US Army Corps
of Engineers
St Paul District

Public Notice

SPONSOR: Brian Mathiowetz

ISSUED: May 10, 2022
EXPIRES: June 9, 2022

REFER TO: MVP-2019-02869-EMN

SECTION: 404 - Clean Water Act

1. WETLAND COMPENSATORY MITIGATION BANK PROPOSAL

2. SPECIFIC INFORMATION

SPONSOR'S ADDRESS: Brian Mathiowetz
17786 County Road 8
Sleepy Eye, Minnesota 56085

SPONSOR'S AGENT Wes Boll
Moore Engineering, Inc.
3315 Roosevelt Road, Suite 300
St. Cloud, Minnesota 56301

PROJECT LOCATION: The project site is located in Section 29, Township 109 North, Range 33 West, Brown County, Minnesota. The approximate center coordinates are 44.222454, -94.831892.

BANK SERVICE AREA: The proposed bank is within the Cottonwood River watershed in Bank Service Area 9.

DESCRIPTION OF PROJECT: The sponsor is proposing to develop the Mathiowetz Wetland Bank. The proposed bank site is approximately 56 acres in size, including upland buffer areas.

NEED AND OBJECTIVE OF PROJECT: The primary objective of the project is to restore wetland hydrology to establish high functioning and self-sustaining fresh wet meadow, shallow marsh, and seasonally flooded basin wetland vegetation communities dominated by native species on approximately 28 acres. The project also would include establishing native grass and forbs (mesic prairie) in approximately 35 acres of upland buffer adjacent to the restored wetlands. Since the site is in a forested floodplain corridor, the objective may also include establishing trees within portions of the seasonally flooded basin and upland buffer areas.

There is a demonstrated need for wetland credits within both the major watershed (Cottonwood River) and Bank Service Area 9, as future development, urban expansion, and agricultural practices will continue to result in wetland impacts that require mitigation credits. There are currently no credits available for purchase within the major watershed. Besides providing mitigation credits for wetland impacts, the restoration and improvement of these wetlands and their functions are important not only locally on the project site, but within the watershed and region of the state, where wetland functions have either been lost or degraded. The restoration of wetlands on the site generally meet the goals of state and local watershed management groups to restore degraded wetland functions.

ESTABLISHMENT, OPERATION AND MANAGEMENT: Drainage features on the site (subsurface tile, surface drain inlets, constructed surface drainages, and ditch excavations within the DNR stream) have altered wetland hydrology to improve cropping conditions. The drainage and nearly continuous

cropping have significantly degraded or removed wetland functions that were historically present. The proposed project would restore the hydrology of the wetland areas to near historic pre-drainage conditions by removing current drainage features. The restoration of site hydrology and the resulting vegetation communities will restore wetland functions (wildlife habitat, flood storage, water quality treatment) that have been degraded or lost due to subsurface drainage and continued cropping.

It is anticipated that shallow marsh wetland communities will develop in areas proposed to have shallow standing water. These areas would be vegetated with native emergent species that thrive in shallow marsh wetland communities and can sustain potentially frequent and prolonged inundation from Cottonwood River flooding events. The sponsor would target native species that are conducive to persisting in active floodplain settings such as river bulrush and lake sedge as well as other native sedges, rushes, and forb species.

Fresh (wet) meadow wetland communities are expected to develop in areas that would have soils saturated near the surface but would not contain standing water through most of the growing season, with the exception of during flooding events. The objective would be to establish native species that thrive in fresh (wet) meadow wetland communities and can sustain inundation from Cottonwood River flood events.

Other areas adjacent to the Cottonwood River and the ditch channel in the south area are anticipated to develop into seasonally flooded wetland communities (floodplain forest/seasonally flooded basin). These areas would commonly be inundated for short periods of time early in the season and following precipitation events and also would have saturated soils near the surface following flooding events. Depending on the vegetation establishment plan and maintenance in these areas, it is expected that the seasonally flooded basins would be a mix of floodplain forest areas that are allowed to naturally revegetate with desired tree species (primarily silver maple) and seasonally flooded basins with herbaceous vegetation including hydrophytic grasses, rushes, and sedges.

Below is a table showing anticipated wetland communities and the corresponding acreages and credits that may be generated:

Map ID	Credit Action - WCA Subpart	Wetland Type (Plant Community)	Acres	% Credit	Credit Amount
Area 1	Restoration - Cultivated Field Credit (CFC)	4 - Deep Marsh 3 - Shallow Marsh 2 - Fresh Wet Meadow	6.8	100.0	6.8000
Area 2	Restoration - Cultivated Field Credit (CFC)	1 - Seasonably Flooded Basin 3 - Shallow Marsh 2 - Fresh Wet Meadow	8.0	100.0	8.0000
Area 3	Restoration - Cultivated Field Credit (CFC)	1 - Seasonably Flooded Basin	2.0	100.0	2.0000
Area 4	Re-establishment - 3	1 - Seasonably Flooded Basin	11.1	100.0	11.1000
Area 5*	Buffer - 2	Upland	27.9	25.0	6.9750
		Est. Easement:	55.8	Totals:	34.8750

*Upland Buffer credits to be divided into proportionate wetland vegetation communities

OWNERSHIP AND LONG-TERM MANAGEMENT: The Sponsor is CEO of a construction company (Mathiowetz Construction) that has the equipment and expertise to conduct the required project work. The agent (Moore Engineering, Inc) has scientists, engineers, and surveyors on staff that have experience in completing mitigation projects of similar scope and nature in similar landscapes in MN. The agent has experience in completing mitigation plans, preparing construction plans and vegetation establishment plans, overseeing construction, and conducting site monitoring and will assist the Sponsor during the project phases from start to finish.

The sponsor will be responsible for establishing the site according to the approved plan, own the resulting credits, and take on the responsibility of long-term management of the site after monitoring has concluded and final performance standards have been met.

