



PROSPECTUS

MEKINOCK BANK SITE
GRAND FORKS COUNTY, NORTH DAKOTA
S19 – 153N – 52W



April 20, 2018

PREPARED WITH ASSISTANCE FROM:



401 E 8th Street, Suite 211
Sioux Falls, SD

Table of Contents

PROJECT DESCRIPTION..... 1

Type and Purpose 1

Size, Location, and Regional Service Area..... 1

Site Baseline Conditions..... 1

Soil..... 1

Hydrology 2

General Vegetation Communities 2

Creditable Resources at the Bank Site 3

Depressional / Prairie Pothole Wetlands 3

Non-Wetlands 4

ESTABLISHMENT OF THE BANK..... 4

Bank Goals and Objectives..... 4

Mitigation Work Plan 4

Hydrology Modifications 5

Ecological Prescriptions..... 6

Non-Wetland Buffers 6

OPERATION OF THE BANK SITE..... 6

Site Performance 6

Monitoring and Reporting Requirements..... 6

Maintenance 7

Adaptive Management 7

Long-term Management..... 7

ADMINISTRATIVE PROVISIONS 7

Crediting and Debiting Methodology 7

Provisions for the Release of Credits 8

Financial Assurances 8

Contingency Fund..... 9

Long-Term Management Fund 9

Bank Site Ownership 9

Site Protection 9

REFERENCES 10

EXHIBITS 11

EXHIBIT 1: Vicinity Map..... 11

EXHIBIT 2: Aerial Photography (2016) 12

EXHIBIT 3: Location Within the Regional Service Area 13

EXHIBIT 4: Topographic Map 14

EXHIBIT 5: LIDAR/Hillshade 15

EXHIBIT 6: Web Soil Survey 16

EXHIBIT 7: Watershed 17

EXHIBIT 8: National Wetlands Inventory 18

EXHIBIT 9: Initial Wetland Survey 19

EXHIBIT 10: Present Vegetation Communities 20

EXHIBIT 11: Mitigation Strategy 1 21

EXHIBIT 12: Mitigation Strategy 2 22

EXHIBIT 13: Post-Mitigation Wetlands..... 23

PROJECT DESCRIPTION

Type and Purpose

Pursuant to its Statewide (North Dakota) Umbrella Mitigation Banking Instrument (UMBI), North Central Mitigation, LLC (NCM) proposes to establish mitigation bank sites in multiple watersheds throughout the state of North Dakota. The Mekinock Bank Site (Bank Site) is one of several bank sites under consideration as an Addendum to that UMBI. The purpose of the Bank Site is the establishment of wetland mitigation bank credits in the Red River Basin Regional Service Area (RSA) as defined in the UMBI and “Wetland Mitigation Banking in North Dakota: Interagency Guidance for Mitigation Bank Sponsors” (hereafter “ND Mitigation Guidance”). This effort will produce ecologically beneficial compensatory mitigation in advance of such impacts, and in a location which will provide water quality benefits to the region.

Size, Location, and Regional Service Area

The Bank Site is located in the S½ of Section 19, T153N/R52W in Grand Forks County, North Dakota, approximately 3.0 miles north of the community of Mekinock (Exhibits 1 & 2). The site consists of 240 acres of agricultural lands with an extensive ditch/drainage network and numerous plow furrows affecting site hydrology. The site is the northern portion of a larger tract of some 627 acres that has been in CRP since 1988. The southern 387 +/- acres will also be restored under a separate program.

The geological context for the Bank Site is in the Saline Area of the Lake Agassiz Plain ecoregion (Level IV Ecoregion, EPA), 15 miles northwest of the City of Grand Forks. Credits made available through this bank site will offset impacts in the Red River Basin Regional Service Area as defined in the UMBI (RSA, Exhibit 3). The Bank Site is in the Forest River subbasin (HUC 8: 09020308), draining northeast into the Red River, part of the Lower Red River basin (HUC 6: 090203).

Site Baseline Conditions

Soil

There is less than four feet of elevation variation within the Bank Site, which spans a heavily modified west-to-east drainage network (Exhibits 4 & 5). Roughly half of the area is in the Ojata soil association, consisting of silty clay loam soils which are sodium affected (NRCS Soil Survey, Exhibit 6). Lake Agassiz, the massive post-glacial lake formed by meltwater which once covered Grand Forks County, is responsible for both the deposition of these sediments and the level topography of the Lake Plain area. In addition to Ojata soils, the site is equally underlain by Bearden silty clay loam. Of these two soils, Ojata holds the most hydric potential, while Bearden is listed as a non-hydric soil with some minor hydric components.

Hydrology

Analysis using the USGS Stream Stats Tool shows several large drainage units which lead into the Bank Site (Exhibit 7). Additional hydrology modeling and analyses have been provided by KJL in Fargo, ND. The overall catchment area is quite large – draining 5.4 square miles – and while this figure is probably accurate, the areas of the individual drainage units should only be viewed as estimates as they do not necessarily reflect the effect of drainage features which have changed how surface water flows through the area. Prior to modification historic waterflow across the Bank Site likely occurred via groundwater and sheet-flow over the gradually sloping topography, collecting in scattered depression areas across the site. Plow furrows, fencelines, berms, and ditching have altered the topography, redirecting water out of the site to the north and east. The US Fish and Wildlife Service’s National Wetlands Inventory found no wetland features within the boundaries of the Bank Site, but rather found several adjacent to the north and east (Exhibit 8). These wetlands feature persistent palustrine vegetation, with temporary and seasonal hydrologic regimes (PEM1A and PEM1C, respectively). An initial wetland survey has identified existing wetlands within the site, along with estimated lateral effects on those wetlands of the on-site ditching system (Exhibit 9). Note that this wetland survey considers the larger conservation effort underway on the property, which includes an adjacent/south parcel of 387.3 acres which will be restored under a separate program.

Despite its close proximity to the Turtle River, the Mekinock Bank Site is not within the Turtle River subbasin, but rather drains north-northeast towards the Forest River (HUC-8 subbasin: 09020308). The Bank Site is located in the subwatershed of “County Ditch Number 12” (HUC-12: 090203080402); part of the larger “Town of Ardoch” watershed (HUC-10: 0902030804). All or part of the Bank Site may have drained into the Turtle River in the past, but the installation of drainage features like County Ditch Number 12, along with the remarkably level topography of the area, have likely altered its hydrology. Water passing through the Bank Site now flows northeast, then north through County Ditch Number 12 into Lake Ardoch in Walsh County, ND. Lake Ardoch drains into the Forest River, which flows northeast before joining the Red River of the North (HUC-2 region: 09).

General Vegetation Communities

Historical aerial photography shows evidence of agricultural production within the Bank Site prior to its conversion to CRP in 1988. The agricultural history of the site is evidenced by the extensive ditch network and the many linear drainage features (furrows) which have mostly eroded but are still visible in LiDAR/Hillshade (Exhibit 5). The landscape surrounding the Bank Site is largely used for row-crop and rangeland livestock production, though some has been put into wildlife habitat through various state and federal programs. A Wildlife Management Area operated by North

Dakota Game and Fish borders the site partially along the eastern perimeter, and water draining from the site eventually enters the Ardoch National Wildlife Refuge at Lake Ardoch.

The Bank Site presently features both upland and wetland plant communities, as well as transitional zones which intergrade between them. A draft wetland delineation, referred to herein as an initial “wetland survey” illustrates the extent of existing wetlands meeting the three standard criteria of vegetation, soils and hydrology (Exhibit 9). These low-lying areas in the center of the site and around its perimeter are occupied by dense stands of narrowleaf cattail (*Typha angustifolia*), occasionally broken up by equally dense stands of common reed (*Phragmites australis*). The ditches that were excavated to drain the site have aggregated subsurface salts and feature salt-tolerant halophytes like red saltwort (*Salicornia rubra*) and seepweed (*Suaeda calceoliformis*). Surrounding these relatively homogenous communities are more open stands of mixed cattails (*T. angustifolia* and *T. latifolia*), cosmopolitan bulrush (saltmarsh bulrush; *Bolboschoenus maritimus*), northern reedgrass (*Calamagrostis stricta*), bushy knotweed (*Polygonum ramosissimum*), and narrowleaf dock (*Rumex stenophyllus*). Some of these plants, such as dock, knotweed, and the cattails, then intergrade with plants from upland communities like quackgrass (*Elymus repens*) and smooth brome (*Bromus inermis*) to create transitional zones along the gradually sloping topography. These latter two species, along with sweet clover (*Melilotus officianale*), have become fully dominant in some areas, creating zones lacking in other, native flora. However, much of the upland in the southwestern portion of the site – and the artificially drained area in the eastern portion of the site – are now occupied with a native prairie mixture of wheatgrasses (slender wheatgrass, *Elymus trachycaulus*; tall wheatgrass, *Elymus elongatus*) and forbs such as Canada goldenrod (*Solidago canadensis*). Russian olive (*Eleagnus angustifolia*) is the predominant woody species found in the Bank Site, growing in patches across the upland (Exhibit 10).

