PERMIT REPORT

To: Board of Managers

From: Elizabeth Showalter, Permitting Technician

Date: October 22, 2018

Re: Permit 18-501: Six Mile Creek Halsted Bay Carp Barriers, Minnetrista, Victoria, and Laketown Township

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Recommendation:
Approval of MCWD permit application on the following conditions:

1. Identification of the contractor responsible for implementing the erosion control plan, identification of location of concrete washout and submission of a dewatering plan;

Background:
The Minnehaha Creek Watershed District has applied for a Minnehaha Creek Watershed District permit for the installation of three permanent carp barriers in Six Mile Creek, as part of the Six Mile Creek-Halsted Bay Habitat Restoration project. The barriers will be installed at three separate locations, but the applicant has requested that all three be addressed in a single permit; joint analysis of the work at three sites provides efficiency without diminishing the effectiveness or applicability of the MCWD rules. The application was complete on October 11, 2018.

The project will involve installation of three barriers within Six Mile Creek, a public watercourse and judicial ditch. Individual barriers are proposed at Wasserman Lake and Crown College. The Highland Road barrier has been designed to include two barriers. Currently the applicant will only hold easements for one of the Highland Road barriers, but has requested approval of both barriers, in case the easements are able to be obtained at a later time. The goal of the project is to limit the migration of carp from Lake Wasserman to upstream/downstream waterbodies as part of an effort to control the rough fish population in the Six Mile subwatershed.

As a component of the project, temporary wetland impacts are anticipated due to construction staging. The project triggers the District's Erosion Control, Floodplain Alteration, Shoreline and Streambank Stabilization and Waterbody Crossings and Structures rules and the Wetland Conservation Act. An exception from the Waterbody Crossings and Structures Rule has been requested by the Applicant. The applicant is before the Board of Managers because of the exception request, and in keeping with policy directing board review of permits for District projects.

The applicant has applied for individual work-in-waters permits from the Department of Natural Resources, therefore is not seeking approval of the project under General Permit 2001-6009, applicable to work conducted under a District permit.

District Rule Analysis:

Erosion Control Rule

The District's Erosion Control Rule is applied to projects proposing 5,000 square feet of disturbance or 50 cubic yards of fill, excavation, or stockpiling on-site. The Applicant is proposing 5,227 square feet of disturbance, therefore the rule is triggered. In accordance with the rule provisions, the Applicant has submitted an erosion control plan which identifies erosion and sediment control best management practices, including floating silt curtain for work taking place in the water. Any area disturbed within the construction access will be stabilized with appropriate native seed mixes and mulch or erosion control blanket. Identification of responsible contractor, identification of location for concrete washout and submission of a dewatering plan (to be implemented if work occurs when the water column is not frozen through) are listed as conditions of approval and will be determined by the contractor, subject to District approval. Upon satisfaction of the recommended conditions, the project meets the Erosion Control Rule.

Floodplain Alteration

The Floodplain Alteration Rule is triggered whenever land altering activity is proposed beneath the 100 year flood elevation of any waterbody. The Applicant is proposing disturbance for the installation of the barriers below the 100 year floodplain elevation of Six Mile Creek, therefore the rule is triggered.

The District's Floodplain Alteration Rule section 3(a) requires that "fill [] not cause a net decrease in storage capacity below the projected 100-year high water elevation of a waterbody." The barriers will be installed below the Ordinary High Water elevation of the creek (defined as the top of bank), therefore no (flood) storage capacity will be lost. Therefore the criteria of section 3(a) has been met.

Section 3(b) of the rule requires no increase in the 100-year flood elevation of a watercourse. The project will result in an increase in the 100-year flood elevation at Wasserman Lake and between the two barriers proposed for Highland Road, which is discussed in more detail in the in Waterbody Crossings and Structures Rule, for which an exception has been requested. The change in flood elevation is due to the construction of a new hydraulic structures below the Ordinary High Water level of the watercourse rather than a result of floodplain fill, therefore analysis of section 3(b) of the rule and the request for an exception for the elevation increase is provided under the Waterbody Crossings and Structures section.

Because there is no fill within the floodplain of a water basin, section 3(c) of the rule does not apply to this project.

Section 3(d) of the rule requires that no new impervious surface be created in the lesser of 25 feet of the centerline of a watercourse or the 10 year floodplain, unless that surface is an integral

component of a linear public roadway or trail. No new impervious surface is proposed, complying with section 3(d).

Section 3(e) of the rule is not applicable, as no ice ridge grading is proposed.

Section 3(f) of the rule requires that the low openings to all new structures be a minimum of 2 feet above the 100 year high water elevation. The new structures proposed by the projects do not have openings and the grades surrounding all existing structures are at least 2 feet above the proposed 100 year elevations. The project is in conformance with the section of the rule.

The project meets the Floodplain Alteration Rule.

Wetland Protection

The buffer provision of the Wetland Protection Rule is applicable whenever any of the Wetland Protection, Stormwater Management or Waterbody Crossings and Structures rules are triggered. Because the Waterbody Crossings and Structures Rule is triggered, the buffer provision of the Wetland Protection rule is applicable.

The project areas contains a fringe wetlands present along the banks and surrounding area of Six Mile Creek. The Applicant is not the fee owner of the properties on which the barriers will be constructed, and the easements held by the applicant provide only rights to enter to construct and maintain the barriers. Therefore, since the applicant does not have land-use rights allowing for establishment and maintenance of wetland buffers, no wetland buffers are required.

Shoreline and Streambank Stabilization

The Shoreline and Streambank Stabilization Rule regulates alterations and improvements to the banks of watercourses. The project is proposing placement of riprap on the streambanks of Six Mile Creek around the barriers to prevent carp from digging around or below the barriers, triggering the rule.

Per section 4(a) of the rule, applications for streambank stabilization must complete and report calculations to document bankfull stream velocity and shear stress. The Applicant has submitted calculations documenting the shear stress for all areas of Six Mile Creek, which was found to be less than 2.5 lbs/sq. ft. Based on this information, the Applicant has met section 4(a) of the rule.

Per section 4(b) of the rule, the proposed stabilization practice must be consistent with the shear stress calculated. As noted above, the Applicant's submittals detail shear stresses of less than 2.5 lbs/sq. ft, which corresponds to the utilization of biological stabilization techniques only. The Applicant has requested Design Flexibility under section 5 of the rule, as they believe the shear stress calculation does not account for the erosion potential of carp attempting to dig around the barriers.

Per section 5 of the rule, the District may approve alternative stabilization techniques if the applicant provides sufficient evidence to demonstrate that the proposed stabilization practice represents the minimal impact solution with respect to all other reasonable alternatives. The riprap is proposed to prevent erosion caused by the carp, which are not characterized in the shear stress equation, which is based on the depth and slope of the stream. Based on the analysis of staff and the District Engineer, the Applicant has sufficiently demonstrated the need for structural stabilization through the Design Flexibility criteria.

Per section 6(a) of the rule, the applicant must demonstrate:

- The installation of structural stabilization practices occurs only where there is a demonstrated need to prevent erosion or to restore eroded shoreline/streambank;
    - The applicant has provided plans showing that hard armoring will be limited to the carp barriers themselves and analysis demonstrating that the placement of riprap is required to prevent erosion and ensure the barriers will function. Based on staff and the District Engineer's analysis, the Applicant has met this criteria of the rule.
- Removal of native vegetation within the streambank stabilization zone is limited; clear cutting within the access corridor is prohibited and native vegetation must be preserved or replaced when disturbed outside of the access corridor;
    - The access corridor has been selected to minimize removal of trees and will be revegetated with native seed to reestablish healthy vegetation. Based on staff and the District Engineer's analysis, the Applicant has met this criteria of the rule.
- Stabilization practices are installed at a 3:1 slope or flatter where practical or feasible;
    - The riprap will be primarily placed at the bottom of the stream, at a flat slope. The riprap will be field fit and no portion of the project will involve placement of riprap at a slope greater than 2:1. Based on staff and the District Engineer's analysis, the Applicant has met this criteria of the rule.
- Encroachment from streambanks shall be minimized to the greatest extent practical to limit hydraulic impacts.
    - Riprap has been limited to only the area where carp are likely to attempt to dig around or under the barrier. The effect of the riprap on hydraulic capacity was included in the analysis of the impact from the barriers themselves, which is discussed under the Waterbody Crossings and Structures Rule. The applicant has met this criteria of the rule.
- Stabilization practices cannot reduce the cross-sectional area of the channel nor result in a net increase in the flood stage upstream or at the site of the streambank stabilization practice unless it can be demonstrated to not exacerbate high-water conditions;
    - The cross-sectional area of the channel will not be changed by the placement of the rip rap. Furthermore, the effect on cross-sectional area of the channel is

analyzed under the Waterbody Crossings and Structures Rule. Based on the analysis of staff and the Engineer, the Applicant has met this criteria of the rule.