TECHNICAL FEASIBILITY AND QUALIFICATIONS: Moore Engineering has wetland scientists and engineers that have prepared plans for and overseen the successful construction of restoration projects of similar scope in similar settings. The Sponsor owns a Construction company that has the equipment and experience to perform the construction required for hydrology restoration. A contractor with experience in restoring native vegetation would likely be used for vegetation establishment and maintenance on the site.

Analysis of available information and investigation of the site demonstrates that historical wetlands were present on the site (reference Figure 4 of the attachments), and the proposed restoration of wetland hydrology and establishment of native vegetation communities in these areas is technically feasible.

Potential Constraints

Potential constraints to restoration of wetlands on the site have been identified by regulatory agencies and further investigated during the analysis of information and preparation of this document. The primary constraint to restoration is the potential to impact hydrology or drainage on adjacent properties. More specifically, in Area 1 on the west side of the north property, the historic wetland extends past the property boundary to the adjacent property to the west of a recently constructed driveway (reference Figure 4 of the attachments). Site investigation included the collection of elevation data in this area and documentation of drainage connections between the properties in order to develop potential solutions to this potential constraint. The results of analysis in this area were used to determine the level of hydrology restoration that could be achieved in this area without causing impacts to the adjacent property. The ground elevation of the area west of the driveway is slightly higher than the elevation in the wetland east of the driveway. It was determined that that the abandonment of drain tile in the wetland would result in very small increases in the surface water elevations on the adjacent property during the 2-, 10-, and 100-yr rainfall events as long as an outlet elevation of no higher than 994.5 ft is maintained. Communication with the adjacent landowner will be initiated, and an agreement will be developed to ensure that the landowner is aware that the project will not change conditions on his property and is comfortable with the proposed project.

Another constraint is the potential for the project to pond water within the right-of-way of County Highway 24. The conceptual plan proposes the restoration of wetland in Area 3 north of the road and in Area 4 south of the road. Note that in both of these areas, according to FEMA FIS for the Cottonwood River, floods from the 10-year event and higher flood the right of way under the existing condition already. Our initial analysis to determine potential impacts from the proposed restoration project focused on the changes during the smaller 2-yr and 5-yr events that are a result of the restoration and are lower than the flood events from the Cottonwood River. For Area 3, the proposed 2-yr and 5-yr storm event HWL elevations were evaluated and determined to remain lower than the approximate right of way elevation following restoration. In Area 4, initial hydrology

assessment demonstrates that it is possible to restore wetland while still keeping the resulting high-water levels during the 2-yr and 5-yr storm events below the right-of-way elevation. However, further analysis will be required during final design to confirm.

Exact elevations and potential impacts will be further investigated during preparation of a mitigation plan to ensure that the proposed restoration will not result in conditions in the right-of-way that are unacceptable to the County Highway Department. Communication with the Highway Department will continue prior to final design.

An additional constraint that was raised by regulatory agencies is that the proposed modifications in DNR public watercourse in Area 4 would require a DNR Public Waters Permit. The proposed restoration plan for Wetland 4 is to reconnect the DNR stream with the floodplain by constructing an embankment with overflow in the stream channel to raise the grade of the stream channel and to block subsurface drainage. Communication will continue with MN DNR to ensure that the proposed work will be allowed and will be designed to maintain or improve stream conditions and allow for flow from upstream properties. Additional analysis will be conducted during the final design to ensure that DNR requirements are met.

ECOLOGICAL SUITABILITY: The review of the historical and existing conditions demonstrates that the site is conducive to the proposed restoration project based on the documented presence of drained historic wetlands, poorly drained hydric soils, and a suitable hydrology source given the observed presence of high groundwater and location in the floodplain adjacent to a tributary stream and river. The observation of desirable native vegetation species that are already present on the site during wet conditions is an additional indicator that the site will support the proposed vegetation community types following the restoration of wetland hydrology. The goal of the proposed restoration plan is to restore hydrology similar to the extent that was present historically and establish vegetation communities that are suitable for the anticipated hydrologic regimes following restoration that will result in a condition that is sustainable over the long term. The proposed restoration plan does not include complex structures that will require frequent maintenance in the future. The land use adjacent to the site is primarily floodplain, natural vegetation communities, or cropland and it is likely that the land use will remain similar for the foreseeable future. The current land use does not pose a significant threat to the functions of the restored wetland. The establishment of a sufficient buffer around most of the restored wetlands will also serve to protect the restored wetlands from potential negative impacts from changes to adjacent land use.

HYDROLOGY: The overall proposed conceptual plan for restoration is shown on Figure 9 of the attachments. Detailed construction plans and specifications for construction following BWSR recommendations in the MN Wetland Restoration Guide for the proposed restoration components (tile break/removals, ditch blocks) will be prepared during future project phases. Additional investigation will be conducted during future project phases to guide design. The design, construction, and operations are discussed separately below for each proposed wetland restoration Area (1-4).

Area 1

The proposed restoration would include a tile break and removal, the installation of a tile riser inlet with an outlet control elevation of 994.5', and a rerouted drain tile or replacement of perforated tile with non-perforated tile to avoid impacts to other proposed restored wetland areas downslope (2A & 2B). The installation of the tile riser will allow for the control of water surface elevation to avoid adverse offsite impacts to the neighboring property to the west. Based on the review of the extent of wetland signatures under the existing condition and the analysis of hydrology, it is expected that wetland hydrology would develop to near the 996' elevation.

Analysis will continue in future project phases to address the potential impacts to the wetland on the neighboring property and communication will take place to get the adjacent landowner's approval of restoring the wetland. The initial analysis indicates that the proposed outlet control of 994.5' will result in minimal impact to the adjacent property. Restoration to this extent will result in a condition that is slightly smaller than the historic wetland extent, but the proposed wetland type is similar to the historic wetland type that was present.

