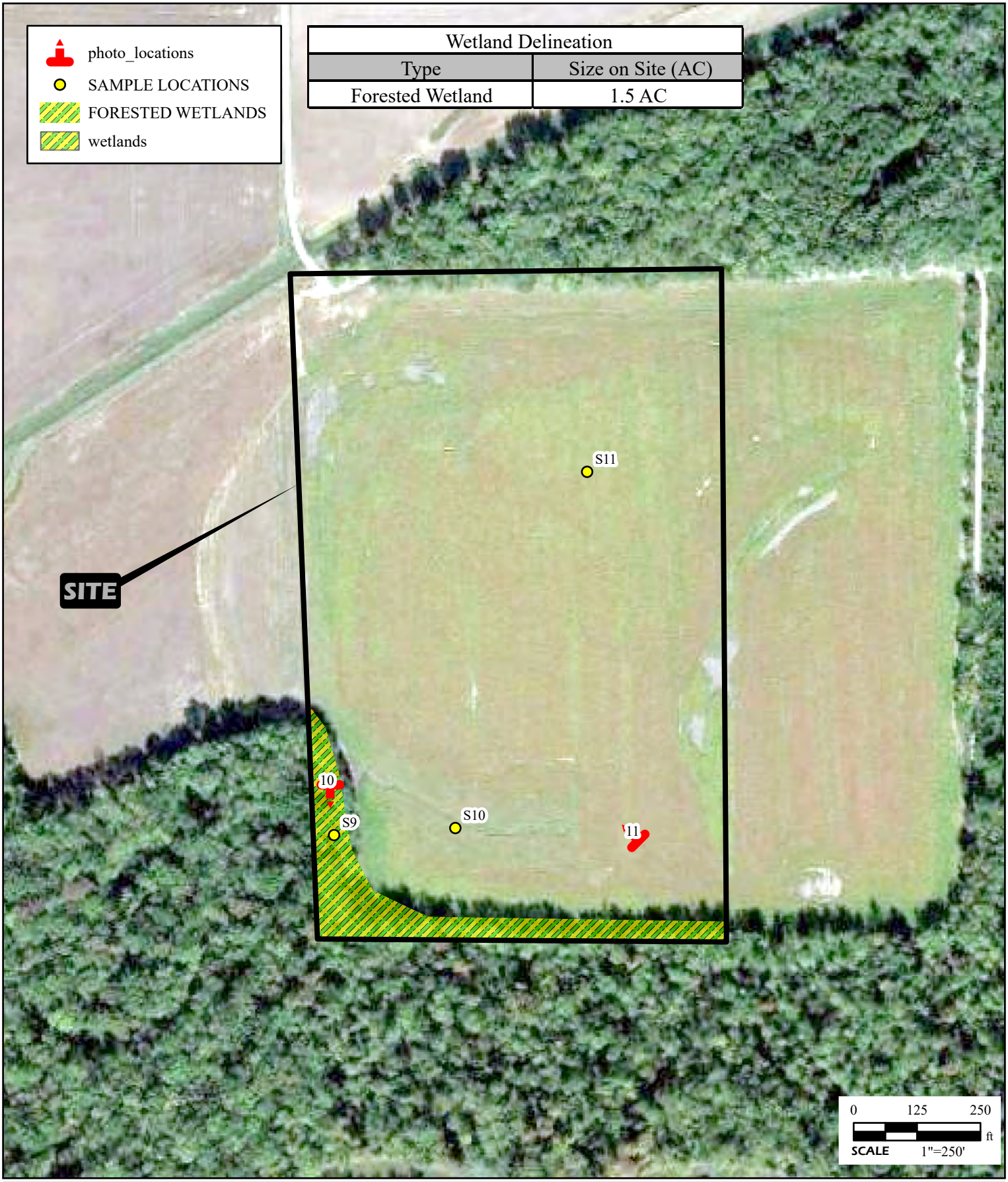
GENERAL NOTES/LEGEND

AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE, WORLD IMAGERY.

DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.

N W E S

FIGURE 4A



PROJECT NAME

BARTELSO BOTTOMS MITIGATION BANK SITE
BARTELSO, ILLINOIS

WETLAND DELINEATION &
AERIAL PHOTOGRAPH

DRAWN BY	RCV	DATE	JOB NUMBER
CHECKED BY	LAV	12/2021	2021-1023.30

GENERAL NOTES/LEGEND

AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE, WORLD IMAGERY.

DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.

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FIGURE
4B

Appendix A

Photo 1. Overview of agricultural field from northeast corner of the parcel along Twin Levee Road, facing southwest

Photo 2. Overview of agricultural field in the west section, north of Santa Fe Drainage Ditch, within a parcel along Twin Levee Road, facing southwest

Photo 3. Forested corridor between two agricultural fields, facing north

Photo 4. Drainage ditch from forested wetland to a cut in the berm along the Santa Fe Drainage Ditch, facing south

Photo 5. Overview of agricultural field near the central portion of the survey area, facing north

Photo 6. Vegetated drainage ditch in north field, facing east

Photo 7. View of the Santa Fe Drainage Ditch from the berm along the south bank, facing southwest

Photo 8. View of agricultural field south of Santa Fe Drainage Ditch, facing north

Photo 9. View of forested wetland area south of the Santa Fe Drainage Ditch, facing south

Photo 10. View of forested wetland area in southwest corner of tract along Long Lake Road, facing south

Photo 11. Overview of agricultural field within tract along Long Lake Road, facing northwest

Appendix B

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S1

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 2% Lat: 38.494874 Long: -89.473582 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification:

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

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No

Hydric Soil Present? Yes X No **Is the Sampled Area within a Wetland?** Yes X No

Wetland Hydrology Present? Yes X No

Remarks:
Sample Point 1 is located in a PFO wetland between to agricultural fields.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	30%	Yes	FACW
2. *Quercus shumardii*	20%	Yes	FACW
3. *quercus palustris*	10%	No	FACW
4.			
5.			
	60%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Ulmus americana*	10%	Yes	FACW
2. *quercus shumardii*	10%	Yes	FACW
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Bidens frondosa*	30%	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	30%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species	x1 =
FACW species 110%	x2 = 2.2
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: 1.10 (A)	2.2 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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 X No

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

SOIL

Sampling Point: S1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2"	10YR 3/2	100					Silty Clay Loam	
2-20"	10YR 4/1	70	10YR 4/6	20	C	M	Clay Loam	
			10YR 5/8	10	C	M	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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S2

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 0-2% Lat: 38.494955 Long: -89.474096 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification:

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

Are Vegetation Y, Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	Yes No X
Wetland Hydrology Present?	Yes X	No		

Remarks:
Sample Point 2 is located in a recently plowed field. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species	x2 =	
FAC species	x3 =	
FACU species	x4 =	
UPL species	x5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10YR 4/2	100					Silty Clay Loam	
3-12"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
12-20"	10YR 6/1	80	10YR 5/8	10	C	M	Clay Loam	
			10YR 4/2	10	C	M		

[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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S3

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): _____

Slope (%): 0-2% Lat: 38.496036 Long: -89.473005 Datum: NAD84

Soil Map Unit Name: Birds silt loam, 0 to 2 percent slopes, frequently flooded NWI classification: _____

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

Are Vegetation Y, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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**	
Hydric Soil Present?	Yes X	No _____	**within a Wetland?**	Yes _____ No X
Wetland Hydrology Present?	Yes X	No _____		

Remarks:
Sample Point 3 is located in a recently plowed field. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species	x2 =	
FAC species	x3 =	
FACU species	x4 =	
UPL species	x5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10YR 4/2	100					Silty Clay Loam	
3-14"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
14-20"	10YR 6/1	80	10YR 5/8	10	C	M	Clay Loam	
			10YR 4/2	10	C	M		

[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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S4

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): _____

Slope (%): 0-2% Lat: 38.497451 Long: -89.472792 Datum: NAD84

Soil Map Unit Name: Wagner silt loam, rarely flooded NWI classification: _____

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

Are Vegetation Y, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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**	
Hydric Soil Present?	Yes X	No _____	**within a Wetland?**	Yes _____ No X
Wetland Hydrology Present?	Yes X	No _____		

Remarks:
Sample Point 4 is located in a recently plowed field. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

_____ 1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 4/2	90	10YR 5/8	10	C	M	Silty Clay Loam	
12-20"	10YR 4/2	80	10YR 5/8	15	C	M	Clay Loam	
			10YR 6/1	5	D	M		

