Appendices

Appendix A

2025 Lagoon G Sediment Characterization Memo

Technical Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: 2025 Lagoon G Sediment Characterization
Date: April 22, 2026
Project: 23/27-0051

Introduction

This memorandum summarizes sediment characterization for sediment samples collected in Lagoon G in 2025. Sediment samples were collected by Barr Engineering Co. (Barr) and delivered to Pace Analytical for contaminant testing in November 2025.

The purpose of sediment characterization is to determine whether the sediment in the pond, when excavated, could potentially be reused as fill, or if other management methods such as landfill disposal would be required. The use and/or disposal of excavated or dredged material is determined based on concentrations of potential contaminants in the sediments, including metals and polycyclic aromatic hydrocarbons (PAHs). Excavated sediment and soils may be considered Unregulated Fill if they do not exhibit field screening impacts (e.g. petroleum sheen); do not exceed the Minnesota Pollution Control Agency's (MPCA) Soil Reference Values (SRV) or applicable Screening Soil Leaching Values (SLVs); and do not have concentrations of Total Petroleum Hydrocarbons (TPH) above 100 mg/kg, as described in the MPCA document Best Management Practices for the Off-Site Reuse of Unregulated Fill (MPCA, 2024a).

Dredged materials can be categorized in 1 of 3 levels that corresponds to their suitability for reuse on various land use categories:

> **Level 1:** Contaminant levels are below all SRVs; materials may be used on residential land use properties, as well as industrial or commercial land use properties.
>
> **Level 2:** Contaminant levels are above 1 or more residential SRVs, but below industrial/commercial land use SRVs; materials may be used on industrial/commercial land use properties, but may not be used on residential land use properties.
>
> **Level 3:** One or more contaminants are above industrial/commercial land use; materials are unsuitable for reuse on any land use category, and materials are typically disposed in a landfill.

Sediment Sample Collection

Sediment sampling was conducted in accordance with the MPCA's Managing Stormwater Sediment Best Management Practice Guidance (MPCA 2024b). That document provides technical guidance for characterizing sediment in stormwater ponds, including the number of samples that should be collected and potential contaminants to be analyzed.

A total of four sediment samples were collected from Lagoon G. Barr staff used a clean, 3-inch diameter aluminum tube for collecting sediment cores. Each sediment core was then extruded and the sediment

homogenized in a clean stainless steel bowl. Samples were placed in laboratory provided containers, and sent to Pace Analytical laboratory in Minneapolis for analyses of contaminants. A GPS unit was used to record the sampling locations, which are shown on Figure 1.

Contaminant Testing

The MPCA guidance for stormwater pond sediment management (MPCA 2024b) lists the baseline parameters that should be analyzed in order to characterize the sediment for possible reuse. The baseline parameters listed in the MPCA guidance are arsenic, copper, and polycyclic aromatic hydrocarbons (PAHs). PAHs are organic compounds that are formed by the incomplete combustion of organic materials, such as wood, oil, and coal. They are also naturally occurring in crude oil and coal. The MPCA determined that coal tar-based sealants are the largest source of PAHs to stormwater ponds, and a state-wide ban of coal tar-based sealants took effect January 1, 2014. In addition to the baseline parameters, the following parameters were analyzed as well: RCRA metals, diesel range organics (DRO); gasoline range organic (GRO); and benzene, toluene, ethylene, and xylene (BTEX).

The laboratory analytical methods are listed below:

- Metals: (method EPA 6010D; method EPA 7471B)
- Diesel range organics (method modified WI DRO with silica gel cleanup)
- Gasoline range organics (GRO) (method modified WI GRO)
- Benzene, toluene, ethylene, xylene (BTEX) (method EPA 8260D)
- Polycyclic aromatic hydrocarbons (PAHs) (method EPA 8270E by SIM)

The PAHs that were analyzed can be grouped into two categories: carcinogenic (i.e. cancer causing) and non-carcinogenic. In order to assess the contamination level of the carcinogenic PAHs in stormwater pond sediment, the MPCA requires the calculation of a “BaP equivalents value”. The BaP equivalents value is a single value representing the combined potency of 17 individual carcinogenic PAH compounds with BaP (benzo[a]pyrene) acting as the reference compound. The list of compounds and their respective potency equivalents factors used to calculate the BaP equivalents value can be found in the MPCA guidance document, along with methods for addressing constituents at concentrations below the detection limit (MPCA 2024b).

Summary of Sediment Characterization

Laboratory analytical results for the sediment samples are summarized in Table 1. The table also compare results to Minnesota SRVs. The detailed laboratory analytical report is included in Attachment A. Sediment characterization results of the lagoon are briefly summarized below. Additional guidance on potential reuse of sediments can be found in the MPCA guidance documents (MPCA 2024a and MPCA 2024b).

The BaP equivalents values in the four sediment samples ranged from 3.0 to 5.7 mg/kg, greater than the Residential SRV, but less than the Commercial/Industrial SRV; therefore, sediment in Lagoon G can be categorized as Level 2 material. Additionally, diesel range organics (DRO) ranged from 55.3 to 320 mg/kg, with two of the four sediment samples having DRO greater than the Unregulated Fill threshold value of 100 mg/kg.

References

Minnesota Pollution Control Agency (MPCA), 2024a. Best management practices for the off-site reuse of unregulated fill. March 2024.

MPCA, 2024b. Managing Stormwater Sediment, Best Management Practice Guidance, document wq-strm4-16, December 2024.

Figures

Figure 1 Lagoon G 2025 Sediment Sampling Locations

Tables

Table 1 Lagoon G 2025 Sediment Testing Summary

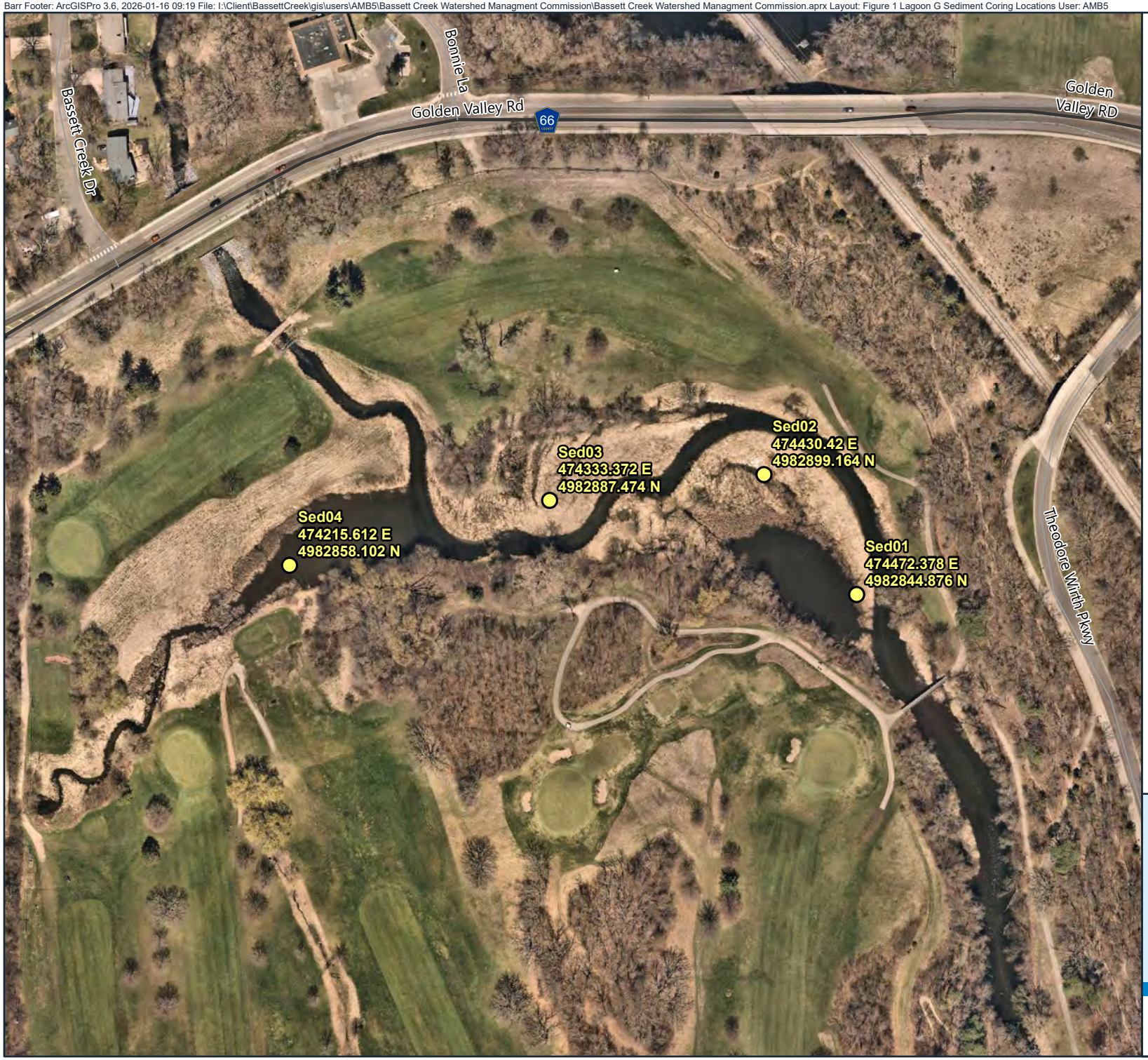
Attachments

Attachment A Laboratory Analytical Data Report

Figure 1

Lagoon G 2025 Sediment Sampling Locations

Barr Footer: ArcGISPro 3.6, 2026-01-16 09:19 File: I:\Client\BassettCreek\gis\users\AMB5\Bassett Creek Watershed Managment Commission\Bassett Creek Watershed Managment Commission.aprx Layout: Figure 1 Lagoon G Sediment Coring Locations User: AMB5



2025 Sampling Locations

N

0 100 200

Feet

Imagery: Hennepin County 2022 Aerial

Lagoon G 2025 Sediment Coring Locations
Golden Valley, MN

FIGURE 1

BARR

Table 1

Lagoon G 2025 Sediment Testing Summary

Table 1
Lagoon G Sediment Sampling Analytical Data Summary
Bassett Creek Watershed Management Commission

					Location	**SED01**	**SED02**	**SED03**	**SED04**
					Date	**11/13/2025**	**11/13/2025**	**11/13/2025**	**11/13/2025**
Parameter	Units	MPCA Unrestricted Reuse of Unregulated Fill	MPCA Residential/ Recreational Acute Soil Reference Values	MPCA Residential/ Recreational Chronic Soil Reference Values	MPCA Industrial/ Commercial Chronic Soil Reference Values				
Last Updated		03/23/2012	03/01/2025	03/01/2025	03/01/2025				
Exceedance Key		Shade	No Exceedances	**Bold**	No Exceedances				
General Parameters									
Moisture	%					47.5	41.0	41.6	31.6
Solids	%					52.5	59.0	58.4	68.4
Metals									
Arsenic	mg/kg	9	9 BTV(a)	9 BTV(a)	9 BTV	9.0	5.8	6.0	2.5
Barium	mg/kg	260	260	3100	41000	148	108	123	62.9
Cadmium	mg/kg	1.6	9.1	1.6	23	0.72	0.48	0.43	0.19 J
Chromium	mg/kg			23000 CR3	100000 CR3	26.8	17.5	16.6	13.2
Copper	mg/kg	180	180	2200	33000	36.8	22.7	24.0	11.3
Lead	mg/kg	200		200	460	95.8	71.7	27.0	29.9
Mercury	mg/kg	2.7		2.7	3.1	0.13	0.079	0.065	0.056
Selenium	mg/kg	78		78	1200	0.90 J	0.92 J	1.5 J	0.76 J
Silver	mg/kg	78		78	1200	< 0.070 U	< 0.065 U	< 0.094 UB	< 0.058 U
PAHs, General									
2-Methylnaphthalene	mg/kg	39		39	580	0.0434	0.0205 J	0.0151 J	0.0242 J
Acenaphthene	mg/kg	460		460	6800	0.12	0.0670	0.0264	0.0383
Acenaphthylene	mg/kg					0.0753	0.0383	< 0.0041 U	0.0774
Anthracene	mg/kg	2800		2800	42000	0.257	0.164	0.0779	0.112
Benzo(g,h,i)perylene	mg/kg					0.801	0.573	0.477	0.435
Fluoranthene	mg/kg	210		210	2700	3.03	1.77	1.14	1.11
Fluorene	mg/kg	390		390	5800	0.218	0.104	0.0388	0.0674
Naphthalene	mg/kg	81		81	280	0.0583	0.0278 J	0.0434	0.0353
Phenanthrene	mg/kg					1.53	0.808	0.367	0.413
Pyrene	mg/kg	220		220	3200	2.40	1.46	0.901	1.11
PAHs, Carcinogenic									
3-Methylcholanthrene	mg/kg			T	T	< 0.0082 U	< 0.0072 U	< 0.0036 U	< 0.0062 U
5-Methylchrysene	mg/kg			T	T	0.176	0.134	0.0724	0.106
7,12-Dimethylbenz(a)anthracene	mg/kg			T	T	< 0.0110 U	< 0.0098 U	< 0.0049 U	< 0.0084 U
7h-Dibenzo(c,g)carbazole	mg/kg			T	T	< 0.0119 U	< 0.0105 U	< 0.0053 U	< 0.0090 U
Benz(a)anthracene	mg/kg			T	T	0.913	0.717	0.400	0.556
Benzo(a)pyrene	mg/kg	2		2 BTV T	23 T	0.985	0.756	0.469	0.627
Benzofluoranthenes	mg/kg			T	T	2.30	1.63	1.25	1.13
Chrysene	mg/kg			T	T	1.35	0.943	0.649	0.656
Dibenz(a,h)acridine	mg/kg			T	T	0.0633	0.0462	0.0387	0.0295
Dibenz(a,h)anthracene	mg/kg			T	T	0.161	0.130	0.104	0.0916
Dibenzo(a,e)pyrene	mg/kg			T	T	0.446	0.331	0.276	0.244
Dibenzo(a,h)pyrene	mg/kg			T	T	0.221	0.175	0.130	0.120

Table 1
Lagoon G Sediment Sampling Analytical Data Summary
Bassett Creek Watershed Management Commission

					Location	**SED01**	**SED02**	**SED03**	**SED04**
					Date	**11/13/2025**	**11/13/2025**	**11/13/2025**	**11/13/2025**
Parameter	Units	MPCA Unrestricted Reuse of Unregulated Fill	MPCA Residential/ Recreational Acute Soil Reference Values	MPCA Residential/ Recreational Chronic Soil Reference Values	MPCA Industrial/ Commercial Chronic Soil Reference Values				
Last Updated		03/23/2012	03/01/2025	03/01/2025	03/01/2025				
Exceedance Key		Shade	No Exceedances	**Bold**	No Exceedances				
Dibenzo(a,i)pyrene	mg/kg			T	T	0.124	0.0948	0.0573	0.0598
Dibenzo(a,l)pyrene	mg/kg			T	T	< 0.0083 U	< 0.0074 U	< 0.0037 U	< 0.0063 U
Indeno(1,2,3-cd)pyrene	mg/kg			T	T	0.867	0.627	0.496	0.454
B(a)P Equivalent, Kaplan-Meier (BC)	mg/kg	2		**2 BTV T**	23 T	**5.7**	**4.4**	**3.0**	**3.1**
Volatile Organic Compounds									
Benzene	mg/kg			9.5	42	< 0.0218 UB	< 0.0141 U	< 0.0158 U	< 0.0111 U
Ethyl benzene	mg/kg			56	480	0.0452 J	< 0.0351 U	< 0.0395 U	< 0.0278 U
Toluene	mg/kg			820	820	0.183	< 0.0418 U	< 0.0470 U	< 0.0331 U
Xylene, total	mg/kg			260 XYL	260 XYL	0.121 J	< 0.0593 U	< 0.0667 U	< 0.0470 U
Total Petroleum Hydrocarbons									
Diesel Range Organics, silica gel cleanup	mg/kg	100				320	131	55.3	81.3
Gasoline Range Organics, C6-C10	mg/kg	100				< 7.0 U	< 5.9 U	< 5.9 U	< 4.7 U

Attachment A

Laboratory Analytical Data Report

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 08, 2025

Kevin Menken
Barr Engineering
4300 MarketPointe Drive
Suite 200
Minneapolis, MN 55435

RE: Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Dear Kevin Menken:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Martha Hansen
martha.hansen@pacelabs.com
(612)607-6451
Project Manager

Enclosures

cc: Barr DM, Barr Engineering
Dana Pasi, Barr Engineering
Accounts Payable, Barr Engineering

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification via A2LA #: R-036
North Dakota Certification via MN #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10756796001	**SED01**	Solid	11/13/25 13:00	11/14/25 10:47
10756796002	**SED02**	Solid	11/13/25 13:30	11/14/25 10:47
10756796003	**SED03**	Solid	11/13/25 14:30	11/14/25 10:47
10756796004	**SED04**	Solid	11/13/25 15:00	11/14/25 10:47
10756796005	**TB**	Solid	11/13/25 00:00	11/14/25 10:47