Area 2A

Proposed restoration activities in Area 2A include breaking and removing portions of existing tile according to BWSR standards within the wetland. It is anticipated that this will be sufficient to restore hydrology to this area as the wetland hydrology is supported by high groundwater along the hillslope, as observed during investigation of the area in May 2020. In order to maintain hydrology in the sloped wetland, multiple tile breaks may be required along the slope.

Area 2B

The proposed restoration work in Area 2B includes removing the riser inlet, breaking the tile according to BWSR standards, and removing accumulated sediment deposited in the bottom of the basin (to be determined during future field investigation) from erosion from surrounding cropland. An outlet control is not needed since the area is within a depression and the existing overflow outlets to 2C. Based on observations of wet signatures on aerial photographs during wetter than normal periods and observations of the extent of hydric soils during the site investigation, it is anticipated that wetland will develop to approximately the 982' elevation.

Area 2C

The proposed restoration includes breaking and plugging the existing tile, and the construction of two embankments in locations shown on Figure 9. One embankment with an overflow elevation of approximately 980' would be built near the notch in the existing embankment adjacent to the Cottonwood River that currently acts as a surface drain outlet. The second embankment would be built along the east property boundary to an approximate elevation of 981' that is slightly higher than the overflow constructed to the north. Preliminary analysis indicates that constructing embankments to block surface drainages would restore hydrology in these areas, but further analysis is needed to understand the influence of adding embankments and restricting overland drainage in these areas. The restoration plan will require further investigation to determine the exact height and design for each embankment and the materials needed to stabilize these areas to withstand flood events from the Cottonwood River. Design elevations will impact the volume of flood storage, water depth, and wetland extent in 2B and 2C. Additional soil investigation is needed to determine if suitable soil material that meets engineering requirements for construction are on site or need to be brought in.

Area 3

The proposed restoration for Area 3 includes breaking the tile according and restoring an embankment on the edge of the cropland adjacent to the stream corridor to block surface drainages that currently direct surface water from this area to the stream channel through a low area in the existing ridge along the stream. Preliminary analysis shows restoring the entire embankment along the stream and breaking the tile will support the restoration of wetland hydrology. Additional analysis is needed to adequately size the embankment, determine runout elevations, and size the emergency overflow if needed. Further investigation is also needed to determine the impacts to the property north of Area 3, as the embankment may raise the water table and pond water on the adjacent farmland to the north. Further analysis is needed to determine the sizing of the embankment that restores wetland to historic conditions without impacting the neighboring farmland. If this cannot be avoided, solely breaking the tile will achieve restoration to a lesser extent.

Area 4

The proposed restoration concept for Area 4 is to reconnect the stream to the adjacent floodplain and remove the lateral drainage effect of the straightened and deepened channel. Additional restoration work would include blocking drain tile that removes hydrology from the site and daylighting tile coming into the Area. Two tiles from the southeast will be broken and daylighted upslope of the wetland to contribute to the hydrology of the wetland. The subsurface tile north of the stream will be broken as well. An embankment with an overflow with a runout control of approximately 980' is initially proposed to raise the grade of the stream channel near the east end of Area 4 near an existing crossing on the stream. Based on initial analysis, raising the grade of the stream at this elevation will allow access to the floodplain and raise the surrounding water table to restore wetlands that have been drained to an approximate elevation of 982' over most of the area. Further modeling and analysis are needed to design the grade control structure and determine the appropriate elevation, dimensions, and materials. Consultation with the MN DNR will also be conducted in order to ensure that changes to the stream channel are acceptable. Ensuring that the system can continue to pass flows from upstream is a key design component for the next phase, along with confirming the elevation that wetland hydrology will be restored to and the resulting wetland extent. The restoration plan does not propose making any changes to the culvert under County Highway 24 that acts as the control of flow in the stream channel under the existing condition. Further analysis will also serve to determine if the proposed restoration will result in changes to conditions within the ROW of the road or affect the function of the culvert present under the road west of the stream channel.

Additional potential restoration components that will be further evaluated and considered in the design may include additional grade control structures and possible re-meander of the channel to further promote restoration of natural conditions.

CURRENT LAND USES: The proposed restoration areas are currently in row crop production. Existing land use on the site and on adjacent properties is shown on the land cover map in Figure 5 of the attachments. This figure demonstrates that the site is in an area of the state that is predominantly cropland, with forested or naturally vegetated areas present generally along stream corridors. Immediately adjacent lands to the east and west of the site are cropped with some wooded areas. The Cottonwood River has a wooded riparian corridor that borders the property to the north. The adjacent property to the south is also owned by the Sponsor's family and contains wetlands that were previously restored/created by impounding the DNR stream. There are no known wells, structures, or utility lines within the proposed easement areas. A utility locate has not been conducted for the property, and it is possible that utilities are present in the road right-of-way. A utility locate will be conducted in subsequent submittals to incorporate the avoidance of any utilities into future plans.

COORDINATION WITH RESOURCE AGENCIES: This project has been coordinated with the following members of the Interagency Review Team (IRT) and other resource agencies: Board of Water and Soil Resources, Minnesota Department of Natural Resources, and U.S. Environmental Protection Agency.

3. FEDERALLY-LISTED THREATENED OR ENDANGERED WILDLIFE OR PLANTS OR THEIR CRITICAL HABITAT

None were identified by the bank sponsor or are known to exist in the action area. However, Brown County is within the known historic range for the following Federally-listed species:

Northern Long-Eared Bat	Hibernates in caves and mines – swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.

This notice is being coordinated with the U.S. Fish and Wildlife Service. Any comments it may have concerning Federally-listed threatened or endangered wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

4. JURISDICTION

This proposal is being reviewed in accordance with the practices for documenting Corps jurisdiction under Section 404 of the Clean Water Act.

5. HISTORICAL/ARCHAEOLOGICAL

The Corps will review information on known cultural resources and/or historic properties within and adjacent to the project area. The Corps will also consider the potential effects of the project on any properties that have yet to be identified. The results of this review and the Corps' determination of effect will be coordinated with the State Historic Preservation Officer independent of this public notice. Any adverse effects on historic properties will be resolved prior to the Corps authorization of the work in connection with this project.