Creditable Resources at the Bank Site

Wetlands

The Bank Site covers a large depressional area with adequate soils to support persistent palustrine vegetation. However, the National Wetland Inventory (Exhibit 8) shows no existing wetlands with its borders while elsewhere in the area, the NWI shows several semi-contiguous wetlands, a mixture of depressional palustrine wetlands and intermittent stream systems in drainageways. The paucity of wetlands within the site is likely due to the extensive drainage modifications, which were installed prior to its entry into the CRP program in 1988. The initial wetland survey (Exhibit 9) indicates that there are approximately 42 acres of wetlands currently within Bank Site, mostly within the ditches and the depressional areas that have been partially drained. Therefore, the primary goal of Bank Site development will be restoration of the drained wetlands and reestablishment and expansion of historic wetlands, focused on repairing hydrology of the Bank Site. These efforts are expected to result in approximately 225 acres of

palustrine-emergent, scrub-shrub and forested wetlands (183 acres of which are restored/established, and 42 acres of which are enhanced). Scrub-shrub and forested areas will be planted in transitional zones where soil and hydrologic conditions are conducive to their establishment.

Non-Wetlands

At present, the entirety of the site is recognized as non-wetland according to mapping services provided by the NRCS (Certified Wetland Determination) and USFWS (NWI map). The initial wetland survey found approximately 42 acres of existing wetlands and 183 acres of non-wetlands within the Bank Site. Non-wetland areas consist of artificially drained lowlands, impaired marshes, and salty ditches, as well as uplands in the eastern and western portions of the site. Restoration activities are expected to enhance/restore/reestablish wetlands across 225 acres of the site, so the remaining 15 acres of upland areas will be managed for upland vegetation as buffer and inclusions in the Bank Site.

ESTABLISHMENT OF THE BANK

Bank Goals and Objectives

The primary goal of the Bank Site is to restore and reestablish palustrine emergent, scrub-shrub and forested wetland habitat in the Red River watershed, with the secondary goal of enhancing existing upland habitat as buffers and inclusions. These activities will result in compensatory mitigation credits for use by applicants in Red River RSA as authorized by the Corps in consultation with the North Dakota Interagency Review Team (NDIRT). Objectives to accomplish this goal include:

- Restoration of area hydrology by plugging/filling ditches as appropriate and leveling plow furrows where they negatively affect hydrology, resulting in rehabilitation of hydrologically altered wetlands and reestablishment of historic wetland acreage;
- Enhancement of existing wetland vegetation communities to higher quality assemblages of hydrophytic species;
- Establishment of upland buffers on non-hydric soils in upland areas and on terraces and dikes around the bank site to filter runoff from nearby roads and agricultural fields.

Mitigation Work Plan

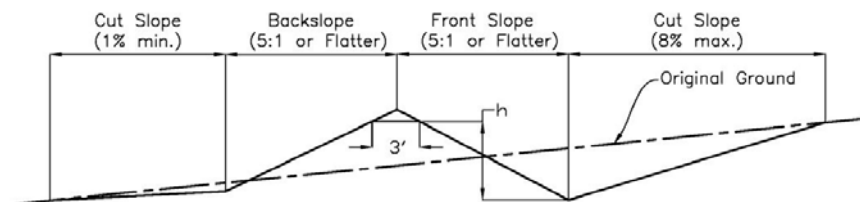
The mitigation strategy for the Bank Site will focus on reestablishment of suitable hydrology to support a suite of hydric vegetation species across the majority of the Bank Site (Mitigation Strategy, Exhibits 11 & 12). Preliminary analysis of the Bank Site indicates strong potential for wetland restoration and reestablishment. The deep, silty clay loam soils have moderate water retention and low permeability with demonstrated potential to support wetland plant

communities. Filling and plugging the extensive drainage features, along with selective landscape alterations, will serve to restore emergent wetlands at the Bank Site and will improve area hydrology, resulting in lengthened inundation periods in low-elevation areas and flats. Additionally, an enhanced hydrologic regime will result in an expansion of hydrophytic vegetation coverage as well as a more diverse wetland plant community, thereby providing ancillary benefits to wildlife, as well as increased sediment and nutrient retention. Upland areas currently in mixed native and non-native grasses will be enhanced to favor a native grassland vegetation matrix, further buffering surface-water runoff. This will buffer runoff from the roadway and adjacent fields, as well as provide additional faunal habitat. By eliminating drainage features which have impaired the site, and constructing a dike along the northern and eastern borders, restoration activities will effectively result in a large palustrine wetland with varied microtopography of saturated and inundated areas.

Hydrology Modifications

A variety of techniques will be employed to restore wetlands at the Bank Site, including construction of interior terraces and boundary dikes as well as selective filling/plugging of ditches and leveling of plow furrows where hydrology is negatively affected (Mitigation Strategy 1, Exhibit 11). Dikes will be set back from the northern and eastern property boundaries to account for any lateral effects an increase in the water table might have on adjacent property owners and to allow for an access trail. (Mitigation Strategy 2, Exhibit 12).

Figure 1. Typical terrace construction (per NRCS Practice STD 600)



Terraces will be open-ended and constructed along contours which will, along with filled/plugged ditches, extend travel time of sheet flow across the site, thereby recharging the water table and promoting expansion of Bank Site wetlands. Construction of low level terraces (~ 18"-24"), selective filling of ditches, and selective leveling of plow furrows will establish hydrologic regimes utilizing water sources available to the site per the KLJ water budget.

To restore the drained wetlands, filling/plugging of excavated ditches, and furrows where hydrology is negatively affected, will be implemented to isolate surface water in depressions and lowland areas and extend hydrology in flats (Exhibit 11). This will be followed by installation of interior terraces, as well as low-level dikes around the "downhill" perimeter of the Bank Site to detain surface flow on site. Native fill will be used for earthwork, taken largely from upland areas

within the Bank Site. The primary dike will extend along the eastern and northern border of the site, effectively closing-off the area and resulting in an extended hydrology (Exhibit 12). Ditch plugs will be used to close-off the smaller drained depressions which will reestablish individual micro-depressions and swales. Old plow furrows and minor drainage features that negatively affect hydrology will be leveled to help accentuate the natural undulation of the terrain (Exhibit 11).

Ecological Prescriptions

Wetlands

These hydrologic modifications will effectively restore a large area of palustrine wetlands for a total of approximately 225 acres of aquatic habitat. The effects of hydrology restoration will encourage establishment of varied areas of vegetation, ranging from obligate wetland vegetation in the lowest areas to facultative wetland vegetation on the wetland's flats and perimeter. The variable hydrological regime will likely result in Cowardin classifications including palustrine emergent, seasonally inundated (PEM1C) and palustrine emergent, temporarily inundated (PEM1A) wetlands (Exhibit 13). In addition, scrub-shrub (PSS) and forested (PFO) areas will be established on suitable soils as hydrology is better understood following grade restoration.

Non-Wetland Buffers

An upland buffer will be established around the perimeter of the wetland complex on dikes and in unaffected uplands, establishing and enhancing approximately 15 acres of upland habitat. On interior upland inclusions, perennial grasses and forbs will be the focus of vegetation management. Such uplands will be included in crediting calculations as provided for in the NCM UMBI, and as further described below.

OPERATION OF THE BANK SITE

Site Performance

The Post-Mitigation Wetlands figure (Exhibit 13) is an indication of the anticipated aquatic resources that are to be reestablished at the Bank Site. While the NWI map identifies virtually no wetlands (Exhibit 8), the obligate plant community currently found within the wettest areas of the site is likely to increase in areal extent across the site in response to improved hydrology (Exhibit 8 vs. Exhibit 13). Additionally, existing areas of mixed facultative wet and facultative plant communities will likely respond positively to increased levels and duration of saturation and develop a higher quality facultative wetland plant community.