[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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S5

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): _____

Slope (%): 0-2% Lat: 38.498077 Long: -89.469904 Datum: NAD84

Soil Map Unit Name: Birds silt loam, 0 to 2 percent slopes, frequently flooded NWI classification: _____

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

Are Vegetation Y, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____

Hydric Soil Present? Yes X No _____

Wetland Hydrology Present? Yes X No _____

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:
Sample Point 5 is located in a recently plowed field. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species	x2 =	
FAC species	x3 =	
FACU species	x4 =	
UPL species	x5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

_____ 1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 4/2	90	10YR 5/8	10	C	M	Silty Clay Loam	
12-20"	10YR 4/2	80	10YR 5/8	15	C	M	Clay Loam	
			10YR 6/1	5	D	M		

[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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S6

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 2% Lat: 38.493233 Long: -89.472414 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Sample Point 6 is located in a NWI mapped wetland in the south tract of the project.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	20%	Yes	FACW
2. *Quercus shumardii*	20%	Yes	FACW
3. *quercus palustris*	10%	No	FACW
4. *Quercus bicolor*	10%	No	FACW
5.			
	60%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Ulmus americana*	15%	Yes	FACW
2. *quercus shumardii*	10%	Yes	FACW
3.			
4.			
5.			
	25%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Bidens frondosa*	15%	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	15%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Smilax hispida*	5%	Yes	FAC
2.			
	5%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species	x1 =
FACW species 100%	x2 = 2
FAC species 5%	x3 = 0.15
FACU species	x4 =
UPL species	x5 =
Column Totals: 1.05 (A)	2.15 (B)

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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 X No ____

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

SOIL

Sampling Point: S6

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 4/2	90	10YR 5/8	10	C	M	Silty Clay Loam	
12-20"	10YR 4/1	90	10YR 5/8	10	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S7

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): _____

Slope (%): 0-2% Lat: 38.494156 Long: -89.47175 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification: _____

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

Are Vegetation Y, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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**	
Hydric Soil Present?	Yes X	No _____	**within a Wetland?**	Yes _____ No X
Wetland Hydrology Present?	Yes X	No _____		

Remarks:
Sample Point 7 is located in a recently plowed field. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species	x2 =	
FAC species	x3 =	
FACU species	x4 =	
UPL species	x5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5"	10YR 4/2	95	10YR 5/8	5	C	M	Silty Clay Loam	
5-14"	10YR 4/2	60	10YR 4/1	30	D	M	Clay Loam	
			10YR 5/8	10	C	M		
14-20"	10YR 4/1	85	10YR 5/8	15	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S8

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 2% Lat: 38.494269 Long: -89.47011 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No ____

Hydric Soil Present? Yes X No ____ **Is the Sampled Area within a Wetland?** Yes X No ____

Wetland Hydrology Present? Yes X No ____

Remarks:
Sample Point 8 is located in a NWI mapped wetland in the south tract of the project.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus palustris*	20%	Yes	FACW
2. *Quercus bicolor*	20%	Yes	FACW
3. *Ulmus americana*	20%	Yes	FACW
4. *Celtis occidentalis*	5%	No	FAC
5.			
	65%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Ulmus americana*	10%	Yes	FACW
2. *Acer saccharinum*	10%	Yes	FACW
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Bidens frondosa*	10%	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	10%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Smilax hispida*	10%	Yes	FAC
2.			
	10%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species	x1 =
FACW species 90%	x2 = 1.8
FAC species 15%	x3 = 0.45
FACU species	x4 =
UPL species	x5 =
Column Totals: 1.05 (A)	2.25 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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 X No ____

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

SOIL

Sampling Point: S8

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20"	10YR 4/2	90	10YR 5/8	10	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S9

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 2% Lat: 38.507701 Long: -89.436103 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No