6. PUBLIC HEARING REQUESTS

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 hearings shall state, in detail, the reasons for holding a public hearing. A request may be denied if substantive reasons for holding a hearing are not provided or if there is otherwise no valid interest to be served.

7. REPLIES/COMMENTS

Interested parties are invited to submit to this office written facts, arguments, or objections by the expiration date above. These statements should bear upon the suitability of the location and the adequacy of the project and should, if appropriate, suggest any changes believed to be desirable. Comments received may be forwarded to the applicant. A copy of the full prospectus submitted by the Sponsor is available to the public for review upon request.

Replies may be addressed to:

Regulatory Branch
St. Paul District Corps of Engineers
2926 Post Road, Suite B
Stevens Point, Wisconsin 54481

Or, IF YOU HAVE QUESTIONS ABOUT THE PROJECT, call Eric Norton at the Stevens Point office of the Corps, telephone number (651) 290-5879 or you can e-mail him at eric.m.norton@usace.army.mil.

To receive Public Notice notifications, go to: https://www.mvp.usace.army.mil/Contact/RSS/ and subscribe to the RSS Feed for which you would like to receive Public Notices.

Enclosure(s): Project Figures from the Prospectus

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Site Location Map
Mathiowetz Wetland Bank

Figure 1
Brian Mathiowetz

moore engineering, inc.

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Proposed Easement
Mathiowetz Wetland Bank

Figure 2
Brian Mathiowetz

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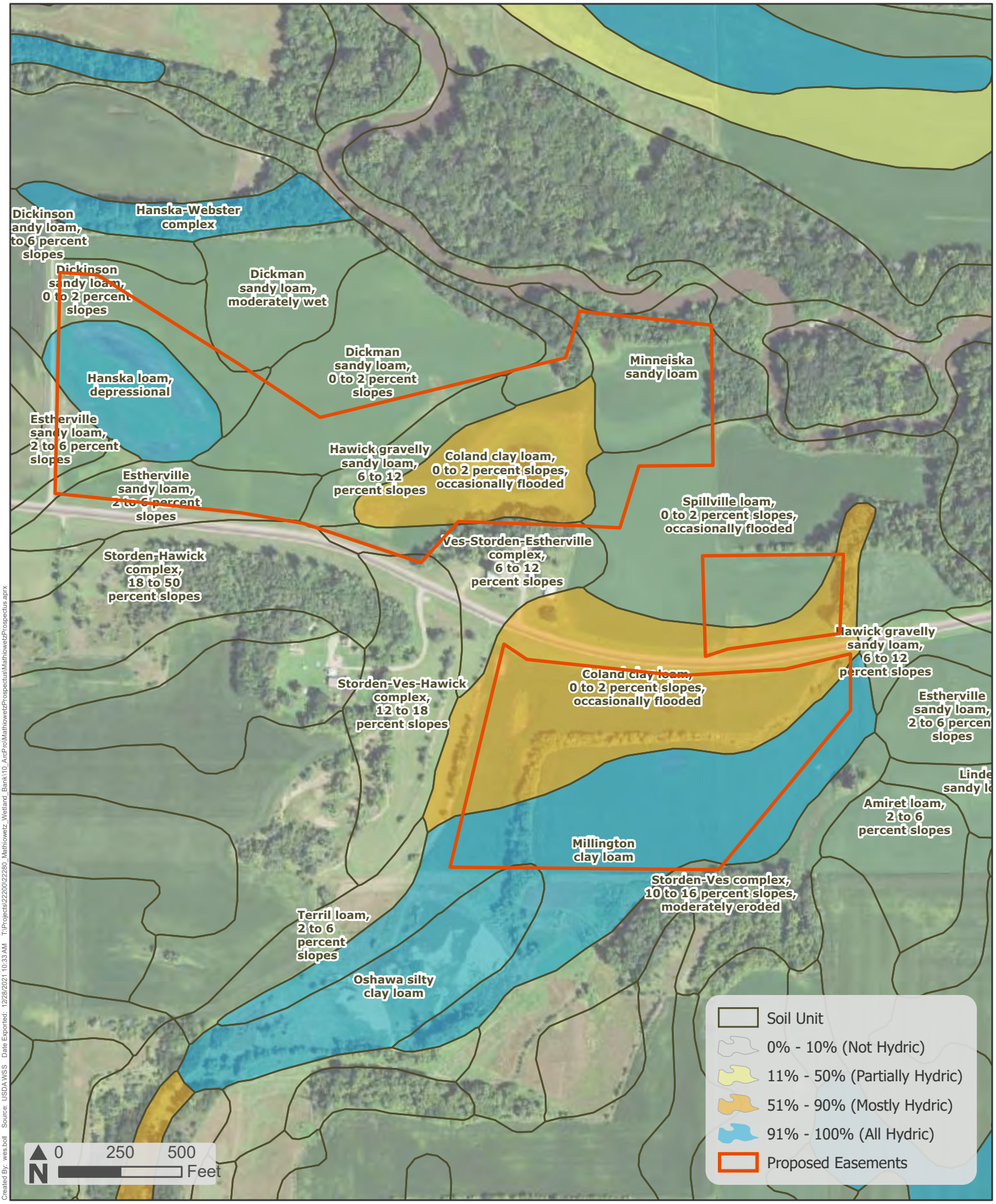