Monitoring and Reporting Requirements

Performance standards are established for this Bank Site as specified in the provisions of the NCM UMBI and rationale provided therein. There are no variations from those standards except for the following as specifically applied to this Bank Site:

- Soils will be evaluated for development of hydric indicators in established wetland areas;
- A subsequent wetland delineation will be performed before any release of credits following the initial (early) release of credits;
- Sponsor will inspect ditch plugs, terraces and dikes for integrity of structure and function;
- Upland buffers outside of the wetland area will be evaluated for continuity and condition as these factors affect wetland values of the site.

Maintenance

Maintenance activities will be conducted in accordance with protocols established in the UMBI as applied specifically to this Bank Site and its needs. The reestablished palustrine wetlands will be self-sustaining; however, it will be monitored closely for parameters itemized in “Reporting Requirements” above to ensure long term sustainability.

Adaptive Management

Adaptive management may be required to achieve the goals of this Bank Site given its size and enhancement of natural water-flow across the site. This adaptive management may include modification of the vegetation management strategy based on hydrologic regimes and soil conditions (e.g. more seasonal/permanent inundation may require introduction of more obligate species over more of the site via planting/seeding; saline tolerant species mix may be adjusted.

Long-term Management

Long-term management of the Bank Site will be conducted in accordance with provisions of the NCM UMBI to ensure the Bank Site area functions in an ecologically sound way for the long-term. Following establishment of the Bank Site and at the completion of the monitoring program, a long-term management plan will be developed by the Sponsor in concert with a third-party long-term manager, with input from the Corps and NDIRT. The long-term management plan must be approved by the Corps, long-term manager and landowner, before transfer of responsibility for the Bank Site to the long-term manager. For the Mekinock Bank Site, a qualified, Corps-approved long-term manager will be identified by the end of Year 5 following Bank Site approval, with management costs funded by the long-term management fund (described below).

ADMINISTRATIVE PROVISIONS

Crediting and Debiting Methodology

Sponsor will pursue restoration of wetlands and establishment and management of upland buffers on approximately 240 acres of former agricultural ground that has been enrolled in the Conservation Reserve Program since 1988. Credits have been determined in accordance with protocols established in the NCM UMBI and ND Mitigation Guidance (Table 1). Reestablishing adequate hydrology and promoting and managing appropriate vegetation on approximately 225

acres of reestablished and enhanced wetlands onsite will equate to 204.0 acre-credits, while the establishment of upland buffer on 15 acres will yield additional creditable habitat to the Bank Site. Based on a Scope and Effect analysis, 183 acres of the site are completely drained wetlands, while 42 acres are partially drained wetlands. In addition, upland buffer is creditable at 5:1 acres-to-credits (NCM UMBI, ND Mitigation Guidance), yielding 3.0 additional wetland acre-credits. Note that this latter amount of credit is far less than the 25% UMBI limit of the total credits proposed, which is 207.0 acre-credits (with the upland buffer credits included – Table 1). These upland buffer credits will be counted as palustrine emergent credits for debiting purposes.

Table 1. Acres and acre-credits by crediting type.

<i>Source</i>	<i>Acres</i>	<i>Ratio</i>	<i>Credits</i>
Completely drained wetlands	183.00	1:1	183.00
Partially drained wetlands	42.00	2:1	21.00
Upland buffer and inclusions	15.00	5:1	3.00
Total Ac	240		207.00

Provisions for the Release of Credits

Thirty percent (30%) of credits from restored wetlands (61.2 of 204.0 acre-credits) will initially be released following approval of the Bank Site Plan by the Corps, recording of the real estate protection instrument, and establishment of the financial assurance (Table 2). In addition, 100% of the wetland credits associated with upland buffer establishment (3.0 acre-credits) will be released at that time, for a total of 64.2 acre-credits.

Table 2. Initial release of acre-credits by crediting type.

<i>Source</i>	Early Release		
	<i>Credits</i>	<i>%</i>	<i>Release</i>
Completely drained wetlands	183.00	30%	54.90
Partially drained wetlands	21.00	30%	6.30
Upland buffer and inclusions	3.00	100%	3.00
TOTALS:	207.00	160%	64.20
* Note: Wetland credits sourced from uplands are <25% of Total Credits			

Financial Assurances

Sponsor agrees to provide adequate financial assurances to ensure that aquatic functions will be reestablished and maintained at the Bank Site. The amount provided will be adequate to develop replacement compensatory mitigation sufficient to match the type and number of released credits from the Bank Site in the event of default by the Sponsor.

Contingency Fund

An initial financial assurance will be provided as a Contingency Fund, maintained during the establishment period of the Bank Site, typically a period of five years. For the Mekinock Bank Site, the Contingency Fund will be \$100,000.00 and will take the form of a casualty insurance policy specific to mitigation bank site operations, a template for which is under review by the Corps / Omaha District and attached in specimen form to the NCM UMBI. The size of the Fund may be reduced under conditions provided in the NCM UMBI.

Long-Term Management Fund

In addition to the Contingency Fund, a Long-Term Management Fund in the form of a cash endowment will be funded and managed by the South Dakota Community Foundation (SDCF). The Long-Term Management Fund will be established at the end of the implementation period (Year 5) in accordance with the NCM UMBI in the amount of \$50,000. A portion of the return on the investment by SDCF of the Fund (the “distributable amount”) will be made available to the long-term manager as needed for Bank Site maintenance and management.

Bank Site Ownership

The Bank Site is owned by Steve Neff, et. Al. (“landowner”). Upon approval of the Bank Site Plan (BSP), NCM will be granted license by landowner to establish and operate the Mekinock Bank Site NCM Umbrella Bank. Under the license granted to NCM, landowner will provide unlimited access and use of the Bank Site property for purposes of developing the mitigation credits herein described. Landowner will further abide by all stipulations of the BSP, which will be incorporated into the license as an Attachment. Landowner will establish a real estate protection instrument over the Bank Site before release of any credits (see below). A copy of the fully executed license will be submitted to the Corps within 60 days of approval of the BSP.

Site Protection

Consistent with provisions of the NCM UMBI, NCM will ensure the legal protection of the Bank Site by means of a protective real estate instrument established by landowner over the Bank Site. Such instrument will ensure the right of ingress and egress, and the right to conduct remedial actions for the Sponsor, Corps, NDIRT, and long-term managers, among other rights. This protection will be in the form of a Deed Restriction executed by landowner and NCM. A template deed restriction based on the Corps / Omaha District is attached to the NCM UMBI. No credits will be released from the Bank Site until the final deed restriction has been executed by landowner and recorded with the register of deeds in Grand Forks County.

REFERENCES

Bryce, Sandra, James M. Omernik, David E. Pater, Michael Ulmer, Jerome Schaar, Jerry Freeouf, Rex Johnson, Pat Kuck, and Sandra H. Azevedo. 1998. Ecoregions of North Dakota and South Dakota. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/habitat/ndsdeco/index.htm> (Version 30NOV1998).

Compiled and edited by Ilse Storch, 2007. Grouse: Status Survey and Conservation Action Plan 2006 –2010. Gland, Switzerland: IUCN and Fordingbridge, UK: World Pheasant Association. 114p. <https://portals.iucn.org/library/sites/library/files/documents/2007-034.pdf>

EPA, 1997. Ecoregions of North Dakota and South Dakota. Washington DC: U.S. Env. Protection Agency. ftp://newftp.epa.gov/EPADDataCommons/ORD/Ecoregions/sd/ndsd_front.pdf

Grand Cities Bird Club, 2011. Greater Prairie Chicken Management Areas. Grand Forks, ND. <http://grandcitiesbirdclub.weebly.com/greater-prairie-chicken-management-area.html>

Natural Resources Conservation Service. 1997. “Operational Draft Guidebook for the Hydrogeomorphic Assessment of Temporary and Seasonal Wetlands, 1997”. Approved for use on temporary and seasonal depressional (pothole) wetlands in ND.

NDDoH, February 2017. North Dakota 2016 Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads. North Dakota Department of Health, Bismarck, North Dakota. http://www.ndhealth.gov/wq/sw/z7_publications/integratedreports/2016_final_nd_integrated_report_20170222.pdf

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. <https://websoilsurvey.sc.egov.usda.gov/>. Accessed [02/08/2018].

