



US Army Corps
of Engineers
St Paul District

SPONSOR: Terry R. Johnson

Public Notice

ISSUED: 15 Apr 2021

EXPIRES: 15 May 2021

REFER TO: 2019-00856-SRK

SECTION:404 - Clean Water Act

1. WETLAND COMPENSATORY MITIGATION BANK PROPOSAL
2. SPECIFIC INFORMATION

SPONSOR'S ADDRESS: Terry R. Johnson
543 Park Lane
Long Lake, Minnesota 55356

SPONSOR'S AGENT Wes Boll
1800 Pioneer Creek Center
Maple Plain, Minnesota 55359

PROJECT LOCATION: The project site is located in Section 4, Township 117 North, Range 25 West, Carver County, Minnesota. The approximate UTM coordinates are N 433759.428662, E 4980430.909433. Latitude 44.97423, Longitude -93.840077.

BANK SERVICE AREA: The proposed bank service area is Bank Service Area 7.

DESCRIPTION OF PROJECT: The sponsor is proposing to develop Willow Glen Wetland Bank. The proposed bank site is approximately 67 acres in size, including wetland, upland buffer and stream restoration areas. In addition to the wetland project, the proposed stream mitigation bank site consists of approximately 17 acres and is adjacent to a larger conservation easement of approximately 50 acres to be established as part of the wetland mitigation bank project. It is likely that one large conservation easement (divided into two parcels by County Highway 27) will be established to accommodate both projects.

NEED AND OBJECTIVE OF PROJECT: The primary objective of the project is to restore wetland hydrology on the site by reconnecting stream channels to their floodplains and increasing floodplain areas. The goal and objective of the stream portion of the project is to improve conditions within and adjacent to the channel of Mapes Creek, which has been altered and degraded historically, and to reconnect a meander that was historically cut off from the channel. The alteration of the stream channel and land use changes in the contributing watershed has resulted in degradation and loss of stream functions. The proposed project will result in the restoration to near historical conditions, which will restore and improve stream functions as measured by the MN SQT. The restoration of floodplain wetland hydrology will allow for the establishment of a mosaic of high functioning and self-sustaining floodplain forest, fresh (wet) meadow and shallow marsh wetland vegetation communities dominated by native species suited for floodplain environments on approximately 20 acres of a 95-acre parcel. The project would also include the establishment of suitable trees and shrubs (upland floodplain forest) and native grass and forbs (mesic prairie) in the upland buffer area adjacent to the wetlands on an additional 20 acres of the property.

Alterations to floodplain connections by the construction of flood protection berms and ditches have altered wetland hydrology in portions of the site and allowed for cropping. The alteration of natural hydrology and cropping which has degraded or entirely removed historic wetland functions (flood storage, habitat, water quality protection). Sediment deposition is also evident in the cropland areas and it is assumed that the deposition of sediment from Mapes Creek and the South Fork Crow River during flood events has further altered the functions and extent of historic wetland areas on the site.

The proposed project would restore wetland hydrology by reconnecting the floodplain at the appropriate elevation similar to what was present historically and conducting excavation and grading to remove accumulated sediment and enhance flood storage volume. The project does not propose to restrict drainage or raise water levels, and it would not have any impact on upstream or downstream properties.

The proposed restoration of historic hydrology and vegetation establishment and maintenance would result in the improvement of important floodplain wetland functions that were degraded or lost by the alterations and continual cropping. As low-scale, seasonal flood events occur, under the proposed condition, floodwaters would be held in the shallow depressional areas restored on the site, providing increased flood storage over the existing conditions. Other benefits include groundwater infiltration and reduced erosion, which will benefit water quality in the South Fork Crow River.

It is anticipated that temporarily flooded seasonally flooded basin/floodplain forest wetland communities interspersed with saturated fresh (wet) meadow and semi-permanently flooded shallow marsh communities will develop on the site. The seasonally flooded basin/floodplain forest communities would likely only be temporarily flooded early in the growing season or following flood events and would be dominated by native woody species (silver maple, green ash, willow) with native herbaceous species in the understory.

The fresh (wet) meadow and shallow marsh wetland communities would occur at slightly lower elevations than the floodplain forest and would be saturated or flooded more frequently and not just following flood events. The goal vegetation communities in these wetland types would be native emergent species, sedges, bulrushes, arrowhead, and forbs with low overall cover of invasive species. The restoration of these communities to create or improve wildlife habitat is a specific objective of this project.

ESTABLISHMENT, OPERATION AND MANAGEMENT: The proposed project would restore wetland hydrology by reconnecting the floodplain at the appropriate elevation like what was present historically and conducting excavation and grading to remove accumulated sediment and enhance flood storage volume. The project does not propose to restrict drainage or raise water levels, and it would not have any impact on upstream or downstream properties. Hydrologic restoration of the site is proposed to be accomplished by scraping/excavating proposed credit areas to the appropriate elevations and restoring the natural floodplain connections that were negated over time on the site by farming and the construction of the low-scale berms. The depth of excavation was determined based on observations of site hydrology and soils collected during the 2019 growing season. The elevations of adjacent wetlands, the required hydrology for objective vegetation communities, and predicted flood event elevations were also considered. Aerial photographs from wetter than normal years were also used in guiding the determination of wetland restoration areas, as these photographs demonstrated areas of the Site that are affected by flooding and would be suitable for wetland restoration. In general, excavation ranges from 12-18 inches over most of the area. Excavation would be conducted in these areas to remove accumulated sediment and re-establish the hummocky topography characteristic of typical floodplain wetlands (as observed in the natural floodplain reference area on the site). These features will be effective in capturing and storing floodwaters. When combined with reconnection to the floodplain and re-vegetation efforts, these restored floodplain forest areas will

function similarly to the historic unaltered condition and adjacent reference floodplain areas. The proposed plan for establishment of the proposed floodplain connection points was guided by estimations of historic conditions, detailed measurements of site hydrology, and predicted flood event elevations (FEMA 2018). The floodplain connection points would be stabilized (vegetation establishment with erosion control likely would be sufficient) to ensure that the floodplain connection points are established at the appropriate elevations. Final elevations and design plans with additional details will be developed during the next phase of the project.

The proposed communities include fresh (wet) meadow, shallow marsh, and seasonally flooded basin/floodplain forest in the wetlands, and mesic prairie and upland floodplain forest in the uplands. Note that the boundaries of anticipated communities are estimated at this point and will be dependent on the final plan and resulting hydrologic conditions. Conditions in existing reference wetlands on the site at similar elevations as the proposed restored wetlands are used as a guidance in determining the goal vegetation communities in wetlands. Vegetation community boundaries will be defined more specifically in future phases of the bank application process.

Since the site is located low in the landscape in a floodplain where water levels have been observed to vary greatly (from more than 4 feet of standing water to water 3 feet below the surface), the vegetation establishment plan will propose to establish resilient species that are native to floodplain wetlands and suited to these conditions. Performance standards developed for vegetation composition on the site will also take the disturbed nature of the site into account to develop realistic goals that can be achieved.

Seeding

The applicant would contract with a native vegetation restoration company to develop a custom seed mix for the site based on state seed mixes for wetland and upland buffer areas. It is assumed a custom seed mix will be needed, since many of the species in standard seed mixes may not be able to survive in floodplain areas, where inundation depths and duration can vary widely. The vegetation plan would also likely include the planting of trees/shrubs and live plugs of emergent plants to increase the odds of successful native establishment in some communities. The timing of the seeding will be dependent on hydrologic conditions, with the goal being to seed the site during optimal hydrologic conditions in early to mid-summer.

Based on the observation of several desirable native species common in floodplain wetlands on the site, it is anticipated that the natural seedbank on the site will contribute to vegetation community establishment in restored wetlands. Common species observed that will likely contribute to native vegetation communities include river bulrush, lake sedge, water plantain, arrowhead, and soft stem bulrush. Other favorable floodplain woody species observed on the site are silver maple, green ash, and willow. Management activities will be conducted to promote the establishment of desired woody species from the seedbank on the site. While willows are generally a favorable native species, sandbar willow can be an aggressive native that may require some control.

Site Management

Ongoing vegetation management will be needed following seeding activities through the monitoring period. Management activities will be prescribed during monitoring visits and will include mowing, mechanical removal (buckthorn and other nuisance woody species), and herbicide application. Since conditions on floodplain sites such as this are dynamic, an adaptive management approach will be implemented during the establishment of the site to adjust to site conditions and unforeseen changes to the vegetation community establishment.

OWNERSHIP AND LONG-TERM MANAGEMENT: Terry and Suzanne Johnson are the property owners and Sponsor for the proposed bank project. The bank site will be owned and operated under

Regulatory Branch (File No. 2019-00856-SRK)

an LLC (Willow Glen, LLC) that has been set up. The Sponsor will be responsible for establishing the site, owning the proposed credits, and long-term management of the site after credits are sold.