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10756796001	**SED01**	WI MOD DRO	ARA	2	PASI-M
		WI MOD GRO	NJ1	2	PASI-M
		EPA 6010D	IP	8	PASI-M
		EPA 7471B	HM	1	PASI-M
		ASTM D2974	AGG1	1	PASI-M
		EPA 8270E by SIM	GY1	27	PASI-M
		EPA 8260D	NMB	7	PASI-M
10756796002	**SED02**	WI MOD DRO	ARA	2	PASI-M
		WI MOD GRO	NJ1	2	PASI-M
		EPA 6010D	IP	8	PASI-M
		EPA 7471B	HM	1	PASI-M
		ASTM D2974	AGG1	1	PASI-M
		EPA 8270E by SIM	GY1	27	PASI-M
		EPA 8260D	NMB	7	PASI-M
10756796003	**SED03**	WI MOD DRO	ARA	2	PASI-M
		WI MOD GRO	NJ1	2	PASI-M
		EPA 6010D	IP	8	PASI-M
		EPA 7471B	HM	1	PASI-M
		ASTM D2974	AGG1	1	PASI-M
		EPA 8270E by SIM	GY1	27	PASI-M
		EPA 8260D	NMB	7	PASI-M
10756796004	**SED04**	WI MOD DRO	ARA	2	PASI-M
		WI MOD GRO	NJ1	2	PASI-M
		EPA 6010D	IP	8	PASI-M
		EPA 7471B	HM	1	PASI-M
		ASTM D2974	AGG1	1	PASI-M
		EPA 8270E by SIM	GY1	27	PASI-M
		EPA 8260D	NMB	7	PASI-M
10756796005	**TB**	WI MOD GRO	NJ1	2	PASI-M
		EPA 8260D	NMB	7	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED01 **Lab ID: 10756796001** Collected: 11/13/25 13:00 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Silica Gel	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**320**	mg/kg	134	37.6	10	11/18/25 17:13	11/21/25 15:08		T6
Surrogates									
n-Triacontane (S)	81	%.	30-147		10	11/18/25 17:13	11/21/25 15:08		
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: EPA 5030 Medium Soil Pace Analytical Services - Minneapolis								
Gasoline Range Organics	**<7.0**	mg/kg	28.4	7.0	1	11/21/25 11:18	11/25/25 08:55		
Surrogates									
a,a,a-Trifluorotoluene (S)	80	%.	80-200		1	11/21/25 11:18	11/25/25 08:55	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis								
Arsenic	**9.0**	mg/kg	1.8	0.29	1	11/24/25 14:47	11/26/25 16:20	7440-38-2	
Barium	**148**	mg/kg	0.88	0.13	1	11/24/25 14:47	11/26/25 16:20	7440-39-3	
Cadmium	**0.72**	mg/kg	0.26	0.062	1	11/24/25 14:47	11/26/25 16:20	7440-43-9	
Chromium	**26.8**	mg/kg	0.88	0.26	1	11/24/25 14:47	11/26/25 16:20	7440-47-3	
Copper	**36.8**	mg/kg	0.88	0.13	1	11/24/25 14:47	11/26/25 16:20	7440-50-8	
Lead	**95.8**	mg/kg	0.88	0.40	1	11/24/25 14:47	11/26/25 16:20	7439-92-1	
Selenium	**0.90J**	mg/kg	1.8	0.77	1	11/24/25 14:47	11/26/25 16:20	7782-49-2	
Silver	**<0.070**	mg/kg	0.88	0.070	1	11/24/25 14:47	11/26/25 16:20	7440-22-4	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Minneapolis								
Mercury	**0.13**	mg/kg	0.037	0.016	1	11/23/25 14:32	11/24/25 13:08	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**47.5**	%	0.10	0.10	1		11/24/25 11:08		N2
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Acenaphthene	**120**	ug/kg	38.1	9.3	1	11/21/25 13:54	11/25/25 08:17	83-32-9	
Acenaphthylene	**75.3**	ug/kg	38.1	9.3	1	11/21/25 13:54	11/25/25 08:17	208-96-8	
Anthracene	**257**	ug/kg	38.1	11.4	1	11/21/25 13:54	11/25/25 08:17	120-12-7	
Benzo(a)anthracene	**913**	ug/kg	38.1	13.8	1	11/21/25 13:54	11/25/25 08:17	56-55-3	
Benzo(a)pyrene	**985**	ug/kg	38.1	14.5	1	11/21/25 13:54	11/25/25 08:17	50-32-8	
Benzo(g,h,i)perylene	**801**	ug/kg	38.1	12.0	1	11/21/25 13:54	11/25/25 08:17	191-24-2	
Benzofluoranthenes (Total)	**2300**	ug/kg	114	37.0	1	11/21/25 13:54	11/25/25 08:17		N2
Chrysene	**1350**	ug/kg	38.1	11.2	1	11/21/25 13:54	11/25/25 08:17	218-01-9	
Dibenz(a,h)acridine	**63.3**	ug/kg	38.1	13.0	1	11/21/25 13:54	11/25/25 08:17	226-36-8	
Dibenz(a,h)anthracene	**161**	ug/kg	38.1	13.2	1	11/21/25 13:54	11/25/25 08:17	53-70-3	
Dibenzo(a,e)pyrene	**446**	ug/kg	38.1	10.8	1	11/21/25 13:54	11/25/25 08:17	192-65-4	
Dibenzo(a,h)pyrene	**221**	ug/kg	38.1	10.5	1	11/21/25 13:54	11/25/25 08:17	189-64-0	
Dibenzo(a,i)pyrene	**124**	ug/kg	38.1	12.7	1	11/21/25 13:54	11/25/25 08:17	189-55-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED01 **Lab ID: 10756796001** Collected: 11/13/25 13:00 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Dibenzo(a,l)pyrene	**<8.3**	ug/kg	38.1	8.3	1	11/21/25 13:54	11/25/25 08:17	191-30-0	
7H-Dibenzo(c,g)carbazole	**<11.9**	ug/kg	38.1	11.9	1	11/21/25 13:54	11/25/25 08:17	194-59-2	
7,12-Dimethylbenz(a)anthracene	**<11.0**	ug/kg	38.1	11.0	1	11/21/25 13:54	11/25/25 08:17	57-97-6	C6,L2
Fluoranthene	**3030**	ug/kg	38.1	11.7	1	11/21/25 13:54	11/25/25 08:17	206-44-0	
Fluorene	**218**	ug/kg	38.1	9.7	1	11/21/25 13:54	11/25/25 08:17	86-73-7	
Indeno(1,2,3-cd)pyrene	**867**	ug/kg	38.1	12.7	1	11/21/25 13:54	11/25/25 08:17	193-39-5	
3-Methylcholanthrene	**<8.2**	ug/kg	38.1	8.2	1	11/21/25 13:54	11/25/25 08:17	56-49-5	
5-Methylchrysene	**176**	ug/kg	38.1	10.3	1	11/21/25 13:54	11/25/25 08:17	3697-24-3	
2-Methylnaphthalene	**43.4**	ug/kg	38.1	9.7	1	11/21/25 13:54	11/25/25 08:17	91-57-6	
Naphthalene	**58.3**	ug/kg	38.1	9.0	1	11/21/25 13:54	11/25/25 08:17	91-20-3	
Phenanthrene	**1530**	ug/kg	38.1	12.0	1	11/21/25 13:54	11/25/25 08:17	85-01-8	
Pyrene	**2400**	ug/kg	38.1	9.5	1	11/21/25 13:54	11/25/25 08:17	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	93	%.	45-125		1	11/21/25 13:54	11/25/25 08:17	321-60-8	P1
p-Terphenyl-d14 (S)	92	%.	53-125		1	11/21/25 13:54	11/25/25 08:17	1718-51-0	
8260D MSV UST	Analytical Method: EPA 8260D Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Benzene	**21.8J**	ug/kg	50.9	17.1	1	11/25/25 13:51	11/26/25 23:12	71-43-2	
Ethylbenzene	**45.2J**	ug/kg	127	42.8	1	11/25/25 13:51	11/26/25 23:12	100-41-4	
Toluene	**183**	ug/kg	127	50.9	1	11/25/25 13:51	11/26/25 23:12	108-88-3	
Xylene (Total)	**121J**	ug/kg	382	72.3	1	11/25/25 13:51	11/26/25 23:12	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%.	75-125		1	11/25/25 13:51	11/26/25 23:12	460-00-4	
Toluene-d8 (S)	113	%.	75-125		1	11/25/25 13:51	11/26/25 23:12	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1	11/25/25 13:51	11/26/25 23:12	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED02 **Lab ID: 10756796002** Collected: 11/13/25 13:30 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Silica Gel	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**131**	mg/kg	108	30.2	10	11/18/25 17:13	11/21/25 15:15		T6
Surrogates									
n-Triacontane (S)	73	%.	30-147		10	11/18/25 17:13	11/21/25 15:15		
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: EPA 5030 Medium Soil Pace Analytical Services - Minneapolis								
Gasoline Range Organics	**<5.9**	mg/kg	24.1	5.9	1	11/21/25 11:18	11/25/25 09:17		
Surrogates									
a,a,a-Trifluorotoluene (S)	82	%.	80-200		1	11/21/25 11:18	11/25/25 09:17	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis								
Arsenic	**5.8**	mg/kg	1.6	0.27	1	11/24/25 14:47	11/26/25 16:29	7440-38-2	
Barium	**108**	mg/kg	0.81	0.12	1	11/24/25 14:47	11/26/25 16:29	7440-39-3	
Cadmium	**0.48**	mg/kg	0.24	0.057	1	11/24/25 14:47	11/26/25 16:29	7440-43-9	
Chromium	**17.5**	mg/kg	0.81	0.24	1	11/24/25 14:47	11/26/25 16:29	7440-47-3	
Copper	**22.7**	mg/kg	0.81	0.12	1	11/24/25 14:47	11/26/25 16:29	7440-50-8	
Lead	**71.7**	mg/kg	0.81	0.37	1	11/24/25 14:47	11/26/25 16:29	7439-92-1	
Selenium	**0.92J**	mg/kg	1.6	0.71	1	11/24/25 14:47	11/26/25 16:29	7782-49-2	
Silver	**<0.065**	mg/kg	0.81	0.065	1	11/24/25 14:47	11/26/25 16:29	7440-22-4	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Minneapolis								
Mercury	**0.079**	mg/kg	0.029	0.013	1	11/23/25 14:32	11/24/25 13:13	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**41.0**	%	0.10	0.10	1		11/24/25 11:09		N2
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Acenaphthene	**67.0**	ug/kg	33.8	8.2	1	11/21/25 13:54	11/25/25 08:46	83-32-9	
Acenaphthylene	**38.3**	ug/kg	33.8	8.2	1	11/21/25 13:54	11/25/25 08:46	208-96-8	
Anthracene	**164**	ug/kg	33.8	10.1	1	11/21/25 13:54	11/25/25 08:46	120-12-7	
Benzo(a)anthracene	**717**	ug/kg	33.8	12.2	1	11/21/25 13:54	11/25/25 08:46	56-55-3	
Benzo(a)pyrene	**756**	ug/kg	33.8	12.8	1	11/21/25 13:54	11/25/25 08:46	50-32-8	
Benzo(g,h,i)perylene	**573**	ug/kg	33.8	10.7	1	11/21/25 13:54	11/25/25 08:46	191-24-2	
Benzofluoranthenes (Total)	**1630**	ug/kg	101	32.8	1	11/21/25 13:54	11/25/25 08:46		N2
Chrysene	**943**	ug/kg	33.8	9.9	1	11/21/25 13:54	11/25/25 08:46	218-01-9	
Dibenz(a,h)acridine	**46.2**	ug/kg	33.8	11.5	1	11/21/25 13:54	11/25/25 08:46	226-36-8	
Dibenz(a,h)anthracene	**130**	ug/kg	33.8	11.7	1	11/21/25 13:54	11/25/25 08:46	53-70-3	
Dibenzo(a,e)pyrene	**331**	ug/kg	33.8	9.6	1	11/21/25 13:54	11/25/25 08:46	192-65-4	
Dibenzo(a,h)pyrene	**175**	ug/kg	33.8	9.3	1	11/21/25 13:54	11/25/25 08:46	189-64-0	
Dibenzo(a,i)pyrene	**94.8**	ug/kg	33.8	11.3	1	11/21/25 13:54	11/25/25 08:46	189-55-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED02 **Lab ID: 10756796002** Collected: 11/13/25 13:30 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Dibenzo(a,l)pyrene	**<7.4**	ug/kg	33.8	7.4	1	11/21/25 13:54	11/25/25 08:46	191-30-0	
7H-Dibenzo(c,g)carbazole	**<10.5**	ug/kg	33.8	10.5	1	11/21/25 13:54	11/25/25 08:46	194-59-2	
7,12-Dimethylbenz(a)anthracene	**<9.8**	ug/kg	33.8	9.8	1	11/21/25 13:54	11/25/25 08:46	57-97-6	C6,L2
Fluoranthene	**1770**	ug/kg	33.8	10.4	1	11/21/25 13:54	11/25/25 08:46	206-44-0	
Fluorene	**104**	ug/kg	33.8	8.6	1	11/21/25 13:54	11/25/25 08:46	86-73-7	
Indeno(1,2,3-cd)pyrene	**627**	ug/kg	33.8	11.3	1	11/21/25 13:54	11/25/25 08:46	193-39-5	
3-Methylcholanthrene	**<7.2**	ug/kg	33.8	7.2	1	11/21/25 13:54	11/25/25 08:46	56-49-5	
5-Methylchrysene	**134**	ug/kg	33.8	9.1	1	11/21/25 13:54	11/25/25 08:46	3697-24-3	
2-Methylnaphthalene	**20.5J**	ug/kg	33.8	8.6	1	11/21/25 13:54	11/25/25 08:46	91-57-6	
Naphthalene	**27.8J**	ug/kg	33.8	8.0	1	11/21/25 13:54	11/25/25 08:46	91-20-3	
Phenanthrene	**808**	ug/kg	33.8	10.6	1	11/21/25 13:54	11/25/25 08:46	85-01-8	
Pyrene	**1460**	ug/kg	33.8	8.4	1	11/21/25 13:54	11/25/25 08:46	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	86	%.	45-125		1	11/21/25 13:54	11/25/25 08:46	321-60-8	
p-Terphenyl-d14 (S)	92	%.	53-125		1	11/21/25 13:54	11/25/25 08:46	1718-51-0	
8260D MSV UST	Analytical Method: EPA 8260D Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Benzene	**<14.1**	ug/kg	41.8	14.1	1	11/25/25 13:51	11/26/25 23:27	71-43-2	
Ethylbenzene	**<35.1**	ug/kg	104	35.1	1	11/25/25 13:51	11/26/25 23:27	100-41-4	
Toluene	**<41.8**	ug/kg	104	41.8	1	11/25/25 13:51	11/26/25 23:27	108-88-3	
Xylene (Total)	**<59.3**	ug/kg	313	59.3	1	11/25/25 13:51	11/26/25 23:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	105	%.	75-125		1	11/25/25 13:51	11/26/25 23:27	460-00-4	
Toluene-d8 (S)	115	%.	75-125		1	11/25/25 13:51	11/26/25 23:27	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1	11/25/25 13:51	11/26/25 23:27	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED03 **Lab ID: 10756796003** Collected: 11/13/25 14:30 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Silica Gel	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**55.3**	mg/kg	53.5	15.0	5	11/18/25 17:13	11/22/25 12:30		T6
Surrogates									
n-Triacontane (S)	79	%.	30-147		5	11/18/25 17:13	11/22/25 12:30		
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: EPA 5030 Medium Soil Pace Analytical Services - Minneapolis								
Gasoline Range Organics	**<5.9**	mg/kg	23.9	5.9	1	11/21/25 11:18	11/25/25 09:38		
Surrogates									
a,a,a-Trifluorotoluene (S)	81	%.	80-200		1	11/21/25 11:18	11/25/25 09:38	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis								
Arsenic	**6.0**	mg/kg	1.7	0.28	1	11/24/25 14:47	11/26/25 16:30	7440-38-2	
Barium	**123**	mg/kg	0.84	0.13	1	11/24/25 14:47	11/26/25 16:30	7440-39-3	
Cadmium	**0.43**	mg/kg	0.25	0.059	1	11/24/25 14:47	11/26/25 16:30	7440-43-9	
Chromium	**16.6**	mg/kg	0.84	0.25	1	11/24/25 14:47	11/26/25 16:30	7440-47-3	
Copper	**24.0**	mg/kg	0.84	0.12	1	11/24/25 14:47	11/26/25 16:30	7440-50-8	
Lead	**27.0**	mg/kg	0.84	0.38	1	11/24/25 14:47	11/26/25 16:30	7439-92-1	
Selenium	**1.5J**	mg/kg	1.7	0.74	1	11/24/25 14:47	11/26/25 16:30	7782-49-2	
Silver	**0.094J**	mg/kg	0.84	0.067	1	11/24/25 14:47	11/26/25 16:30	7440-22-4	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Minneapolis								
Mercury	**0.065**	mg/kg	0.034	0.015	1	11/23/25 14:32	11/24/25 13:14	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**41.6**	%	0.10	0.10	1		11/24/25 11:11		N2
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Acenaphthene	**26.4**	ug/kg	16.9	4.1	1	11/21/25 13:54	11/25/25 09:14	83-32-9	
Acenaphthylene	**<4.1**	ug/kg	16.9	4.1	1	11/21/25 13:54	11/25/25 09:14	208-96-8	
Anthracene	**77.9**	ug/kg	16.9	5.0	1	11/21/25 13:54	11/25/25 09:14	120-12-7	
Benzo(a)anthracene	**400**	ug/kg	16.9	6.1	1	11/21/25 13:54	11/25/25 09:14	56-55-3	
Benzo(a)pyrene	**469**	ug/kg	16.9	6.4	1	11/21/25 13:54	11/25/25 09:14	50-32-8	
Benzo(g,h,i)perylene	**477**	ug/kg	16.9	5.3	1	11/21/25 13:54	11/25/25 09:14	191-24-2	
Benzofluoranthenes (Total)	**1250**	ug/kg	50.7	16.4	1	11/21/25 13:54	11/25/25 09:14		N2
Chrysene	**649**	ug/kg	16.9	5.0	1	11/21/25 13:54	11/25/25 09:14	218-01-9	
Dibenz(a,h)acridine	**38.7**	ug/kg	16.9	5.8	1	11/21/25 13:54	11/25/25 09:14	226-36-8	
Dibenz(a,h)anthracene	**104**	ug/kg	16.9	5.9	1	11/21/25 13:54	11/25/25 09:14	53-70-3	
Dibenzo(a,e)pyrene	**276**	ug/kg	16.9	4.8	1	11/21/25 13:54	11/25/25 09:14	192-65-4	
Dibenzo(a,h)pyrene	**130**	ug/kg	16.9	4.6	1	11/21/25 13:54	11/25/25 09:14	189-64-0	
Dibenzo(a,i)pyrene	**57.3**	ug/kg	16.9	5.6	1	11/21/25 13:54	11/25/25 09:14	189-55-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED03 **Lab ID: 10756796003** Collected: 11/13/25 14:30 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Dibenzo(a,l)pyrene	**<3.7**	ug/kg	16.9	3.7	1	11/21/25 13:54	11/25/25 09:14	191-30-0	
7H-Dibenzo(c,g)carbazole	**<5.3**	ug/kg	16.9	5.3	1	11/21/25 13:54	11/25/25 09:14	194-59-2	
7,12-Dimethylbenz(a)anthracene	**<4.9**	ug/kg	16.9	4.9	1	11/21/25 13:54	11/25/25 09:14	57-97-6	C6,L2
Fluoranthene	**1140**	ug/kg	16.9	5.2	1	11/21/25 13:54	11/25/25 09:14	206-44-0	
Fluorene	**38.8**	ug/kg	16.9	4.3	1	11/21/25 13:54	11/25/25 09:14	86-73-7	
Indeno(1,2,3-cd)pyrene	**496**	ug/kg	16.9	5.6	1	11/21/25 13:54	11/25/25 09:14	193-39-5	
3-Methylcholanthrene	**<3.6**	ug/kg	16.9	3.6	1	11/21/25 13:54	11/25/25 09:14	56-49-5	
5-Methylchrysene	**72.4**	ug/kg	16.9	4.6	1	11/21/25 13:54	11/25/25 09:14	3697-24-3	
2-Methylnaphthalene	**15.1J**	ug/kg	16.9	4.3	1	11/21/25 13:54	11/25/25 09:14	91-57-6	
Naphthalene	**43.4**	ug/kg	16.9	4.0	1	11/21/25 13:54	11/25/25 09:14	91-20-3	
Phenanthrene	**367**	ug/kg	16.9	5.3	1	11/21/25 13:54	11/25/25 09:14	85-01-8	
Pyrene	**901**	ug/kg	16.9	4.2	1	11/21/25 13:54	11/25/25 09:14	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%.	45-125		1	11/21/25 13:54	11/25/25 09:14	321-60-8	
p-Terphenyl-d14 (S)	61	%.	53-125		1	11/21/25 13:54	11/25/25 09:14	1718-51-0	
8260D MSV UST	Analytical Method: EPA 8260D Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Benzene	**<15.8**	ug/kg	47.0	15.8	1	11/25/25 13:51	11/26/25 23:42	71-43-2	
Ethylbenzene	**<39.5**	ug/kg	117	39.5	1	11/25/25 13:51	11/26/25 23:42	100-41-4	
Toluene	**<47.0**	ug/kg	117	47.0	1	11/25/25 13:51	11/26/25 23:42	108-88-3	
Xylene (Total)	**<66.7**	ug/kg	352	66.7	1	11/25/25 13:51	11/26/25 23:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%.	75-125		1	11/25/25 13:51	11/26/25 23:42	460-00-4	
Toluene-d8 (S)	109	%.	75-125		1	11/25/25 13:51	11/26/25 23:42	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	99	%.	75-125		1	11/25/25 13:51	11/26/25 23:42	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED04 **Lab ID: 10756796004** Collected: 11/13/25 15:00 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS Silica Gel	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO Pace Analytical Services - Minneapolis								
WDRO C10-C28	**81.3**	mg/kg	18.3	5.1	2	11/18/25 17:13	11/21/25 15:29		T6
Surrogates									
n-Triacontane (S)	84	%.	30-147		2	11/18/25 17:13	11/21/25 15:29		
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: EPA 5030 Medium Soil Pace Analytical Services - Minneapolis								
Gasoline Range Organics	**<4.7**	mg/kg	19.3	4.7	1	11/23/25 16:03	11/24/25 03:45		
Surrogates									
a,a,a-Trifluorotoluene (S)	84	%.	80-200		1	11/23/25 16:03	11/24/25 03:45	98-08-8	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis								
Arsenic	**2.5**	mg/kg	1.4	0.24	1	11/24/25 14:47	11/26/25 16:32	7440-38-2	
Barium	**62.9**	mg/kg	0.72	0.11	1	11/24/25 14:47	11/26/25 16:32	7440-39-3	
Cadmium	**0.19J**	mg/kg	0.22	0.051	1	11/24/25 14:47	11/26/25 16:32	7440-43-9	
Chromium	**13.2**	mg/kg	0.72	0.21	1	11/24/25 14:47	11/26/25 16:32	7440-47-3	
Copper	**11.3**	mg/kg	0.72	0.10	1	11/24/25 14:47	11/26/25 16:32	7440-50-8	
Lead	**29.9**	mg/kg	0.72	0.32	1	11/24/25 14:47	11/26/25 16:32	7439-92-1	
Selenium	**0.76J**	mg/kg	1.4	0.63	1	11/24/25 14:47	11/26/25 16:32	7782-49-2	
Silver	**<0.058**	mg/kg	0.72	0.058	1	11/24/25 14:47	11/26/25 16:32	7440-22-4	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Minneapolis								
Mercury	**0.056**	mg/kg	0.028	0.012	1	11/23/25 14:32	11/24/25 13:16	7439-97-6	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	**31.6**	%	0.10	0.10	1		11/24/25 11:12		N2
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Acenaphthene	**38.3**	ug/kg	28.9	7.0	1	11/21/25 13:54	11/25/25 07:48	83-32-9	
Acenaphthylene	**77.4**	ug/kg	28.9	7.1	1	11/21/25 13:54	11/25/25 07:48	208-96-8	
Anthracene	**112**	ug/kg	28.9	8.6	1	11/21/25 13:54	11/25/25 07:48	120-12-7	
Benzo(a)anthracene	**556**	ug/kg	28.9	10.4	1	11/21/25 13:54	11/25/25 07:48	56-55-3	
Benzo(a)pyrene	**627**	ug/kg	28.9	11.0	1	11/21/25 13:54	11/25/25 07:48	50-32-8	
Benzo(g,h,i)perylene	**435**	ug/kg	28.9	9.1	1	11/21/25 13:54	11/25/25 07:48	191-24-2	
Benzofluoranthenes (Total)	**1130**	ug/kg	86.8	28.1	1	11/21/25 13:54	11/25/25 07:48		N2
Chrysene	**656**	ug/kg	28.9	8.5	1	11/21/25 13:54	11/25/25 07:48	218-01-9	
Dibenz(a,h)acridine	**29.5**	ug/kg	28.9	9.9	1	11/21/25 13:54	11/25/25 07:48	226-36-8	
Dibenz(a,h)anthracene	**91.6**	ug/kg	28.9	10.0	1	11/21/25 13:54	11/25/25 07:48	53-70-3	
Dibenzo(a,e)pyrene	**244**	ug/kg	28.9	8.2	1	11/21/25 13:54	11/25/25 07:48	192-65-4	
Dibenzo(a,h)pyrene	**120**	ug/kg	28.9	8.0	1	11/21/25 13:54	11/25/25 07:48	189-64-0	
Dibenzo(a,i)pyrene	**59.8**	ug/kg	28.9	9.7	1	11/21/25 13:54	11/25/25 07:48	189-55-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: SED04 **Lab ID: 10756796004** Collected: 11/13/25 15:00 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis								
Dibenzo(a,l)pyrene	**<6.3**	ug/kg	28.9	6.3	1	11/21/25 13:54	11/25/25 07:48	191-30-0	
7H-Dibenzo(c,g)carbazole	**<9.0**	ug/kg	28.9	9.0	1	11/21/25 13:54	11/25/25 07:48	194-59-2	
7,12-Dimethylbenz(a)anthracene	**<8.4**	ug/kg	28.9	8.4	1	11/21/25 13:54	11/25/25 07:48	57-97-6	C6,L2
Fluoranthene	**1110**	ug/kg	28.9	8.9	1	11/21/25 13:54	11/25/25 07:48	206-44-0	
Fluorene	**67.4**	ug/kg	28.9	7.3	1	11/21/25 13:54	11/25/25 07:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**454**	ug/kg	28.9	9.7	1	11/21/25 13:54	11/25/25 07:48	193-39-5	
3-Methylcholanthrene	**<6.2**	ug/kg	28.9	6.2	1	11/21/25 13:54	11/25/25 07:48	56-49-5	
5-Methylchrysene	**106**	ug/kg	28.9	7.8	1	11/21/25 13:54	11/25/25 07:48	3697-24-3	
2-Methylnaphthalene	**24.2J**	ug/kg	28.9	7.4	1	11/21/25 13:54	11/25/25 07:48	91-57-6	
Naphthalene	**35.3**	ug/kg	28.9	6.9	1	11/21/25 13:54	11/25/25 07:48	91-20-3	
Phenanthrene	**413**	ug/kg	28.9	9.1	1	11/21/25 13:54	11/25/25 07:48	85-01-8	
Pyrene	**1110**	ug/kg	28.9	7.2	1	11/21/25 13:54	11/25/25 07:48	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	78	%.	45-125		1	11/21/25 13:54	11/25/25 07:48	321-60-8	
p-Terphenyl-d14 (S)	87	%.	53-125		1	11/21/25 13:54	11/25/25 07:48	1718-51-0	
8260D MSV UST	Analytical Method: EPA 8260D Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Benzene	**<11.1**	ug/kg	33.1	11.1	1	11/25/25 13:51	11/26/25 23:57	71-43-2	
Ethylbenzene	**<27.8**	ug/kg	82.7	27.8	1	11/25/25 13:51	11/26/25 23:57	100-41-4	
Toluene	**<33.1**	ug/kg	82.7	33.1	1	11/25/25 13:51	11/26/25 23:57	108-88-3	
Xylene (Total)	**<47.0**	ug/kg	248	47.0	1	11/25/25 13:51	11/26/25 23:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	105	%.	75-125		1	11/25/25 13:51	11/26/25 23:57	460-00-4	
Toluene-d8 (S)	107	%.	75-125		1	11/25/25 13:51	11/26/25 23:57	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	100	%.	75-125		1	11/25/25 13:51	11/26/25 23:57	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Sample: TB **Lab ID: 10756796005** Collected: 11/13/25 00:00 Received: 11/14/25 10:47 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: EPA 5030 Medium Soil Pace Analytical Services - Minneapolis								
Gasoline Range Organics	**<2.4**	mg/kg	10.0	2.4	1	11/23/25 16:07	11/24/25 05:31		
Surrogates									
a,a,a-Trifluorotoluene (S)	83	%.	80-200		1	11/23/25 16:07	11/24/25 05:31	98-08-8	
8260D MSV UST	Analytical Method: EPA 8260D Preparation Method: EPA 5035/5030B Pace Analytical Services - Minneapolis								
Benzene	**75.6**	ug/kg	20.0	6.7	1	11/25/25 13:51	11/26/25 20:00	71-43-2	
Ethylbenzene	**<16.8**	ug/kg	50.0	16.8	1	11/25/25 13:51	11/26/25 20:00	100-41-4	
Toluene	**<20.0**	ug/kg	50.0	20.0	1	11/25/25 13:51	11/26/25 20:00	108-88-3	
Xylene (Total)	**<28.4**	ug/kg	150	28.4	1	11/25/25 13:51	11/26/25 20:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%.	75-125		1	11/25/25 13:51	11/26/25 20:00	460-00-4	
Toluene-d8 (S)	109	%.	75-125		1	11/25/25 13:51	11/26/25 20:00	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	102	%.	75-125		1	11/25/25 13:51	11/26/25 20:00	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042352
QC Batch Method: EPA 5030 Medium Soil
Analysis Method: WI MOD GRO
Analysis Description: WIGRO Solid GCV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003