U. S. Fish and Wildlife Service, 2015. National Wetlands Inventory. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/>

U.S. Geological Survey, 2016, National Water Information System data available on the World Wide Web (USGS Water Data for the Nation), accessed [02/08/2018], at URL [<http://waterdata.usgs.gov/nwis/>]

EXHIBITS
EXHIBIT 1: Vicinity Map

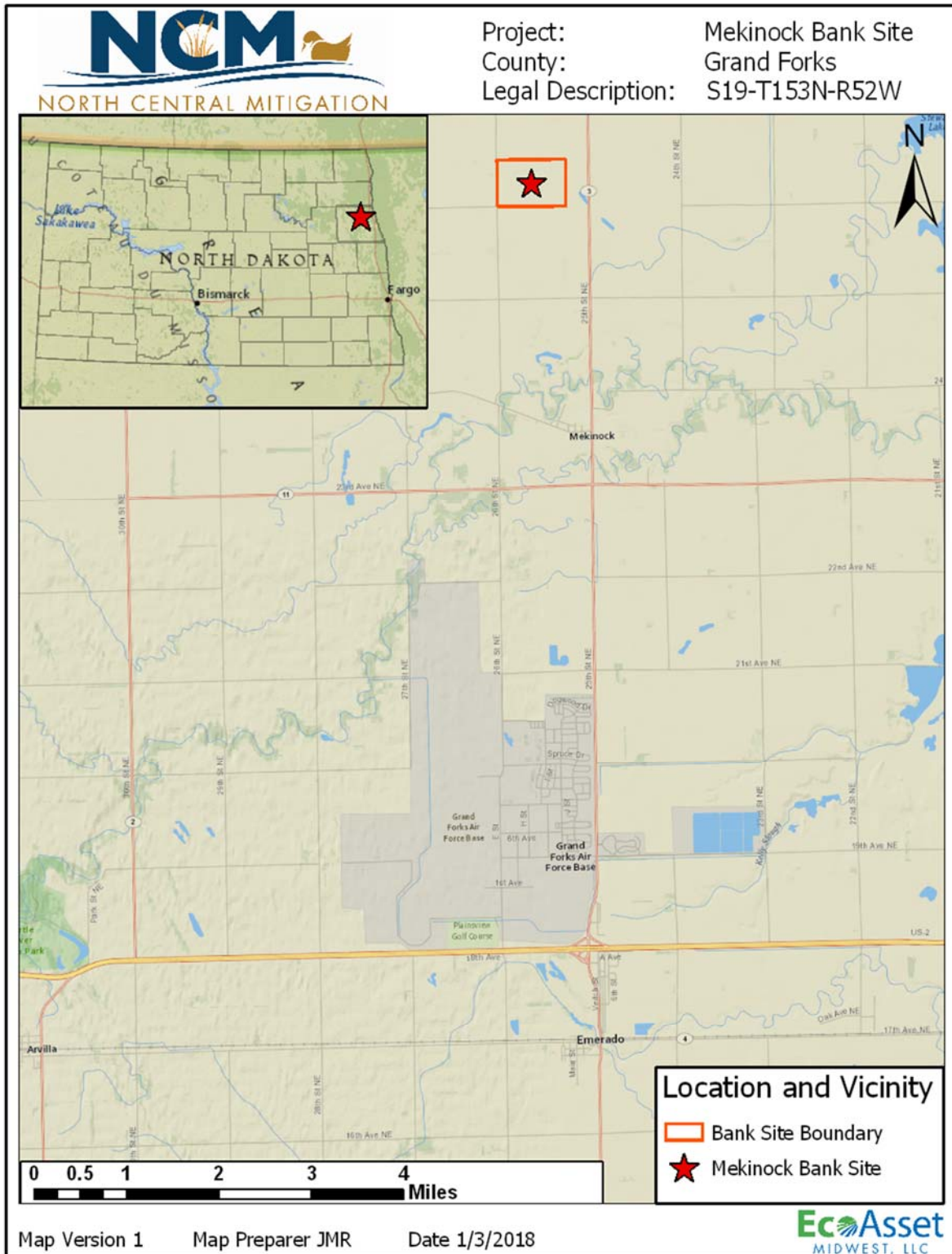


EXHIBIT 2: Aerial Photography (2016)