Hydric Soil Present? Yes X No **Is the Sampled Area within a Wetland?** Yes X No

Wetland Hydrology Present? Yes X No

Remarks:
Sample Point 9 is located in a NWI mapped wetland in the southwest corner of the tract off Long Lake Road.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	10%	Yes	FACW
2. *Ulmus americana*	15%	Yes	FACW
3. *Celtis occidentalis*	10%	Yes	FAC
4. *Fraxinus pennsylvanica*	5%	No	FACW
5. *Quercus palustris*	5%	No	FACW
	45%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Fraxinus pennsylvanica*	5%	Yes	FACW
2. *Acer saccharinum*	5%	Yes	FACW
3.			
4.			
5.			
	10%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
		= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Smilax hispida*	5%	Yes	FAC
2.			
	5%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species	x1 =
FACW species 45%	x2 = 0.9
FAC species 15%	x3 = 0.45
FACU species	x4 =
UPL species	x5 =
Column Totals: 0.60 (A)	1.35 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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 X No

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

SOIL

Sampling Point: S9

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
15-20"	10YR 4/2	80	10YR 5/8	20	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S10

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

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

Slope (%): 0-2% Lat: 38.507648 Long: -89.434985 Datum: NAD84

Soil Map Unit Name: Racoon silt loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

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

Are Vegetation Y, Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No

Hydric Soil Present? Yes X No **Is the Sampled Area within a Wetland?** Yes No X

Wetland Hydrology Present? Yes X No

Remarks:
Sample Point 10 is located in a farmed agricultural field that has not been plowed on the tract off Long Lake Road. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *glycine max*	5%	Yes	UPL
2. *Xanthium strumarium*	5%	Yes	FAC
3. *panicum virgatum*	5%	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	15%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= 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: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
That Are OBL, FACW, or FAC:		A/B
OBL species	x1 =	
FACW species	x2 =	
FAC species 10%	x3 = 0.3	
FACU species	x4 =	
UPL species 5%	x5 = 0.25	
Column Totals: 0.15 (A)	0.55 (B)	

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

- 1-Rapid Test for Hydrophytic Vegetation
- X 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 X No

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

SOIL

Sampling Point: S10

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 4/2	95	10YR 5/8	5	C	M	Silty Clay Loam	
12-15"	10YR 4/2	60	10YR 5/1	30	D	M	Clay Loam	
			10YR 5/8	10	C	M		
15-20"	10YR 5/1	90	10YR 5/8	10	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 3"

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes X No ___ Depth (inches): Surface

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Bartelso Bottoms Mitigation Bank Site City/County: Bartelso/Clinton Sampling Date: 11/24/2021

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S11

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 30, 1N, 3W

Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): _____

Slope (%): 0-2% Lat: 38.50999 Long: -89.434229 Datum: NAD84

Soil Map Unit Name: Petrolia silty clay loam, 0 to 2 percent slopes, frequently flooded NWI classification: _____

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

Are Vegetation Y, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____

Hydric Soil Present? Yes X No _____

Wetland Hydrology Present? Yes X No _____

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:
Sample Point 11 is located in a recently plowed agricultural field on the tract off Long Lake Road. It is likely that this area will be considered prior converted cropland and therefore not regulated by the USACE.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

_____ 1-Rapid Test for Hydrophytic 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.)
Agricultural field has recently been plowed. Vegetation should not be utilized as determining wetland indicator.

SOIL

Sampling Point: S11

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 4/2	95	10YR 5/8	5	C	M	Silty Clay Loam	
12-15"	10YR 4/2	60	10YR 5/1	30	D	M	Clay Loam	
			10YR 5/8	10	C	M		
15-20"	10YR 5/1	90	10YR 5/8	10	C	M	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 Mucky 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ 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** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

