PUBLIC NOTICE

APPLICATION FOR PERMIT

U.S. ARMY
CORPS OF ENGINEERS
CHICAGO DISTRICT

PUBLIC NOTICE/APPLICATION NUMBER: LRC-2022-00643

COMMENT PERIOD BEGINS: Friday April 5, 2024
COMMENT PERIOD EXPIRES: Sunday May 5, 2024

APPLICANTS

Michael Famiglietti
V3 Wetland Restoration, LLC
7325 Janes Avenue
Woodridge, Illinois 60517

Ralph Schultz
Forest Preserve District of Will County
17540 West Laraway Road
Joliet, Illinois 60433

PROPOSED ACTION

Proposal to construct and operate Thorn Creek Headwaters Preserve Mitigation Bank (TCHPMB). A detailed description of this proposal is provided herein and in the attached exhibits.

LOCATION OF PROPOSED ACTION

The proposed TCHPMB is located in the Lake Michigan watershed in Unincorporated Monee, Will County, Illinois south of Dralle Road and west of Old Monee Road (See Figures). The proposed mitigation bank site is approximately 321 acres in size, and dominated by agricultural cropland and lower-quality woods. The National Wetlands Inventory (NWI) Map identifies 6 wetlands and three waterways within the proposed bank site. The proposed bank site is located upstream of the 1,022-acre Thorn Creek Woods Nature Preserve, of which 884 acres is a dedicated Illinois Nature Preserve, and which is part of the 1,600-acre Thorn Creek preservation system.

PROJECT DESCRIPTION

TCHPMB is proposed to provide compensatory mitigation for impacts to Federal jurisdictional aquatic resources, including Waters of the U.S. authorized under the U.S. Army Corps of Engineers (Corps) Permitting program, and provide mitigation for impacts to Isolated (non-Corps jurisdictional) Aquatic Resources of Will County in accordance with current Will County Water Resource Ordinances and the Illinois Interagency Wetlands Policy Act of 1989. The property owner is Forest Preserve District of Will County (FPDWC) and FPDWC will be the long-term manager of proposed TCHPMB.

A copy of the Prospectus for the proposed TCHPMB is attached to this Public Notice.
If Corps, state, or local permits are necessary for project they will be obtained by the applicant.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and as shown on the attached drawings. You are invited to provide your comments by May 5, 2024 on the proposed TCHPMB which will become part of the record and will be considered in the decision to either issue the permit or to deny the request under Section 404 Action of the Clean Water Act of 1972(33 U.S.C. 1344).

Written comments shall be mailed to:

U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
Attn: LRC-2022-00167,Andrew J. Blackburn
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604-1437

It should be noted that ALL comments received by this office (via hard copy or electronic) will only be accepted with the full name and address, and email address, if available of the individual commenting, and must be received by the close of the public notice period. Electronic comments may be sent to the project manager at Andrew.J.Blackburn@usace.army.mil.

REGULATORY AUTHORITY
This proposed action will be reviewed according to the provisions of Section 404 of the Clean Water Act of 1972.

JURISDICTION
This application will be reviewed according to the provisions of Section 404 of the Clean Water Act of 1972 due to due to possible minor fills associated with tile disablement/minor grading activities.

EVALUATION FACTORS
The decision whether to issue a permit will be based on an evaluation of probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.

All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. In addition, if the proposed activity involves the discharge of dredged or fill material into waters of the United

States, the evaluation of the impact on the public interest will include application of Section 404(b)(1) guidelines (40 CFR 230) promulgated by the U.S. Environmental Protection Agency. The Corps of Engineers is also soliciting comments from the public, Federal, state and local agencies, Indian tribes, and other interested parties in order to consider and evaluate the potential impacts of the proposed activity. Once this office completes a review of the comments received, it will be determined whether to issue, modify, condition, or deny a permit for this proposal.

To prepare this decision, comments are taken into consideration to assess impacts on the public interest factors listed above, as well as endangered species, historic properties, water quality, and general environmental effects. Comments will be used in the preparation of an Environmental Assessment and/or Environmental Impact Statement pursuant to the National Environmental Policy Act. A determination concerning the need for a public hearing will also be based on the comments received.

PRELIMINARY EVALUATION OF SELECTED FACTORS

ENDANGERED AND THREATENED SPECIES:
The Corps of Engineers has determined that the proposed activity would not affect any federally-listed endangered or threatened species or critical habitat for any endangered or threatened species, pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act does not appear to be warranted at this time.

HISTORIC PROPERTIES/CULTURAL RESOURCES:
Preliminary review indicates that the proposed activity is not likely to adversely affect any historic property which is listed, or eligible for listing, on the National Register of Historic Places. A Phase I Archeological Survey will be conducted for proposed bank site in Spring 2024.

ENVIRONMENTAL IMPACT STATEMENT
A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

PUBLIC HEARING
Any person may request in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing. A request for a hearing may be denied if substantive reasons for holding a hearing are not provided or if there is otherwise no valid interest to be served.

It should be noted that materials submitted as part of the permit application become part of the public record and are thus available to the general public under the procedures of the Freedom of Information Act (FOIA). Individuals may submit a written request to obtain materials under FOIA or make an appointment to view the project file at the Chicago District Corps of Engineers Office of Counsel.

Interested parties wishing to comment on the proposed activity must do so in writing no later than **May 5, 2024**. It is presumed that all parties receiving this notice will wish to respond to this public notice; therefore, a lack of response will be interpreted as meaning that there is no objection to the project as described.

This public notice is not a paid advertisement and is for public information only. Issuance of this notice does not imply Corps of Engineers endorsement of the project as described.

If you have any questions, please contact Andrew J. Blackburn of my staff by telephone at (312) 846-5543, or email at Andrew.J.Blackburn@usace.army.mil. **It should be noted that ALL comments received by this office (via hard copy or electronic) will only be accepted with the full name and address of the individual commenting**. You can also visit our website at http://www.lrc.usace.army.mil/Missions/Regulatory.aspx for more information on our program.

FOR THE DISTRICT COMMANDER:

/ORIGINAL SIGNED/
Kathleen G. Chernich
Assistant Chief
Regulatory Branch

WETLAND AND STREAM MITIGATION BANK PROSPECTUS

PROJECT SITE:

Thorn Creek Headwaters Preserve
LRC-2022-643
Will County, Illinois

PREPARED FOR:

V3 Wetland Restoration, LLC
7325 Janes Ave.
Woodridge, Illinois 60517

Forest Preserve District of Will County
17540 W. Laraway Road
Joliet, Illinois 60433

PREPARED BY:

V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200

December 14, 2023

We hereby certify that this Wetland and Stream Mitigation Bank Prospectus has been prepared by V3 Companies for use by V3 Wetland Restoration, LLC, their affiliates, lenders, and assignees.

Project Staff:

Alicia Metzger, CPSC, PWS
Soil Scientist

George R. Milner, PWS
Senior Project Manager/Ecologist

Thomas E. Slowinski, PWS
Technical Director, Wetlands and Ecology
Natural Resources Group

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1.0 INTRODUCTION

This Wetland Mitigation Bank Prospectus (Prospectus) has been prepared on behalf of V3 Wetland Restoration, LLC, and the Forest Preserve District of Will County for the establishment of the Thorn Creek Headwaters Wetland and Stream Mitigation Bank (Mitigation Bank). The Forest Preserve District is the owner of the 320.74-acre project area which will be utilized for the Mitigation Bank.

The project area is located within the Thorn Creek Headwaters Preserve north of W. Crete Monee Road, south of Dralle Road, east of S. Will Center Road and west of Old Monee Road in Will County, Illinois (Section 15, T34N, R13E; 41.431541°N, −87.718997°W; Steger Quadrangle; Figure A).

The purpose of this Prospectus is to provide a summary of the information regarding the proposed mitigation bank at a sufficient level of detail to support informed public comment and comments from the Interagency Review Team (IRT).

The proposed Mitigation Bank will provide 142.48 acres of wetland re-establishment, 28.36 acres of wetland rehabilitation, 18.57 acres of enhanced upland buffer, 1,727 linear feet of stream restoration, 11.43 acres riparian restoration, and 9.09 acres of additional upland features. The Mitigation Bank will provide a total of 161.30 acres of wetland mitigation credit and 1,727 linear feet of stream mitigation credits. The overall Wetland Mitigation Concept Plan is shown on Figure 1 in Appendix I.

This Prospectus has been prepared in accordance with the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332; 40 CFR Part 230), dated April 10, 2008 (Mitigation Rule) and the Interagency Coordination Agreement on Mitigation Banking Within the Regulatory Boundaries of Chicago District, Corps Engineers 2017 ICA), dated September 2017. Information on the required seven requirements of a Prospectus set forth in 33 CFR 332.8(d)(2) is included throughout this Prospectus.

The Mitigation Bank will be established and operated as a general use mitigation bank. The Service Area of the Mitigation Bank is the USACE Lake Michigan Service Area as defined by the 2017 ICA and the overall boundary of the USACE Chicago District.

V3 Wetland Restoration, LLC, the proposed sponsor of the Mitigation Bank, has extensive experience in the design, approval, construction, operation, and completion of wetland mitigation banks within the USACE Chicago District and is extremely qualified to successfully complete the proposed Mitigation Bank.

2.0 MITIGATION PLAN ELEMENTS (33 CFR 332.4(c))

In addition to the required seven elements of a complete Prospectus as set forth in 33 CFR 332.8(d)(2), and information required in the 2017 ICA, information on the twelve essential elements of a mitigation bank as set forth in 33 CFR 332.4(c)(2) – (13) are provided below.