EXHIBIT 3: Location Within the Regional Service Area

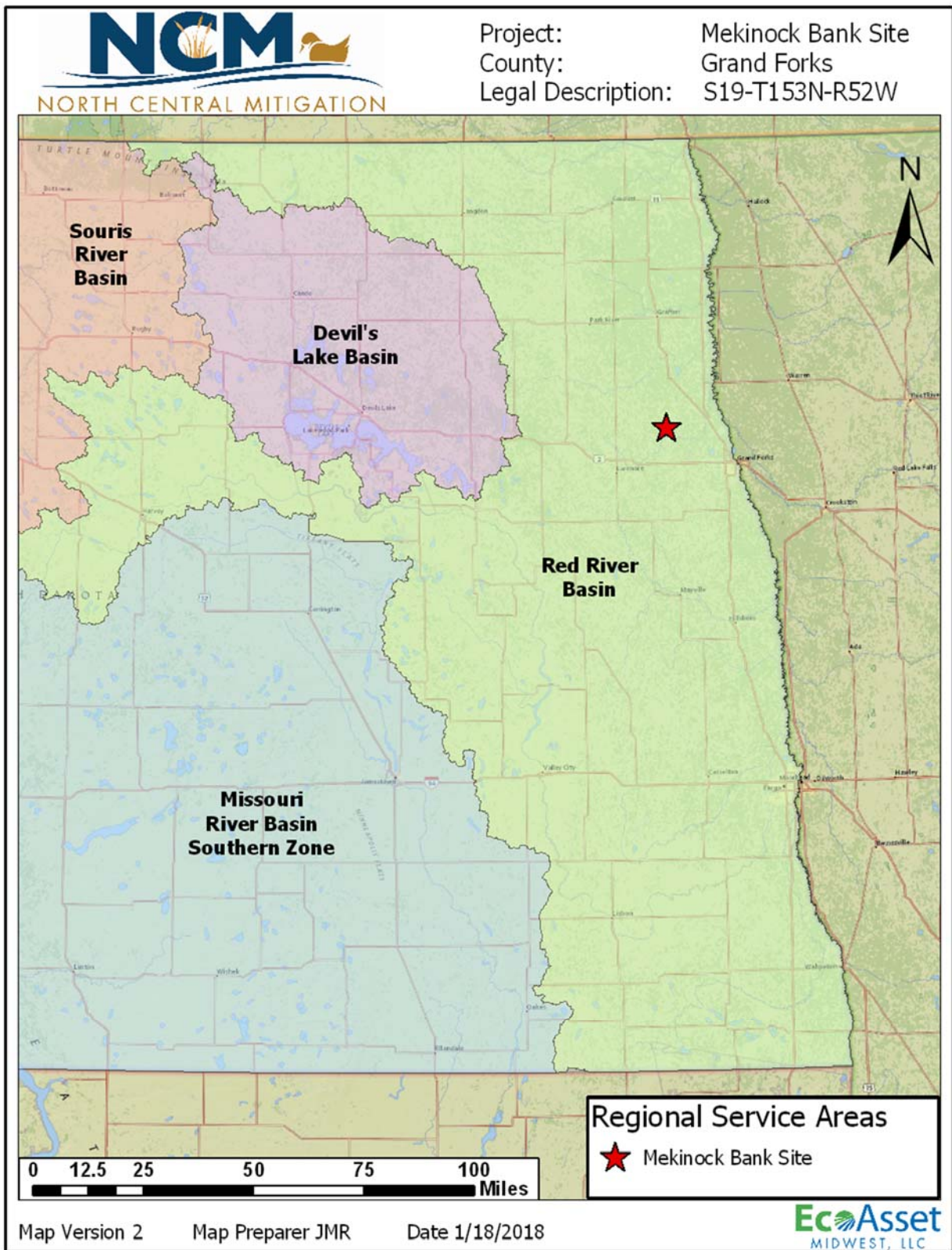


EXHIBIT 4: Topographic Map

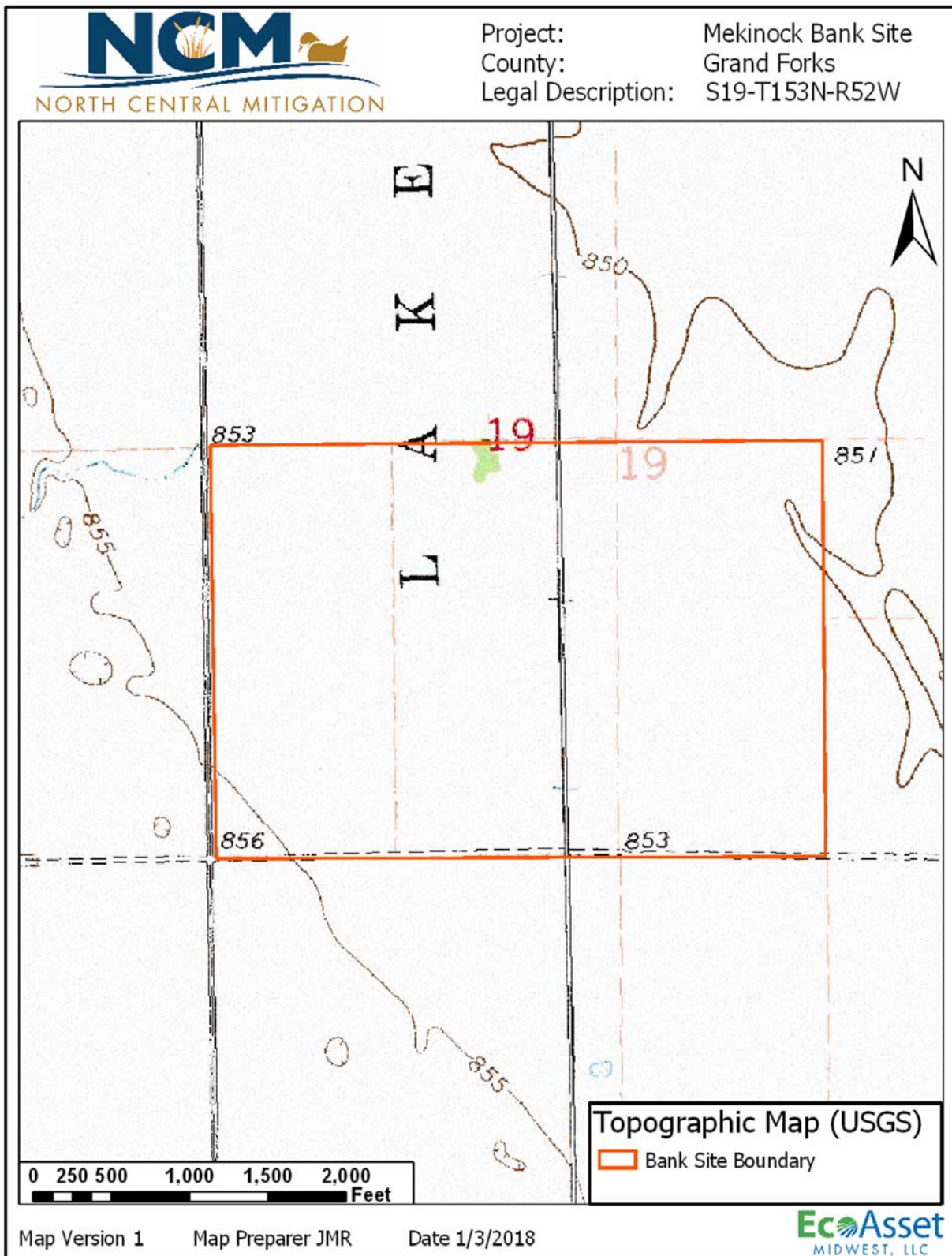


EXHIBIT 5: LiDAR/Hillshade