METHOD BLANK: 5425389 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	<2.4	10.0	2.4	11/25/25 03:34	
a,a,a-Trifluorotoluene (S)	%.	81	80-200		11/25/25 03:34	

LABORATORY CONTROL SAMPLE & LCSD: 5425390 5425391

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	mg/kg	50	46.8	47.8	94	96	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%.				92	93	80-200			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042454
QC Batch Method: EPA 5030 Medium Soil
Analysis Method: WI MOD GRO
Analysis Description: WIGRO Solid GCV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796004

METHOD BLANK: 5425894 Matrix: Solid
Associated Lab Samples: 10756796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	<2.4	10.0	2.4	11/23/25 20:58	
a,a,a-Trifluorotoluene (S)	%.	82	80-200		11/23/25 20:58	

LABORATORY CONTROL SAMPLE & LCSD: 5425895 5425896

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	mg/kg	50	50.8	50.1	102	100	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%.				90	90	80-200			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042515
QC Batch Method: EPA 5030 Medium Soil
Analysis Method: WI MOD GRO
Analysis Description: WIGRO Solid GCV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796005

METHOD BLANK: 5426657 Matrix: Solid
Associated Lab Samples: 10756796005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	<2.4	10.0	2.4	11/24/25 05:10	
a,a,a-Trifluorotoluene (S)	%.	83	80-200		11/24/25 05:10	

LABORATORY CONTROL SAMPLE & LCSD: 5426658 5426659

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	mg/kg	50	47.6	47.6	95	95	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%.				89	89	80-200			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042192
QC Batch Method: EPA 7471B
Analysis Method: EPA 7471B
Analysis Description: 7471B Mercury Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

METHOD BLANK: 5424678 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	<0.0081	0.019	0.0081	11/24/25 13:05	

LABORATORY CONTROL SAMPLE: 5424679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.44	0.41	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5424680 5424681

Parameter	Units	10756796001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.13	0.82	0.88	0.88	0.92	92	91	80-120	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1041423
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

METHOD BLANK: 5421037 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.16	0.98	0.16	11/26/25 16:17	
Barium	mg/kg	<0.073	0.49	0.073	11/26/25 16:17	
Cadmium	mg/kg	<0.034	0.15	0.034	11/26/25 16:17	
Chromium	mg/kg	<0.15	0.49	0.15	11/26/25 16:17	
Copper	mg/kg	0.20J	0.49	0.071	11/26/25 16:17	
Lead	mg/kg	<0.22	0.49	0.22	11/26/25 16:17	
Selenium	mg/kg	<0.43	0.98	0.43	11/26/25 16:17	
Silver	mg/kg	0.045J	0.49	0.039	11/26/25 16:17	

LABORATORY CONTROL SAMPLE: 5421038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	49.7	49.5	100	80-120	
Barium	mg/kg	49.7	50.5	102	80-120	
Cadmium	mg/kg	49.7	49.4	99	80-120	
Chromium	mg/kg	49.7	50.0	101	80-120	
Copper	mg/kg	49.7	51.6	104	80-120	
Lead	mg/kg	49.7	49.0	99	80-120	
Selenium	mg/kg	49.7	47.2	95	80-120	
Silver	mg/kg	24.9	23.5	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5421039 5421040

Parameter	Units	10756796001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	9.0	91.1	90.6	92.9	92.5	92	92	75-125	0	20	
Barium	mg/kg	148	91.1	90.6	246	243	108	105	75-125	1	20	
Cadmium	mg/kg	0.72	91.1	90.6	80.1	79.1	87	87	75-125	1	20	
Chromium	mg/kg	26.8	91.1	90.6	113	111	95	94	75-125	1	20	
Copper	mg/kg	36.8	91.1	90.6	132	131	105	104	75-125	1	20	
Lead	mg/kg	95.8	91.1	90.6	174	173	86	86	75-125	1	20	
Selenium	mg/kg	0.90J	91.1	90.6	82.5	80.9	89	88	75-125	2	20	
Silver	mg/kg	<0.070	45.6	45.2	41.9	41.4	92	91	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042611
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

SAMPLE DUPLICATE: 5427027

Parameter	Units	10756795001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.3	6.7	6	30	N2

SAMPLE DUPLICATE: 5427028

Parameter	Units	10756797001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	3.0	3.1	5	30	N2

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042856
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV UST
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004, 10756796005

METHOD BLANK: 5427901 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004, 10756796005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Benzene	ug/kg	<6.7	20.0	6.7	11/26/25 19:30	
Ethylbenzene	ug/kg	<16.8	50.0	16.8	11/26/25 19:30	
Toluene	ug/kg	<20.0	50.0	20.0	11/26/25 19:30	
Xylene (Total)	ug/kg	<28.4	150	28.4	11/26/25 19:30	
1,2-Dichlorobenzene-d4 (S)	%.	100	75-125		11/26/25 19:30	
4-Bromofluorobenzene (S)	%.	104	75-125		11/26/25 19:30	
Toluene-d8 (S)	%.	107	75-125		11/26/25 19:30	

LABORATORY CONTROL SAMPLE & LCSD: 5427902 5427903

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	1000	997	1140	100	114	75-125	14	20	
Ethylbenzene	ug/kg	1000	1080	1200	108	120	75-125	10	20	
Toluene	ug/kg	1000	1020	1070	102	107	75-125	5	20	
Xylene (Total)	ug/kg	3000	3140	3550	105	118	75-125	12	20	
1,2-Dichlorobenzene-d4 (S)	%.				103	99	75-125			
4-Bromofluorobenzene (S)	%.				101	101	75-125			
Toluene-d8 (S)	%.				98	98	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1042361
QC Batch Method: EPA 3546
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E CPAH Solid
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