TECHNICAL FEASIBILITY AND QUALIFICATIONS: The Sponsor owns the land and will fund the proposed mitigation project. The Sponsor is a registered professional Geologist familiar with hydrologic data acquisition, wetland mitigation and land management activities from other similar projects. The agent (Wenck Associates, (now Stantec)) has experienced scientists, engineers, and surveyors who have completed mitigation projects of similar scope in similar landscapes. The agent is experienced in preparing bank plans, overseeing construction, and conducting monitoring and maintenance on wetland mitigation projects.

ECOLOGICAL SUITABILITY: The proposed restoration of floodplain wetlands as previously described in this application is suitable for this site as demonstrated by the findings of the investigations conducted on the site. The investigations identified alterations to hydrology on the site and the proposed restoration will essentially undo the alterations and allow for the return of the lost wetland functions. The proposed project will also potentially improve the functions of the Mapes Creek stream channel by reconnecting it to the expanded floodplain and providing permanent vegetation cover and protection by the Conservation Easement on the areas adjacent to the Creek.

The results of an investigation of site hydrology were used to design a restoration plan that will result in the sustainable restoration of floodplain wetland hydrology on the site at the appropriate elevations. The hydrology investigation also demonstrates that the location of the Site at the bottom end of the Mapes Creek watershed and within the South Fork Crow River means that the site has multiple, suitable sources of hydrology that will ensure that self-sustaining wetland hydrology similar to adjacent reference wetlands on the site.

The preparation of a detailed vegetation establishment and maintenance plan will ensure that self-sustaining vegetation communities suitable for floodplain settings are established on the site.

HYDROLOGY: The Site is located within the watersheds of and directly adjacent to both the South Fork Crow River and Mapes Creek. The Site receives hydrology from flooding events in the Mapes Creek watershed (12,630 acres) as well as from events within the larger South Fork Crow River watershed (765,480 acres). As a result of being influenced by both large watersheds, the site is frequently flooded and has an adequate and diverse source of hydrology to support proposed wetlands. While Mapes Creek is listed as a PWI and the upper reaches of the stream are identified as a Public Ditch, there are no drainage easements or public drainage rights identified on the title of the property.

CURRENT LAND USES: The primary current land use and cover on the site is row crop agriculture, with uncropped portions of the site containing a farmstead, upland forest, and floodplain forest/wetlands. The farmstead contains a house with several outbuildings and a pasture area that will remain outside of the conservation easement.

COORDINATION WITH RESOURCE AGENCIES: This project has been coordinated with the Interagency Review Team (IRT) including the Minnesota Board of Water and Soil Resources, the Minnesota Department of Natural Resources and the United States Environmental Protection Agency.

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

Regulatory Branch (File No. 2019-00856-SRK)

None were identified by the bank sponsor or are known to exist in the action area. However, Carver 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.
Rusty Patched Bumble Bee	Grasslands with flowering plants from April through October, underground and abandoned rodent cavities or clumps of grasses above ground as nesting sites, and undisturbed soil for hibernating queens to overwinter.

4. JURISDICTION

This proposal is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbors Act of 1899 and 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 within the permit area. 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
180 Fifth Street East, Suite 700
St. Paul, MN 55101-1678

Or, IF YOU HAVE QUESTIONS ABOUT THE PROJECT, call Sean Kelly at the Brainerd office of the Corps, telephone number 651-290-5769 or email Sean.R.Kelly@usace.army.mil.

Regulatory Branch (File No. 2019-00856-SRK)

Enclosure(s):
Drawings

PRELIMINARY SITE CONSTRUCTION PLANS

FOR

WILLOW GLEN RESTORATION PROJECT

COUNTY ROAD 27 WATERTOWN, MN



1800 PIONEER CREEK CENTER
MAPLE PLAIN, MN 55359
PHONE: 763-479-4200
FAX: 763-479-4242
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
WILLOW GLEN

WILLOW GLEN RESTORATION PROJECT
 COUNTY RD 27
 WATERTOWN, MN

ARCHITECT:
WENCK, INC.

1800 PIONEER CREEK CENTER
55359
MAPLE PLAIN, MN

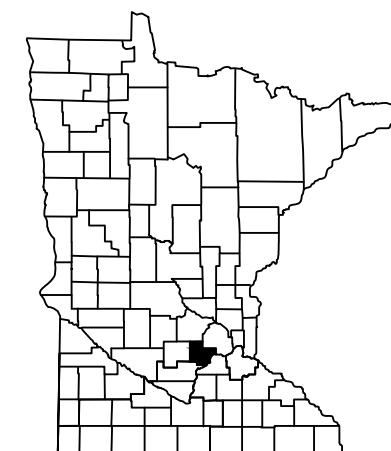


Sheet List Table

Sheet Number	Sheet Title
G-001	COVER SHEET
G-002	EXISTING CONDITIONS - NORTH
G-003	EXISTING CONDITIONS - SOUTH
G-004	EXISTING CONDITIONS - WEST
G-005	GRADING PLAN - NORTH
G-006	GRADING PLAN - SOUTH
G-007	GRADING PLAN - WEST
G-108	SECTION CUTS - NORTH
G-109	SECTION CUTS - NORTH
G-110	SECTION CUTS - NORTH
G-111	SECTION CUTS - WEST
G-112	SECTION CUTS - WEST



VICINITY MAP
NOT TO SCALE



PROJECT LOCATION
NEAREST CITY: WATERTOWN
COUNTY: CARVER

ISSUE NO.:

DESCRIPTION:

DATE:

CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

LICENSE NO.: _____
DATE: _____

PROJECT NO.: 7492-0001

DWN BY: XXX	CHKD BY: XXX	APPD BY: XXX
ISSUE DATE:		DATE

ISSUE NO.: _____ ISSUE # _____

SHEET TITLE:

COVER SHEET

SHEET NO.:

G-001

WARNING:

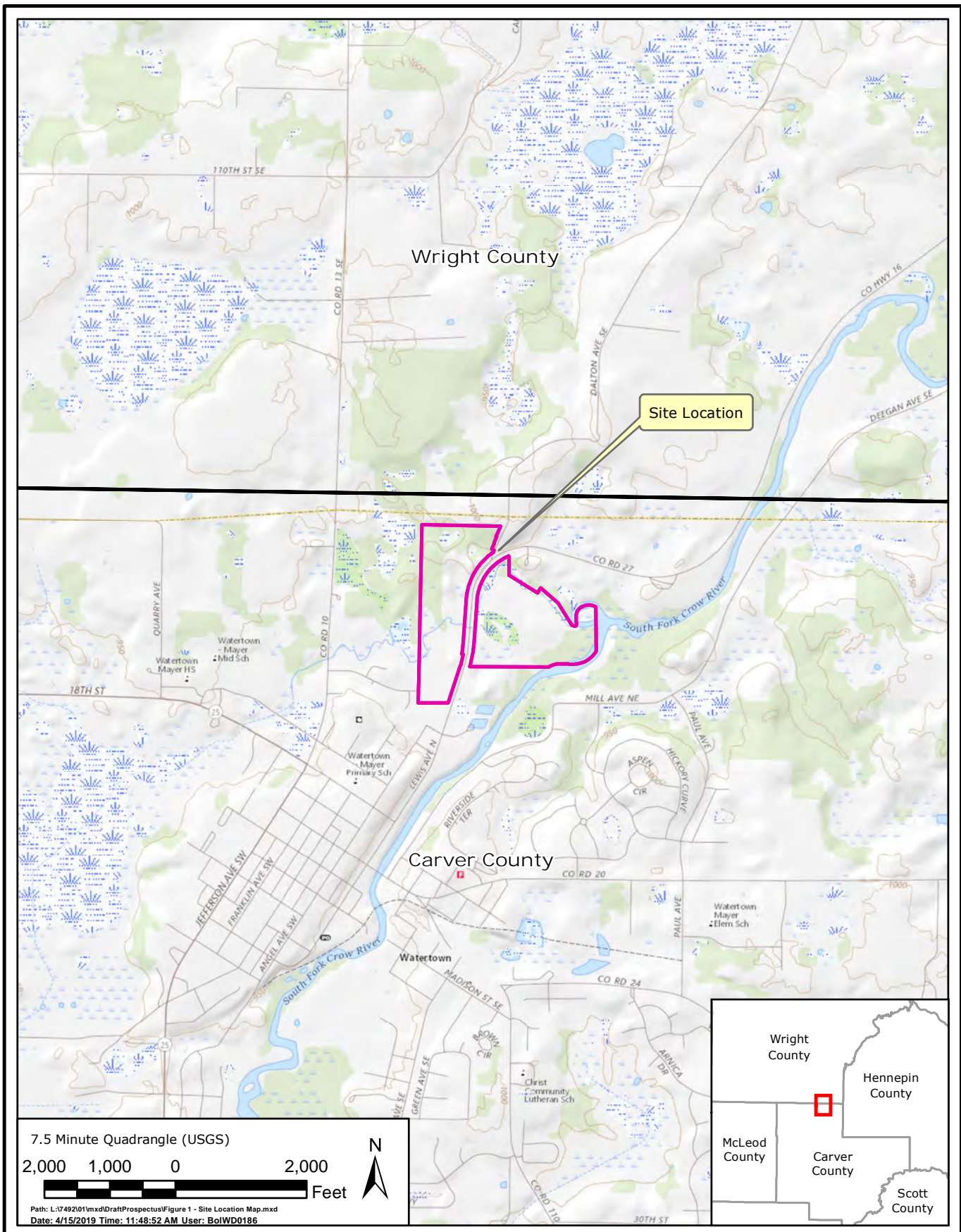
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