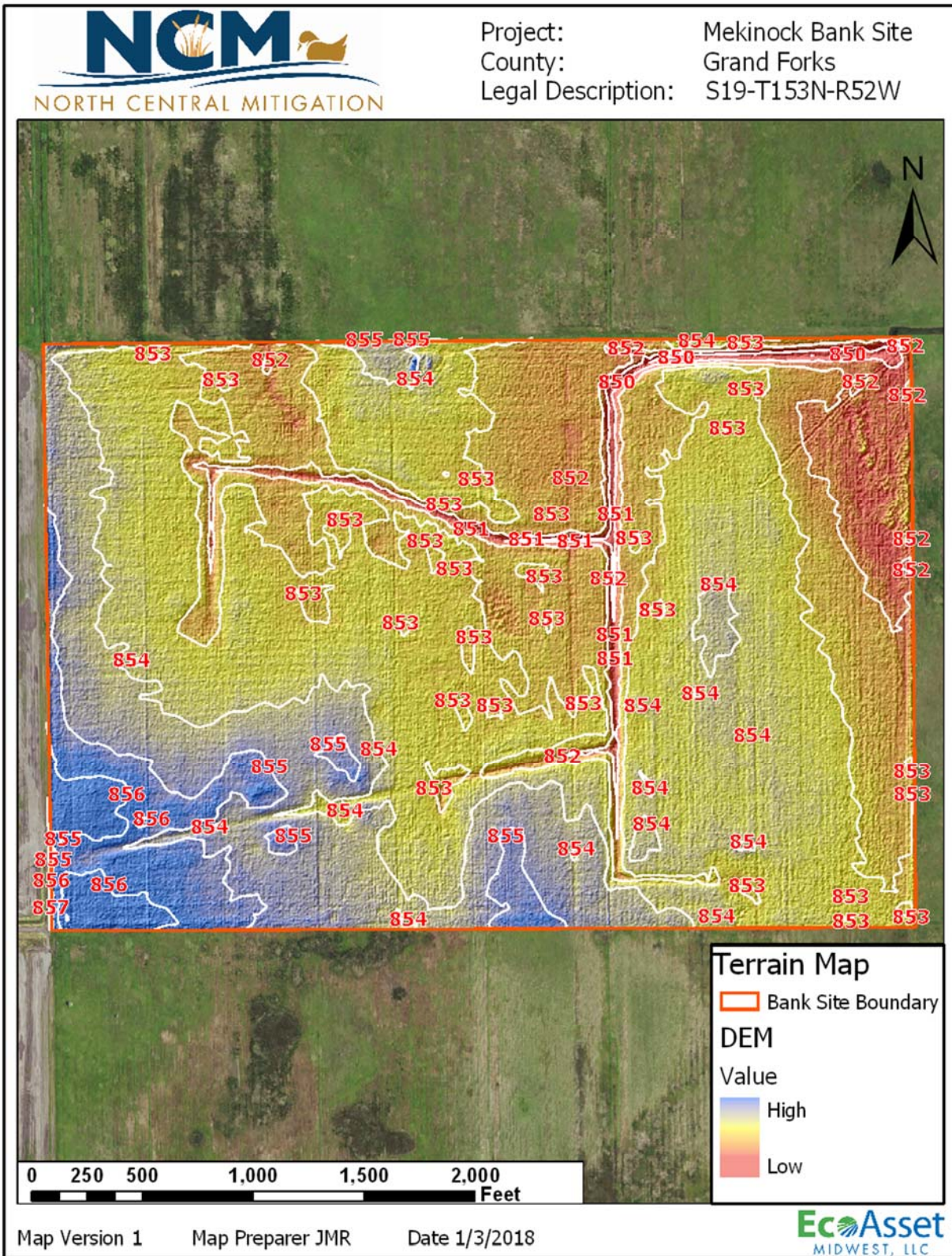


EXHIBIT 6: Web Soil Survey

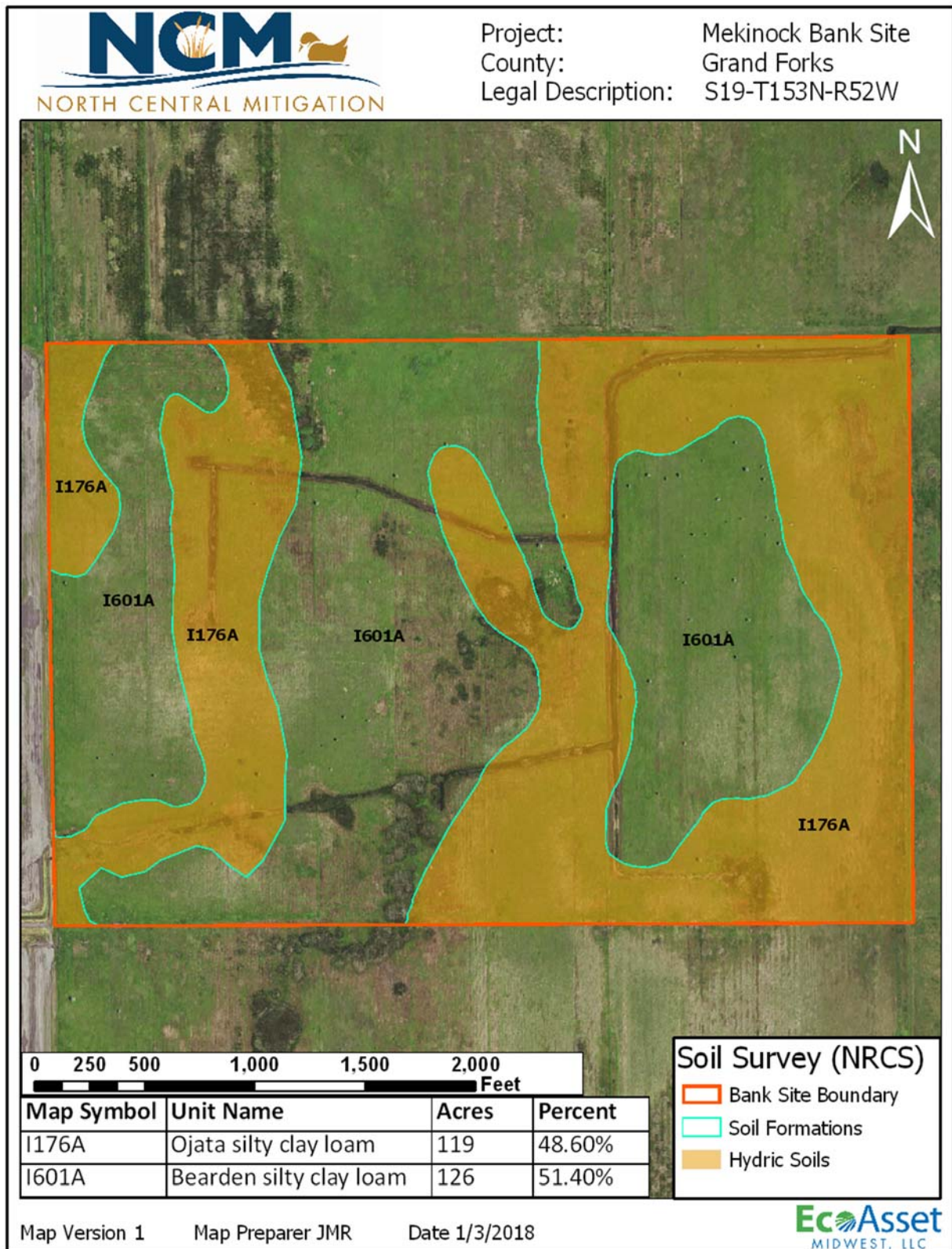


EXHIBIT 7: Watershed

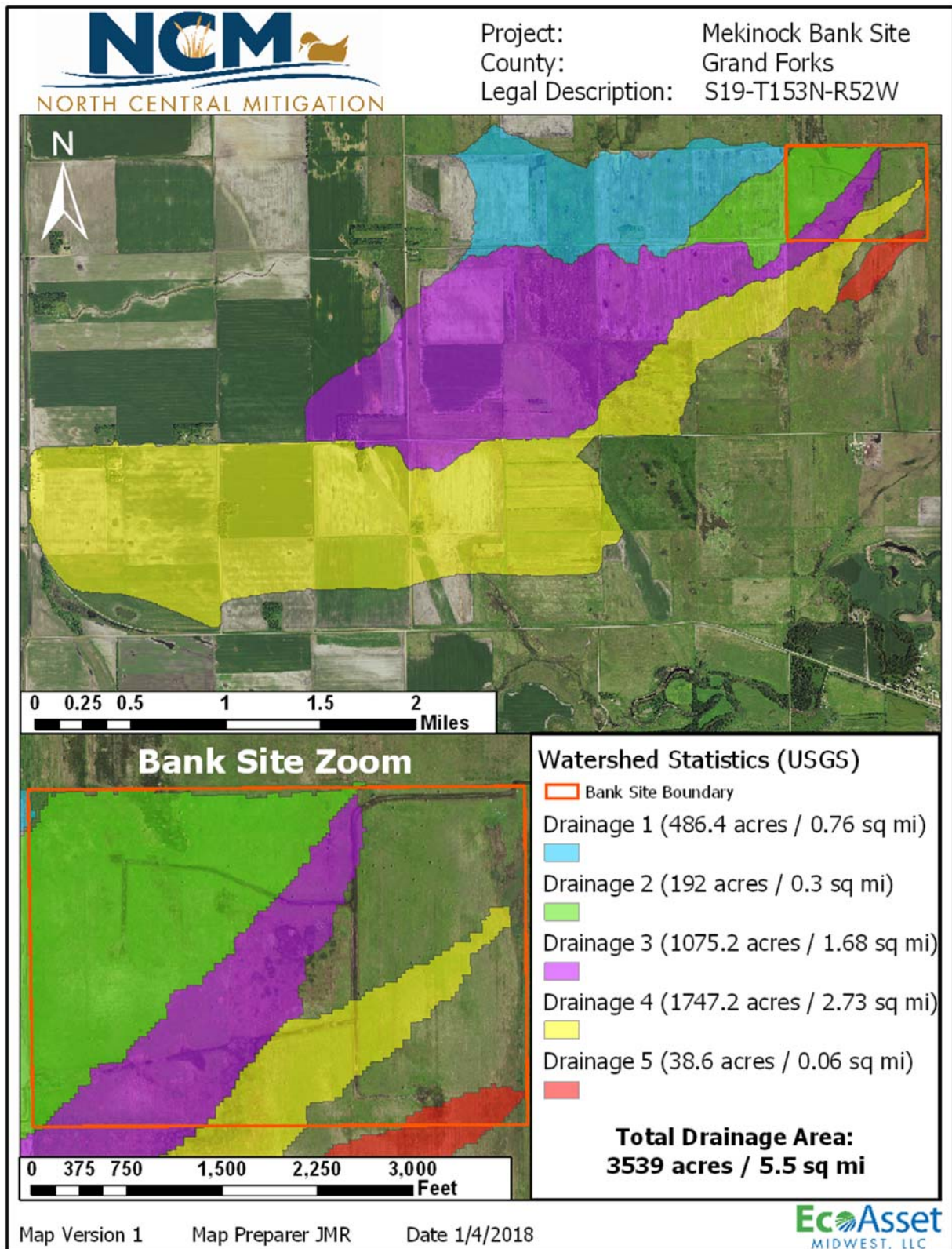


EXHIBIT 8: National Wetlands Inventory