2.1 MITIGATION BANK OBJECTIVES (33 CFR 332.4(c)(2)

The primary objective of the Mitigation Bank is to create wetland and stream mitigation credits for the mitigation of authorized unavoidable wetland and stream impacts within the USACE Lake Michigan Watershed Service Area and overall boundaries of the USACE Chicago District pursuant to Section 404 of the Clean Water Act.

The Mitigation Bank's primary intention is to provide off-site mitigation for wetland impacts occurring in situations where the likelihood of success and long-term sustainable onsite mitigation appears low due to size, fragmentation and site constraints. The long-term objective of the Mitigation Bank is to establish a viable, high quality, fully functioning wetland/stream/upland complex within the same watersheds where the unavoidable impacts occur, assisting to ensure that no long-term wetland impacts occur within the applicable watersheds/Service Areas. Additional goals of the Mitigation Bank are provided below:

- Provide high-quality wetland mitigation that result in an increase in overall wetland functional values within the proposed Service Areas;
- Provide positive benefits directly to the service area watersheds by increasing groundwater recharge, surface water attenuation, and erosion and sediment control;
- Increase biodiversity of Will County, Illinois, and the overall Chicago area by restoring and enhancing natural plant communities.

The proposed wetland mitigation credits are summarized in Table 1. The proposed stream mitigation credits

Table 1. Wetland Mitigation Credit Summary

Activity	Acreage	Mitigation Multiplier	Mitigation Credits
Wetland Creation/Reestablishment	142.48	100%	142.48
Wetland Enhancement/Rehabilitation	28.36	50%	14.18
100'Upland Prairie Buffer	18.57	25%	4.64
Upland Features	9.09	0%	0.00
Total	198.5		161.3

Table 2. Stream Mitigation Credit Summary

Activity	Linear Feet	Mitigation Multiplier	Mitigation Credits
Stream & Riparian Restoration (11.43 Acres)	1,727	100%	1,727

2.2 SITE SELECTION (33 CFR 332.4(c)(3)

2.2.1 SITE SELECTION CRITERIA

Section 6 of the 2017 ICA includes a set of criteria that should be used to select a mitigation bank site. The criteria are provided below in bold/italics, followed by a justification for this proposed mitigation bank.

1. ***Be owned and/or under the full control of the bank.***

   The Mitigation Bank property is owned by the Forest Preserve District of Will County.

2. ***Contain a majority of drained or hydrologically modified hydric soils, recognizing that restoration of former wetlands is preferred form of mitigation.***
   The mitigation bank project area contains large areas of drained hydric soil.

3. ***Have no high-quality wetlands that would be adversely affected by the construction or restoration work.***

   The project area does not contain high quality wetlands that would be adversely affected by the mitigation bank.

4. ***Contain adequate perimeter upland areas to buffer the wetlands from potentially incompatible land uses on adjacent parcels.***

   The project area has adequate areas to provide the required upland buffer areas that will be implemented as part of the mitigation bank

5. ***Be so situated that adequate hydrology can be ensured (e.g., be located on a floodplain or possess a high groundwater table.***

   The project area contains an extensive network of drain tiles and drained hydric soils with evidence of a high-water table throughout the project area.

6. ***Be proximate or adjacent to public land holdings so as to create contiguous, large scale habitat areas.***

   The Mitigation Bank project area is located upstream of the 1,022-acre Thorn Creek Woods Nature Preserve, of which 884 acres is a dedicated Illinois Nature Preserve, and which is part of the 1,600 Thorn Creek preservation system.

2.3 SITE PROTECTION INSTRUMENT [33 CFR 332.4(c)(4)]

The property is owned by the Forest Preserve District of Will County and will continue to be owned by the Forest Preserve District, which is a government entity charged with preserving and protecting the natural areas in Will County.

The assurance of this protection is provided in accordance with the Illinois Downstate Forest Preserve District Act (70 ILCS 805/1 et. seq.) which restricts the sale of land. It is understood that wetland mitigation sites are subject to USACE jurisdiction and must be maintained as open space in perpetuity.

2.4 BASELINE CONDITIONS [33 CFR 332.4(c)(5)]

2.4.1 WETLANDS AND WATERS OF THE US

The 320.74–acre subject property was investigated by V3 Companies (V3) on November 21, 2022 and January 18, 2023 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) jurisdiction. The January 24, 2023 Wetland Delineation and Assessment Report is provided in Appendix II. The Wetland Delineation Map is provided as Figure B.

2.4.2 SOIL CONDITIONS

The wetland delineation field investigation identified the presence of hydric soils throughout the subject property, including in areas not mapped as hydric soil. The soil profile was characterized by a thin, dark topsoil that was underlain, on average from 6 to 8 inches below the surface, by a depleted matrix. The depleted matrix located immediately below a thin, dark surface layer indicates the presence of a high-water table at or immediately below the surface for a significant portion of the year.

2.4.3 DRAIN TILES

A drain tile survey for the project area is provided in Appendix III. Numerous drain tiles are located through the project area, all of which drain to Thorn Creek in the center of the project area.

2.4.4 SITE TOPOGRAPHY

A detailed topographic survey was conducted for the project area; the overall layout of the survey is provided in Appendix III).

2.4.5 UTILITY EASEMENTS

Utility easements, including electrical utilities and gas pipelines, are located on 48.12 acres in the northeast portion and center of the project area, as shown the Figure C, Existing Conditions. Restricted activities for the easement areas include “no grade changes” in the center utility easement area. As shown on the Mitigation Bank Concept Plan, utility easements are not included in the credits of the mitigation bank; however, they will be planted and managed as part of the mitigation bank design in order to control invasive species in the mitigation areas. All activities within the easement are subject to the approval of the Forest Preserve District.

2.4.6 CULTURAL RESOURCES

A Phase I Archeological Survey will be conducted by Archeology & Geomorphological Services in Spring 2024. An initial review of the Illinois State Museum and library resources indicates that the project area has not been previously surveyed, except for a few linear projects, nor are any previously recorded archeological sites located in the project area. Early plats of the project area show structures in the project area in the 1860’s through 1957.

2.5 DETERMINATION OF CREDITS [33 CFR 332.4(c)(6)]

Establishment of the Mitigation Bank will result in the restoration or enhancement of 198.5 acres resulting in the 161.3 wetland mitigation credits. The proposed wetland credit release is provided in Table 3. The Mitigation Bank will also result in the restoration of 1,727 linear feet of the Thorn Creek Headwaters and 11.43 acres of adjacent riparian habitat. The proposed stream credit release is provided in Table 4.

Table 3. Wetland Credit Release Summary

Bank Status	Credit Release Standards	Percent of Total Credits Released	Number of Credits Released
Pre-Construction Credits	Approval of MBI	20%	32.26
Credit Release: Hydrology	Meet Hydrology Criterion	25%	40.325
Credit Release: Vegetation & Hydrology	Meet Interim Vegetation Standard	25%	40.325
Full Certification	Satisfying All Performance Standard Requirements	30%	48.39
Total Credits			161.3

Table 4. Stream Credit Release Summary

Bank Status	Credit Release Standards	Percent of Total Credits Released	Number of Credits Released
Pre-Construction Credits	Approval of MBI	20%	345.4
Credit Release: Stream Construction	Stream constructed, vegetated & stabilized, 2 bankfull events	35%	604.45
Credit Release: Vegetation	Meet Interim Vegetation Standard	10%	172.7
Full Certification	Satisfy All Performance Standard Requirements	35%	604.45
Total Stream Credits			1,727.00

2.6 MITIGATION WORK PLAN [33 CFR 332.4 (c)(7)]

The Thorn Creek mitigation concept plan proposes the following areas for mitigation credit, which include a total area of 200.84 acres:

- 142.48 acres of Wetland Reestablishment;
- 28.36 acres of Wetland Rehabilitation;
- 18.57 acres of upland buffer; and,
- 1,727 linear feet of Stream Rehabilitation which also includes 11.43 acres of Riparian Restoration.

In addition to the above 200.84 acres proposed for mitigation credit, there is an additional 113.14 acres on site that are either within easements or are proposed upland areas that will also be planted and managed during the five-year period. Mitigation credit is not proposed for these areas. These areas are summarized below, and are shown on the Mitigation Bank Concept Plan:

- 9.09 acres of existing upland features;
- 17.97 acres of proposed easement wetland;
- 5.20 acres of existing easement wetland;
- 2.14 acres of proposed easement riparian;
- 22.82 acres of proposed easement prairie;
- 0.81 acres of existing wetland; and,
- 54.58 acres of proposed additional prairie.

Overall, including all the managed areas at Thorn Creek proposed for credit and non-credit, a total of 313.98 acres is included in the Thorn Creek mitigation project. The total 313.98 acres will be managed and planted with native seed and plant plugs to create the following plant communities, as shown on the Planting Plan provided in Appendix IV:

- Sedge Meadow/Wet Prairie (160.45 acres);
- Emergent (34.37 acres);
- Stream Restoration Woodland/Savanna (11.43 acres), which includes improvements to Thorn Creek (1,727 LF); and,
- Mesic Prairie (107.2 acres)

The creation of the wetland reestablishment areas will occur through tile disablement to establish and/or enhance areas of soil saturation and shallow inundation. Following tile disablement, the wetland areas will be planted and seeded as shown on the Planting Plan. The proposed plant and seed mixes as discussed in the sections below are provided in Appendix V.

Prior to installation of the permanent seed and plug mixes, preseeding weed control for a minimum of one full growing season will be conducted. The pre-seeding weed control will be especially important to be performed in all the existing wetlands to control the existing monocultures of adventive woody and herbaceous vegetation. Preseeding weed control activities are described in detail in the Management and Monitoring Sections 2.7 and 2.9 of this document.