CALL BEFORE YOU DIG

GOPHER STATE ONE CALL

TWIN CITY AREA: 651-454-0002
TOLL FREE 1-800-252-1166



WILLOW GLEN
Site Location Map



FEB 2019
Figure 1



WILLOW GLEN

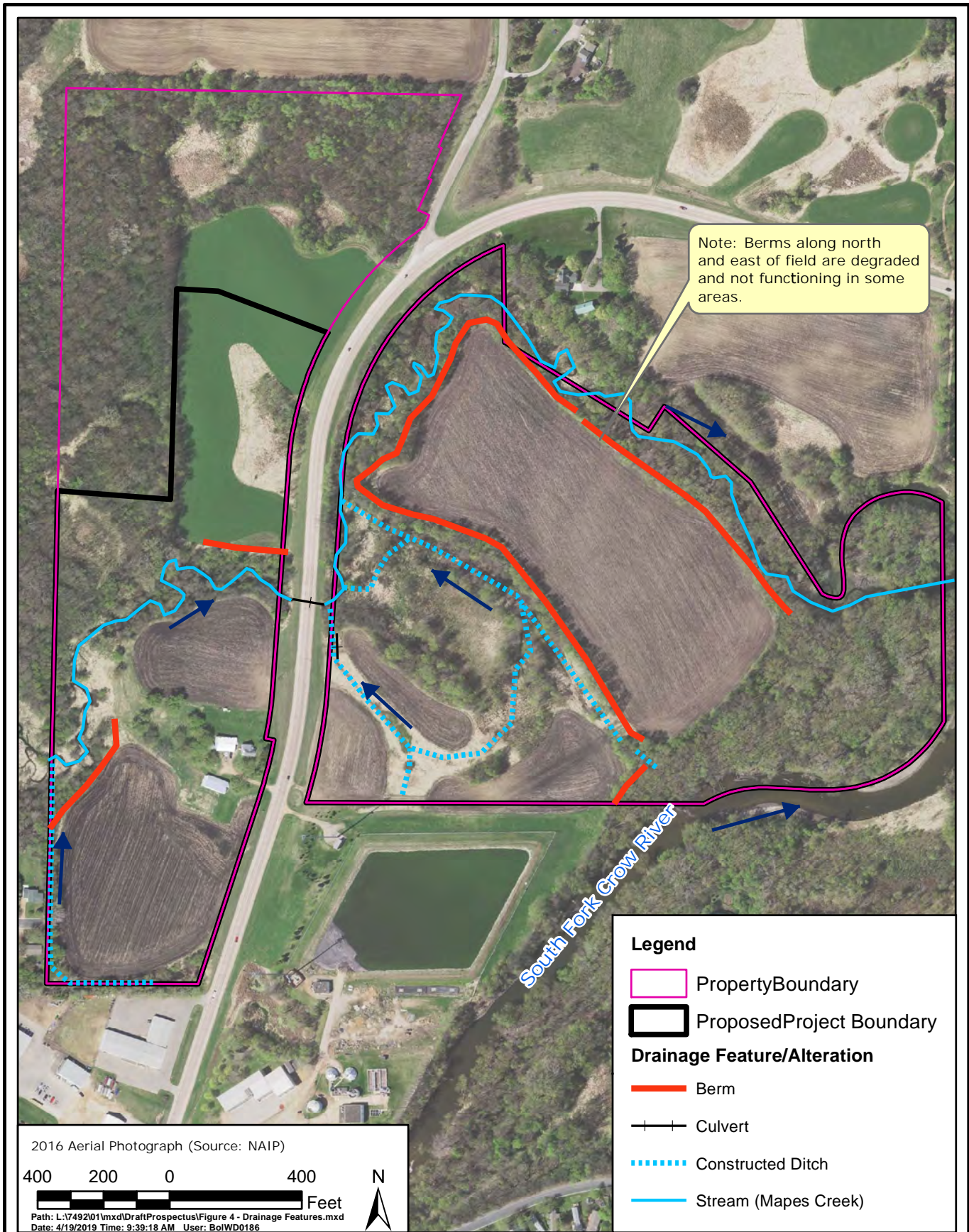
Property and Project Boundaries



Responsive partner. Exceptional outcomes.

APR 2019

Figure 2



WILLOW GLEN HYGGLIEG, LLC

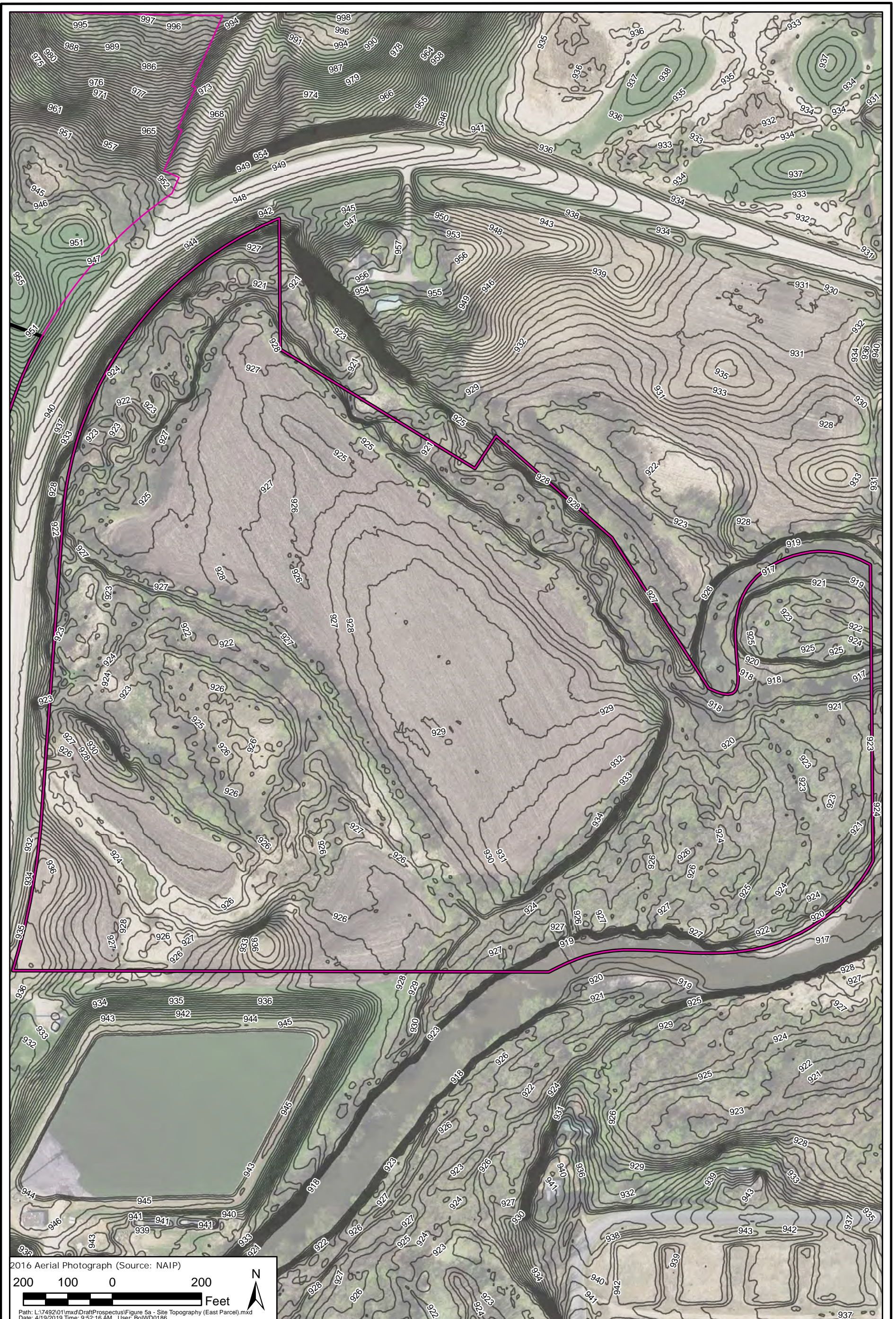
Drainage Features/Hydrology Alterations



Responsive partner. Exceptional outcomes.