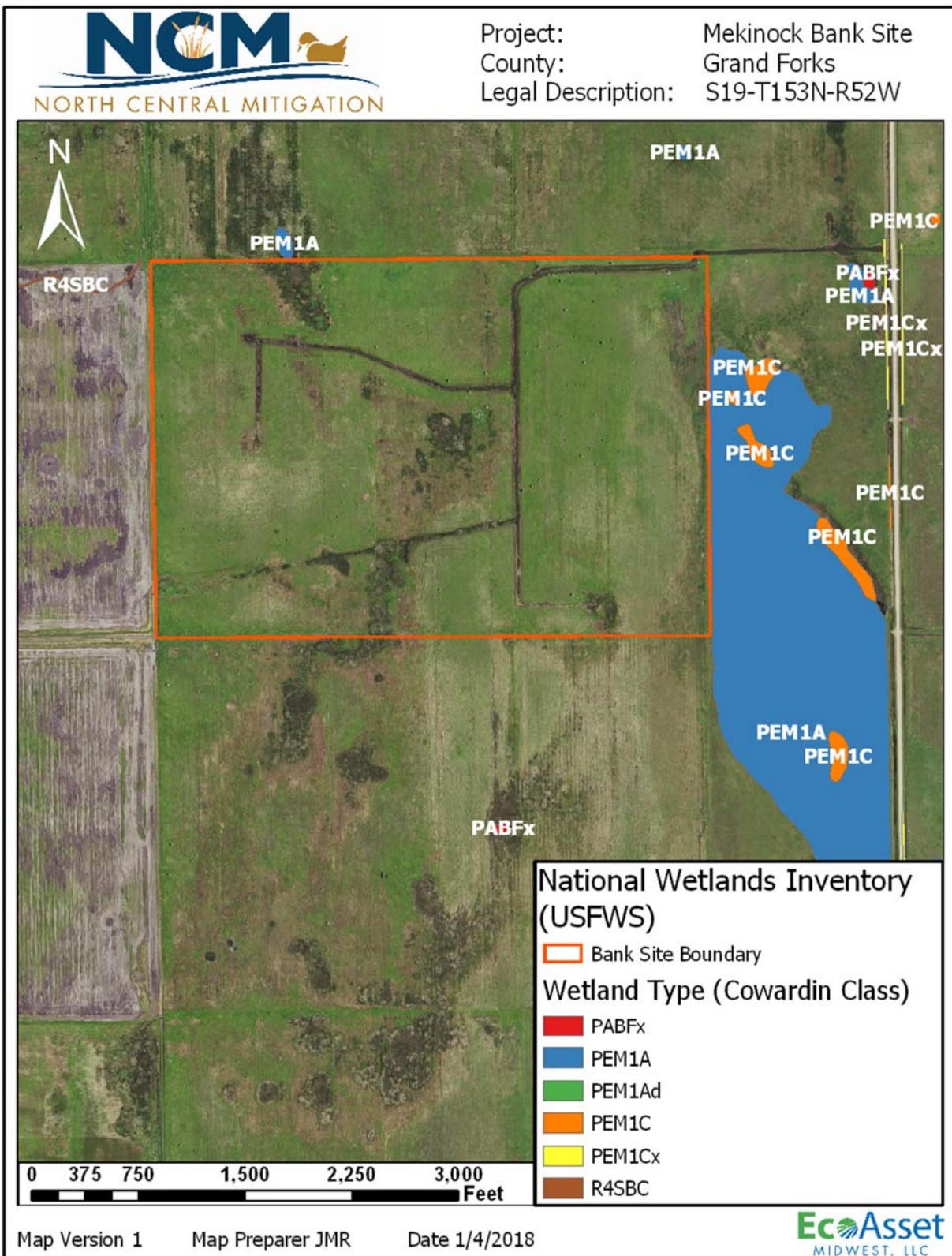


EXHIBIT 9: Initial Wetland Survey

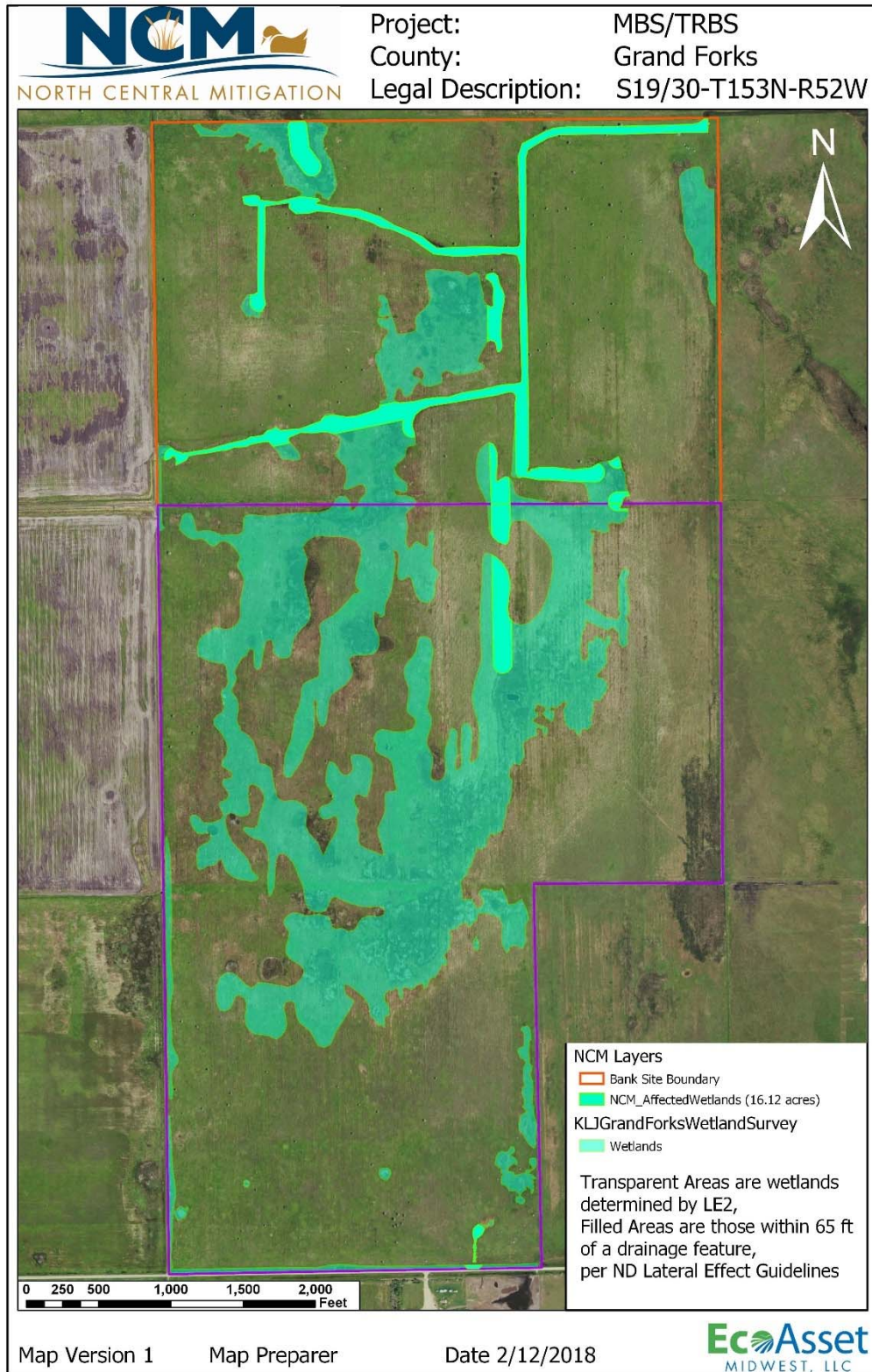


EXHIBIT 10: Present Vegetation Communities

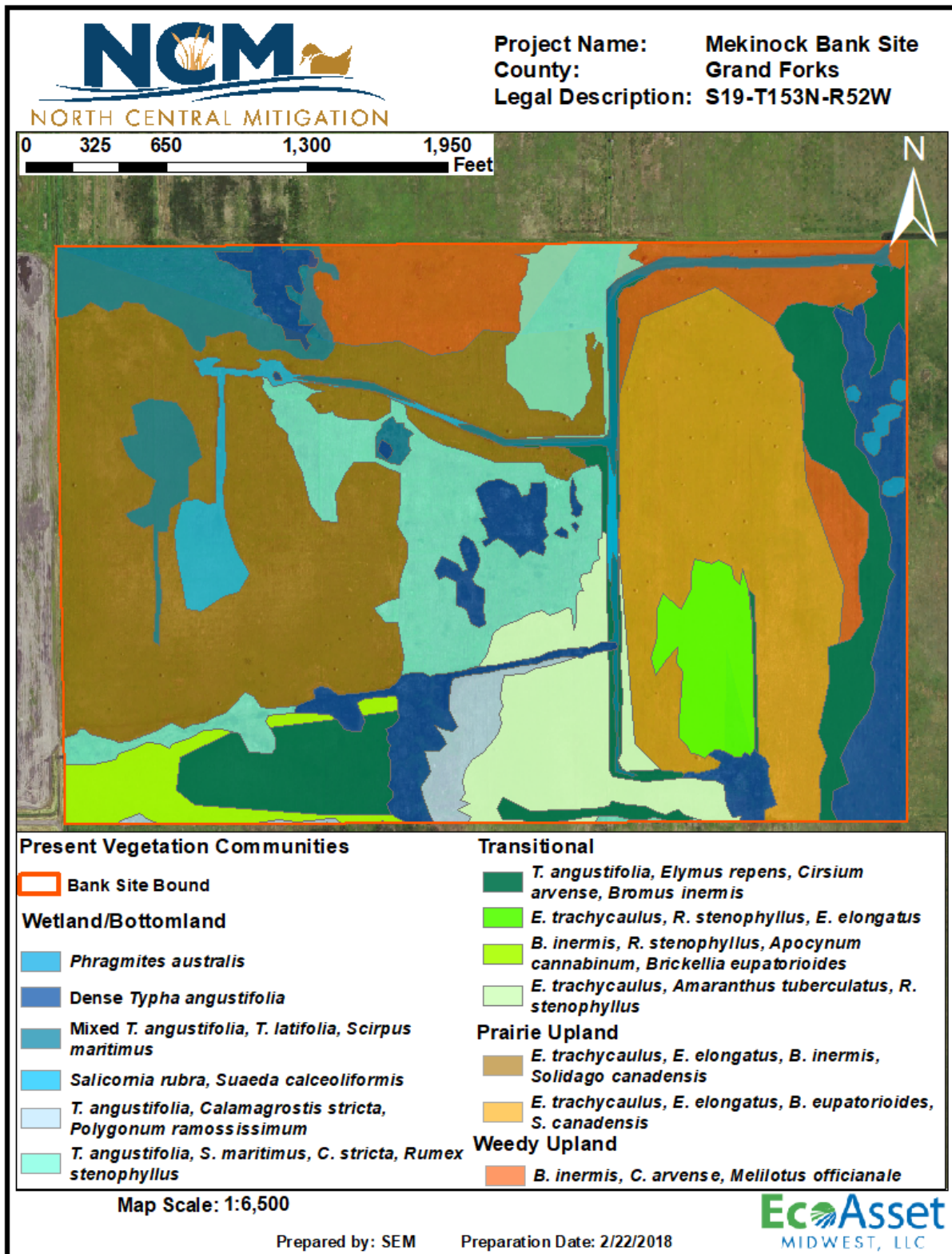