The five-year management and monitoring period will begin upon successful completion of the preseeding weed control and the permanent seeding of the wetland reestablishment and rehabilitation areas. The five-year period management activities will include high-mowing, application of herbicides, and prescribed burning. The five-year management and monitoring activity details are provided in Sections 2.7 and 2.9 of this document and are also illustrated on the Implementation Schedule provided in Appendix VI.

Once the appropriate hydrology is established, and the preseeding weed control has been successfully completed, the permanent seed and plug mixes will be installed as described below in the areas as shown on the Planting Plan. Due to the quantity of plugs, a phased planting over one or two growing seasons is likely to occur.

2.6.1 Sedge Meadow/Wet Prairie

A Sedge Meadow/Wet Prairie Seed and Plug Mix is proposed in 160.45 acres, which include the following:

- 142.48 acres of Wetland Reestablishment; and,
- 17.97 acres of Proposed Easement Wetland.

The expected hydrologic condition in the proposed sedge meadow/wet prairie areas is long-term saturation to occasional short-term shallow inundation. As this seed and plug mix title implies, it is a broad-mixture of wetland sedges, grasses and forb species designed to tolerate, to some degree, variable hydrologic conditions. The seed will be applied on the surface using a tractor mounted broad-cast spreader ideally in the fall/winter after the hydrology has been established and all adventive species have been controlled. The mix also includes 2,000 plugs/acre, which will be installed during spring and fall likely over two growing seasons. The plugs consist mainly of rhizomatous species, prairie cord grass and sedges, as well as a few forbs that do not establish easily from seed.

2.6.2 Emergent Seed and Plug Mix

An Emergent Seed and Plug Mix is proposed in 34.37 acres, which include the following:

- 28.36 acres of Wetland Rehabilitation;
- 5.20 acres of Existing Easement Wetland; and,
- 0.81 acres of Existing Wetland.

This seed and plant mix is proposed for the wetter areas on site, which are anticipated to be primarily the existing wetlands. These areas are expected to have some periods of shallow inundation, mainly during spring. As such, this mix includes wetland species on the dryer side of an emergent plant community as well as species found also in a sedge meadow hydrologic regime. The seed will be applied on the surface most likely installed by hand in the fall/winter after the hydrology has been established and all adventive species have been controlled. The mix also includes 3,000 plugs/acre, which will be installed during spring and fall likely over two growing seasons.

2.6.3 Stream Restoration

The Thorn Creek mitigation plan includes the restoration of 1,727 linear feet of stream channel and the restoration of 11.43 acres of associated riparian habitat. Stream channel improvement included the repair or any eroding stream banks, and the establishment of native vegetation along the entire shoreline. The establishment of shoreline vegetation will provide erosion control, water filtration and

reintroduce habitat for native vegetation. Following the repair of the eroding stream banks, the following seeding and planting is proposed to create the stream corridor system:

- Stream Channel Shoreline Plugs: Wetland plant plugs are proposed along the entire stream channel shoreline. Two rows of plant plugs will be installed along both sides of the channel. These plugs will stabilize the shoreline and provide in-stream habitat.
- Riparian Woodland/Savanna Seed Mix (11.43 acres): The existing wooded riparian zone associated with the creek will be enhanced through control of adventive woody and herbaceous species and installation of a native Woodland/Savanna Seed Mix.
- Stream Bank Seed Mix: A Stream Bank Seed Mix is proposed for the tie-in slope that will connect the riparian zone to the creek shoreline. This seed mix is designed to provide good stabilization functions.
- Native Tree Installation: Native trees will also be installed within the stream corridor system. The trees will likely include mostly oak species.

2.6.4 Mesic Prairie Seed Mix

A Mesic Prairie Seed Mix is proposed in 107.2 acres, which include the following:

- 18.57 acres of 100-foot Upland Buffer;
- 9.09 acres of Upland Features;
- 2.14 acres of Easement Riparian;
- 22.82 acres of Easement Prairie; and,
- 54.58 acres of additional prairie.

The seed mix will be installed using a combination native seed drill and tractor-mounted broadcast spreader. The grasses will be buried to an 1/8-inch depth while the forbs will be sown on the surface. The prairie seeding will likely occur in the fall or spring of the first year following construction.

2.7 Maintenance Plan (33 CFR 332.4(c)(8) & Adaptive Management [33 CFR 332.4 (c)(12) & 332.7(c)]

Maintenance of the newly constructed mitigation areas is an important contributor to successful mitigation efforts. Multiple management tools are required as part of the routine maintenance of constructed wetland mitigation efforts. For the Mitigation Bank these activities include, but are not limited to, the following:

1) Exotic species control
2) Planting and/or seeding
3) Prescribed burning
4) Multiple site inspections annually
5) Clean up or repair in case of dumping or other damage to the Mitigation Bank

Because the level of effort for any number of the aforementioned management activities cannot be predetermined in advance of Mitigation Bank establishment, the importance of an adaptive management approach is critical to ensuring success of the Mitigation Bank. Annual monitoring and inspection of the Mitigation Bank property will facilitate the evaluation of management activities and

strategies so that modifications or corrective measures are employed to maintain progress towards the Mitigation Bank's performance criteria and ultimately the restoration objectives.

Monitoring, management, and annual reporting of the wetland mitigation will occur for at least five years, commencing the first growing season after the completion of construction and seeding of the wetland mitigation areas.

2.7.1 Pre-seeding Weed Control

Pre-seeding weed control will occur for a minimum one full growing season at the proposed mitigation bank prior to any permanent seeding and planting. The pre-seeding weed control efforts will mainly focus on the existing wetlands and uplands that are not currently being farmed. These non-farmed existing wetlands and uplands are nearly 100% vegetated by adventive and invasive woody and herbaceous species. In addition, pre-seeding weed control will occur as needed in the remainder of the site once farming has ceased.

To control the existing weedy vegetation, the following activities are proposed:

- Clearing of adventive woody species;
- Herbicide application using a Tractor or ATV boom sprayer and pistol grip;
- Mowing; and,
- Prescribed burning.

The ultimate goal of the pre-seeding weed control is to create as much of a "clean-slate" as possible to provide the best chance for the establishment of the proposed native species. Pre-seeding details are provided below and shown Figure D, Woody Removal and Pre-seeding Weed Control.

Wetland Rehabilitation Area Conditions and Pre-Seeding. The existing wetlands and proposed riparian restoration are mainly comprised of adventive and invasive species. These areas will be subject to either selective or non-selective clearing of woody species depending on the existing woody species present. Following the clearing, these areas will also be subject to boom spraying for a minimum one growing season to kill all the herbaceous vegetation. A summary of the existing conditions and the pre-seeding weed control proposed for these areas is provided in Table 5.

Table 5. Wetland Rehabilitation Area Existing Conditions and Pre-seeding Weed Control Activity Summary

Rehabilitation Area	Size (Acres)	Existing Conditions	Pre-seeding Weed Control Activities
Wetland Area 1	21.69	Wooded primarily black willow dominant with large stands of 24" plus dbh. Herbaceous layer reed canary grass, cattails and common reed.	Woody clearing will be selective. Removal of all adventive shrubs/trees is proposed as well as some minor thinning of small native trees. Preservation of large black willows and other larger native tree species will occur. Herbaceous vegetation is all weedy. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Wetland Area 2	1.82	Partially farmed with some cattail and reed canary grass. No woody species present.	Non-selective control of herbaceous vegetation. Herbaceous control with ATV or Tractor Boom for one full growing season minimum. No woody clearing required.

Wetland Area 3	6.81	Cattail marsh with scattered invasive woody species in approximately 4.07 acres.	Non-selective clearing of all woody species and herbaceous vegetation. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Wetland Area 4	0.12	Cattail marsh - no woody vegetation present.	Non-selective control of herbaceous vegetation. Herbaceous control with ATV or Tractor Boom for one full growing season minimum. No woody clearing required.
Wetland Area 5	0.54	Both wetlands are partially farmed with a mixture of annuals and cattails. No woody vegetation present.	
Wetland Area 6	1.42		
Wetland Area 7	0.05	Reed Canary Grass monoculture and no woody vegetation present.	
Wetland Area 8	0.21	Common Reed monoculture and no woody vegetation present.	
Wetland Area 9	1.28	Cattail marsh surrounded by reed canary grass and adventive shrubs. Pocket of 8 to 12" dbh cottonwoods in NE corner.	Selective clearing of woody vegetation as larger cottonwoods would be preserved. All adventive woody species to be removed. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Wetland Area 10	1.06	Farmed wetland no woody vegetation present.	Non-selective control of herbaceous vegetation. Herbaceous control with ATV or Tractor Boom for one full growing season minimum. No woody clearing required.
Streambank Riparian Area	12.65	Heavily wooded area with a dense understory of buckthorn and honeysuckle. Some oak present with other desirable native trees. Herbaceous layer all weeds.	Woody clearing will be selective. Removal of all adventive shrubs/trees is proposed as well as some minor thinning of small native trees. Preservation of all oaks and other desirable woody species. Herbaceous vegetation is all weedy. As such non-selective control of herbaceous vegetation for minimum one full growing season is proposed.

Upland (Non-farmed) Area Conditions and Pre-Seeding. The existing, non-farmed upland features are also mainly comprised of adventive and invasive species. These areas will be subject to non-selective clearing of woody species and boom spraying for a minimum one growing season to kill all the herbaceous vegetation. A summary of the existing conditions and the pre-seeding weed control proposed for these areas is provided in Table 6.