APR 2019

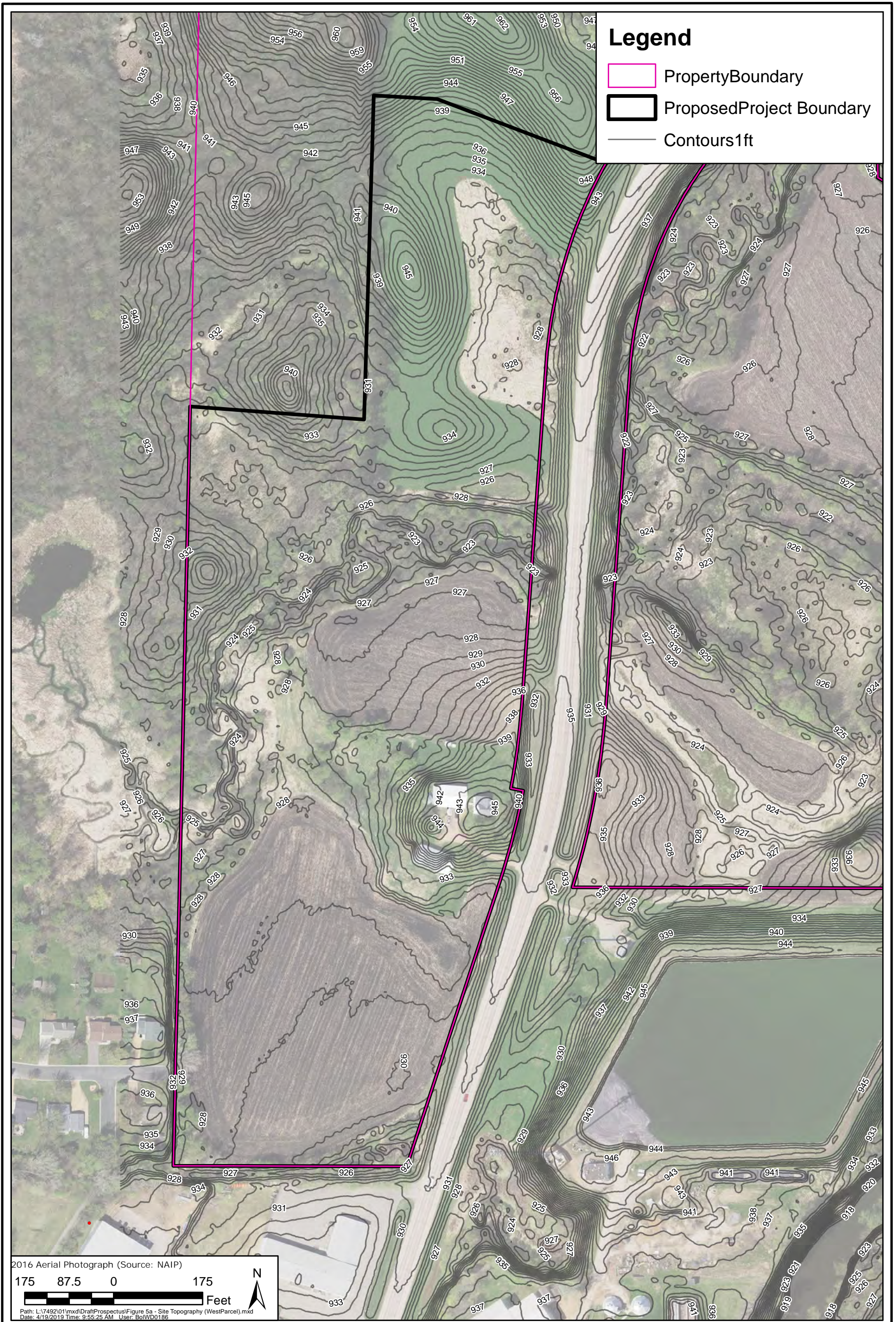
Figure 4



WILLOW GLEN HYGGLIEG, LLC
Site Topography (LIDAR) (East Parcel)



APR 2019
Figure 5a



WILLOW GLEN HYGGLIEG, LLC

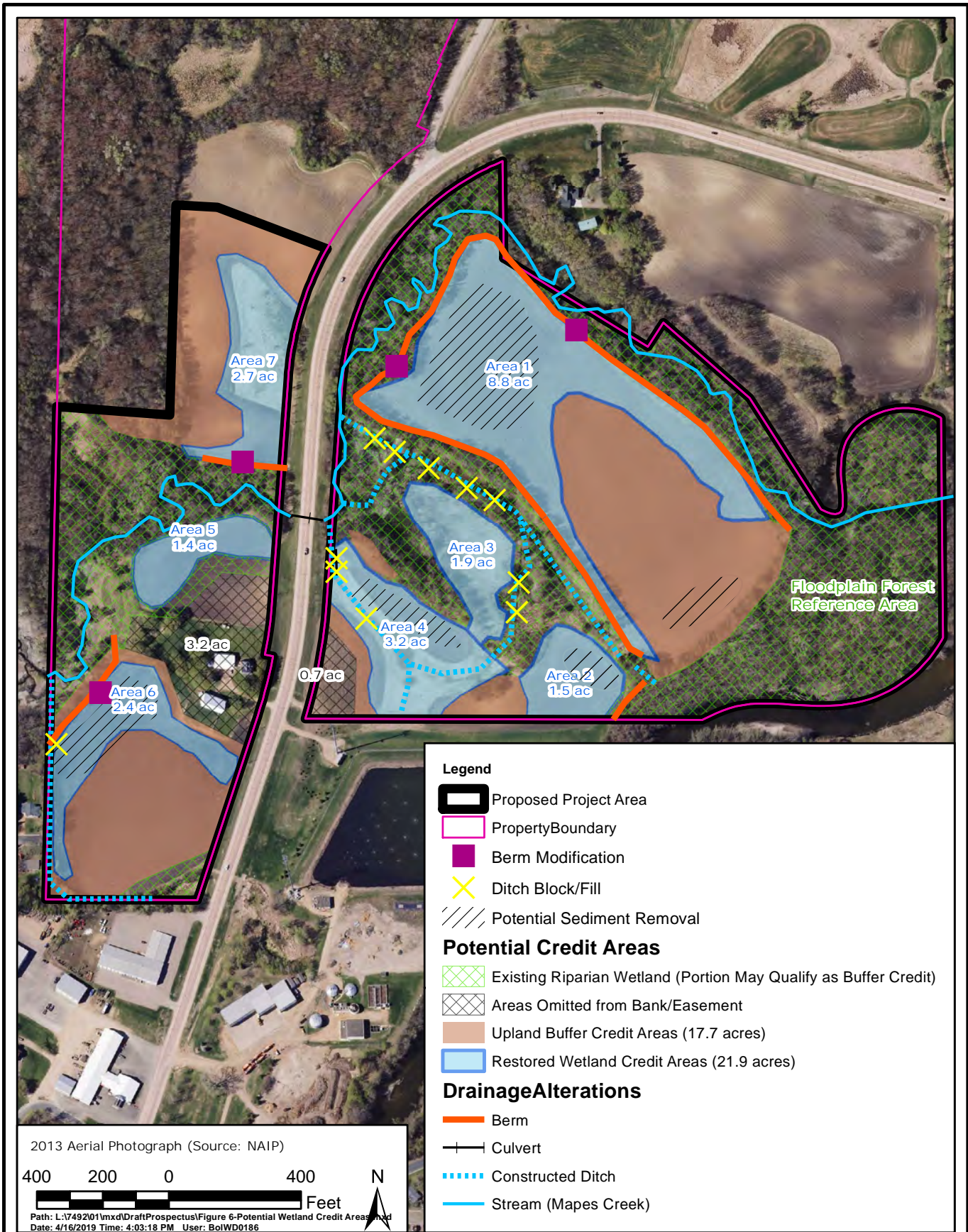
Site Topography (LIDAR) (West Parcel)



Responsive partner. Exceptional outcomes.