EXHIBIT 11: Mitigation Strategy 1

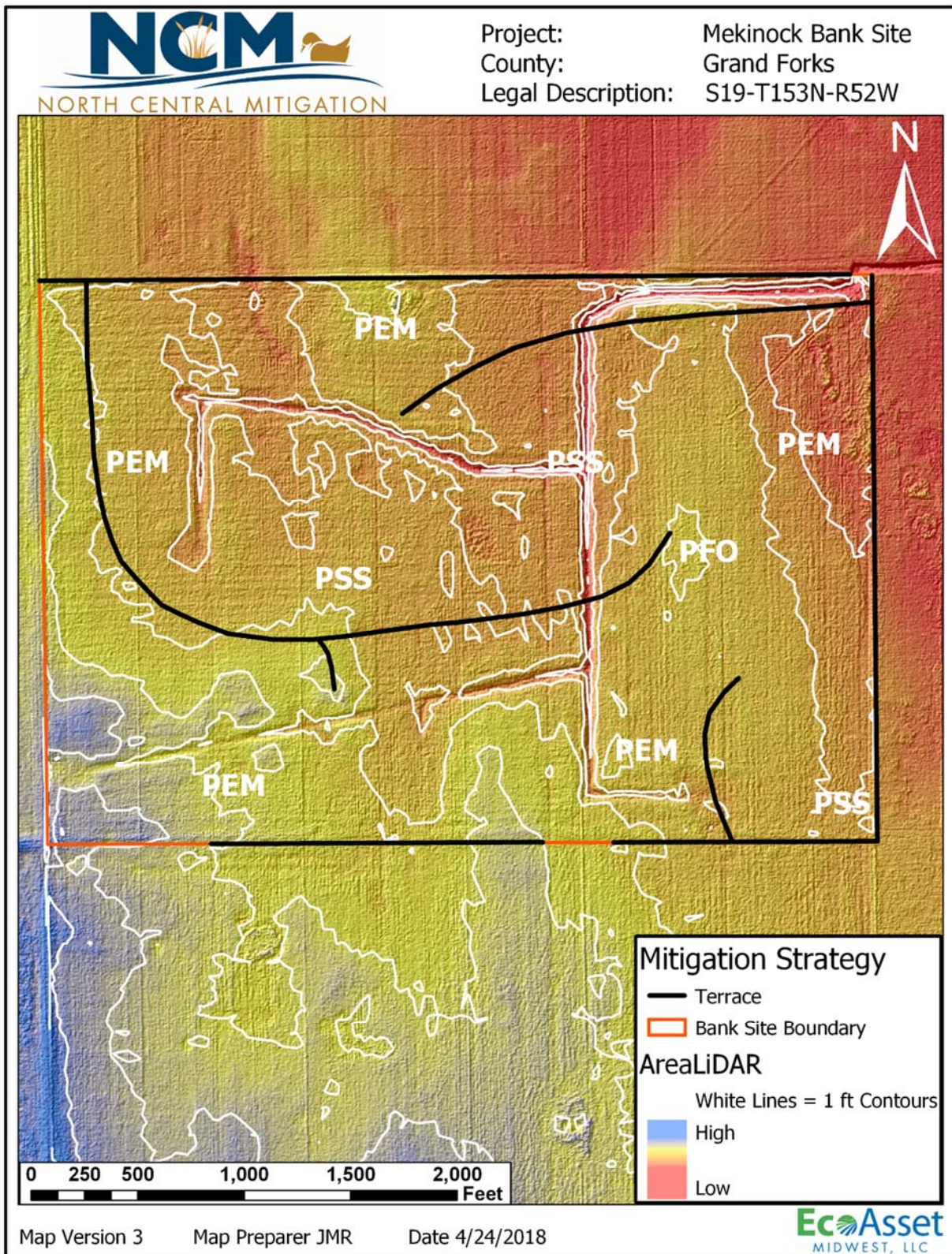


EXHIBIT 12: Mitigation Strategy 2

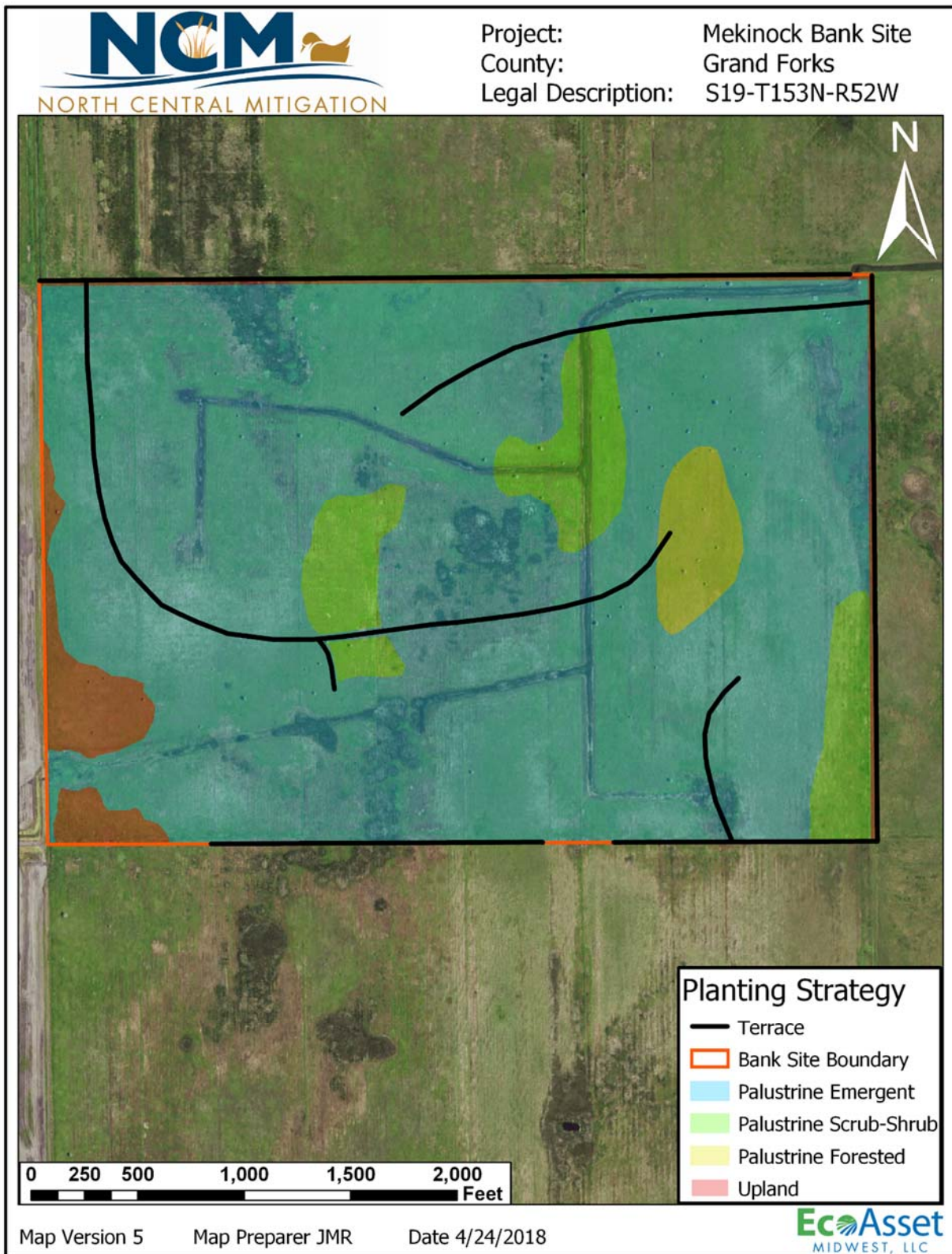


EXHIBIT 13: Post-Mitigation Wetlands