Table 6. Upland (Non-Farmed) Features Existing Conditions and Pre-seeding Weed Control Activity Summary

Upland Feature	Size (Acres)	Existing Conditions	Pre-seeding Weed Control Activities
Easement Riparian	1.39	Pipeline easement between riparian woods. Primarily Old-field vegetation with teasel, thistle and tall goldenrod dominant.	Non-selective woody clearing and herbaceous control of entire area. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.

Upland Feature 1	1.62	Mostly farmed but has a 1.62-acre area of existing vegetation consisting of large *Populus alba* stand with other mixed invasive brush and herbaceous weedy understory.	Non-selective woody clearing and herbaceous control of entire 1.62-acre vegetated area. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Upland Feature 2	0.10	Mostly farmed with a small wooded portion of invasives (0.10-ac).	Non-selective woody clearing and herbaceous control of entire 0.10-acre vegetated area. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Upland Feature 3	1.20	Very dense upland wooded zones comprised of invasive trees and shrubs. These areas proposed as wetland reestablishment.	Non-selective woody clearing and herbaceous control of entire area. Herbaceous control with ATV or Tractor Boom for one full growing season minimum.
Upland Feature 4	2.24		
Fence Row 1	1.19	Osage Orange dominant fence row with other non-desirable woody species and a herbaceous weedy understory.	
Fence Row 2	0.63		
Fence Row 3	0.49		
Fence Row 4	1.68	Fence row of all invasive species but no Osage Orange.	
Indian Grass	30.33	Monoculture of Indian Grass with no woody species.	Boom spray for one-growing season

Farmed Areas. Depending on the timing of the tile disablement and the permanent seeding, the site that is in current agricultural production may also require pre-seeding boom spraying prior to permanent seeding.

2.7.2 Mechanical Weed Control (Mowing, Weed Whipping)

During the first two growing seasons after seeding the mesic prairies and, if not too wet, the sedge meadow/wet prairie, shall be high-mowed several times during the growing season to ensure the vegetation does not exceed 18 inches in height. During the high-mowing, the vegetation shall be cut no lower than 6 to 9 inches so the native seedlings are unharmed. To accomplish this, the mower deck should be raised to a height of around 6 to 9 inches. Mowing will aid new plant growth as to allow more sunlight to reach young native seedlings. Mowing will aid in the control of annual weeds, which can undermine planting and seeding efforts. Selective weed whipping can also be used if conditions are unfit (i.e., too wet) for a tractor or if only small, isolated areas of vegetation require cutting. In addition, cutting the inflorescence prior to seed set of many biennial species including teasel and sweet clover is an effective control method that can be utilized.

Mowing will also occur between the boom spraying events during the pre-seeding weed control to encourage new growth by removing the dead vegetation. Mowing will likely improve the boom spraying effectiveness.

2.7.3 CHEMICAL WEED CONTROL (BACK-PACK & BOOM SPRAYING)

Management of the vegetation in all areas during the five-year period will include selective application of herbicide using back-packs and boom spraying to control aggressive plant species, such as, but not limited to, the species included in Table 7. These weedy species can displace desirable species, thereby reducing floristic diversity. Additionally, many of the performance standards will be extremely difficult to achieve with the presence of certain weed plants. It is very important to control many weed species through herbicide application as soon as they are observed in the Mitigation Areas. A determination regarding the type of herbicide to be used will be made when it is known which nuisance species are present on the site. Depending on the target weed species, a selective herbicide may be available. A few acceptable application methods include, but are not limited to, boom spraying, back pack spraying, and hand-wick application. The choice of herbicide, timing, and application method will be made by a trained, experienced professional based on the target weed species and site conditions.

Table 7: Non-Native and Invasive Species (from Appendix "B" of the 2017 ICA)

American Silver-Berry (*Elaeagnus commutata)*	Eurasian Water-Milfoil (*Myriophyllum spicatum*)	Nodding Plumeless-Thistle (*Carduus nutans)*
Ash-Leaf Maple (*Acer negundo*)	European Barberry (*Berberis vulgaris*)	Privet *(Ligustrum* spp.)
Asian Bittersweet (*Celastrus orbiculatus*)	European Buckthorn (*Rhamnus cathartica*)	Purple Loosestrife (*Lythrum salicaria*)
Garden Bird's-Foot-Trefoil (*Lotus corniculatus*)	Garlic-Mustard (*Alliaria petiolata*)	Ragweed (*Ambrosia* spp.)
Black Locust (*Robinia pseudoacacia*)	Giant Hogweed (*Heracleum mantegazzianum*)	Rambler Rose (*Rosa multiflora*)
Bull Thistle *(Cirsium vulgare)*	Glossy False Buckthorn (*Frangula alnus*)	Reed Canary Grass *(Phalaris arundinacea*)
Lesser Burrdock (*Arctium minus*)	Greater Flowering-Rush (*Butomus umbellatus*)	Russian Olive (*Elaeagnus angustifolia)*
Canadian Goldenrod (*Solidago canadensis*)	Japanese Barberry (*Berberis thunbergii*)	Sandbar Willow (*Salix interio*r)
Canadian Thistle (*Cirsium arvense*)	Japanese Bristle Grass (*Setaria faberi*)	Seaside Goldenrod (*Solidago sempevirens*)
Cat-Tail (*Typha* spp.)	Japanese Honeysuckle (*Lonicera japonica*)	Showy Fly-Honeysuckle (*Lonicera* x *bella*)
Chinese Yam (*Discorea oppositifolia*)	Japanese Hop (*Humulus japonica*)	Spotted knapweed (*Centaurea stoebe* subsp. *micranthos*)
Common Reed (*Phragmites australis)*	Japanese-Knotweed (*Reynoutria japonica*)	Tall Goldenrod (*Solidago altissima*)
Crack Willow (*Salix fragilis*)	Japanese Stilt Grass (*Microstegium vimineum*)	Teasel (*Dipsacus* spp.*)*
Creeping-Jenny (*Lysimachia nummularia*)	Jetbead (*Rhodotypos scandens*)	Twinsisters (*Lonicera tatarica*)
Crownvetch (*Securigera varia)*	Leafy Spurge (*Euphorbia esula*)	Watercress (*Nasturtium officinale*)
Curly Pondweed	Littleleaf Linden (*Tilia cordata*)	Wild Parsnip

(*Potamageton crispus*)		(*Pastinaca sativa*)
Eurasian-Buttercup (*Ficaria verna*)	Morrow's Honeysuckle (*Lonicera morrowii*)	Yellow Sweet-Clover (*Melilotus officinalis*)

A minimum of four annual selective weed control application periods using back-packs will be conducted throughout the five-year period. Below is a general guideline on the suggested schedule and target species for the application periods:

- Application Period One (early spring – April/May): problematic species such as, but not limited to, reed canary grass, red/white clover, cool season adventive grasses, garlic mustard, Dame's rocket, wild chervil.
- Application Period Two (late spring to early summer – May/June): problematic species such as, but not limited to, teasel, white/yellow sweet clover, thistle.
- Application Period Three (mid to late summer – July/August): problematic species such as, but not limited to, tall goldenrod, hairy aster, ragweed, cattails, purple loosestrife.
- Application Period Four (late summer and fall – September/October): problematic species such as, but not limited to, reed canary grass, thistle, common reed, red/white clover, cool season grasses, wild chervil, garlic mustard, Dame's rocket.

2.7.4 Prescribed Burning

Management of the vegetation in all areas will include periodic prescribed burning. Burning encourages the growth of native plant species from the established seed mix and existing native seedbank, and also suppresses the growth of non-indigenous vegetation, especially brush. Prescribed burning is an essential management activity in the establishment of sedge meadow and prairie communities. Once native species dominate these areas, periodic burns will be necessary for maintenance and long-term viability.

2.8 Performance Standards (33 CFR 332.4(c)(9)

Vegetation Performance Standards will be used to evaluate the relative progress of the areas proposed for mitigation credit (142.8 acres Wetland Reestablishment, 28.36 acres of Wetland Rehabilitation, 18.57 acres of upland buffer, and the Stream/Riparian Restoration.

2.8.1 Requisite Performance Standards (Applies to all Plant Communities For Mitigation Credit)

1. A temporary cover crop must be planted immediately upon completion of any earthwork in order to prevent soil erosion. Erosion control blanket or other soil erosion and sediment control measures may be necessary depending on site conditions and season of planting. Soil erosion and sediment control measures must be in place before, during and after construction work. Within three months, at least 90% of this area, as measured by areal coverage, will be vegetated. If the designed long-term vegetation is not planted with the temporary cover crop, it must be planted in the first available growing season appropriate for each plant community. All cover crop species must be non-persistent and non-alleopathic or native.

2. $\leq$ 10% cumulative average cover by exotic and invasive species including but not limited to the following species in the Wetland Reestablishment and Upland Buffer Areas and $\leq$ 15% cumulative average cover by exotic and invasive species including but not limited to the following species in the Wetland Rehabilitation Areas. The cumulative average cover by exotic and invasive species for the Wetland Rehabilitation is proposed slightly higher due to the existing conditions of these wetlands having monocultures of cattails, common reed and/or reed canary grass.

3. A vegetation map of the bank site based on as-built drawings developed at the completion of implementation must be submitted. This information must be descriptive and define the limits of all vegetation areas by community type, based on field observations. The permanent transects must be shown on this map. Representative photographs of each vegetation area by general community zone must be submitted to the IRT.