APR 2019

Figure 5b



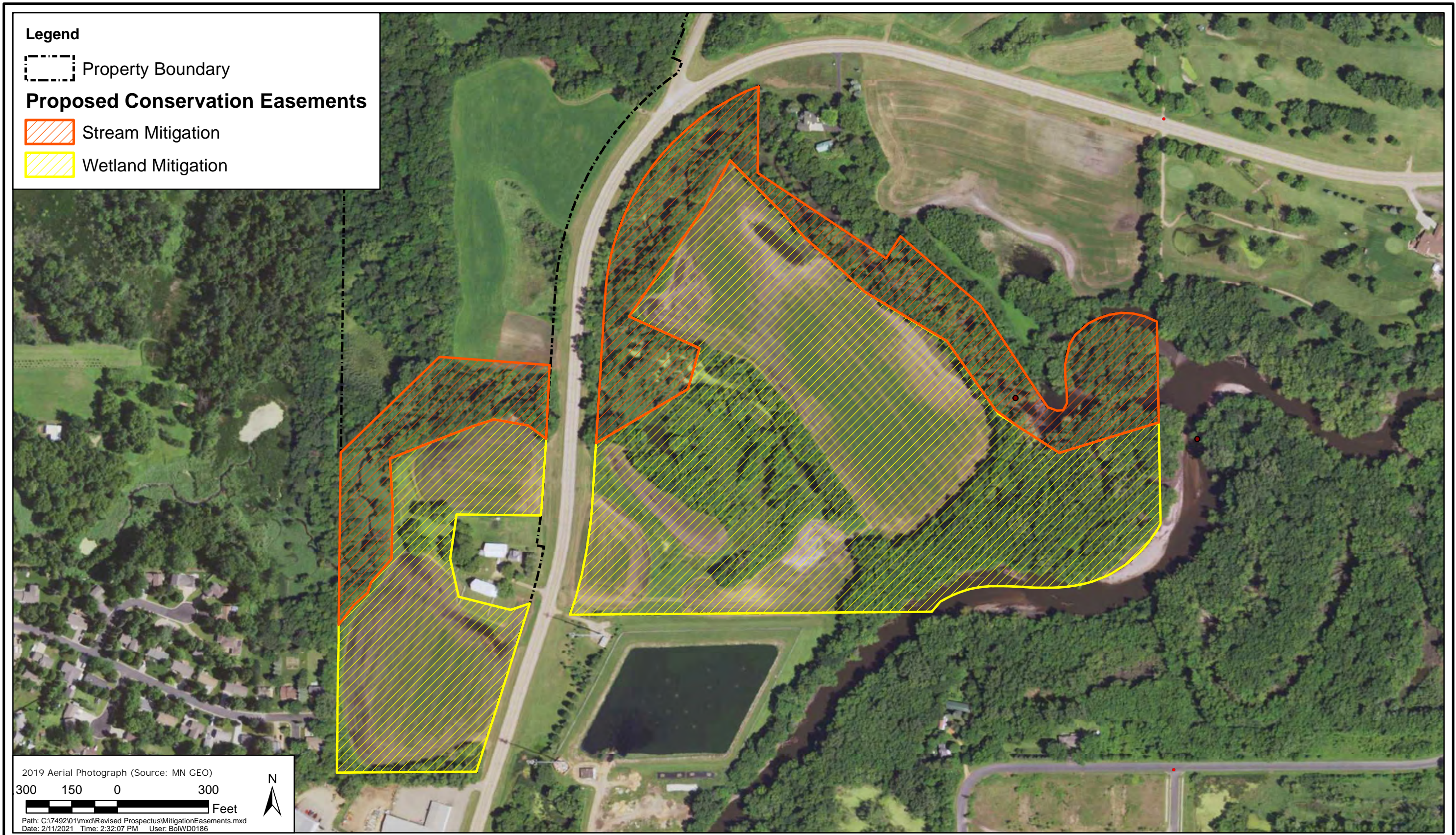
WILLOW GLEN

Potential Wetland Restoration and Credit Areas



APR 2019

Figure 6



WILLOW GLEN FARM

Proposed Conservation Easements



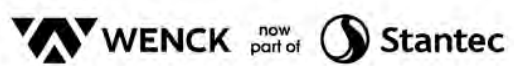
FEB 2021

Figure 2



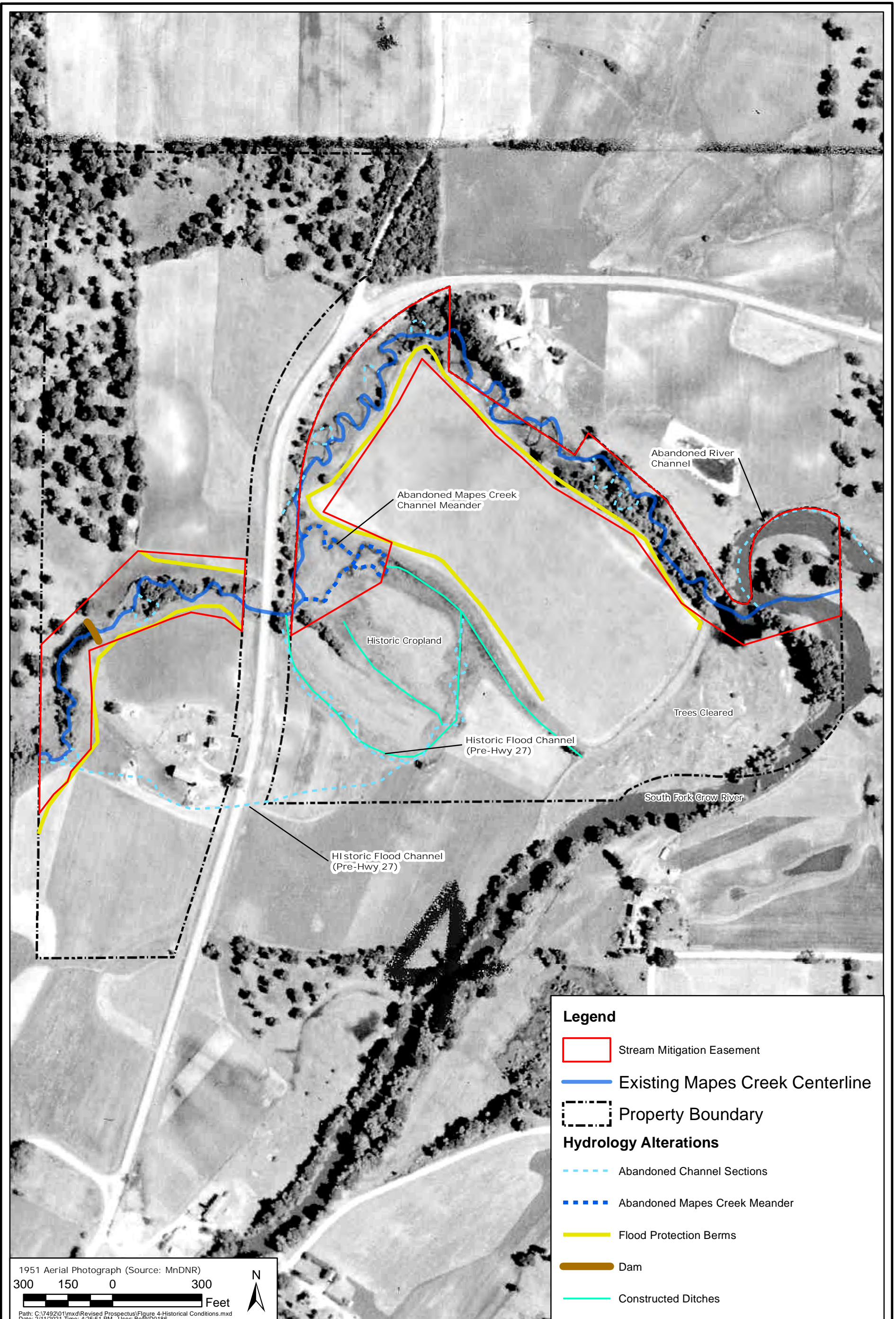
WILLOW GLEN FARM

Proposed Project Area



FEB 2021

Figure 3



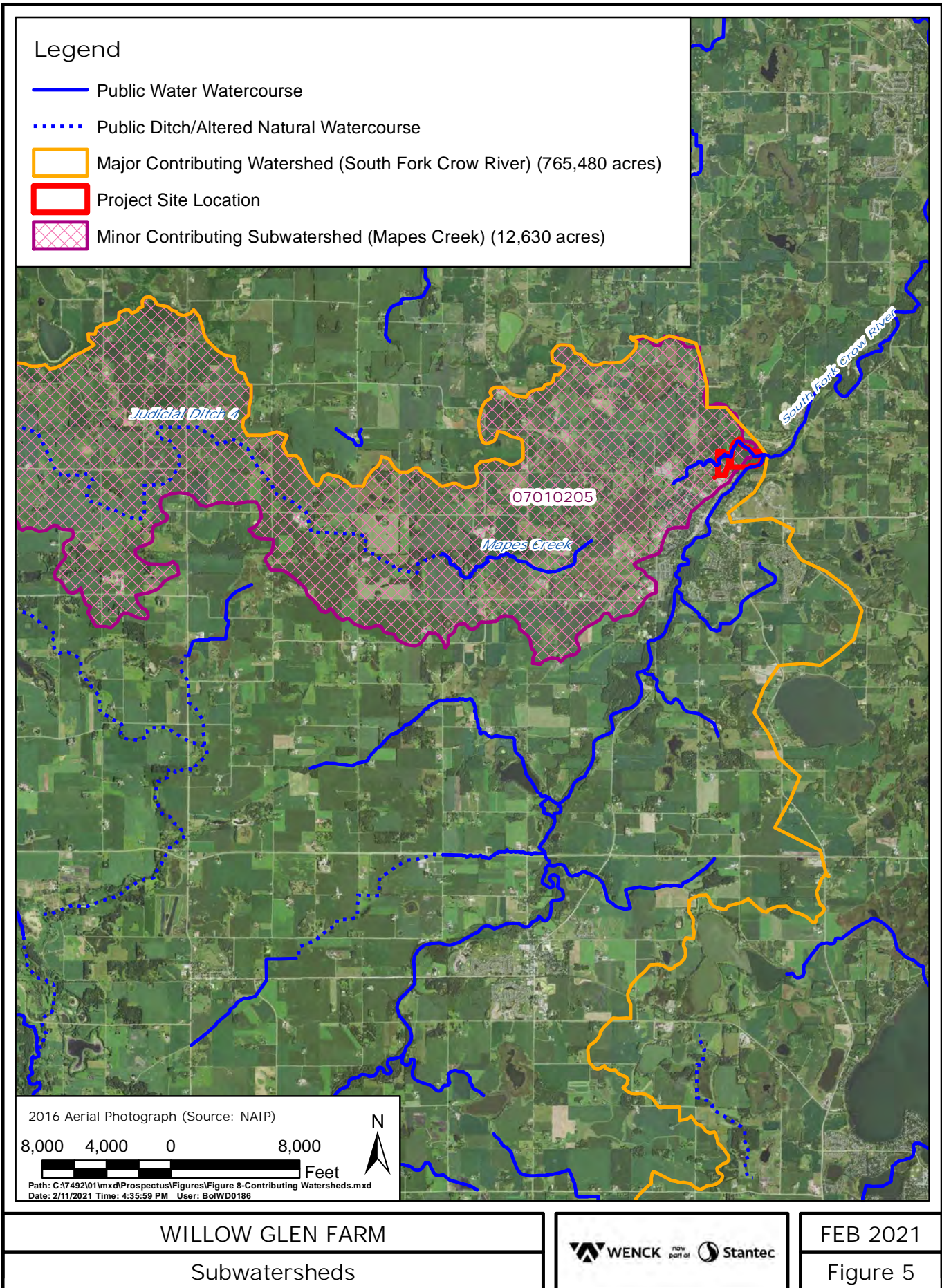
