Sweet Water

Mitigation Bank

<u>Addendum No. 5</u> to the

WFI-B Umbrella Mitigation Banking Instrument

LKS-SW-2022-002

WFI HOLDINGS-B LLC

248 Southwoods Center
Columbia, IL 62236

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INTRODUCTION

Pursuant to its WFI-B Umbrella Mitigation Banking Instrument (**UMBI**), WFI-B is establishing mitigation bank sites in multiple watersheds throughout the USACE St. Louis District of Illinois. The proposed Sweet Water Mitigation Bank (hereinafter, **SWMB** or the **Bank Site**) is located in an unprotected floodplain of Sugar Creek in Madison County, Illinois. The Bank Site is a total of 40.87 (+/-) acres situated on a parcel of land that consists of prior converted cropland, river channel and degraded wooded riparian corridor adjacent to Sugar Creek and Spanker Branch. The approximate center of the Bank Site is located at Latitude 38.66161°, Longitude -88.37470°.

The mitigation bank plan will result in the re-establishment of emergent and forested wetlands and stream riparian corridor.

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 reduce fragmentation through the development of the mitigation bank.

The Bank Site is ecologically suitable for forested and emergent wetland and stream riparian re-establishment. It is directly adjacent to a perennial stream (Sugar Creek) that has a very small existing riparian buffer. It is capable of supporting wetlands because there is sufficient hydrology that flows across the site, which consists entirely of hydric soils. As a result, the Bank Site has great potential for increasing forested and emergent habitat along the stream system.

The Bank Site's location along Sugar Creek will create important benefits for the watershed as agricultural and highway runoff will be filtered as it flows across the Bank Site. Additionally, occasional floodwaters from Sugar Creek will be filtered in the established wetlands, which will also store flood waters and provide substantial wildlife benefits.

The re-established wetlands will decrease the amount of nutrients traveling to downstream waters and the expanded riparian buffers will reduce 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 richness. Re-establishing wetland areas will also increase habitat opportunities for species that require or frequent shallow ephemeral wetlands that include amphibians, reptiles, invertebrates, birds, and mammals.

One of the most important components of the Bank Site is its direct connectivity to Sugar Creek within the Lower Kaskaskia watershed, and more specifically, the Shoal/Lower Kaskaskia Service

Areas (LKS). Thus, 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 is to establish guidelines and responsibilities for the establishment, use, operation, and maintenance of SWMB. 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 parcel situated on Sugar Creek in the Lower Kaskaskia watershed, Madison County, Illinois. Wetlands Forever, Inc. will be the management company and perform the services specified herein for SWMB.

The Bank Site is situated and developed to address the loss of forested, emergent, and stream 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 protected in perpetuity by an approved U.S. Army Corps of Engineers Conservation Easement.

BANK DEVELOPMENT

The entire property consists of hydric soils and lies within the floodplain of Sugar Creek. A wetland site evaluation was conducted by a wetland biologist and determined that the soils were 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 Sugar Creek within the Lower Kaskaskia watershed. The Bank Site will total 40.87 acres that will be developed with multiple types of habitat features: hardwood bottomland forest (13.83 acres), emergent habitat (5.15 acres), stream and riparian buffer (2.69 acres and 19.20 acres respectively, for a total of 21.89 acres), and hydrologic and water quality wetland functions.

The forested wetlands and riparian buffer will consist of primarily hard mast trees. 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 a hard-mast producing hardwood bottomland forest.

The emergent wetlands will consist of a very shallow basin in selected low elevation areas along historic meander scars that will support a variety of herbaceous vegetation throughout the year and may support migratory and endemic wetland species along Sugar Creek.

In-stream work will consist of bank protection to stabilize the vertical and lateral dynamics in these reaches of Sugar Creek and Spanker Branch.

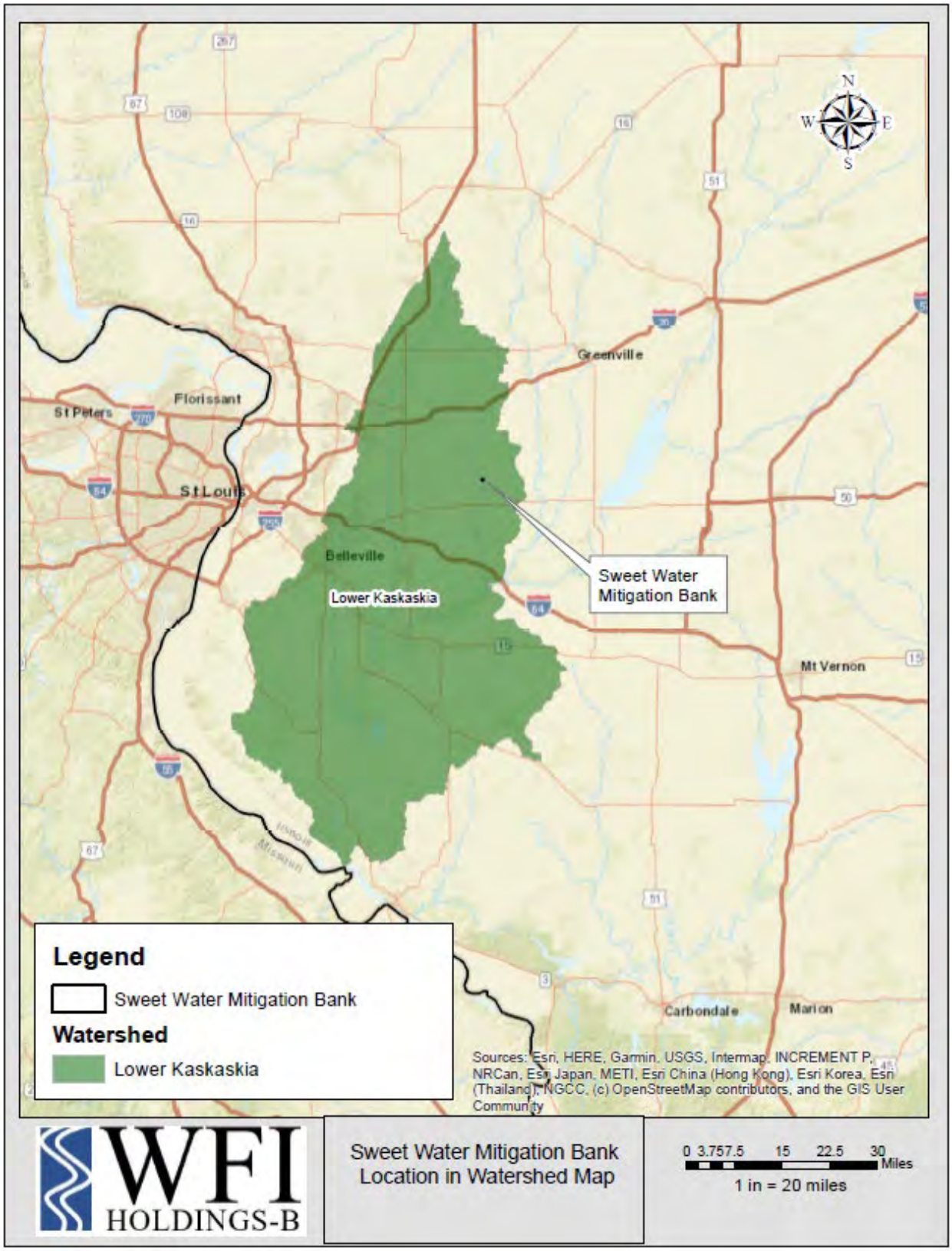
The hydrology of the Bank Site is intended to increase durations in low lying floodplain areas within the site and improve the hydrologic regime. The depth, duration, and extent of flooding in the restored wetland will primarily be driven by flood pulses from Sugar Creek and constructed

emergent wetlands to increase the wetland hydroperiod of the area. 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-establishment of a diverse wooded and emergent wetland adjacent to a stream riparian corridor to enhance ecological functions and values for Sugar Creek and Spanker Branch.

OPERATION AND LONG-TERM MANAGEMENT

SWMB is considered Private commercial (Entrepreneurial). The ownership requests that SWMB be State of Illinois certified. The long-term management of SWMB 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 Lower Kaskaskia Watershed



WATERSHED APPROACH TO MITIGATION BANK

Sugar Creek is a major tributary to the Kaskaskia River in Southern Illinois. The review of multiple documents from the State of Illinois, the USGS, and the EPA has led to the identification of wetland and stream types and locations for restoration efforts associated with the Lower Kaskaskia watershed 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 proposed SWMB consists of 40.87 (+/-) acres that lies within Madison County, Illinois, reference Appendix 1. The site encompasses Sugar Creek which is a tributary to the Kaskaskia River.

WFI Holdings-B LLC has the property under contract. The property has multiple types of habitat management within its boundaries. Currently, the major type of management on the site is agricultural row cropping.

This Bank Site is well suited to support forested and emergent wetland function types. This property supports major criteria for wetland functions, they are as follows:

- Property consists of hydric soils;
- Hydrology is present from Sugar Creek;
- Adjacent property (reference site) supports obligate and facultative wet vegetation; and
- Along the forested tree lines natural regeneration can be seen associated with bottomland hardwoods.

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

C. Mitigation Site Threats

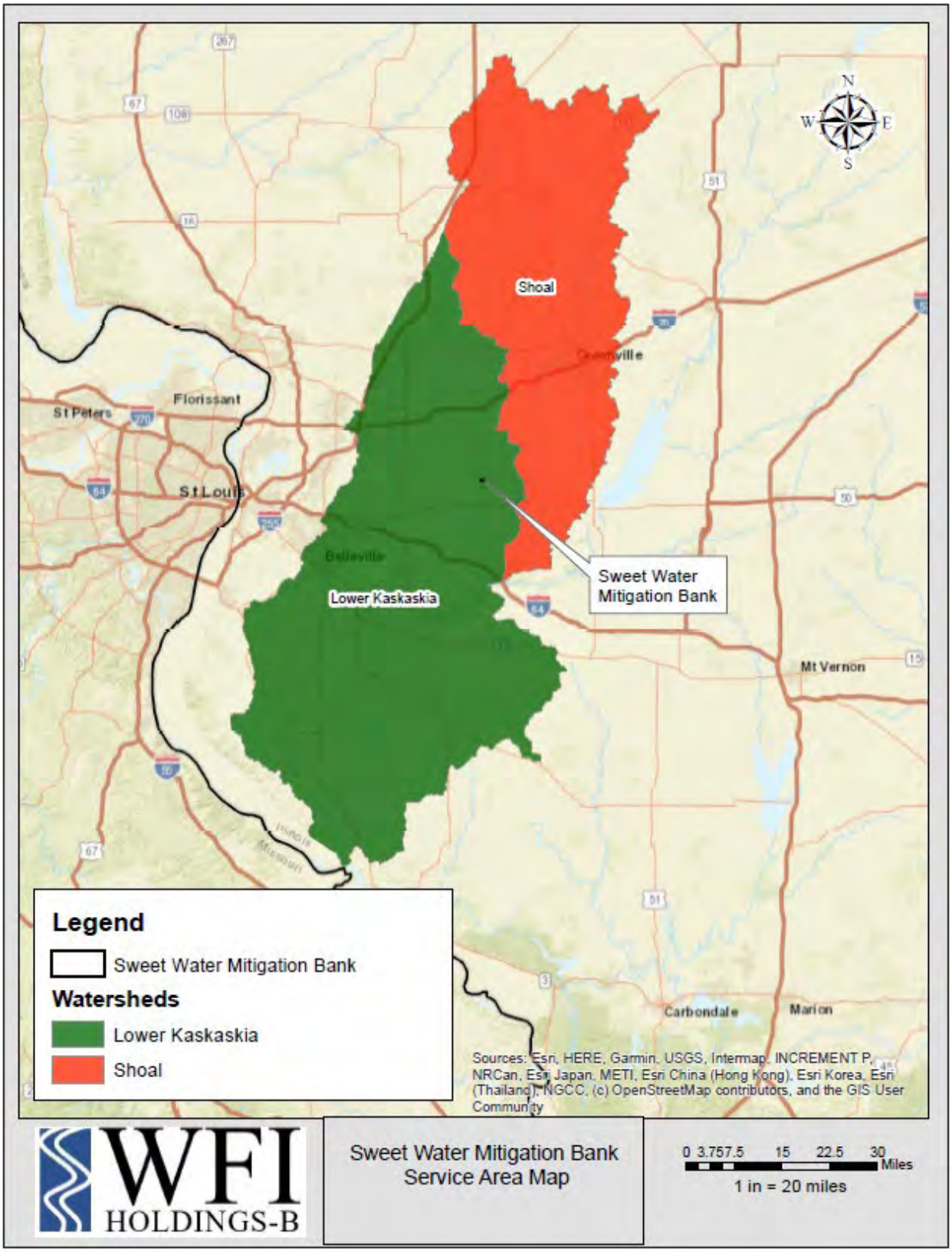
The short- and long-term threats of the mitigation site are few due to the site location and planned construction techniques. The major short-term threats (1 to 10 years) to the Bank Site consist of invasive species and poor tree survivability due to potential climate change (specifically drought). The utilization of cover crops, selective herbicides, and annual maintenance over the next 7+ 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 Sugar Creek and the hydrologic 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 will incorporate the construction of mounds that trees will be planted upon specifically to promote the growth of hard mast species. Planting on mounds will increase survivability of container trees by promoting root development due to air space created by the mounds. Secondly, it may reduce mechanical damage caused by major precipitation events and freezing. Using container trees (app. 4 feet in height) planted on mounds will reduce the frequency and duration of seedlings being overtopped 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 Long-Term Steward, 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 and the utilization of preservation at the site, a natural seed source will be present.

Figure 2 – Service Area



LOWER KASKASKIA/SHOAL AND ASSOCIATED HYDROLOGIC UNIT MAPS FOR ILLINOIS

The Hydrologic River Basin Numbers “07140204” and “07140203”

Counties:
Macoupin
Madison
Bond
St. Clair
Clinton
Washington
Randolph
Monroe
Montgomery
Perry

MITIGATION PLAN REQUIREMENTS FOR SWEET WATER

SECTION A – Goals and Objectives

GOAL – Wetland and Stream Mitigation Bank

Re-establish wetland and stream riparian corridor 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.
- Reduce forest fragmentation for "area sensitive" neo-tropical species.
- Maintain and enhance the wetland hydroperiod to increase wetland functions and values.

GOAL – Wetland and Stream Mitigation Bank

Create areas of emergent and forested wetlands and forested stream riparian corridor.

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 and Stream Mitigation Bank

Compensatory mitigation site for wetland and stream areas in the Lower Kaskaskia and Shoal 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 and Stream Mitigation Bank

Develop a wetland and stream mitigation site to create and improve habitat conditions favorable for area sensitive, rare, threatened and endangered species endemic to the Service Area.

OBJECTIVE

- Re-establish a wooded riparian corridor adjacent to Sugar Creek, Spanker Branch, and their tributaries that are connected to the flood pulse of the Lower Kaskaskia River.
- Re-establish woody and herbaceous vegetation to create a continuum of plant species.

GOAL – Stream Mitigation Bank

Protection and re-establishment of streambank riparian corridor habitat, which contributes to the enhancement and habitat diversity of the Sugar Creek, Lower Kaskaskia, and Shoal watersheds. Stabilization of the stream, which protects against lateral and vertical changes to the stream corridor.

OBJECTIVE

- Enhanced opportunities for wildlife and human use by elimination of existing annual row-cropped farm field and restoration of a diverse forested wetland.
- Re-establish the riparian stream corridor buffer.
- Reduce erosion and sedimentation, thereby improving water quality.
- Reduce or control any lateral or vertical changes in the stream dimensions.

SECTION B – Site Selection

The SWMB has been sited on a parcel situated on Sugar Creek in the Lower Kaskaskia watershed, Madison County, Illinois. The site lies northwest of Aviston, Illinois. The general layout of the site consists of an area located north of Lee Road running through Madison County, Illinois, along Sugar Creek.

The Bank Site is situated and developed to address the loss of forested, emergent, and riparian wetland and stream habitat. The Bank Site is compatible with adjacent land use (wooded wetland and agriculture), 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 entire property consists of hydric soils and lies within the floodplain of Sugar Creek. Historically, this property was and is hydrologically connected over a wide range of storm events to Sugar Creek within the Lower Kaskaskia watershed. The site will be developed with multiple types of habitat features: re-establishment of forested wetlands and riparian corridor, re-establishment of historic meander scars for emergent wetlands, and in-stream work to improve aquatic resources. The vegetation types will follow very gentle grades that both exist and are to be created. The hard-mast producing hardwood bottomland forest will focus on reducing fragmentation and linking multiple habitats together. Emergent wetland will be created and will consist of a higher hydrologic regime over the year and may support migratory and endemic wetland species during the fall and spring migrations during timely hydrologic events in the Lower Kaskaskia watershed. In-stream work will stabilize vertical and lateral dynamics in Sugar Creek and Spanker Branch.

The hydrology of the Bank Site is intended to increase durations in low lying floodplain areas within the site and improve the hydrologic regime. The utilization of microtopography (surface roughness) and meander scars will increase the duration of saturation and inundation over and across the Bank Site. The depth, duration, and extent of flooding in the restored wetland will primarily be driven by flood pulses from Sugar Creek. 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-establishment of a diverse forested and emergent wetland and stream corridor to enhance ecological functions and values for Sugar Creek and the Lower 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 SWMB 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 Sugar Creek. The Bank Site consists of one major hydric soil type: Birds Silt Loam (3334A).

Birds Silt Loam Series consists of poorly drained soils formed in silty alluvium on flood plains. Slope ranges from 0-2 percent. This soil is frequently flooded during the growing season. A seasonal zone of water saturation is at 0-12 inches. This soil meets hydric criteria (mapping units 3334A).

See Figure 3, Soil Survey Map

Figure 3 – Soil Survey Map

Figure 4 – Aerial of Mitigation Bank Site

SECTION C – Site Protection Instrument

Whereas, WFI Holdings-B LLC has under contract a parcel of land which is situated in Madison County, Illinois.

The Bank Site totals 40.87 (+/-) acres, consisting primarily 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

SECTION D – Baseline Information

OVERVIEW

The Bank Site is classified as agricultural row cropping.

The wetland and waterbody delineation determined that the Bank Site's soils are hydric. The soils consisted of one main classification as identified in the USDA Soil Survey: Birds series. Due to the agricultural activities associated with the site, there was little to no vegetation observed. However, in adjacent wetland habitats, hydrophytic vegetation was present. Sufficient hydrology was observed within the 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 the farm ground within the Bank Site. The surface area within the SWMB boundaries is relatively flat and low lying with an approximate Elevation 449-450 (reference Figure 5 for topographic map).

The site was delineated outlining 0.45 acres of farmed emergent wetlands in the southern portion of the farmed field, and 0.27 acres of forested emergent wetlands within the riparian buffer of Sugar Creek.

This site will be re-established to bottomland hardwood forest, riparian, and emergent wetland and stream habitats. Reference Appendix 7 for the Wetland Delineation.

Environmental Site Assessment:

Based on the findings of the Phase I Environmental Site Assessment performed by ProGEA, Inc. in April 2022, there are no recognized environmental conditions (RECs), as defined by ASTM in connection with the Bank Site.

Phase 1 Cultural Resource Survey:

The Phase 1 Cultural Resource Survey performed by SCI Engineering in April 2022 located no cultural resource sites. Therefore, SCI believes further investigations of the project area are unwarranted and recommends clearance of the project area.

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.

Site Easements:

No documented easements affecting the Bank Site were revealed in a title search. However, there is an existing power line on the eastern edge of the Bank Site along Waffler Road. Accordingly, the Bank Site voluntarily excludes a 20-foot wide right-of-way for this existing power line. Additionally, a 0.20-acre square is excluded from the Bank Site as a designated area outside of the conservation easement area for the building of potential structures. Together, these two areas are excluded from any credit-generating portions of the Bank Site.

Adjacent Landowner Information:

The Bank Site is surrounded by forested wetlands and agricultural land within the floodplain of Sugar Creek. See below for list and map of adjacent landowners.

1. **Cecil and Joyce Harris:** 68.5 acres – agriculture, creek
2. **Korte and Luitjohn Contractors Inc:** 45.0 acres – wooded wetland, pond, recreation
3. **Paul Hustedde:** 81.2 acres – agriculture, creek, wooded wetland / recreation
4. **Thole Land Trust:** 10.0 acres – agriculture, creek (separated from Bank Site by road)

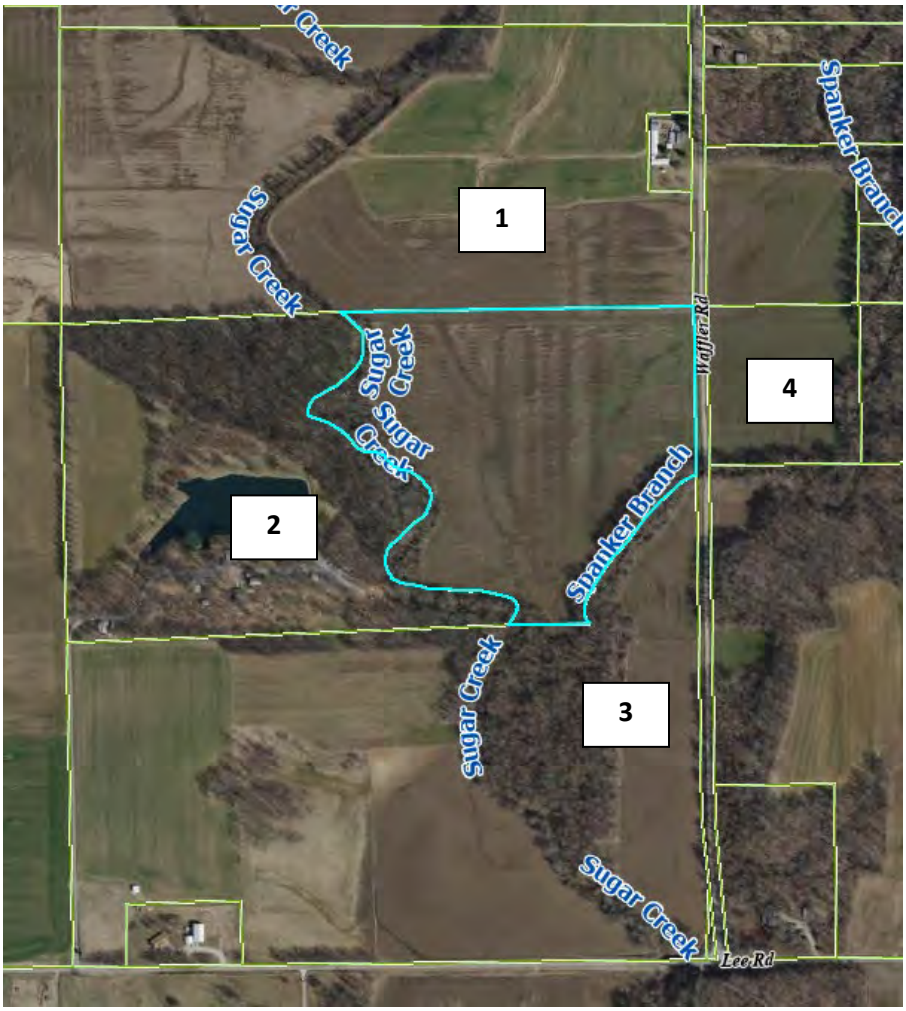


Figure 5 – Topographical Map of Mitigation Site

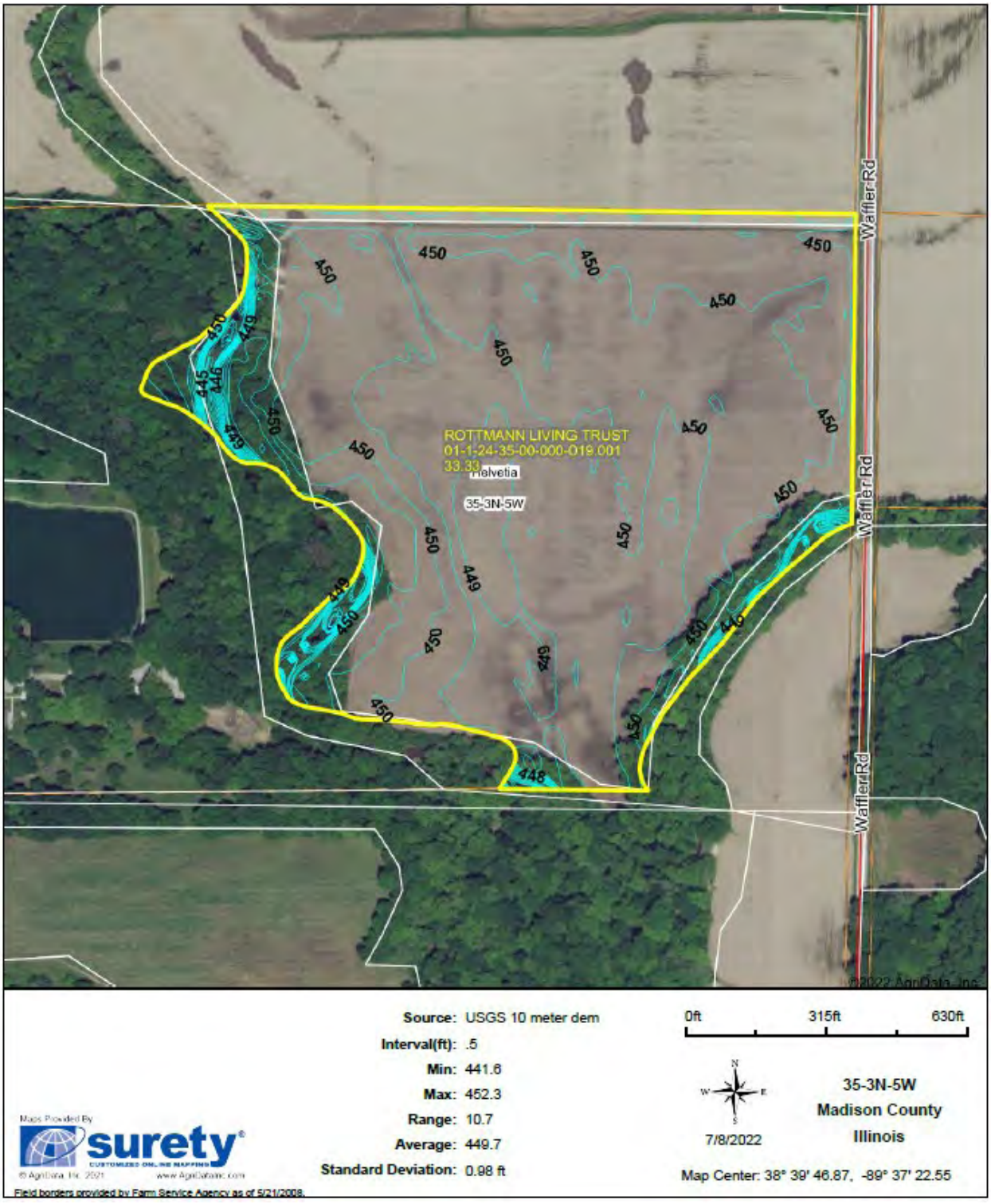
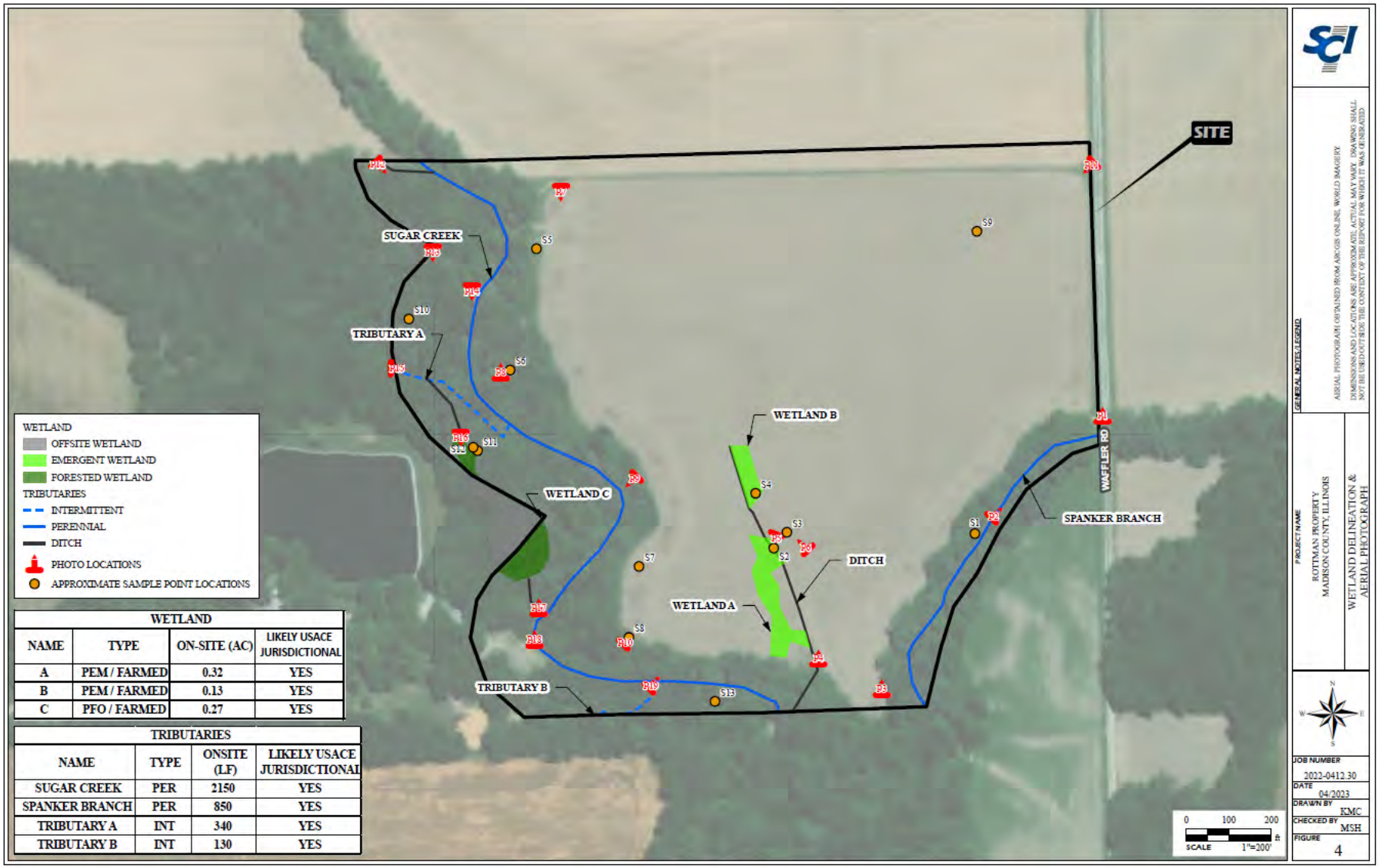


Figure 6 – Wetland Determination Sample Locations



WETLAND			
NAME	TYPE	ON-SITE (AC)	LIKELY USACE JURISDICTIONAL
A	PEM / FARMED	0.32	YES
B	PEM / FARMED	0.13	YES
C	PFO / FARMED	0.27	YES

TRIBUTARIES			
NAME	TYPE	ONSITE (LF)	LIKELY USACE JURISDICTIONAL
SUGAR CREEK	PER	2150	YES
SPANKER BRANCH	PER	850	YES
TRIBUTARY A	INT	340	YES
TRIBUTARY B	INT	130	YES

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 SWMB 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

SWEET WATER WETLAND MITIGATION BANK (SWMB)

The following evaluation is the SWMB 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.

SWEET WATER WETLAND MITIGATION BANK

FORESTED, RIPARIAN AND EMERGENT 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	B	B	0	NO CHANGE
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.**

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SITE HYDROLOGY

The entire Bank Site is connected to all hydrologic events associated with Sugar Creek and Spanker Branch within Madison and Clinton Counties, Illinois. Hydrologic events on Sugar Creek regularly flood this area, and Spanker Branch is directly affected by Sugar Creek hydrologic events. Hydric soils across the entire site, 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 ditches utilized during agricultural production will be either removed or abandoned to assist in restoring hydrology within the Bank Site. The Bank Site includes two areas utilizing historic low areas or ditches to remove water in an expedited manner to promote agricultural yields. In addition, during farming operations, minor flowage channels throughout the property funnel water to ditches. The farming practices over time have leveled the agricultural acres and removed historic meander scars of historic channels. This Mitigation Plan will identify historic meander features to re-establish ephemeral oxbow meanders with associated natural high bank topography.

The following information is provided to address hydrology from a data collection perspective.

Hydrology Assessment for Sugar Creek at SWMB

Sugar Creek is a direct tributary of the Kaskaskia River with the confluence being 16 miles below this Bank Site. There are no USGS stream gages on Sugar Creek; the nearest stream gage is on the Kaskaskia River 1.9 miles above the confluence with Sugar Creek. Because Sugar Creek has no stream gages and the Kaskaskia is a regulated river with major flood control structures, no stream flow records are useful for determining the flood elevations and / or frequency on Sugar Creek.

Instead, the best hydrologic analysis to assess flood frequency is to use predicted flow rates from the USGS StreamStats program. An overview from the USGS website describes StreamStats as "a Web-based Geographic Information Systems (GIS) application that provides users with access to an assortment of analytical tools that are useful for a variety of water-resources planning and management purposes, and for engineering and design purposes. StreamStats users can select United States Geological Survey (USGS) data-collection station locations shown on a map and obtain previously published information for the stations. Users also can select any location along a stream and obtain the drainage-basin boundary, basin characteristics, and estimates of streamflow statistics for the location." Specifically, StreamStats is a useful tool for sites that do not contain USGS gages, such as SWMB.