METHOD BLANK: 5425424 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2-Methylnaphthalene	ug/kg	<2.6	10.0	2.6	11/24/25 23:12	
3-Methylcholanthrene	ug/kg	<2.1	10.0	2.1	11/24/25 23:12	
5-Methylchrysene	ug/kg	<2.7	10.0	2.7	11/24/25 23:12	
7,12-Dimethylbenz(a)anthracene	ug/kg	<2.9	10.0	2.9	11/24/25 23:12	
7H-Dibenzo(c,g)carbazole	ug/kg	<3.1	10.0	3.1	11/24/25 23:12	
Acenaphthene	ug/kg	<2.4	10.0	2.4	11/24/25 23:12	
Acenaphthylene	ug/kg	<2.4	10.0	2.4	11/24/25 23:12	
Anthracene	ug/kg	<3.0	10.0	3.0	11/24/25 23:12	
Benzo(a)anthracene	ug/kg	<3.6	10.0	3.6	11/24/25 23:12	
Benzo(a)pyrene	ug/kg	<3.8	10.0	3.8	11/24/25 23:12	
Benzo(g,h,i)perylene	ug/kg	<3.2	10.0	3.2	11/24/25 23:12	
Benzofluoranthenes (Total)	ug/kg	<9.7	30.0	9.7	11/24/25 23:12	N2
Chrysene	ug/kg	<2.9	10.0	2.9	11/24/25 23:12	
Dibenz(a,h)acridine	ug/kg	<3.4	10.0	3.4	11/24/25 23:12	
Dibenz(a,h)anthracene	ug/kg	<3.5	10.0	3.5	11/24/25 23:12	
Dibenzo(a,e)pyrene	ug/kg	<2.8	10.0	2.8	11/24/25 23:12	
Dibenzo(a,h)pyrene	ug/kg	<2.8	10.0	2.8	11/24/25 23:12	
Dibenzo(a,i)pyrene	ug/kg	<3.3	10.0	3.3	11/24/25 23:12	
Dibenzo(a,l)pyrene	ug/kg	<2.2	10.0	2.2	11/24/25 23:12	
Fluoranthene	ug/kg	<3.1	10.0	3.1	11/24/25 23:12	
Fluorene	ug/kg	<2.5	10.0	2.5	11/24/25 23:12	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.3	10.0	3.3	11/24/25 23:12	
Naphthalene	ug/kg	<2.4	10.0	2.4	11/24/25 23:12	
Phenanthrene	ug/kg	<3.2	10.0	3.2	11/24/25 23:12	
Pyrene	ug/kg	<2.5	10.0	2.5	11/24/25 23:12	
2-Fluorobiphenyl (S)	%.	78	45-125		11/24/25 23:12	
p-Terphenyl-d14 (S)	%.	95	53-125		11/24/25 23:12	

LABORATORY CONTROL SAMPLE: 5425425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/kg	300	184	61	40-125	
3-Methylcholanthrene	ug/kg	300	222	74	53-125	
5-Methylchrysene	ug/kg	300	245	82	61-125	
7,12-Dimethylbenz(a)anthracene	ug/kg	300	129	43	44-125	L2
7H-Dibenzo(c,g)carbazole	ug/kg	300	229	76	56-125	
Acenaphthene	ug/kg	300	211	70	47-125	
Acenaphthylene	ug/kg	300	214	71	46-125	
Anthracene	ug/kg	300	237	79	52-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

LABORATORY CONTROL SAMPLE: 5425425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	ug/kg	300	235	78	52-125	
Benzo(a)pyrene	ug/kg	300	252	84	53-125	
Benzo(g,h,i)perylene	ug/kg	300	233	78	56-125	
Benzofluoranthenes (Total)	ug/kg	900	774	86	56-125	N2
Chrysene	ug/kg	300	245	82	57-125	
Dibenz(a,h)acridine	ug/kg	300	234	78	59-125	
Dibenz(a,h)anthracene	ug/kg	300	239	80	53-125	
Dibenzo(a,e)pyrene	ug/kg	300	214	71	54-125	
Dibenzo(a,h)pyrene	ug/kg	300	224	75	56-125	
Dibenzo(a,i)pyrene	ug/kg	300	222	74	53-125	
Dibenzo(a,l)pyrene	ug/kg	300	186	62	47-125	
Fluoranthene	ug/kg	300	232	77	51-125	
Fluorene	ug/kg	300	225	75	46-125	
Indeno(1,2,3-cd)pyrene	ug/kg	300	236	79	53-125	
Naphthalene	ug/kg	300	183	61	39-125	
Phenanthrene	ug/kg	300	232	77	54-125	
Pyrene	ug/kg	300	236	79	54-125	
2-Fluorobiphenyl (S)	%.			66	45-125	
p-Terphenyl-d14 (S)	%.			91	53-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5425426 5425427

Parameter	Units	10756726001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Methylnaphthalene	ug/kg	ND	340	342	244	276	72	81	30-150	12	30	
3-Methylcholanthrene	ug/kg	ND	340	342	220	244	65	71	30-125	10	30	
5-Methylchrysene	ug/kg	ND	340	342	280	275	82	80	33-125	2	30	
7,12-Dimethylbenz(a)anthracene	ug/kg	ND	340	342	105	89.5	31	26	30-125	16	30	M0
7H-Dibenzo(c,g)carbazole	ug/kg	ND	340	342	279	279	82	82	30-125	0	30	
Acenaphthene	ug/kg	ND	340	342	266	259	78	76	30-125	3	30	
Acenaphthylene	ug/kg	ND	340	342	267	254	78	74	34-125	5	30	
Anthracene	ug/kg	ND	340	342	257	259	76	76	30-137	1	30	
Benzo(a)anthracene	ug/kg	ND	340	342	265	273	78	80	30-150	3	30	
Benzo(a)pyrene	ug/kg	ND	340	342	273	283	80	83	30-150	4	30	
Benzo(g,h,i)perylene	ug/kg	ND	340	342	273	274	80	80	30-150	0	30	
Benzofluoranthenes (Total)	ug/kg	ND	1020	1030	891	894	87	87	30-150	0	30	N2
Chrysene	ug/kg	ND	340	342	287	278	84	81	30-150	3	30	
Dibenz(a,h)acridine	ug/kg	ND	340	342	284	281	83	82	32-125	1	30	
Dibenz(a,h)anthracene	ug/kg	ND	340	342	266	281	78	82	30-125	6	30	
Dibenzo(a,e)pyrene	ug/kg	ND	340	342	236	243	69	71	30-137	3	30	
Dibenzo(a,h)pyrene	ug/kg	ND	340	342	261	269	77	79	30-148	3	30	
Dibenzo(a,i)pyrene	ug/kg	ND	340	342	235	255	69	75	30-137	8	30	
Dibenzo(a,l)pyrene	ug/kg	ND	340	342	163	192	48	56	30-127	16	30	
Fluoranthene	ug/kg	ND	340	342	279	277	82	81	30-150	1	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5425426 5425427

Parameter	Units	10756726001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluorene	ug/kg	ND	340	342	256	255	75	74	30-125	0	30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	340	342	284	290	83	85	30-150	2	30	
Naphthalene	ug/kg	ND	340	342	244	265	72	78	30-125	8	30	
Phenanthrene	ug/kg	ND	340	342	266	262	78	77	30-150	1	30	
Pyrene	ug/kg	ND	340	342	278	277	82	81	30-150	0	30	
2-Fluorobiphenyl (S)	%.						79	72	45-125			
p-Terphenyl-d14 (S)	%.						92	90	53-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

QC Batch: 1041683
QC Batch Method: WI MOD DRO
Analysis Method: WI MOD DRO
Analysis Description: WIDRO Solid GCV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

METHOD BLANK: 5421969 Matrix: Solid
Associated Lab Samples: 10756796001, 10756796002, 10756796003, 10756796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
WDRO C10-C28	mg/kg	<2.8	10.0	2.8	11/21/25 14:06	
n-Triacontane (S)	%.	104	30-147		11/21/25 14:06	

LABORATORY CONTROL SAMPLE & LCSD: 5421970 5421971

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
WDRO C10-C28	mg/kg	80	77.5	92.4	97	115	51-125	18	20	
n-Triacontane (S)	%.				103	124	30-147			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 1042045

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 1042574

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 1042575

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 1042760

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 1043754

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

C6	Result confirmed by reanalysis conducted outside of the method specified holding time.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

QUALIFIERS

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

ANALYTE QUALIFIERS

P1	Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.
T6	High boiling point hydrocarbons are present in the sample.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 23270051.70 200 005 Bassett Cr
Pace Project No.: 10756796

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10756796001	**SED01**	WI MOD DRO	1041683	WI MOD DRO	1042045
10756796002	**SED02**	WI MOD DRO	1041683	WI MOD DRO	1042045
10756796003	**SED03**	WI MOD DRO	1041683	WI MOD DRO	1042045
10756796004	**SED04**	WI MOD DRO	1041683	WI MOD DRO	1042045
10756796001	**SED01**	EPA 5030 Medium Soil	1042352	WI MOD GRO	1042760
10756796002	**SED02**	EPA 5030 Medium Soil	1042352	WI MOD GRO	1042760
10756796003	**SED03**	EPA 5030 Medium Soil	1042352	WI MOD GRO	1042760
10756796004	**SED04**	EPA 5030 Medium Soil	1042454	WI MOD GRO	1042574
10756796005	**TB**	EPA 5030 Medium Soil	1042515	WI MOD GRO	1042575
10756796001	**SED01**	EPA 3050B	1041423	EPA 6010D	1042847
10756796002	**SED02**	EPA 3050B	1041423	EPA 6010D	1042847
10756796003	**SED03**	EPA 3050B	1041423	EPA 6010D	1042847
10756796004	**SED04**	EPA 3050B	1041423	EPA 6010D	1042847
10756796001	**SED01**	EPA 7471B	1042192	EPA 7471B	1042618
10756796002	**SED02**	EPA 7471B	1042192	EPA 7471B	1042618
10756796003	**SED03**	EPA 7471B	1042192	EPA 7471B	1042618
10756796004	**SED04**	EPA 7471B	1042192	EPA 7471B	1042618
10756796001	**SED01**	ASTM D2974	1042611		
10756796002	**SED02**	ASTM D2974	1042611		
10756796003	**SED03**	ASTM D2974	1042611		
10756796004	**SED04**	ASTM D2974	1042611		
10756796001	**SED01**	EPA 3546	1042361	EPA 8270E by SIM	1042780
10756796002	**SED02**	EPA 3546	1042361	EPA 8270E by SIM	1042780
10756796003	**SED03**	EPA 3546	1042361	EPA 8270E by SIM	1042780
10756796004	**SED04**	EPA 3546	1042361	EPA 8270E by SIM	1042780
10756796001	**SED01**	EPA 5035/5030B	1042856	EPA 8260D	1043754
10756796002	**SED02**	EPA 5035/5030B	1042856	EPA 8260D	1043754
10756796003	**SED03**	EPA 5035/5030B	1042856	EPA 8260D	1043754
10756796004	**SED04**	EPA 5035/5030B	1042856	EPA 8260D	1043754
10756796005	**TB**	EPA 5035/5030B	1042856	EPA 8260D	1043754

BARR. Barr Engineering Co. Chain of Custody

Sample Origination State
☐ CO ☐ MI ☒ MN ☐ MO ☐ ND ☐ NV ☐ TX ☐ UT ☐ WI ☐ WY ☐ Other: _____

COC Number: **№ 598469**
COC 1 of 1

REPORT TO	INVOICE TO
Company: Barr Eng	Company: Barr Eng
Address:	Address:
Address:	Address:
Name: Kevin Menken	Name: Kevin Menken
email:	email:
Copy to: BarrDM@barr.com	P.O.
Project Name: Bassett Creek Lagoon	Barr Project No: 23270051.70 200 005

Location	Sample Depth Start	Stop	Unit (m./ft. or in.)	Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Y / N	Total Number Of Containers	Analysis Requested: Water	Soil: hold for possible TCLP	GRO / BTEX	WI DRO w silica gel cleanup	RCRA metals + copper	cPAHs (stormwater pond list)	% Solids
										A	F	A	A	A	A
Preservative Code															
Field Filtered Y/N															
1. SED01				11/13/24	13:00	SD		10		Hold	X	X	X	X	X
2. SED02				11/13/24	13:30	SD		10		Hold	X	X	X	X	X
3. SED03				11/13/24	14:30	SD		10		Hold	X	X	X	X	X
4. SED04				11/13/24	15:00	SD		10		Hold	X	X	X	X	X
5.															
6.															
7.															
8.															
9.															
10.															

Matrix Code:		Preservative Code:	
GW = Groundwater		A = None	
SW = Surface Water		B = HCl	
DW = Drinking Water		C = HNO_3	
PW = Pore Water		D = H_2SO_4	
WW = Waste Water		E = NaOH	
WQ = TB, FB, EB, etc.		F = MeOH	
W = Unspecified		G = $NaHSO_4$	
S = Soil/Solid		H = $Na_2S_2O_3$	
SD = Sediment		I = Ascorbic Acid	
SQ = MeOH blank		J = Zn Acetate	
OTH = Other (Oil, etc.)		K = Other	

Hold for TCLP metals OC)
all samples. CW
CW3
CW4

WO#: 10756796
10756796

e2: 3289635

BARR USE ONLY

Sampled by: Kevin Menken
Barr Proj. Manager: Patrick Brockamp
Barr DQ Manager: Dana Pasi
Lab Name: Pace
Lab Location: Mpls

Relinquished by: Kevin Menken — On Ice? (Y) N — Date 11/14/25 — Time 08:29
Received by: Cory Pace — Date 11/14/25 — Time 10:47
Relinquished by: — On Ice? Y N — Date — Time
Received by: — Date — Time

Samples Shipped VIA: ☒ Ground Courier ☐ Air Carrier ☐ Sampler ☐ Other: _____
Air Bill Number:
Lab WO: Temperature on Receipt (°C): 6.0 Custody Seal Intact? ☑ Y ☐ N ☐ None

Requested Due Date:
☒ Standard Turn Around Time
☐ Rush _____ (mm/dd/yyyy)

Distribution - White-Original: Accompanies Shipment to Laboratory; **Yellow Copy:** Include in Field Documents; **Scan and email:** a copy to BarrDM@barr.com for tracking and filing procedures

H:\AAN\Chain of Custody Form 2024 Rev. 04/12/2024

ENV-FRM-MIN4-0150 v21_Sample Condition Upon Receipt

Person Examining & Date: CRL 11/14/25 **PROJECT #:**

WO#: 10756796

PM: MKH **Due Date: 12/02/25**

CLIENT: BARR

Client Name: Barr

Custody Seal Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO

Tracking Number: ☐ See Exceptions form ENV-FRM-MIN4-0142.

Courier: ☐ Client ☑ Commercial ☐ FedEx ☐ Pace Courier/Field ☐ SpeeDee ☐ UPS ☐ USPS

Packing Material: ☑ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other: _____ **Biological Tissue Frozen:** ☐ YES ☑ NO

Thermometer: ☑ T1 (0461) ☐ T2 (0431) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0187) ☐ T6 (0396) ☐ T7 (0377) ☐ T8 (0775) ☐ T9 (0428) ☐ 01339252 (0710)

Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Temp Blank: ☑ YES ☐ NO

NOTE: *Temp should be ≤ 6°C, but above freezing*

Read Temp w/Temp Blank: 5.3 °C

Correction Factor: -0.3

Corrected Temp w/Temp Blank: 5.0 °C

Did Samples Originate in West Virginia: ☐ YES ☑ NO **(list temps on exception)**

Were All Container Temps Taken: ☐ YES ☐ NO ☑ N/A

Average Corrected Temp (No Temp Blank Only): _____

☐ See Exceptions form ENV-FRM-MIN4-0142. ☐ 1 Container

USDA Regulated Soil: ☐ N/A – Water Sample/Other (describe): _____

Did Samples originate from one of the following states (check maps): ☐ YES ☑ NO

Circle State: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA

Are samples from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out? **(i.e., Analysis/ID/Date/Time)**	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☑	☐	☐	3.
Samples Arrived within Hold Time? **NOTE:** < 24 hrs if lab filter is requested for Dissolved LL-Mercury by 1631E.	☑	☐		4. If Fecal: ☐ < 8 hrs ☐ > 8 hr but < 24 hrs ☐ >24 hr
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Turbidity ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6. ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 Day Due Date: _____
Sufficient Sample Volume? **(If NO, list approximate volume in section 7.)**	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
ID/Date/Time Match? **(If NO, fill out section 11.)** Matrix: ☐ Oil ☑ Soil ☐ Water ☐ Other	☑	☐	☐	11. ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☑	12.
Sample #: ☐ HNO3 _____ ☐ H2SO4 _____ ☐ NaOH _____ ☐ Zinc Acetate _____ **pH Paper Lot #:** ☐ Residual Chlorine _____ ☐ 0-6 Roll _____ ☐ 0-6 Strip _____ ☐ 0-14 Strip _____ **Positive for Residual Chlorine (NaOH containers only): ☐ YES ☐ NO**				
Preserved containers in compliance with EPA recommendations? (HNO3, H2SO4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0142
EXCEPTIONS (water only): VOA, Coliform, TOC/DOC, Oil & Grease, Phenols, DRO/8015, Dioxins, and PFAS	☐	☐	☑	
Extra labels present on soil VOA or WIDRO containers? **(soil only)**	☑	☐	☐	13.
Headspace in Methyl Mercury Container?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☑	☐	☐	15. 2
Trip Blank Custody Seals Present?	☑	☐	☐	Pace Trip Blank Lot # (if purchased): 081125-3