1951 Aerial Photograph (Source: MnDNR)
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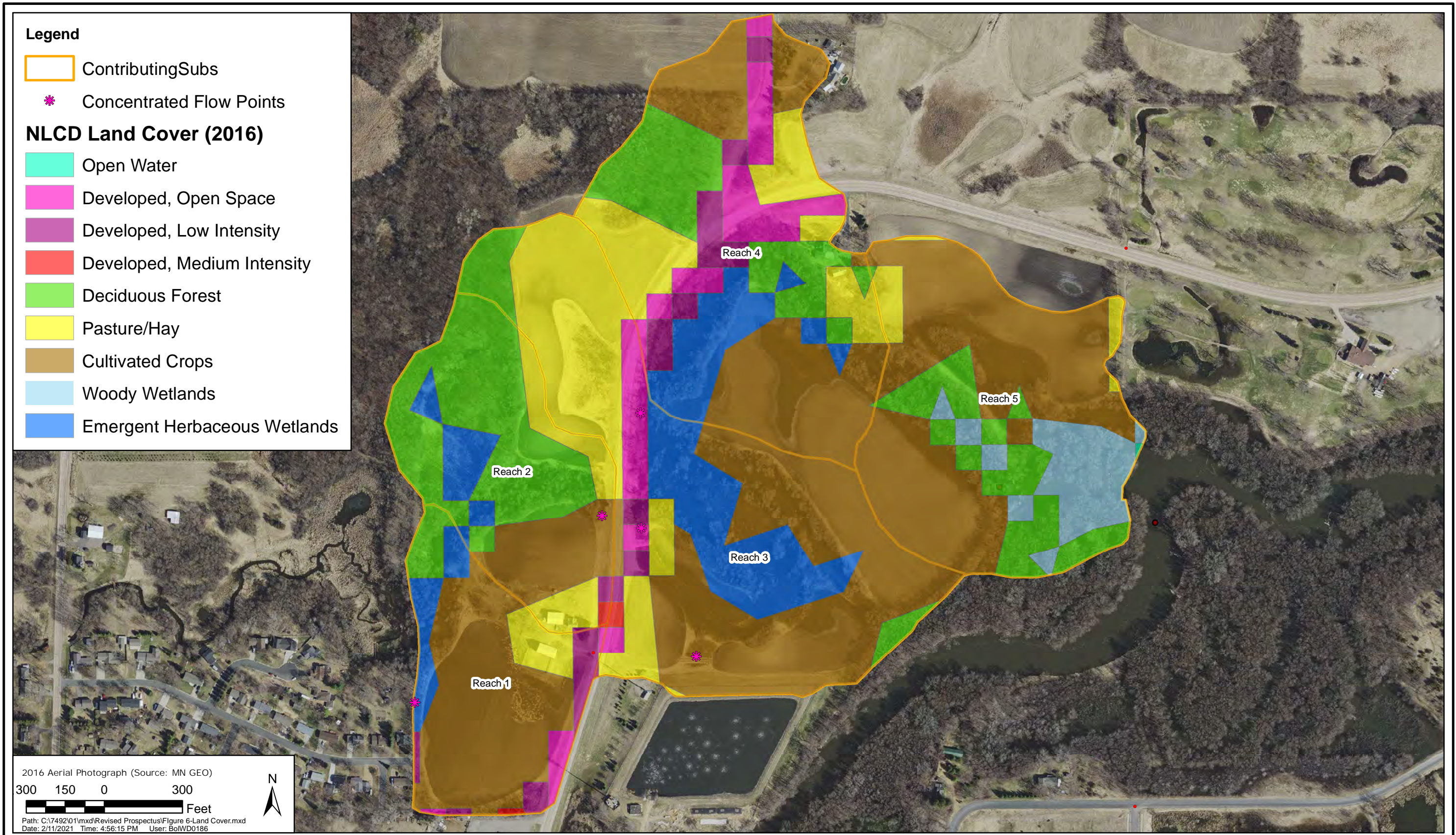
Legend

- Stream Mitigation Easement
- Existing Mapes Creek Centerline
- Property Boundary

Hydrology Alterations

- Abandoned Channel Sections
- Abandoned Mapes Creek Meander
- Flood Protection Berms
- Dam
- Constructed Ditches





WILLOW GLEN

SQT Stream Reach Land Cover (2016 NLCD)