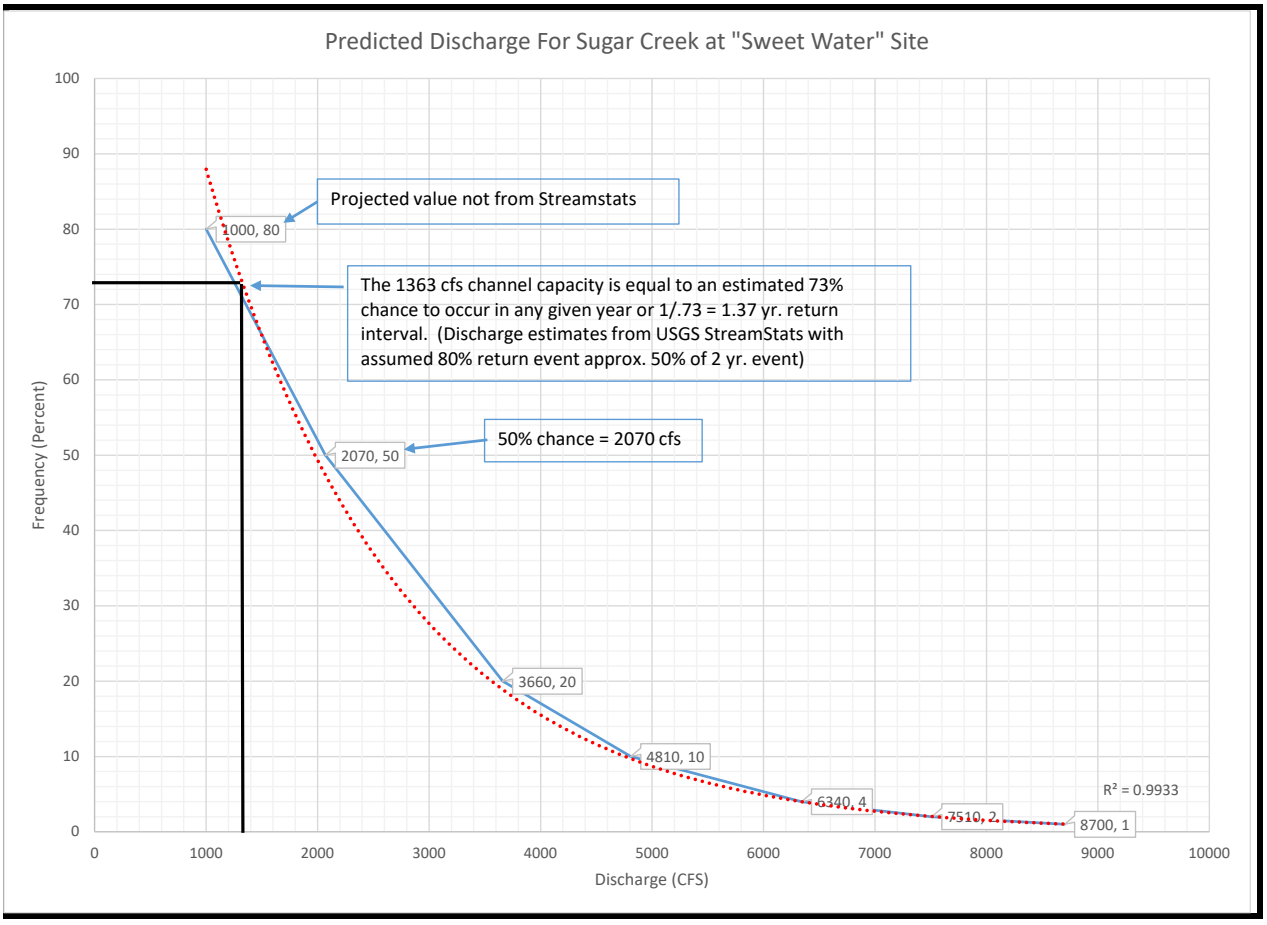
Utilizing the predicted streamflow statistics for this BankSite from StreamStats produces a predicted "50-percent AEP Flood" (two-year flood) of 2070 cfs. With this predicted flowrate, a

surveyed channel cross section and stream slope can be used to predict the frequency of flooding at this Bank Site.

A cross section of Sugar Creek showing 430 sq. ft. cross-sectional area and a channel slope of 0.00051 ft/ft (2.70 ft./mile) yields an estimate of 1363 cfs at channel capacity, i.e., flooding begins. These calculations show that Sugar Creek is well connected to the floodplain and floods at a frequency more often than the two-year flood.

Since there are no measured flow values for Sugar Creek from which we can construct flows more frequent than the two-year event, we assume that the "80-percent AEP Flood" will be approximately 50% of the two-year flood. The plotted Flood Frequency Curve (see below) uses this assumption and generates a trendline with an R squared value of 0.9933, indicating the initial assumption appears to be reasonable.

Therefore, the expected flood frequency at this Bank Site on Sugar Creek is predicted to have a 73% chance of occurrence in any year and a return interval of 1.37 yrs. As such, this Bank Site appears to have sufficient hydrology to support a mitigation bank.

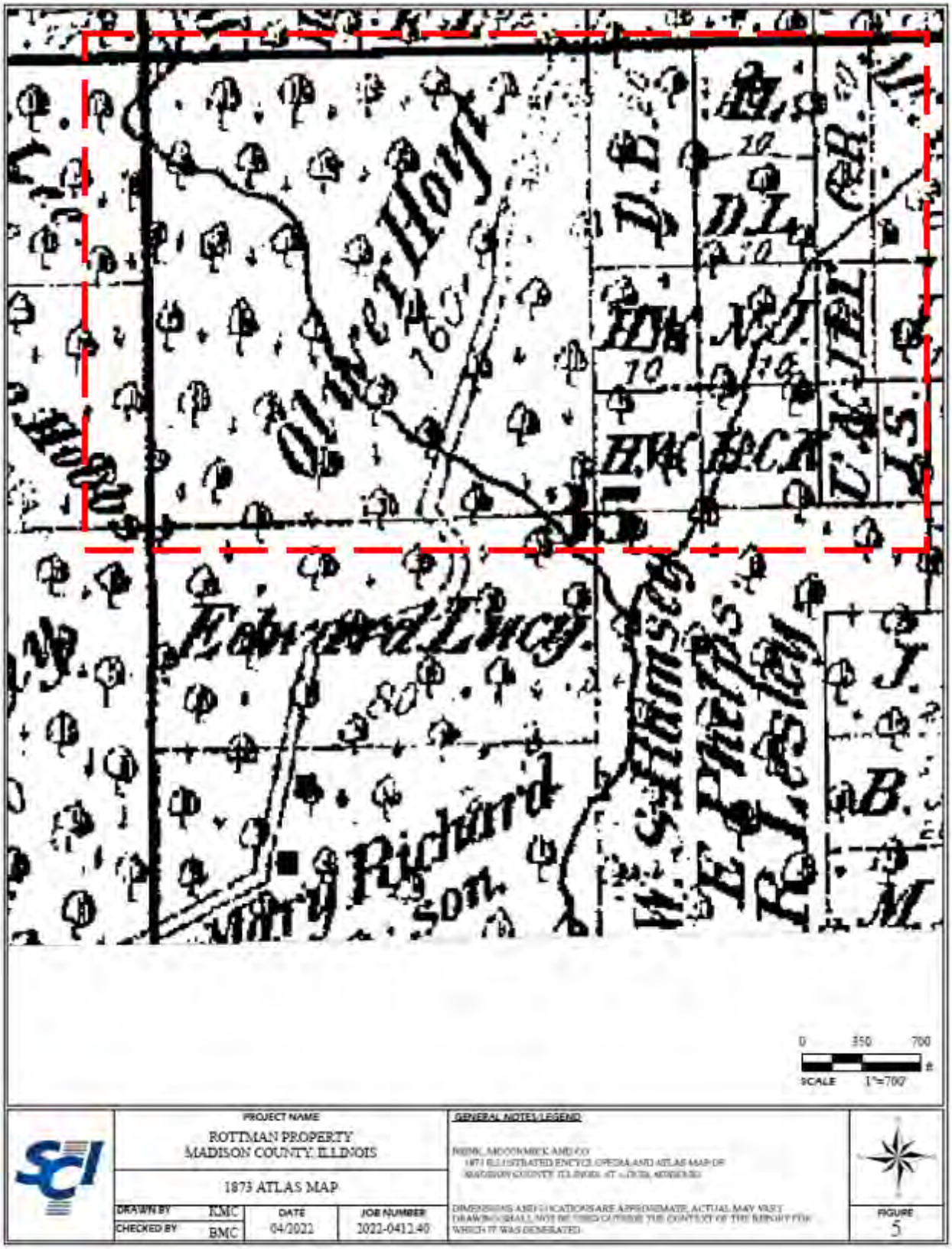


SECTION E - Determination of Credits

One of the goals of the WFI-B Umbrella Mitigation Banking Program 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. For SWMB specifically, this objective is informed by historical aerials which identify the entire site as forested in the 1873 atlas, and more recent aerial photography clearly showing the historic meander scar (remnant channel) in the center of the Bank Site. Thus, the Sponsor proposes utilizing the processes 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 experienced greater than 60 years of soil elevations being flattened or leveled; elimination of native vegetation (forested and wetland species) diversity; and reductions of duration of hydrology through ditching and draining for the sole purpose of manipulating the site for improved agricultural yields. Our plan is to re-establish this site into a functioning bottomland hardwood mast producing forest with supporting emergent habitats within the historic meander scars and re-established forested riparian corridor to increase diversity at the Bank Site.

In analyzing this site over its historical changes, the proposed objectives and actions to be taken on this site depict a restoration plan that re-establishes the site to natural/historic functions along Sugar Creek, rebuilding this former aquatic resource to both new functional acres and an overall higher functioning wetland.

Aerial: 1873 Atlas (indicates entire project area was forested)



Aerial: 1981

Aerial: 1998

Aerial: 2005 (historic meander scar very visible)

Aerial: 2017

The same methodology will be used to assess both credits and debits. The number of credits (acres/credits) reflect the difference between historic site conditions to conditions with re-establishment actions of the Bank Site.

SWMB will generate 18.98 wetland credits and 18,633.50 stream credits.

FORESTED
Re-establishment (100%): 13.83 acres = 13.83 credits

Justification: The credit justification is based on the agricultural acreage being removed from row cropping, planting native vegetation 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 remnant scar re-establishment and mounds that provide added elevation, thus modifying hydrology as it is associated with forested restoration. Secondly, hydrology will be modified through installation of ditch checks and re-established meander scars that will provide longer inundation on the Bank Site. This planting increases the Floristic Quality Index (FQI) of the acres and reduces forest fragmentation along Sugar Creek. When complete, this activity will result in a net gain in aquatic resource area and function.

EMERGENT
Re-establishment (100%): 5.15 acres = 5.15 credits

Justification: The credit justification is based on the agricultural acreage being removed from row cropping. The emergent areas will be converted to historic meander scars and removed from agricultural row cropping. The modification of this area will result in an increase to native vegetation species diversity and modified hydrograph in this area. When complete, this activity will result in a net gain in aquatic resource area and function.

IN-STREAM AND RIPARIAN FORESTED
Illinois Stream Mitigation Method: 21.89 acres = 18,633.50 credits

Justification: The credit justification is based on the agricultural acreage being removed from row cropping, planting native vegetation at a greater than 51% of the area with bottomland hardwoods and modifications to increase hydrologic conditions at the site. A riparian buffer consisting of high-quality, primarily mast-producing hardwood trees, will be re-established and enhanced on both Sugar Creek and Spanker Branch. This planting increases the Floristic Quality Index (FQI) of the acres and reduces forest fragmentation along Sugar Creek and Spanker Branch. Additionally, in-stream improvements of stone toe protection / stream barbs will stabilize banks and keep lateral erosion from continuing to occur, improving approximately 2,105 linear feet of Sugar Creek and approximately 870 linear feet of Spanker Branch. When complete, this activity will result in a net gain in aquatic resource area and function.

Illinois Stream Mitigation Method Worksheets:

Project Name:		Sweet Water	
ORM Number:			
Stream Restoration Worksheet			
Factor	Sugar RB, STP	Sugar LB, STP & Barbs	Spanker RB, STP
Priority	0.05	0.05	0.05
Net Benefit	2	2	2
Monitoring	0.5	0.5	0.5
Site Protection	0.4	0.4	0.4
Mitigation Construction Timing	0.3	0.3	0.3
Sum Factors **(m)** =	3.25	3.25	3.25
Stream Length in Reach (do not count each bank separate) **(lf)**=	600	950	350
Credits **(c) = (m)x(lf)**	1950	3087.5	1137.5
Mitigation Factor	1	1	1
Credits Reach	1950	3087.5	1137.5
Total Channel Restoration Credits Generated =			6175

Project Name:		Sweet Water
ORM Number:		
Riparian Worksheet		
Factor	Sugar Creek	Spanker Branch
Priority	0.05	0.05
Net Benefit Streamside A	0.7	
Net Benefit Streamside B	1.8	1.8
Supplemental Buffer Credit	1.25	0
Monitoring	0.25	0.25
Site Protection	0.4	0.4
Mitigation Construction Timing	0.3	0.3
Temporal Lag (Years)	0	0
Sum of Factors **(m)** =	4.75	2.8
Linear Feet of Buffer (do not count each bank separate) **(lf)** =	2110	870
Credits **(c) = (m) x (lf)** =	10022.5	2436
Mitigation Factor	1	1
Credits Reach	10022.5	2436
Total Riparian Credits Generated	12458.5	

Project Name: Sweet Water Mitigation Bank	
ORM Number	
Stream Mitigation Summary Worksheet	
I. Required Mitigation	**Debits**
A. Total Debits = (calculated from worksheets data)	0
II. Credit Summary	**Credits**
B. Riparian Buffer Enhancement	12458.5
C. Stream Restoration	6175
D. Total Proposed Non-Bank Mitigation = B + C	18633.5

TOTAL CREDITS GENERATED FOR SWMB:

Wetland Credits: 18.98
Stream Credits: 18,633.50

Habitat Type	**Acreage**	**Total Credits**
Forested (PFO)	13.83	13.83
Emergent (PEM)	5.15	5.15
Wetland: Total	**18.98**	**18.98**
In-Stream (Stream)	2.69	6,175.00
Riparian Forested (Stream)	19.20	12,458.50
Stream: Total	**21.89**	**18,633.50**

SECTION F – Mitigation Work Plan

Project Description: SWMB is made up of prior converted cropland. The Bank Site will have a cumulative acreage of 40.87 acres of restricted property in perpetuity.

Whereas, under this Banking Instrument, the Sponsor will establish and/or maintain 40.87 acres of wetland and stream 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.

Excluded areas (details in Section D, Baseline Information) will have no adverse impacts to the Bank Site. In general, the excluded areas will look to maintain the existing hydrology regime on the site, thereby not affecting the hydrology on the excluded areas.

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.

Mound Construction for Enhanced Tree Growth and Survival: The first tillage technique to be used by the Sponsor is to construct berms (raised beds) of existing soil materials using a rice levee plow. Constructed berms will be approximately seven (7) feet wide, six (6) inches tall, and spaced approximately forty (40) feet apart.

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 every 20 feet. This process breaks the constructed berm into mounds 20 feet apart (center to center), approximately 7 feet wide by 8 feet long with a height of approximately ten (10) inches. Then a cultipacker piece of equipment is similarly driven over the constructed mound to compact to an elevation of approximately twelve (12) inches (construction grade). This mound will settle an additional 2 inches over the next year to a final grade of approximately eight (8) inches. These mounds are not connected to any other feature and allow floodwater to move in and around the feature freely. Row(s) of trees will be planted in-situ in between each berm to maintain required 20x20 foot spacing.

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.

EMERGENT WETLANDS

The Emergent Wetlands component of the plan will consist of a new feature to extend saturation and standing water in historical low areas around the Bank Site. The feature will be created through improving hydrology across the site; the restoration of historic meander scars within the tree planting areas of the Bank Site will generate an emergent wetland feature from the excavation (see tillage technique details below). The minor excavation along an alignment will generate an emergent wetland feature that provides extended inundation at the Bank Site.

Meander Scars: the tillage technique that will be used by the Sponsor is to re-create historic stream meander scars and a natural high bank system. This will involve the excavation of in-situ soils at existing ground level to a depth of 6-10 inches and a minimum width of 20 feet. The soil generated from this shallow excavation will be placed adjacent to the meander scar at a height of 6-8 inches and width of 20 feet on average. The construction method for historic meander scars will employ either a heavy equipment excavator (trackhoe), a tractor-pulled scraper or a dozer for pushing the fill into place. These high bank (raised bed) areas will be used similar to berms and mounds and will receive bottomland hardmast tree planting. The ends of these features will be at existing ground level to allow floodwaters to flow freely through and around them.

RIPARIAN CORRIDOR

The proposed plan for improving hydrology across the Bank Site is to re-establish the forested area on the Bank Site which includes the riparian corridor. The construction of mounds in the riparian forested wetland planting will support less flood-tolerant species' ability to survive and regenerate. The mounds will be constructed using the techniques described above. During the

spring and fall, rainfall plus annual flooding of Sugar Creek will provide soil saturations to support hydrophytic vegetation without mechanical means or intervention by the Sponsor.

IN-STREAM

The proposed plan for improving Sugar Creek is to address the lateral erosion that is occurring due to upstream features (i.e., historic agricultural levee that is preventing Sugar Creek from accessing its floodplain upstream of the Bank Site). Similarly, high velocity of flows within the channel are also creating lateral erosion issues on this reach of Spanker Branch. The proposed plan for improving these streams is to install a series of stone toe protection structures approximately one-third of the bank height to effectively stop the lateral erosion of stream banks. For Sugar Creek specifically, another option is to use a series of stream barbs to redirect flow around each bend to stabilize the bank. Detailed stream design plans are included in the Appendix.

SITE RE-ESTABLISHMENT OF HYDROLOGY

As stated in the Baseline Conditions, the Bank Site is open to hydrology associated with Sugar Creek, which can consist of flooding due to precipitation and / or high-water events. The Bank Site can also be subject to Kaskaskia River watershed hydrology, where long durational flooding on the Kaskaskia River may produce a backwater effect for Sugar Creek. This hydrograph will be managed to affect the depth, duration, and extent of flooding on the Bank Site.

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 the increase of historical depressional drainage locations within the Bank Site. Reference figures below.

Figure 7 – In-Stream Work Map

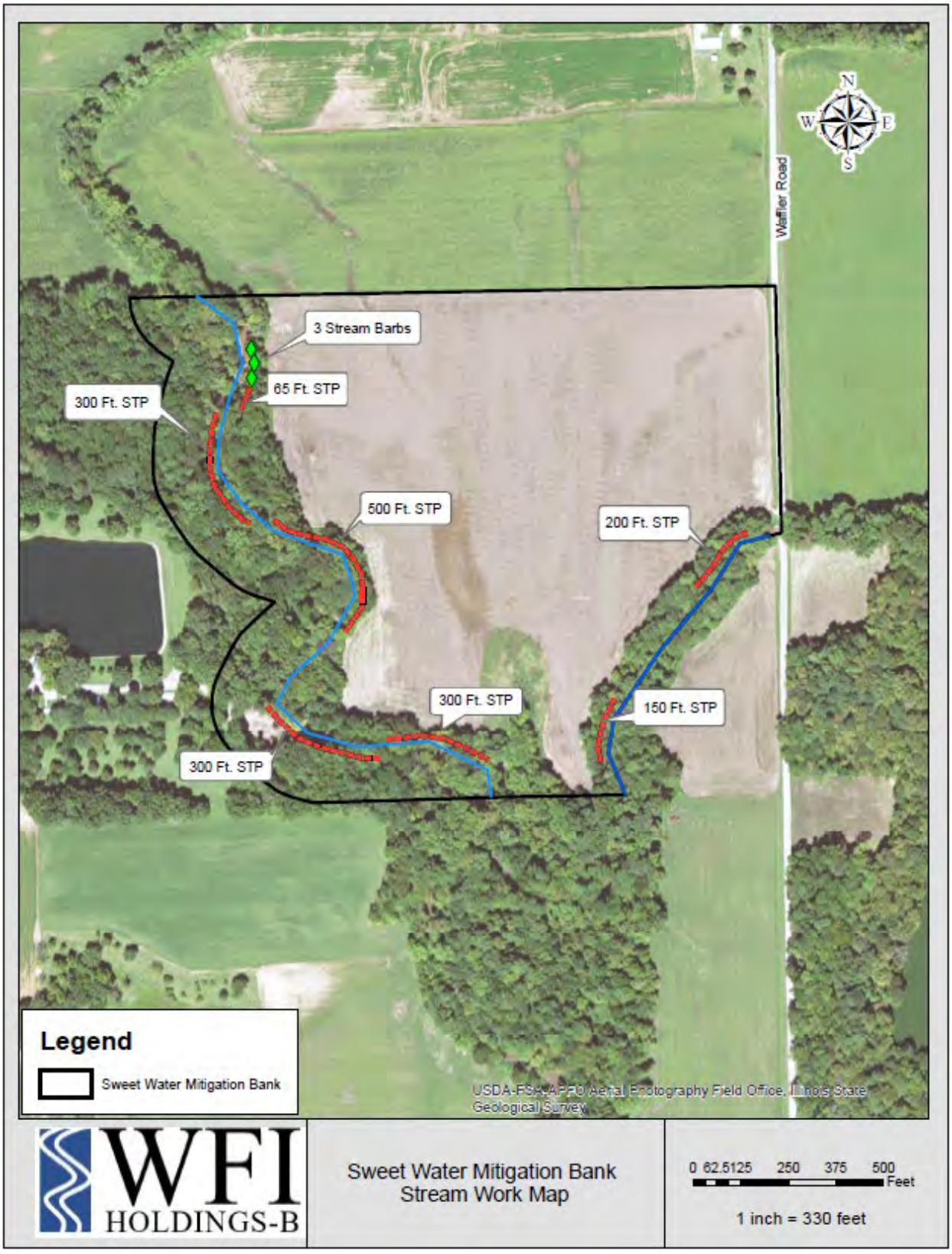


Figure 8 – Mound Construction

Rows of mounds @ 40’ center

Figure 9 – Existing Drainage

Figure 10 – Restored Hydrology

MITIGATION PLAN

Tree 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 Area = 13.83-acres x 109 trees/acre = 1,508 trees (+/-)

Riparian Buffer Area = 7.00-acres x 109 trees/acre = 763 trees (+/-)
(estimated acreage for tree planting at this density)

Total = 2,271 trees (+/-)

Emergent Wetland

Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Bolboschoenus fluviatilis	River Bulrush	1.00
Carex comosa	Bristly Sedge	2.50
Carex lacustris	Common Lake Sedge	0.50
Carex lurida	Bottlebrush Sedge	4.00
Carex stricta	Common Tussock Sedge	1.00
Carex vulpinoidea	Brown Fox Sedge	2.00
Eleocharis palustris	Great Spike Rush	1.00
Juncus effusus	Common Rush	1.00
Leersia oryzoides	Rice Cut Grass	3.00
Schoenoplectus acutus	Hard-Stemmed Bulrush	2.50
Schoenoplectus pungens	Chairmaker's Rush	1.50
Schoenoplectus tabernaemontani	Great Bulrush	6.00
	Total	26.00
Temporary Cover		
Avena sativa	Common Oat	512.00
	Total	512.00
Forbs/Shrubs		
Acorus americanus	Sweet Flag	1.00
Alisma subcordatum	Common Water Plantain	2.00
Asclepias incarnata	Swamp Milkweed	1.00
Boehmeria cylindrica	False Nettle	1.00
Cephalanthus occidentalis	Buttonbush	6.00
Decodon verticillatus	Swamp Loosestrife	0.50
Eutrochium maculatum	Spotted Joe-Pye Weed	0.50
Hibiscus spp.	Rose Mallow Species	4.00
Iris virginica v. shrevei	Blue Flag	6.00
Lobelia cardinalis	Cardinal Flower	0.25
Lobelia siphilitica	Great Blue Lobelia	0.25
Lycopus americanus	Common Water Horehound	1.00
Mimulus ringens	Monkey Flower	1.00
Peltandra virginica	Arrow Arum	16.00
Penthorum sedoides	Ditch Stonecrop	0.50
Persicaria spp.	Pinkweed Species	2.00
Pontederia cordata	Pickerel Weed	4.00
Sagittaria latifolia	Common Arrowhead	2.00
Sparganium eurycarpum	Common Bur Reed	6.00
Verbena hastata	Blue Vervain	1.00
	Total	56.00

Figure 10 – Mitigation Plan Map

Sweet Water Tree Planting

*Tree Varieties	*Trees per Acre*	Trees Planted		
		Forested Wetland *(13.83ac)*	Riparian Buffer *(7.00ac)*	***Total Trees***
Pin Oak (Quercus palustris)	15	208	105	**313**
Sycamore (Platanus occidentalis)	5	69	35	**104**
Willow Oak (Quercus phellos)	5	69	35	**104**
Northern Pecan (Carya Illinoensis)	10	139	70	**209**
Swamp White Oak (Quercus bicolor)	5	69	35	**104**
Green Hawthorne (Crataegus viridis.)	5	69	35	**104**
Shellbark Hickory (Carya laciniosa)	5	69	35	**104**
Button Bush (Cephalanthus occidentalis)	10	139	70	**209**
Persimmon (Diospyros virginiana)	4	55	28	**83**
Overcup Oak (Quercus lyrata)	12	166	84	**250**
Water hickory (Carya aquatic)	4	55	28	**83**
Sugarberry (Celtis laevigata)	4	55	28	**83**
Nuttall Oak (Quercus nuttallii)	10	139	70	**209**
Swamp Privit (Forestiera acuminate)	4	55	28	**83**
Bald Cypress (Taxodium distichum)	7	97	49	**146**
Kentucky coffee (Gymnocladus dioicus)	4	55	28	**83**
Totals	**109**	**1,508**	**763**	**2,271**

***Hard mast trees for mound planting**

SECTION G – Operation and Maintenance Plan

The SWMB restoration area is designed to be self-sustaining once the mitigation work plan is complete. The SWMB'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 SWMB'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. **These Performance Standards will be utilized for Emergent Wetland, Forested Wetland, In-Stream, and Stream Riparian.**

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

SITE-SPECIFIC PERFORMANCE STANDARDS:

The Bank Site will be held to the following performance standards:

All credit-generating areas shall have a minimum FQI (as calculated by www.universalFQI.org) of 20 at final credit release. The FQI will be measured annually and will include both woody and herbaceous vegetation. It will be reported in each year's monitoring report and will be considered acceptable as follows: at Year 3, the FQI shall be greater than 15. At Year 7, the FQI shall exceed a minimum score of 20 and be equal to or greater than the Year 3 FQI. This FQI standard shall be considered to be met in all interim years if it is tracking toward the Year 3 and Year 7 standards.

No more than 5% of the wetland shall consist of a contiguous "bare ground" area measured no later than September 15th of each monitoring year.

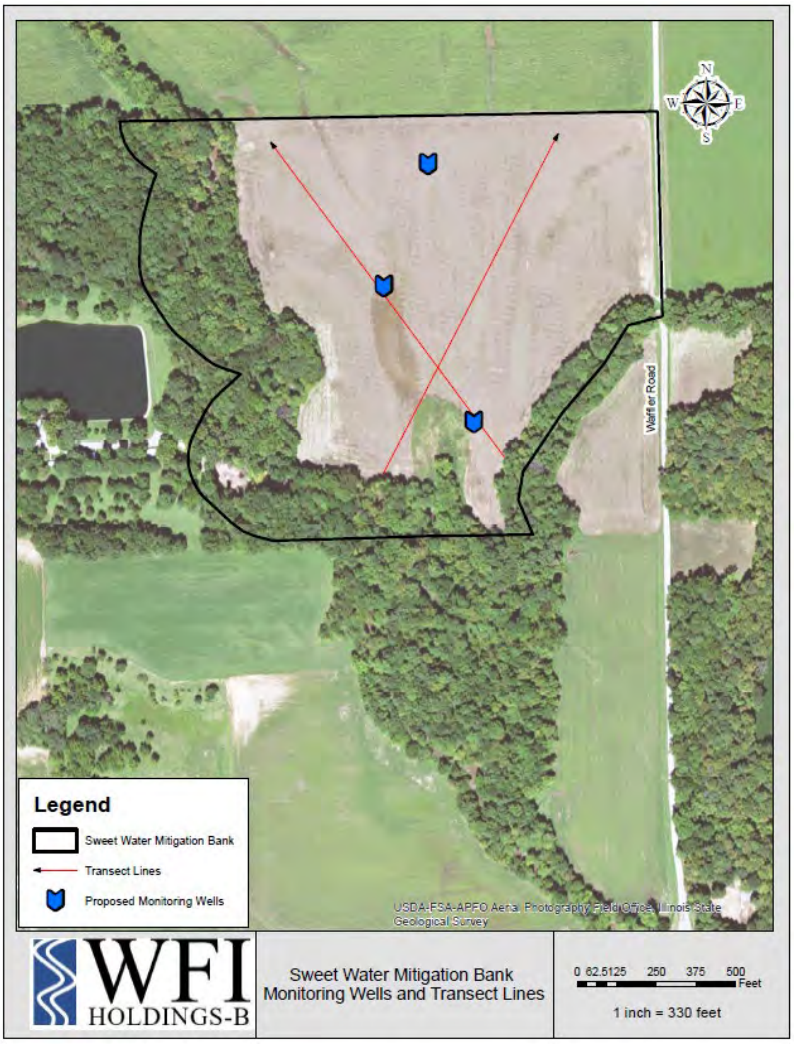
SECTION I – Monitoring Requirements

The SWMB'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.

Monitoring will be conducted utilizing both a random and transect-based meander search. The transect meander search will follow defined transects that intersect specific wetland classes on the Bank Site, and will be performed to establish a baseline, verify hydrology, and as a final meander search.

The random meander search will be performed during regular annual monitoring events during approximately October / November. The samples will be randomly taken at approximately 200-foot intervals for classes that were seeded and / or planted.



Specifically for in-stream monitoring, a Visual Monitoring Worksheet will be completed by a qualified professional (Wayne Kinney of Midwest Streams, Inc.) annually to document conditions at each individual structure accompanied by a photograph of each structure. The parameters will be measured utilizing best professional judgment to answer "YES" or "NO" to each category on the worksheet (i.e., Bank Erosion, Bank Deposition, In-Stream Erosion, In-Stream Deposition, and Stable Structure). For example, each structure will be evaluated to identify whether any stone has been moved, any scouring is occurring, or any other items that would jeopardize the function of the structure as designed and would require action to repair. Those actions will be detailed on this worksheet. The goal / final target is a stable structure with a stream in equilibrium, i.e., no erosion or deposition.

SECTION J – Long-Term Management Plan

The SWMB'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 and emergent wetlands being restored. Long-term management will be implemented after the performance standards are met.

Long Term Steward for SWMB: HeartLands Conservancy

Conservation Easement Holder for USACE: HeartLands Conservancy

STRUCTURE OF LONG-TERM FINANCING

Long-term financing for HeartLands Conservancy's services are referenced in Appendix 6. An endowment in the amount of $57,300 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 SWMB's Adaptive Management Plan will reflect the approved UMBI plans for the St. WFI-B UMBI.

SECTION L – Financial Assurances

The SWMB'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 and emergent 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 $110,000, which includes construction expenses and yearly monitoring. To provide financial assurance protection for these costs, the Sponsor will purchase either a performance bond or a casualty insurance policy to protect the Bank Site in the event of non-compliance. This assurance 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 assurance to meet the short-term financial assurance requirements. An example draft bond form, and example draft insurance policy, 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 $57,300 will be completely funded to an interest accruing account at Project Close-out of SWMB. 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 are 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 $57,300 at an estimated return rate of 6% which generates $43,500/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 $2,000.00 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 $57,300.
        - Total Endowment Funding ($57,300), less sum of Fixed Annual Payments, less sum of interest earned
        - Shall not exceed a maximum of Total Endowment Funding ($57,300) less sum of Fixed Annual Payments

- Total Endowment funding at time of Project Close-Out: $57,300;
- 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 SWMB's Credit Release Schedule will reflect the approved UMBI plans for the WFI-B UMBI. The SWMB generates 18.98 wetland credits and 18,633.50 stream credits.

Wetland Credits:

Description	**Release %**	**Credits** *(PFO)*	**Credits** *(PEM)*	**Credits** *(Total)*	***Total*** *(Cumulative)*
Bank Approval	15%	2.08	0.78	**2.86**	*2.86*
Construction Complete	25%	3.46	1.28	**4.74**	*7.60*
Hydrology Confirmation	15%	2.08	0.78	**2.86**	*10.46*
Year 3 Performance Standards	15%	2.07	0.77	**2.84**	*13.30*
Year 4 Performance Standards	15%	2.07	0.77	**2.84**	*16.14*
Year 5 Performance Standards	15%	---	0.77	**0.77**	*16.91*
Year 7 Performance Standards	15%	2.07	---	**2.07**	*18.95*
Total		**13.83**	**5.15**	**18.98**	

Stream Credits:

Description	**Release %**	**Credits** *(in-stream)*	**Credits** *(buffer)*	**Credits** *(Total)*	***Total*** *(Cumulative)*
Bank Approval	15%	926.25	1,868.78	**2,795.03**	*2,795.03*
Construction Complete	25%	1,543.75	3,114.62	**4,658.37**	*7,453.40*
Year 3 Performance Standards	20%	1,235.00	2,491.70	**3,726.70**	*11,180.10*
Year 4 Performance Standards	20%	1,235.00	2,491.70	**3,726.70**	*14,906.80*
Year 5 Performance Standards	20%	---	2,491.70	**2,491.70**	*17,398.50*
Year 7 Performance Standards	20%	1,235.00	---	**1,235.00**	*18,633.50*
Total		**6,175.00**	**12,458.50**	**18,633.50**	

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 IRT. 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 SWMB for the previous year.

SECTION N – Default and Closure Provisions

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

SECTION O – FORCE MAJEURE

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

Appendix 1

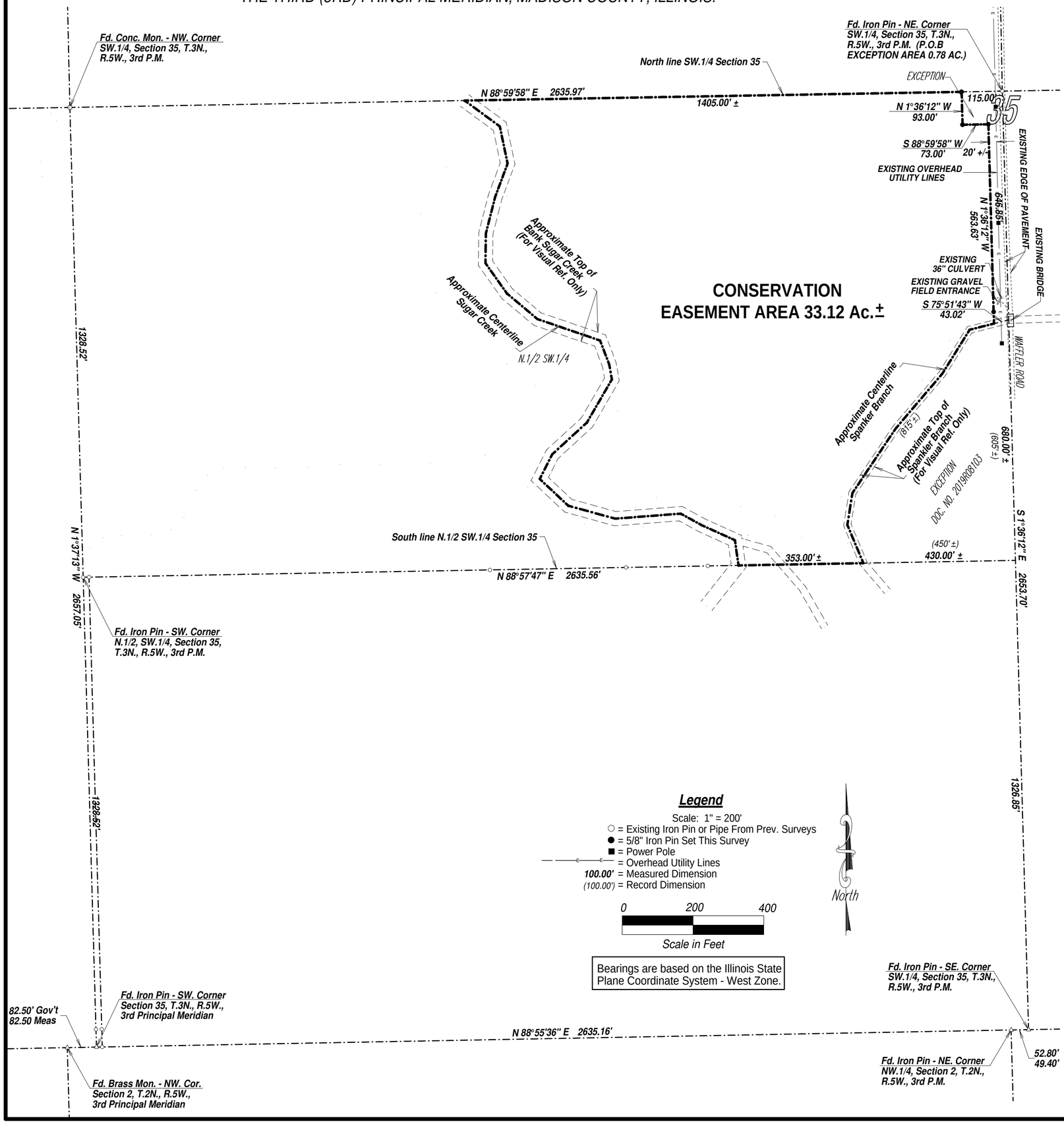
Survey – Plat

ALTA/NSPS LAND TITLE SURVEY

SITUATED IN THE NORTH HALF (N.1/2) OF THE SOUTHWEST QUARTER (SW.1/4) OF SECTION THIRTY-FIVE (35), TOWNSHIP THREE (3) NORTH, RANGE FIVE (5) WEST OF THE THIRD (3RD) PRINCIPAL MERIDIAN, MADISON COUNTY, ILLINOIS.