- Streambank stabilization practices shall conform to the natural alignment of the bank;
    - The stabilization practices will not change the alignment of the bank.
- The design shall reflect the engineering properties of the underlying soils and any soil corrections or reinforcements. For a streambank, design shall conform to engineering principles for the hydraulic behavior of open-channel flow;
    - The Applicant has submitted plans, cross-sections, and hydraulic modeling to demonstrate conformance with this criteria of the rule. Based on staff and the District Engineer's analysis of the submittals, the barriers and riprap placement are designed to reflect the properties of the underlying soils. Based on staff and the District Engineer's analysis, the Applicant has met this criteria of the rule.
- For sites involving aquatic plantings or removals, a separate Aquatic Plant Management Permit shall be obtained from the DNR, when applicable;
    - No aquatic plant management is proposed, therefore the criteria is not applicable.
- Any work below the OHW shall be encircled by a floatation sediment curtain.;
    - Floating silt curtain is shown on the proposed plans.

In summary, the Applicant has demonstrated, and staff and the District Engineer concur that all applicable aspects of section 6(a) of the rule have been met.

Section 6(b) references design criteria for biological and bioengineered stabilization practices. The proposed stabilization is entirely structural, therefore this section is not applicable to the project.

Per section 6(c) of the rule, the applicant must meet the following criteria for structural stabilization:

- Hard-armoring inert material, such as riprap, shall be considered wetland fill only if proposed to be placed within an area identified as wetland.
    - Plans, cross-sections, wetland materials, and narrative submitted by the Applicant show that no hard-armoring will be placed within a wetland, therefore, the Applicant has met this criteria of the rule.
- Riprap shall extend no higher than the top of the bank, or two feet above the 100-year high water elevation, whichever is lower;
    - Per the plans and cross-sections submitted by the Applicant, staff and the District Engineer have determined that hard-armoring stabilization practices will be placed at the top of the bank, below the 100-year flood elevation of the new channel. Based upon this analysis, the Applicant has met this criteria of the rule.
- Riprap materials shall be durable stone meeting the size and gradation requirements of MnDOT Class III or IV riprap. Toe boulders shall be at least 50% buried and may be as large as 30 inches in diameter.

    - Per the plans, cross-sections, and specifications submitted by the Applicant, staff and the District Engineer have determined that the materials utilized for hard-armoring meet the criteria for MnDOT Class III riprap, and all toe boulders are anchored at least 50% in the underlying substrate. Based upon this analysis, the Applicant has met this criteria of the rule.
- A transitional granular filler meeting requirements of MnDOT 3601.B, at least 6 inches in depth, shall be placed between the native shoreline and the riprap to prevent erosion of fine grained soils. A geotextile filter fabric meeting the requirements of MnDOT 3733 shall be placed beneath the granular filler where appropriate.
    - Per the plans, cross-sections, and specifications submitted by the Applicant, staff and the District Engineer have determined that the granular filler and geotextile fabric meet the requirements and specifications of MnDOT 3601.B and MnDOT 3733. Based upon this analysis, the Applicant has met this criteria of the rule.
- Structural stabilization practices, including riprap, are recommended to include plantings between individual boulders or native upland plantings to retard runoff and prevent erosion wherever feasible and practical.
    - Plantings between individual boulders may undermine the efficacy of the barriers and therefore has not been included in the plans.

In summary, the Applicant has demonstrated, and staff and the District Engineer concur, that all applicable aspects of section 6(b) and (c) of the rule have been met.
Section 8(a-d), and 9(a-c) of the rule are not applicable, as no sandblankets are proposed with the project.

Section 10(a-d) of the rule are not applicable, as no retaining walls are proposed with the project.

Section 11 of the rule is not applicable, as no boat ramps or other shoreline improvements are proposed.

In summary, based on the analysis of staff and the District Engineer provided above, the applicant has met all the applicable criteria of the Shoreline and Streambank Stabilization rule.

<u>Waterbody Crossings and Structures</u>
The Waterbody Crossings and Structures Rule is triggered whenever a structure is placed in the bed or bank of a waterbody. The project proposes placement of three permanent carp barriers in Six Mile Creek, therefore the rule is triggered. The barriers are proposed to be made of metal bars with precast concrete in the bed of the stream. The bar sections may be removed to allow other fish species to travel. Many smaller species of fish will be able to cross the barrier without removal of a section of the barrier. Chain link fence is proposed on either side of the metal and concrete portions to prevent carp movement around the barriers.

Per section 3(a) of the rule, the use of the bed or bank shall meet a demonstrated public benefit. The purpose of the project is to manage common carp in the subwatershed. Carp are a significant driver of habitat degradation in the subwatershed, as evidenced by a study completed by the University of Minnesota AIS research center and submitted by the applicant that identified carp concentrations across the 14 lake system. The barriers will prevent adult carp from returning to spawning areas to decrease carp population, create smaller management areas for carp removal, and aid in removal from the stream channel. Based on staff and the District Engineer's assessment of the narrative and calculations, the Applicant has met this criteria of the rule.

Per section 3(b) of the rule, use of the bed or bank shall retain adequate hydraulic capacity, and may not result in upstream or downstream increases in flood stage. The project will result in a rise in floodstage for Wasserman Lake and a wetland between Highway 7 and Highland Road. The applicant has requested an Exception from this requirement, which has been analyzed in detail under the Exception section of this report.

Table 1: Existing and Proposed 100-year High Water Elevations

Site Location	Description	Node ID	Updated Existing (ft)	Proposed (ft)	Change (ft)
Wasserman	Wetland, Upstream (US) of Wasserman Lake	SMC-4FN2	953.40	953.40	0.00
	Wasserman Lake, US of barrier	SMC-5	946.52	946.55	**0.04**
	Downstream (DS) of barrier	SMC-5 FN1	946.28	945.97	-0.31
	DS of barrier	SMC-11a	945.51	945.41	-0.10
	Wetland, DS of HWY 43	SMC-11	945.23	945.18	-0.05
Highland Road	Mud Lake, US of barrier	SMC-61	930.71	930.70	-0.01
	US of barrier, DS of HWY 7	SMC-61b	929.89	930.06	**0.17**
	DS of Highland Road	SMC-66	929.83	929.82	-0.01
Crown College	Wetland US of barrier	SMC-43 FN2	936.39	936.39	0.00
	Parley Lake, DS of barrier	SMC-47	930.71	930.71	0.00

Section 3(d) of the rule requires projects to preserve aquatic and upland wildlife passage. The purpose of the project is to prevent passage of Common Carp, and therefore the project will not be preserving aquatic passage. The Applicant has requested an exception from this requirement. There will be no impact to upland wildlife passage.

Per section 3(e) of the rule, use of the bed or bank shall not adversely affect water quality. The project has been designed to improve water quality in Six Mile Creek and Halsted Bay by reducing the Common Carp population, and invasive species. Reducing the Common Carp population will reduce turbidity and nutrient levels, and therefore the project will improve water

quality. Based on this analysis, staff and the District Engineer have determined that the Applicant has met this criteria of the rule.