2.8.2 WETLAND RE-ESTABLISHMENT & WETLAND REHABILITATION

The following standards are proposed for the wetland reestablishment and rehabilitation herbaceous plant communities (Wet Prairie, Sedge Meadow, Emergent Plant Communities). Note that the Wetland Rehabilitation Areas have a proposed final relative cover standard of ≥ 85% native and ≤ 15% non-native. This is due to the existing conditions of these wetlands having monocultures of cattails, common reed and/or reed canary grass.

1. **Relative areal cover**

   Interim: ≥ 50% relative areal cover by Native, Non-Invasive Perennial Species and < 50% relative areal cover by Invasive and/or Non-native Species.

   Final: ≥ 90% relative areal cover by Native, Non-Invasive Species and < 10% relative areal cover by Invasive and/or Non-native Species in the Wetland Reestablishment Areas.

   Final: ≥ 85% relative areal cover by Native, Non-Invasive Species and < 15% relative areal cover by Invasive and/or Non-native Species in the Wetland Rehabilitation Areas.

2. **Species richness**

   Interim: None.

   Final: Emergent Community > 15 native species

   Sedge Meadow & Wet Prairie Community > 35 native species

3. **Dominant species**

   Interim: None.

   Final: The top 3 most dominant species determined by Relative Importance Values shall be native perennials. No species with a *C* value of less than 4 shall have greater than a 20.0 RIV in the wet prairie or sedge meadow areas.

4. **Relative areal cover by hydrophytes**

   Interim: None.

   Final: > 75% relative areal cover by hydrophytes.

5. **Maximum allowance for unvegetated areas (does not apply to the emergent plant communities)**

   Interim: No unvegetated areas >200ft^2.

   Final: No unvegetated areas >10ft^2.

6. **Floristic quality assessment (FQA)**

   Interim: Mean C value (all species) ≥ 2.0 and FQI value (all species) ≥ 15.0.

   Final: Mean C value (all species) ≥ 3.0 and FQI value (all species) ≥ 25.0.

7. **Hydrology Performance Standards (Wetland Reestablishment)**

The hydrology standard must be met for ≥ (greater than or equal to) 2 consecutive growing seasons in order to qualify for credit release and/or final release from maintenance and monitoring. Hydrology must consist of a water table 12 inches or less below the soil surface for a minimum of 28 consecutive days, or two periods of 14 or more consecutive days, during the growing season.

2.8.3 Prairie Buffer Areas

1. Relative areal cover

Interim: ≥ 50% relative areal cover by Native, Non-Invasive Perennial Species and < 50% relative areal cover by Invasive and/or Non-native Species.

Final: ≥ 90% relative areal cover by Native, Non-Invasive Species and < 10% relative areal cover by Invasive and/or Non-native Species.

2. Species richness

Interim: none

Final: ≥ 25 Native Species.

3. Dominant species

Interim: None.

Final: The top three most dominant species determined by RIV shall be native, perennial species.

4. Maximum allowance for unvegetated areas

Interim: No unvegetated areas >200ft^2.

Final: No unvegetated areas >10ft^2.

5. Floristic quality assessment (FQA)

Interim: Mean C value (all species) ≥ 2.0 and FQI value (all species) ≥ 15.0.

Final: Mean C value (all species) ≥ 3.0 and FQI value (all species) ≥ 25.0.

2.8.4 Stream Mitigation Standards

The following vegetation standards apply to the Stream and Riparian Restoration Area:

1. By the end of the fifth year, a Mean C value ≥ 3.0 and FQI value ≥ 25.0 shall be achieved.

2. By the end of the fifth year, the top three most dominant plant species determined by RIV shall be native species.

3. By the end of the fifth year, the native species shall represent at least 80% of the total dominance measure (RIV).

4. Honeysuckle (*Lonicera* spp.), multiflora rose (*Rosa multiflora*) and buckthorn (*Rhamnus* spp.) in aggregate cannot comprise more than 10% relative cover.

2.9 Wetland Mitigation Monitoring [33 CFR 332.4(c)(10)]

2.9.1 Erosion Control Monitoring

Erosion control monitoring will be conducted at the site and will commence following the completion of initial vegetation clearing and any grading. Erosion control monitoring will then continue until the site has achieved 80% vegetative coverage and all areas are deemed to be stabilized.

2.9.2 Vegetation Monitoring

Monitoring is required for a minimum of five (5) full growing seasons from the completion of permanent seeding activities in the mitigation areas proposed for credit. Vegetation monitoring will be performed semi-annually to ensure both early and late season species are accounted for. The first monitoring event will occur during June/July, and the second during August/September. During both monitoring events a floristic inventory will be recorded. During the second monitoring event, quantitative data will be collected along with the qualitative data in the mitigation areas proposed for credit. Permanent sampling transects will be established in the mitigation areas proposed for credit. A series of sample quadrats (1.0 m^2) will be placed along all transects at 5-meter intervals to collect data that will adequately represent the vegetation.

Data collected in each quadrat will include an inventory of all plants and the estimated coverage of each species. These data will be used to derive relative importance value (RIV) data for each species encountered in the transect. All data collected from the monitoring sessions will be inventoried and evaluated using the Chicago Region Floristic Quality Assessment Calculator, as updated by the Corps in November, 2017. This data will then be used to evaluate the site's progress in in meeting the proposed performance standards.

All transect locations will be placed on the final planting plans that will be submitted with the Mitigation Banking Instrument (MBI).

2.9.3 Wetland Hydrology Monitoring

Ground water monitoring wells will be installed in the wetland reestablishment areas to document the hydrologic conditions during the five-year period. The automated wells will collect water levels daily, and will provide continual monitoring data throughout the growing season. Hydrologic data will be included in the annual monitoring reports and can be provided to IRT upon request in order to demonstrate the bank is meeting/continues to meet set hydrology performance standards.

All monitoring well locations will be placed on the final planting plans that will be submitted with the MBI.

2.9.4 Wetland Mitigation Monitoring Report

On an annual basis for the duration of the five-year management and monitoring period, a wetland monitoring report will be submitted to the Corps of Engineers (five reports required). The monitoring report will document conditions at the Mitigation Bank and management activities undertaken for the year, data from both monitoring events, and the progress of the site towards achieving the predetermined performance standards. Photographs will be included in the report to provide further documentation of the vegetation conditions and the implemented management activities. The reports shall be submitted by January 31 of the following year (i.e., 2023 report will be submitted by January 2024).

More specifically, the monitoring report must contain the following information, which will be based on transect and qualitative data collected during the annual monitoring inspections.

1. A summary of management activities conducted during the year.
2. Representative photographs depicting general site conditions.
3. Calculate mean C, FQI, and mean wetness coefficient of all species for each plant community zone.
4. Using the Chicago Region Floristic Quality Assessment Calculator, as updated by the Corps in November, 2017, calculate the relative frequency of native species (RF_n) and the relative frequency of adventive species (RF_a). Calculate the relative native cover (RC_n) and the relative adventive cover (RC_a). Calculate the RIV_n of total native species and the RIV_a of total adventive species. The sum of the RIV_n and RIV_a must equal 100.
5. Evaluate the status of the areas relative to the performance standards.
6. Recommend management activities for the following year to address any issues related to mitigation success.

2.10 Long Term Management [33 CFR 332.4(c)(11) & 332.7(d)]

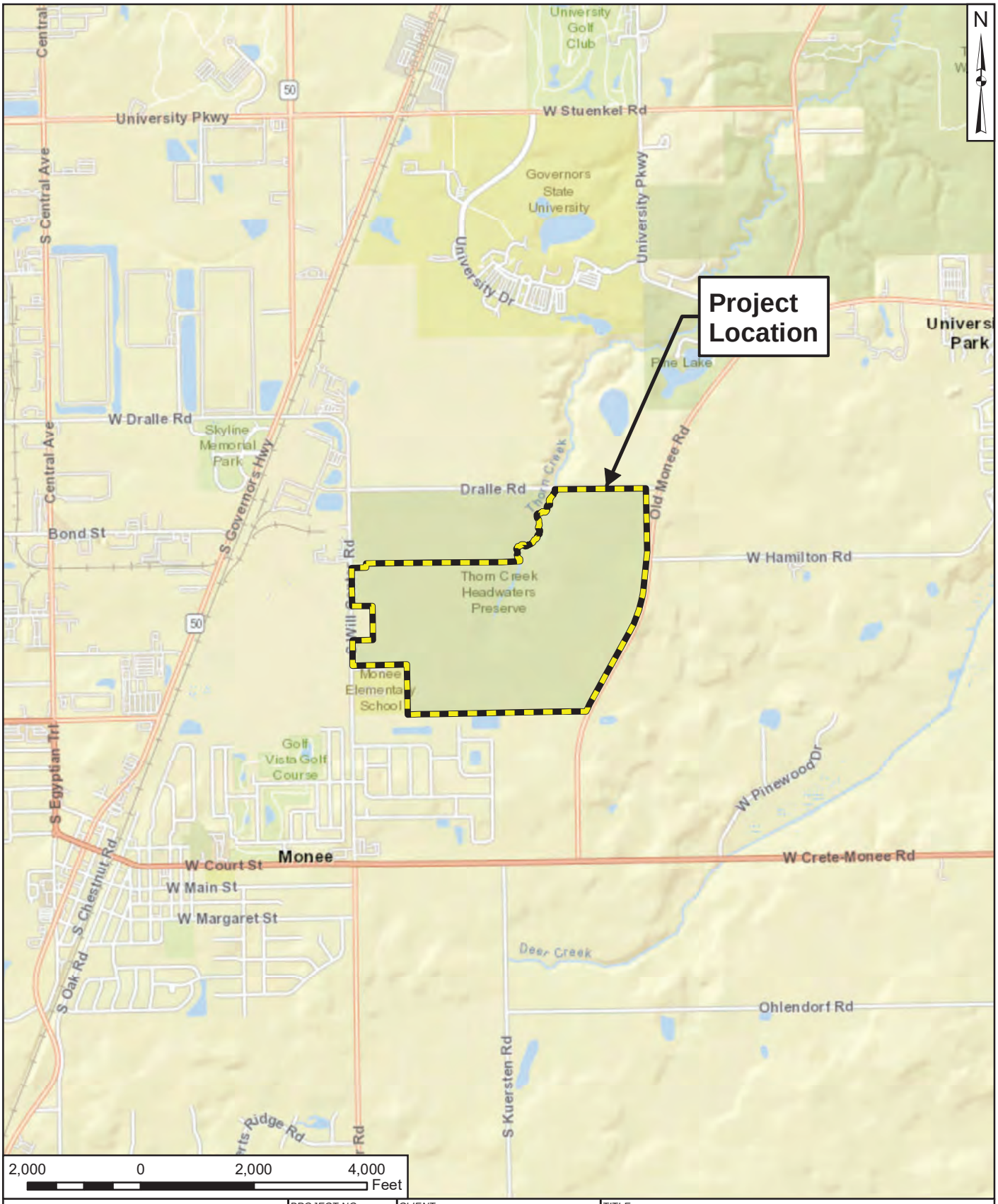
Following the full certification of the Mitigation Bank Credits, long term management of the mitigation bank will continue to be the responsibility of the Forest Preserve District of Will County.