(MIH Management Services LLC)
Project No. 0086-22(2)ALTA
P.C.S. File No. 22

Survey Solutions, LLC
111 EAST ASHLAND AVENUE
MT. ZION, IL 62549 217.521.0612
▪ ALTA Surveys Boundary Surveys
▪ Construction Staking Subdivisions
Illinois Professional Design Firm # 184005964



Legend

Scale: 1" = 200'
○ = Existing Iron Pin or Pipe From Prev. Surveys
● = 5/8" Iron Pin Set This Survey
■ = Power Pole
= Overhead Utility Lines
100.00' = Measured Dimension
(100.00') = Record Dimension

North

0 200 400
Scale in Feet

Bearings are based on the Illinois State Plane Coordinate System - West Zone.

LEGAL DESCRIPTION

CONSERVATION EASEMENT AREA

That portion of the North Half of the Southwest Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian lying East of the centerline of Sugar Creek, containing 35.0 acres. Subject to that portion thereof along the entire East side now being used for roadway purposes, in Madison County, Illinois.

Less and except that part conveyed by Trustee's Deed recorded March 15, 2019 as Document No. 2019R08103, more particularly described as follows: Part of the Northeast Quarter of the Southwest Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois, described as follows: Beginning at the Southeast corner of said Northeast Quarter of the Southwest Quarter; thence North (bearing assumed) along the East line of said Southwest Quarter, 605 feet, more or less, to the approximate centerline of Spanker Branch; thence Southwesterly along the meandering of Spanker Branch, 815 feet, more or less, to a point on the South line of the Northeast Quarter of the Southwest Quarter; thence East along said South line of the Northeast Quarter of the Southwest Quarter, 450 feet, more or less, to the point of beginning. Subject to that portion thereof along the East side now being used for roadway purposes, in Madison County, Illinois.

ALSO EXCEPT

That part of the North 1/2 of the Southwest 1/4 of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois, described as follows: beginning at an existing iron pin marking the Northeast corner of the Southwest 1/4 of said Section 35; thence S.1°36'12"E.-646.85 feet along the East line of the Southwest 1/4 of said Section 35 to a point on the approximate center line of Spanker Branch; thence S.75°51'43"W.-43.02 feet along said center line; thence N.1°36'12"W.-563.63 feet to an iron pin set; thence S.88°59'58"W.-73.00 feet to an iron pin set; thence N.1°36'12"W.-93.00 feet to an iron pin set on the North line of the Southwest 1/4 of said Section 35; thence N.88°59'58"E.-115.00 feet along said North line to the point of beginning.

ADDITIONAL ITEMS

Table A

1 As shown.

2 Rural Farmland - No address.

4 As shown.

6 No Zoning Report provided to Surveyor.

7 No buildings observed on property.

8 As shown.

9 No parking spaces observed on property.

11 As shown.

16 No recent earthwork or construction observed on property.

17 No proposed changes in street right of way lines or sidewalk construction observed on property.

Schedule B, Part II

No plottable items listed in Schedule B, Part II

Title Policy Reference

Commitment for Title Insurance, Fidelity National Title Insurance Corporation, Commitment Number TI139156, with an effective date of April 26, 2022.

Permanent Index No.

01-1-24-35-00-000-019.001

Property Address

Rural Farmland

PROFESSIONAL LAND SURVEYOR
ROBERT M. COX
MT. ZION, ILLINOIS
NO. 3779
STATE OF ILLINOIS

LICENSE EXPIRES 11/30/2024

Survey Notes:
1.) The field and office procedures were performed by me, or under my direct supervision in the months of May 2022 - March 2023.
2.) No investigation was made concerning environmental or subsurface conditions or the existence of underground utilities in the course of this survey.
3.) No investigation was made concerning the compliance or non-compliance with the local zoning ordinances in effect, if any, in the course of this survey.
4.) The boundary of this property was determined by the physical location of existing monumentation in Section 35 and the surrounding Sections.
5.) This survey is in accordance with the 2021 ALTA/NSPS standards.
6.) All utilities that are shown are based on visible above ground evidence. Some existing utilites could exist that are not shown and all utility locations should be confirmed before any new construction or earthwork.

Surveyor's Certificate

To: WFI Holdings-B LLC, a Delaware limited liability company and Heartlands Conservancy, an Illinois non-profit corporation:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 4, 6(a), 6(b), 7(a), 7(b), 7(b)(1), 7(b)(3), 8, 9, 11(a), 11(b), 16, 17, and 19 of Table A thereof.

The field work was completed on March 29, 2023.

March 30, 2023

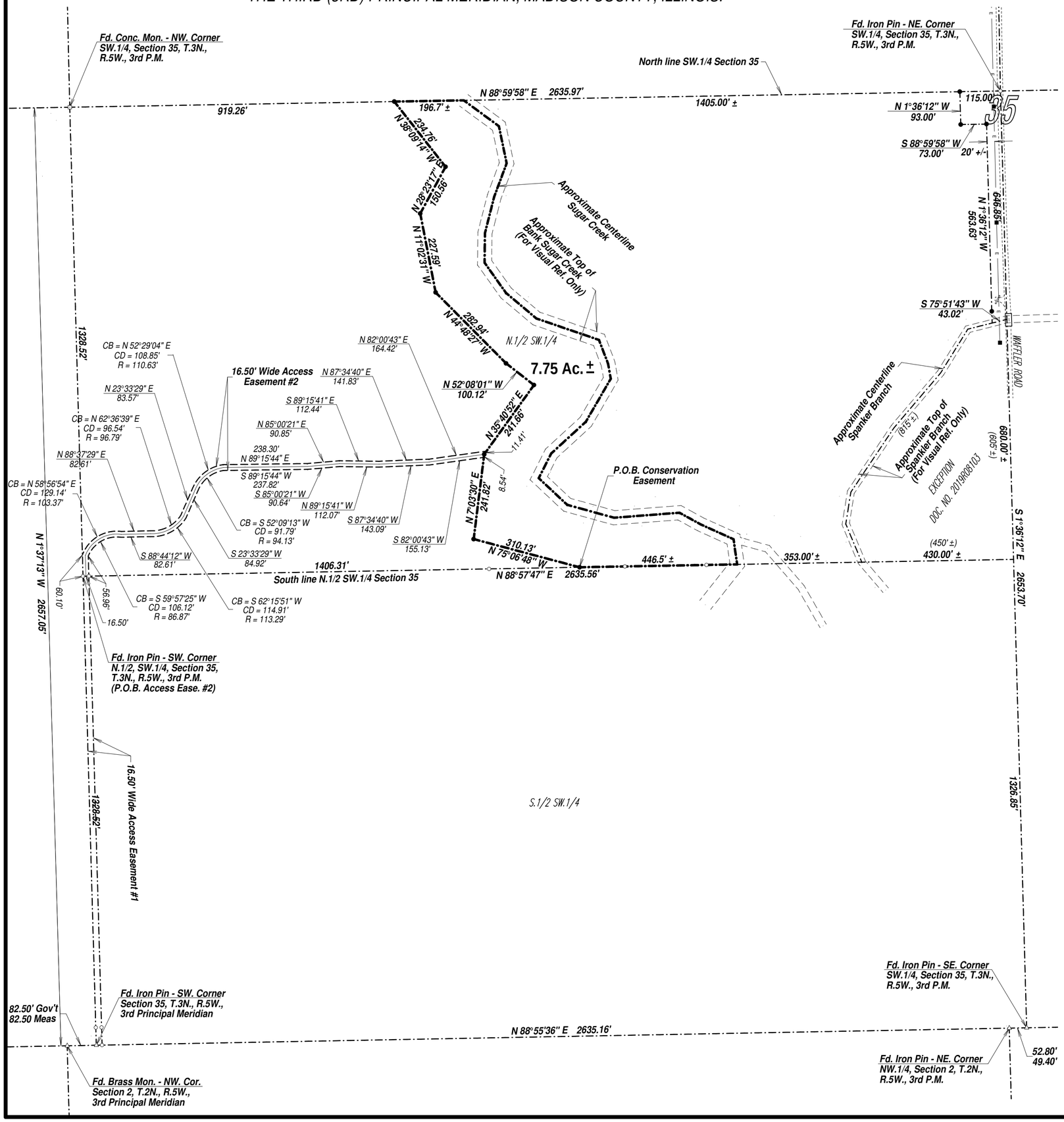
Robert M. Cox
IL. Professional Land Surveyor No. 3779
(License Expires November 30, 2024)

PLAT OF SURVEY

SITUATED IN THE NORTH HALF (N.1/2) OF THE SOUTHWEST QUARTER (SW.1/4) OF SECTION THIRTY-FIVE (35), TOWNSHIP THREE (3) NORTH, RANGE FIVE (5) WEST OF THE THIRD (3RD) PRINCIPAL MERIDIAN, MADISON COUNTY, ILLINOIS.

(MIH Management Services LLC)
Project No. 0086-22(addition)
P.C.S. File No. 22

Survey Solutions, LLC
111 EAST ASHLAND AVENUE
MT. ZION, IL 62549 217.521.0612
▪ ALTA Surveys Boundary Surveys
▪ Construction Staking Subdivisions
Illinois Professional Design Firm # 184005964



LEGAL DESCRIPTIONS

Conservation Easement - That part of the North 1/2 of the Southwest 1/4, of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois, described as follows: commencing at an existing iron pin marking the Southwest corner of the North 1/2 of the Southwest 1/4, of said Section 35; thence N.88°57'47"E.-1406.31 feet along the South line of the North 1/2 of the Southwest 1/4, of said Section 35 to an iron pin set marking the point of beginning; thence N.75°06'48"W.-310.13 feet to an iron pin set; thence N.7°03'30"E.-241.82 feet to an iron pin set; thence N.35°40'52"E.-241.66 feet to an iron pin set; thence N.52°08'01"W.-100.12 feet to an iron pin set; thence N.44°48'27"W.-282.94 feet to an iron pin set; thence N.11°02'31"W.-227.59 feet to an iron pin set; thence N.28°23'17"E.-150.56 feet to an iron pin set; thence N.38°09'14"W.-234.76 feet to an iron pin set on the North line of the Southwest 1/4, of said Section 35, said iron pin lying 919.26 feet East of an existing concrete monument marking the Northwest corner of the Southwest 1/4, of said Section 35; thence N.88°59'58"E.-196.7 feet, more or less to a point on the approximate center line of Sugar Creek; thence Southerly along said center line to a point on the South line of the North 1/2 of the Southwest 1/4, of said Section 35; thence S.88°57'47"W.-446.5 feet, more or less along said South line to the point of beginning, containing 7.75 acres, more or less.

Access Easement 1 - The West 16.50 feet of the South 1/2 of the Southwest 1/4, of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois.

Access Easement 2 - That part of the North 1/2 of the Southwest 1/4, of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois, described as follows: beginning at an existing iron pin marking the Southwest corner of the North 1/2 of the Southwest 1/4, of said Section 35; thence N.1°37'13"W.-60.10 feet along the West line of the North 1/2 of the Southwest 1/4, of said Section 35; thence along a curve to the right having a radius of 103.37 feet and a chord that bears N.58°56'54"E. for a chord distance of 129.14 feet; thence N.88°37'29"E.-82.61 feet; thence along a curve to the left having a radius of 96.79 feet and a chord that bears N.62°36'39"E. for a chord distance of 96.54 feet; thence N.23°33'29"E.-83.57 feet; thence along a curve to the right having a radius of 110.63 feet and a chord that bears N.52°29'04"E. for a chord distance of 108.85 feet; thence N.89°15'44"E.-238.30 feet; thence N.85°00'21"E.-90.85 feet; thence S.89°15'41"E.-112.44 feet; thence N.87°34'40"E.-141.83 feet; thence N.82°00'43"E.-164.42 feet; thence S.35°40'52"W.-11.41 feet to an iron pin set; thence S.7°03'30"W.-8.54 feet; thence S.82°00'43"W.-155.13 feet; thence S.87°34'40"W.-143.09 feet; thence N.89°15'41"W.-112.07 feet; thence S.85°00'21"W.-90.64 feet; thence S.89°15'44"W.-237.82 feet; thence along a curve to the left having a radius of 94.13 feet and a chord that bears S.52°09'13"W. for a chord distance of 91.79 feet; thence S.23°33'29"W.-84.92 feet; thence along a curve to the right having a radius of 113.29 feet and a chord that bears S.62°15'51"W. for a chord distance of 114.91 feet; thence S.88°44'12"W.-82.61 feet; thence along a curve to the left having a radius of 86.87 feet and a chord that bears S.59°57'25"W. for a chord distance of 106.12 feet; thence S.1°37'13"E.-56.96 feet to an existing iron pin on the South line of the North 1/2 of the Southwest 1/4, of said Section 35; thence S.88°57'47"W.-16.50 feet along said South line to the point of beginning.

Legend

Scale: 1" = 200'
○ = Existing Iron Pin or Pipe From Prev. Surveys
● = 5/8" Iron Pin Set This Survey
■ = Power Pole
= Overhead Utility Lines
100.00' = Measured Dimension
(100.00') = Record Dimension

0 200 400
Scale in Feet

Bearings are based on the Illinois State Plane Coordinate System - West Zone.

North

PROFESSIONAL LAND SURVEYOR
ROBERT M. COX
MT. ZION, ILLINOIS
NO. 3779
STATE OF ILLINOIS

LICENSE EXPIRES 11/30/2024

Survey Notes:
1.) The field and office procedures were performed by me, or under my direct supervision in the month of March 2023.
2.) No investigation was made concerning environmental or subsurface conditions or the existence of underground utilities in the course of this survey.
3.) No investigation was made concerning the compliance or non-compliance with the local zoning ordinances in effect, if any, in the course of this survey.
4.) The boundary of this property was determined by the physical location of existing monumentation in Section 35 and the surrounding Sections.
5.) This professional service conforms with the current Illinois Minimum Standards of Practice applicable to boundary surveys.

Surveyor's Certificate

I, Robert M. Cox, Illinois Professional Land Surveyor Number 3779, do hereby certify to the best of my knowledge and belief, that this plat correctly represents the results of a survey performed by me in the month of March 2023, in accordance with state statutes governing survey work in the State of Illinois.

March 30, 2023

Robert M. Cox
IL. Professional Land Surveyor No. 3779
(License Expires November 30, 2024)

Appendix 2

Title Commitment

COMMITMENT FOR TITLE INSURANCE

Issued By

FIDELITY NATIONAL TITLE INSURANCE CORPORATION

NOTICE

IMPORTANT - READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I - Requirements; Schedule B, Part II - Exceptions; and the Commitment Conditions, *Fidelity National Title Insurance Corporation*, a(n) California corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I - Requirements have not been met within 180 days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

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COMMITMENT CONDITIONS

1. DEFINITIONS

(a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.

(b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.

(c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.

(d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.

(e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.

(f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.

(g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.

(h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I - Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:
   (a) the Notice;
   (b) the Commitment to Issue Policy;
   (c) the Commitment Conditions;
   (d) Schedule A;
   (e) Schedule B, Part I—Requirements; [and]
   (f) Schedule B, Part II—Exceptions[; and
   (g) a counter-signature by the Company or its issuing agent that may be in electronic form].

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Fidelity National Title Insurance Corporation. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I - Requirements; and Schedule B, Part II - Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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5. LIMITATIONS OF LIABILITY

(a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
  (i) comply with the Schedule B, Part I - Requirements;
  (ii) eliminate, with the Company's written consent, any Schedule B, Part II - Exceptions; or
  (iii) acquire the Title or create the Mortgage covered by this Commitment.

(b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.

(c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.

(d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.

(e) The Company shall not be liable for the content of the Transaction Identification Data, if any.

(f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I - Requirements have been met to the satisfaction of the Company.

(g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

(a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.

(b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.

(c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.

(d) The deletion or modification of any Schedule B, Part II - Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.

(e) Any amendment or endorsement to this Commitment must be in writing [and authenticated by a person authorized by the Company].

(f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

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8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

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Transaction Identification Data for reference only:
Issuing Agent:
Issuing Office: Abstracts & Titles, Inc.
Issuing Office's ALTA® Registry ID: 1116833
Commitment No.: TI139156
Issuing Office File No.: TI139156
Property Address: Waffler Road, Highland, IL 62249

SCHEDULE A

1. Commitment Date: April 26, 2022 at 04:30 PM

2. Policy to be issued:

   a. ALTA Owners Policy (6/17/06)
   Proposed Insured: Columbia Acquisitions, LLC, a Delaware Limited Liability Company
   Proposed Policy Amount: REDACTED

3. The estate or interest in the Land described or referred to in this Commitment is Fee Simple.

4. The Title is, at the Commitment Date, vested in:

   Gerald A. Rottmann or Patricia M. Rottmann, Trustees of the Rottmann Living Trust dated February 22,

   2018

5. The Land is described as follows:

   SEE SCHEDULE C ATTACHED HERETO

Susan J. Engelke

Abstracts & Titles, Inc. Authorized Signatory

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AMERICAN LAND TITLE ASSOCIATION

SCHEDULE B, PART I
Requirements

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.

2. Pay the agreed amount for the estate or interest to be insured.

3. Pay the premiums, fees, and charges for the Policy to the Company.

4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.

5. Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

6. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.

7. CLOSING INFORMATION NOTE: If the closing of subject property is to be conducted by Abstracts and Titles, Inc., we require all monies due from the purchase or the loan to be in the form of a "cashier's check", "money order" or "wire transfer". The "Good Funds" section of the Title Insurance Act (215 ILCS 155/26) is effective January 1, 2010. This Act places limitations upon our ability to accept certain types of deposits into escrow. Due to wide variances in banking practices and lack of control over funds, we cannot accept financial responsibility for delays in the clearing of funds. Please call your local title office regarding the application of this new law and requirements to your transaction.

8. NOTE: If policy is to be issued in support of a mortgage loan, attention is directed to the fact that the Company can assume no liability under its policy, the closing instructions, or Insured Closing Service for compliance with the requirements of any consumer credit protection or truth in lending law in connection with said mortgage loan.

9. Effective June 1, 2009, pursuant to Public Act 95-988, satisfactory evidence of identification must be presented for the notarization of any and all documents notarized by an Illinois notary public. Satisfactory identification documents are documents that are valid at the time of the notarial act; are issued by a state or federal government agency; bear the photographic image of the individual's face; and bear the individual's signature.

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10. The Proposed Policy Amount(s) must be increased to the full value of the estate or interest being insured, and any additional premium must be paid at that time. An Owner's policy should reflect the purchase price or full value of the Land. A Loan Policy should reflect the loan amount or value of the property as collateral. The Company reserves the right to modify the Proposed Policy Amount(s) and premiums charged consistent therewith when the final amounts are approved or become known.

11. The Company should be provided a statement from the borrower(s) relative to any mortgage shown on Schedule B disclosing whether the borrower(s) have entered into any forbearance or loan modification agreement with the lender relative to delayed or post postponed payments or other restructuring of the debt secured by the mortgage.

12. Trustee's Deed from Gerald A. Rottmann or Patricia M. Rottmann, Trustees of the Rottmann Living Trust dated February 22, 2018 vesting fee simple title in Columbia Acquisitions, LLC, a Delaware Limited Liability Company.

13. We should be furnished the following concerning the Trust under which Title is held:
(a) A current Certification of Trust executed by the Trustee in accordance with 760 ILCS 5/8.5.
We reserve the right to add additional items or make further requirements after review of the requested information.

14. We should be provided with the following concerning Columbia Acquisitions, LLC, a Delaware Limited Liability Company:
A.) Articles of Organization.
B.) Operating Agreement and all Amendments thereto.
C.) Roster of Members.

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SCHEDULE B, PART II
Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I - Requirements are met.

2. Rights or claims of parties in possession not shown by Public Records.

3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land.

4. Easements, or claims of easements, not shown by the Public Records.

5. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

6. We should be furnished a properly executed ALTA statement and, unless the land insured is a condominium unit, a survey if available. Matters disclosed by the above documentation will be shown specifically.

7. Boundary line disputes, overlaps and other matters not shown by the public records.

8. Taxes for the year 2021, payable but not yet due.
   Taxes for the year 2022, which are a lien but not yet due and payable.
   Note for information purposes only: The 2020 General Taxes have been paid in the amount of $522.24.
   Permanent Parcel No. 01-1-24-35-00-000-019.001
   PERMANENT PARCEL NUMBERS ARE PROVIDED FOR INFORMATION ONLY. WE NEITHER GUARANTEE NOR INSURE THE ACCURACY OR COMPLETENESS THEREOF. YOU ARE ADVISED THAT YOU SHOULD NOT RELY UPON THESE NUMBERS AND SHOULD INDEPENDENTLY VERIFY

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TAX PARCEL NUMBERS AND THE STATUS THEREOF.

9. Easements for public and quasi-public utilities, if any.

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

11. Assessments and Taxes, if any, not shown as a lien in the public records or the records of any taxing authority that levies taxes or assessments on real property.

12. Attention is directed to ordinances and regulations relating to connections, charges and liens for use of any public sewerage, water or other utility systems serving the premises. NOTE: WE CALL YOUR ATTENTION TO THE FACT THAT ALL SEWER AND UTILITY BILLS SHOULD BE OBTAINED FROM THE OFFICES SUPPLYING THE SERVICE. WE INDICATE ONLY RECORDED LIENS.

13. Rights, easements, leases and appurtenances relating to or associated with the estate of coal, oil, gas and other minerals underlying the land.

14. Rights of the public, the State of Illinois and the Municipality in and to those portions of the premises in question, if any, taken, used or dedicated for street, alley or highway purposes, including but not limited to Waffler Road.

15. No guarantee is made of the acreage stated in the legal description at Schedule A herein.

16. Note Regarding Agricultural Property: If the land described herein is Agricultural Property, our policy will be subject to the provisions of, and rights created under, the Agricultural Credit Act of 1987.

17. Oil and Gas Lease executed by Korte and Luitjohan Excavating Contracting, Inc. to Getty Oil Company dated April 17, 1973 and recorded July 19, 1973 in Book 2926 Page 488. (For further particulars, see record)

18. 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.

19. Rights, if any, of the property owners abutting any creek and in and to the waters of the creek and in and to the bed thereof.

20. Our policy will not insure title to land comprising the shores or bottoms of adjoining waters or waters on the premises or to artificial accretions or fill.

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21. Memorandum of Agreement to Purchase and Sale dated March 8, 2022 and recorded March 10, 2022 as Document No. 2022R08360 made by and between Gerald A. Rottmann and Patricia M. Rottmann, as Trustees of the Rottmann Living Trust dated February 22, 2018 as sellers, and Columbia Acquisitions, LLC as purchasers for the sale of the premises in question, and all the terms and conditions therein contained.

22. Terms, powers, provisions and limitations of the trust agreement under which title to the premises in question is held.

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CHAIN OF TITLE

WE NOTE FOR INFORMATION PURPOSES ONLY:

TITLE TO THE PREMISES IN QUESTION WAS CONVEYED BY THE FOLLOWING:

A.) DEED RECORDED FEBRUARY 4, 1888 IN BOOK 182 AT PAGE 537.

B.) DEED RECORDED JULY 20, 1901 IN BOOK 283 AT PAGE 33.

THE DATE OF DEATH OF CALVIN LEE WAS DECEMBER 30, 1902.

C.) DEED RECORDED SEPTEMBER 14, 1926 IN BOOK 554 AT PAGE 482.

D.) WARRANTY DEED RECORDED SEPTEMBER 14, 1926 IN BOOK 577 AT PAGE 51.

E.) PHILIP GEIBEN BY WILL DATED MAY 8, 1936.

F.) THERESIA M. GEIBEN BY WILL DATED MAY 7, 1966.

G.) DEED RECORDED FEBRUARY 25, 1972 IN BOOK 2812 AT PAGE 634.

H.) DEED RECORDED APRIL 25, 1974 IN BOOK 2973 AT PAGE 2005.

I.) QUIT CLAIM DEED RECORDED NOVEMBER 8, 1999 IN BOOK 4354 AT PAGE 2994.

J.) QUIT CLAIM DEED RECORDED JULY 23, 2010 AS DOCUMENT NO. 2010R27859.

K.) WARRANTY DEED RECORDED SEPTEMBER 30, 2010 AS DOCUMENT NO. 2010R39358.

L.) QUIT CLAIM DEED RECORDED MARCH 7, 2018 AS DOCUMENT NO. 2018R06868.

M.) TRUSTEE'S DEED RECORDED MARCH 15, 2019 AS DOCUMENT NO. 2019R08103.

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SCHEDULE C

The Land is described as follows:

That portion of the North Half of the Southwest Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian lying East of the centerline of Sugar Creek, containing 35.0 acres. Subject to that portion thereof along the entire East side now being used for roadway purposes, (except coal and other mineral rights conveyed, excepted or reserved in prior conveyances) in Madison County, Illinois.

Less and except that part conveyed by Trustee's Deed recorded March 15, 2019 as Document No. 2019R08103, more particularly described as follows:
Part of the Northeast Quarter of the Southwest Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, Madison County, Illinois, described as follows:
Beginning at the Southeast corner of said Northeast Quarter of the Southwest Quarter; thence North (bearing assumed) along the East line of said Southwest Quarter, 605 feet, more or less, to the approximate centerline of Spanker Branch; thence Southwesterly along the meandering of Spanker Branch, 815 feet, more or less, to a point on the South line of said Northeast Quarter of the Southwest Quarter; thence East along said South line of the Northeast Quarter of the Southwest Quarter, 450 feet, more or less, to the point of beginning. Subject to that portion thereof along the East side now being used for roadway purposes, in Madison County, Illinois.

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COMMITMENT FOR TITLE INSURANCE

Issued By

FIDELITY NATIONAL TITLE INSURANCE CORPORATION

NOTICE

IMPORTANT - READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I - Requirements; Schedule B, Part II - Exceptions; and the Commitment Conditions, *Fidelity National Title Insurance Corporation*, a(n) corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I - Requirements have not been met within 6 months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

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COMMITMENT CONDITIONS

1. DEFINITIONS

(a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.

(b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.

(c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.

(d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.

(e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.

(f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.

(g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.

(h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I - Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:
   (a) the Notice;
   (b) the Commitment to Issue Policy;
   (c) the Commitment Conditions;
   (d) Schedule A;
   (e) Schedule B, Part I—Requirements; [and]
   (f) Schedule B, Part II—Exceptions[; and
   (g) a counter-signature by the Company or its issuing agent that may be in electronic form].

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

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5. LIMITATIONS OF LIABILITY

(a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
  (i) comply with the Schedule B, Part I - Requirements;
  (ii) eliminate, with the Company's written consent, any Schedule B, Part II - Exceptions; or
  (iii) acquire the Title or create the Mortgage covered by this Commitment.

(b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.

(c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.

(d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.

(e) The Company shall not be liable for the content of the Transaction Identification Data, if any.

(f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I - Requirements have been met to the satisfaction of the Company.

(g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

(a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.

(b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.

(c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.

(d) The deletion or modification of any Schedule B, Part II - Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.

(e) Any amendment or endorsement to this Commitment must be in writing [and authenticated by a person authorized by the Company].

(f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

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8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

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Transaction Identification Data for reference only:
Issuing Agent:
Issuing Office: Abstracts & Titles, Inc.
Issuing Office's ALTA® Registry ID: 1116833
Loan ID No.:
Commitment No.: TI141286
Issuing Office File No.: TI141286
Property Address: 4009 Lee Rd., Trenton, IL 62293

SCHEDULE A

1. Commitment Date: March 2, 2023 at 04:30 PM

2. Policy to be issued:

   a. ALTA Owners Policy (6/17/06)
   Proposed Insured: Purchaser with contractual rights under a purchase agreement with the vested owner identified at Item 4 below
   Proposed Policy Amount: $1,000.00

   b. ALTA Loan Policy (6/17/06)
   Proposed Insured: to be determined
   Proposed Policy Amount: $10,000.00

3. The estate or interest in the Land described or referred to in this Commitment is Fee Simple.

4. The Title is, at the Commitment Date, vested in:

   Korte and Luitjohan Contractors, Inc., an Illinois Corporation

5. The Land is described as follows:

   SEE SCHEDULE C ATTACHED HERETO

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Abstracts & Titles, Inc.

Authorized Signatory

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SCHEDULE B, PART I
Requirements

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.

2. Pay the agreed amount for the estate or interest to be insured.

3. Pay the premiums, fees, and charges for the Policy to the Company.

4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.

5. Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

6. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.

7. CLOSING INFORMATION NOTE: If the closing of subject property is to be conducted by Abstracts and Titles, Inc., we require all monies due from the purchase or the loan to be in the form of a "cashier's check", "money order" or "wire transfer". The "Good Funds" section of the Title Insurance Act (215 ILCS 155/26) is effective January 1, 2010. This Act places limitations upon our ability to accept certain types of deposits into escrow. Due to wide variances in banking practices and lack of control over funds, we cannot accept financial responsibility for delays in the clearing of funds. Please call your local title office regarding the application of this new law and requirements to your transaction.

8. NOTE: If policy is to be issued in support of a mortgage loan, attention is directed to the fact that the Company can assume no liability under its policy, the closing instructions, or Insured Closing Service for compliance with the requirements of any consumer credit protection or truth in lending law in connection with said mortgage loan.

9. Effective June 1, 2009, pursuant to Public Act 95-988, satisfactory evidence of identification must be presented for the notarization of any and all documents notarized by an Illinois notary public. Satisfactory identification documents are documents that are valid at the time of the notarial act; are issued by a state or federal government agency; bear the photographic image of the individual's face; and bear the individual's signature.

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10. The Proposed Policy Amount(s) must be increased to the full value of the estate or interest being insured, and any additional premium must be paid at that time. An Owner's policy should reflect the purchase price or full value of the Land. A Loan Policy should reflect the loan amount or value of the property as collateral. The Company reserves the right to modify the Proposed Policy Amount(s) and premiums charged consistent therewith when the final amounts are approved or become known.

11. The Company should be provided a statement from the borrower(s) relative to any mortgage shown on Schedule B disclosing whether the borrower(s) have entered into any forbearance or loan modification agreement with the lender relative to delayed or post postponed payments or other restructuring of the debt secured by the mortgage.

12. Warranty Deed from Korte and Luitjohan Contractors, Inc., an Illinois Corporation vesting fee simple title in Prospective Purchaser.

13. Release of mortgage dated August 12, 1994 and recorded August 16, 1994 in Book 3904 Page 835 as Document No. 2052-273 made by Korte and Luitjohan Excavating Contractors, Inc., an Illinois Corporation to Central Bank to secure $176,000.00.

14. We should be furnished with certified copies of Proper Resolutions passed by this stockholders and directors of Korte and Luitjohan Contractors, Inc., an Illinois Corporation authorizing the sale of the premises in question and this report is subject to such further matters as may then become necessary.

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SCHEDULE B, PART II
Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I - Requirements are met.

2. Rights or claims of parties in possession not shown by Public Records.

3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land.

4. Easements, or claims of easements, not shown by the Public Records.

5. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

6. We should be furnished a properly executed ALTA statement and, unless the land insured is a condominium unit, a survey if available. Matters disclosed by the above documentation will be shown specifically.

7. Boundary line disputes, overlaps and other matters not shown by the public records.

8. Taxes for the year 2022.
   Taxes for the year 2023, which are a lien but not yet due and payable.
   Note for information purposes only: The 2021 General Taxes have been paid in the amount of $5,043.96.
   Permanent Parcel No. 01-1-24-35-00-000-019
   PERMANENT PARCEL NUMBERS ARE PROVIDED FOR INFORMATION ONLY. WE NEITHER GUARANTEE NOR INSURE THE ACCURACY OR COMPLETENESS THEREOF. YOU ARE ADVISED THAT YOU SHOULD NOT RELY UPON THESE NUMBERS AND SHOULD INDEPENDENTLY VERIFY

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TAX PARCEL NUMBERS AND THE STATUS THEREOF.

9. Easements for public and quasi-public utilities, if any.

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

11. Assessments and Taxes, if any, not shown as a lien in the public records or the records of any taxing authority that levies taxes or assessments on real property.

12. Attention is directed to ordinances and regulations relating to connections, charges and liens for use of any public sewerage, water or other utility systems serving the premises.
NOTE: WE CALL YOUR ATTENTION TO THE FACT THAT ALL SEWER AND UTILITY BILLS SHOULD BE OBTAINED FROM THE OFFICES SUPPLYING THE SERVICE. WE INDICATE ONLY RECORDED LIENS.

13. Rights, easements, leases and appurtenances relating to or associated with the estate of coal, oil, gas and other minerals underlying the land.

14. Rights of the public, the State of Illinois and the Municipality in and to those portions of the premises in question, if any, taken, used or dedicated for street, alley or highway purposes, including but not limited to Lee Rd.

15. Provision contained in Quit Claim Deed from Eugene Hoyt and Ema Hoyt, his wife to Philip Geiben recorded in Book 554 Page 481stating that in the event the said strip of land described as parcel 2 herein should ever be vacated or abandoned for the purposes set forth in the said deed the land shall pass in fee to the Grantee Eugene Hoyt and Ema Hoyt. (Affects Parcel 2)

16. Memorandum of Option to Purchase Conservation Easement dated January 23, 2023 and recorded January 25, 2023 as Document No. 2023R02145 from Korte and Luitjohan Contractors, Inc., to WFI holdings B LLC, its successors and assigns and all rights and terms therein contained.

17. Rights, if any, of the property owners abutting any pond or creek in and to the waters of the pond or creek and in and to the bed thereof.

18. Our policy will not insure title to land comprising the shores or bottoms of adjoining waters or waters on the premises or to artificial accretions or fill.

19. It appears that Parcel 2 herein is being taxed with Permanent Parcel Number 01-1-24-35-00-000-023.

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SCHEDULE C

The Land is described as follows:

Parcel 1:
The North half of the South West Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, (excepting therefrom that part lying easterly of the centerline of Sugar Creek as conveyed by deed dated April 20, 1974 and recorded April 25, 1974 in Book 2973 Page 2005) also (except coal and other mineral rights conveyed, excepted, excepted or reserved in prior conveyances) in Madison County, Illinois.

Parcel 2:
A strip of land 16 1/2 feet in width off the entire West side of the South half of the South West Quarter of Section 35, Township 3 North, Range 5 West of the Third Principal Meridian, (except coal and other mineral rights conveyed, excepted or reserved in prior conveyances), in Madison County, Illinois.