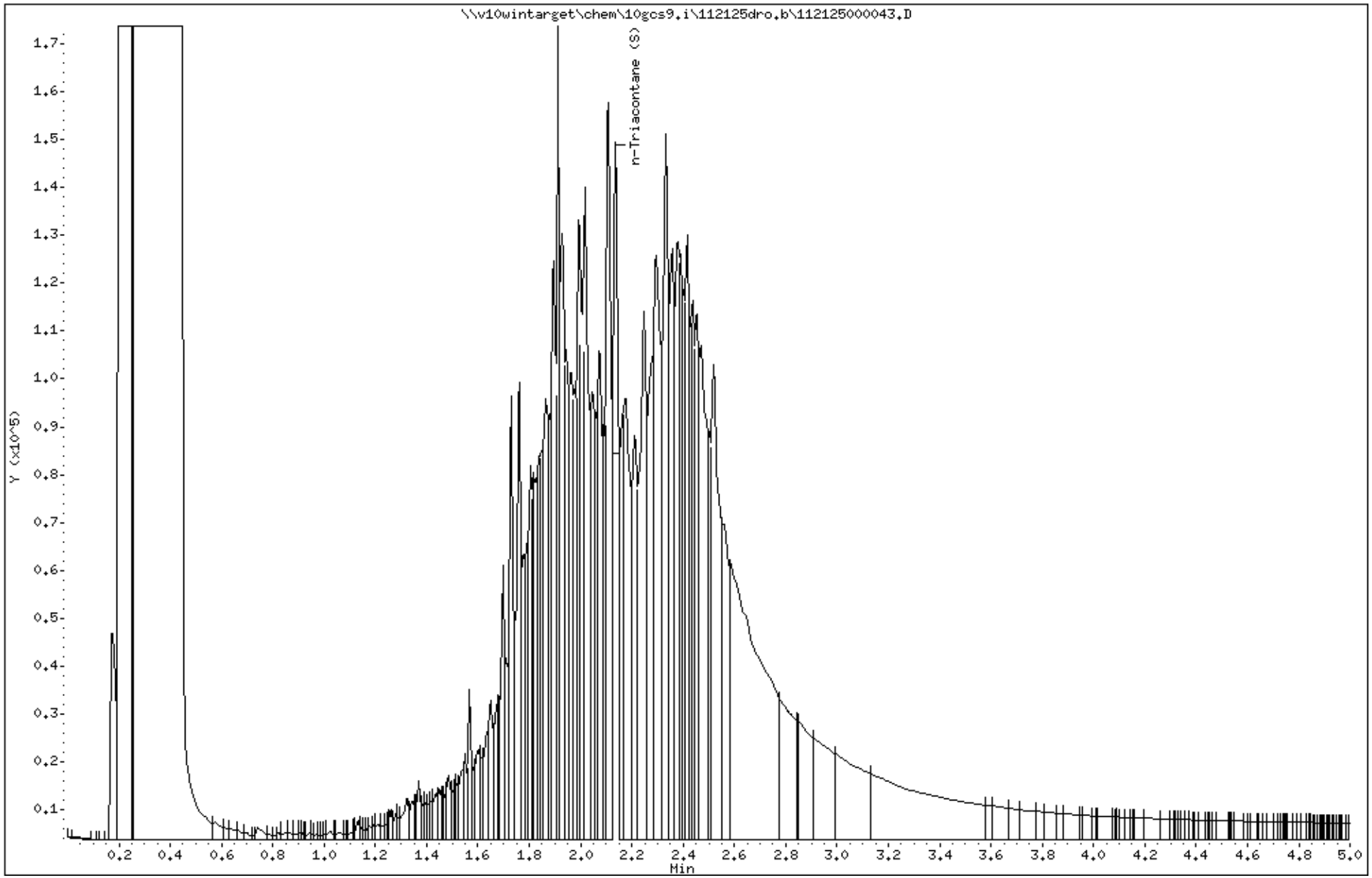
CLIENT NOTIFICATION / RESOLUTION: **Labeled By:** CRL **Line:** 3

Person Contacted & Date/Time: _____ **PM Review & Date:** 11/17/25

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office.*

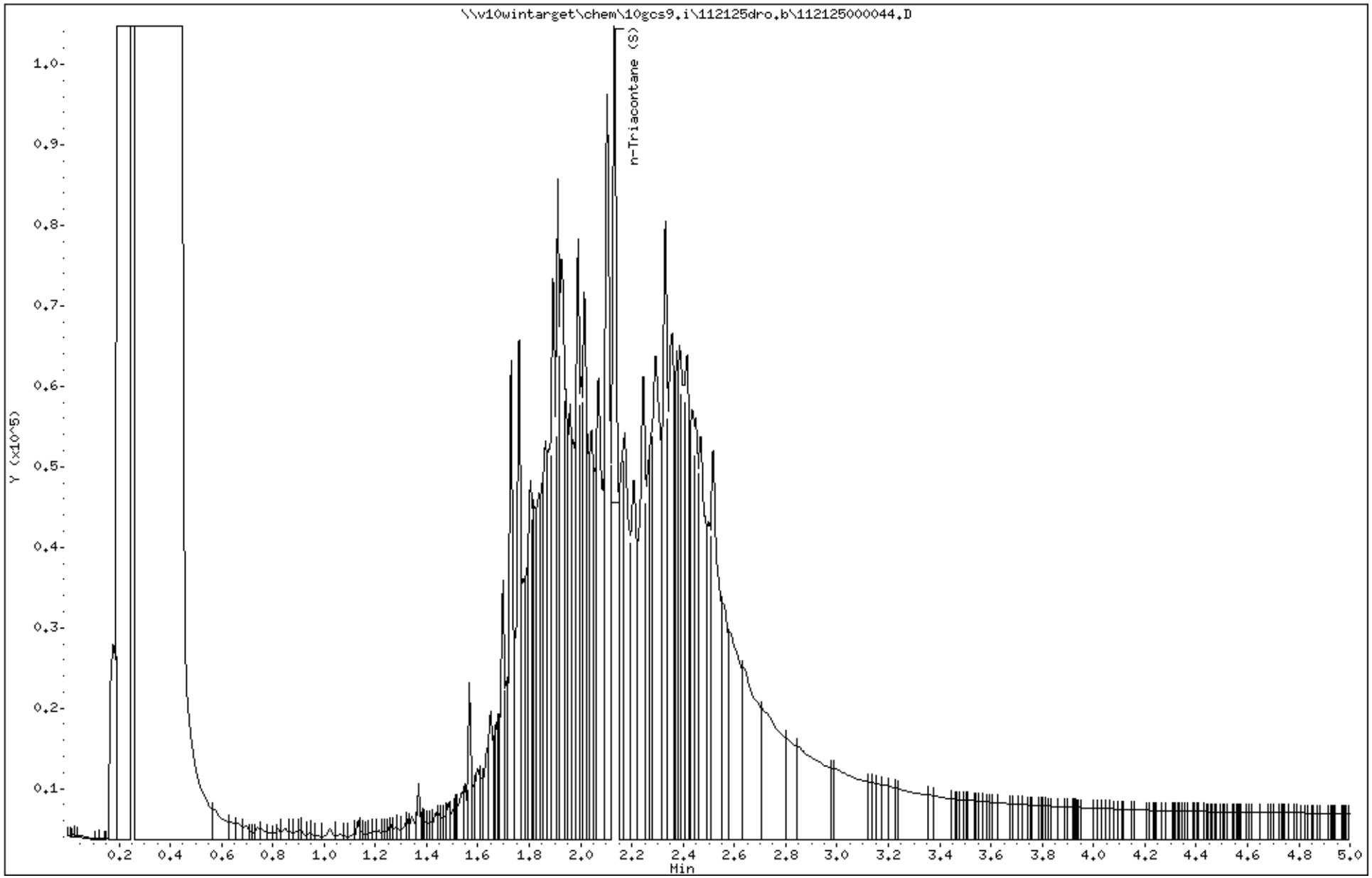
Data File: \\v10wintarget\chem\10gcs9.i\112125dro.b\112125000043.D
Date : 21-NOV-2025 15:08
Client ID: SED01
Sample Info: 10756796001X10
Volume Injected (uL): 1.0
Column phase: DB-5-US24500002

Instrument: 10gcs9.i
Operator: ARA
Column diameter: 0.32



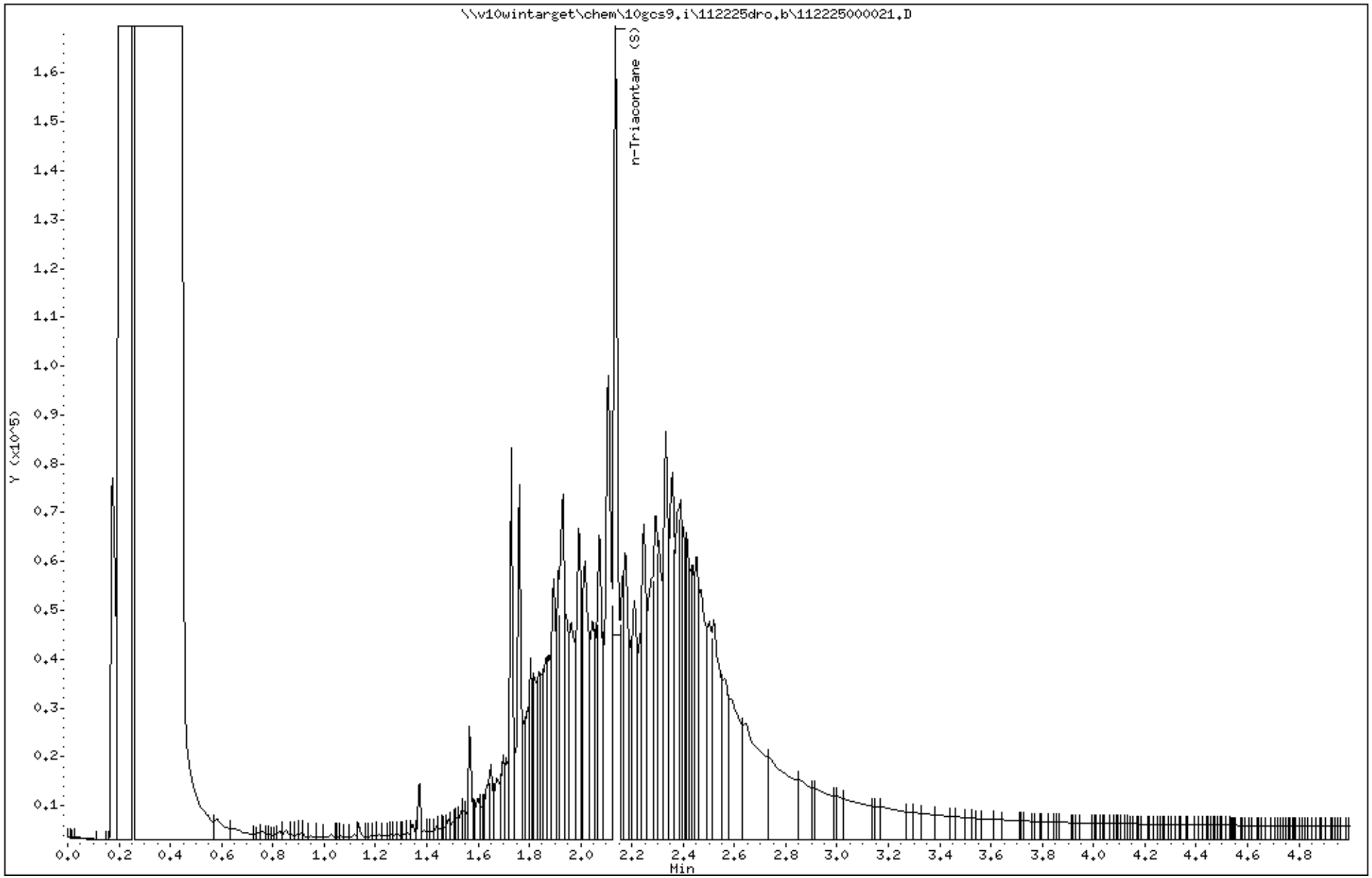
Data File: \\v10wintarget\chem\10gcs9.i\112125dro.b\112125000044.D
Date : 21-NOV-2025 15:15
Client ID: SED02
Sample Info: 10756796002X10
Volume Injected (uL): 1.0
Column phase: DB-5-US24500002

Instrument: 10gcs9.i
Operator: ARA
Column diameter: 0.32



Data File: \\v10wintarget\chem\10gcs9.i\112225dro.b\112225000021.D
Date : 22-NOV-2025 12:30
Client ID: SED03
Sample Info: 10756796003X5
Volume Injected (uL): 1.0
Column phase: DB-5-US24500002

Instrument: 10gcs9.i
Operator: ARA
Column diameter: 0.32



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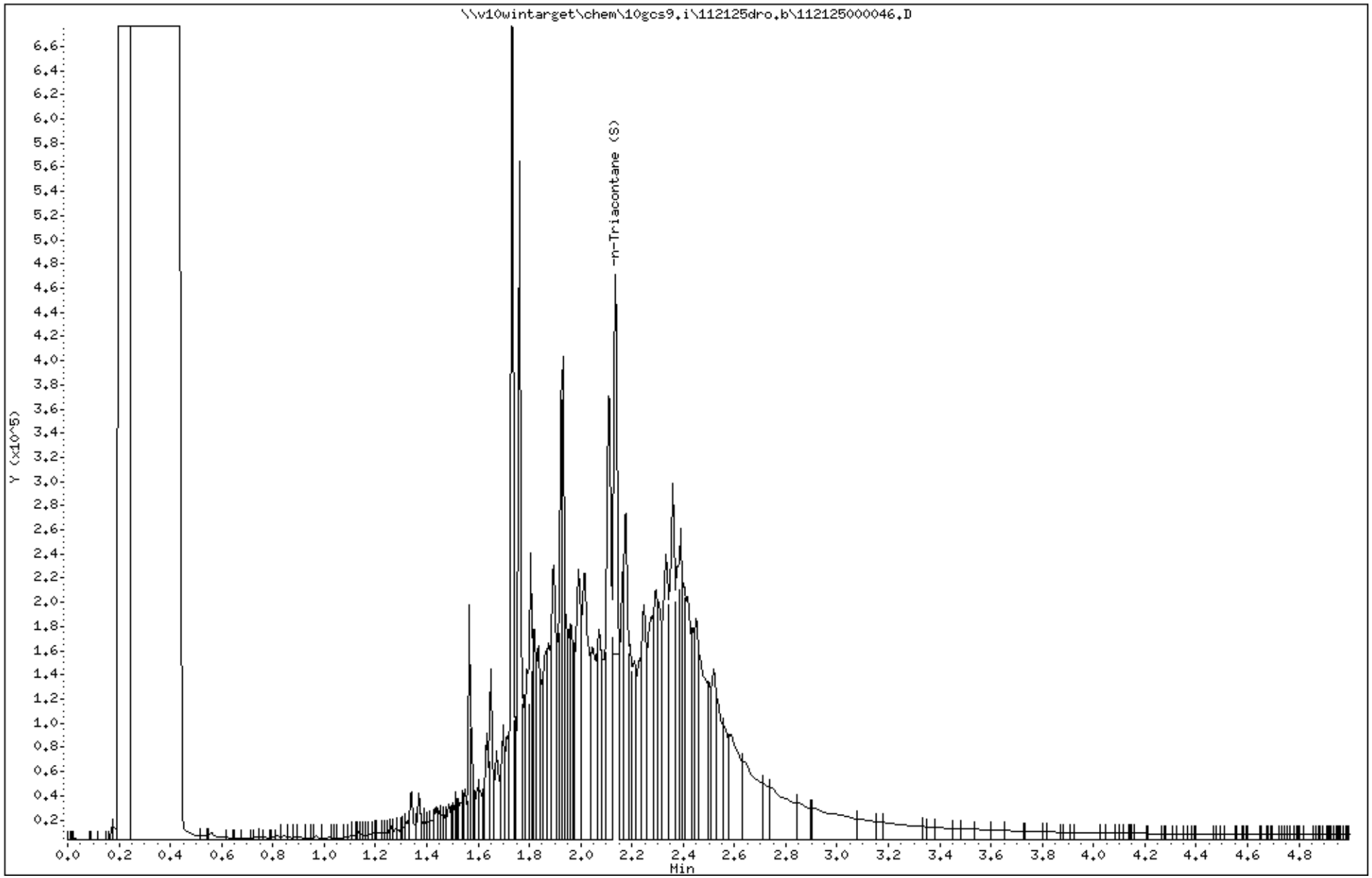
Client ID: SED04
Sample Info: 10756796004X2
Volume Injected (uL): 1.0
Column phase: DB-5-US24500002

Instrument: 10gcs9.i
Operator: ARA
Column diameter: 0.32



Appendix B

Bassett Creek Lagoon G Wetland Delineation Report

Joint Application Form for Activities Affecting Water Resources in Minnesota

This joint application form is the accepted means for initiating review of proposals that may affect a water resource (wetland, tributary, lake, etc.) in the State of Minnesota under state and federal regulatory programs. Applicants for Minnesota Department of Natural Resources (DNR) Public Waters permits **MUST** use the MPARS online permitting system for submitting applications to the DNR. Applicants can use the information entered into MPARS to substitute for completing parts of this joint application form (see the paragraph on MPARS at the end of the joint application form instructions for additional information). This form is only applicable to the water resource aspects of proposed projects under state and federal regulatory programs; other local applications and approvals may be required. Depending on the nature of the project and the location and type of water resources impacted, multiple authorizations may be required as different regulatory programs have different types of jurisdiction over different types of resources.

Regulatory Review Structure

Federal

The St. Paul District of the U.S. Army Corps of Engineers (Corps) is the federal agency that regulates discharges of dredged or fill material into waters of the United States (wetlands, tributaries, lakes, etc.) under Section 404 of the Clean Water Act (CWA) and regulates work in navigable waters under Section 10 of the Rivers and Harbors Act. Applications are assigned to Corps project managers who are responsible for implementing the Corps regulatory program within a particular geographic area.

State

There are three state regulatory programs that regulate activities affecting water resources. The Wetland Conservation Act (WCA) regulates most activities affecting wetlands. It is administered by local government units (LGUs) which can be counties, townships, cities, watershed districts, watershed management organizations or state agencies (on state-owned land). The Minnesota DNR Division of Ecological and Water Resources issues permits for work in specially-designated public waters via the Public Waters Work Permit Program (DNR Public Waters Permits). The Minnesota Pollution Control Agency (MPCA) under Section 401 of the Clean Water Act certifies that discharges of dredged or fill material authorized by a federal permit or license comply with state water quality standards. One or more of these regulatory programs may be applicable to any one project.