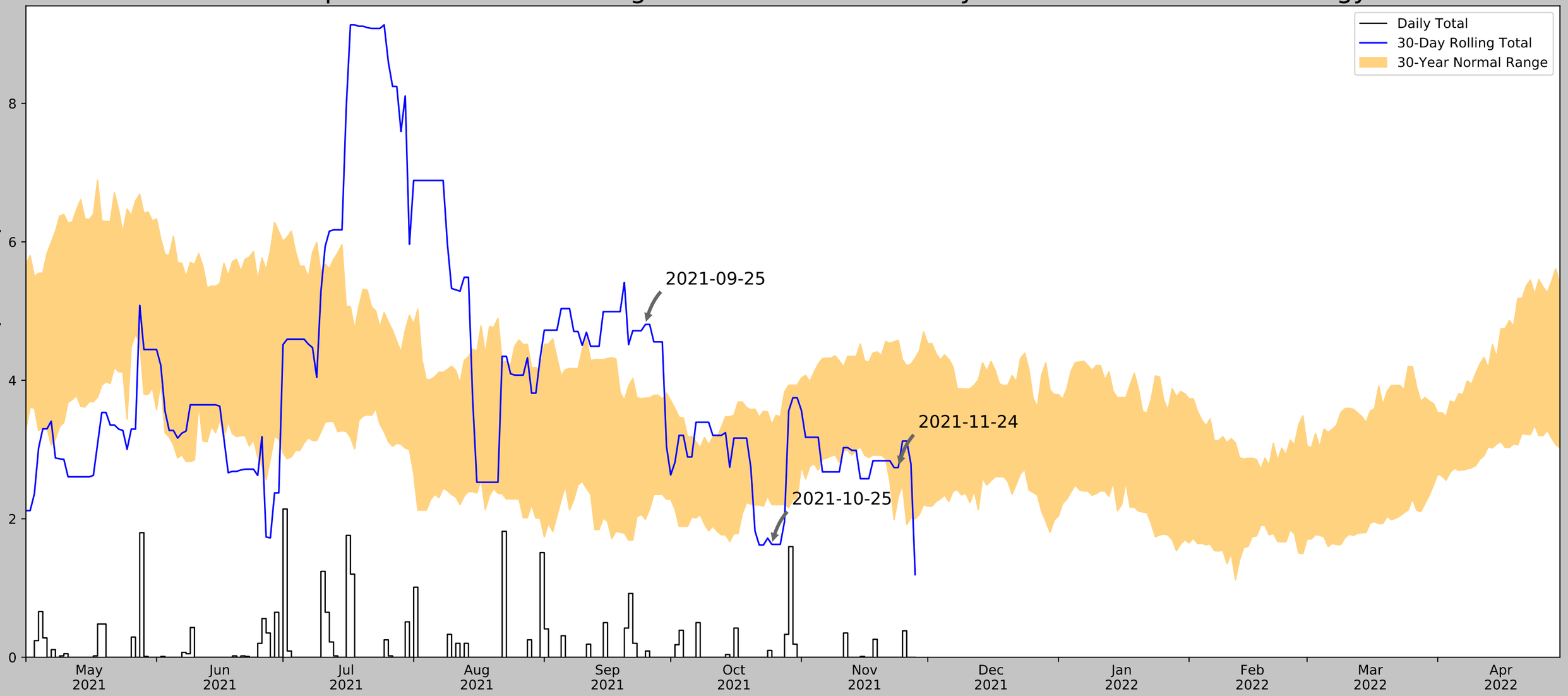
Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

Appendix C

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.495660, -89.472669
Observation Date	2021-11-24
Elevation (ft)	409.89
Drought Index (PDSI)	Mild wetness (2021-10)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-11-24	2.318504	4.579921	2.740158	Normal	2	3	6
2021-10-25	2.204331	3.358268	1.629921	Dry	1	2	2
2021-09-25	1.993307	3.744095	4.807087	Wet	3	1	3
Result							Normal Conditions - 11

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CARLYLE RSVR	38.625, -89.3631	500.984	10.719	91.094	5.8	10124	77
CARLYLE 7.8 ENE	38.669, -89.2433	470.144	7.144	30.84	3.435	3	0
BARTELSO 0.2 NW	38.5389, -89.4717	451.115	8.354	49.869	4.176	1	0
GERMANTOWN 0.3 W	38.5523, -89.5437	433.071	10.971	67.913	5.682	3	0
CENTRALIA	38.5556, -89.1297	484.908	13.486	16.076	6.286	1183	13
ALBERS 1 W	38.5411, -89.6289	430.118	15.482	70.866	8.064	37	0
HIGHLAND 1.0 E	38.7393, -89.6575	527.887	17.734	26.903	8.457	2	0