Commonly known as: 4009 Lee Rd., Trenton, IL 62293

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Appendix 3

Conservation Easement

Prepared by and return to:
Attorney Jonathan Luljak
MICHAEL BEST & FRIEDRICH LLP
790 North Water Street, Suite 2500
Milwaukee, WI 53202

Exempt under 35 ILCS 200 / 31-45, paragraph (e)

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT ("Conservation Easement") is given this _____ day of _____, 202__, ("Effective Date") by COLUMBIA ACQUISITIONS LLC, a Delaware limited liability company, having an address of 248 Southwoods Centre, Columbia, Illinois 62236 ("Grantor") to HEARTLANDS CONSERVANCY, an Illinois non-profit corporation, having an address of 29 E. Main Street, Belleville, Illinois 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 Madison County, Illinois, including [____] acres more particularly described on Exhibit A attached hereto, depicted on the survey attached hereto as Exhibit B, 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 Permit requires 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 Permit, 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 Conservation 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 nuisance, exotic, or non-native vegetation in accordance with a maintenance plan approved by Grantee;

d. Planting of 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 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 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 Madison 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 a reference to 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 Corps

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 Madison 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 Madison 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.

[THE REMAINDER OF THE PAGE INTENTIONALLY LEFT BLANK]

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

GRANTOR:

COLUMBIA ACQUISITIONS 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 COLUMBIA ACQUISITIONS 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

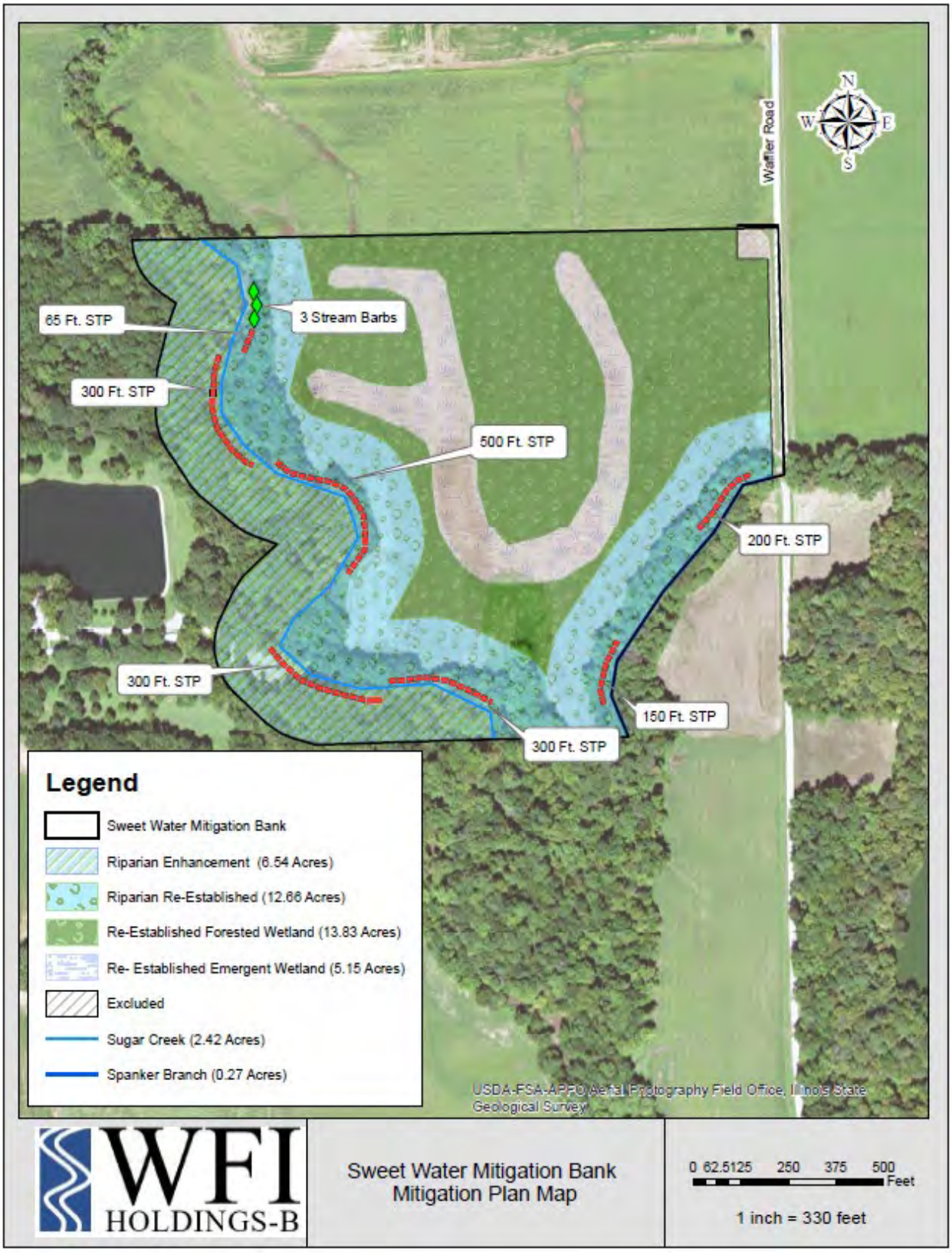
[Insert legal description of Conservation Easement Area(s)]

EXHIBIT B
SURVEY OF PROPERTY

[Insert survey of Conservation Easement Area(s)]

Appendix 4

Mitigation Work Plan


Waller Road
N
W
E
S
65 Ft. STP
3 Stream Barbs
300 Ft. STP
500 Ft. STP
200 Ft. STP
300 Ft. STP
150 Ft. STP
300 Ft. STP
Legend
Sweet Water Mitigation Bank
Riparian Enhancement (6.54 Acres)
Riparian Re-Established (12.66 Acres)
Re-Established Forested Wetland (13.83 Acres)
Re- Established Emergent Wetland (5.15 Acres)
Excluded
Sugar Creek (2.42 Acres)
Spanker Branch (0.27 Acres)
USDA-FSA-APFO Aerial Photography Field Office, Illinois State Geological Survey
WFI HOLDINGS-B
Sweet Water Mitigation Bank
Mitigation Plan Map
0 62.5125 250 375 500
Feet
1 inch = 330 feet

MIDWEST STREAMS, INC

STREAM
TECHNICAL
RESOURCE
EVALUATION
AND
MANAGEMENT
SERVICE

Wayne Kinney, Stream Specialist
6324 Wilson Road
Oakdale, IL 62268
Phone 618-830-6318 (mobile)
Email: streamdoc1@gmail.com

Nov.. 25, 2022

Sweetwater Mitigation Site

T3N, R9W, Sec. 35 Madison Co. IL

38.66212 -89.62827

20 years experience in analysis design and construction supervision in streambank stabilization

over 1000 completed projects in Illinois

low-cost solutions

fast service

innovative designs

proven results

RE: Streambank Stabilization: Sugar Creek

Sugar Creek drains 59.8 sq. miles at this location and the U.S. Geological Service "Streamstats Report" generated for this location predicts a 2 yr. peak discharge of 2080 cfs. A surveyed cross section of Sugar Creek at the upstream end of the meander bend at the NW corner of the property was completed and the channel slope was estimated from the USGS topo maps. From this data it has been determined that Sugar Creek has a capacity to carry about 1425 cfs before it floods. That is about 68% of the predicted 2 yr. peak discharge. In other words, these figures suggest that the creek overflows its banks 2 out of 3 yrs., on average.

The take away is that natural streams in balance tend to flood at about the 1.5 yr. interval, i.e. 2 out of 3 yrs., which suggests that Sugar Creek is near its "correct" size. That generally means it is not getting deeper, nor is it filling with sediment, etc. There are two major factors impacting the scour erosion at this location.

1) There is a levee on the left bank of Sugar Creek on the property upstream. As a result, Sugar Creek cannot access its floodplain on the left side immediately upstream of the property, so as soon as it reaches this location it spills out quickly over the left bank and creates the scour area at the upper site.
2) Secondly, streams typically have a "natural" levee along the top bank due to sediment, sand, etc. dropping out of the floodwaters as soon as flow enters the floodplain and the velocity slows. When banks erode laterally this natural levee is eroded away and the bank where the "natural levee" existed loses the extra height of the levee and then this point become a "low" area of the bank where flooding occurs first, i.e. scouring occurs.

These two factors come together at the NW corner of the property.

The levee on the neighboring farm is an old levee that has been grandfathered in prior to the 1972 Clean Water Act. Therefore, if it is "legal" and there are no grounds to have it removed. So, we have to live with it.

The Sweetwater Mitigation Site has a total of 1950 ft. of stream length on Sugar Creek along the west property line and there are 2 other sites that are eroding and in need of stabilization. Spanker Branch is a tributary to Sugar Creek and this stream runs along the Eastern boundary of the mitigation site for approximately 900 ft. Spanker Branch drains 17.57 sq. miles of rural land and the confluence with Sugar Creek is at the southern boundary of the Sweetwater site, although there is a portion of Spanker Branch upstream of this confluence that extends onto the neighboring property and is therefore not within the project area. Spanker Branch has two segments that are eroding laterally and will be stabilized as part of the project.

Aerial photos as well as ground photos (Attachment A) are included in this report for reference as well as indicate the locations of each proposed stabilization site.

I recommend you begin at the upper site on Sugar Creek with a series of three (3) Stream Barbs to redirect flow around this bend to stabilize the bank. Stream Barbs are recommended at this site due to the small radius of curvature that requires the use of Stream Barbs to control, rather than Stone Toe Protection which is suitable for the remainder of the project area. With the lateral migration stopped you can rebuild the left bank up to the "natural levee" height found on either side of the scour area. (In this case there is a man-made levee upstream so we only have the downstream side to determine the height of the "natural levee") With the left bank of Sugar Creek stabilized the "natural levee" can be rebuild and will not be undercut and eroded away by Sugar Creek. However, it can still be damaged by the overbank flow when Sugar Creek floods. To protect the rebuilt "natural levee" it should be built out of good soil, not sand, etc., that can be planted to some good deep-rooted grasses that can withstand the flows. Two additional things will help. Make the levee as level as possible so that flow overtops the left bank over a longer stretch and is not concentrated in any one area. Second, if the backside of the levee is as flat as possible then the turbulence and velocity will be somewhat lowered as floodwater overtops the levee.

Immediately below the 3 Stream Barbs a length of 65 ft. of Stone Toe Protection will be added to protect the bank below Barb #3 and guide the flow gently into the downstream meander.

Two other sites on the left descending bank of Sugar Creek will be treated with Stone Toe Protection at the rate of 1.3 tons of RR-4 stone with periodic "keys" cut perpendicular into the bank to prevent against flow "flanking" the STP. Reach 1 will be 500 ft. long and Reach 2 will be 300 ft. long. (See planview photos for locations)

Reach 1 is of particular concern as this bend also has a small radius and would be better suited to Stream Barbs except that, unlike the upper bend which has been "widened" by past erosion, the channel is very narrow and there is little to no bar development on the opposite bank to allow for redirecting flow. Therefore, we will use STP with the recommendation to leave the "clean concrete" (i.e. meeting 401 Clean Water Standards) in place that has been placed in previous years for a section of about 200 ft. in the apex of the meander bend. This additional bank protection will help to protect the STP from being "flanked" by high flow events thru this critical section. (See photo of Reach2—Sugar Creek)

Spanker Branch will be treated with Stone Toe protection in two areas as shown on the planview. Reach 1 is immediately below the bridge on Waffler Rd. at the upstream property line and Reach 2 is located 500 ft. downstream. Both reaches are on the left descending bank and will be treated with STP constructed of RR-4 stone at the rate of 1.0 ton/ft. of bank.

Construction drawings and plans with stationing, elevations, key locations etc. are included with this report. However, as streams are dynamic and constantly adjusting to changing conditions, these plans are to be reviewed prior to construction and construction stakes set in the field prior to implementation. Minor adjustments will likely be required to ensure plans remain technically sound.

The estimated quantities for each site proposed for the project are provided below.

Sugar Creek:

3 Stream Barbs (Sta. 1+70 to 2+85) ----------393 tons RR-5 stone

65 ft. STP (Reach 3) (Sta. 2+85 to 3+50 ----------82 tons RR-4 Stone

500 ft. STP (Reach 1) (Sta. 7+00 to 12+00) ----------765 tons RR-4 Stone

300 ft. STP (Reach 2) (Sta. 16+50 to 19+50) --------456 tons RR-4 Stone

Spanker Branch:

200 ft. STP (Reach 1) (Sta. 0+00 to Sta. 2+00)------261 tons RR-4 Stone

150 ft. STP (Reach 2) (Sta. 7+00 to Sta. 8+50)------196 tons RR-4 Stone

==========

Total RR-5 Stone	393 tons RR-5
Total RR-4 Stone	1760 tons RR-4
	==========
Total ALL Stone	2153 tons

The estimated cost for stone delivered and installed is $70 per ton plus site prep and there are quite a few trees that will need to be cleared to gain access to these sites with equipment to place the stone. The total cost is therefore estimated at $150,000 for stone and placement plus $25,000 for site preparation.

Call if you have any questions.

Wayne Kinney, Pres.

Midwest Streams, Inc.

6324 Wilson Road

Oakdale, IL 62268 (cell phone)(618) 830-6318

Sweetwater Mitigation Site

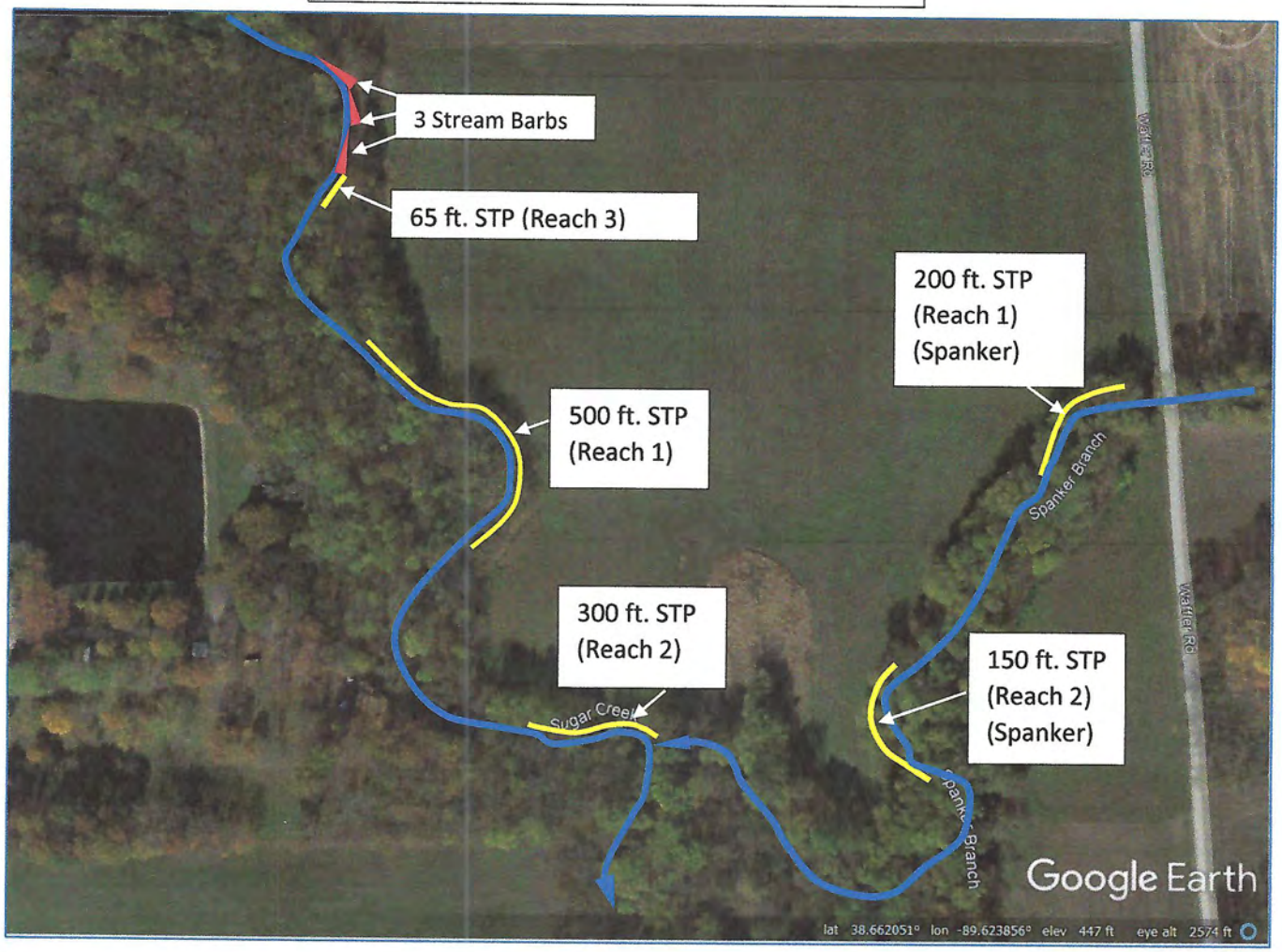
T3N, R9W, Sec. 35, Madison Co. IL

38.66212 -89.628727

Sweetwater Mitigation Site

T3N, R9W, Sec. 35 Madison Co., IL

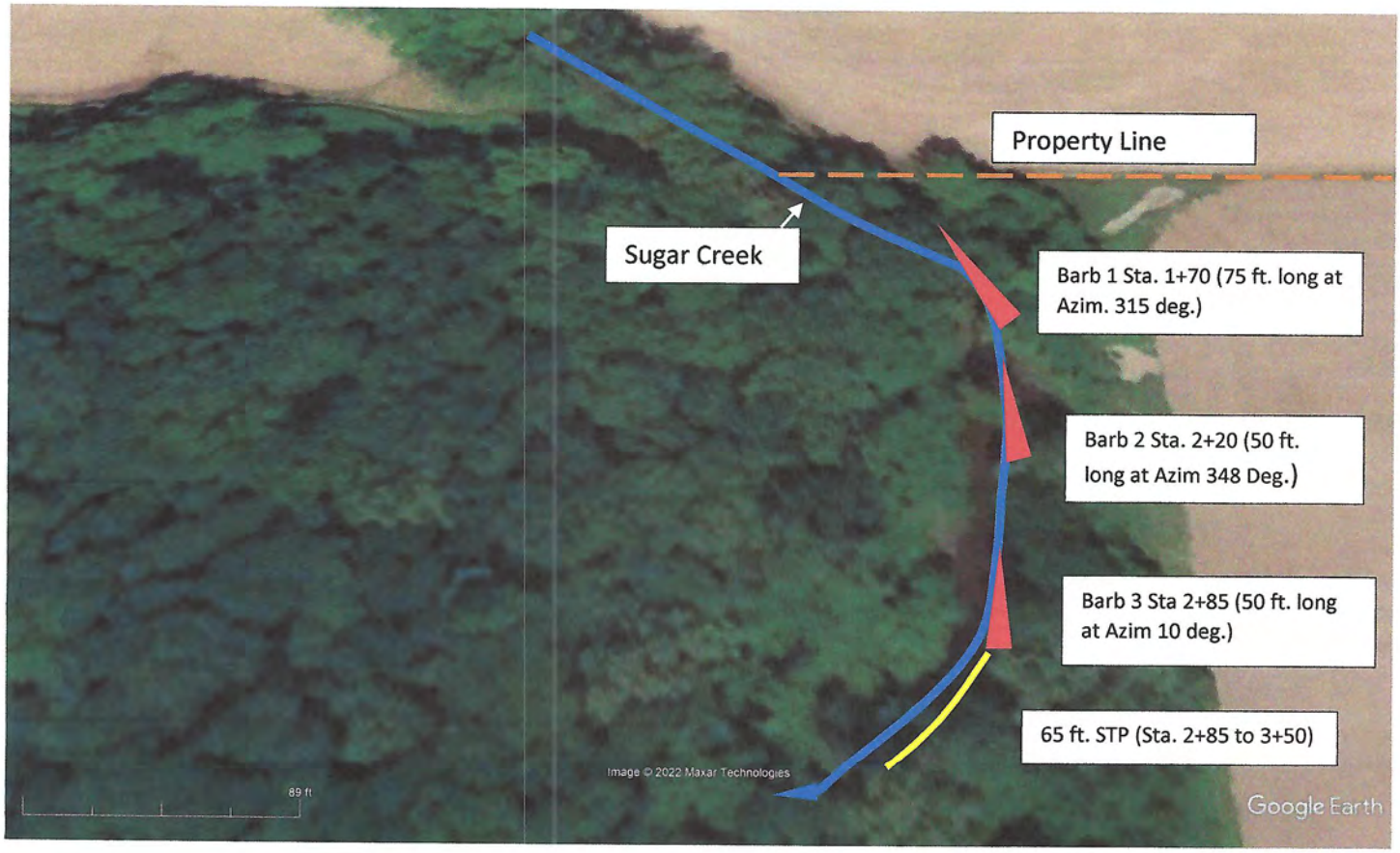
38.66212 -89.62827



Sweetwater Mitigation Site

T3N, R9W, Sec. 35 Madison Co., IL

38.66212 -89.62827



Stream Stabilization I & E Form

Midwest Streams - Version 4.0 - modified 10/2019 P. Nuernberger

County Madison T. 3N R. 5W Sec. 35

Date 11/25/22 By Wayne Kinney

Stream Name Sugar Creek UTM Coord. 38.66212 -89.62827

Landowner Name Sweetwater (MIH)

Drainage Area 59.8 sq. mi. Clear Cells

Regional Curve Predictions:

Bankfull dimensions				
	Width	74 ft.	Cross Sectional Area	360 sq. ft.
	Depth	4.9 ft.		

Reference Stream Gage:

none Station No. - Gage Q_2 -

0 - Drainage Area - Regression -

REFERENCE STREAM DATA ONLY

USGS Flood-Peak Discharge Predictions:

Valley Slope: 5.6 *ft./mi. (user-entered)* Regression Q_2 2250 cfs

ft/mi (from worksheet) Rainfall 3.45 in *(2 yr, 24 hr)* Adjusted Q_2 -

0.0011 *ft./ft.* Regional Factor 1.057 Typical Range for Bankfull Discharge: 890 to 1800 cfs

Local Stream Morphology:

Channel Description: (c) Clean, winding, some pools and shoals

Manning's "n" 0.04

Basic Field Data:

Bankfull Width	50 ft.	Stream Length		ft.	
Mean Bankfull Depth	8.6 ft.	Valley Length		ft.	
Width/Depth Ratio	5.81	Contour Interval		feet	
		Estimated Sinuosity			
Max. Bankfull Depth	12 ft.	*Channel Slope:* Surveyed:	0.00051 ft./ft.	Bankfull Q from: Cross-Section	1363 cfs
Width at twice max. depth (24.0 ft.)	1000 ft.	Estimated:	ft./ft.	Basic field data	1519 cfs
				Selected Q	1425 cfs
Entrenchment Ratio	20.00	Radius of Curvature (Rc)		ft.	
		Rc/Bankfull width:	0.00		

Bankfull Velocity Check: *(typical Illinois streams will have average bankfull velocity between 3 and 5 ft/sec.)*

Bedload:				
D_{90}	2 in.	Velocity required to move D_{90}:	2.9	ft./sec.
D_{50}	in.	Velocity from Cross-Section data:	3.17	ft./sec.
GOAL: Develop confidence by matching velocities from different sources.		Velocity from basic field data:	3.53	ft./sec.
		Velocity from selected Q:	3.3	ft./sec.

Channel Evolution Stage IV Stream Type (Rosgen)

Notes

Natural Open Channel Flow

back to I&E form

Project:	Sweetwater (MIH)	
Assisted by:	Wayne Kinney	
Date:	11/25/2022	
Channel Slope (***S***):	0.000510	*ft/ft*
Manning's ***n***:	0.040	
Flow Depth:		*ft*

$$Q = \frac{1.486}{n} A R^{\frac{2}{3}} S^{\frac{1}{2}}$$

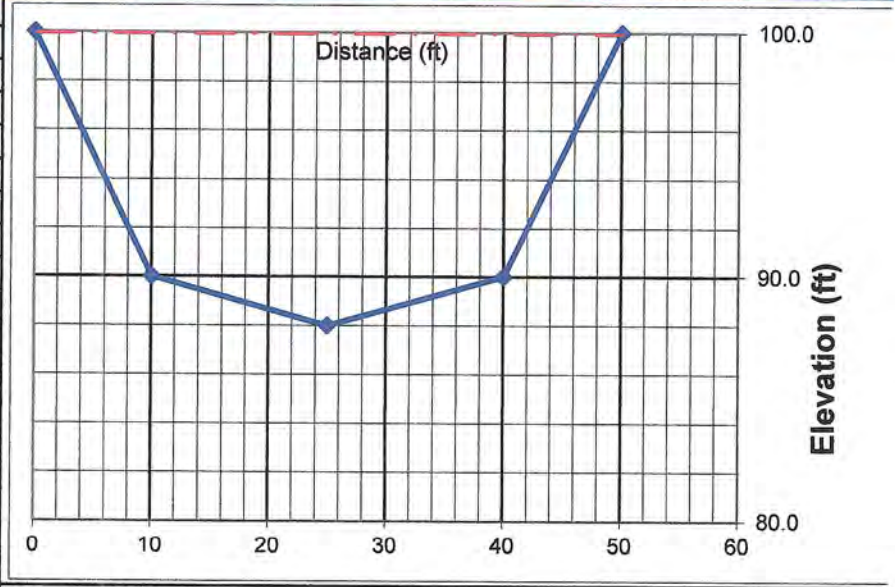
assuming uniform, steady flow

☑ Use this Cross-Section for Bankfull Determination

		Trial Depth 2	*Trial Depth 3*
Selected Flow Depth:	12.0 *ft*	12.0	
Channel Flow (***Q***):	1,363.0 *cfs*	1,363.0	
Channel Velocity:	3.2 *ft/sec*	3.2	
Cross-Sectional Area (***A***):	430.0 *sq.ft.*	430.0	
Hydraulic Radius (***R***):	7.3 *ft*	7.3	

Survey Data:

Elevation *(ft)*	Distance *(ft)*
100.0	0
90.0	10
88.0	25
90.0	40
100.0	50



COMMENTS:

Stream Barb Design Drawing Preparation

Landuser: Sweetwater (MIH)
Stream: Sugar Creek
MadisonCounty, Illinois
Location: 38.66212 -89.62827
Sec.: 35 Twp.: 3N Range: 5W

Date: 11/25/2022
By: Wayne Kinney

Beginning (Upstream) Station: 1+70
Beginning Station Description:
170 ft. below upstream property line

Benchmark EL: 100.00 *ft.*
Description:
Downstream Riffle elevation

Key Depth: 5.0 *ft.*
Key Width: 4.0 *ft.*
Base Flow Width: 40.0 *ft.*
Downstream Riffle Elevation: 100.0 *ft.*
Typical Bank Slope at Barb: 1.0 *:1*

☑ Bedrock or Shale Streambed (no bedkey needed)

REFERENCE TABLE		
IDOT Gradation	h_2 (D_{100})	D_{50}
4	1.3 *ft*	7.4 *in*
5	1.7 *ft*	9.8 *in*
6	2.0 *ft*	12.1 *in*
7	2.5 *ft*	14.6 *in*

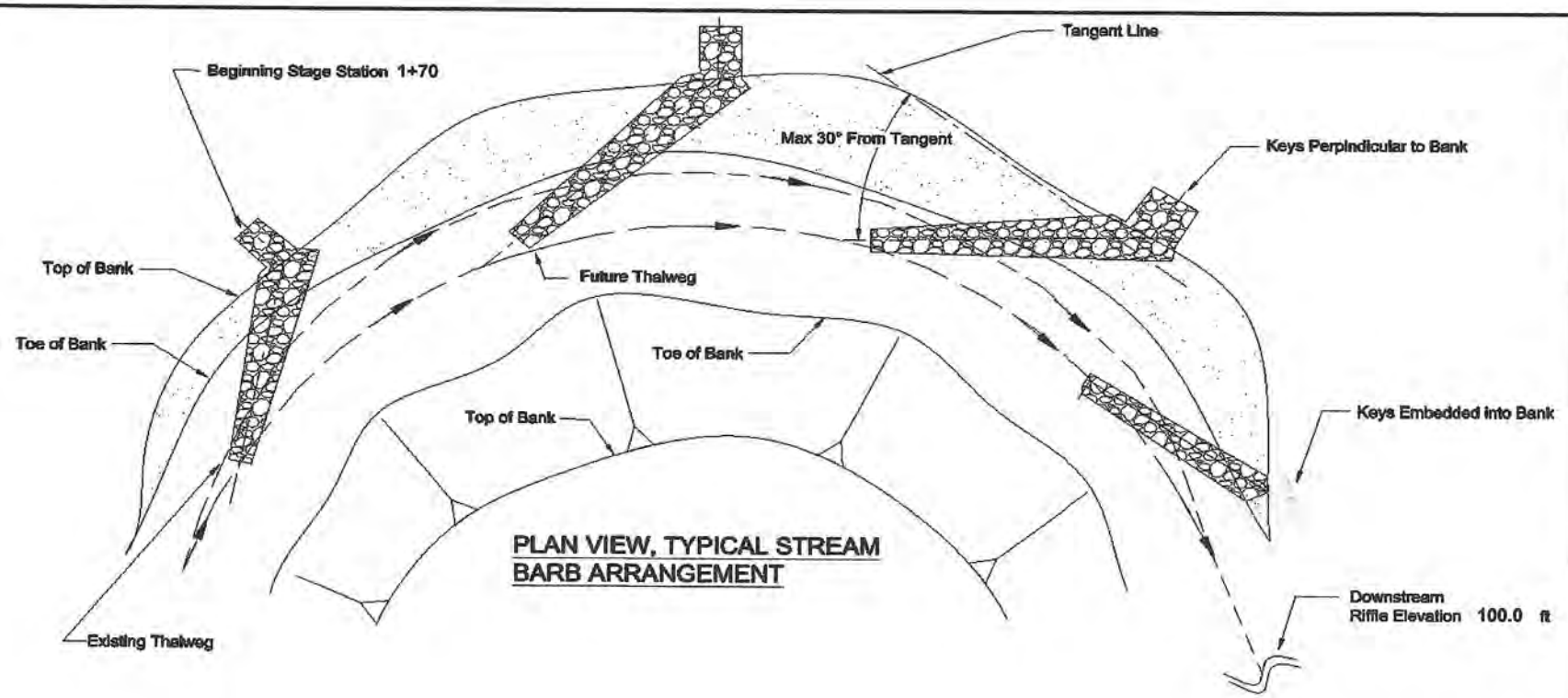
Selected rock gradation: 5

NOTE: Gradation 5 is the same as former RR-5.

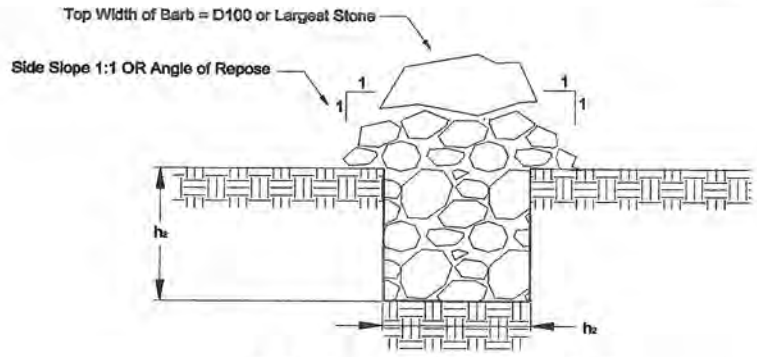
For definitions of dimensions, refer to IL-ENG-167 and IL-ENG-168

Barb	*Bank	STA	Total Barb Length *(ft)*	Effective Length *(ft)*	Control EL *(ft)*	Barb ht. h_1 *(ft.)*	Bedkey h_2 *(ft.)*	Bank key h_3 *(ft.)*	Slope *z:1*	Angle ϕ *(deg.)*	Azim *(deg.)*	Est. Rock *(Tons)*	
												Calculated	*USE*
1	left	1+70	75	19	106.0	6.5	0.0	12.0	20.9 : 1	15	315	151	165
2	left	2+20	50	10	106.0	6.5	0.0	12.0	16.9 : 1	12	348	107	118
3	left	2+85	50	9	106.0	6.0	0.0	12.0	19.7 : 1	10	10	95	110
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
											Total Stone *(Tons)*:	393	

Notes:



PLAN VIEW, TYPICAL STREAM BARB ARRANGEMENT



TYPICAL BARB CROSS SECTION
SEE SHEET TWO FOR ADDITIONAL DETAILS

NOT TO SCALE

Benchmark EL. 100.00

Description

Downstream Riffle elevation

Beginning Sta. Description

170 ft. below upstream property line

Landowner	Sweetwater (MIH)	Stream	Sugar Creek	Location	Sec. 35 T3N R5W Madison County, IL

Date 11/25/22 10/2019

Designed: Wayne Kinney
Drawn: PEN
Checked:
Approved:

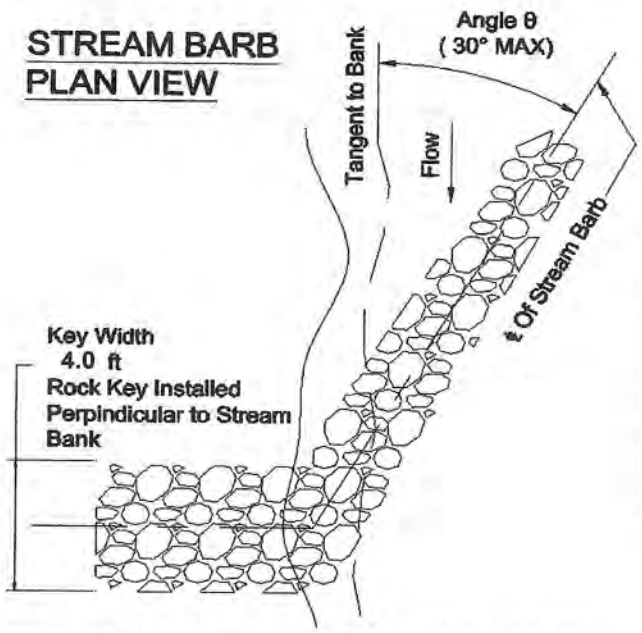
STREAM BANK STABILIZATION
STREAM BARB

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-0318

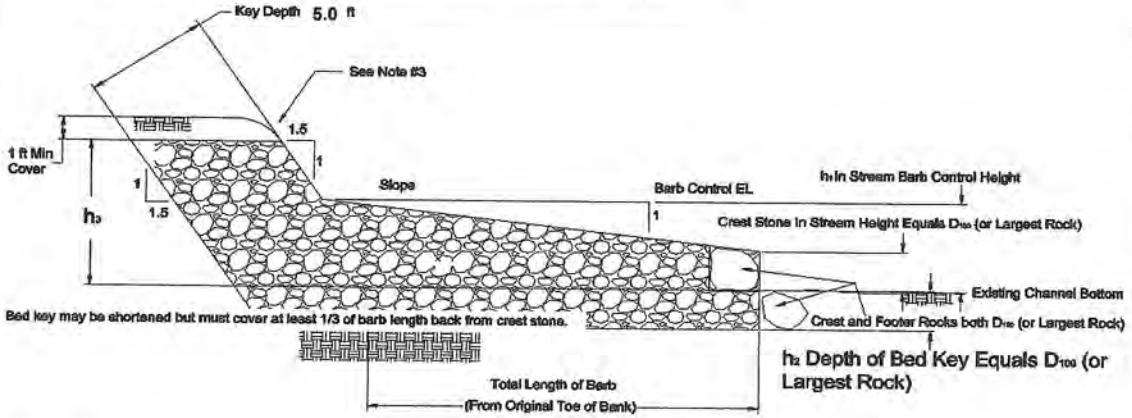
File No. MWS-ENG-167

Drawing No.