2.11 Financial Assurances (33 CFR 332.4(c)(13)

In accordance with Section 332.3(n) of the Federal Mitigation Rule, the Forest Preserve District of Will County will work with the IRT to develop a “formal, documented commitment” to ensure a high level of confidence that the proposed wetland and stream mitigation will be successfully completed.

2.12 Mitigation Bank Closure

The operational life of the Mitigation Bank shall be terminated and the Mitigation Bank shall be considered closed after all available wetland and stream mitigation credits have been sold.



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PROJECT NO.: 220856	CLIENT: Forest Preserve District of Will County, 17540 W. Laraway Road, Joliet, Illinois 60433	TITLE: **PROJECT LOCATION**	
CREATED BY: AMM			
DATE: 09/27/2022	BASE LAYER: ESRI World Street Map	SITE: Thorn Creek Headwaters Preserve, Will County, Illinois	FIGURE: 1
SCALE: See Scale Bar			

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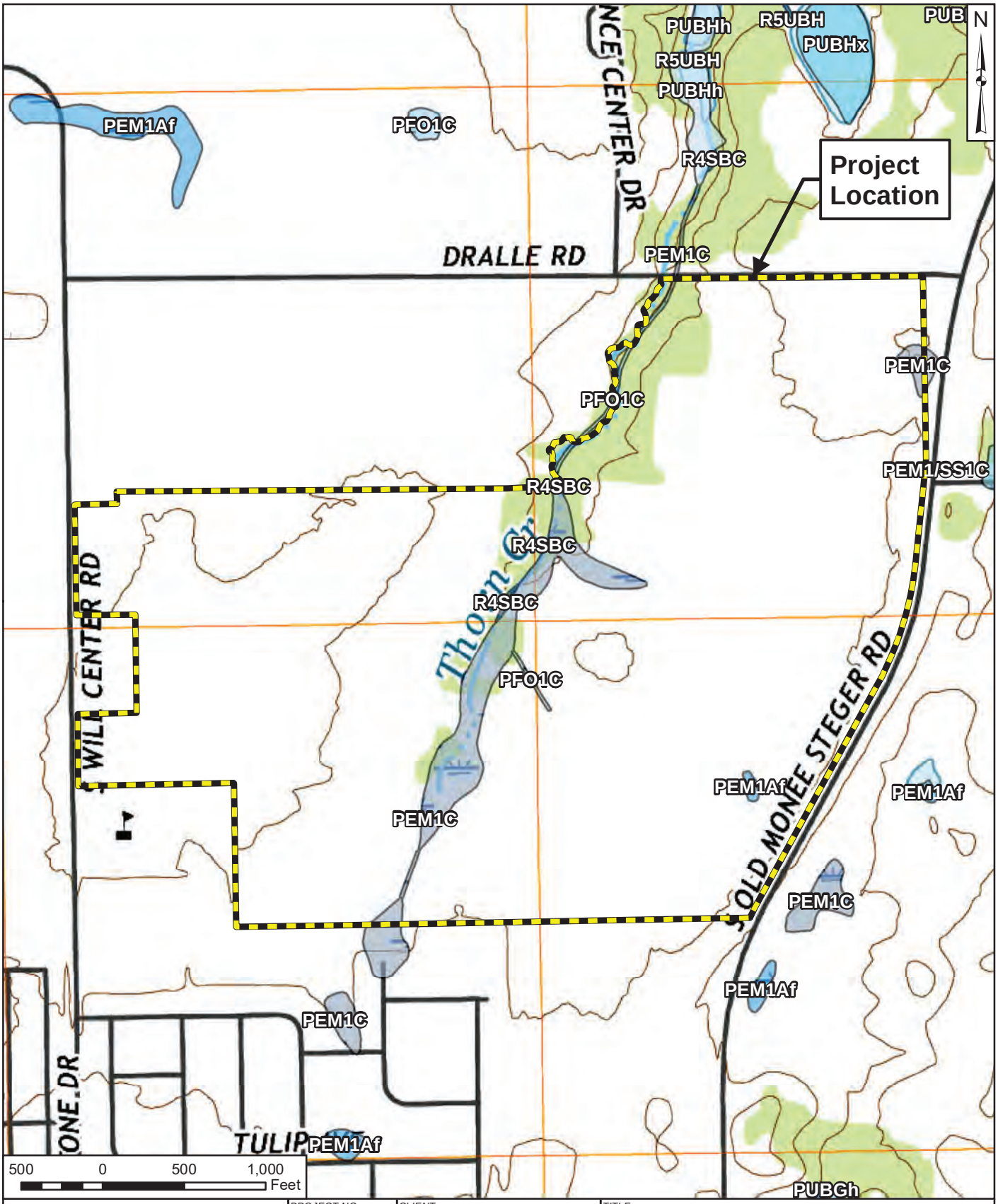

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CLIENT: Forest Preserve District of Will County, 17540 W. Laraway Road, Joliet, Illinois 60433

BASE LAYER: USGS Topopgraphic Map Steger Quadrangle (2021)

TITLE: **NATIONAL WETLANDS INVENTORY (NWI)**

SITE: Thorn Creek Headwaters Preserve Will County, Illinois

FIGURE: 2

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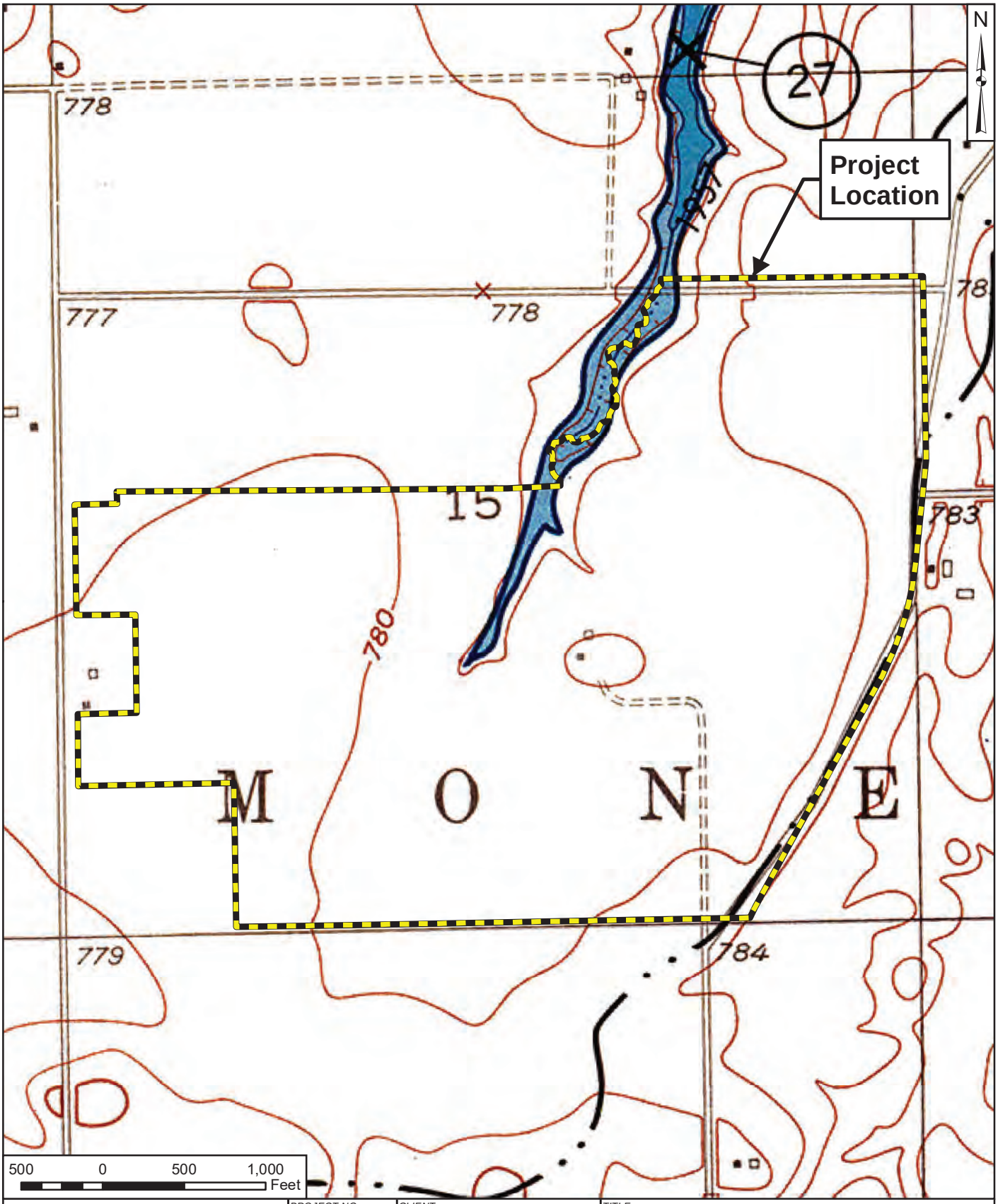