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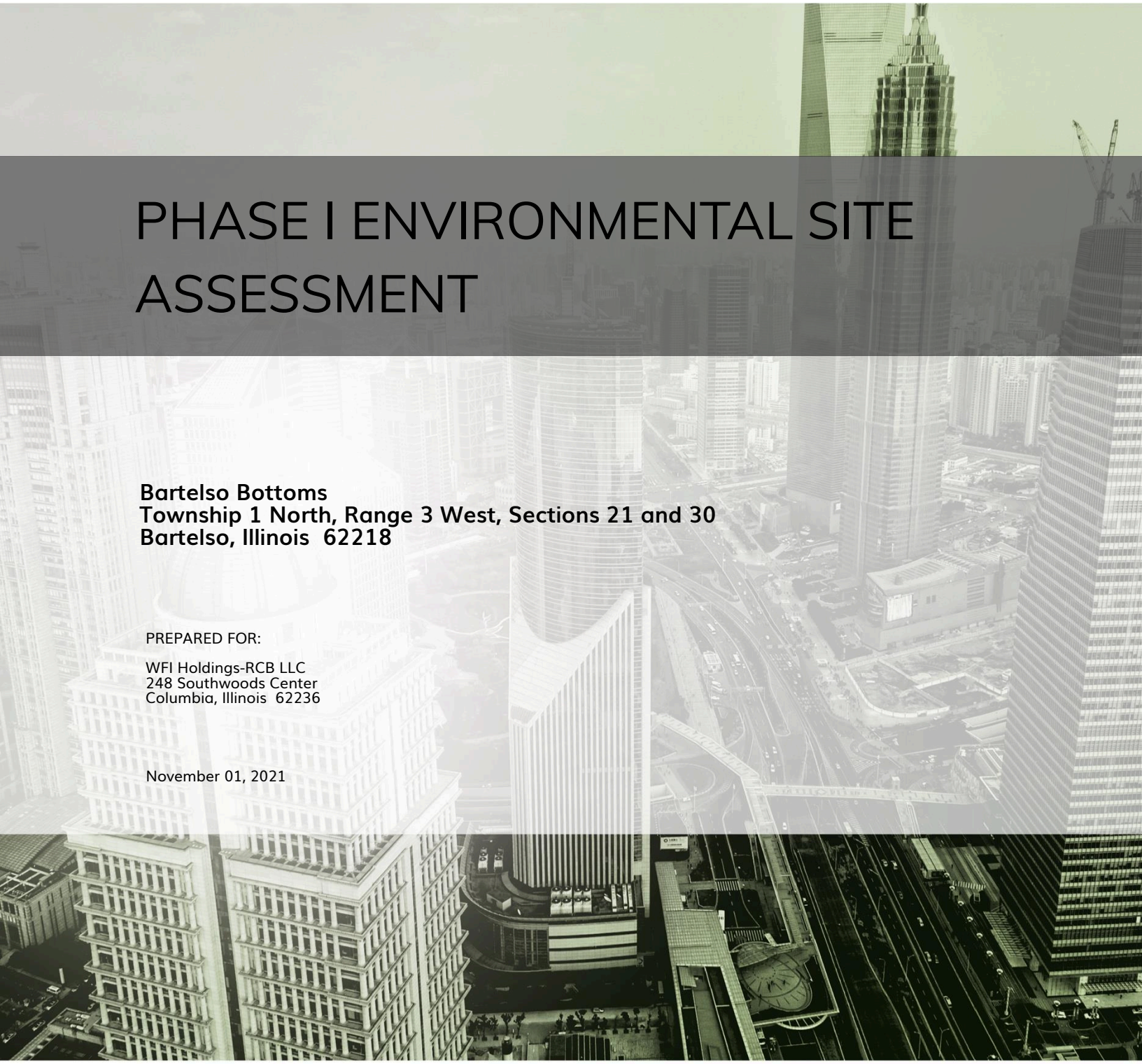

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Bartelso Bottoms
Township 1 North, Range 3 West, Sections 21 and 30
Bartelso, Illinois 62218

PREPARED FOR:

WFI Holdings-RCB LLC
248 Southwoods Center
Columbia, Illinois 62236

November 01, 2021

Progea | Global Vision Local Insight

Phase I
Environmental Site Assessment

Bartelso Bottoms
Township 1 North, Range 3 West, Sections 21 and 30
Bartelso, Illinois 62218

Progea Project No: 21242
November 01, 2021

Prepared for:

WFI Holdings-RCB LLC
248 Southwoods Center
Columbia, Illinois 62236

Prepared By:

Progea, Inc.

www.progeaglobal.com

214.214.4330

PROJECT SUMMARY

Progea, Inc. (Progea) was retained to conduct a Phase I Environmental Site Assessment (ESA) on the agricultural cropland located at Township 1 North, Range 3 West, Sections 21 and 30 in Clinton County, Illinois 62218, and commonly known as Bartelso Bottoms (the "Site"). This Phase I ESA was performed in accordance with ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Any exceptions to, additions to, or deletions from these guidelines are described in the body of this report. A summary of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), and historical recognized environmental conditions (HRECs) is provided below. In addition, Progea has included a listing of other environmental conditions (OECs), which include non-scope ASTM conditions and/or environmental best management practices.