STREAM BARB PLAN VIEW



TYPICAL PROFILE, CENTERLINE OF STREAM BARB AND KEY



Barb	*Bank	Station	Total Length Of Barb	Barb Control Elevation	h_1	h_2	h_3	Slope	Angle ϕ	** Azimuth	Tons
1	left	1+70	75	106.0	6.5	0.0	12.0	21 : 1	15	315	165
2	left	2+20	50	106.0	6.5	0.0	12.0	17 : 1	12	348	118
3	left	2+85	50	106.0	6.0	0.0	12.0	20 : 1	10	10	110
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
								Total Stone			393

Notes:
1. ** Azimuth is the compass reading from magnetic north along the centerline of barb.
2. *Bank - left side or right side looking downstream.
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Rock gradation shall meet IDOT requirements for GRAD. NO. 5 riprap, quality designation "A", or as designated by engineer.

BEDROCK OR SHALE STREAMBED:
NO BEDKEY REQUIRED

NOT TO SCALE

REFERENCE TABLE		
GRAD. NO.	h_4 (D_{100})	D_{50}
A-4	1.3 *ft*	7.4 *in*
A-5	1.7 *ft*	9.8 *in*
A-6	2.0 *ft*	12.1 *in*
A-7	2.5 *ft*	14.6 *in*

Date 11/25/22 10/2019
Designed: Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION
STREAM BARB

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road Oakdale, IL 62268 618-430-6318

File No. MWS-ENG-168
Drawing No.
Sheet 2 of 2

Landowner	Sweetwater (MIH)	Stream	Sugar Creek	Location	Sec. 35 T3N R5W	Madison County, IL

Longitudinal Peaked Stone Toe (STP) Design Drawing Preparation

Landuser: Sweetwater (MIH)
Stream: Sugar Creek
Madison County, Illinois
Location: 38.66212 -89.62827
Sec.: 35 Twp.: 3N Range: 5W

Date: 11/25/2022
By: Wayne Kinney

Selected rock gradation: 4

Typical Riprap Section
STP Sideslope: 1 : 1

Key Depth: 5 ft

REFERENCE TABLE		
IDOT Class	Largest Rock(D_{100})	D_{50}
4	1.3 *ft*	7.4 *in*
5	1.7 *ft*	9.8 *in*
6	2.0 *ft*	12.1 *in*
7	2.5 *ft*	14.6 *in*

NOTE: Gradation 5 is the same as former RR-5.

STP Reach 1

Bank: Left or Right Side Looking Downstream: Left
Beginning (Upstream) Station: 7+00
Beginning Station Description: Left Bank
50 ft. downstream of tributary entering on right bank.

Benchmark EL: 100.00 *ft.*
Description: Downstream Riffle Elevation

NOTE: Reach 1

Approx. Key Spacing: 100 *ft.*
Downstream Riffle Elevation: 100.0 *ft.*
Peaked Stone Level Crest EL: 105.0 *ft.*
Average STP height: 4.5 *ft.*
Total Length of STP: 500 ft. *USE*
Average Tons/Ft. for STP: 1.28 1.3 *Tons/ft.*

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	7+00	10.0	2.0	16	
2	8+00	10.0	2.0	16	
3	8+75	10.0	2.0	16	
4	9+50	10.0	2.0	16	
5	10+25	10.0	2.0	16	
6	11+00	10.0	2.0	16	
7	12+00	10.0	2.0	16	

Average Tons Per Key: 16 *Tons*
Total Rock Amount (Estimate): 765 *Tons*

STP Reach 2

Bank: Left or Right Side Looking Downstream: Left
Beginning (Upstream) Station: 16+50
Beginning Station Description:
300 ft. upstream of confluence of Sugar Creek and Spanker Branch

Benchmark EL: 100.00 *ft.*
Description: Downstream Riffle Elevation

NOTE: Reach 2

Approx. Key Spacing: 100 *ft.*
Downstream Riffle Elevation: 100.0 *ft.*
Peaked Stone Level Crest EL: 105.0 *ft.*
Average STP height: 4.5 *ft.*
Total Length of STP: 300 ft. *USE*
Average Tons/Ft. for STP: 1.28 1.3 *Tons/ft.*

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	16+50	10.0	2.0	16	
2	17+50	10.0	2.0	16	
3	18+50	10.0	2.0	16	
4	19+50	10.0	2.0	16	

Average Tons Per Key: 16 *Tons*
Total Rock Amount (Estimate): 456 *Tons*

STP Reach 3

Bank: Left or Right Side Looking Downstream: Left

Beginning (Upstream) Station: 2+85

Beginning Station Description: Immediately below Stream Barb #3

Benchmark EL: 100.00 ft.

Description: Downstream Riffle Elevation

NOTE: Reach 3

Approx. Key Spacing: 65 ft.
Downstream Riffle Elevation: 100.0 ft.
Peaked Stone Level Crest EL: 104.0 ft.
Average STP height: 4.0 ft.
Total Length of STP: 65 ft. *USE*
Average Tons/Ft. for STP: 1.03 1 *Tons/ft.*

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	2+85	10.0	2.0	17	0
2	3+50	10.0	2.0	17	17

Average Tons Per Key: 9 *Tons*
Total Rock Amount (Estimate): 82 *Tons*

STP Reach 4

Bank: Left or Right Side Looking Downstream: Left

Beginning (Upstream) Station:

Beginning Station Description:

Benchmark EL: ft.

Description:

NOTE: Reach 4

Approx. Key Spacing: ft.
Downstream Riffle Elevation: ft.
Peaked Stone Level Crest EL: ft.
Average STP height: ft.
Total Length of STP: 0 ft. *USE*
Average Tons/Ft. for STP: *Tons/ft.*

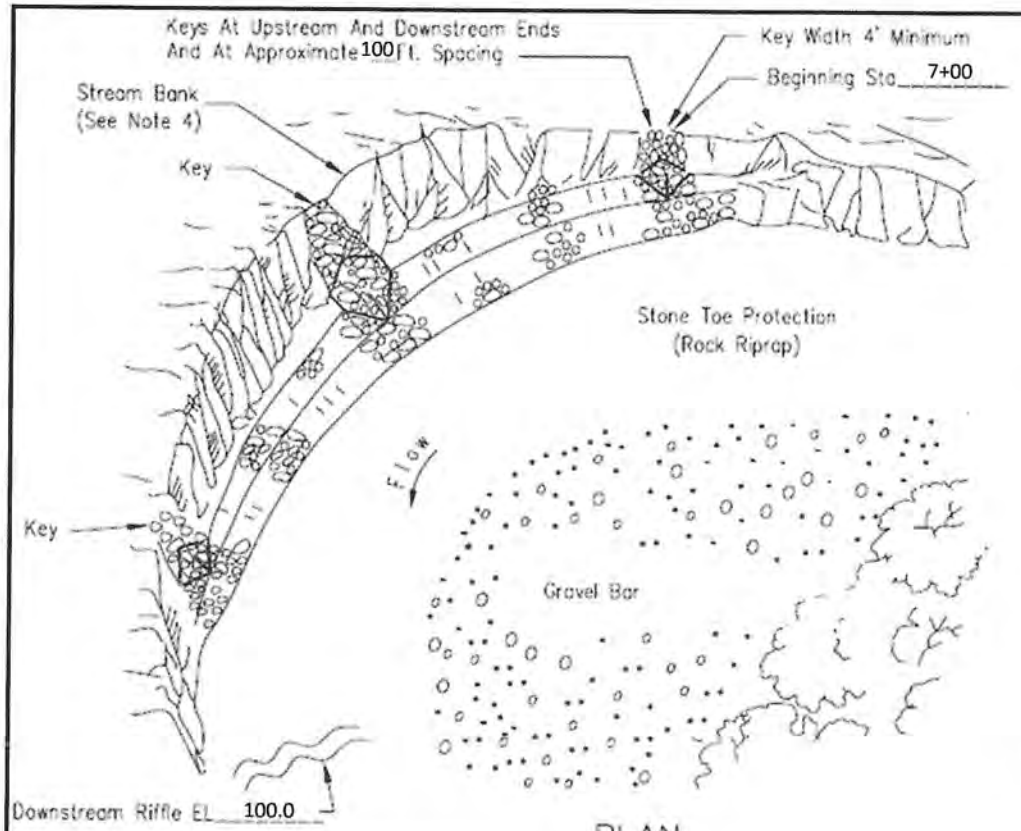
For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE

Average Tons Per Key: *Tons*
Total Rock Amount (Estimate): *Tons*

Notes:

Reach 2 ---leave clean broken concrete above STP in sharper portion of bend (sta 9+00 to 11+00)
Reach 3 ---Key 1 is same as Key for Barb #3



PLAN

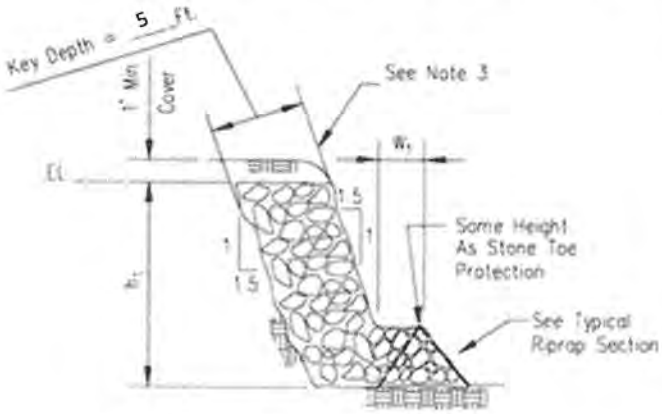
Key	Sta.	h_1	W_1	Level Crest El.
1	7+00	10.0	2.0	105.0
2	8+00	10.0	2.0	105.0
3	8+75	10.0	2.0	105.0
4	9+50	10.0	2.0	105.0
5	10+25	10.0	2.0	105.0
6	11+00	10.0	2.0	105.0
7	12+00	10.0	2.0	105.0

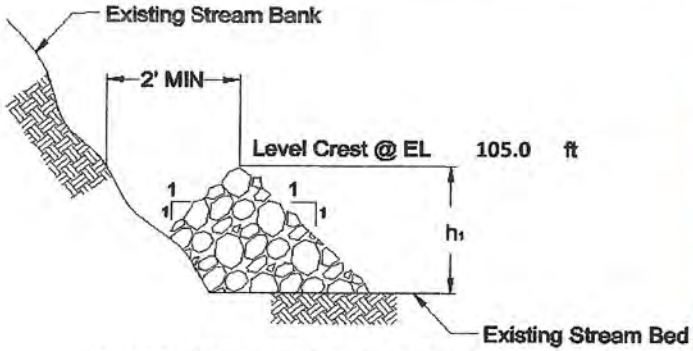
NOTE: Reach 1

Benchmark EL. 100.00
Description
Downstream Riffle Elevation

Beginning Sta. Description Left Bank
50 ft. downstream of tributary entering on right bank.

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 500 ft. @ 1.30 Tons / Ft. average
Keys 7 @ 16 Tons Each
Total Rock Amount (Estimate): 765 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Left side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

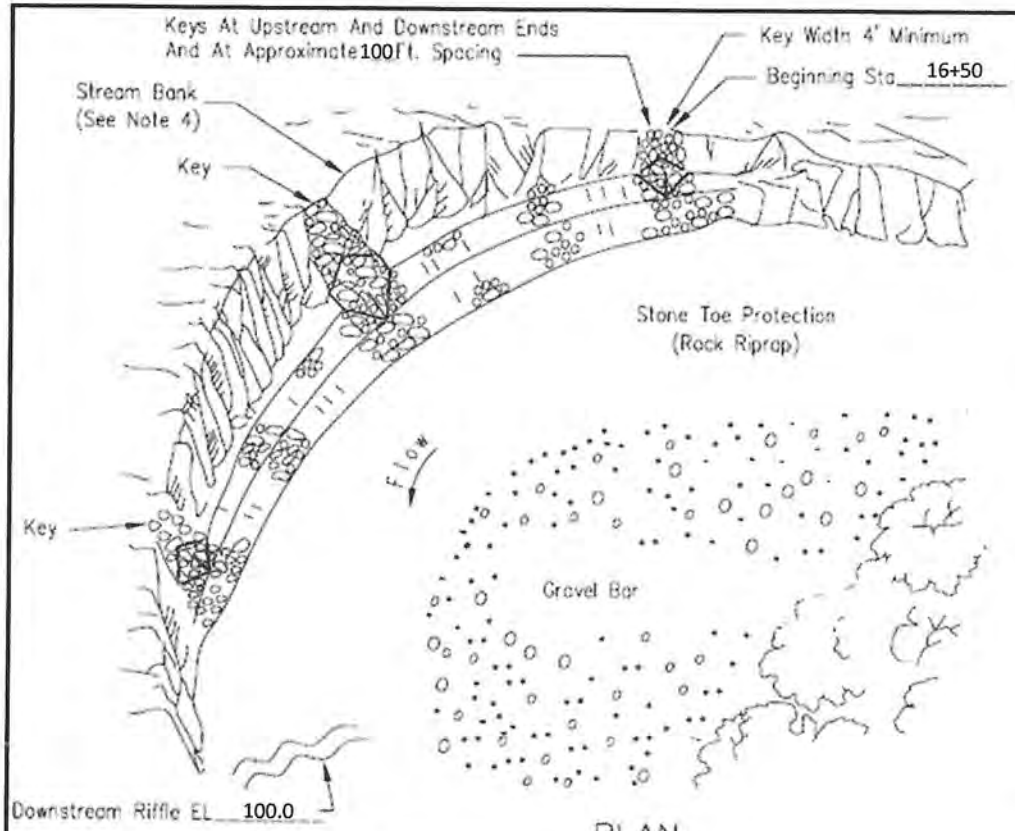
Date 11/23/22 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION
STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Sugar Creek	Location	Sec. 35 T3N R5W Madison County, IL



PLAN

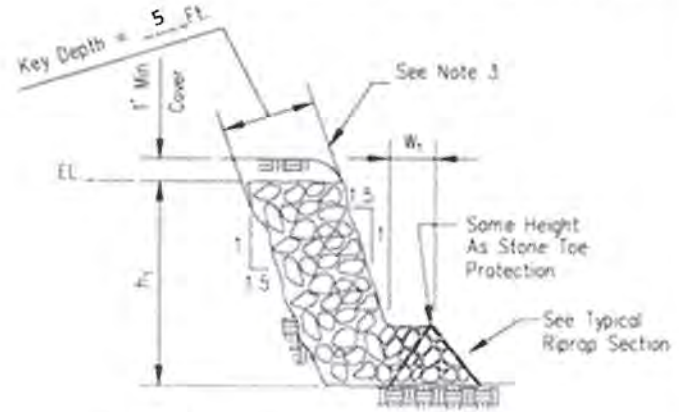
Key	Sta.	h_1	W_1	Level Crest El.
1	16+50	10.0	2.0	105.0
2	17+50	10.0	2.0	105.0
3	18+50	10.0	2.0	105.0
4	19+50	10.0	2.0	105.0

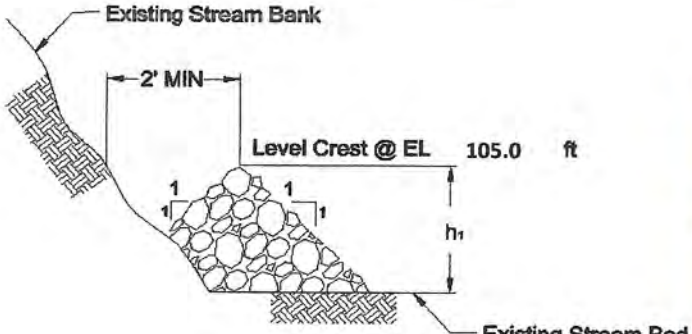
NOTE: Reach 2

Benchmark EL. 100.00
Description
Downstream Riffle Elevation

Beginning Sta. Description
300 ft. upstream of confluence of Sugar Creek and Spanker Branch

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 300 ft. @ 1.30 Tons / Ft. average
Keys 4 @ 16 Tons Each
Total Rock Amount (Estimate): 456 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Left side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

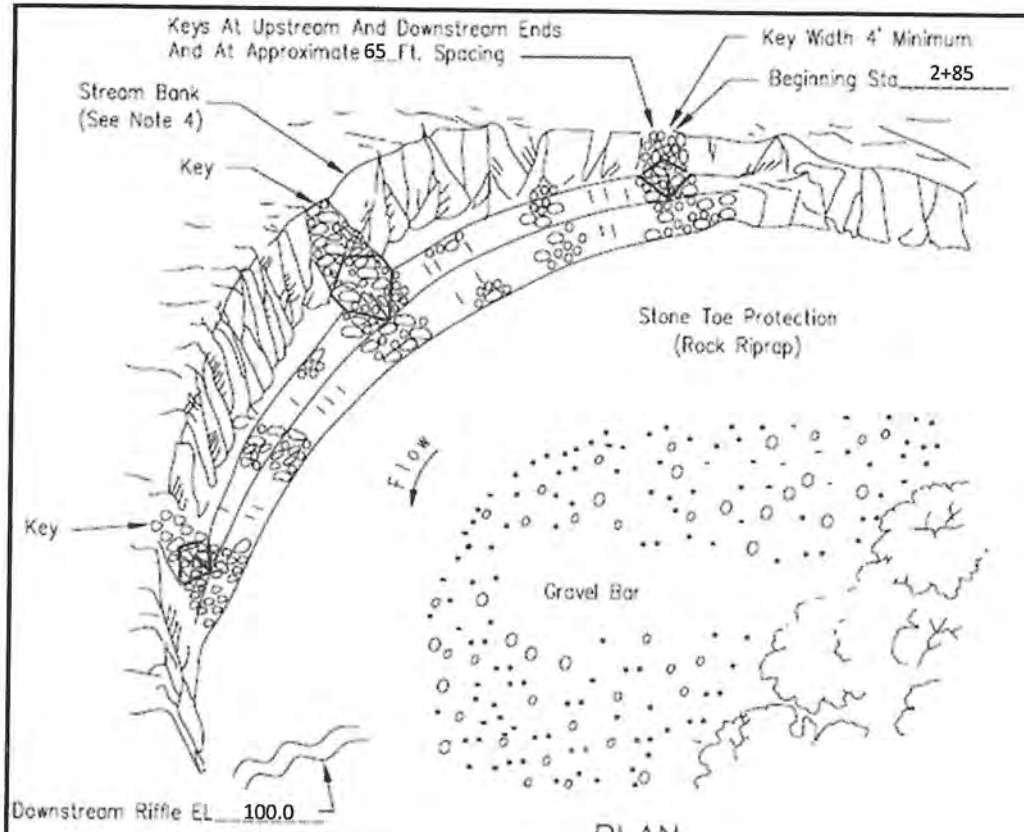
Date 11/25/2 2 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Sugar Creek	Location	Sec. 35 T3N R5W Madison County, IL



PLAN

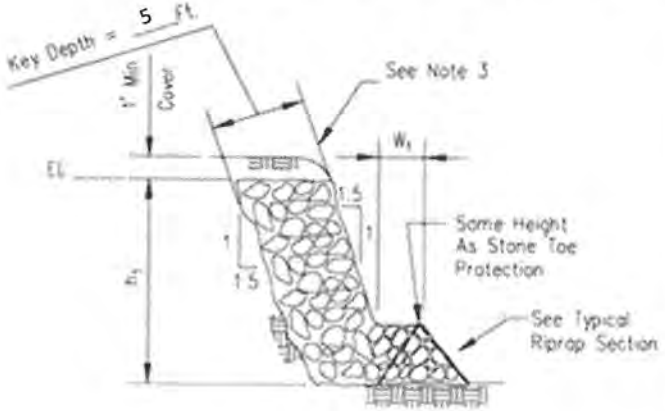
Key	Sta.	h_1	W_1	Level Crest El.
1	2+85	10.0	2.0	104.0
2	3+50	10.0	2.0	104.0

NOTE: Reach 3

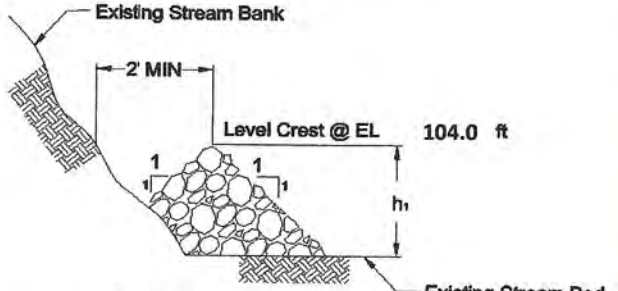
Benchmark EL. 100.00
Description
Downstream Riffle Elevation

Beginning Sta. Description
Immediately below Stream Barb #3

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 65 ft. @ 1.00 Tons / Ft. average
Keys 2 @ 9 Tons Each
Total Rock Amount (Estimate): 82 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Left side of streambank looking downstream.



KEY DETAIL



TYPICAL RIPRAP SECTION

NOT TO SCALE

Date 11/25/22
Designed Wayne Kinney 10/2019
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION
STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Sugar Creek	Location	Sec. 35 T3N R5W Madison County, IL

Stream Stabilization I & E Form

Midwest Streams - Version 4.0 - modified 10/2019 P. Nuernberger

County Madison T. 3n R. 5W Sec. 35

Date 11/25/22 By Wayne Kinney

Stream Name Spanker Branch UTM Coord. 38.65917 -89.62535

Landowner Name Sweetwater (MIH)

Drainage Area 17.57 sq. mi. Clear Cells

Regional Curve Predictions:

Bankfull dimensions Width 46 ft. Depth 3.4 ft. Cross Sectional Area 157 sq. ft.

Reference Stream Gage:

none Station No. - Drainage Area - Gage Q_2 - Regression (-

0 - **REFERENCE STREAM DATA ONLY**

USGS Flood-Peak Discharge Predictions:

Valley Slope: 9.6 *ft./mi. (user-entered)*

ft/mi (from worksheet)

0.0018 *ft./ft.*

Rainfall 3.45 in *(2 yr, 24 hr)* Regional Factor 1.057

Regression Q_2 1112 cfs

Adjusted Q_2 -

Typical Range for Bankfull Discharge: 440 to 890 cfs

Local Stream Morphology:

Channel Description: (c) Clean, winding, some pools and shoals

Manning's "n" 0.04

Basic Field Data:

Bankfull Width 27 ft.

Mean Bankfull Depth 6.33 ft.

Width/Depth Ratio 4.27

Max. Bankfull Depth 8.5 ft.

Width at twice max. depth 1500 ft. (17.0 ft.)

Entrenchment Ratio 55.56

Stream Length ft.

Valley Length ft.

Contour Interval feet

Estimated Sinuosity

Channel Slope:

Surveyed: 0.0006 *ft./ft.*

Estimated: *ft./ft.*

Radius of Curvature (Rc) ft.

Rc/Bankfull width: 0.00

Bankfull Q from:

Cross-Section 447 *cfs*

Basic field data 534 *cfs*

Selected Q 530 *cfs*

Bankfull Velocity Check: *(typical Illinois streams will have average bankfull velocity between 3 and 5 ft/sec.)*

Bedload: D_{90} 2 *in.* D_{50} *in.*

GOAL: Develop confidence by matching velocities from different sources.

Velocity required to move D_{90}: 2.9 *ft./sec.*

Velocity from Cross-Section data: 2.62 *ft./sec.*

Velocity from basic field data: 3.12 *ft./sec.*

Velocity from selected Q: 3.1 *ft./sec.*

Channel Evolution Stage III Stream Type (Rosgen)

Notes

Natural Open Channel Flow

back to I&E form

Project:	Sweetwater (MIH)
Assisted by:	Wayne Kinney
Date:	11/25/2022
Channel Slope (***S***):	0.000600 *ft/ft*
Manning's ***n***:	0.040
Flow Depth:	8.5 *ft*

$$Q = \frac{1.486}{n} A R^{\frac{2}{3}} S^{\frac{1}{2}}$$

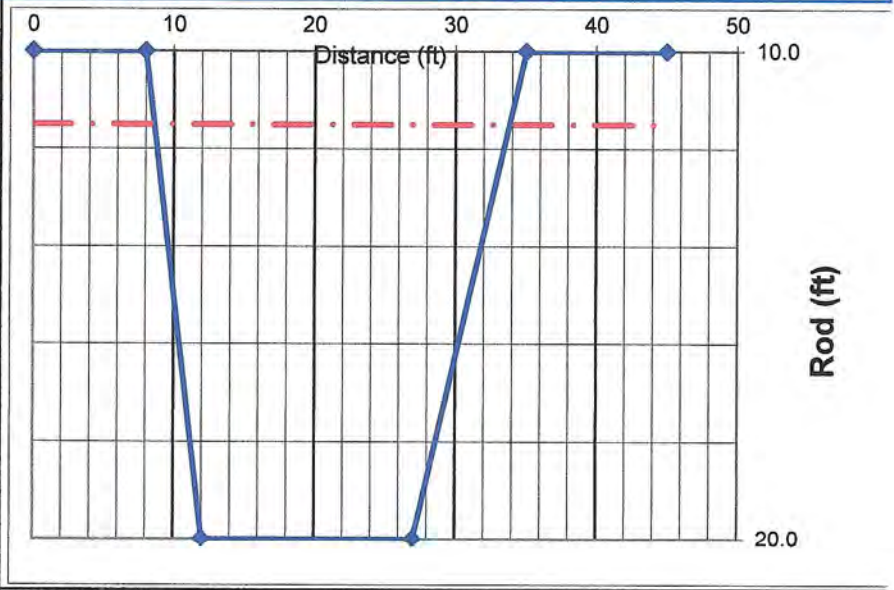
assuming uniform, steady flow

☑ Use this Cross-Section for Bankfull Determination

		Trial Depth 2	*Trial Depth 3*
Selected Flow Depth:	8.5 *ft*	10.0	
Channel Flow (***Q***):	447.0 *cfs*	458.1	
Channel Velocity:	2.6 *ft/sec*	2.2	
Cross-Sectional Area (***A***):	170.9 *sq.ft.*	210.0	
Hydraulic Radius (***R***):	4.9 *ft*	3.7	

Survey Data:

Grade Rod (ft)	Distance (ft)
10.0	0
10.0	8
20.0	12
20.0	27
10.0	35
10.0	45



COMMENTS:

Longitudinal Peaked Stone Toe (STP) Design Drawing Preparation

Landuser: Sweetwater (MIH)
Stream: Spanker Branch
Madison County, Illinois
Location: 38.65917 -89.62535
Sec.: 35 Twp.: 3n Range: 5W

Date: 11/25/2022
By: Wayne Kinney

Selected rock gradation: 4

Typical Riprap Section STP Sideslope: 1:1

Key Depth: 5 ft

REFERENCE TABLE		
IDOT Class	Largest Rock(D_{100})	D_{50}
4	1.3 *ft*	7.4 *in*
5	1.7 *ft*	9.8 *in*
6	2.0 *ft*	12.1 *in*
7	2.5 *ft*	14.6 *in*

NOTE: Gradation 5 is the same as former RR-5.

STP Reach 1

Bank: Left or Right Side Looking Downstream: Left
Beginning (Upstream) Station: 0+00
Beginning Station Description: Upstream Property Line

Benchmark EL: 100.00 ft.
Description: Downstream Riffle Elevation

NOTE: Reach 1

Approx. Key Spacing: 70 ft.
Downstream Riffle Elevation: 100.0 ft.
Peaked Stone Level Crest EL: 104.0 ft.
Average STP height: 4.0 ft.
Total Length of STP: 200 ft.
Average Tons/Ft. for STP: 1.03 USE: 1 Tons/ft.

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	0+00	9.0	2.0	15	
2	0+70	9.0	2.0	15	
3	1+40	9.0	2.0	15	
4	2+00	9.0	2.0	15	

Average Tons Per Key: 15 *Tons*
Total Rock Amount (Estimate): 261 *Tons*

STP Reach 2

Bank: Left or Right Side Looking Downstream: Left
Beginning (Upstream) Station: 7+00
Beginning Station Description: Upstream end of eroding meander bend approx. 500 ft. below end of Reach 1

Benchmark EL: 100.00 ft.
Description: Downstream Riffle elevation

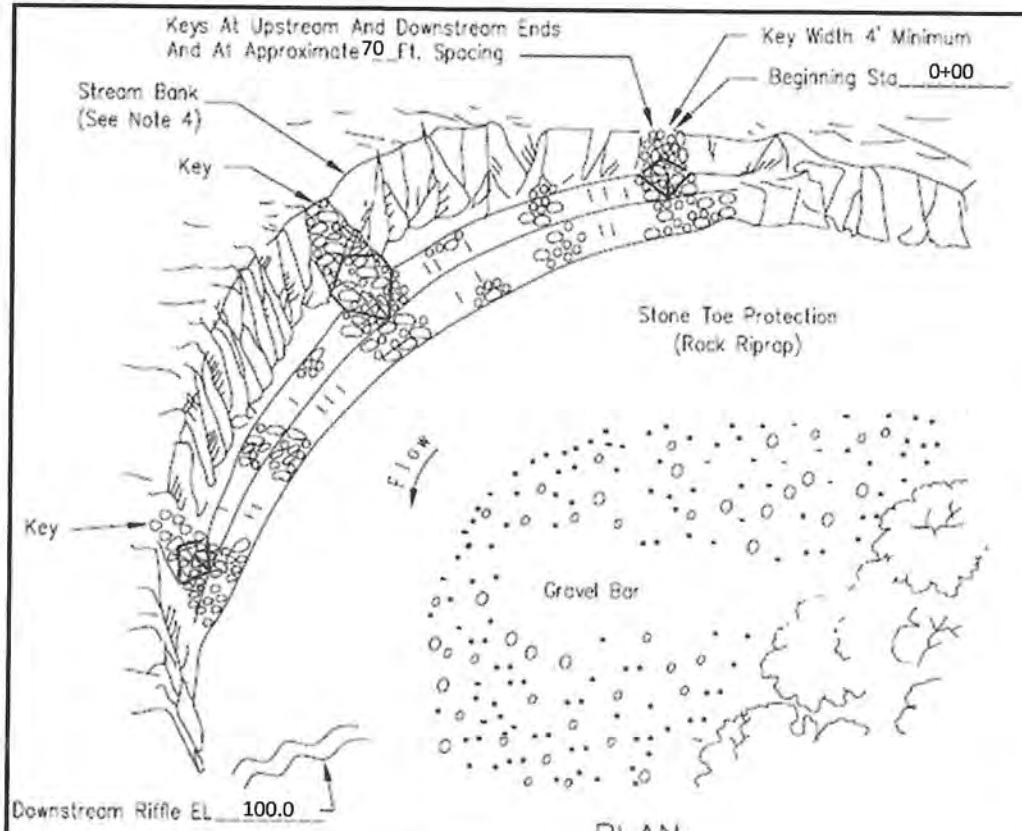
NOTE: Reach 2

Approx. Key Spacing: 75 ft.
Downstream Riffle Elevation: 100.0 ft.
Peaked Stone Level Crest EL: 104.0 ft.
Average STP height: 4.0 ft.
Total Length of STP: 150 ft.
Average Tons/Ft. for STP: 1.03 USE: 1 Tons/ft.