FEB 2021

Figure 6



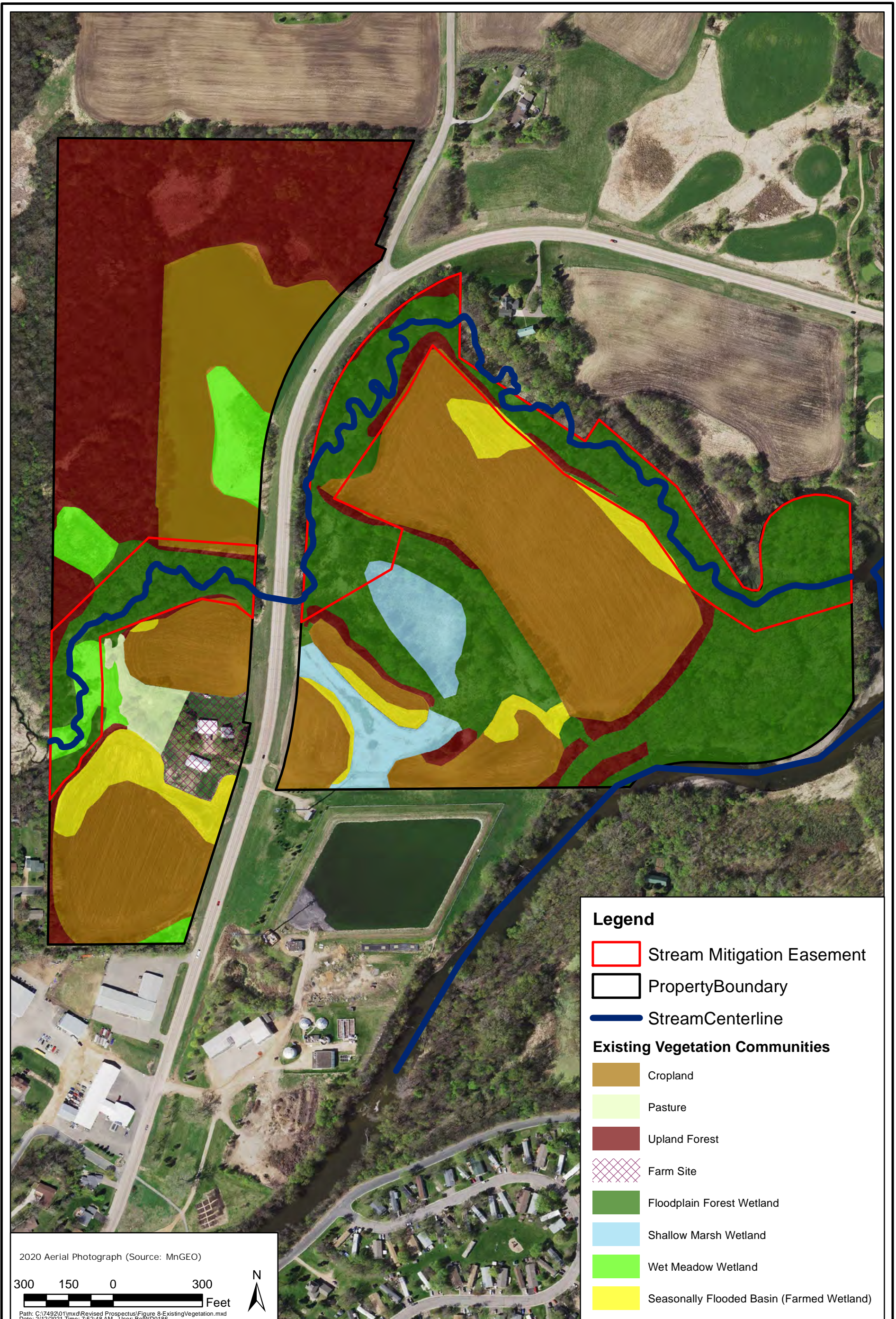
WILLOW GLEN FARM

Site Topography



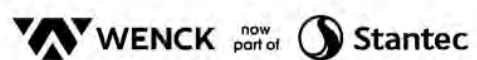
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Figure 7



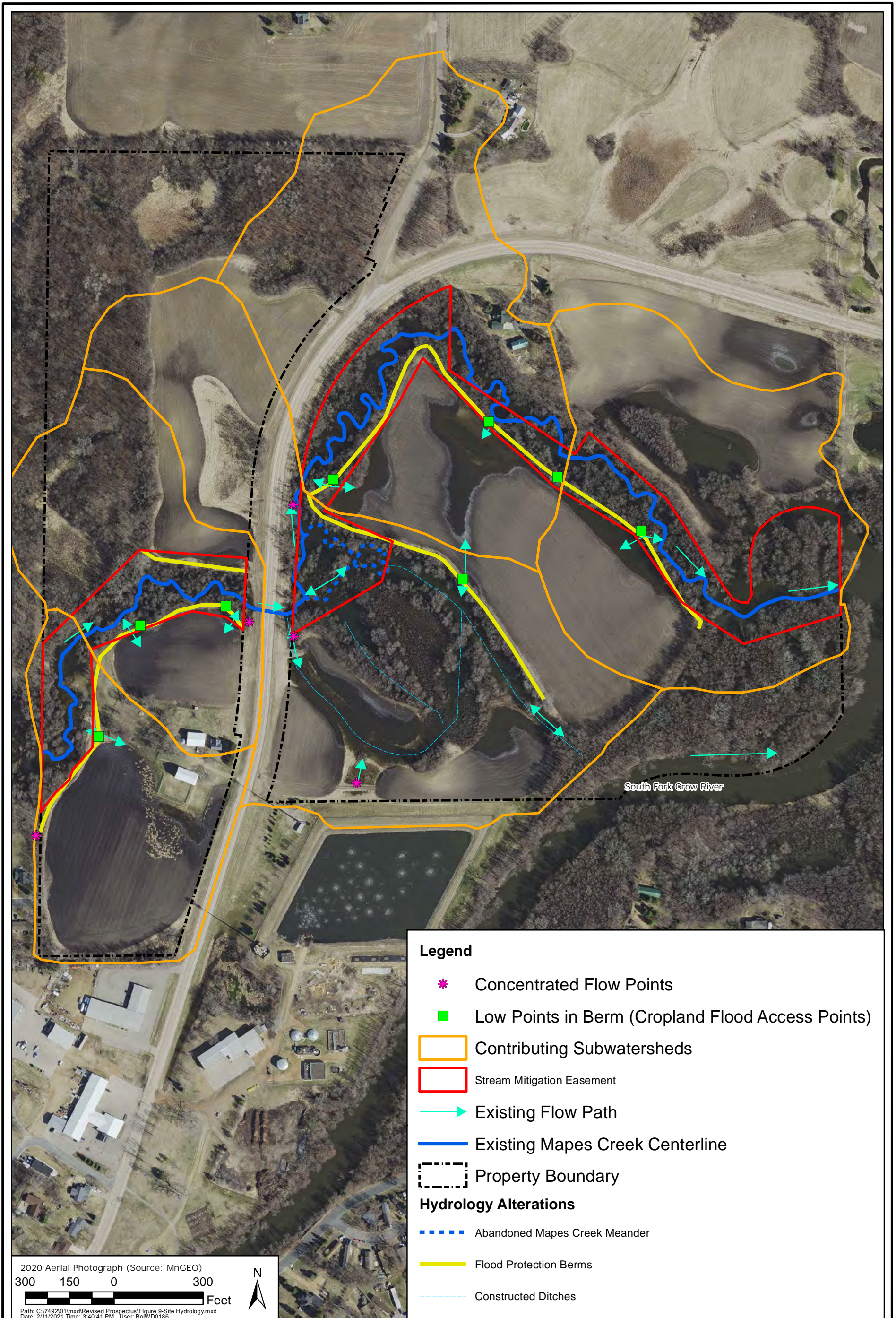
WILLOW GLEN FARM

Existing Vegetation Communities



FEB 2021

Figure 8



2020 Aerial Photograph (Source: MnGEO)
 300 150 0 300 Feet
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 Date: 2/11/2021 Time: 3:40:41 PM User: Bo\WD0186

Legend

- * Concentrated Flow Points
- Low Points in Berm (Cropland Flood Access Points)
- Contributing Subwatersheds
- Stream Mitigation Easement
- Existing Flow Path
- Existing Mapes Creek Centerline
- Property Boundary

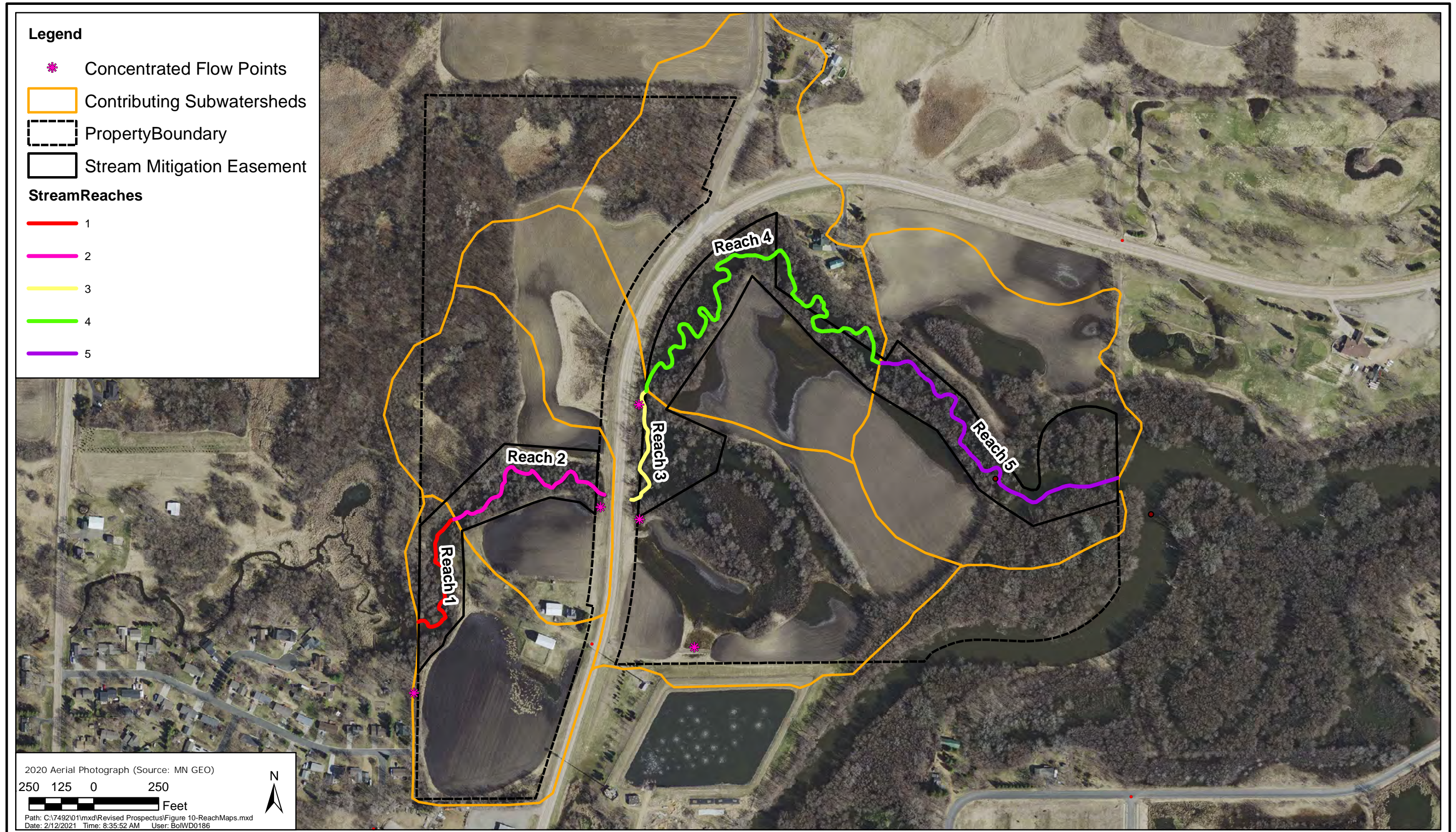
Hydrology Alterations

- - - Abandoned Mapes Creek Meander
- Flood Protection Berms
- - - Constructed Ditches