Brown County Soil Survey
Mathiowetz Wetland Bank

Figure 3
Brian Mathiowetz

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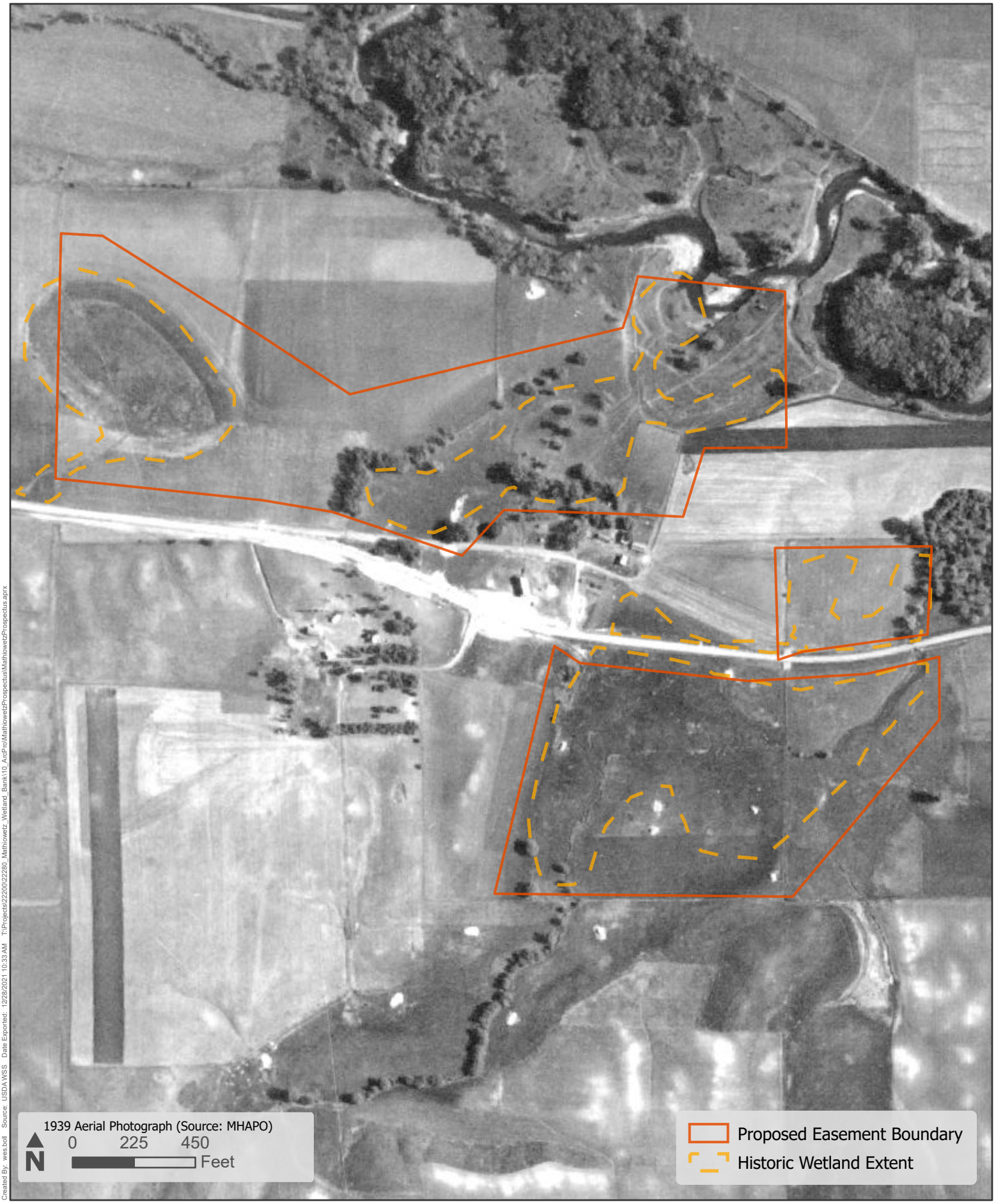

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Historic Wetland Extent
Mathiowetz Wetland Bank

Figure 4
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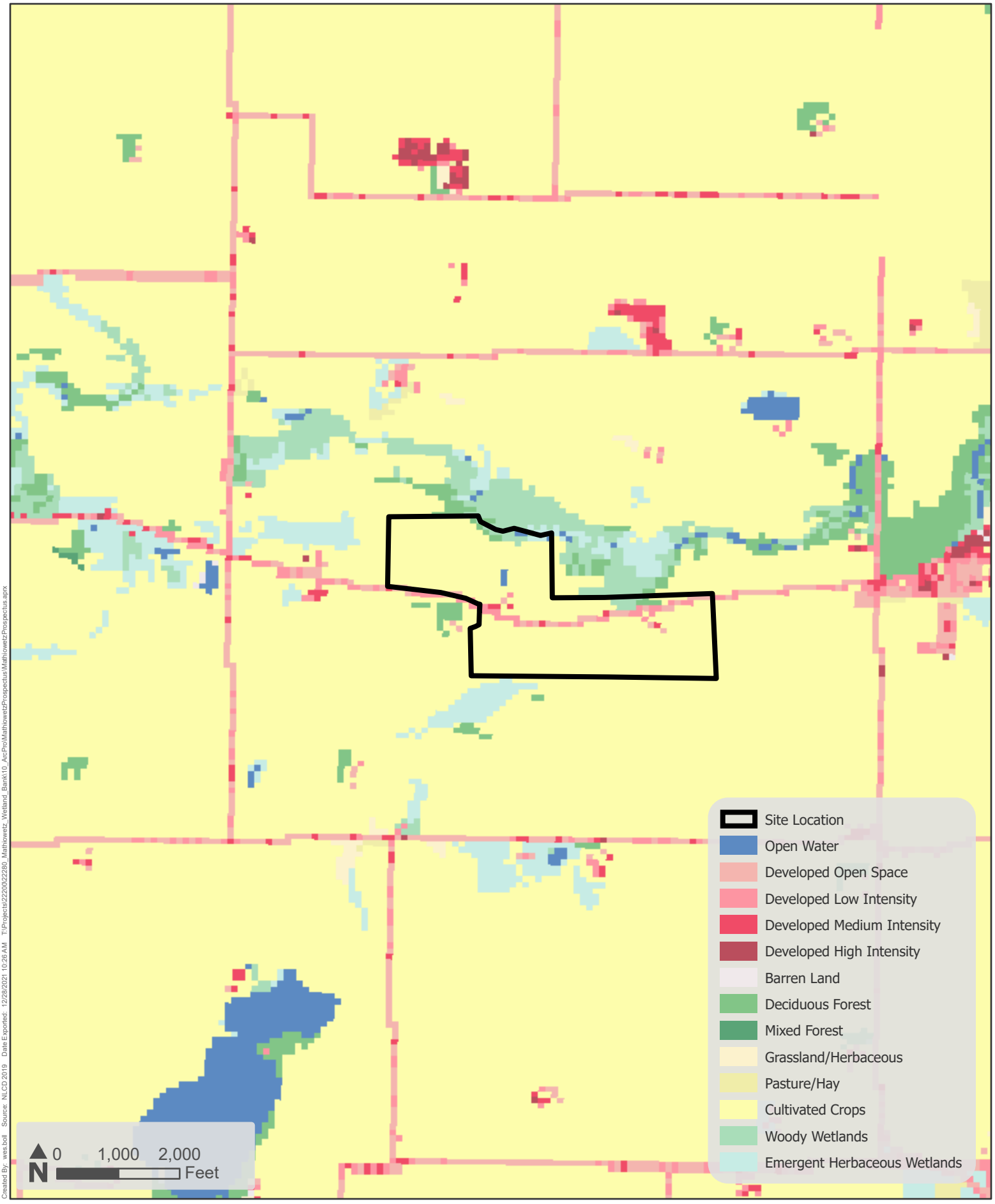