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	7+00	9.0	2.0	15	
2	7+75	9.0	2.0	15	
3	8+50	9.0	2.0	15	

Average Tons Per Key: 15 *Tons*
Total Rock Amount (Estimate): 196 *Tons*



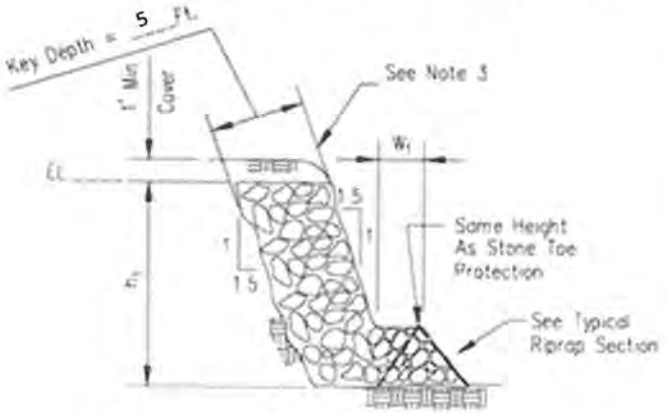
PLAN

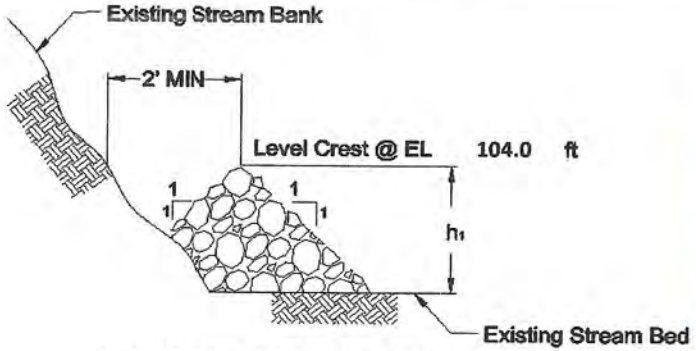
Key	Sta.	h_1	W_1	Level Crest El.
1	0+00	9.0	2.0	104.0
2	0+70	9.0	2.0	104.0
3	1+40	9.0	2.0	104.0
4	2+00	9.0	2.0	104.0

NOTE: Reach 1

Benchmark EL. 100.00
Description
Downstream Riffle Elevation
Beginning Sta. Description
Upstream Property Line

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 200 ft. @ 1.00 Tons / Ft. average
Keys 4 @ 15 Tons Each
Total Rock Amount (Estimate): 261 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Left side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

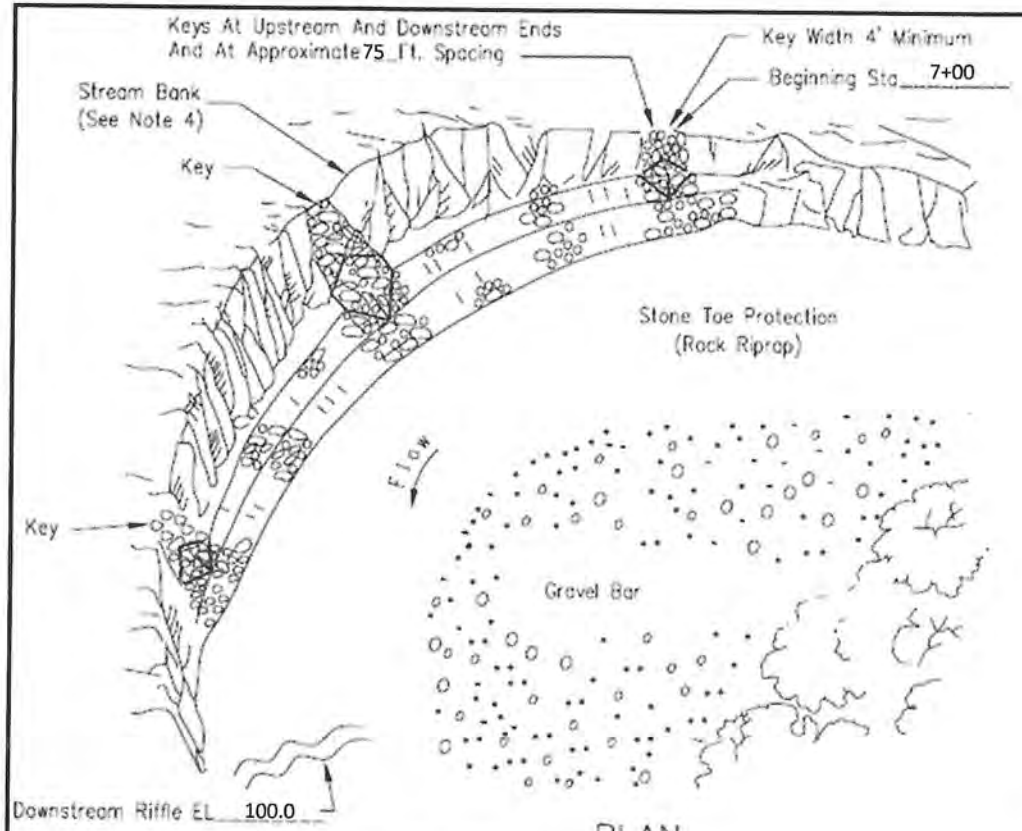
Date 11/25/22 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION
STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-8318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Spanker Branch	Location	Sec. 35 T3n R5W Madison County, IL



PLAN

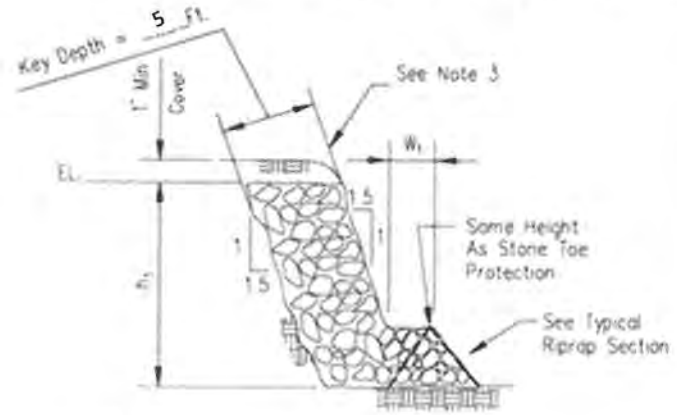
Key	Sta.	h_1	W_1	Level Crest El.
1	7+00	9.0	2.0	104.0
2	7+75	9.0	2.0	104.0
3	8+50	9.0	2.0	104.0

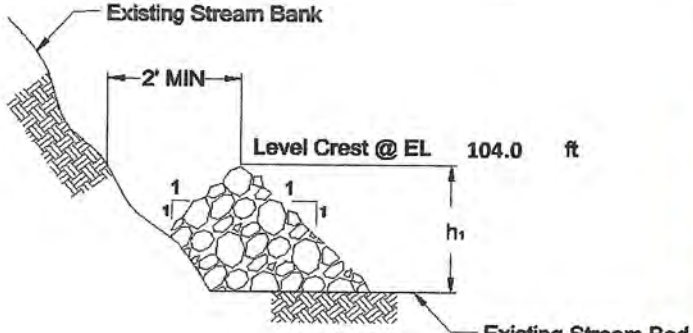
NOTE: Reach 2

Benchmark EL. 100.00
Description
Downstream Riffle elevation

Beginning Sta. Description
Upstream end of eroding meander bend
approx. 500 ft. below end of Reach 1

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 150 ft. @ 1.00 Tons / Ft. average
Keys 3 @ 15 Tons Each
Total Rock Amount (Estimate): 196 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Left side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

Date 11/25/2
2 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION STONE TOE PROTECTION

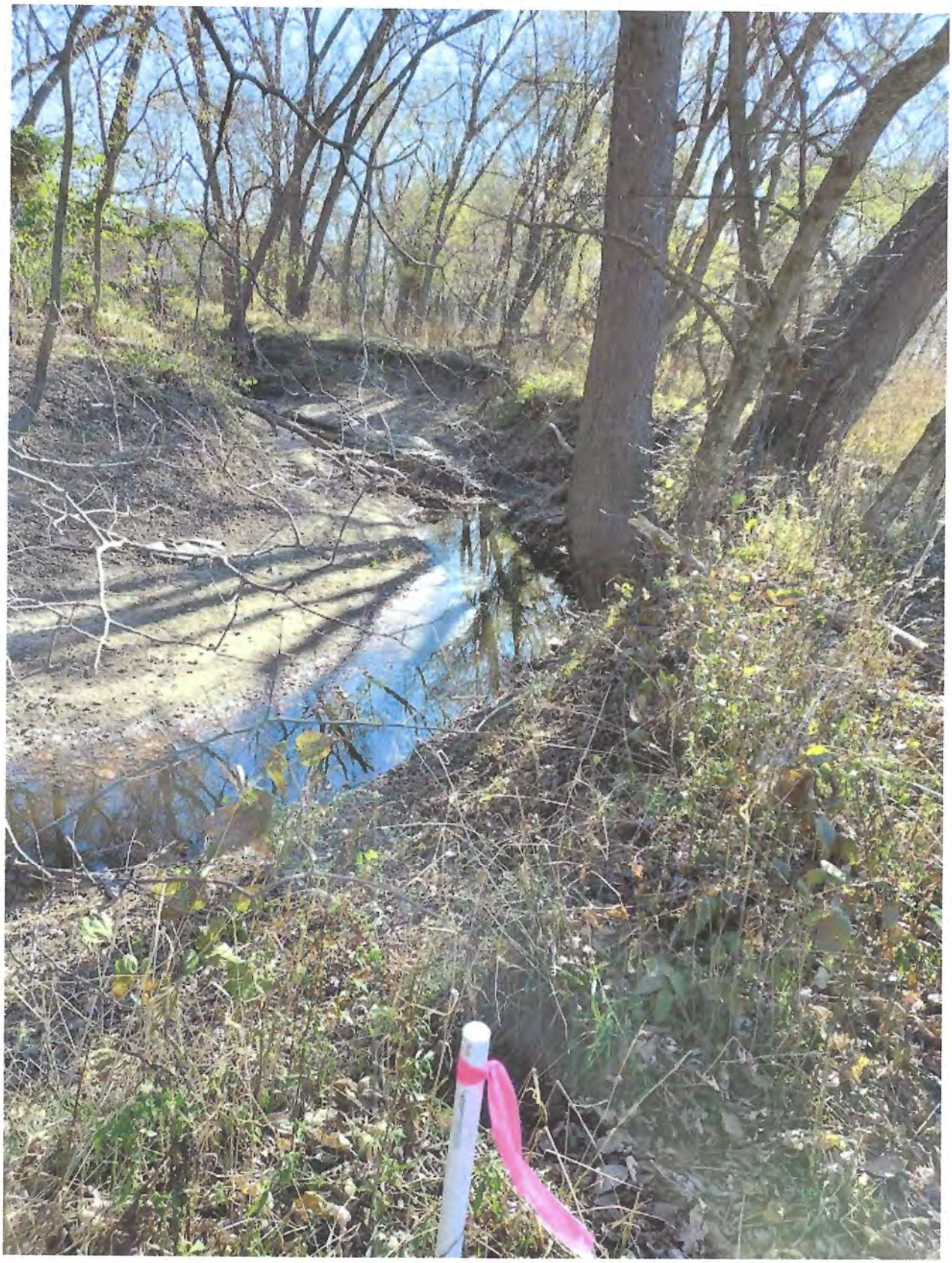
MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Spanker Branch	Location	Sec. 35 T3n R5W Madison County, IL

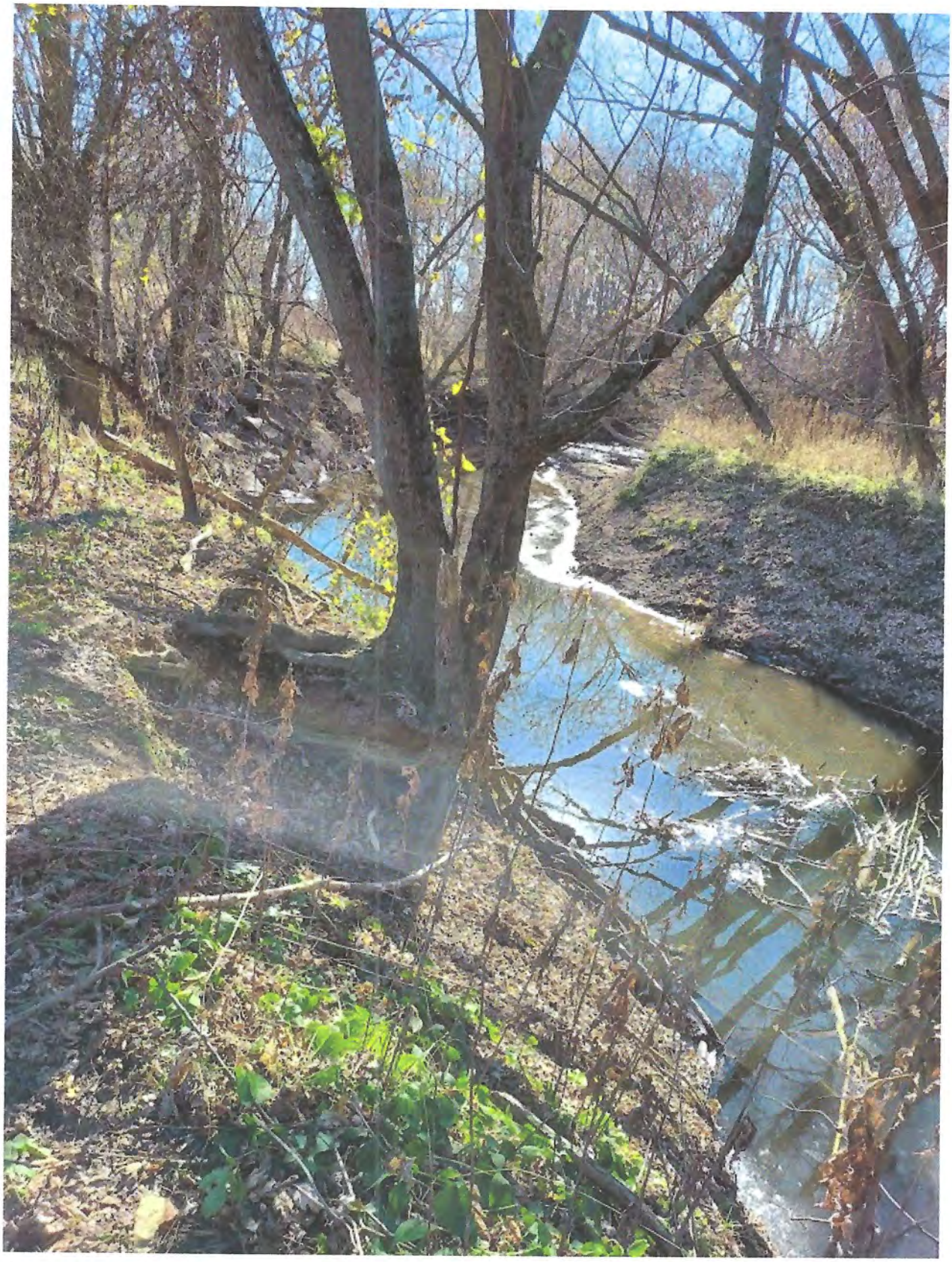
ATTACHMENT A

Site of 200 ft. STP Reach 1 –Spanker Branch (Looking Downstream)

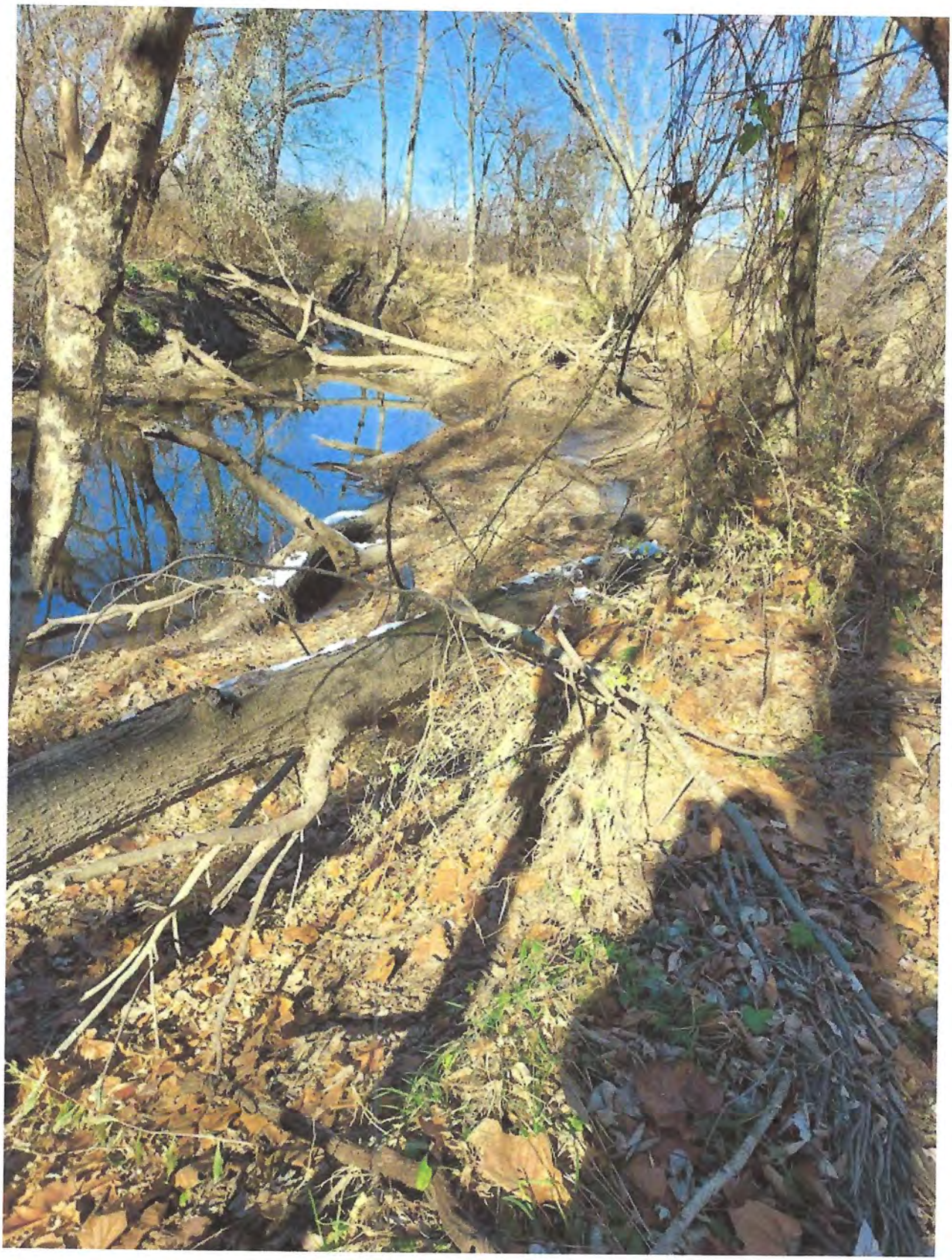


Site of 150 ft. STP Reach 2: Spanker Branch (Looking Downstream)

Site of 300 ft. STP Sugar Creek: Reach 2 (Looking Upstream)



Site of 500 ft. STP Sugar Creek: Reach 1 (Looking Downstream)



Site of 3 Stream Barbs –Sugar Creek (Looking Upstream)

MIDWEST STREAMS, INC

STREAM
TECHNICAL
RESOURCE
EVALUATION
AND
MANAGEMENT
SERVICE

Wayne Kinney, Stream Specialist
6324 Wilson Road
Oakdale, IL 62268
Phone 618-830-6318 (mobile)
Email: streamdoc1@gmail.com

Dec. 10, 2022

Sweet Water Mitigation Site

Amendment 1—Korte Addition

T3N, R9W, Sec. 35 Madison County, IL

38.66212 -89.62827

20 years experience in analysis design and construction supervision in streambank stabilization

over 1000 completed projects in Illinois

low-cost solutions

fast service

innovative designs

proven results

RE: Modification of In-Stream Practices and addition of Right Bank Sugar Creek

This amendment to Sweet Water Mitigation Site, dated Nov. 25, 2022, is to supplement the current plan document to include stabilization of the right descending bank on the Korte property. Additionally, woody material is recommended to be incorporated into the Stone Toe Protection by placing lives stakes in the backfill area of the Stone Toe protection, where feasible and sufficient sunlight and moisture are available. (see design drawing).

Live poles of Willow and Sycamore will be laid parallel to the back face of the STP on top of a minimum of 6 inches of soil that has been placed along this surface of the STP. Poles shall be a minimum of ½ inch diameter and 4 ft. long. Poles will be placed approx. 1 foot apart along the STP. Cuttings shall be harvested and planted during the dormant season before the plants break bud in the spring. Poles will then be covered with a minimum of 1 foot of compacted soil.

This amendment also adds two reaches of Stone toe Protection to the right descending bank of Sugar Creek for a total of 600 ft. of additional STP at the rate of 1.3 tons/foot of bank. (see revised planview)

The estimated quantities for each site proposed on the right bank of Sugar Creek are:

300 ft. STP (Reach 1-Korte) –Sta 3+50 to 6+50----------456 tons RR-4 stone

300 ft. STP (Reach 2-Korte) –Sta. 13+50 to 16+50 ----------456 tons RR-4 stone

==========

Total Stone 912 tons RR-4

These quantities are in addition to the quantities specified in the Nov. 25, 2022 document.

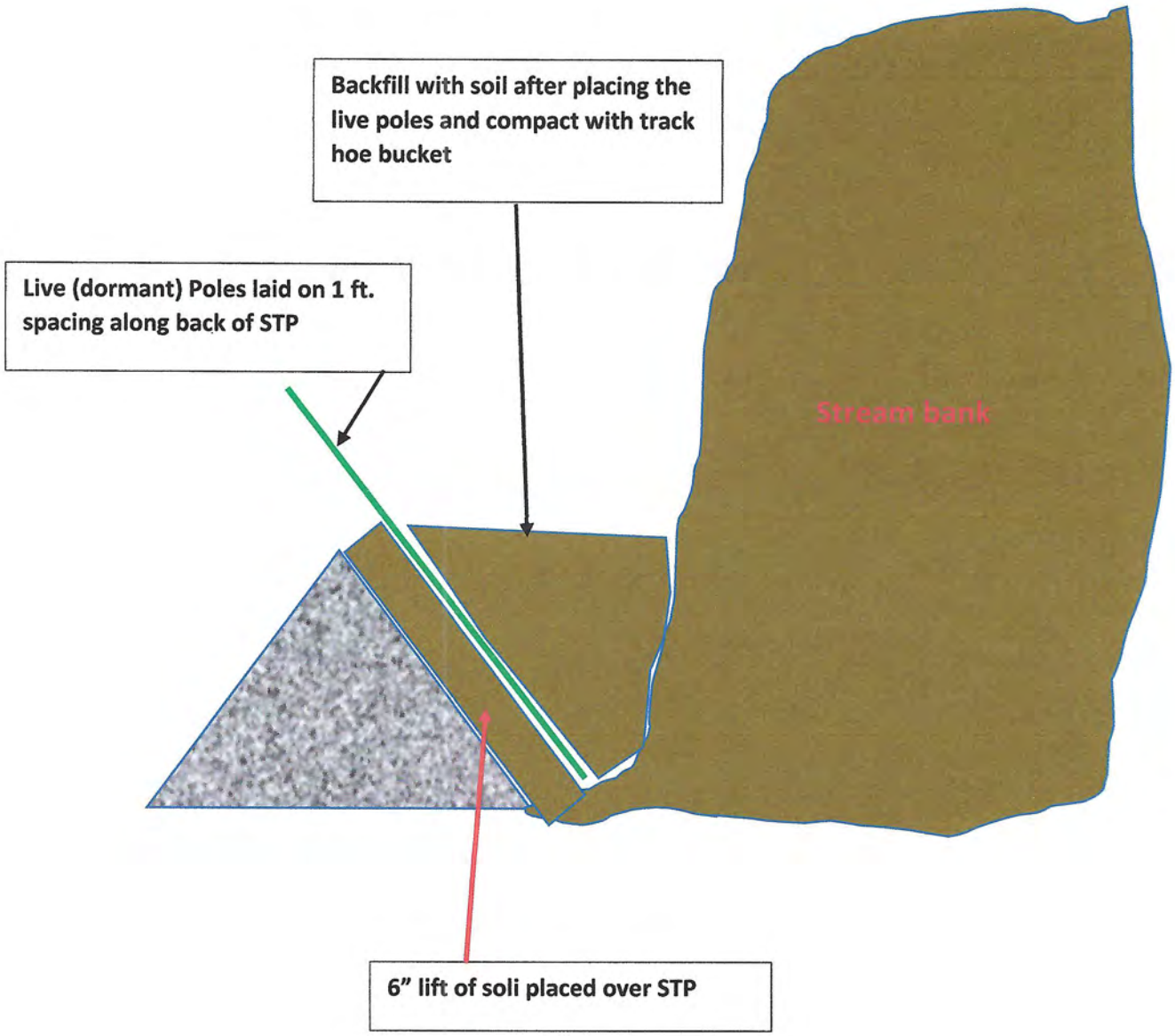
Wayne Kinney, Pres.

Midwest Streams, Inc.

6324 Wilson Road

Oakdale, IL

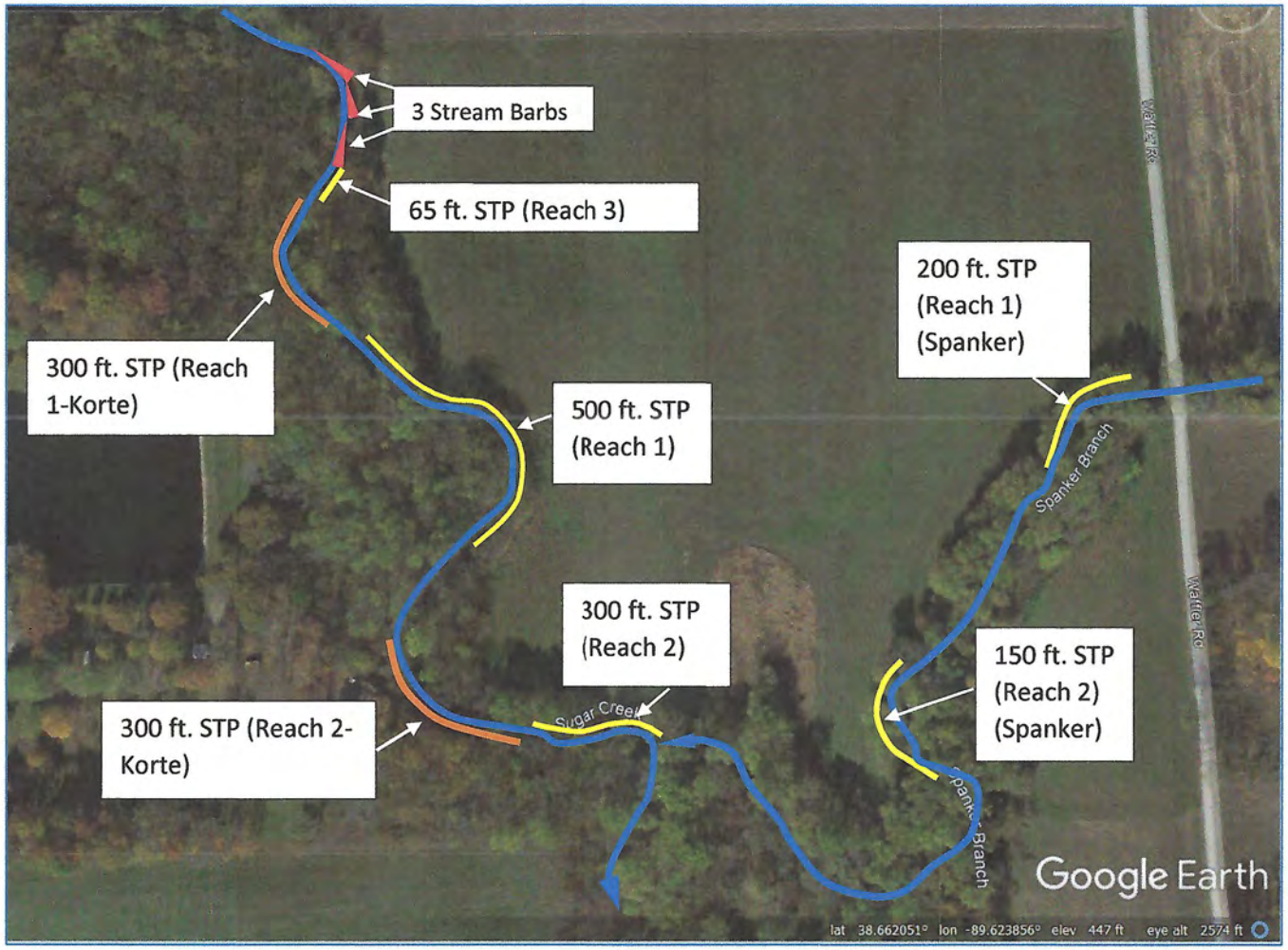
Typical Live Pole Planting w/ Stone Toe Protection



Sweetwater Mitigation Site

T3N, R9W, Sec. 35 Madison Co., IL

38.66212 -89.62827



Stream Stabilization I & E Form

Midwest Streams - Version 4.0 - modified 10/2019 P. Nuernberger

County Madison T. 3N R. 5W Sec. 35

Date 11/25/22 By Wayne Kinney

Stream Name Sugar Creek (Korte) UTM Coord. 38.66212 -89.62827

Landowner Name Sweetwater (MIH)

Drainage Area 59.8 sq. mi. Clear Cells

Regional Curve Predictions:

Bankfull dimensions				
	Width	74 ft.	Cross Sectional Area	360 sq. ft.
	Depth	4.9 ft.		

Reference Stream Gage:

none Station No. - Gage Q_2 -

0 - Drainage Area - Regression (-

REFERENCE STREAM DATA ONLY

USGS Flood-Peak Discharge Predictions:

Valley Slope: 5.6 *ft./mi. (user-entered)* Regression Q_2 2250 cfs

ft/mi (from worksheet) Rainfall 3.45 in *(2 yr, 24 hr)* Adjusted Q_2 -

0.0011 *ft./ft.* Regional Factor 1.057 Typical Range for Bankfull Discharge:

890 to 1800 cfs

Local Stream Morphology:

Channel Description: (c) Clean, winding, some pools and shoals

Manning's "n" 0.04

Stream Length ft.

Valley Length ft.

Basic Field Data:

Bankfull Width 50 ft. Contour Interval feet

Mean Bankfull Depth 8.6 ft. Estimated Sinuosity

Width/Depth Ratio 5.81

Channel Slope: Bankfull Q from:

Max. Bankfull Depth 12 ft. Surveyed: 0.00051 *ft./ft.* Cross-Section 1363 *cfs*

Width at twice max. depth 1000 ft. Estimated: *ft./ft.* Basic field data 1519 *cfs*

(24.0 ft.) Selected Q 1425 *cfs*

Entrenchment Ratio 20.00 Radius of Curvature (Rc) ft.

Rc/Bankfull width: 0.00

Bankfull Velocity Check: *(typical Illinois streams will have average bankfull velocity between 3 and 5 ft/sec.)*

Bedload:					
	D_{90}	2 *in.*	Velocity required to move D_{90}:	2.9	*ft./sec.*
	D_{50}	*in.*	Velocity from Cross-Section data:	3.17	*ft./sec.*
GOAL: Develop confidence by matching			Velocity from basic field data:	3.53	*ft./sec.*
velocities from different sources.			Velocity from selected Q:	3.3	*ft./sec.*

Channel Evolution Stage IV Stream Type (Rosgen)

Notes

Natural Open Channel Flow

back to I&E form

Project:	Sweetwater (MIH)
Assisted by:	Wayne Kinney
Date:	11/25/2022
Channel Slope (***S***):	0.000510 *ft/ft*
Manning's ***n***:	0.040
Flow Depth:	*ft*

$$Q = \frac{1.486}{n} A R^{\frac{2}{3}} S^{\frac{1}{2}}$$

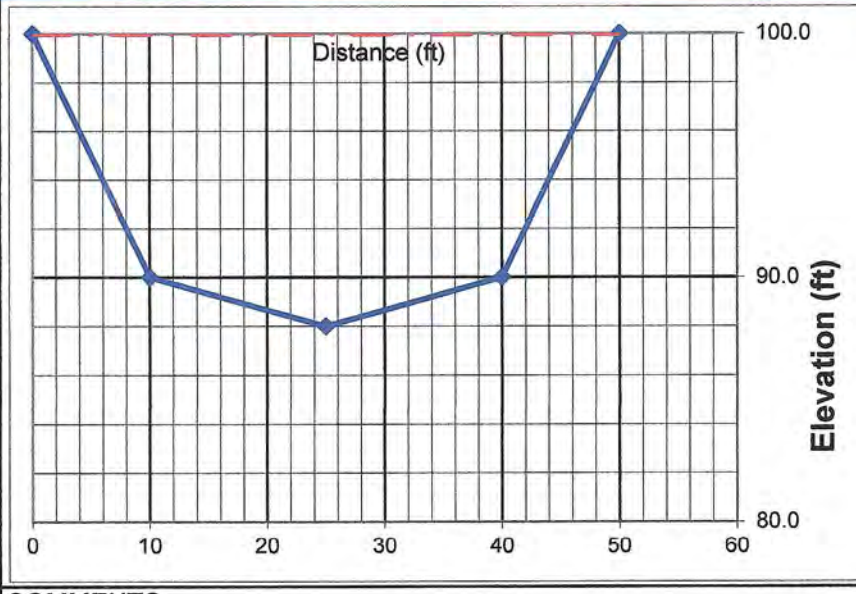
assuming uniform, steady flow

☑ Use this Cross-Section for Bankfull Determination

		Trial Depth 2	*Trial Depth 3*
Selected Flow Depth:	12.0 *ft*	12.0	
Channel Flow (***Q***):	1,363.0 *cfs*	1,363.0	
Channel Velocity:	3.2 *ft/sec*	3.2	
Cross-Sectional Area (***A***):	430.0 *sq.ft.*	430.0	
Hydraulic Radius (***R***):	7.3 *ft*	7.3	

Survey Data:

Elevation *(ft)*	Distance *(ft)*
100.0	0
90.0	10
88.0	25
90.0	40
100.0	50



COMMENTS:

Longitudinal Peaked Stone Toe (STP) Design Drawing Preparation

Landuser: Sweetwater (MIH)
Stream: Sugar Creek (Korte)
Madison County, Illinois
Location: 38.66212 -89.62827
Sec.: 35 Twp.: 3N Range: 5W

Date: 11/25/2022
By: Wayne Kinney

Selected rock gradation: 4

Typical Riprap Section: 1 : 1
STP Sideslope:

Key Depth: 5 ft

REFERENCE TABLE		
IDOT Class	Largest Rock(D_{100})	D_{50}
4	1.3 *ft*	7.4 *in*
5	1.7 *ft*	9.8 *in*
6	2.0 *ft*	12.1 *in*
7	2.5 *ft*	14.6 *in*

NOTE: Gradation 5 is the same as former RR-5.