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 220856 CREATED BY: AMM	CLIENT: Forest Preserve District of Will County 17540 W. Laraway Road Joliet, Illinois 60433	TITLE: **USGS HYDROLOGIC ATLAS**
	DATE: 09/27/2022	BASE LAYER: USGS Hydrologic Atlas Steger Quadrangle (1966)	SITE: Thorn Creek Headwaters Preserve Will County, Illinois FIGURE: 3
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

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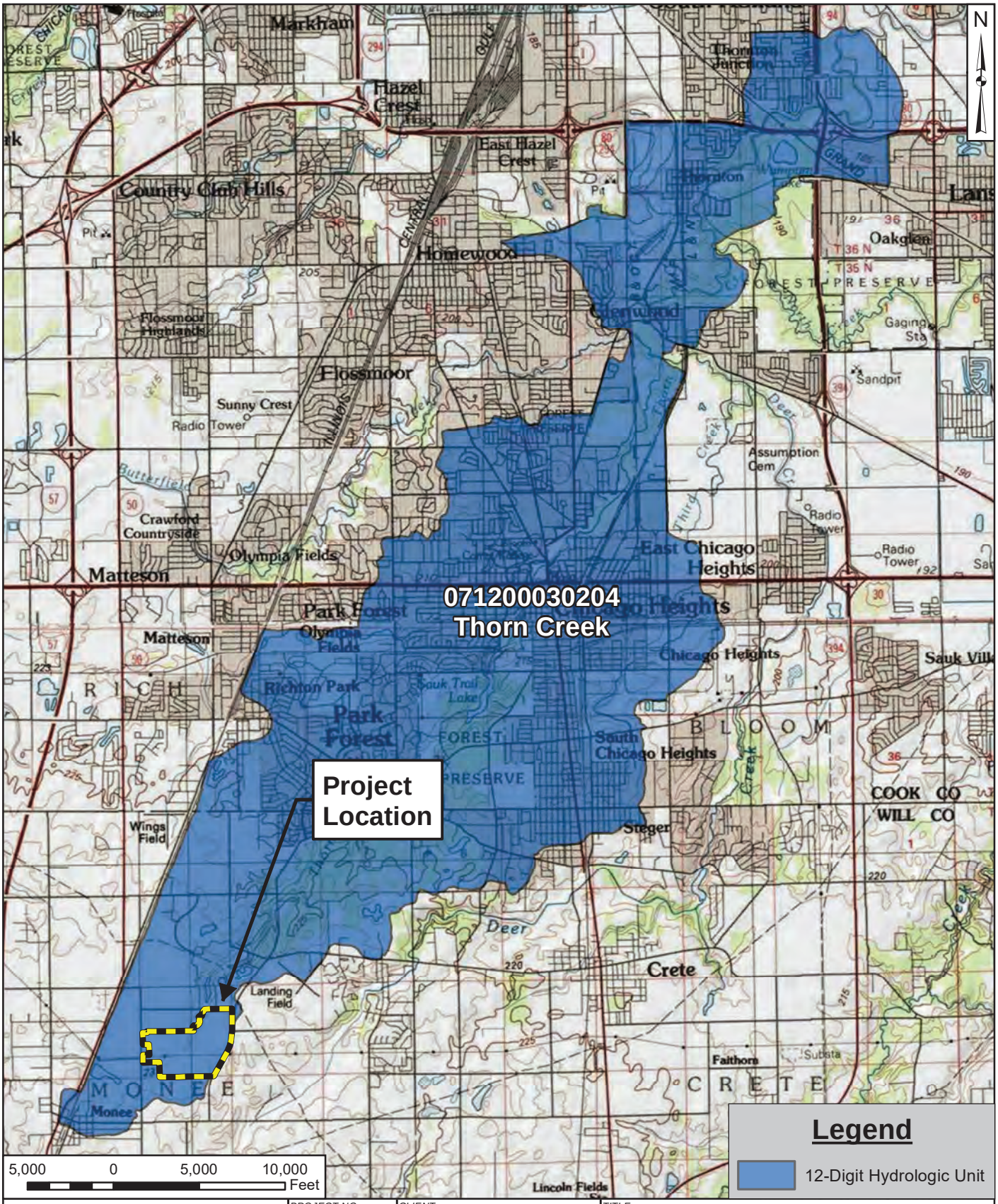

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SCALE:	See Scale Bar
CLIENT:	Forest Preserve District of Will County 17540 W. Laraway Road Joliet, Illinois 60433
BASE LAYER:	ESRI USA Topographic Map
TITLE:	**12-DIGIT HYDROLOGIC UNIT CODE (HUC)**
SITE:	Thorn Creek Headwaters Preserve Will County, Illinois
FIGURE:	4

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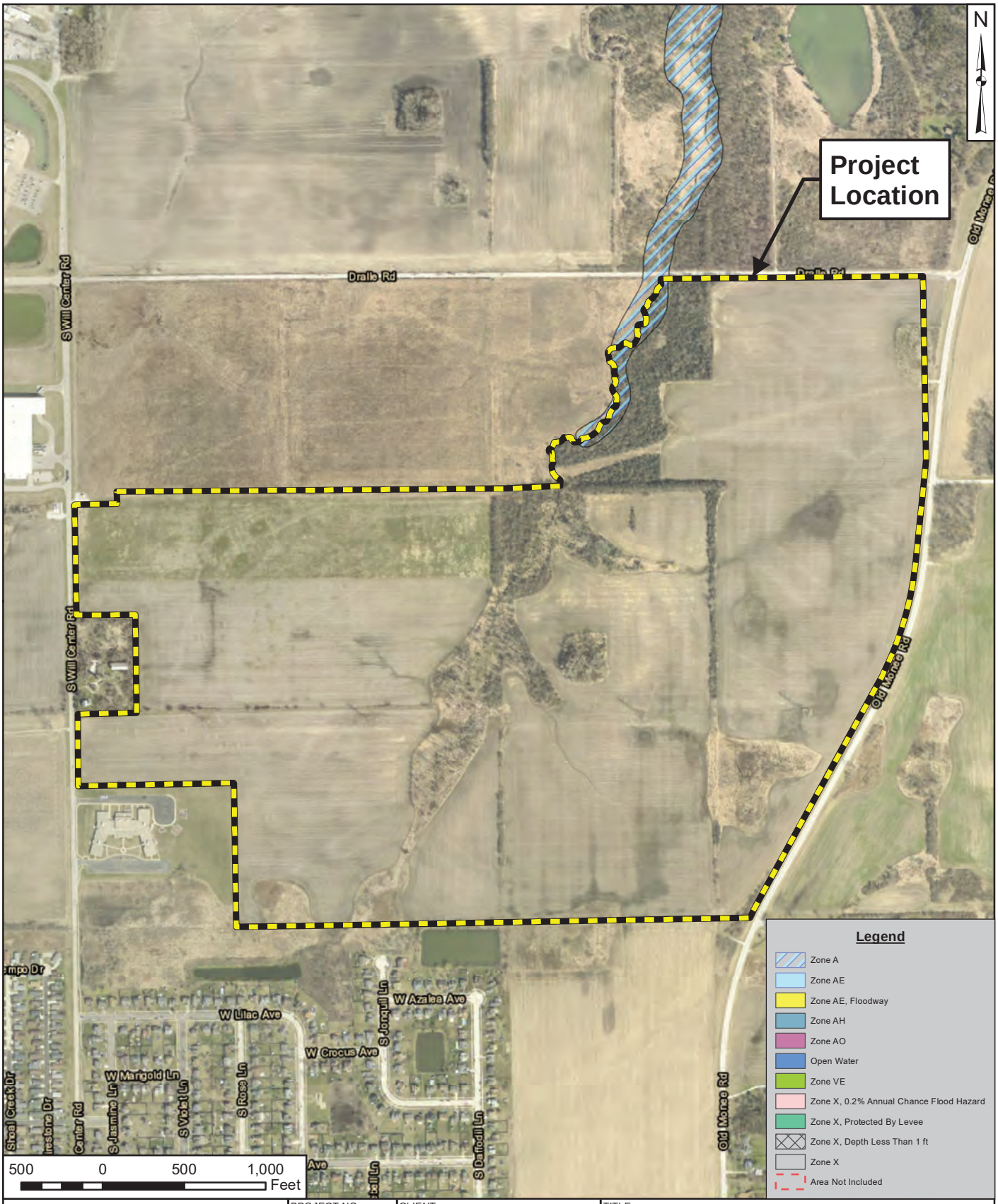

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DATE:	09/27/2022
SCALE:	See Scale Bar
CLIENT:	Forest Preserve District of Will County 17540 W. Laraway Road Joliet, Illinois 60433
BASE LAYER:	Will County Aerial Imagery (2021)
TITLE:	**FLOOD ZONES OF WILL COUNTY, ILLINOIS (2022)**
SITE:	Thorn Creek Headwaters Preserve Will County, Illinois
FIGURE:	6