NLCD Land Cover
Mathiowetz Wetland Bank

Figure 5
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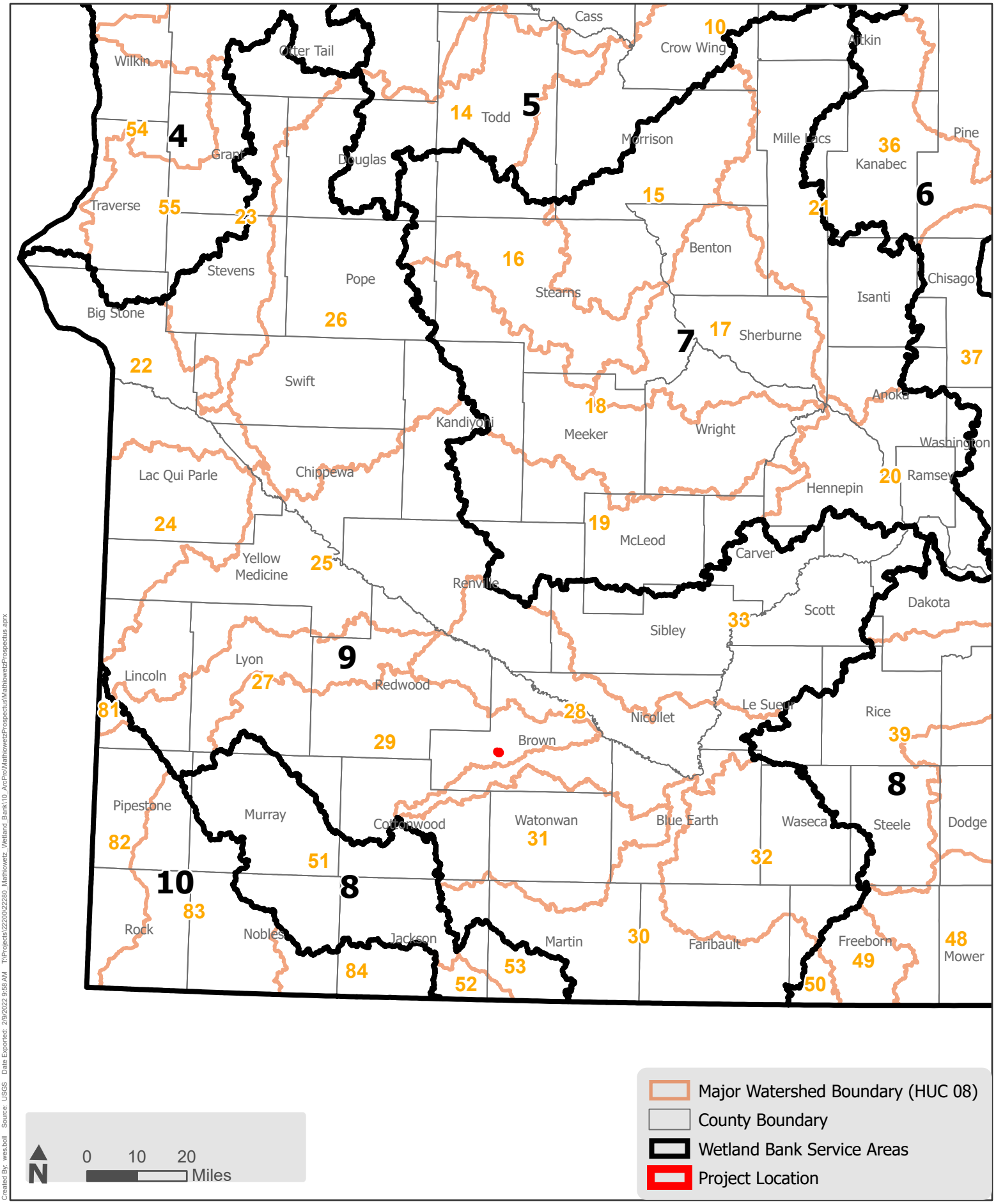

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Wetland Bank Service Areas and Major Watersheds