STP Reach 1

Bank: Left or Right Side Looking Downstream: Right
Beginning (Upstream) Station: 3+50
Beginning Station Description: Opposite end of STP on left bank below Barb #3

Benchmark EL: 100.00 ft.
Description: Downstream Riffle elevation

NOTE: Reach 1

Approx. Key Spacing: 100 ft.
Downstream Riffle Elevation: 100.0 ft.
Peaked Stone Level Crest EL: 105.0 ft.
Average STP height: 4.5 ft.
Total Length of STP: 300 ft. *USE*
Average Tons/Ft. for STP: 1.28 1.3 *Tons/ft.*

For definitions of dimensions, refer to IL-ENG-152

Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	3+50	10.0	2.0	16	
2	4+50	10.0	2.0	16	
3	5+50	10.0	2.0	16	
4	6+50	10.0	2.0	16	

Average Tons Per Key: 16 *Tons*
Total Rock Amount (Estimate): 456 *Tons*

STP Reach 2

Bank: Left or Right Side Looking Downstream: Right
Beginning (Upstream) Station: 13+50
Beginning Station Description: Upper end of excarpment on Korte Property

Benchmark EL: 100.00 ft.
Description: Downstream Riffle elevation

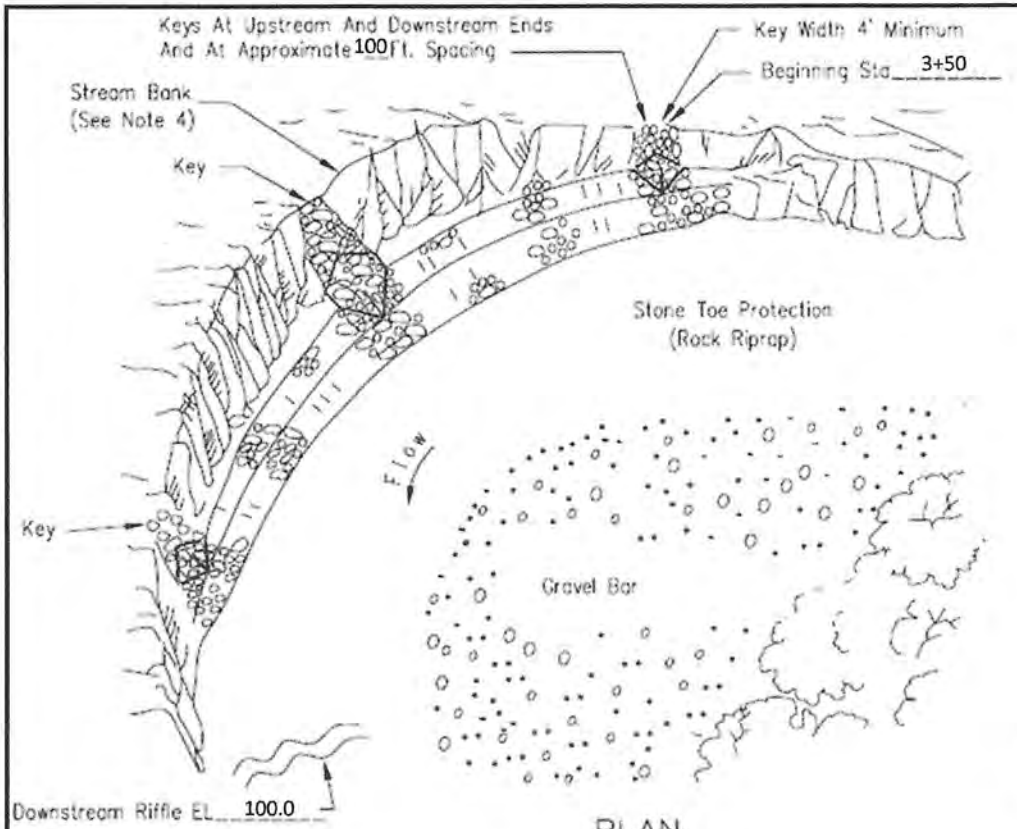
NOTE: Reach 2

Approx. Key Spacing: 100 ft.
Downstream Riffle Elevation: 100.0 ft.
Peaked Stone Level Crest EL: 105.0 ft.
Average STP height: 4.5 ft.
Total Length of STP: 300 ft. *USE*
Average Tons/Ft. for STP: 1.28 1.3 *Tons/ft.*

For definitions of dimensions, refer to IL-ENG-152

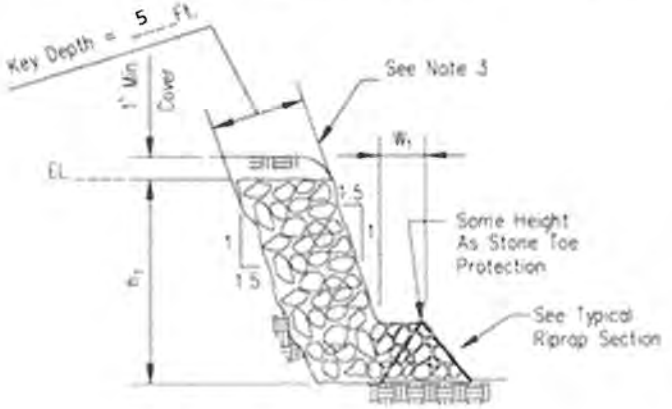
Key	STA	h_1 *(ft.)*	W_1 *(ft.)*	Est. Rock *(Tons)* Calculated	Est. Rock *(Tons)* USE
1	13+50	10.0	2.0	16	
2	14+50	10.0	2.0	16	
3	15+50	10.0	2.0	16	
4	16+50	10.0	2.0	16	

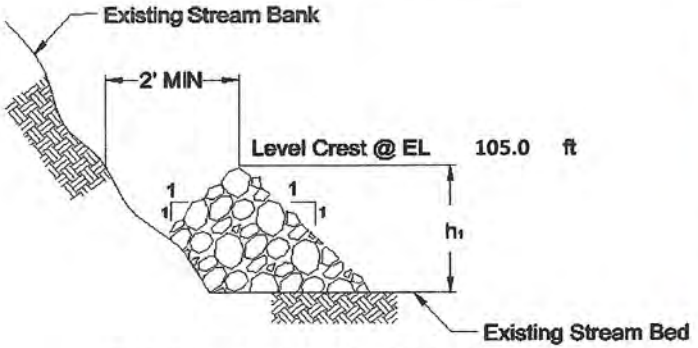
Average Tons Per Key: 16 *Tons*
Total Rock Amount (Estimate): 456 *Tons*



PLAN

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 300 ft. @ 1.30 Tons / Ft. average
   Keys 4 @ 16 Tons Each
   Total Rock Amount (Estimate): 456 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Right side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

Key	Sta.	h_1	W_1	Level Crest El.
1	3+50	10.0	2.0	105.0
2	4+50	10.0	2.0	105.0
3	5+50	10.0	2.0	105.0
4	6+50	10.0	2.0	105.0

NOTE: Reach 1

Benchmark EL. 100.00
Description
Downstream Riffle elevation

Beginning Sta. Description
Opposite end of STP on left bank below Barb

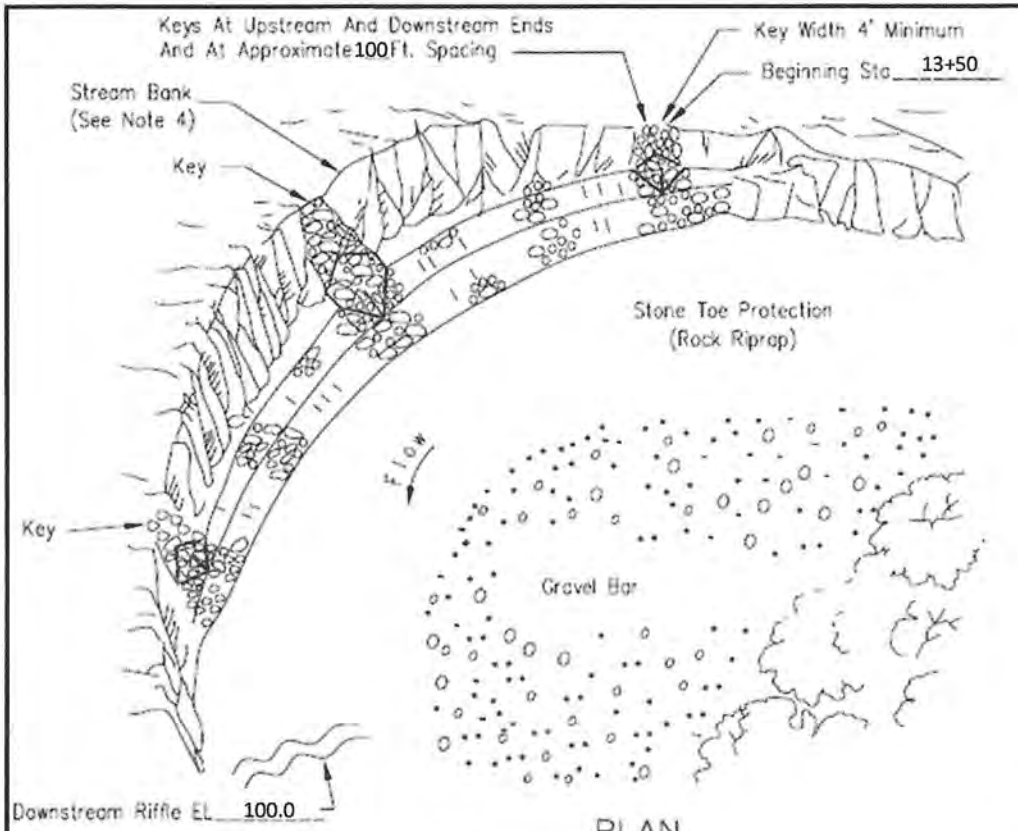
Date 11/25/22 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION
STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6524 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Sugar Creek (Korte)	Location	Sec. 35 T3N R5W	Madison County, IL



PLAN

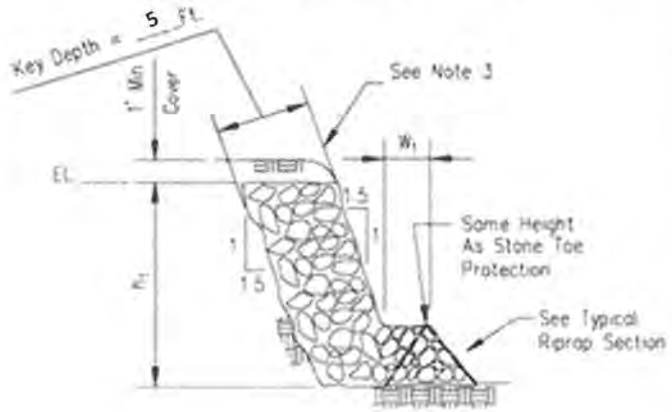
Key	Sta.	h_1	W_1	Level Crest El.
1	13+50	10.0	2.0	105.0
2	14+50	10.0	2.0	105.0
3	15+50	10.0	2.0	105.0
4	16+50	10.0	2.0	105.0

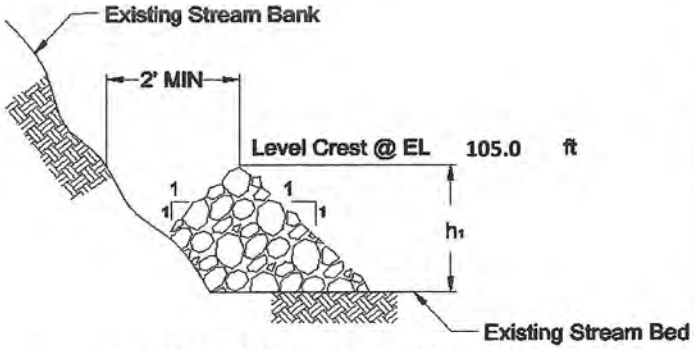
NOTE: Reach 2

Benchmark EL. 100.00
Description
Downstream Riffle elevation

Beginning Sta. Description
Upper end of excarpment on Korte Property

Notes:
1. Rock gradation shall meet IDOT requirements for GRAD. NO. 4 riprpap, quality designation "A", or as designated by engineer.
2. Stone Toe 300 ft. @ 1.30 Tons / Ft. average
Keys 4 @ 16 Tons Each
Total Rock Amount (Estimate): 456 Tons
3. Key shall be constructed so that the vertical section remains embedded in the existing stream bank.
4. Location Right side of streambank looking downstream.





TYPICAL RIPRAP SECTION

NOT TO SCALE

Date 11/25/2 2 10/2019
Designed Wayne Kinney
Drawn: PEN
Checked:
Approved:

STREAM BANK STABILIZATION STONE TOE PROTECTION

MIDWEST STREAMS TECHNICAL RESOURCE EVALUATION AND MANAGEMENT SERVICES INC.
6324 Wilson Road, Oakdale, IL 62268 618-830-6318

File No. MWS-ENG-152
Drawing No.
Sheet 1 of 1

Landowner	Sweetwater (MIH)	Stream	Sugar Creek (Korte)	Location	Sec. 35 T3N R5W	Madison County, IL

Appendix 5

Long-Term Management and Maintenance Plan Agreement

LONG-TERM MANAGEMENT AND MAINTENANCE PLAN AGREEMENT

SWEET WATER WETLAND MITIGATION BANK

This Plan will guide the long-term management of the Sweet Water 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 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 surface water runoff from adjacent property, and from Sugar Creek. 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 Sugar Creek, the site will be photo-documented annually in late spring or early summer, capturing indicators of hydrologic function, hydrophytic vegetation, saturated soils, and / or standing water.

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.

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

SWEET WATER WETLAND MITIGATION BANK

HEARTLANDS CONSERVANCY

By:_____

WFI HOLDINGS-B LLC

MITIGATION BANK SPONSOR

By:_____

HeartLands Conservancy LTMP 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										$ 481.85
Travel expenses recurring annually	Number of trips annually			1	# trips					
	Overnight stays for annual site visit(s)			0	# nights	$ 36.54	$ 36.54	1	$ 36.54	
	Allowance for meals (# of days) for annual site visit(s)			0	# days					
Travel expenses (non-annual trips)	Number of trips			1	# trips					
	Overnight stays for site visit(s)			0	# nights	$ 36.54	$ 36.54	5	$ 7.31	
	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.	2	2		hours		$ 346.00	1	$ 346.00	
Remove trash and rectify trespass, vandalism	Trash removal and addressing trespass, vandalism	0	1		hours		$ 78.00	1.5	$ 52.00	
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										$ 1,564.23
Travel expenses	Number of trips annually			0	# trips					
	Overnight stays for annual site visit(s)			0	# nights	$ -	$ -	1	$ -	
	Allowance for meals (# of days) for annual site visit(s)			0	# days					
Travel expenses (non-annual trips)	Number of trips			1	# trips					
	Overnight stays for site visit(s)			0	# nights	$ 36.54	$ 36.54	3	$ 12.18	
	Allowance for meals (# of days) for site visit(s)			0	# days					
Update management plan	Review and update management plan	5	1		hours		$ 553.00	5	$ 110.60	
Ecological monitoring	Monitoring T&E species, inventories, reporting	1	3		hours		$ 329.00	1	$ 329.00	
	Supplies			30	ea	$ 1.00	$ 30.00		$ 30.00	
Invasive species control (plants)	Materials or Contract Amount			1	ea	$ 200.00	$ 200.00	2	$ 100.00	
	Labor or Staff Oversight	2	5.5		hours		$ 619.00		$ 309.50	
Nuisance wildlife control	Materials or Contract Amount			1	ea	$ 200.00	$ 200.00	5	$ 40.00	
	Labor or Staff Oversight	0	2		hours		$ 156.00		$ 31.20	
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	$ 2,000.00	$ 2,000.00	4	$ 500.00	
	Labor or Staff Oversight	1	4		hours		$ 407.00		$ 101.75	
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:	$ 2,246.08

Forest Management Plan
For:

Sweet Water 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

October 10, 2021

Total Acres: 33.03

Forest Management Plan for Sweet Water Mitigation Bank
WFI Holdings-B, LLC
c/o Michael Thompson

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. Part of the Southwest ¼ of Section 35, T3N-R5W, Helvetia Township, Madison County. 33.33 acres total that will be restored to a forested landscape.

- **GPS Coordinates**: 38.66186, -89.6255.
- **Parcel ID #'s:**
  - 01-1-24-35-00-000-019.001

B. **Access**: A quarter of a mile north of the intersection of Waffler Road and Lee Road on the Clinton/Madison County Line.

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

D. Boundary: The boundaries are marked.

E. Easements: There are no known easements on the property.

3. Detailed Stand Descriptions and Analysis

The property is currently in row crop agriculture. This area tends to hold water for extended periods of time due to the amount of hydrology the site receives. Sugar Creek and Spanker Branch Creek run on the west and south sides of the property.

Native tree and shrub species will be planted on this property to enhance the area back to a natural wetland community. Neighboring properties all contain several bottomland tree species, such as pin oaks, pecan, sycamore, and maple species.

Soil types:

- 3334A Birds Silt Loam. Site Index for Pin Oak- 90. Average annual growth: 72 cubic feet/acre per year.

Detailed Stand Recommendations:

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 trees/acre. This tree planting will consist of multiple oak species, hickory, 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 common 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.

Make sure to conduct a TSI during the fall/winter (October to March). Not only is the weather much better and more comfortable to work in, but these months avoid any bat issues. During the fall, the sap is receding back to the root system. This makes it easier for the herbicide to get "sucked" into the roots and kill the tree most effectively.

Girdling trees can be used when trees are greater than 6 inches in diameter. With a chainsaw, cut a ½ inch to 1-inch deep ring (about waist height) into the bark of the tree. Make sure that when you ring the tree, the ring is connected. If there is any cambium left, the tree can still transfer nutrients to and from the root system, meaning the tree can live and heal itself. Just like a cut-stump treatment, make sure to apply herbicide immediately after cutting to reduce the chances of the tree healing its pores, making herbicide almost ineffective. Also, avoid girdling in spring because sap flow can push out the herbicide.

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.

Timber Stand Improvement 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 at the B-Level stocking to promote a healthy forest stand.

4. **Timber Harvest Approval and Harvest Projections:** A selective timber harvest will only be conducted in accordance with the U.S Army Corps of Engineers standards. When this timber reaches biological maturity, mature and declining trees can be harvested to promote a healthier future generation of crop trees. Any dead trees or trees with cavities will be left as habitat.

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.

Planned Management Activity Schedule for Forestry Practices

Stand	Description	Year	Acres	Cost/Ac. ($)	Comments
1	Monitor Invasive species	1-10	33.03	N/A	
1	TSI	10	33.03	N/A	Capture at Close-Out
1	TSI	20	33.03	100.00	TSI with Plan Update
1	TSI	35	33.03	N/A	TSI thinning generates revenue
1	TSI	50	33.03	N/A	TSI thinning generates revenue

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 Performance Bond, 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 Sweet Water 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 or performance bond 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:_____

WFI HOLDINGS-B LLC,
MITIGATION BANK SPONSOR
MANAGER

By:_____

DRAFT PERFORMANCE BOND

US Army Corps of Engineers

Compensatory Mitigation Performance Bond

PRINCIPAL: WFI Holdings-B LLC 248 Southwoods Centre Columbia, IL 62236	
TYPE OF ORGANIZATION (Mark one "X") ___Individual ___Partnership ___Joint Venture ___Corporation _X_ Limited Liability Corporation	
STATE OF INCORPORATION: Illinois	
MITIGATION BANKING INSTRUMENT: Shepgarten Wetland Mitigation Bank, Addendum No. 4 to WFI-B Umbrella Mitigation Banking Instrument	
PERMIT DATE: TBD	**PERMIT NUMBER:** TBD

EFFECTIVE DATE: TBD	**BOND NUMBER:** TBD
OBLIGEE: U.S. Army Corps of Engineers St. Louis District Regulatory Office 122 Spruce Street St. Louis, Missouri 63103	
SURETY: Great American Insurance Company Attn: Bond Division Claims 301 E. 4th Street Cincinnati, OH 45202	
MAXIMUM PENAL SUM OF BOND: $	

OBLIGATION:

We, the Principal and Surety hereto, are firmly bound as Obligors to the U.S. Army Corps of Engineers (hereinafter called the Obligee) in the penal sum amounts scheduled below, such amounts determined solely by the Obligee. For the payment of the scheduled penal sum, we bind ourselves, our heirs, executors, administrators, assigns, and successors, jointly and severally. The limit of liability shall be the full amount of the penal sum. No reduction in the penal sum will occur unless the Obligee, in its sole discretion, determines that performance of those actions, obligations and milestones as set forth in the Shepgarten Wetland Mitigation Bank, as Addendum No. 4 to the WFI-B Umbrella Mitigation Banking Instrument (hereinafter "UMBI"), and the Mitigation Plan contained therein, have been achieved or satisfied and certifies its determination in writing. The penal sum scheduled below for each period will remain in effect until the later of the:

a. Applicable Period End Date, or

b. Date on which Obligee approves the applicable As-Built or Maintenance & Monitoring Report.

Period	Period Start Date*	Period End Date*	Reduction	Penal Sum
Construction Year 1			N/A	$
Maintenance & Monitoring Year 1			$	$
Maintenance & Monitoring Year 2			$	$
Maintenance & Monitoring Year 3			$	$
Maintenance & Monitoring Year 4			$	$
Maintenance & Monitoring Year 5			$	$
Maintenance & Monitoring Year 6			$	$
Maintenance & Monitoring Year 7			$	$

* At 12:01 AM, standard time, at the location of Obligee.

The liability of Surety under this bond shall not be cumulative for the periods and in no event shall exceed the Penal Sum in effect when the first claim is made.

CONDITIONS:

The Obligee approved the UMBI identified above.

THEREFORE:

The above obligation is void if the Principal –

(a) Specifically performs and fulfills all of the obligations, covenants, terms, conditions and agreements of the UMBI during the original term of the UMBI and any extensions thereof that may be granted by the Obligee, with or without notice to the Surety, and during the life of any guaranty required under the UMBI, and -

(b) Also specifically performs and fulfills all of the obligations, covenants, terms, conditions, and agreements of any and all duly authorized modifications of the UMBI that may hereafter be made. Notice of those modifications to the Surety are waived.

IT IS FURTHER EXPRESSLY PROVIDED THAT:

The Obligee shall have the full and final authority to determine whether the Principal and Surety have specifically performed and fulfilled some or all of the obligations, covenants, terms, conditions and agreements of the UMBI.

Within thirty (30) business days of receiving notice from the Obligee that the Principal has defaulted on some or all of the obligations, covenants, terms, conditions and agreements of the UMBI, the Surety shall either –

(a) Remedy the default of the Principal to the full satisfaction of the Obligee by a certain date determined by the Obligee, or –

(b) Immediately tender to a party or parties identified by the Obligee any of the penal sum that the Obligee determines is due and owing and necessary to remedy the default. In no circumstance shall such a sum be tendered to the Obligee. Any new party or parties identified by the Obligee under this section shall immediately become a Surety or Sureties to this bond. If the Obligee determines that it is unable to identify such a party or parties, the Surety shall remedy the default of the Principal under (a) of this section.

In the event that the Surety fails to respond within thirty (30) business days to the Obligee's notice of default, or to honor commitments to the full satisfaction of the Obligee under (a) or (b) above of this section, any of the penal sum may, at the election of the Obligee, immediately become due and owing and paid to a party or parties identified by the Obligee. In no circumstance shall the full penal sum be tendered to the Obligee. Any new party or parties identified by the Obligee under this paragraph shall immediately become a Surety or Sureties to this bond.

In accordance with regulation at 33 C.F.R. § 332.3(n)(5), the Surety shall provide the Obligee notification at least 120 days in advance of termination, revocation, or modification of this bond.

WITNESS:

The Principal and Surety have executed this performance bond and have affixed their seals on the date set forth above.

<table>
<tr><td colspan="2">PRINCIPAL</td></tr>
<tr><td colspan="2">Signature</td></tr>
<tr><td colspan="2">Name, title</td></tr>
<tr><td colspan="2">CORPORATE SURETY</td></tr>
<tr><td>Name & Address

Great American Insurance Company
301 E. 4th Street
Cincinnati, OH 45202</td><td>State of Incorporation

Ohio</td></tr>
<tr><td colspan="2">Signature

(Seal)</td></tr>
<tr><td colspan="2">Name, Title

David V. Ferron, Senior Vice President & Attorney-in-Fact</td></tr>
</table>

Sweet Water Wetland
Mitigation Bank

Post Construction
Estimate

	Description	Units	Unit Costs	Total Cost
1.00	Construction			
1.10	Construction (Dirt work, trees, emergent)	20	$2,750.00	$55,000.00
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				**$110,000.00**

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 (Revised)

ROTTMAN PROPERTY MITIGATION BANK SITE
AKA SWEETWATER MITIGATION BANK
MADISON COUNTY, ILLINOIS

April 10, 2023

Prepared for:

WFI HOLDINGS LLC

SCI No. 2022-0412.30

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

April 10, 2023

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

RE: Wetland and Waterbody Delineation Report (Revised)
Rottman Property Mitigation Bank Site (AKA Sweetwater Mitigation Bank)
Madison County, Illinois
SCI No. 2022-0412.30

Dear Linden Graber:

SCI Engineering, Inc. (SCI) is pleased to submit the following report entitled *Wetland and Waterbody Delineation Report (Revised) – Rottman Property Mitigation Bank Site – Madison County, Illinois*, dated April 2023. 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 April 5, 2022. An additional site visit was conducted on February 15, 2023, to delineate an approximately 150-foot corridor along the west side of Sugar Creek that was not included in the original delineation.

- The site was found to contain two perennial tributaries, two intermittent tributaries, one forested wetland and two farmed, emergent wetlands, all of which would 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.

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

Enclosure

\\SCISTCFPS01\Projects\2022\2022-0412 Rottman Property\30\Additional Area\Sweetwater Mitigation Bank Delineation Report-Rev. 4.10.23.docx

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FIGURES

APPENDICES

Wetland and Waterbody Delineation Report (Revised)

ROTTMAN PROPERTY MITIGATION BANK SITE
AKA SWEETWATER MITIGATION BANK
MADISON COUNTY, ILLINOIS

1.0 INTRODUCTION

SCI Engineering, Inc. (SCI) was retained by WFI Holdings LLC (WFI) to conduct a wetland and waterbody delineation within the above-referenced study area (approximately 50 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 proposals dated March 23, 2022 and December 14, 2022.

Based on our field explorations, the site was found to contain two perennial tributaries, two intermittent tributaries, four non-jurisdictional drainage ditches, one forested wetland and two farmed, emergent wetlands. Rivers, perennial, intermittent, and ephemeral tributaries, 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 50-acre project area is located approximately 0.3 miles north of the intersection of Waffler Road and Lee Road, located within Madison County, Illinois. The project area is generally comprised of an agricultural field with riparian corridors along the east and west boundaries. The site is primarily bound by a forest stand to the west, Sugar Creek to the south, Spanker Branch and Waffler Road to the east, and undeveloped agricultural fields to the north. 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 Sugar Creek, a blue line tributary, in the west section of the site, Spanker Branch, a blue line tributary, along the east boundary, and an unnamed blue line tributary draining from the west boundary to Sugar Creek. The site is generally flat with little to no elevation change. The *Vicinity and Topographic Map* is enclosed as Figure 1.

3.2 National Wetlands Inventory

The *National Wetlands Inventory (NWI) Map* illustrates a riverine system (R2UBH) along the west section of the site, a riverine system (R4SBC) in the northwest section of the site, and a riverine system (R2UBH) along the southern section of the east boundary. Additionally, two forested wetland habitats (PFO1A) are mapped within the eastern and southern project areas. The *NWI Map* is enclosed as Figure 2.

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. The site consists solely of Birds silt loam, 0 to 2 percent slopes, frequently flooded and is considered a hydric soil. The *USDA Soil Survey Map* is included on Figure 2.

3.4 Federal Emergency Management Agency Flood Insurance Rate Map

Review of the *Flood Insurance Rate Map* panel map 1704360020B (Effective date: April 15, 1982) depicts almost the entire site within the special flood hazard area Zone A. The *Federal Emergency Management Agency (FEMA) Flood Map* is included as Figure 3.

3.5 Antecedent Precipitation Evaluation

The USACE Antecedent Precipitation Tool (APT) was utilized to calculate the normal range of precipitation for the project area, including whether the area was experiencing a drought at the time of the delineation. During the first site visit, the APT calculation indicates that the area was experiencing "wetter than normal conditions" within the three months prior to the survey compared against 30 years of climate data, and that the area was also within the "Wet Season". The Drought Index indicated that there was a "moderate wetness." During the second site visit, the APT calculation indicates that the area was

experiencing “normal conditions” within the three months prior to the survey compared against 30 years of climate data, and that the area was also within the “Wet Season”. The Drought Index indicated that there was a “moderate wetness.” The APT data is included within Appendix A.

4.0 SITE RECONNAISSANCE

On April 5, 2022, SCI conducted field explorations to delineate the extent of wetlands and waterbodies that exist within the project study area. An additional site visit was conducted on February 15, 2023, as a result of the project area extending west of the previous site boundary along Sugar Creek. 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*).

The site primarily exists as an agricultural field and several forested areas primarily situated within riparian corridors along the identified tributaries. The agricultural field contained corn stubble and an herbaceous community dominated by butterweed (*Packera glabella*), hairy buttercup (*Ranunculus sardous*), American speedwell (*Veronica peregrina*), and Shepherd’s purse (*Capsella bursa-pastoris*). The forested riparian corridors along Spanker Branch and Sugar Creek were primarily dominated by red maple (*Acer* rubrum), common hackberry (*Celtis occidentalis*), Eastern cottonwood (*Populus deltoides*), American sycamore (*Platanus occidentalis*), burr oak (*Quercus macrocarpa*), green ash (*Fraxinus pennsylvanica*), box elder (*Acer negundo*), elderberry (*Sambucus nigra*) and black gum (*Nyssa sylvatica*). The site is generally bound by agricultural fields to the north, Waffle Road to the east, Spanker Branch to the southeast, and Sugar Creek to the south, and a private forested tract to the west.

5.0 CONDITION SUMMARY

A photographic summary of the representative site conditions is included as Appendix B. The *Routine Wetland Determination Data Forms* are enclosed as Appendix C. Our site visit confirmed the presence of two perennial tributaries, two intermittent tributaries, one forested wetland, and two farmed, emergent wetlands 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 Figure 4 - *Wetland Delineation and Aerial Photograph.*

Wetland A is an approximately 0.32-acre farmed, emergent wetland located in the southern portion of the agricultural field. The emergent community possesses vegetation dominated by butterweed, American speedwell, and Shepherd's purse. Soils possessing a hydric soil indicator of a depleted matrix were observed throughout the wetland area. Observed wetland indicators included saturation visible on aerial imagery, stunted or stressed plants, and a positive Fac-neutral test. Based on the observed characteristics and the hydrologic surface connection of the wetland area to Sugar Creek, it is likely that the USACE would consider this area to be a jurisdictional feature.

Wetland B is an approximately 0.13-acre farmed, emergent wetland located in the southern portion of the agricultural field, just north of Wetland A. The emergent community possesses vegetation dominated by butterweed, American speedwell, Shepherd's purse, and pale dock (*Rumex latissimus*). Soils possessing a hydric soil indicator of a depleted matrix were observed throughout the wetland area. The wetland areas possessed wetland indicators including saturation visible on aerial imagery, stunted or stressed plants, and a positive Fac-neutral test. Based on the observed characteristics and the hydrologic surface connection of the wetland area to Sugar Creek, it is likely that the USACE would consider this area to be a jurisdictional feature.

Wetland C exists as a forested wetland located along the western boundary and consist of approximately 0.27 acres within the project limits. The portion of the wetland identified within the project limits is part of a larger wetland complex that extends off site to the west. The forested community possesses vegetation dominated by American sycamore, Eastern cottonwood, and bur oak. Soils possessing a hydric soil indicator of a depleted matrix were observed throughout the wetland area. Observed wetland indicators included surface water, sparsely vegetated concave surface, water-stained leaves, as well as drainage patterns and a positive Fac-neutral test. Based on the observed characteristics and the hydrologic surface connection of the wetland area to Sugar Creek, it is likely that the USACE would consider this area to be a jurisdictional feature.

Sugar Creek, a perennial tributary, drains south then east along in the west section and south boundaries of the site for approximately 2,150 LF. The tributary drains through a buffer community consisting of red maple, black gum, burr oak, eastern cottonwood, American sycamore, green ash, cutleaf coneflower (*Rudbeckia laciniata*), and wild sweetwilliam (*Phlox maculata*). The stream substrate was not able to be observed due to high water levels at time of our site visit. Erosion was observed along the banks. Collected stream data includes:

- Top of bank (TOB) –20 to 25 feet
- Ordinary High-Water Mark (OHWM) – 18 to 20 feet
- Water width – 15 to 18 feet
- Bank height – 12 to 15 feet

Spanker Branch, a perennial tributary, drains southwest along the east boundary of the site for approximately 850 LF. The tributary drains through a buffer community consisting of red maple, hackberry, Canadian goldenrod (*Solidago canadensis*), meadow garlic (*Allium canadense*) and Virginia springbeauty (*Claytonia virginica*). The stream substrate was not able to be observed due to high water levels at time of our site visit. Erosion was observed along the banks. Collected stream data includes:

- Top of bank (TOB) – 18 to 20 feet
- Ordinary High-Water Mark (OHWM) – 15 to 18 feet
- Water width – 12 to 15 feet
- Bank height – 10 to 12 feet

Tributary A, an intermittent tributary, drains primarily southeast from the west boundary of the site for approximately 340 LF, before its confluence with Sugar Creek. The tributary drains through a buffer community consisting of bur oak, eastern cottonwood, American sycamore, box elder, and elderberry. The stream substrate includes gravel, clay, sand, loam, and clay. Erosion was observed along the tributary banks. Collected stream data includes:

- Top of bank (TOB) – 6 to 8 feet
- Ordinary High-Water Mark (OHWM) – 1 to 2 feet
- Water width – 1 to 2 feet
- Bank height – 3 to 5 feet

Tributary B, an intermittent tributary, drains northeast along the southern boundary of the site for approximately 130 LF before its confluence with Sugar Creek. The tributary drains through a buffer community consisting of bur oak, eastern cottonwood, American sycamore, American elm, box elder, and elderberry. The stream substrate includes gravel, clay, sand, loam, and clay. Erosion was observed along both banks of the tributary. Collected stream data includes:

- Top of bank (TOB) – 3 to 6 feet
- Ordinary High-Water Mark (OHWM) – 1 foot
- Water width – 0.5 to 1 foot
- Bank height – 2 to 6 feet

An agricultural cut ditch was observed draining from the north end of the site, along the edge of Wetland A and B, towards Sugar Creek. Neither an OHWM nor defined bed and bank was observed; therefore, this ditch is not likely to be considered a jurisdictional feature by the USACE.

Several other drainage ditches were observed within the project limits including an erosional drainage on the north side of Wetland C, an erosional drainage on the south side of Wetland C, and an erosional ditch along the north boundary of the site. Neither an OHWM nor defined bed and bank were observed within the erosional drainages; therefore, these features are not likely to be considered a jurisdictional feature by the USACE.

6.0 CONCLUSION

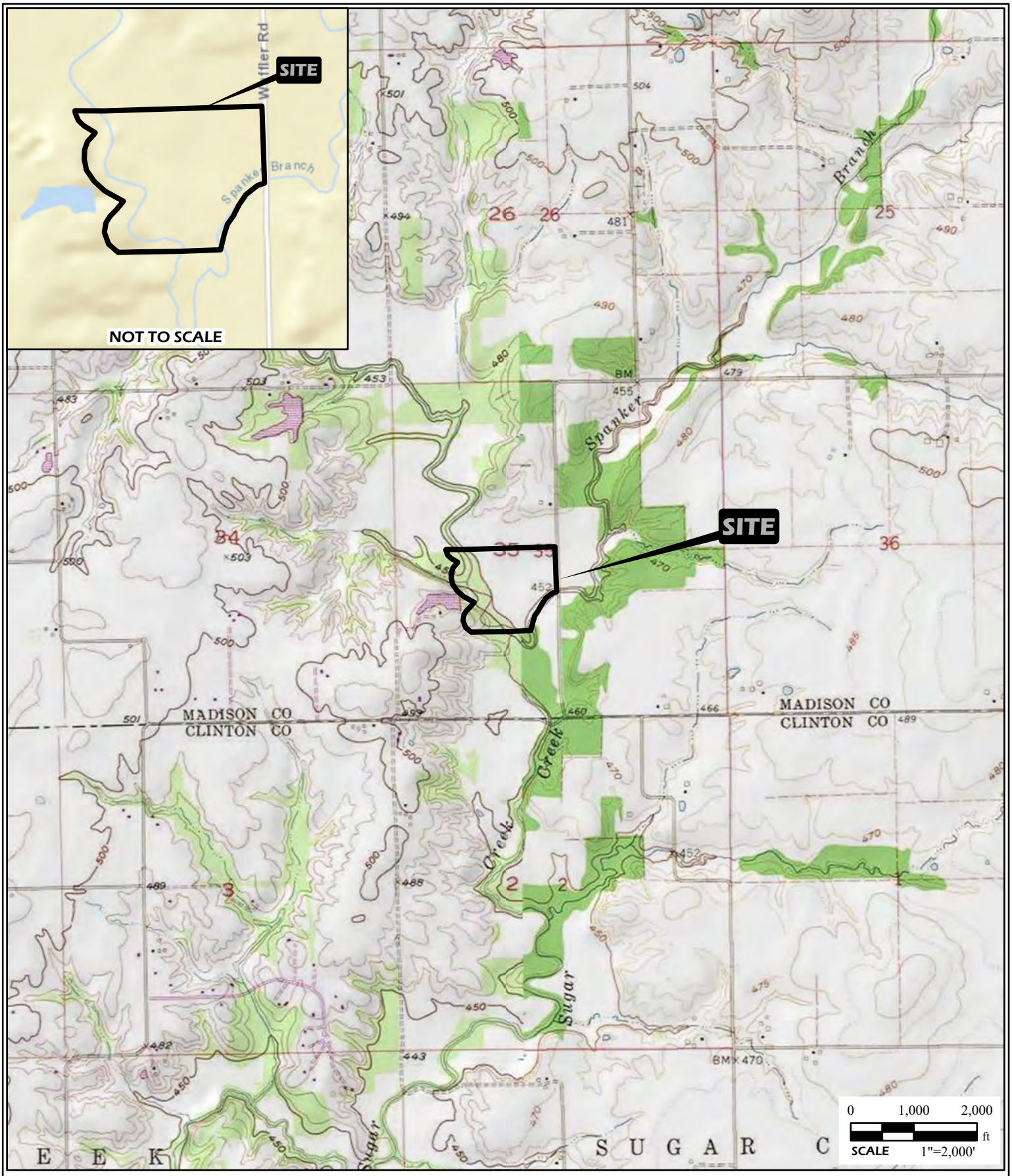
During our April 5, 2022 and February 15, 2023 wetland and waterbody delineation field surveys, SCI identified two perennial tributaries, two intermittent tributaries, one forested wetland and two farmed, emergent wetlands within the project survey limits. These features will likely be considered waters of the United States as identified under the definitions described in Section 328.3 of the Code of Federal Regulations. Overall, it appears that the project site has the potential to support wetland creation and tributary enhancement as part of the proposed wetland and stream 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.