This assessment has revealed no evidence of RECs, HRECs, or CRECs, as defined by ASTM, in connection with the subject property.

Summary of Findings						
Section No.	Section Name	REC	CREC	HREC	OEC	Recommended Action
3.1	Historical Summary					
3.7	Additional Environmental Records Sources					
4.0	Regulatory Database Review					
5.3	Hazardous Material & Waste					
5.4.1, 5.4.2	Storage Tanks					
5.6	Polychlorinated Biphenyls (PCBs)					
5.7	Surface Water Conditions					
5.8, 5.9, 5.10, 5.11, 5.14, 5.15	Evidence of Spills or Releases					
5.16	Wells					
5.21	Asbestos- Containing Materials					
5.22	Lead-Based Paint					
5.23	Mold & Microbial Issues					
5.24	Wetlands					
5.25	Threatened & Endangered Species					
5.27	Radon					
5.28	Air Emissions					

Section No.	Section Name	REC	CREC	HREC	OEC	Recommended Action
5.30	Vapor Encroachment Condition					
5.12, 5.17, 5.19, 5.20, 5.26, 5.29, 5.31, 5.32	Other					

EXECUTIVE SUMMARY

Progea, Inc. (Progea) was retained to conduct a Phase I Environmental Site Assessment (ESA) on the agricultural cropland located at Township 1 North, Range 3 West, Sections 21 and 30 in Clinton County, Illinois 62218, and commonly known as Bartelso Bottoms (the "Site"). The objective of the assessment was to provide an independent, professional opinion regarding recognized environmental conditions (RECs), as defined by ASTM, associated with the Site. This Phase I ESA was requested for the purpose of qualifying for the landowner liability protections to CERCLA liability.

Subject Property

The Site currently consists of four parcels of agricultural cropland totaling approximately 104.75 acres. The three parcels that make up the western tract are contiguous. The eastern tract is composed of two parcels that are located approximately 1.85 miles northeast of the western tract. The Site is currently developed for dryland row crop cultivation. Vacant, wooded land is also located in various portions of the Site. An abandoned shed-like structure was observed in the central portion of the western tract. No additional permanent or temporary structures were located on-Site at the time of the inspection. In addition, no domestic water wells, irrigation wells, or oil and gas wells are located on-Site. No large scale areas of dumping or waste accumulation were observed on-Site. No dry cleaners, gas stations, or light industrial facilities are currently located on-Site. The current operations at the Site are not considered a REC.

Historical Review

Review of aerial photographs (1938 - 2017) and historic topographic maps (1906 - 2012) indicate that the eastern tract was undeveloped land as early as 1910. The western tract was undeveloped land as early as 1931 (the western tract was not depicted in the 1906 topographic map). A perennial stream is visible on the central portion of the western tract as early as 1932. Unimproved roads were located on the central and northern portions of the western tract from 1932 until 1936. The majority of the western tract has been developed for agricultural use since 1938. The remainder of the western tract has been wooded since at least 1938. The eastern tract has been developed for agricultural used since 1981. The historic uses of the Site do not represent a REC.

Regulatory Data Review

The Site was not identified on any of the regulatory databases searched and no evidence of current or former dry cleaners, gas stations, or manufacturing facilities located on the Site were indicated in the database review.

Hazardous Materials, Petroleum Products, or Waste

The Site was assessed for signs of storage, use, or disposal of hazardous materials. The assessment consisted of noting evidence (e.g., drums, unusual vegetation patterns, staining) indicating that hazardous materials are currently or were previously located on the Site. The Site has been developed for agricultural use; therefore, commercially acceptable quantities of pesticides, herbicides, and fertilizers have been applied. No hazardous waster are currently generated on-Site and no bulk chemicals were observed on-Site. None of the records reviewed indicated the historical use of large quantities of hazardous materials at the Site.