Mathiowetz Wetland Bank

Figure 6

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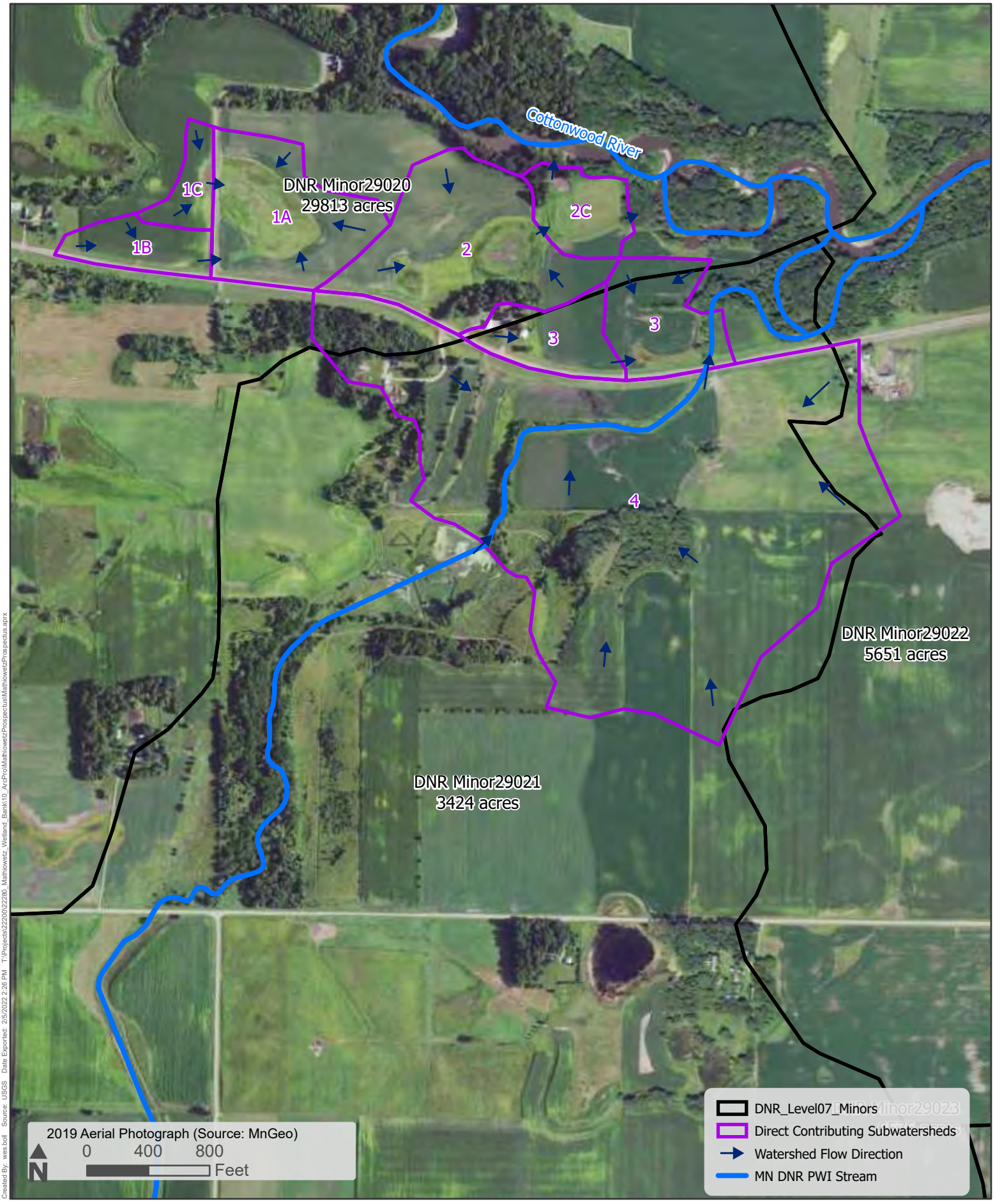

Contributing Subwatersheds
Mathiowetz Wetland Bank

Figure 7
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Existing Drainage Features
Mathiowetz Wetland Bank

Figure 8
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Proposed Conceptual Restoration Plan

Mathiowetz Wetland Bank

FIgure 9

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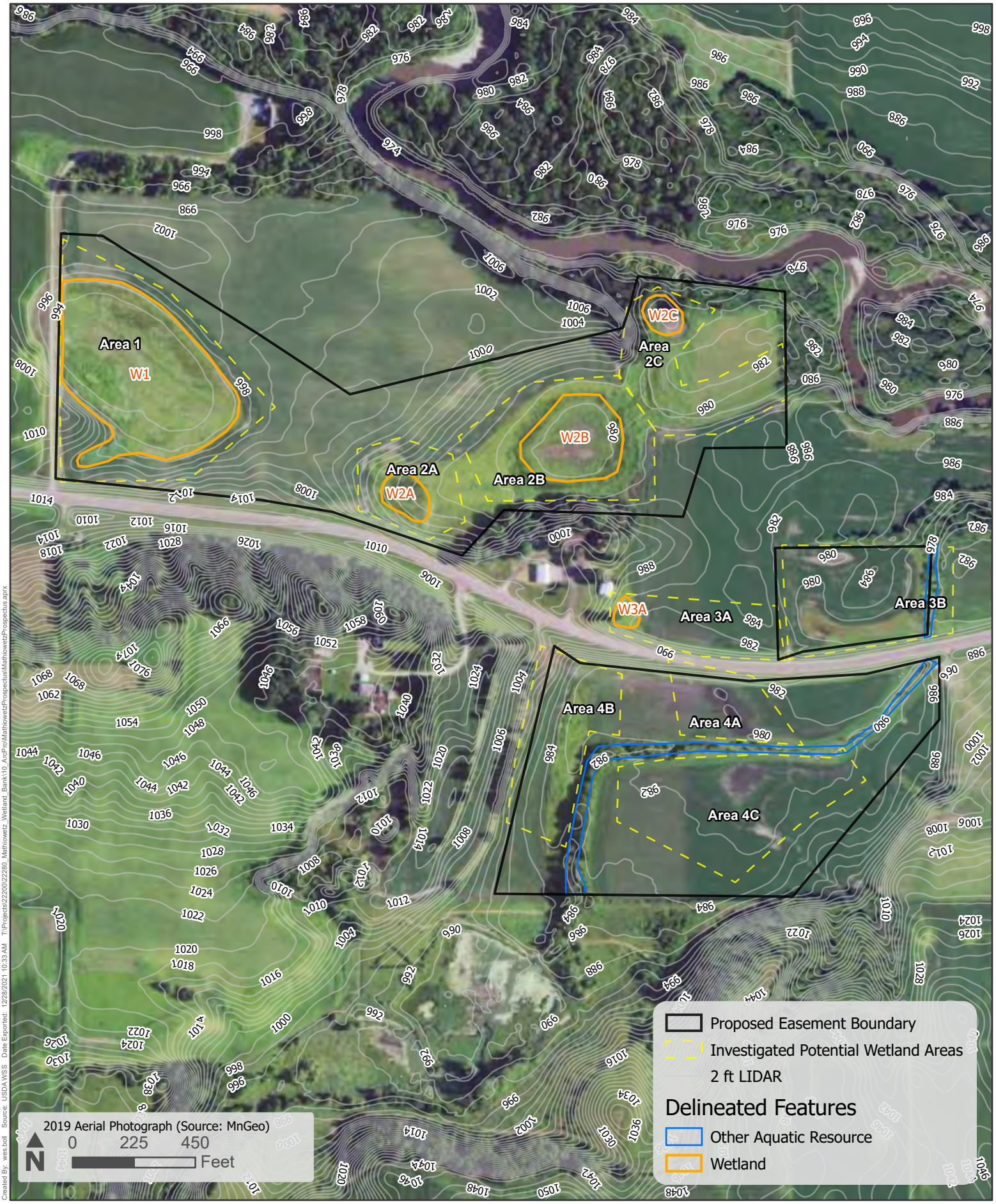