Per section 3(f) of the rule, the use of the bed or bank shall represent the "minimal impact" solution to a specific need with respect to all other reasonable alternatives. The Applicant provided two alternative options considered. The no-build scenario was considered, but was discarded because carp are a significant driver of degraded conditions in the subwatershed. Additionally, other management strategies, such as alum treatment in shallow lakes, are not effective if carp are at their current levels. Restoration of the habitat and reduction of downstream water quality impacts cannot be achieved without the barriers. The second alternative explored was continuing to utilize temporary barriers. The Applicant determined that temporary barriers are not a viable long term management strategy, as they cannot ensure the necessary level of protection due to the unpredictable movement of carp and the need to install the barriers prior to spring melt. Furthermore, temporary barriers have a greater impact due to the carp attempts to go under or around the barriers, disturbing bottom sediment further. The proposed permanent barriers will have a reduced disturbance of bottom sediments after installation. Lastly, a temporary barrier is not feasible at Highland Road due to channel dimensions and site access.

Section 3(g) of the rule is not applicable, as no bored utility lines are proposed underneath the bed or bank of a watercourse.

Section 3(h) of the rule is not applicable, as no installation, modification, or excavation of sanitary sewer is proposed as a component of this project.

In summary, the proposed barriers have been determined by staff and the District Engineer to meet the criteria of the Waterbody Crossings and Structures rule.

Per section 6 of the rule, maintenance requirements for the crossings will be met through the Operations and Maintenance plan developed by the District.

In summary, based on the analysis of staff and the District Engineer provided above and aside from the hydraulic capacity (flood elevation increase) and wildlife passage criteria from which the applicant has requested an except, the applicant has met all the applicable criteria of the Waterbody Crossings and Structures rule.

Wetland Conservation Act

The Wetland Conservation Act regulates impacts to wetlands. The District acts as the Local Government Unit for implementation of the WCA in Victoria and Laketown Township. The City of Minnetrista acts as LGU within its jurisdiction. Under Minnesota Rule 8420.0200, subpart 1F & I, WCA decisions for projects spanning multiple LGUs are made by the LGU with the greatest portion of the impacts within its boundaries. As two of the three barriers are located within the

District's LGU boundary, the District is acting as LGU. The City of Minnetrista has waived administration of WCA for this project to the District. Access to the barrier locations will disturb some wetland areas. The proposed plans include a restoration of any disturbed area with a native seed mix appropriate to the saturated soil conditions.

Under 8420.0415 H, impacts to wetlands that are restored to preproject conditions within 6 months in accordance with specific related criteria meet no-loss criteria. Staff determined that the proposed restoration plan met the requirements of the WCA. During the notice period for the WCA application, the Board of Water and Soil Resources commented that the project would meet the no-loss criteria. Staff approved the WCA application on September 21, 2018 (see Attachment 3).

Exception

The Variance and Exception Rule allows the Board of Managers to grant exceptions from a provisions of the rules on a determination that the proposed application will achieve a greater degree of water resource protection than strict compliance with the provision. The applicant has requested an Exception from two sections (3(b) & 3(d)) of the Waterbody Crossings and Structures Rule, dealing with adequate hydraulic capacity (and the associated flood-elevation criterion in subsection 3(b) of the Floodplain Alteration Rule) and aquatic wildlife passage. This section analyzes the specifics of the Exception requests and provides additional analysis on the resource benefits achieved through implementation of the project.

Per section 3(b) of the Waterbody Crossings & Structures rule, adequate hydraulic capacity includes no increase in flood stage for watercourses. The proposed project will result in an increase in the 100 year flood elevation for Wasserman Lake of 0.04 feet and an increase in the 100 year flood elevation of the wetland between Highland Road and Highway 7 of 0.17 feet. The Applicant has submitted a risk analysis in conjunction with their hydraulic modeling demonstrating, the increases in floodplain elevation will not impact any existing structures (Attachment 4).

The areas of proposed flood stage increases are located within FEMA floodplains, designated Zone A, which do not have defined floodplain elevations and are outside of the floodway. The Applicant has submitted information demonstrating that the project meets DNR no-rise criteria and has submitted no-rise certificates to the appropriate floodplain authorities (The Cities of Victoria, Minnetrista, and Laketown Township).

Per section 3(d) of the Waterbody Crossings & Structures rule, aquatic and upland passage must be preserved. The proposed project is designed to prevent passage of carp, which conflicts with the requirement to maintain aquatic passage. The Applicant will be minimizing the impact on other wildlife through regular inspections. Staff will manually assist wildlife to cross the barrier (by net or electrofishing) and raise the barrier as needed to allow other species of fish to pass

during spawning times (particularly Northern Pike, which spawn earlier than carp). The design and management of the barrier will allow wildlife passage for all species other than carp.

The intent and goal of the Applicant's proposed project is to efficiently remove carp, an aquatic invasive species, from the Six Mile Creek subwatershed. The Applicant provided published scientific studies demonstrating the Six Mile Creek subwatershed to be the second largest contributor of phosphorus to Lake Minnetonka. The Applicant provided further studies conducted by the University of Minnesota Aquatic Invasive Species Research Center from 2014-2017 which concluded common carp to be a major contributor to sediment resuspension causing elevated transport of phosphorus, and habitat degradation within the Six Mile corridor. The proposed project incorporates designs that limit the migration of carp to prevent Carp from reaching spawning locations, but do so in a manner that, in part, does not comport with the applicable MCWD regulatory criteria cited.

This effort exists as part of a three prong approach in the subwatershed that will ultimately restore 2,488 acres of littoral habitat, directly benefit and enhance game fisheries (bass, panfish, and northern pike), and enhance support of more than 75 bird species and 20 species of migratory waterfowl.

The Applicant has determined via hydraulic and hydrologic analysis that the project cannot be designed to meet either of the criteria for which the exception has been requested, and still meet the project goal of impeding carp movement in the subwatershed. The Applicant has provided evidence that the project will result in improved water quality through the minimization of sediment resuspension caused by the carp and that the project will improve the habitat for other native species of fish. These goals cannot be thoroughly addressed through other means. As stated above, the natural resource benefits of the project include, restoration of habitat for native species, reduced turbidity, and reduced phosphorus loading.

Summary:
The Minnehaha Creek Watershed District has applied for a Minnehaha Creek Watershed District permit under the Erosion Control, Waterbody Crossings and Structures, Shoreline and Streambank Stabilization, and Variance and Exception rules for the installation of carp barriers in three locations on Six Mile Creek. The proposed project meets the applicable requirements under the applicable rules, upon satisfaction of the recommended conditions and approval of the Exception by the Board of Managers. Staff recommends approval of the permit with the conditions listed.

Attachments:
1. Application Form
2. Site Plans
3. WCA Notice of Decision
4. Floodplain Exhibits

Print Form

WATER RESOURCE PERMIT APPLICATION FORM

Use this form to notify/apply to the Minnehaha Creek Watershed District (MCWD) of a proposed project or work which may fall within their jurisdiction. Fill out this form completely and submit with your site plan, maps, etc. to the MCWD at:
15320 Minnetonka Blvd. Minnetonka, MN 55345.
Keep a copy for your records.

YOU MUST OBTAIN ALL REQUIRED AUTHORIZATIONS BEFORE BEGINNING WORK.