Required Information

Prior to submitting an application, applicants are **strongly encouraged** to seek input from the Corps Project Manager and LGU staff to identify regulatory issues and required application materials for their proposed project. Project proponents can request a pre-application consultation with the Corps and LGU to discuss their proposed project by providing the information required in Sections 1 through 5 of this joint application form to facilitate a meaningful discussion about their project. Many LGUs provide a venue (such as regularly scheduled technical evaluation panel meetings) for potential applicants to discuss their projects with multiple agencies prior to submitting an application. Contact information is provided below.

The following bullets outline the information generally required for several common types of determinations/authorizations.

- For delineation approvals and/or jurisdictional determinations, submit Parts 1, 2 and 5, and Attachment A.
- For activities involving CWA/WCA exemptions, WCA no-loss determinations, and activities not requiring mitigation, submit Parts 1 through 5, and Attachment B.
- For activities requiring compensatory mitigation/replacement plan, submit Parts 1 thru 5, and Attachments C and D.
- For local road authority activities that qualify for the state's local road wetland replacement program, submit Parts 1 through 5, and Attachments C, D (if applicable), and E to both the Corps and the LGU.

Submission Instructions

Send the completed joint application form and all required attachments to:

U.S Army Corps of Engineers. Applications may be sent directly to the appropriate Corps Office. For a current listing of areas of responsibilities and contact information, visit the St. Paul District's website at: http://www.mvp.usace.army.mil/Missions/Regulatory.aspx and select "Minnesota" from the contact Information box. Alternatively, applications may be sent directly to the St. Paul District Headquarters and the Corps will forward them to the appropriate field office.

Section 401 Water Quality Certification: Applicants do not need to submit the joint application form to the MPCA unless specifically requested. The MPCA will request a copy of the completed joint application form directly from an applicant when they determine an individual 401 water quality certification is required for a proposed project.

Wetland Conservation Act Local Government Unit: Send to the appropriate Local Government Unit. If necessary, contact your county Soil and Water Conservation District (SWCD) office or visit the Board of Water and Soil Resources (BWSR) web site (www.bwsr.state.mn.us) to determine the appropriate LGU.

DNR Public Waters Permitting: In 2014 the DNR will begin using the Minnesota DNR Permitting and Reporting System (MPARS) for submission of Public Waters permit applications (https://webapps11.dnr.state.mn.us/mpars/public/authentication/login). Applicants for Public Waters permits **MUST** use the MPARS online permitting system for submitting applications to the DNR. To avoid duplication and to streamline the application process among the various resource agencies, applicants can use the information entered into MPARS to substitute for completing parts of this joint application form. The MPARS print/save function will provide the applicant with a copy of the Public Waters permit application which, at a minimum, will satisfy Parts one and two of this joint application. For certain types of activities, the MPARS application may also provide all of the necessary information required under Parts three and four of the joint application. However, it is the responsibility of the Applicant to make sure that the joint application contains all of the required information, including identification of all aquatic resources impacted by the project (see Part four of the joint application). After confirming that the MPARS application contains all of the required information in Parts one and two the Applicant may attach a copy to the joint application and fill in any missing information in the remainder of the joint application.

PART ONE: Applicant Information

If applicant is an entity (company, government entity, partnership, etc.), an authorized contact person must be identified. If the applicant is using an agent (consultant, lawyer, or other third party) and has authorized them to act on their behalf, the agent's contact information must also be provided.

Applicant/Landowner Name: Bassett Creek Watershed Management Commission; Laura Jester
Mailing Address: P.O. Box 270825, Golden Valley, MN 55427
Phone: 952-270-1990
E-mail Address: Laura.jester@keystonewaters.com

Authorized Contact (do not complete if same as above):
Mailing Address:
Phone:
E-mail Address:

Agent Name: Barr Engineering Co.; Gage Kriese
Mailing Address: 4300 MarketPointe Drive, Suite 200, Minneapolis, MN 55435
Phone: 952-832-2600
E-mail Address: gkriese@barr.com

PART TWO: Site Location Information

County: Hennepin **City/Township: Golden Valley**
Parcel ID and/or Address: 1301 Theodore Wirth Pkwy, Minneapolis, MN 55422
Legal Description (Section, Township, Range): Section 17, Township 29N, Range 24W
Lat/Long (decimal degrees): 44.998934, -93.325460
Attach a map showing the location of the site in relation to local streets, roads, highways.
Approximate size of site (acres) or if a linear project, length (feet): 4.38 acres

Project Name and/or Number: Bassett Creek Lagoon G Dredging Project

PART FIVE: Applicant Signature

☐ Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature:  Date: October 29, 2025

I hereby authorize Barr Engineering Co. to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

Attachment A
Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply):

☒ **Wetland Type Confirmation**

☒ **Delineation Concurrence**. Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.).

☐ **Preliminary Jurisdictional Determination**. A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed.

☐ **Approved Jurisdictional Determination**. An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process.

In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the *Guidelines for Submitting Wetland Delineations in Minnesota* (2013).
http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx

Wetland Delineation Report

Bassett Creek Lagoon Dredging Project

Prepared for
Bassett Creek Watershed Management Commission

Prepared by
Barr Engineering Co.

October 2025

4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
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barr.com

Wetland Delineation Report

October 2025

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1 Introduction

On behalf of the Bassett Creek Watershed Management Commission (BCWMC), Barr Engineering Company (Barr) conducted a wetland and watercourse delineation for the Bassett Creek Lagoon Dredging Project (Project) in Golden Valley (Township 29N, Range 24W, Section 17) on September 15, 2025.

The goal of this Project is to reduce sediment load and associated nutrient contamination loading to Bassett Creek and restore hydrologic conductivity where sediment accumulation has occurred.

This wetland delineation report has been prepared in accordance with the *U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (USACE 1987)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2010)*, and the requirements of the Minnesota Wetland Conservation Act (WCA) of 1991.

This report includes general environmental information (Section 2.0), wetland delineation and classification methods (Section 3.0), descriptions of the delineated wetland areas (Section 4.0) and a discussion of regulations and the administering authorities (Section 5.0). Tables 1-4 include soil mapping, precipitation data, and a wetland summary. Figures 1-5 include Project Location, Topography, Aquatic Resources, Hydric Soil, and Wetland Delineation Results. Appendix A includes wetland determination data forms. Site photographs area included with the wetland determination data forms in Appendix A with additional site photographs in Appendix B.

In addition, the *Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.4* (MNRAM) was utilized for compliance with the City of Golden Valley buffer requirements. MNRAM results are provided in Appendix C. Ordinary High Water Mark (OHWM) forms and photographs are included in Appendix D.

2 Environmental Setting

2.1 Site Description

The project study area includes approximately 4.38 acres along a 1,121-foot reach of Bassett Creek bounded by Golden Valley Ave to the North (Figure 1). The study area is located entirely within Theodore Wirth Golf Course, which is owned and operated by the Minneapolis Park Board. Land use within the study area consists of a manicured golf course surrounding Bassett Creek. Pre settlement vegetation within the study area primarily consisted of mixed deciduous forests (MNDNR 2025).

2.2 Geology, Landform, and Topography

According to the Minnesota Department of Natural Resources (MNDNR) Ecological Classification System, the study area is located in the Minnesota and NE Iowa Morainal (222M) ecological section within the Big Woods (222Mn) ecological subsection (MNDNR Ecological Classification System 2025). This subsection is characterized by thick deposits of limey glacial till overlying Ordovician and Cambrian bedrock composed of dolomite, sandstone, and shale. Loamy mantled end moraine in the form of circular hills with smooth slopes and interspersed depressions are the primary landforms in this region. Soils were formed from calcareous glacial till and primarily consist of loam to clay loam textures. Ground elevations

range from 828 to 821 feet above mean sea level, with the lowest elevation being associated with the channel of Bassett Creek (Figure 2).

2.3 Water Resources

The study area is located within the Mississippi River Watershed (major surface watershed #20), within the Wetland Bank Service Area 7. Bassett Creek flows South through the study area, where it eventually outlets into the Mississippi River.

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) identifies 4.38 acres of wetlands which encompasses the entire study area (Figure 3). The wetlands include freshwater emergent (0.9 acres), freshwater shrub (1.21 acres), freshwater forested (0.51 acres), and riverine (1.76 acres) wetland communities.

The MNDNR Public Water Inventory (PWI) identifies one public watercourse (Bassett Creek 108896) and one public water basin (The Rapids 2706500) within the study area. The Rapids public water basin includes Lagoon G.

2.4 Soil Resources

Soil data for the study area were obtained from the NRCS Web Soil Survey (2025). There are four mapped soils located within the study area (Figure 4). Table 1 lists each soil series, hydric rating, total area, and percent abundance.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. Soils are classified as hydric using the following rating:

- Hydric (100%)
- Predominantly hydric (67%-99%)
- Partially hydric (>33%-67%)
- Predominantly non-hydric (>0%-<34%)
- Non-hydric (0%)

Table 1 Soil Series Summary

Map Unit Symbol	Map Unit Name	Hydric Rating (percent)	Area (acres)	Abundance (percent)
L50A	Muskego and Houghton soils, 0 to 1 percent slopes	Hydric (100)	0	<0.00
L52C	Urban land-Lester complex, 2 to 18 percent slopes	Non-hydric (0)	0.2	5.1
L58C2	Koronis-Kingsley complex, 6 to 12 percent slopes, eroded	Predominantly non-hydric (15)	0	<0.00
U2A	Udorthents, wet substratum, 0 to 2 percent slopes	Non-hydric (0)	0.5	11.2
W	Water	N/A	3.7	83.7
Total			**4.4**	**100**

2.5 Precipitation

Precipitation data were analyzed in comparison to the statistical climatic WETS table data developed by the NRCS specifically for evaluating climatic normalcy in conducting wetland delineations. The WETS method establishes a normal range of monthly and annual precipitation based on the long-term precipitation record. The normal condition is defined as the conditions that are present 30 percent of the time. Precipitation data were obtained from the Minnesota Climatology Working Group, Wetland Delineation Precipitation Data Retrieval from a Gridded Database (Minnesota Climatology Office 2025) for wetlands in Hennepin County, Township 29 North, Range 24 West, Section 17.

The field wetland delineations were conducted on September 15, 2025. According to the three-month analysis of antecedent precipitation, the amount of precipitation at the time of the wetland delineation was within the normal range for the three months prior to the site visit (Table 2). The precipitation in the study area was within the normal range in June, July, and August. Water season precipitation totals were below the normal range in 2021 and 2022, within the normal range in 2023, and above the normal range in 2024 (Table 3). June and August were supplemented with data from the Golden Valley 1.2 NE, MN (CoCoRaHS) weather station.

Table 2 Antecedent Precipitation Worksheet

Aerial photograph or site visit date: Monday, September 15, 2025	Score using 1991-2020 normal period		
Values are in inches	first prior month:	second prior month:	third prior month:
A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	**Aug-2025**	**Jul-2025**	**Jun-2025**
estimated precipitation total for this location:	**3.51**	**5.01R**	**4.99**
there is a 30% chance this location will have less than:	3.24	2.93	3.72
there is a 30% chance this location will have more than:	5.77	5.55	5.07
type of month: dry normal wet	**normal**	**normal**	**normal**
monthly score	**3 * 2 = 6**	**2 * 2 = 4**	**1 * 2 = 2**
multi-month score:	**12 (normal)**		
6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)			

Table 3 Precipitation in Comparison to WETS Data

precipitation totals are in inches

color key:
total is in lowest 30th percentile of the period-of-record distribution
total is => 30th and <= 70th percentile
total is in highest 30th percentile of the period-of-record distribution

multi-month totals:
WARM = warm season (May thru September)
ANN = calendar year (January thru December)
WAT = water year (Oct. previous year thru Sep. present year)

A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.

Period-of-Record Summary Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
30%	0.52	0.50	1.14	1.70	2.64	3.13	2.33	2.78	1.86	1.30	0.73	0.59	16.12	26.19	26.33
70%	1.04	1.15	2.10	2.94	4.34	5.38	4.44	4.64	3.81	2.69	1.87	1.39	21.46	32.72	32.06
mean	0.88	0.90	1.70	2.47	3.69	4.39	3.81	3.75	3.05	2.27	1.52	1.08	18.67	29.49	29.53

1991-2020 Summary Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
30%	0.55	0.52	1.35	2.26	3.39	3.72	2.93	3.24	2.05	1.59	0.98	0.85	19.56	31.52	30.22
70%	1.08	1.19	2.05	3.63	5.22	5.07	5.55	5.77	4.27	3.99	1.81	1.59	22.30	34.93	37.16
mean	0.90	0.92	1.74	3.14	4.32	4.73	4.44	4.36	3.32	2.85	1.71	1.31	21.17	33.74	33.72

Year-to-Year Data

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
2025	0.16	0.55	2.74	2.17	4.11R		5.01R								
2024	0.09	0.59	2.51	4.19	6.99	6.74	4.24	7.26	0.37	1.80	2.77	1.23	25.60	38.78	40.85
2023	2.20	2.61	2.69	3.49	1.14	1.88	2.72	3.55	5.72	5.02	0.14	2.71	15.01	33.87	30.40
2022	0.65	0.66	2.53	4.04	4.00	1.02	1.54	4.64	0.41	0.38	2.07	1.95	11.61	23.89	24.31
2021	0.92	0.46	2.97	2.83	2.77	1.60	1.75	5.78	2.02	1.97	0.96	1.89	13.92	25.92	25.51

3 Wetland Delineation Methods

3.1.1 Field Wetland Delineation

Wetlands within the study area were delineated and classified during the site visit on September 15, 2025. Wetland determination forms were completed for each field-delineated wetland (Appendix A).

Delineated wetlands were classified using the Eggers and Reed (2015) wetland plant community classification system, the USFWS Circular 39 classification system (Shaw and Fredine 1956), the Cowardin classification system (Cowardin et. al. 1979), and the Hydrogeomorphic (HGM) classification system (BWSR 2022).

Hydrologic conditions, vegetation, and soils were generally evaluated at each wetland, and this information was recorded in ArcGIS Field Maps and in the wetland determination data forms. Each wetland data form represents a sampling point, the wetland ID is identified on each data form. All wetland sample points end with a “W”, while all upland sample points end with a “U”.

The wetland boundaries were mapped in the field using ESRI’s Field Maps app, paired with an external Leica Geosystems FLX100 GNSS receiver. The data was exported for use in ESRI’S ArcGIS Pro Software.

When conducting the field delineation, sample sites were established in both wetland and upland areas, and observations were recorded electronically with BioApp software. BioApp (BioApp Incorporated 2025) is an application designed to aid wetland delineators in collecting, analyzing, and organizing field data. Information including NRCS soil data, NWI data, wetland indicator status, and vegetation calculations are automatically generated once the data is entered into the application. Additionally, the application provides suggested hydric soil and hydrology indicators which are reviewed for applicability. The auto-populated, suggested, and manually entered data within the application is then exported to a wetland determination data form for the project. Once the data is exported from BioApp, the wetland determination forms were reviewed to check the accuracy of the information presented within the form. Photographs were collected within the study area to document site conditions and are compiled in Appendix A. Additional site photographs are compiled in Appendix B.

Soil borings were collected at sample points in and around wetlands to a depth of at least 20 inches below the soil surface or until auger refusal by coarse fragments. Soil samples from each boring were examined for the presence of hydric soil indicators using the NRCS hydric soil indicators (NRCS 2025, Version 9.2). Soil colors (e.g., 7.5 YR 4/2, etc.) were determined using a Munsell soil color chart and noted on the wetland determination data forms.

Plant species at each sample site were identified, and percent areal cover was estimated for each species. Dominant species were determined using the 50/20 rule, and the corresponding wetland indicator status of each plant species was recorded using the current National Wetland Plant List (USACE 2022). Overall vegetation for each wetland community is described in Section 4.1.

3.1.2 Field Watercourse Delineation

Drainages within the wetland evaluation boundary may be considered non-wetland Waters of the U.S. (WOTUS), as they may not exhibit all parameters required for wetlands (i.e. predominance of hydrophytes, hydric soils, and jurisdictional hydrology). Accordingly, if present, their boundaries were

delineated in the field by documenting their Ordinary High-Water Mark (OHWMs), as determined according to the USACE *Regulatory Guidance Letter No. 05-05* (U.S. Army Corps of Engineers 2005). Additionally, Barr used concepts and an adapted form from the newly released *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams Final Version* to guide OHWM determinations. USACE regulations set forth at 33 CFR 328.3€ defines the OHWM for purposes of Clean Water Act jurisdiction which means that the line on the shore established by the fluctuations of water and indicated by physical characteristics including:

- Natural line impressed on bank
- Shelving
- Changes in the character of soil
- Destruction of terrestrial vegetation
- Presence of leaf litter and debris
- Wracking
- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Multiple observed flow events
- Bed and banks
- Water staining
- Change in plant community

4 Wetland Delineation Results

4.1 Watercourse

Bassett Creek was the only delineated watercourse within the study area. One OHWM survey was completed for the study area (Appendix D). Bed material characteristics ranged from silt to sand. Overall, the average channel width of Bassett Creek is 29 feet and the elevation range of the OHWM boundary is 823 – 821 feet above mean sea level with 821 feet above mean sea level being the average. The OHWM boundary at all three sites was indicated by characteristics including a clear natural line impressed on the bank, disturbed or washed leaf litter, abrupt change in plant community, destruction of terrestrial vegetation, sediment deposition, shelving, and matted down, bent, or absent vegetation.

4.2 Wetlands

A total of six wetlands (approximately 5.35 Acres) were delineated within and adjacent to the study area (Figure 5). Descriptions of each wetland area provided below, with representative photographs in Appendix A and Appendix B. Table 4 summarizes the wetland types and acreage.