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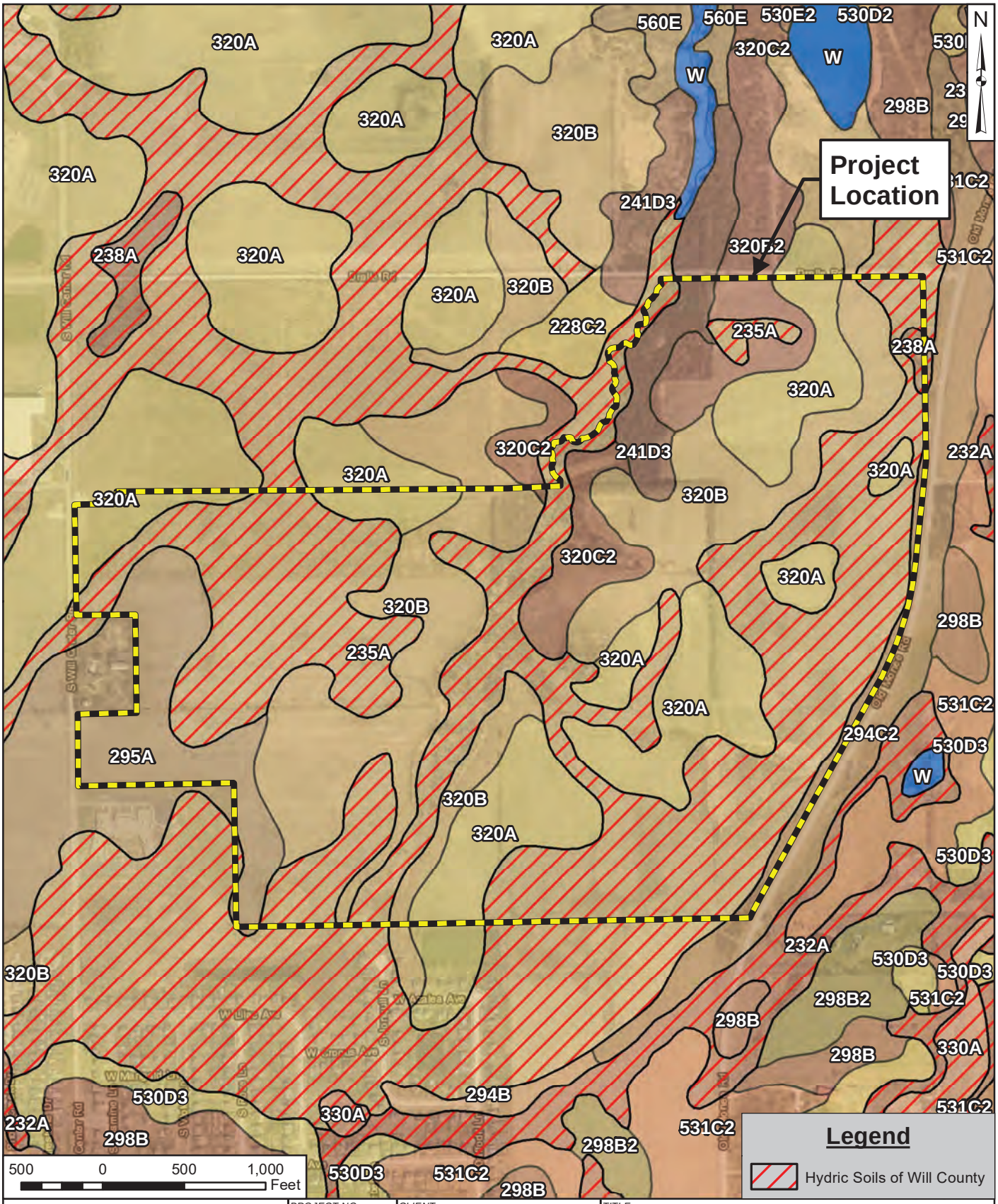

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SCALE:	See Scale Bar
CLIENT:	Forest Preserve District of Will County 17540 W. Laraway Road Joliet, Illinois 60433
BASE LAYER:	Will County Aerial Imagery (2021)
TITLE:	**SOIL SURVEY OF WILL COUNTY, ILLINOIS**
SITE:	Thorn Creek Headwaters Preserve Will County, Illinois
FIGURE:	7

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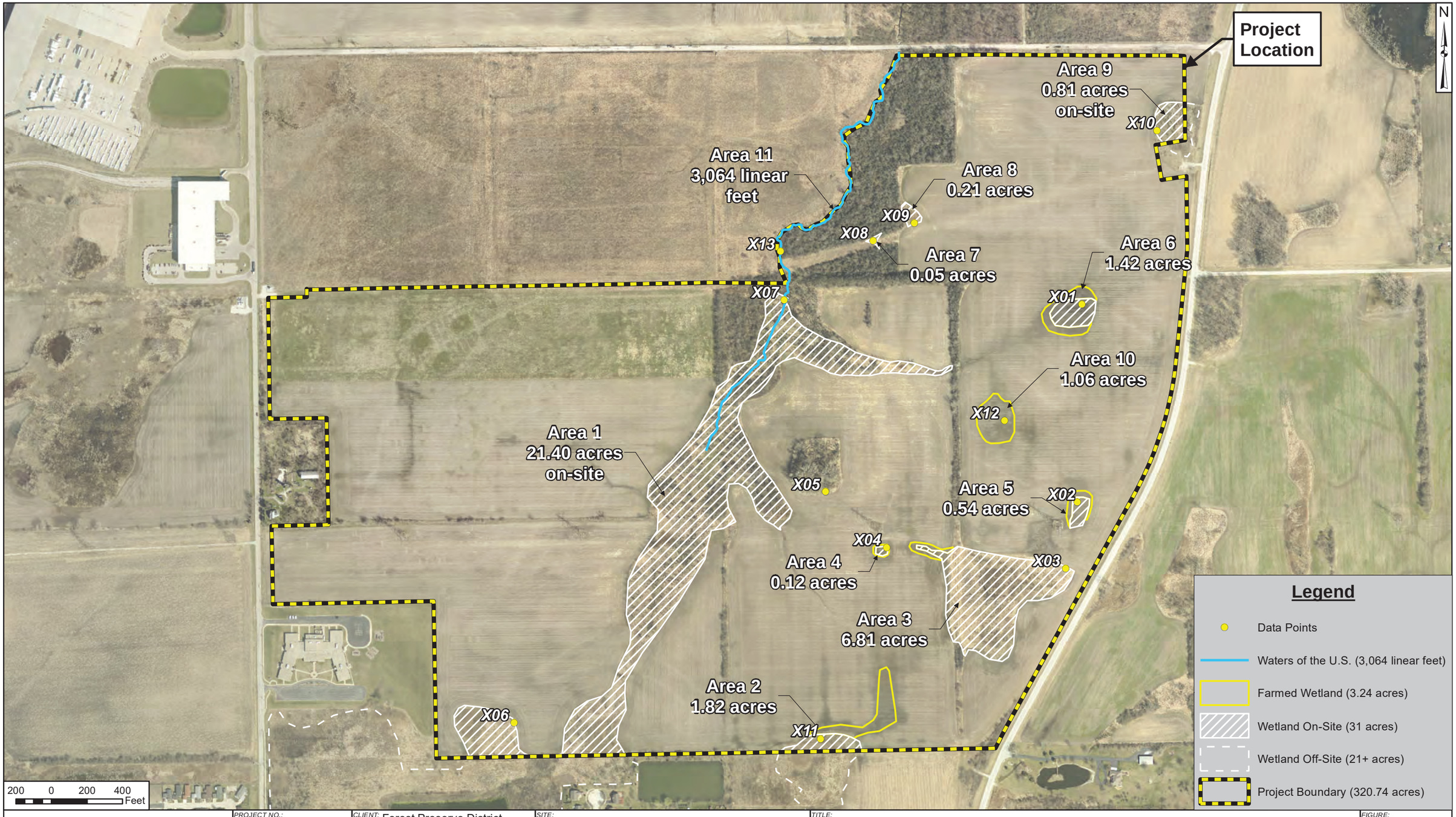

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CREATED BY:	AMM
DATE:	01/19/2023
SCALE:	See Scale Bar
CLIENT:	Forest Preserve District of Will County 17540 West Laraway Road Joliet, IL 60433
BASE LAYER:	Will County Aerial Imagery (2021)
SITE:	Thorn Creek Will County, Illinois
TITLE:	**WETLAND DELINEATION**
FIGURE:	8

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Project Location

N

250 0 250 500 Feet

LEGEND

- STREAM SHORELINE SEED AND PLUGS MIX (1,727 LINEAR FEET)
- EMERGENT SEED AND PLUG MIX (34.37 ACRES)
- MESIC PRAIRIE SEED MIX (107.20 ACRES)
- RIPARIAN WOODLAND/SAVANNA SEED MIX (11.43 ACRES)
- SEDGE MEADOW/WET PRAIRIE SEED AND PLUG MIX (160.45 ACRES)

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PROJECT NO.: 231163

CREATED BY: AMM

DATE: 12/14/2023

SCALE: See Scale Bar

CLIENT: Forest Preserve District of Will County
17540 West Laraway Road
Joliet, IL 60433

BASE LAYER: Will County Aerial Imagery (2021)

SITE: Thorn Creek
Will County, Illinois

TITLE: **PLANTING PLAN**

FIGURE: E

J:\2023\231163\NR\FIGEplant_231163.mxd