1. Name of each property owner: Minnehaha Creek Watershed District (easement in process)
Mailing Address: 15320 Minnetonka Blvd City: Minnetonka State: MN Zip: 55345
Email Address: abrown@minnehahacreek.org Phone: 952-641-4522 Fax: _____

2. Property Owner Representative Information (not required) (licensed contractor, architect, engineer, etc…)
Business Name: _____ Representative Name: _____
Business Address: _____ City: _____ State: _____ Zip: _____
Email Address: _____ Phone: _____ Fax: _____

3. Project Address: 3211724130004; 3211724110002; 650230200; 070060700 City: Minnetrista, Laketown, Victoria
State: _____ Zip: _____ Qtr Section(s): _____ Section(s): _____ Township(s): _____ Range(s): _____
Lot: _____ Block: _____ Subdivision: _____ PID: _____

4. Size of project parcel (square feet or acres): _____
Area of disturbance (square feet): 5,227 Volume of excavation/fill (cubic yards): 4.922
Area of existing impervious surface: N/A Area of proposed impervious surface: N/A
Length of shoreline affected (feet): 2,210 Waterbody (& bay if applicable): Six Mile Creek, unnamed tributary

5. Type of permit being applied for (Check all that apply):

- ☐ EROSION CONTROL
- ☐ FLOODPLAIN ALTERATION
- ☐ WETLAND PROTECTION
- ☐ DREDGING
- ☑ SHORELINE/STREAMBANK STABILIZATION
- ☑ WATERBODY CROSSINGS/STRUCTURES
- ☐ STORMWATER MANAGEMENT
- ☐ APPROPRIATIONS
- ☐ ILLICIT DISCHARGE

6. Project purpose (Check all that apply):

- ☐ SINGLE FAMILY HOME
- ☐ ROAD CONSTRUCTION
- ☐ UTILITIES
- ☐ DREDGING
- ☐ SHORELINE/STREAMBANK STABILIZATION
- ☐ MULTI FAMILY RESIDENTIAL (apartments)
- ☐ COMMERCIAL or INSTITUTIONAL
- ☐ SUBDIVISIONS (include number of lots)
- ☐ LANDSCAPING (pools, berms, etc.)
- ☑ OTHER (DESCRIBE): fish barrier

7. NPDES/SDS General Stormwater Permit Number (if applicable): _____

8. Waterbody receiving runoff from site: _____

9. Project Timeline: Start Date: November 1, 2018 Completion Date: May 1 2019 (approx)

Permits have been applied for: City ☐ County ☐ MN Pollution Control Agency ☐ DNR ☒ COE ☐
Permits have been received: City ☐ County ☐ MN Pollution Control Agency ☐ DNR ☐ COE ☐

By signing below, I hereby request a permit to authorize the activities described herein. I certify that I am familiar with MCWD Rules and that the proposed activity will be conducted in compliance with these Rules. I am familiar with the information contained in this application and, to the best of my knowledge and belief, all information is true, complete and accurate. I understand that proceeding with work before all required authorizations are obtained may be subject to federal, state and/or local administrative, civil and/or criminal penalties.

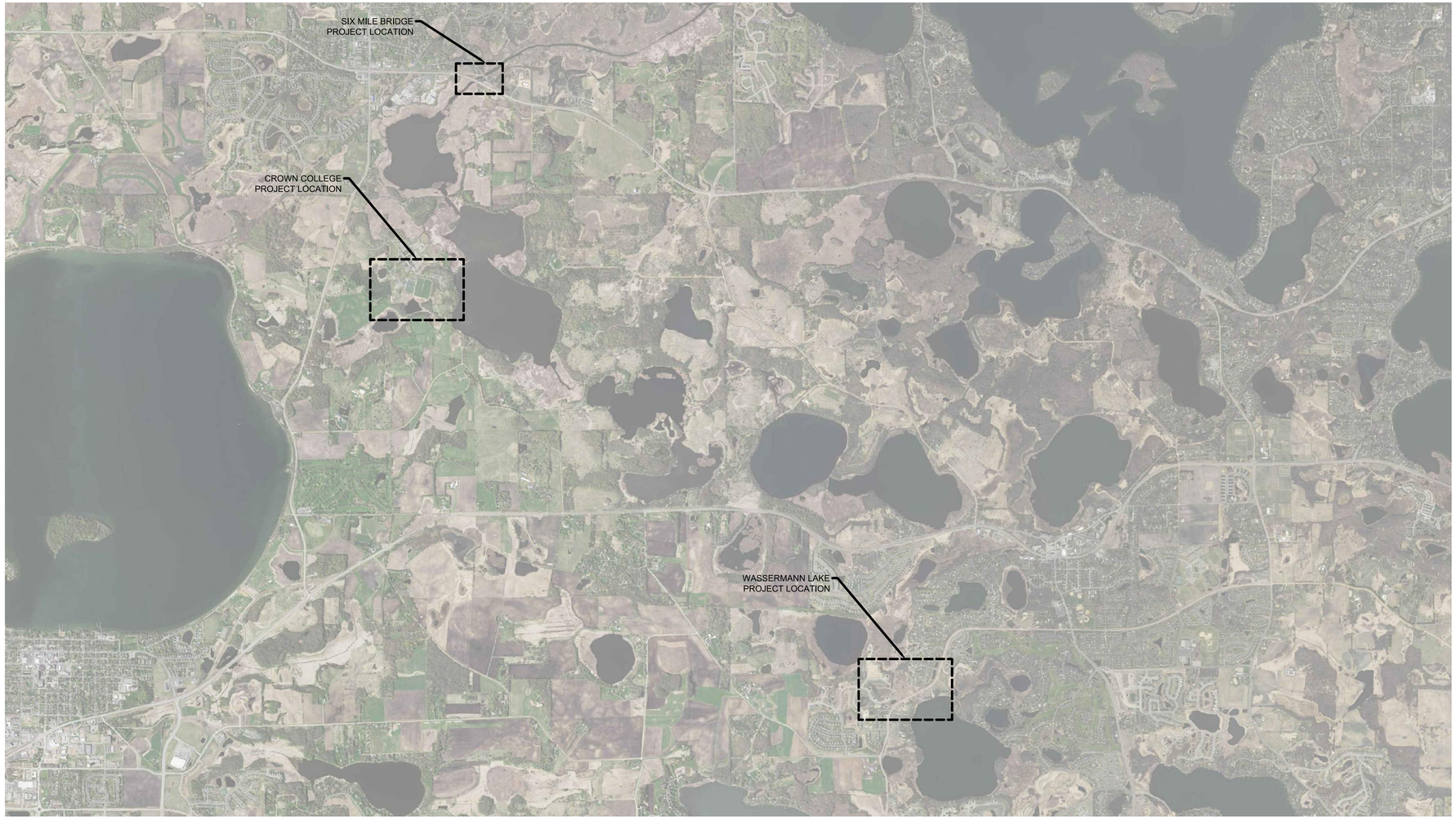
Anna Brown _____ 8/29/2018
Signature of Each Property Owner Date

8/23/2018 8:57:36 AM

PRELIMINARY PLANS FOR
MINNEHAHA CREEK SIX MILE CREEK CARP BARRIERS

PREPARED FOR MINNEHAHA CREEK WATERSHED DISTRICT

AUGUST 2018



PROJECT VICINITY MAP

N

0 1000 2000
GRAPHIC SCALE IN FEET

SHEET INDEX	
SHEET	TITLE
G-100	TITLE AND INDEX SHEET
C-100	OVERALL SITE PLAN
C-101	SIX MILE BRIDGE SITE PLAN
C-101A	SIX MILE BRIDGE SITE PLAN
C-101B	SIX MILE BRIDGE RESTORATION PLAN
C-102	CROWN COLLEGE SITE PLAN
C-102A	CROWN COLLEGE SITE PLAN
C-102B	CROWN COLLEGE RESTORATION PLAN
C-103	WASSERMANN LAKE SITE PLAN
C-103A	WASSERMANN LAKE SITE PLAN
C-103B	WASSERMANN LAKE RESTORATION PLAN
C-800	STANDARD DETAILS
S-101	PLAN VIEW - CARP BARRIERS
S-102	PLAN VIEW - CARP BARRIERS
S-103	BARRIER DETAILS
S-104	BARRIER DETAILS
S-105	BARRIER DETAILS
THIS PLAN CONTAINS 18 SHEETS	

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTNG 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

WENCK
7500 OLSON MEMORIAL HWY, SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

CLIENT:
MINNEHAHA CREEK WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

PROJECT TITLE:
SIX MILE CREEK CARP BARRIERS
VICTORIA, MN

ISSUE NO.:	DESCRIPTION:	DATE:
ISSUE #	DESCRIPTION	XX/XX/XXXX

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.