SCI	PROJECT NAME ROTTMAN PROPERTY MADISON COUNTY, ILLINOIS			GENERAL NOTES/LEGEND USGS TOPOGRAPHIC MAPS HIGHLAND, ILLINOIS QUADRANGLE DATED 1957 PHOTO REVISED 1981 10' CONTOURS SAINT ROSE, ILLINOIS QUADRANGLE DATED 1962 10' CONTOURS STREET MAP HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_STREET_MAP	N W E S
	VICINITY AND TOPOGRAPHIC MAP				FIGURE 1
	DRAWN BY KMC	DATE	JOB NUMBER		
	CHECKED BY MSH	04/2023	2022-0412.30		

Map Unit Symbol	Map Unit Name
3334A	Birds silt loam, 0 to 2 percent slopes, frequently flooded

PROJECT NAME

ROTTMAN PROPERTY
MADISON COUNTY, ILLINOIS

NATIONAL WETLAND INVENTORY &
USDA SOIL SURVEY MAP

DRAWN BY	KMC	DATE	JOB NUMBER
CHECKED BY	MSH	04/2023	2022-0412.30

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.

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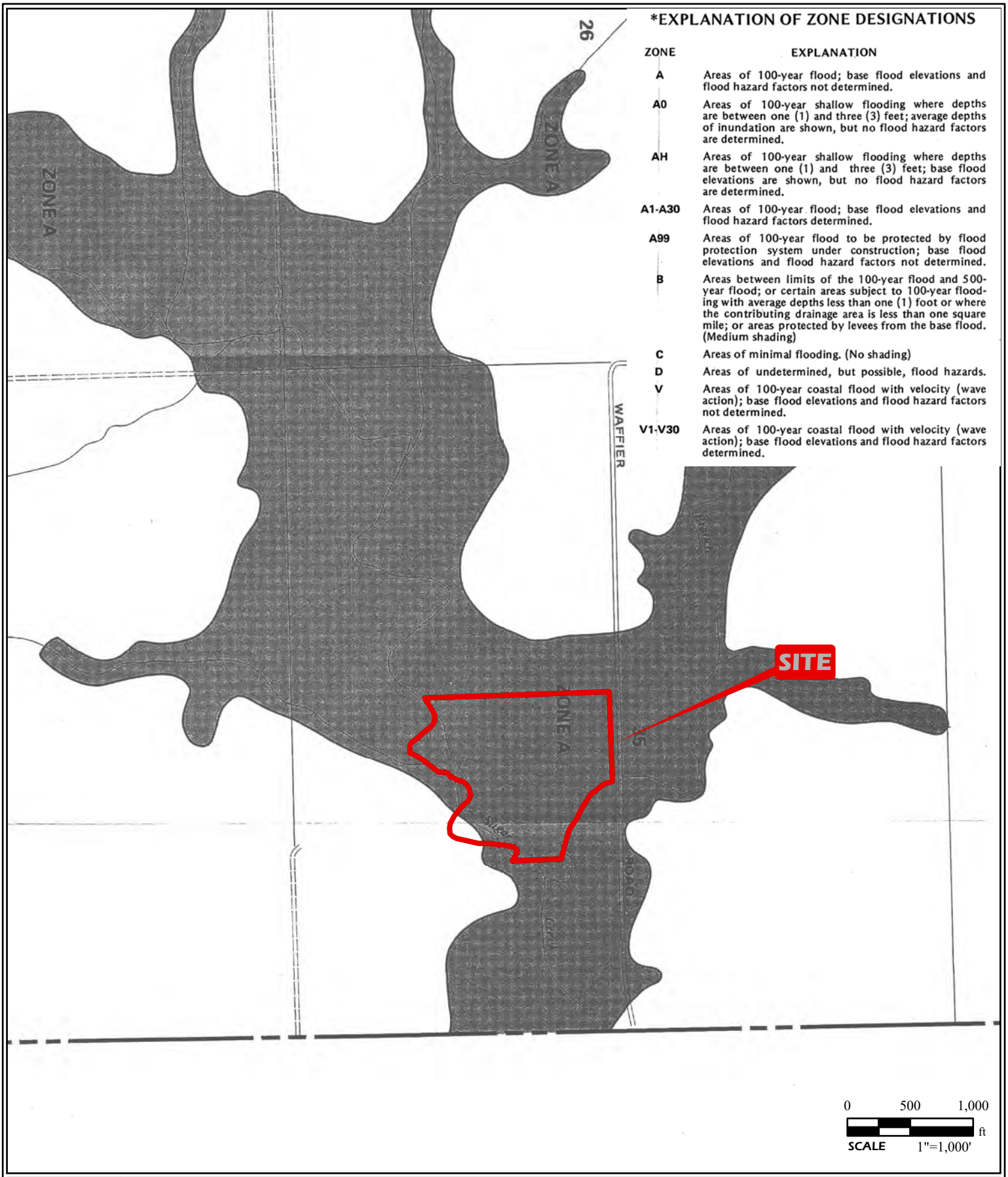
FIGURE
2



*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

PROJECT NAME

ROTTMAN PROPERTY
MADISON COUNTY, ILLINOIS

FEMA FLOOD MAP

DRAWN BY	KMC	DATE	JOB NUMBER
CHECKED BY	MSH	04/2023	2022-0412.30

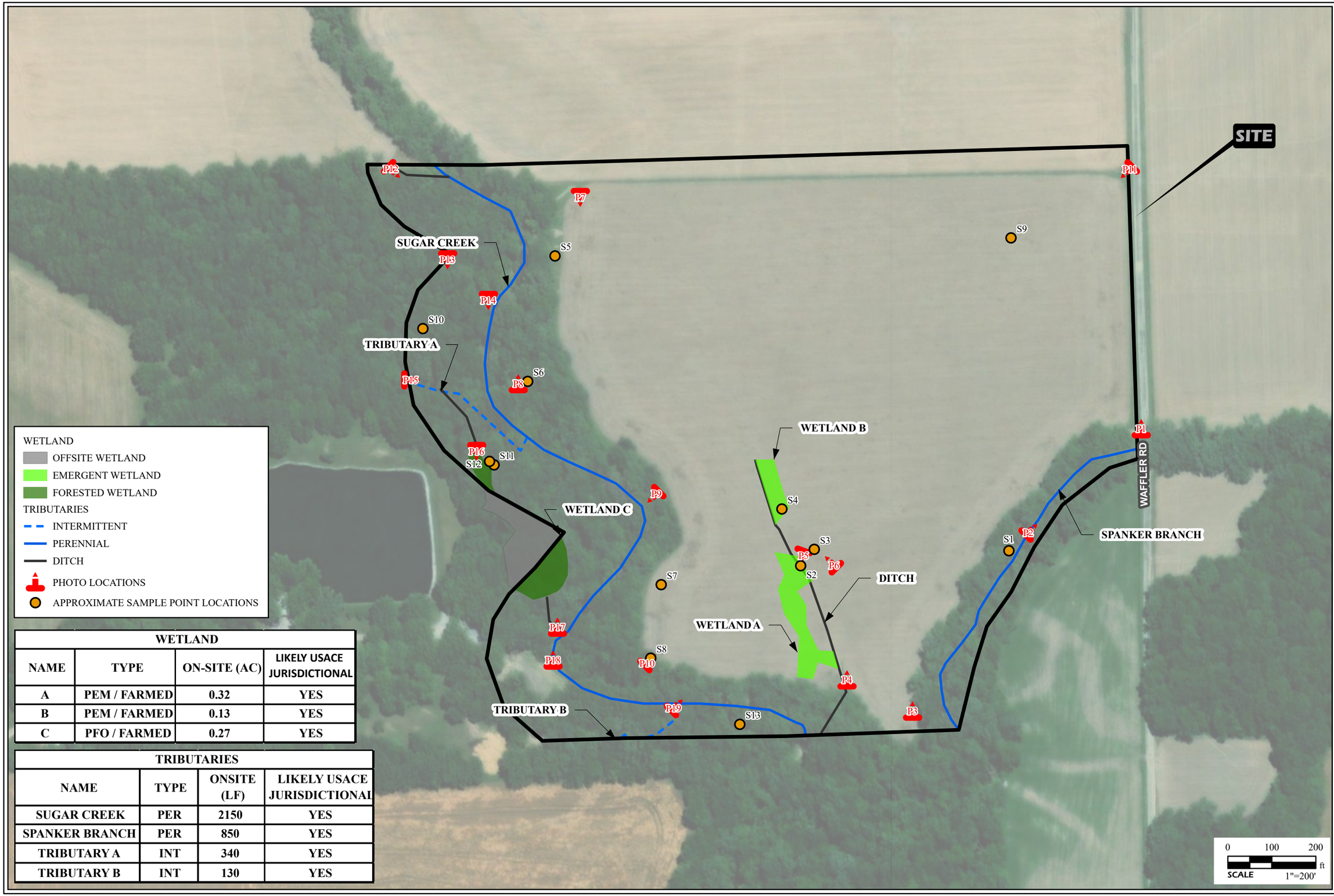
GENERAL NOTES/LEGEND

MADISON COUNTY, ILLINOIS
COMMUNITY PANEL: 1704360020B
EFFECTIVE DATE: 04/15/1982

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
3



WETLAND			
NAME	TYPE	ON-SITE (AC)	LIKELY USACE JURISDICTIONAL
A	PEM / FARMED	0.32	YES
B	PEM / FARMED	0.13	YES
C	PFO / FARMED	0.27	YES

TRIBUTARIES			
NAME	TYPE	ONSITE (LF)	LIKELY USACE JURISDICTIONAL
SUGAR CREEK	PER	2150	YES
SPANKER BRANCH	PER	850	YES
TRIBUTARY A	INT	340	YES
TRIBUTARY B	INT	130	YES

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.

PROJECT NAME
ROTTMAN PROPERTY
MADISON COUNTY, ILLINOIS

WETLAND DELINEATION & AERIAL PHOTOGRAPH

N
W
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JOB NUMBER
2022-0412.30

DATE
04/2023

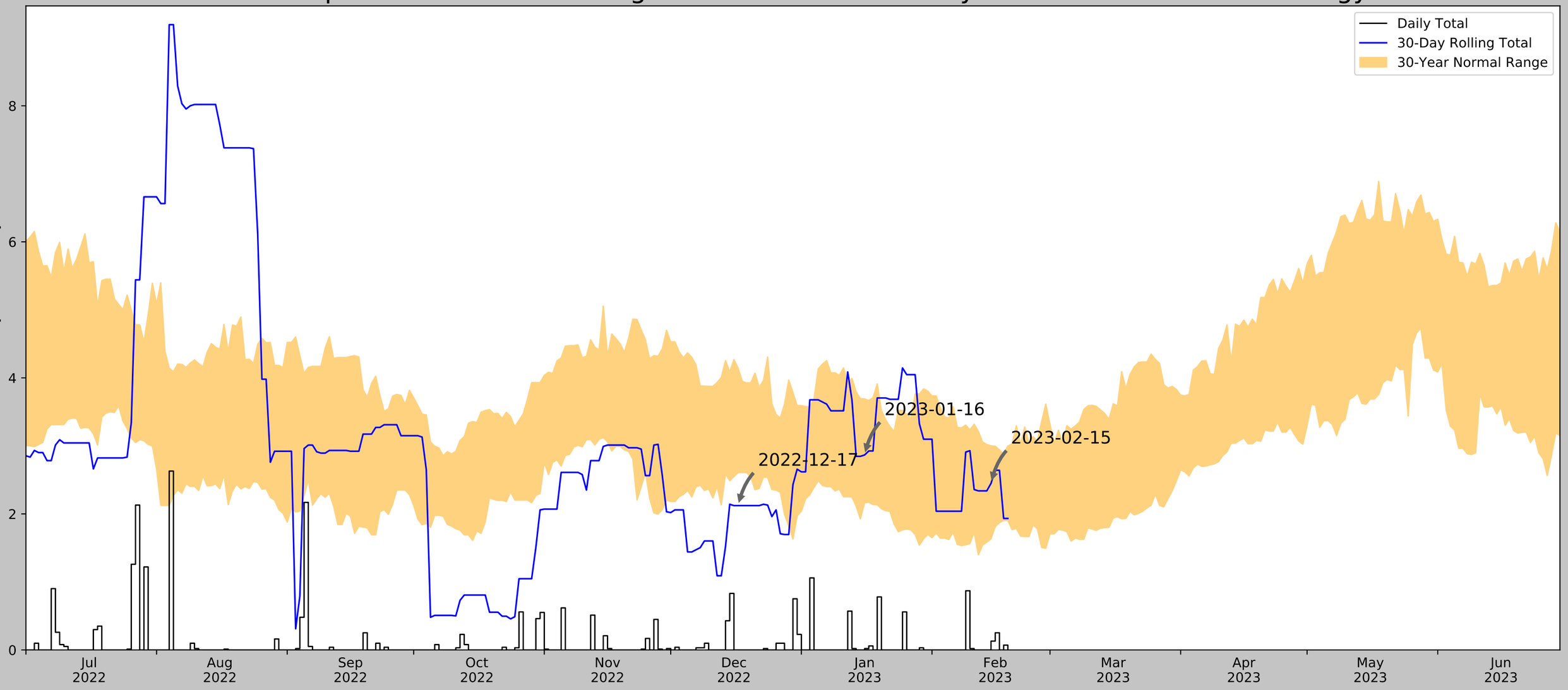
DRAWN BY
KMC

CHECKED BY
MSH

FIGURE
4

Appendix A

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.660863, -89.628192
Observation Date	2023-02-15
Elevation (ft)	450.57
Drought Index (PDSI)	Mild wetness (2023-01)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-02-15	1.632677	3.001575	2.448819	Normal	2	3	6
2023-01-16	2.164567	3.690551	2.866142	Normal	2	2	4
2022-12-17	2.60748	4.142914	2.122047	Dry	1	1	1
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	14.519	50.414	7.265	10450	78
CARLYLE 7.8 ENE	38.669, -89.2433	470.144	7.144	30.84	3.435	3	0
BREESE 0.6 NNE	38.6195, -89.5175	453.084	8.343	47.9	4.154	68	11
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
HOYLETON 2.8 WNW	38.4574, -89.3203	461.942	11.809	39.042	5.775	2	1
CENTRALIA	38.5556, -89.1297	484.908	13.486	16.076	6.286	821	0
ALBERS 1 W	38.5411, -89.6289	430.118	15.482	70.866	8.064	5	0

Appendix B

Photo 1. Eastern edge of the project site with a roadside ditch, facing north

Photo 2. Upstream view of Spanker Branch with eroding banks, facing northeast

Photo 3. Overview of site from the southern edge of the agricultural field, facing north

Photo 4. View of Wetland A and ditch, facing north

Photo 5. Overview of Wetland A with lack of corn stubble, facing southwest

Photo 6. View of the ditch and Wetland B, facing northwest

Photo 7. View of the northwest corner of the agricultural field, facing south

Photo 8. Representative photo of the riparian corridor along Sugar Creek, facing north

Photo 9. Downstream view of Sugar Creek, facing southwest

Photo 10. Overview of site from the southwest corner of the agricultural field, facing northeast

Photo 9. Downstream view of Sugar Creek, facing southwest

Photo 10. Overview of site from the southwest corner of the agricultural field, facing northeast

Photo 11. Overview of the site from the northeast corner, facing southwest.

Photo 12. Downstream view of drainage ditch leading to Sugar Creek, facing southeast.

Photo 13. Overview of forested tract along the western boundary, facing south.

Photo 14. Downstream view of Sugar Creek, facing south.

Photo 15. Downstream view of Tributary A near the western boundary, facing east.

Photo 16. Overview of Wetland C near the western boundary, facing south.

Photo 17. View of drainage ditch and Wetland C at Sugar Creek, facing north.

Photo 18. Upstream view of Sugar Creek, facing north.

Photo 19. View of the confluence of Tributary B and Sugar Creek, facing northeast.

Appendix C

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

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

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66056822 Long: -89.62406891 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
Sample Point 1 is located in the riparian corridor of Spanker Branch. Climate/hydrolic conditions are wetter than normal for this time of the year.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50%	Yes	FAC
2. *Celtis occidentalis*	5%	No	FAC
3.			
4.			
5.			
	55%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Lonicera maackii*	10%	Yes	UPL
2.			
3.			
4.			
5.			
	10%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Ranunculus sardous*	30%	Yes	FAC
2. *Claytonia virginica*	20%	Yes	FACU
3. *Bidens frondosa*	5%	No	FACW
4. *Solidago canadensis*	5%	No	FACU
5. *allium canadense*	10%	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	70%	= 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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
			A/B
OBL species		x1 =	
FACW species	5%	x2 =	0.1
FAC species	85%	x3 =	2.55
FACU species	35%	x4 =	1.4
UPL species	10%	x5 =	0.5
Column Totals:	1.35 (A)		4.55 (B)

Prevalence Index = B/A = 3.37

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 X

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
0-20"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

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

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66049197 Long: -89.62572343 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 2 is located in Wetland A, near the south end of the site. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Packera glabella*	30%	Yes	FACW
2. *Veronica peregrina*	20%	Yes	FACW
3. *Capsella bursa-pastoris*	5%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	55%	= 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: 2 (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	50%	x2 =	1
FAC species		x3 =	
FACU species	5%	x4 =	0.2
UPL species		x5 =	
Column Totals:	0.55 (A)		1.2 (B)

Prevalence Index = B/A = 2.18

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: 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
0-4"	10YR 4/2	100					Silty Clay Loam	
4-10"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
10-20"	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)
- ___ 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)
- X Saturation Visible on Aerial Imagery (C9)
- X 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 ___ No X Depth (inches): ___

(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: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

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

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66059315 Long: -89.62562437 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample Point 3 is located in the upland adjacent to Wetland A and B. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Ranunculus sardous*	40%	Yes	FAC
2. *Veronica peregrina*	10%	No	FACW
3. *Capsella bursa-pastoris*	10%	No	FACU
4. *Zea mays*	15%	Yes	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	75%	= 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: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
That Are OBL, FACW, or FAC:			A/B
OBL species		x1 =	
FACW species	10%	x2 =	0.2
FAC species	40%	x3 =	1.2
FACU species	10%	x4 =	0.4
UPL species	15%	x5 =	0.75
Column Totals:	0.75 (A)		2.55 (B)

Prevalence Index = B/A = 3.40

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 X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn stubble/evidence of crop

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
0-6"	10YR 4/2	100					Silty Clay Loam	
6-15"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
15-20"	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)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site | City/County: Helvetia Township/Madison County | Sampling Date: 4/5/2022

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

Investigator(s): SCI Engineering, Inc. - M. Holm | Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% | Lat: 38.66085203 | Long: -89.62587552 | Datum: NAD83

Soil Map Unit Name: Birds silt loam, 0 to 2 percent slopes, frequently flooded | NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
Sample Point 4 is located in Wetland B, just north of Wetland A. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Packera glabella*	30%	Yes	FACW
2. *Veronica peregrina*	20%	Yes	FACW
3. *Capsella bursa-pastoris*	5%	No	FACU
4. *rumex altissimus*	5%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	60%	= 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: 2 (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	55%	x2 =	1.1
FAC species		x3 =	
FACU species	5%	x4 =	0.2
UPL species		x5 =	
Column Totals:	0.60 (A)		1.3 (B)

Prevalence Index = B/A = 2.17

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: 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
0-4"	10YR 4/2	100					Silty Clay Loam	
4-10"	10YR 4/2	90	10YR 5/8	10	C	M	Clay Loam	
10-20"	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: frost

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)
- ___ 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)
- X Saturation Visible on Aerial Imagery (C9)
- X 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 ___ No X Depth (inches): ___

(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: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

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

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66246425 Long: -89.6276601 Datum: NAD83

Soil Map Unit Name: Birds silt 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 ____ No X (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 ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X		

Remarks:
Sample Point 5 is located in the northwest corner of the site. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Poa pratensis*	30%	Yes	FAC
2. *Chaerophyllum procumbens*	20%	Yes	FACW
3. *plantago major*	10%	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	60%	= 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: 2 (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	20%	x2 =	0.4
FAC species	40%	x3 =	1.2
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	0.60 (A)		1.6 (B)

Prevalence Index = B/A = 2.67

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.)
Corn stubble/evidence of crop

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
0-20"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- 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 ___ No X	Depth (inches):	

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

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 3/2/2022

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S6

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66166809 Long: -89.62788383 Datum: NAD83

Soil Map Unit Name: Birds silt 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 ____ No X (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 ____ No X

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
Sample Point 6 is located in the riparian corridor of Sugar Creek. Climate/hydrolic conditions are wetter than normal for this time of the year.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Nyssa sylvatica*	30%	Yes	FAC
2. *Celtis occidentalis*	20%	Yes	FAC
3. *Acer negundo*	10%	No	FAC
4. *Fraxinus pennsylvanica*	6%	No	FACW
5.			
	66%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer negundo*	5%	Yes	FAC
2.			
3.			
4.			
5.			
	5%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Rudbeckia laciniata*	40%	Yes	FACW
2. *Ranunculus sardous*	30%	Yes	FAC
3. *Phlox maculata*	10%	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	80%	= 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	56%	x2 =	1.12
FAC species	95%	x3 =	2.85
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.51 (A)		3.97 (B)

Prevalence Index = B/A = 2.63

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 X

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
0-20"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- 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 ___ No X Depth (inches): _____

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

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S7

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: 38.66038316 Long: -89.62683886 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
Sample Point 7 is located in the southwest section of the agricultural field. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Ranunculus sardous*	40%	Yes	FAC
2. *allium canadense*	30%	Yes	FACU
3. *lamium purpureum*	5%	No	UPL
4. *Rumex crispus*	5%	No	FAC
5. *Packera glabella*	5%	No	FACW
6. *Zea mays*	10%	No	UPL
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	95%	= 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: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	A/B
OBL species ____	x1 = ____
FACW species 5%	x2 = 0.1
FAC species 45%	x3 = 1.35
FACU species 30%	x4 = 1.2
UPL species 15%	x5 = 0.75
Column Totals: 0.95 (A)	3.4 (B)

Prevalence Index = B/A = 3.58

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 X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn stubble/evidence of crop

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
0-20"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

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

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

Remarks:

Surficial ponding due to heavy rains the day of survey

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S8

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: -89.62692424 Long: 38.65992659 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____ No X

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
Sample Point 8 is located in the northeast corner of the agricultural field. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Ranunculus sardous*	40%	Yes	FAC
2. *Veronica peregrina*	10%	No	FACW
3. *Capsella bursa-pastoris*	10%	No	FACU
4. *Zea mays*	5%	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	65%	= 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: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (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	10%	x2 =	0.2
FAC species	40%	x3 =	1.2
FACU species	10%	x4 =	0.4
UPL species	5%	x5 =	0.25
Column Totals:	0.65 (A)		2.05 (B)

Prevalence Index = B/A = 3.15

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.)
Corn stubble/evidence of crop

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 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

(includes capillary fringe)

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

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison County Sampling Date: 4/5/2022

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S9

Investigator(s): SCI Engineering, Inc. - M. Holm Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0-2% Lat: -89.62384396 Long: 38.66260664 Datum: NAD83

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

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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 ____ No X

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
Sample Point 9 is located in the northeast corner of the agricultural field. Climate/hydrolic conditions are wetter than normal for this time of the year.

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. *Ranunculus sardous*	30%	Yes	FAC
2. *Veronica peregrina*	15%	Yes	FACW
3. *Capsella bursa-pastoris*	10%	No	FACU
4. *Zea mays*	10%	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	65%	= 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: 2 (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 15%	x2 =	0.3
FAC species 30%	x3 =	0.9
FACU species 10%	x4 =	0.4
UPL species 10%	x5 =	0.5
Column Totals: 0.65 (A)		2.1 (B)

Prevalence Index = B/A = 3.23

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.)
Corn stubble/evidence of crop

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
0-20"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy 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)
- ___ 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** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- 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 ___ No X	Depth (inches):	

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Rottman Property Mitigation Bank Site | City/County: Helvetia Township/Madison | Sampling Date: 2/15/23
Applicant/Owner: WFI Holdings LLC | State: IL | Sampling Point: S10
Investigator(s): SCI Engineering, Inc. - M. Holm, J. Loos | Section, Township, Range: 35, 3N, 5W
Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none
Slope (%): 0 | Lat: 38.661993 | Long: -89.62874 | Datum: WGS84
Soil Map Unit Name: Birds silt 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 ____ No X
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample Point 10 is located in the northwest section of the site, west of Sugar Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*	40	Yes	FAC
2. *Platanus occidentalis*	25	Yes	FACW
3. *Celtis occidentalis*	15	No	FAC
4. *Acer negundo*	5	No	FAC
5.			
	85	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Sambucus nigra*	15	Yes	FAC
2. *Acer negundo*	5	Yes	FAC
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Ambrosia trifida*	15	Yes	FAC
2. *Carex spp.*	15	Yes	FACW
3. *Geranium dissectum*	10	No	UPL
4. *Oxalis stricta*	10	No	FACU
5. *Phlox divaricata*	5	No	FACU
6.			
7.			
8.			
9.			
10.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	95	x 3 =	285
FACU species	15	x 4 =	60
UPL species	10	x 5 =	50
Column Totals:	160 (A)		475 (B)
Prevalence Index = B/A =			2.97

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.)
Carex species assumed FACW due to area conditions.

SOIL

Sampling Point: S10

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- 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 ___ Depth (inches): ___

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

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

(includes capillary fringe)

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Rottman Property Mitigation Bank Site | City/County: Helvetia Township/Madison | Sampling Date: 2/15/23
Applicant/Owner: WFI Holdings LLC | State: IL | Sampling Point: S11
Investigator(s): SCI Engineering, Inc. - M. Holm, J. Loos | Section, Township, Range: 35, 3N, 5W
Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave
Slope (%): 0 | Lat: 38.661126 | Long: -89.628225 | Datum: WGS84
Soil Map Unit Name: Birds silt 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 11 is located in forested Wetland C, near the west boundary.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*	40	Yes	FAC
2. *Platanus occidentalis*	20	Yes	FACW
3. *Celtis occidentalis*	20	Yes	FAC
4.			
5.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Sambucus nigra*	10	Yes	FAC
2. *Acer negundo*	5	Yes	FAC
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Ranunculus hispidus*	5	Yes	FAC
2. *Rumex acetosa*	5	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
		=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: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	105 (A)		305 (B)

Prevalence Index = B/A = 2.90

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: 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
0-10	10YR 4/1	100					Loamy/Clayey	
10-20	10YR 5/1	95	10YR 5/8	5	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ 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)
- ___ 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)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Rottman Property Mitigation Bank Site City/County: Helvetia Township/Madison Sampling Date: 2/15/23

Applicant/Owner: WFI Holdings LLC State: IL Sampling Point: S12

Investigator(s): SCI Engineering, Inc. - M. Holm, J. Loos Section, Township, Range: 35, 3N, 5W

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

Slope (%): 0 Lat: 38.661145 Long: -89.628174 Datum: WGS84

Soil Map Unit Name: Birds silt 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 ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Sample Point 12 is located in the upland adjacent to Wetland C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*	35	Yes	FAC
2. *Platanus occidentalis*	20	Yes	FACW
3. *Celtis occidentalis*	20	Yes	FAC
4.			
5.			
	75	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Acer negundo*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Ranunculus hispidus*	5	Yes	FAC
2. *Rumex acetosa*	5	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	95 (A)		275 (B)

Prevalence Index = B/A = 2.89

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: S12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- 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)
- ___ 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 ___	No X	Depth (inches): ___

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Rottman Property Mitigation Bank Site | City/County: Helvetia Township/Madison | Sampling Date: 2/15/23
Applicant/Owner: WFI Holdings LLC | State: IL | Sampling Point: S13
Investigator(s): SCI Engineering, Inc. - M. Holm, J. Loos | Section, Township, Range: 35, 3N, 5W
Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none
Slope (%): 0 | Lat: 38.659516 | Long: -89.626235 | Datum: WGS84
Soil Map Unit Name: Birds silt 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 ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample Point 13 is located in the southwest section of the site, south of Sugar Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Platanus occidentalis*	15	Yes	FACW
2. *Quercus macrocarpa*	10	Yes	FAC
3. *Quercus bicolor*	5	No	FACW
4. *Ulmus americana*	5	No	FACW
5. *Celtis occidentalis*	5	No	FAC
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Sambucus nigra*	10	Yes	FAC
2. *Acer negundo*	10	Yes	FAC
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Elymus virginicus*	30	Yes	FACW
2. *Rudbeckia laciniata*	10	No	FACW
3. *Ambrosia trifida*	10	No	FAC
4. *Galium spurium*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	45	x 3 =	135
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	115 (A)		285 (B)

Prevalence Index = B/A = 2.48

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: S13

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 3/2	100					Loamy/Clayey	
3-20	10YR 4/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- 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 ___	No X	Depth (inches): ___

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

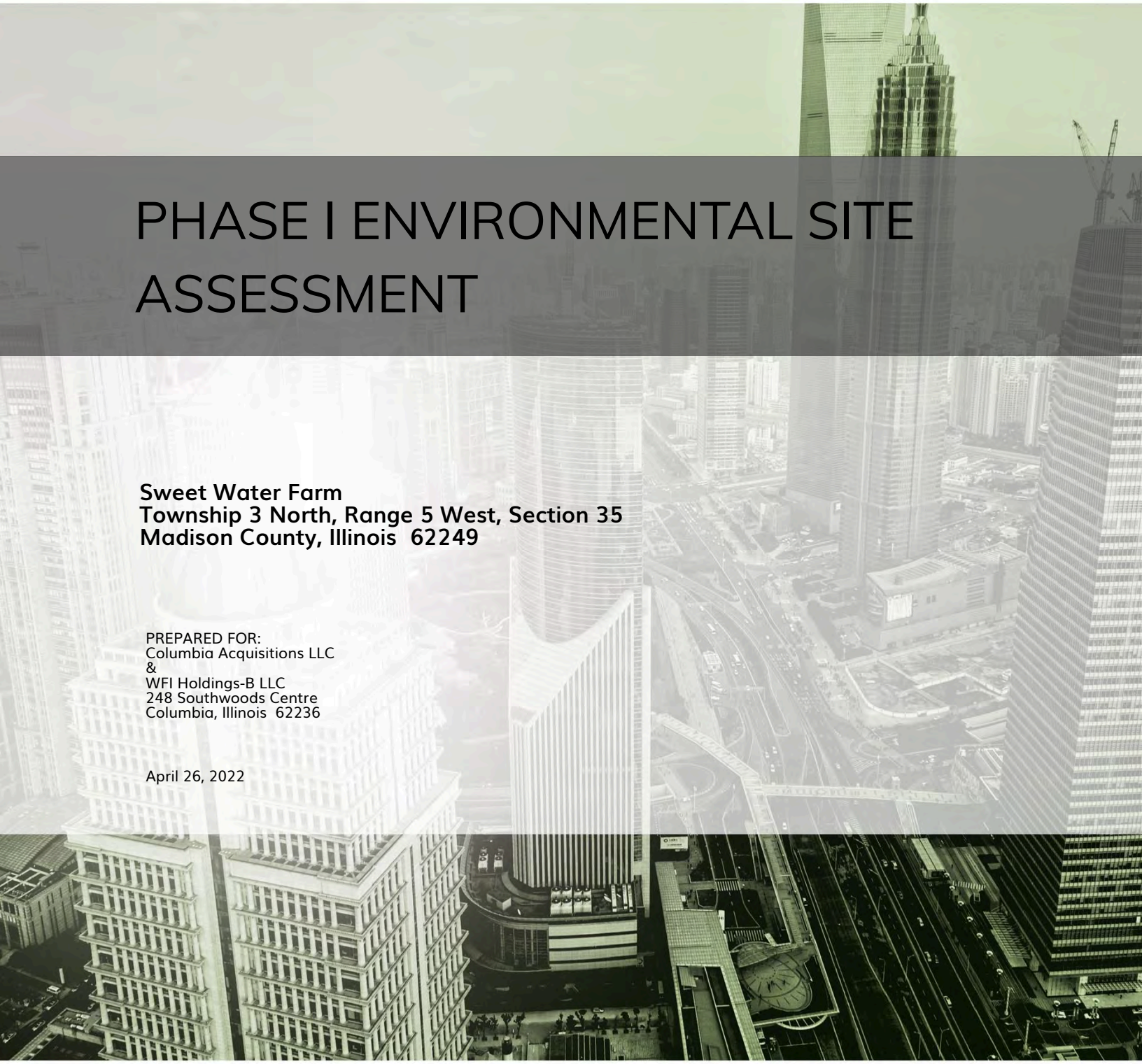
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix 9

Environmental Phase 1 Site Assessment

Progea | Global Vision Local Insight



PHASE I ENVIRONMENTAL SITE ASSESSMENT

Sweet Water Farm
Township 3 North, Range 5 West, Section 35
Madison County, Illinois 62249

PREPARED FOR:
Columbia Acquisitions LLC
&
WFI Holdings-B LLC
248 Southwoods Centre
Columbia, Illinois 62236

April 26, 2022

PROJECT SUMMARY

Progea, Inc. (Progea) was retained to conduct a Phase I Environmental Site Assessment (ESA) on the agricultural cropland located at Township 3 North, Range 5 West, Section 35 in Madison County, Illinois 62249, and commonly known as Spanker Farm (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	Lead in Drinking Water					
5.25	Wetlands					
5.26	Threatened & Endangered Species					

Section No.	Section Name	REC	CREC	HREC	OEC	Recommended Action
5.28	Radon					
5.29	Air Emissions					
5.31	Vapor Encroachment Condition					
5.12, 5.17, 5.19, 5.20, 5.27, 5.30, 5.32, 5.33	Other					

EXECUTIVE SUMMARY

Progea, Inc. (Progea) was retained to conduct a Phase I Environmental Site Assessment (ESA) on the agricultural cropland located at Township 3 North, Range 5 West, Section 35 in Madison County, Illinois 62249, and commonly known as Spanker Farm (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 one irregular-shaped parcel of agricultural cropland encompassing approximately 30.60 acres. The Site is currently developed for dryland crop cultivation. Wooded land is located along the western Site boundary. No 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 scales 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 (1956 - 2017) and historic topographic maps (1906 - 2018) indicate that the Site was vacant land as early as 1906. The Site has been developed for row crop farming or other agricultural uses as early as the 1950s. The Site has appeared in its present-day configuration since the 1950s. 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. No hazardous wastes 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

No pits, ponds, or lagoons were observed on-Site at the time of the Site inspection.

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. 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) was depicted on the US Fish and Wildlife Service, Wetland Mapper in the undeveloped, wooded areas along the southern and western Site boundaries. 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. No critical environmental habitats for threatened or endangered species were identified on-Site or on adjoining properties. In addition, no critical habitat features were identified during reconnaissance of

the tract. The Site is agricultural cropland partially surrounded by roadways and similarly developed agricultural cropland. The presence of these species in Madison County is not expected to interfere with the current use of the Site and is not considered an environmental concern.

Madison County is located in 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.

Progea did not observe sources of regulated air emissions at the Site at the time of the site reconnaissance.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Madison County, number 1704360020B, dated April 15, 1982, was reviewed for the Site. The southern and western Site boundaries are located within Zone A. The remainder of the Site is located within Zone X. Zone A includes areas of 100-year flood with base flood elevations and flood hazard factors not determined. Zone X includes areas determined to be outside of the 0.2% annual chance floodplain.

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.**