WILLOW GLEN FARM
Existing Site Hydrology



FEB 2021
Figure 9



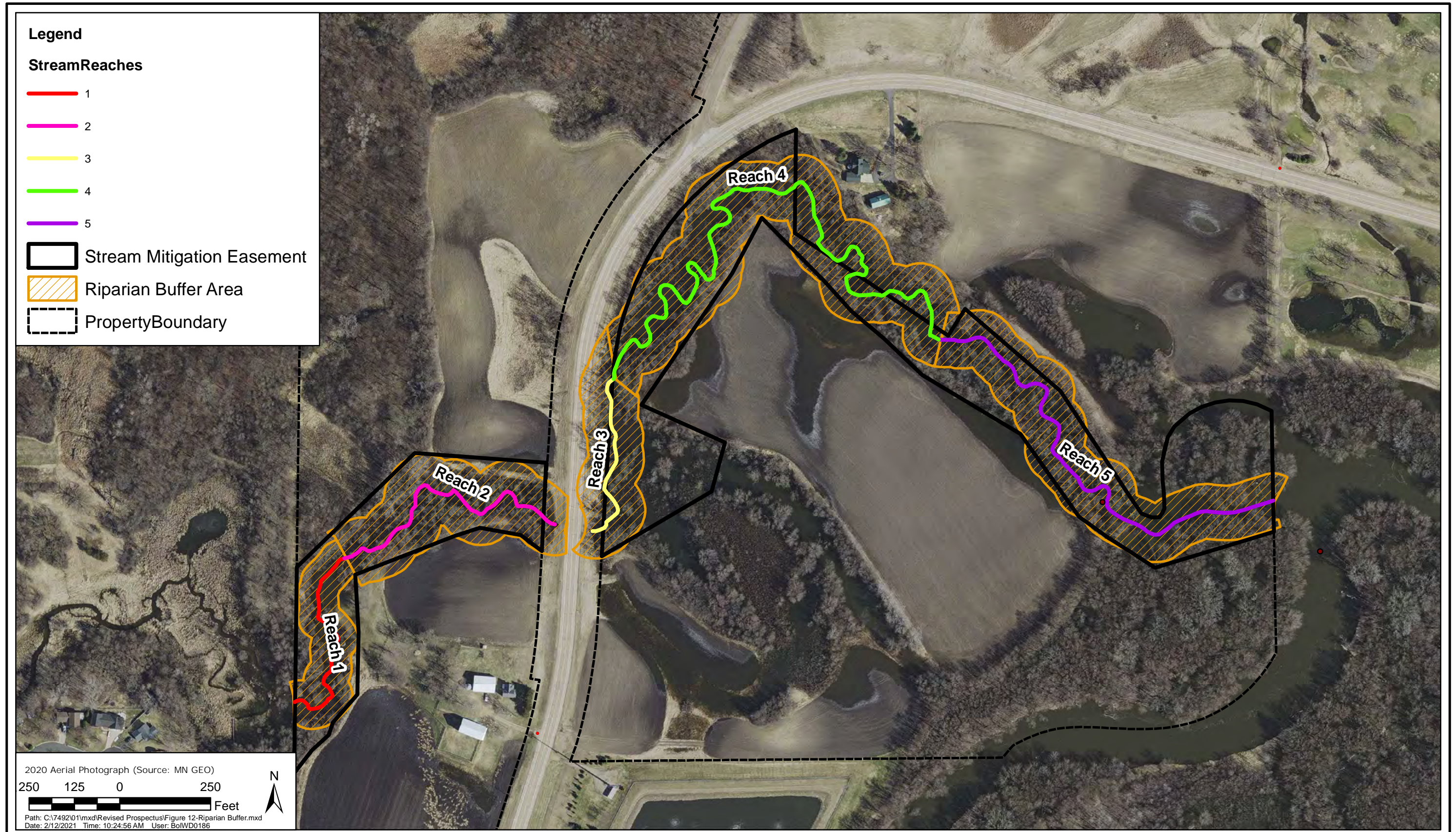
WILLOW GLEN FARM

SQT Stream Reaches



FEB 2021

Figure 10



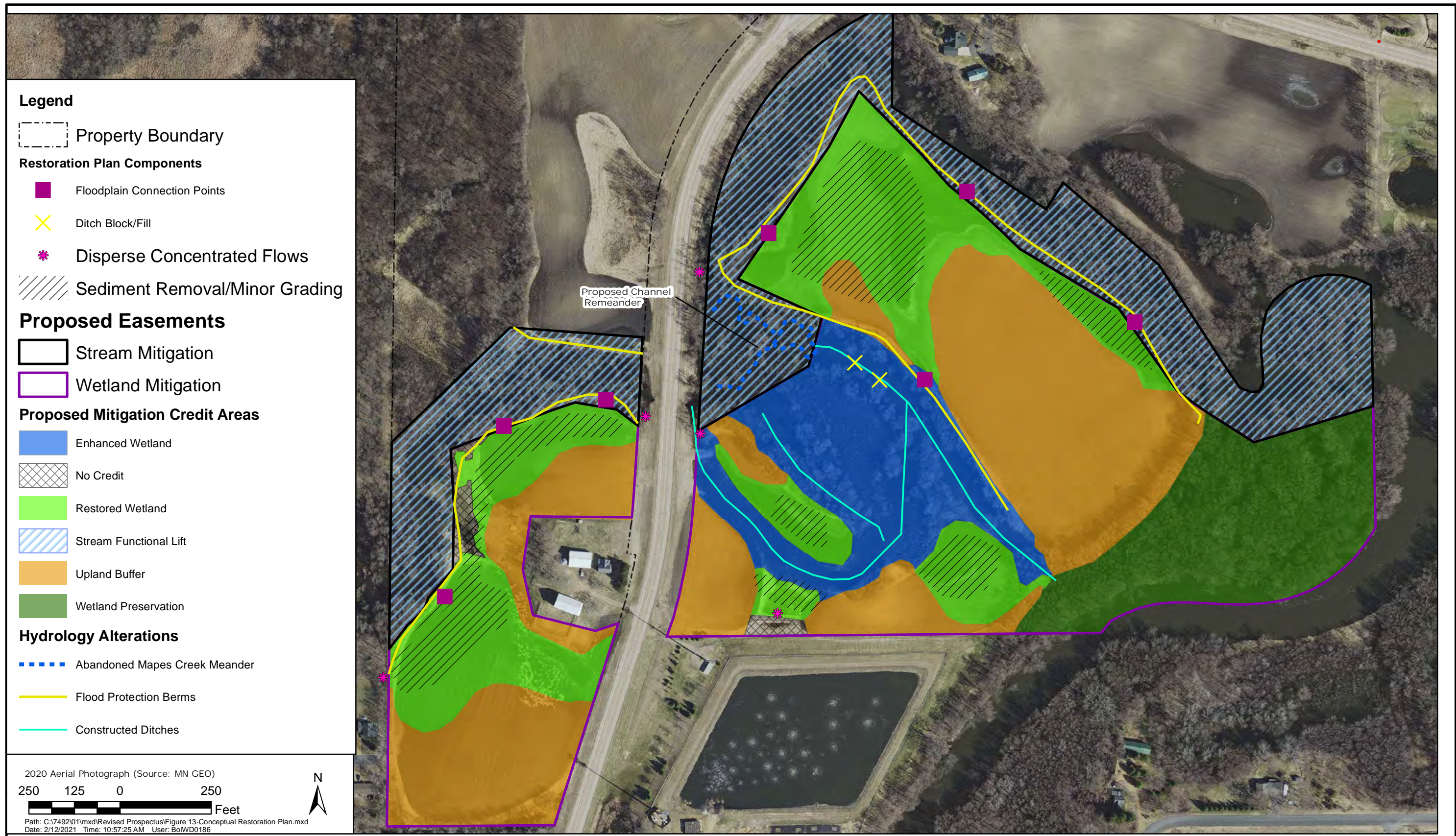
WILLOW GLEN FARM

Riparian Buffer Areas



FEB 2021

Figure 1%



WILLOW GLEN FARM

Conceptual Restoration Plan and Proposed Mitigation Credit Areas



FEB 2021

Figure 1&