NOT FOR CONSTRUCTION

License #: _____
Date: _____

PROJECT NO.: 0185-0100

DWN BY:	CHK'D BY:	APP'D BY:
SJB	MJS	CM

ISSUE DATE: DATE
ISSUE NO.: ISSUE #

SHEET TITLE:
G-100

SHEET NO.:
TITLE SHEET

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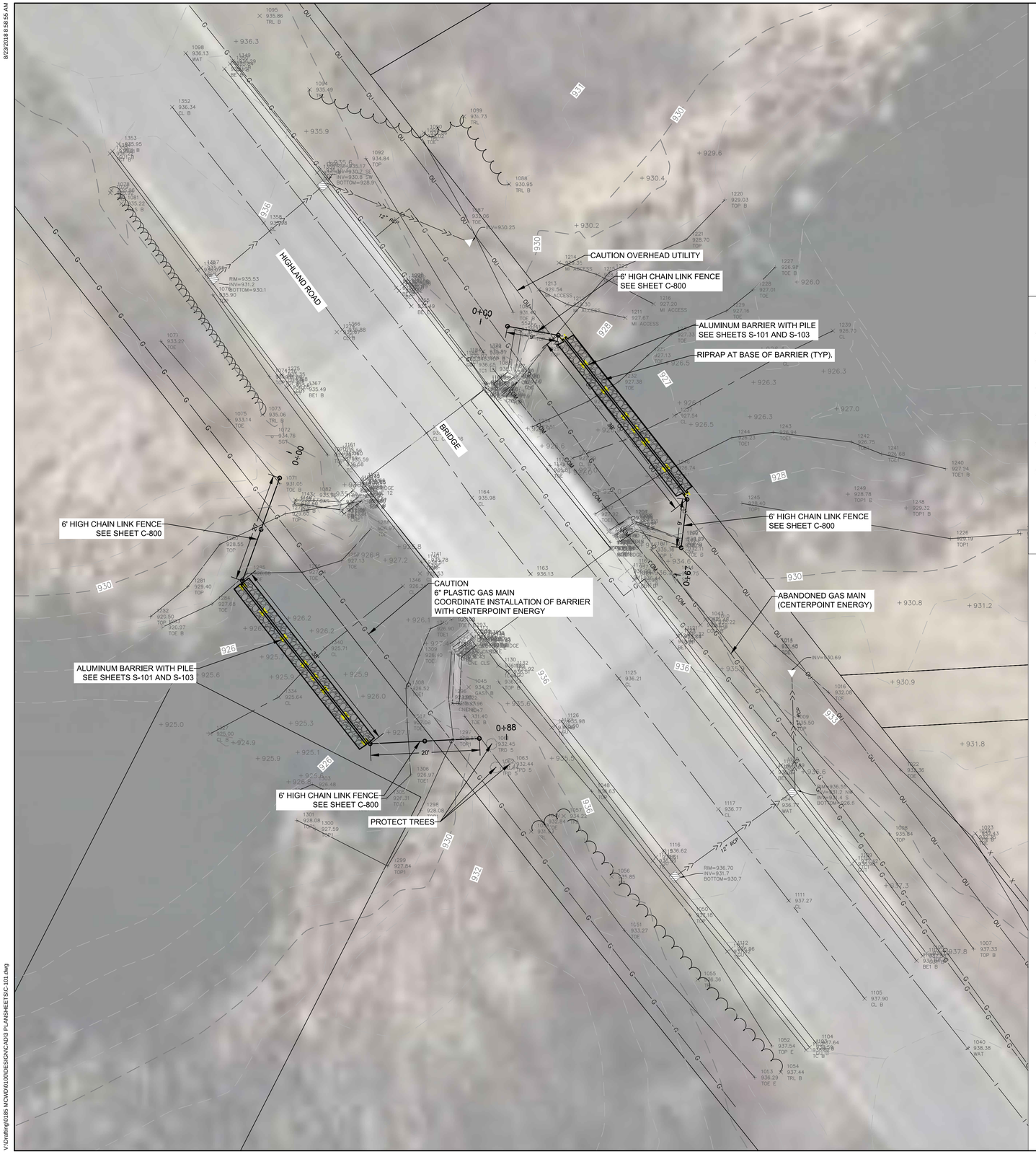

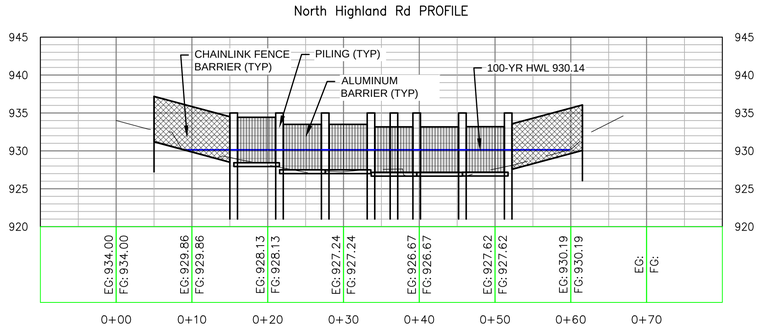

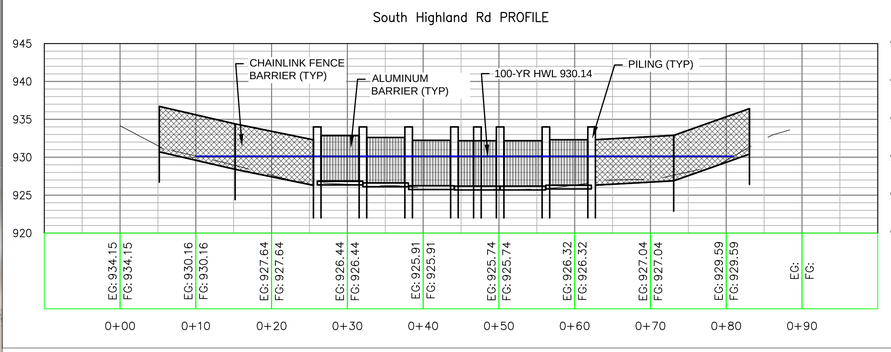

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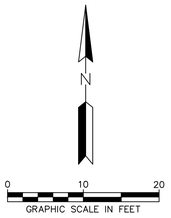

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CLIENT:
MINNEHAHA CREEK WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

PROJECT TITLE:
SIX MILE CREEK CARP BARRIERS
VICTORIA, MN

ISSUE NO.:	DESCRIPTION:	DATE:
ISSUE #	DESCRIPTION	XX/XX/XXXX

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License #: _____
Date: _____

PROJECT NO.: 0185-0100

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SJB	MJS	CM

ISSUE DATE: DATE
ISSUE NO.: ISSUE #
SHEET TITLE: C-101A
SHEET NO.: SIX MILE BRIDGE SITE PLAN

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ISSUE DATE: DATE

ISSUE NO.: ISSUE #

SHEET TITLE:
C-102

SHEET NO.:
CROWN COLLEGE SITE PLAN

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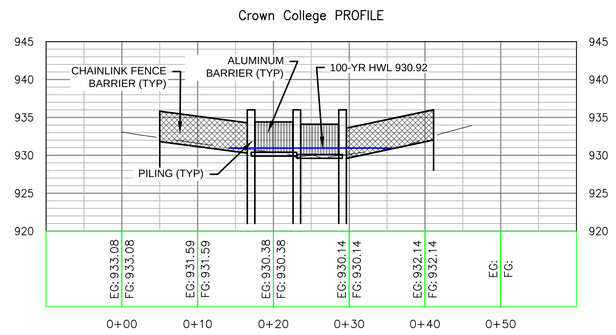