Storage Tanks

The subject property was inspected for evidence of aboveground storage tanks (ASTs). No evidence of ASTs was observed at the Site during the assessment. In addition, no features were observed at the Site that would have required ASTs to be present, and there are no ASTs registered with the Illinois Environmental Protection Agency (IEPA), Bureau of Land (BOL), or the Illinois Office of the State Fire Marshal (OSFM).

The subject property was inspected for evidence of underground storage tanks (USTs) (e.g., vent piping, dispensing equipment, and pavement variations). No evidence of USTs was observed at the Site during the assessment. In addition, no features were observed at the Site that would have required USTs to be present, and there are no USTs registered with the IEPA, BOL, or the Illinois OSFM.

Surface Water Conditions

A perennial stream is located on the central portion of the Site. The presence of the perennial stream is not considered an environmental concern.

Evidence of Spills or Releases

No visible evidence of spills or releases was observed at the time of the Site inspection.

Wells

According to EDR, there are no records of active, inactive, destroyed wells, or dry wells at the Site. No water wells were identified on the Illinois State Geological Survey (ISGS) - Water and Related Wells Interactive Map. Additionally, during the Site visit no wells were observed on Site.

Hazardous Building Materials

The Site does not contain any habitable structures; therefore, the potential presence of hazardous building materials is not considered a concern.

Vapor Encroachment Condition

As part of Progea's evaluation of the potential for chemicals of concern (COCs) to be present at the Site or migrate onto the subject property, Progea conducted a limited Vapor Encroachment Screening (VES). The goal of the VES is to identify potential vapor impacts in the subsurface or within Site buildings caused by the release of COCs into the soil or groundwater at the Site or in near proximity to the Site. As such, Progea reviewed all local, state, and federal database information as well as historical maps and aerial photographs. During the Site visit, Progea did not observe potential contaminant sources that would contribute or cause COCs to be present at the Site. Additionally, Progea did not observe any surrounding facilities that would have potentially caused COCs to migrate onto the subject property. Based on Progea's professional opinion, the potential for Vapor Encroachment Condition (VEC) to be present at the Site is minimal and is not considered an environmental concern.

Non-Phase I ESA Considerations

The Site was inspected for the presence of sensitive ecological areas by noting environmental indicators (e.g., wetlands vegetation, floodplains) located on or immediately adjoining the Site. Evidence of Freshwater Forested/Shrub wetland (PFO1A) and Riverine wetland (R5UBH) was depicted on the US Fish and Wildlife Service, Wetland Mapper in the undeveloped, wooded areas of the western tract. Based on farming exemptions contained in Section 404 of the Clean

Water Act, the farming activities conducted on-Site appear to be exempt from wetland permitting requirements as long as the on-Site discharges remain part of normal farming, ranching, and forestry activities. Wetland maps are included in Appendix I.

A review of applicable records for information regarding threatened/endangered species was made on the USFWS Online Database System website http://www.eso.fws.gov/. A total of six threatened and/or endangered bird, flowering plant, insect, mammal, and reptile species are listed for Clinton County, Illinois. The Site is agricultural cropland surrounded by roadways and similarly developed agricultural cropland. The presence of these species in Clinton County is not expected to interfere with the current use of the Site and is not considered an environmental concern.

Clinton County is located in the EPA radon Zone 2. EPA radon Zone 2 has predicted average screening concentrations between 2 pCi/L and 4 pCi/L. The EPA action level is 4.0 pCi/L. Radon is not expected to represent an environmental concern to current/future occupants or workers at the Site.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Clinton County, numbers 17027C0200D and 17027C0325D, dated August 2, 2007, was reviewed for the Site. The Site is located within Zone A. Zone A includes Special Flood Hazard Areas (SFHA) without Base Flood Elevation (BFE).

Other

No other significant environmental issues were observed during the Site inspection.

Findings, Opinions & Conclusions

Based on the findings of this assessment, there are no obvious indicators that point to the presence or likely presence of contamination at the Site. **This assessment has revealed no evidence of RECs, HRECs, or CRECs, as defined by ASTM, in connection with the subject property.**