Table 4 Delineated Wetland Summary

Wetland ID	Wetland Sample Point ID	Upland Sample Point ID	HGM Classification	Eggers & Reed Community Type	Circular 39 Type	Cowardin Type	Area (acres)
Wetland 1	BC1W, BC3W	BC1U, BC3U	Riverine	Fresh (Wet) Meadow, Shrub Carr	Type 2, Type 6	PEM1B, PSS1B	1.06*
Wetland 2	BC9W, BC2W, BC10W, BC8W	BC8U, BC10U	Riverine	Fresh (Wet) Meadow, Shallow Open Water, Shrub Carr, Floodplain Forest	Type 2, Type 5, Type 6, Type 1	PEM1B, PABGx, PSS1B, PFO1A	2.30*
Wetland 3	BC4W	BC4U	Riverine	Fresh (Wet) Meadow	Type 2	PEM1B	0.11*
Wetland 4	BC5W, BC6W, BC7W	BC5U	Riverine	Shallow Marsh, Shrub Carr, Fresh (Wet) Meadow	Type 3, Type 6, Type 2	PEM1C, PSS1B, PEM1B	1.77*
Wetland 5	BC12W	BC13U	Depression	Fresh (Wet) Meadow	Type 2	PEM1B	0.05**
Wetland 6	BC13W	BC13U	Riverine	Fresh (Wet) Meadow	Type 2	PEM1B	0.06**
Total							5.35

*The wetland extends beyond the study area
**The wetland is entirely outside of the study area

4.2.1 Wetland 1

This wetland is classified as a PEM1B and a PSS1B, fresh (wet) meadow and shrub carr community (Type 2 and Type 6) and is adjacent to Bassett Creek with a riverine HGM classification. Vegetation in the fresh (wet) meadow portion of this wetland is dominated by reed canary grass (*Phalaris arundinacea*) with river bulrush (*Bolboschoenus fluviatilis*) also present. Vegetation in the shrub carr portion of this wetland is dominated by sandbar willow (*Salix interior*) in the shrub stratum. The herbaceous stratum is dominated by reed canary grass with orange jewelweed (*Impatiens capensis*), common buckthorn (*Rhamnus cathartica*), American black currant (*Ribes americanum*), and giant goldenrod (*Solidago gigantea*) also commonly present.

Soils in the fresh (wet) meadow portion of this wetland at sample point BC3W consist of 4 inches of 10YR 3/2 mucky peat, overlying 11 inches of 10YR 2/1 saturated mucky sand, over 9 inches of GLEY1 2.5/0N saturated loamy very fine sand. This soil profile meets the hydric soil indicator 5cm Muck Peat or Peat (S3). Soils in the shrub carr portion of this wetland at sample point BC1W consist of 14 inches of 10YR 2/1 moist silt loam with 2% 7.5YR 3/4 redoximorphic concentrations. Overlying 9 inches of 10YR 2/1 saturated very fine sandy loam with 5% 7.5YR 3/4 redoximorphic concentrations, over 3 inches of GLEY1 2.5/0N saturated very fine sandy loam. This soil profile meets the hydric soil indicator Redox Dark Surface (F6). Primary hydrology indicators at both sample points include saturation, high water table, and hydrogen sulfide odor. Secondary hydrology indicators include geomorphic position and FAC-neutral test.

The wetland boundary in the field is defined by a change in dominant plants from predominantly hydrophytic vegetation into upland dominated by hackberry (*Celtis occidentalis*), common buckthorn, tatarian honeysuckle (*Lonicera tatarica*), and Virginia creeper (*Parthenocissus quinquefolia*). The wetland boundary is further refined by a gentle change in topography going upslope.

4.2.2 Wetland 2

This wetland features four distinct wetland communities, classified as PEM1B, PABGx, PSS1B, and PFO1A, including a fresh (wet) meadow, shallow open water, shrub carr, and floodplain forest (Types 1, 2, 5, and 6). This wetland is adjacent to Bassett Creek with a riverine HGM classification. Vegetation in this wetland throughout the four different community types is dominated by reed canary grass, sandbar willow, soft-stem bulrush (*Schoenoplectus tabernaemontani*), water star-grass (*Heteranthera dubia*), boxelder (*Acer negundo*), pygmy smartweed (*Persicaria minor*), and dwarf clearweed (*Pilea pumila*) with stinging nettle (*Urtica dioica*), orange jewelweed, northern water plantain (*Alisma triviale*), broad-leaf arrowhead (*Sagittaria latifolia*), common duckweed (*Lemna minor*), and nodding beggartick (*Bidens cernua*) also commonly present.

Soils in this wetland at sample points BC2W, BC8W, BC9W, and BC10W generally consist of saturated sandy loam, silt loam, and muck with 2-5% redoximorphic concentrations through the profiles. Soil profiles met the hydric soil indicators 2 cm Muck (A10), Depleted Matrix (F3), and Redox Dark Surface (F6). Primary hydrology indicators at the sample points include saturation, high water table, algal mat or crust, aquatic fauna, and true aquatic plants. Secondary hydrology indicators include geomorphic position and FAC-neutral test.

The wetland boundary in the field is defined by a change in dominant plants from predominantly hydrophytic vegetation into upland dominated by boxelder, common buckthorn, Kentucky bluegrass (*Poa pratensis*), and reed canary grass with common burdock (*Arctium minus*), Canadian thistle (*Cirsium arvense*), curly dock (*Rumex crispus*), common milkweed (*Asclepias syriaca*), and common blue violet (*Viola sororia*) also present. The wetland boundary is further refined by a moderate change in topography going upslope into a mix of deciduous forest and manicured lawn that lacks hydrology and hydric soil indicators.

4.2.3 Wetland 3

This wetland is classified as a PEM1B, fresh (wet) meadow (Type 2) and is adjacent to Bassett Creek with a riverine HGM classification. Vegetation in this wetland is dominated by reed canary grass and pygmy smartweed with broad-leaf arrowhead, long-leaf pondweed (*Potamogeton nodosus*), and common duckweed present along the edge of the wetland going into Bassett Creek.

Soils in this wetland at sample point BC4W consist of 8 inches of 10YR 3/1 saturated muck overlying 9 inches of 10YR 2/1 saturated mucky mineral soil, over 7 inches of 10YR 5/1 saturated sandy loam with 2% 2.5Y 5/4 redoximorphic concentrations. This soil profile meets the hydric soil indicator 2 cm of Muck (A10). Primary hydrology indicators include surface water, saturation, high water table, and true aquatic plants. Secondary hydrology indicators include geomorphic position and FAC-neutral test.

The wetland boundary in the field is defined by a somewhat abrupt change in topography going upslope into an upland area that is dominated by common buckthorn, and common burdock.

4.2.4 Wetland 4

This wetland has three different wetland communities and is classified as PEM1C, PSS1B, and PEM1B, shallow marsh, shrub carr, and fresh (wet) meadow (Type 3, Type 6, Type 2). This wetland is adjacent to Bassett Creek with a riverine HGM classification. Vegetation in this wetland throughout the three different wetland community types is dominated by narrow leaved cattail (*Typha angustifolia*), reed canary grass, sandbar willow, black willow (*Salix nigra*), and orange jewelweed with common duck weed, sweet flag (*Acorus americanus*), and river bulrush also present.

Soils in this wetland at sample points BC5W, BC6W, and BC7W consisted of saturated muck, silt loam, and sand with 0-2% redoximorphic concentrations throughout the profiles. Soil profiles met the hydric soil indicators 2 cm Muck (A10) and Redox Dark Surface (F6). Primary hydrology indicators at the sample points include saturation, high water table, and true aquatic plants. Secondary hydrology indicators include geomorphic position and FAC-neutral test.

The wetland boundary in the field is defined by a change in dominant plants from predominantly hydrophytic vegetation into upland dominated by boxelder, tatarian honeysuckle, buckthorn, false solomon's seal (*Maianthemum racemosum*), white mulberry (*Morus alba*), and Virginia creeper. The wetland boundary is further refined by a moderate topography change going upslope into an area that lacks hydrology or hydric soil indicators.

4.2.5 Wetland 5

This wetland is classified as a PEM1B, fresh (wet) meadow (Type 2) and is an isolated wetland with a depression HGM classification that likely does not receive flooding from Bassett Creek. Vegetation in this wetland is disturbed, being regularly mowed and is dominated by fowl bluegrass (Poa palustris) and Kentucky bluegrass (Poa pratensis) with dwarf scouring rush (Equisetum scirpoides) also present.

Soils in this wetland at sample point BC12W consist of 12 inches of 10YR 2/1 moist silt loam with 2% 10YR 3/3 redoximorphic concentrations overlying 14 inches of GLEY1 4/1 10Y and 10YR 2/1 saturated sandy clay loam with 5% 10YR 5/6 redoximorphic concentrations. This soil profile meets the hydric soil indicator Redox Dark Surface (F6). This wetland meets the hydrology indicator algal mat or crust. Secondary hydrology indicators include geomorphic position and FAC-neutral test.

The wetland boundary in the field was defined by a change in predominantly hydrophytic vegetation into upland dominated by ground ivy (Glechoma hederacea), lesser burdock, and Kentucky bluegrass. The wetland boundary in the field is further refined by a lack of hydrology or hydric soil indicators in the upland area.

4.2.6 Wetland 6

This wetland is classified as PEM1B, fresh (wet) meadow (Type 2) and is adjacent to Bassett Creek with a riverine HGM classification. Vegetation in this wetland is disturbed, being regularly mowed and is dominated by reed canary grass and pygmy smartweed with water purslane (*Ludwigia palustris*), red-root flatsedge (*Cyperus erythrorhizos*), northern water plantain, and lady's thumb (*Persicaria maculosa*) also present.

Soils in this wetland at sample point BC13W consist of 12 inches of 10YR 2/1 and 10YR 5/1 saturated sandy loam with 2% 10YR 3/4 redoximorphic concentrations overlying 18 inches of GLEY1 2.5/0N saturated very fine sandy loam. Primary hydrology indicators include saturation, high water table, and algal mat or crust. Secondary hydrology indicators include surface soil cracks, geomorphic position, and FAC-neutral test.

The wetland boundary in the field was defined by a change in predominantly hydrophytic vegetation into upland dominated by ground ivy (Glechoma hederacea), lesser burdock, and Kentucky bluegrass. The wetland boundary in the field is further refined by a gentle upslope going into upland lacking hydrology or hydric soil indicators.

4.3 Wetland Functional Assessment Results

The City of Golden Valley requires natural vegetation buffer zones to be established or preserved around wetlands. Buffer zone widths are based on the Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.4 (MNRAM) and are measured from the delineated wetland edge. There are three buffer width wetland management classification groups.

- Preserve: 75 feet average and minimum of 50 feet
- Manage 1: 50 feet average and minimum of 30 feet
- Manage 2 or 3: 25 feet average and a minimum of 15 feet

MNRAM data and individual functional summary ratings are provided in Appendix C. Table 8 provides a summary of overall wetland management classifications within the study area.

Table 5 MNRAM Wetland Management Classifications

Wetland ID	Management Classification
Wetland 1	Manage 1
Wetland 2	Manage 1
Wetland 3	Manage 1
Wetland 4	Preserve
Wetland 5	Manage 2
Wetland 6	Manage 1

5 Regulatory Overview

The USACE regulates the dredge or placement of fill materials into wetlands that are adjacent to or are hydrologically connected to interstate or navigable waters under the authority of Section 404 of the Clean Water Act. If the USACE has jurisdiction over any portion of a project, they may also review impacts to wetlands under the authority of the National Environmental Policy Act (NEPA).

Filling, excavating, and draining wetlands are also regulated by the WCA. WCA is administered by the Local Government Unit (LGU), which is the City of Golden Valley. The City of Golden Valley, MNDNR, and the USACE should be contacted before altering any aquatic resources. Delineated wetland boundaries may be reviewed, if needed, by the USACE and a WCA Technical Evaluation Panel (TEP) consisting of representatives from the Minnesota Board of Water and Soil Resources (BWSR), Hennepin County, MNDNR, and the City of Golden Valley.

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Figures

Project Area

N

0 75 150

Feet

Imagery: MnGeo FSA 2023

Project Location
Bassett Creek Lagoon
Wetland Delineation
Golden Valley, MN

FIGURE 1

BARR

Project Area
10-Foot Contour
2-Foot Contour
Bassett Creek

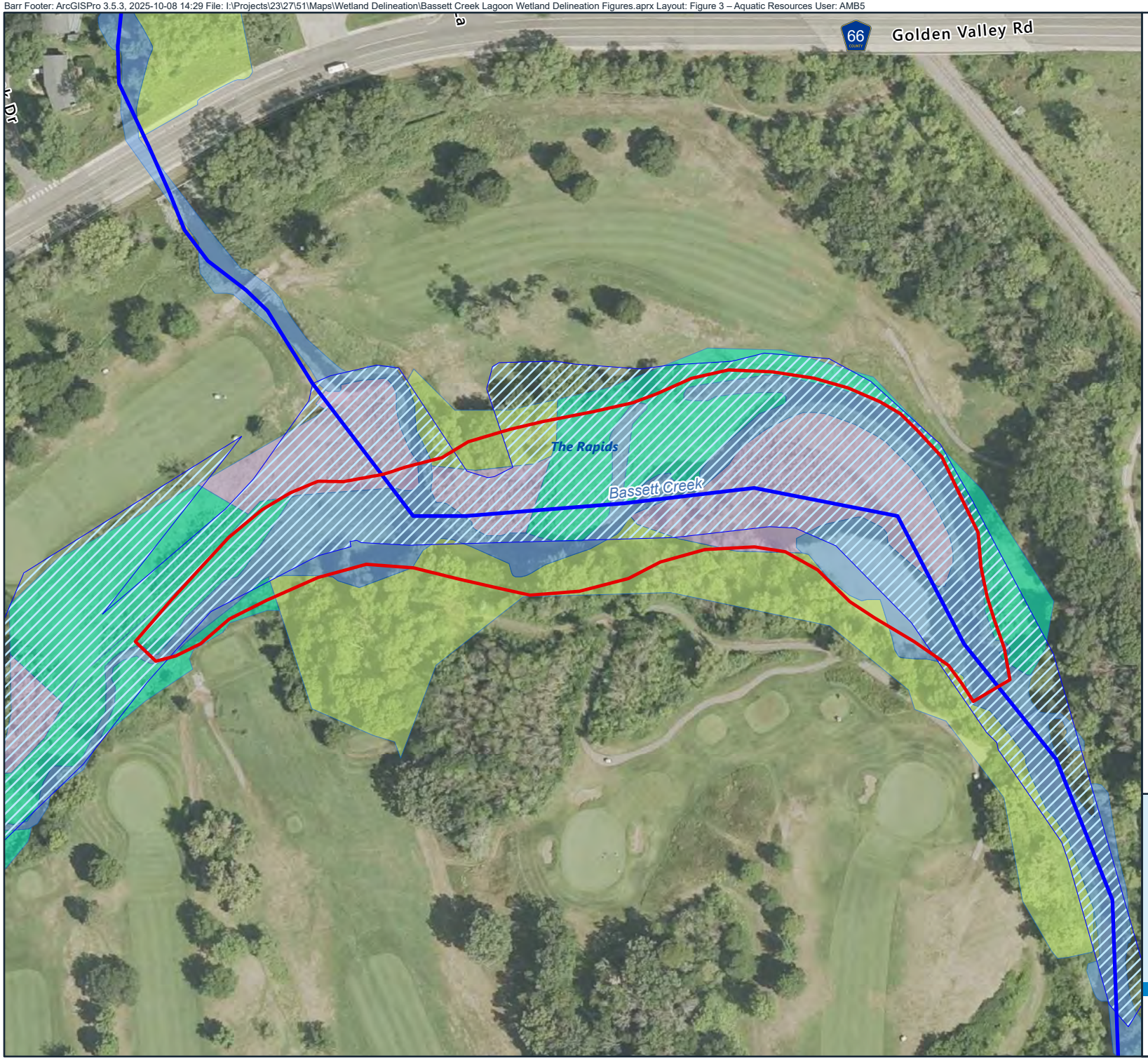
0 75 150
Feet

Imagery: MnGeo FSA 2023

Topography
Bassett Creek Lagoon
Wetland Delineation
Golden Valley, MN

FIGURE 2

BARR



Project Area

Public Waters Watercourse

Public Waters Basins

NWI (National Wetlands Inventory)