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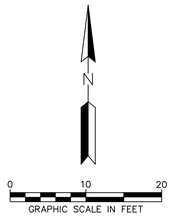

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SHEET NO.:
CROWN COLLEGE
SITE PLAN

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QUALITY OF WATER, QUALITY OF LIFE

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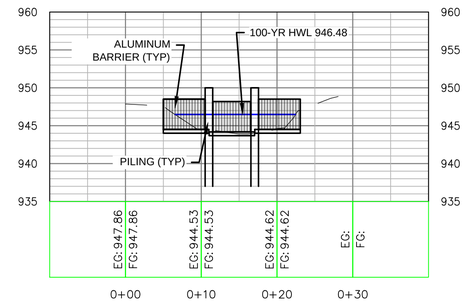
SHEET TITLE:
C-103

SHEET NO.:
WASSERMANN LAKE SITE PLAN

8/23/2018 9:00:06 AM

Wassermann PROFILE



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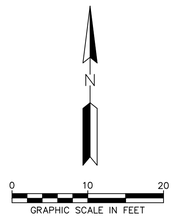

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ISSUE DATE:	DATE	
ISSUE NO.:	ISSUE #	

SHEET TITLE:
C-103A

SHEET NO.:
WASSERMANN LAKE SITE PLAN

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Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit (LGU)	Address
Minnehaha Creek Watershed District	**15320 Minnetonka Blvd** **Minnetonka, MN 55345**

1. PROJECT INFORMATION

Applicant Name	Project Name	Date of Application	Application Number
MCWD	**Six Mile Creek Carp Management**	**8/29/18**	**W18-23**

☒ Attach site locator map

Type of Decision:

☐ Wetland Boundary or Type ☒ No-Loss ☐ Exemption ☐ Sequencing
☐ Replacement Plan ☐ Banking Plan

Technical Evaluation Panel Findings and Recommendation (if any):

☐ Approve ☐ Approve with conditions ☐ Deny

Summary (or attach):

Ben Carlson (BWSR) recommended approval of the no-loss application.

2. LOCAL GOVERNMENT UNIT DECISION

Date of Decision: 9/21/18

☒ Approved ☐ Approved with conditions (include below) ☐ Denied

LGU Findings and Conclusions (attach additional sheets as necessary):

The Minnehaha Creek Watershed District has applied for a no-loss determination under 8420.0414 (H)-temporary impacts rectified by repair, rehabilitation, or restoration of the affected wetlands for placement of permanent carp barriers within three fringe wetlands on Six Mile Creek. Temporary impacts are anticipated for access through wetlands for the construction of the barriers. Three barriers are proposed:

Barrier Name	City/Township	Nearest PID
Wasserman Lake	Victoria	650230200
Crown College	Laketown Township	070060700
Highland Road	Minnetrista	3211724130004

The City of Minnetrista is the LGU for the Highland Road barrier, but has waived to MCWD, who is the LGU for the other two barriers.The barriers, chain link fence, and riprap will be located be located below the top of bank, and therefore not within WCA wetlands.

MCWD approves the no-loss determination as requested. This decision is valid for five years. A future project located on this property may require a permit from the MCWD.

For Replacement Plans using credits from the State Wetland Bank:

Bank Account #	Bank Service Area	County	Credits Approved for Withdrawal (sq. ft. or nearest .01 acre)

Replacement Plan Approval Conditions. In addition to any conditions specified by the LGU, the approval of a Wetland Replacement Plan is conditional upon the following:

☐ **Financial Assurance:** For project-specific replacement that is not in-advance, a financial assurance specified by the LGU must be submitted to the LGU in accordance with MN Rule 8420.0522, Subp. 9 (List amount and type in LGU Findings).

☐ **Deed Recording:** For project-specific replacement, evidence must be provided to the LGU that the BWSR "Declaration of Restrictions and Covenants" and "Consent to Replacement Wetland" forms have been filed with the county recorder's office in which the replacement wetland is located.

☐ **Credit Withdrawal:** For replacement consisting of wetland bank credits, confirmation that BWSR has withdrawn the credits from the state wetland bank as specified in the approved replacement plan.

Wetlands may not be impacted until all applicable conditions have been met!

LGU Authorized Signature:

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 5 provides notice that a decision was made by the LGU under the Wetland Conservation Act as specified above. If additional details on the decision exist, they have been provided to the landowner and are available from the LGU upon request.		
Name **Elizabeth Showalter**	Title **Permitting Technician**	
Signature 	Date **9/21/18**	Phone Number and E-mail **(952) 641-4518** **eshowalter@minnehahacreek.org**

THIS DECISION ONLY APPLIES TO THE MINNESOTA WETLAND CONSERVATION ACT. Additional approvals or permits from local, state, and federal agencies may be required. Check with all appropriate authorities before commencing work in or near wetlands.

Applicants proceed at their own risk if work authorized by this decision is started before the time period for appeal (30 days) has expired. If this decision is reversed or revised under appeal, the applicant may be responsible for restoring or replacing all wetland impacts.

This decision is valid for three years from the date of decision unless a longer period is advised by the TEP and specified in this notice of decision.

3. APPEAL OF THIS DECISION

Pursuant to MN Rule 8420.0905, any appeal of this decision can only be commenced by mailing a petition for appeal, including applicable fee, within thirty (30) calendar days of the date of the mailing of this Notice to the following as indicated:

Check one:

☒ Appeal of an LGU staff decision. Send petition and $100 fee to: **Minnehaha Creek Watershed District** **15320 Minnetonka Blvd** **Minnetonka, MN 55345**	☐ Appeal of LGU governing body decision. Send petition and $500 filing fee to: Executive Director Minnesota Board of Water and Soil Resources 520 Lafayette Road North St. Paul, MN 55155

4. LIST OF ADDRESSEES

☒ SWCD TEP member: **Aaron Finke (Carver)-afinke@co.carver.mn.us, Stacey Lijewski-stacey.lijewski@co.hennepin.mn.us**
☒ BWSR TEP member: **Ben Carlson-ben.carlson@state.mn.us**
☐ LGU TEP member (if different than LGU Contact):
☒ DNR TEP **Becky Horton-**becky.horton@state.mn.us
☐ DNR Regional Office (if different than DNR TEP member): **Jennie Skancke- (Carver)-jennie.skancke@state.mn.us, Jason Spiegel (Hennepin) Jason.spiegel@state.mn.us**
☐ WD or WMO (if applicable):
☒ Applicant (notice only) and Landowner (if different): **Anna Brown-abrown@minnehahacreek.org**
☒ Members of the public who requested notice (notice only): **Shawn Williams, swilliams@wsbeng.com**
☒ Corps of Engineers Project Manager (notice only): **Justin Berndt-Justin.T.Berndt@usace.army.mil**
☐ BWSR Wetland Bank Coordinator (wetland bank plan applications only)

5. MAILING INFORMATION

- For a list of BWSR TEP representatives: www.bwsr.state.mn.us/aboutbwsr/workareas/WCA_areas.pdf
- For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf
- Department of Natural Resources Regional Offices:

NW Region:	NE Region:	Central Region:	Southern Region:
Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073

For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

- For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687 or send to:

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

- For Wetland Bank Plan applications, also send a copy of the application to:

Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

6. ATTACHMENTS

In addition to the site locator map, list any other attachments:
☒ **Site Plans**
☐
☐