Delineated Features
Mathiowetz Wetland Bank

Figure 10
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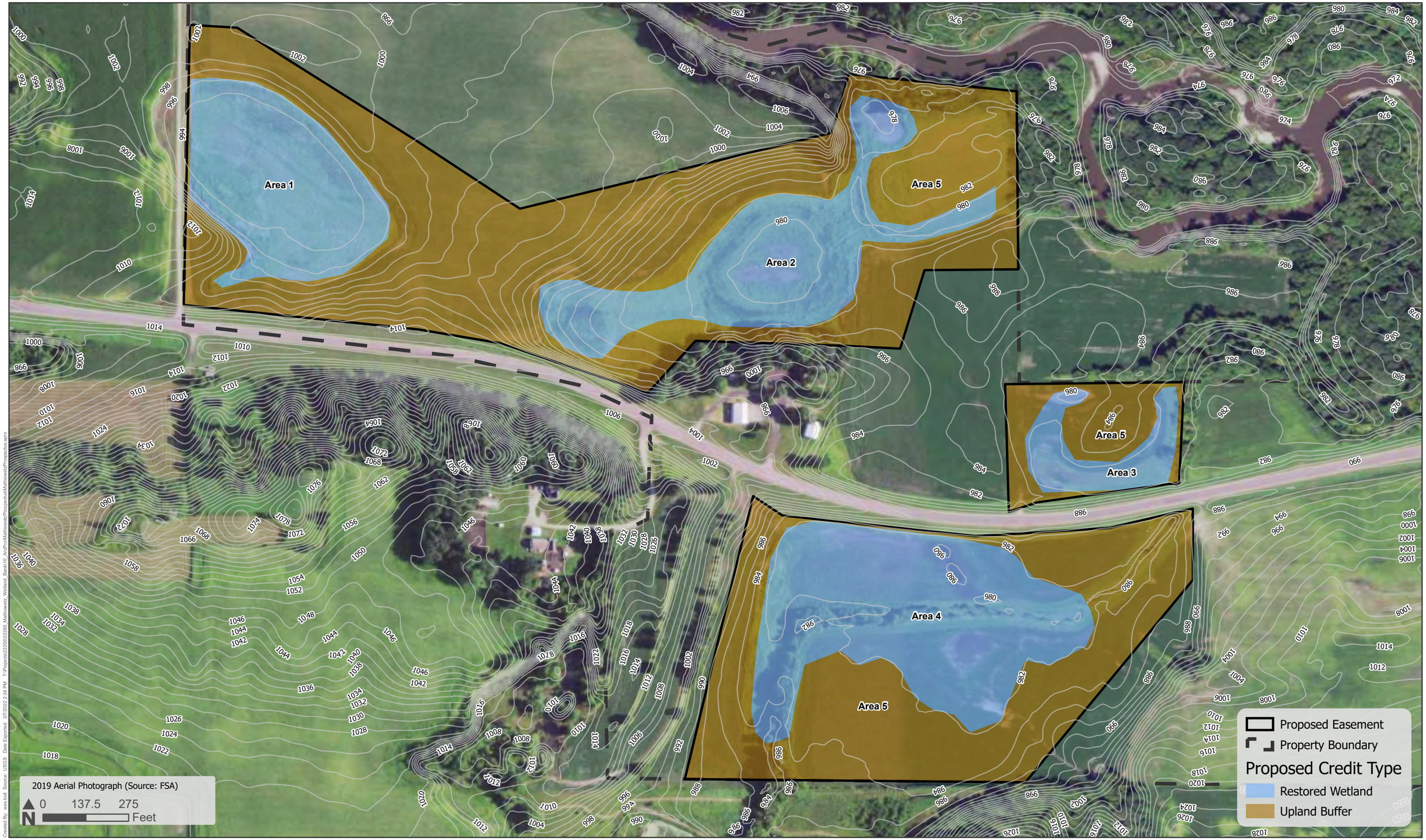

Proposed Credit Areas
Mathiowetz Wetland Bank

Figure 11
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Proposed Vegetation Communities
Mathiowetz Wetland Bank

Figure 12
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