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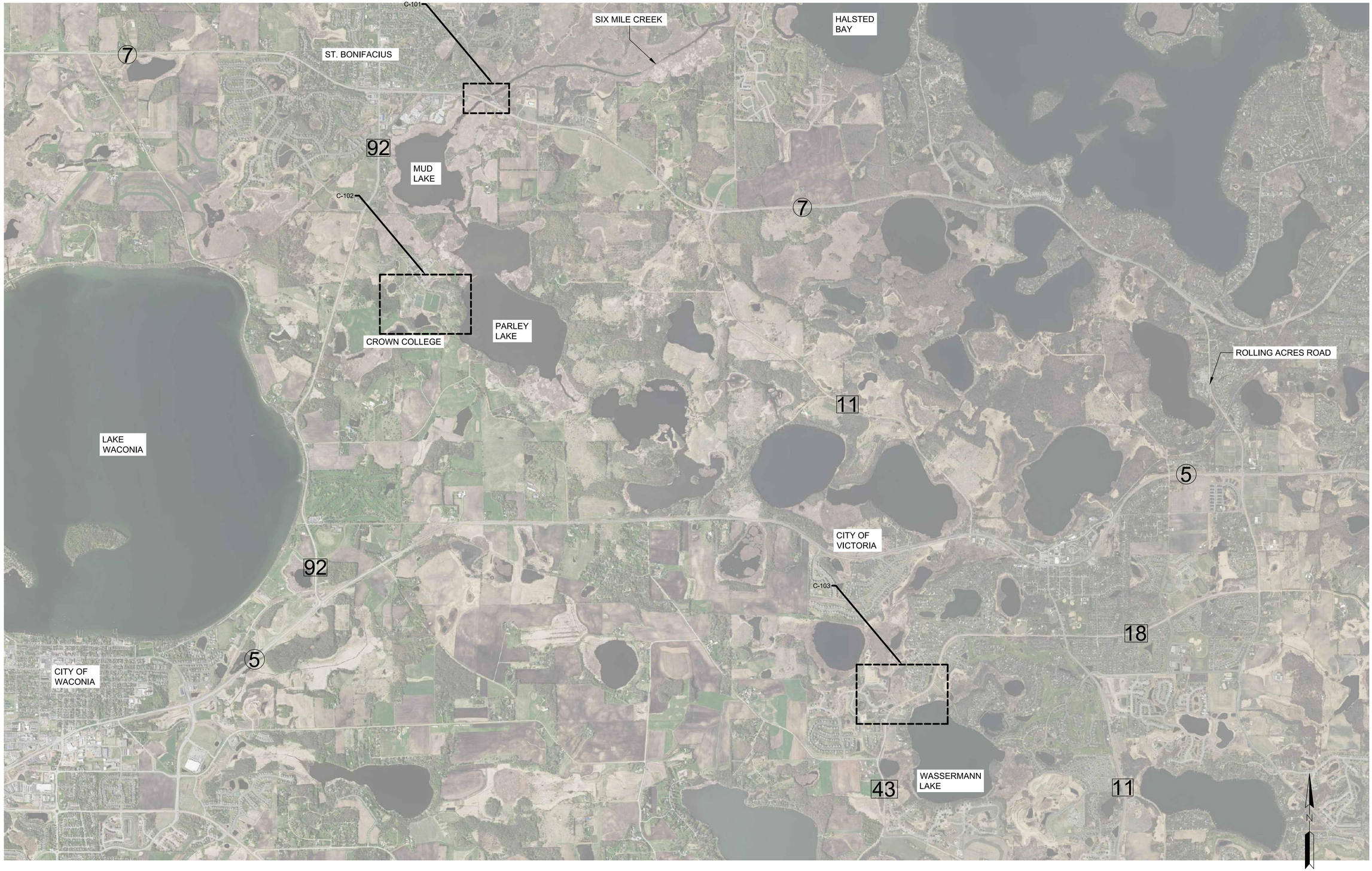

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SHEET NO.:
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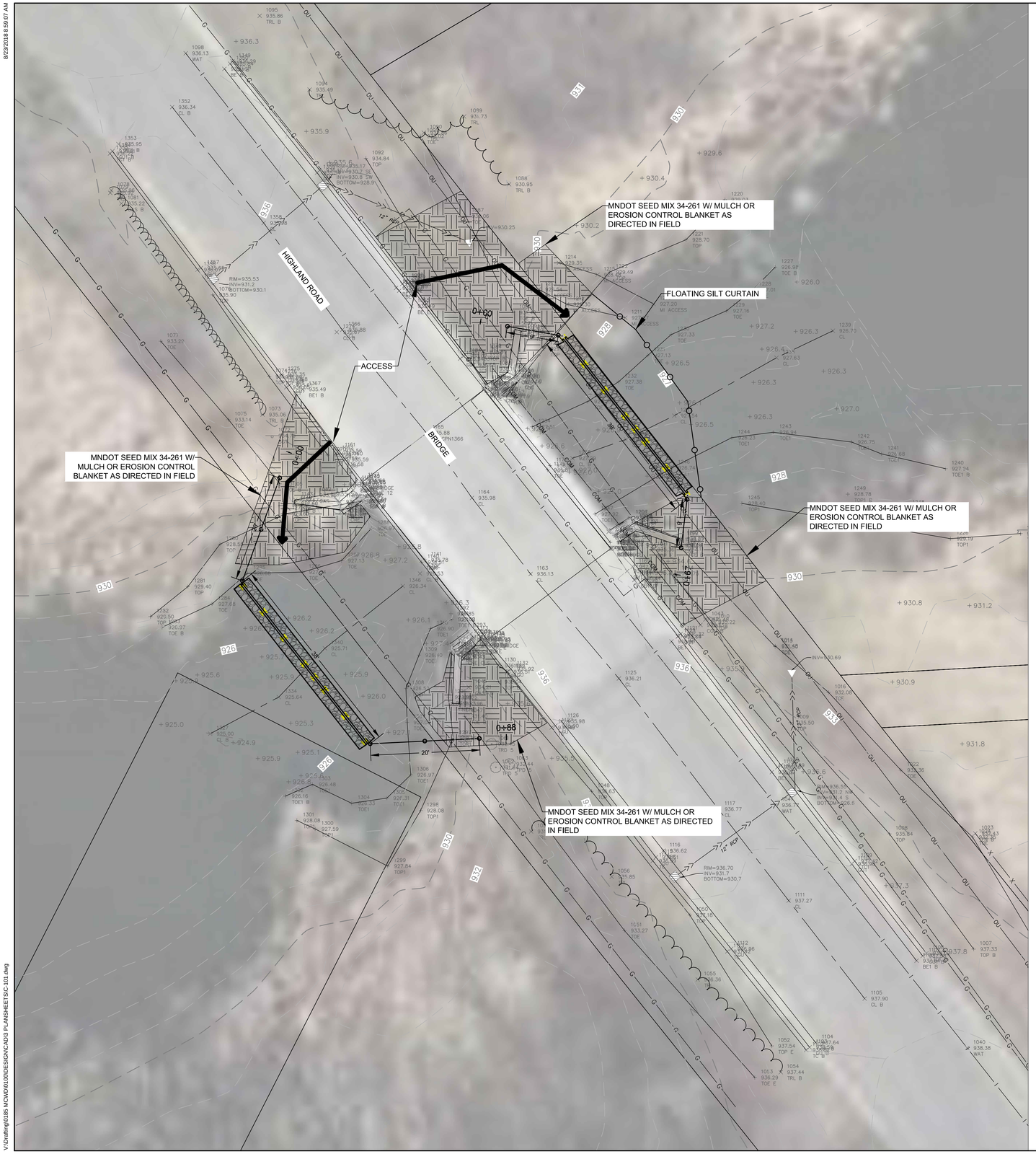

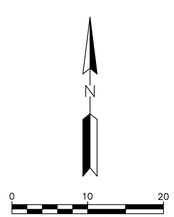

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ISSUE NO.: ISSUE #

SHEET TITLE:

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SHEET NO.:
SIX MILE BRIDGE
RESTORATION PLAN

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CARP BARRIERS
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WASSERMANN LAKE RESTORATION PLAN

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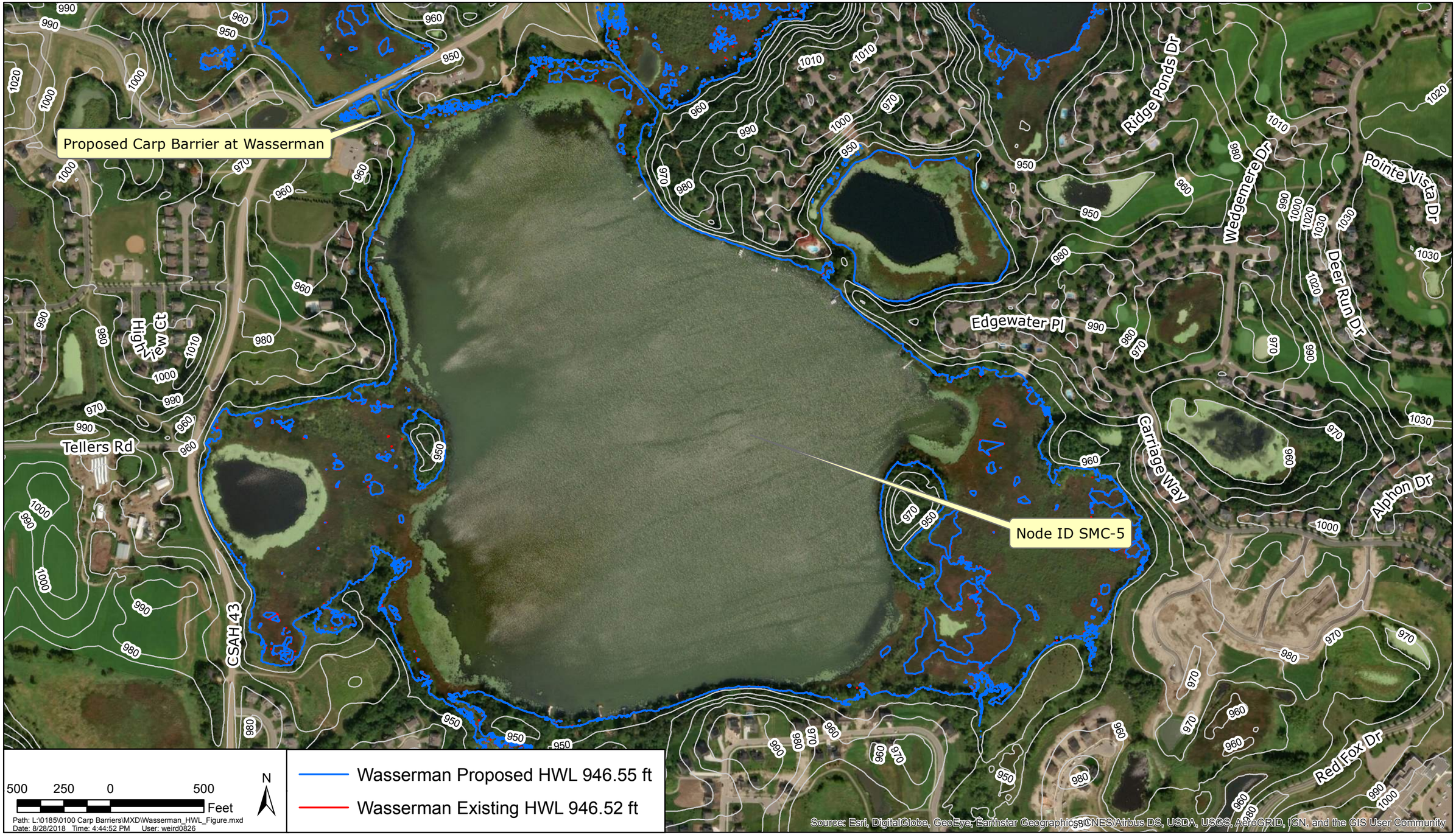


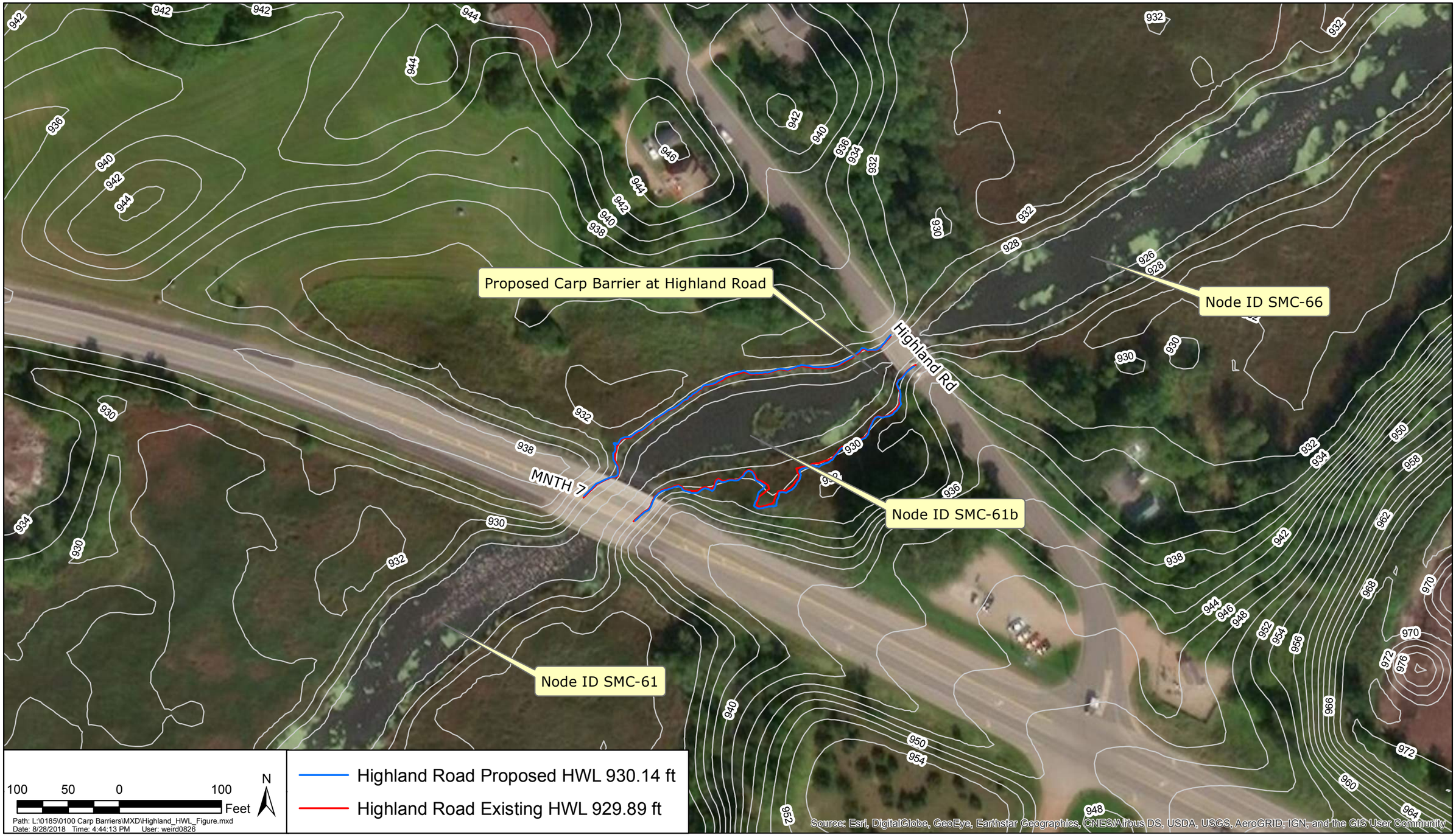
MINNEHAHA CREEK WATERSHED DISTRICT

Wasserman Carp Barrier - Existing and Proposed HWL

WENCK
Responsive partner. Exceptional outcomes.

AUG 2018

Figure 2



MINNEHAHA CREEK WATERSHED DISTRICT

Highland Road Carp Barrier - Existing and Proposed HWL

WENCK
Responsive partner. Exceptional outcomes.

AUG 2018

Figure 3