Freshwater Emergent Wetland

Freshwater Forested Wetland

Freshwater Shrub Wetland

Riverine

N

0 75 150

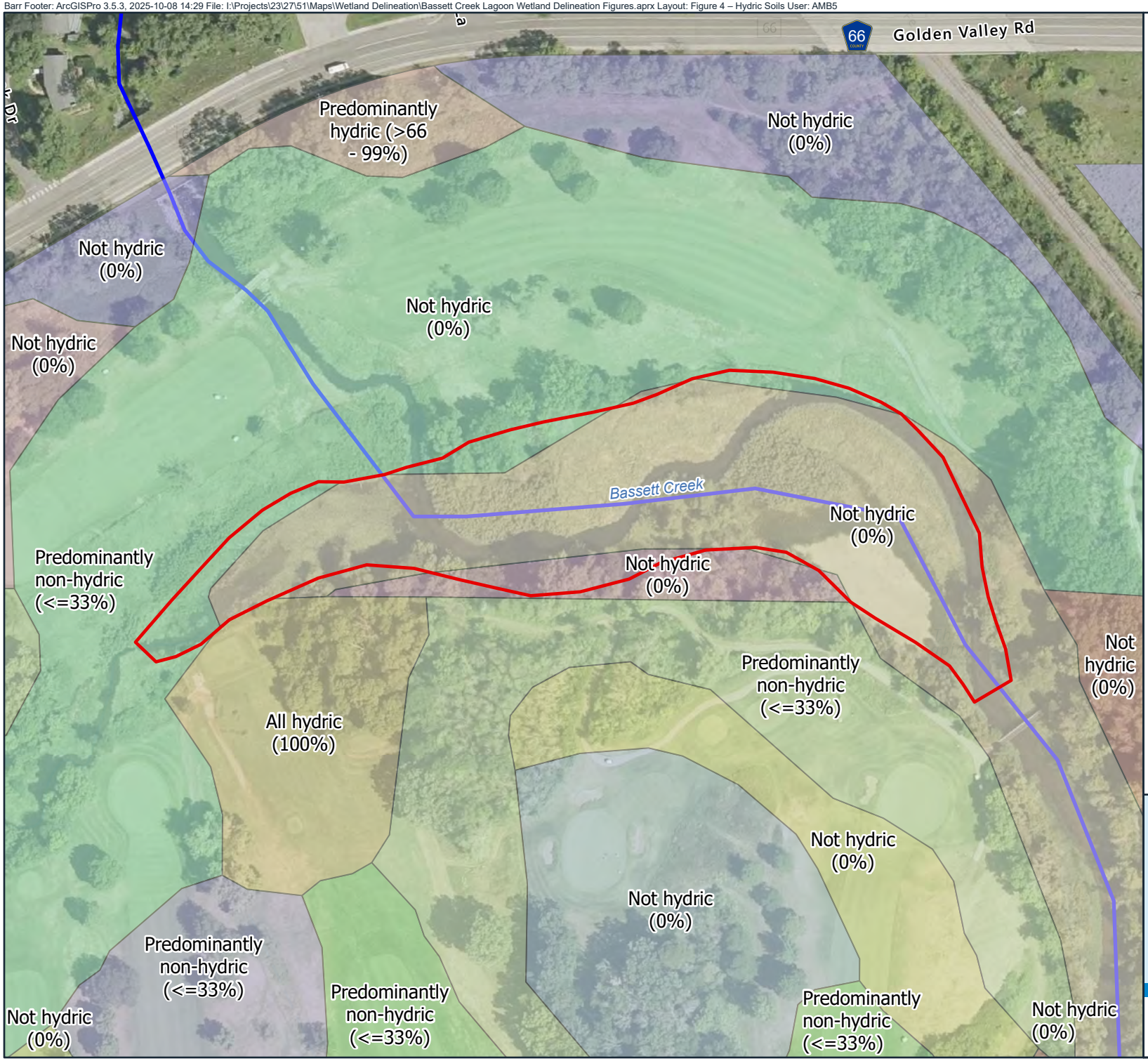
Feet

Imagery: MnGeo FSA 2023

Aquatic Resources
Bassett Creek Lagoon
Wetland Delineation
Golden Valley, MN

FIGURE 3

BARR



Project Area

SURRGO Soils

- 0% Hydric - Kingsley-Gotham complex, 12 to 18 percent slopes
- 0% Hydric - Kingsley-Gotham complex, 18 to 25 percent slopes
- 0% Hydric - Kingsley-Gotham complex, 25 to 35 percent slopes
- 0% Hydric - Udorthents, wet substratum, 0 to 2 percent slopes
- 0% Hydric - Urban land-Lester complex, 18 to 35 percent slopes
- 0% Hydric - Urban land-Lester complex, 2 to 18 percent slopes
- 0% Hydric - Water
- 10% Hydric - Koronis-Kingsley complex, 2 to 6 percent slopes
- 15% Hydric - Koronis-Kingsley complex, 12 to 18 percent slopes, eroded
- 15% Hydric - Koronis-Kingsley complex, 6 to 12 percent slopes, eroded
- 90% Hydric - Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded
- 100% Hydric - Houghton and Muskego soils, depressional, 0 to 1 percent slopes

N

0 75 150

Feet

Imagery: MnGeo FSA 2023

Hydric Soils
Bassett Creek Lagoon
Wetland Delineation
Golden Valley, MN

FIGURE 4

BARR

Project Area

Bassett Creek Watercourse (Field Delineated OHWM)

Delineated Wetlands

- Floodplain forest
- Fresh wet meadow
- Shallow marsh
- Shallow, open water
- Shrub carr

Sample Point

- Upland
- Wetland

N

0 75 150

Feet

Imagery: MnGeo FSA 2023

Wetland Delineation Results

Bassett Creek Lagoon Wetland Delineation Golden Valley, MN

FIGURE 5

BARR

Appendix A – Wetland Determination Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC1U
Investigator(s): Gage Kriese | Section, Township, Range:
Landform (hillside, terrace, etc.): Footslope | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 44.999097 | Long: -93.326263 | Datum: WGS84
Soil Map Unit Name: None | NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
This sample plot was taken in an upland area and is associated with wetland sample plots BC1W and BC2W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Celtis occidentalis	50	Y	FAC
2.			
3.			
4.			
5.			
	50.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rhamnus cathartica	40	Y	FAC
2. Lonicera tatarica	40	Y	FACU
3.			
4.			
5.			
	80.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rhamnus cathartica	10	Y	FAC
2. Parthenocissus quinquefolia	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	145 (A)		480.00 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
85 percent bare ground cover.

SOIL

Sampling Point: BC1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/2	100					SL	Dry

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? Yes ___ No ✓ Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC1U
2025-09-15
Lat/Long: 44.999037, -93.326223
Direction: SE


BC1U
2025-09-15
Lat/Long: 44.999014, -93.326264
Direction: SW


BC1U
2025-09-15
Lat/Long: 44.999017, -93.326271
Direction: N

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project City/County: Hennepin County Sampling Date: 2025-09-15

Applicant/Owner: City of Golden Valley State: Minnesota Sampling Point: BC1W

Investigator(s): Gage Kriese Section, Township, Range: sec 17 T029N R024W

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave

Slope (%): 0-2 Lat: 44.999061 Long: -93.326345 Datum: WGS84

Soil Map Unit Name: Water NWI classification: PSS1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
This sample plot was taken in Wetland 1 and is associated with upland sample plot BC1U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Salix interior	80	Y	FACW
2.			
3.			
4.			
5.			
	80.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	70	Y	FACW
2. Rhamnus cathartica	5	N	FAC
3. Impatiens capensis	5	N	FACW
4. Solidago gigantea	5	N	FACW
5. Ribes americanum	5	N	FACW
6. Amphicarpaea bracteata	2	N	FAC
7.			
8.			
9.			
10.			
	92.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	165	x 2 =	330
FAC species	7	x 3 =	21
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	172 (A)		351.00 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
8 percent bare ground cover.

SOIL

Sampling Point: BC1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	98	7.5YR 3/4	2	C	M	SIL	Moist
14-23	10YR 2/1	95	7.5YR 3/4	5	C	M	VFSL	Saturated
23-26	N 2.5/0	100					VFSL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ✔ No ___ Depth (inches): 16

Saturation Present? Yes ✔ No ___ Depth (inches): 11

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC1W
2025-09-15
Lat/Long: 44.998768, -93.328539
Direction: S


BC1W
2025-09-15
Lat/Long: 44.999236, -93.326027
Direction: E


BC1W
2025-09-15
Lat/Long: 44.999220, -93.326160
Direction: NW

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC2W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.999008 | Long: -93.326591 | Datum: WGS84
Soil Map Unit Name: Water | NWI classification: PSS1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in Wetland 2 and is associated with upland plot BC10U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Schoenoplectus tabernaemontani	20	Y	OBL
2. Heteranthera dubia	15	Y	OBL
3. Alisma triviale	5	N	OBL
4. Sagittaria latifolia	5	N	OBL
5. Lemna minor	1	N	OBL
6.			
7.			
8.			
9.			
10.			
	46.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	46	x 1 =	46
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	46 (A)		46.00 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
54 percent bare ground cover.

SOIL

Sampling Point: BC2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	2.5Y	2.5/1	100					MUCK	Saturated
1-28	N	2.5/0	100					LS	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✔ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✔ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ✔ Aquatic Fauna (B13)
- ✔ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___		
Water Table Present?	Yes ✔	No ___	Depth (inches): 1		
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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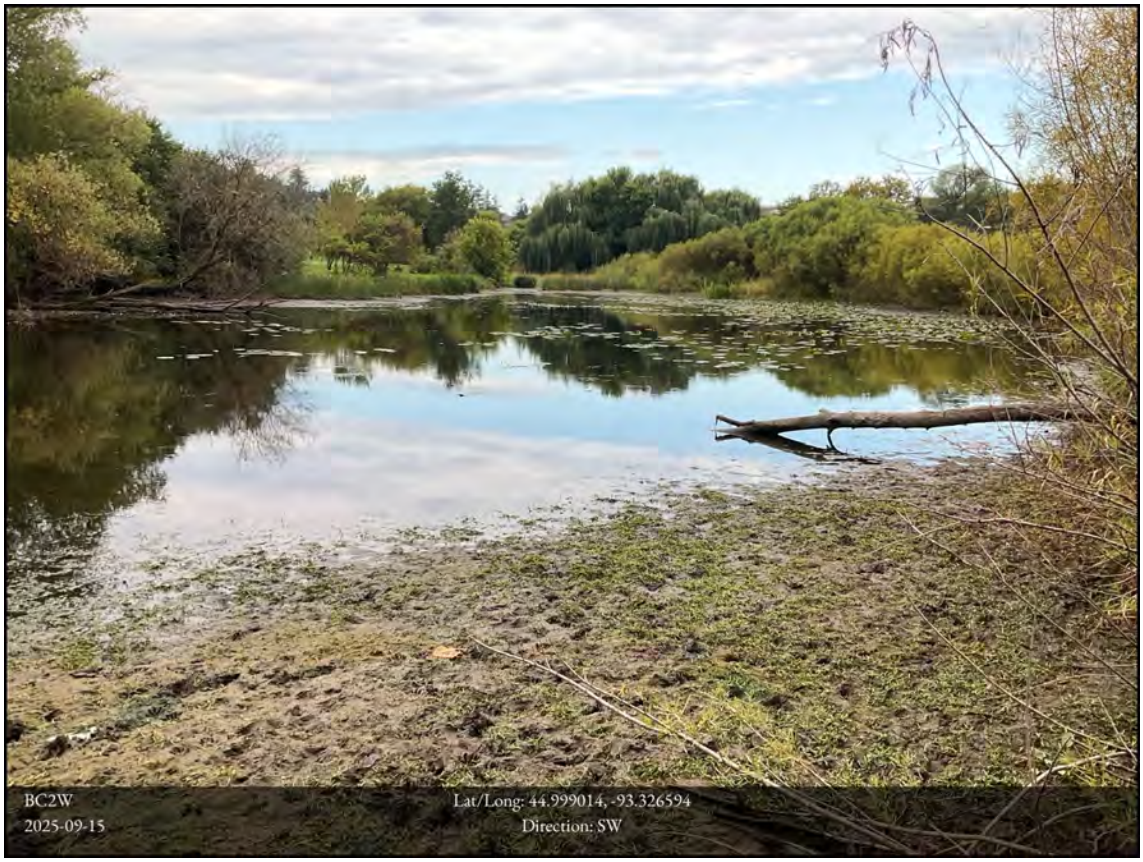
PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC2W
2025-09-15
Lat/Long: 44.999014, -93.326594
Direction: SW


BC2W
2025-09-15
Lat/Long: 44.999010, -93.326590
Direction: S

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC3U
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Footslope | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 44.999308 | Long: -93.325538 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
This sample plot was taken in an upland and is associated with BC3W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	40	Y	FACW
2. Celtis occidentalis	35	Y	FAC
3.			
4.			
5.			
	75.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rhamnus cathartica	50	Y	FAC
2. Fraxinus pennsylvanica	5	N	FACW
3.			
4.			
5.			
	55.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rhamnus cathartica	15	Y	FAC
2. Lonicera tatarica	10	Y	FACU
3. Fraxinus pennsylvanica	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	100	x 3 =	300
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	160 (A)		440.00 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
70 percent bare ground cover.

SOIL

Sampling Point: BC3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	100					SL	Dry

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

Auger refusal at 10 inches below the soil surface due to course fragments.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ___ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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BC3U
2025-09-15
Lat/Long: 44.999350, -93.328631
Direction: W


BC3U
2025-09-15
Lat/Long: 44.999350, -93.328631
Direction: N


BC3U
2025-09-15
Lat/Long: 44.999259, -93.325624
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC3W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Floodplain | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.999192 | Long: -93.325494 | Datum: WGS84
Soil Map Unit Name: Water | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in Wetland 1 and is associated with upland plot BCU3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	95	Y	FACW
2. Bolboschoenus fluviatilis	5	N	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		195.00 (B)

Prevalence Index = B/A = 1.95

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix			Redox Features					
(inches)	Color (moist)		%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/2	100					MPT	Saturated, hemic texture
4-15	10YR	2/1	100					MMI	Saturated, muck with sand
15-24	N	2.5/0	100					LVFS	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ✔ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ✔ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___		
Water Table Present?	Yes ✔	No ___	Depth (inches): 6		
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC3W
2025-09-15
Lat/Long: 45.001220, -93.330716
Direction: W


BC3W
2025-09-15
Lat/Long: 44.999178, -93.325527
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project City/County: Hennepin County Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley State: Minnesota Sampling Point: BC4U
Investigator(s): Gage Kriese Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
Slope (%): 0-2 Lat: 44.998550 Long: -93.323587 Datum: WGS84
Soil Map Unit Name: Water NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ● No ○ (If no, explain in Remarks.)
Are Vegetation ○, Soil ○, or Hydrology ○ significantly disturbed? Are "Normal Circumstances" present? Yes ● No ○
Are Vegetation ○, Soil ○, or Hydrology ○ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ● No ○
Hydric Soil Present? Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●

Is the Sampled Area within a Wetland? **Yes** ○ **No** ●

Remarks:
This sample plot was taken in an upland area and is associated with wetland sample plot BC4W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rhamnus cathartica	90	Y	FAC
2.			
3.			
4.			
5.			
	90.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Arctium minus	25	Y	FACU
2. Rhamnus cathartica	25	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	115	x 3 =	345
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	140 (A)		445.00 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

○ 1 - Rapid Test for Hydrophytic Vegetation
● 2 - Dominance Test is >50%
○ 3 - Prevalence Index is ≤3.0[1]
○ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
○ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ● **No** ○

Remarks: (Include photo numbers here or on a separate sheet.)
50 percent bare ground cover.

SOIL

Sampling Point: BC4U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix			Redox Features					
(inches)	Color (moist)		%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/2	100					SCL	Dry
12-20	7.5YR	3/4	100					SC	Dry

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC4U
2025-09-15
Lat/Long: 44.998552, -93.323661
Direction: SE


BC4U
2025-09-15
Lat/Long: 44.998471, -93.323358
Direction: NE

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC4W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Toeslope | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.998523 | Long: -93.323654 | Datum: WGS84
Soil Map Unit Name: Water | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in Wetland 3 and is associated with upland sample plot BC4U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	50	Y	FACW
2. Persicaria minor	25	Y	OBL
3. Potamogeton nodosus	10	N	OBL
4. Sagittaria latifolia	5	N	OBL
5. Lemna minor	2	N	OBL
6.			
7.			
8.			
9.			
10.			
	92.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	42	x 1 =	42
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	92 (A)		142.00 (B)

Prevalence Index = B/A = 1.54

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
8 percent bare ground cover.

SOIL

Sampling Point: BC4W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					MUCK	Saturated
8-17	10YR 2/1	100					MMI	Saturated
17-4	10YR 5/1	98	2.5Y 5/4	2	C	M	SL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✔ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ✔ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✔	No ___	Depth (inches): 3
Water Table Present?	Yes ✔	No ___	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC4W
2025-09-15
Lat/Long: 44.998489, -93.325932
Direction: S


BC4W
2025-09-15
Lat/Long: 44.998482, -93.323736
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC5U
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Microtopography
Slope (%): 0-2 | Lat: 44.998683 | Long: -93.325037 | Datum: WGS84
Soil Map Unit Name: Urban land-Lester complex, 2 to 18 percent slopes | NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ● No ○ (If no, explain in Remarks.)
Are Vegetation ○, Soil ○, or Hydrology ○ significantly disturbed? Are "Normal Circumstances" present? Yes ● No ○
Are Vegetation ○, Soil ○, or Hydrology ○ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ● No ○
Hydric Soil Present? Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●

Is the Sampled Area within a Wetland? Yes ○ No ●

Remarks:
This sample plot was taken in an upland area and is associated with wetland sample plots BC5W, BC6W, and BC7W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	30	Y	FAC
2.			
3.			
4.			
5.			
	30.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Lonicera tatarica	40	Y	FACU
2. Rhamnus cathartica	30	Y	FAC
3.			
4.			
5.			
	70.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rhamnus cathartica	10	Y	FAC
2. Morus alba	5	Y	FAC
3. Parthenocissus quinquefolia	5	Y	FACU
4. Maianthemum racemosum	5	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	25.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	125 (A)		425.00 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:
○ 1 - Rapid Test for Hydrophytic Vegetation
● 2 - Dominance Test is >50%
○ 3 - Prevalence Index is ≤3.0[1]
○ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
○ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ● No ○

Remarks: (Include photo numbers here or on a separate sheet.)
75 percent bare ground cover.

SOIL

Sampling Point: BC5U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	100					SCL	Dry
11-24	10YR 5/4	40					SCL	Dry
	10YR 3/3	60					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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BC5U
2025-09-15
Lat/Long: 44.998714, -93.324945
Direction: SE


BC5U
2025-09-15
Lat/Long: 44.998702, -93.324975
Direction: N

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC5W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.998881 | Long: -93.324765 | Datum: WGS84
Soil Map Unit Name: Water | NWI classification: PSS1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in a shallow marsh community in Wetland 4 and is associated with upland plot BC5U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	65	Y	OBL
2. Lemna minor	15	N	OBL
3. Acorus americanus	10	N	OBL
4. Phalaris arundinacea	10	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		110.00 (B)

Prevalence Index = B/A = 1.1

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC5W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					MUCK	Saturated
4-14	10YR 2/1	100					MMI	Saturated, mucky sand
14-28	10YR 2/1	100					VFSL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✔ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
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- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ✔ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___		
Water Table Present?	Yes ✔	No ___	Depth (inches): 1		
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

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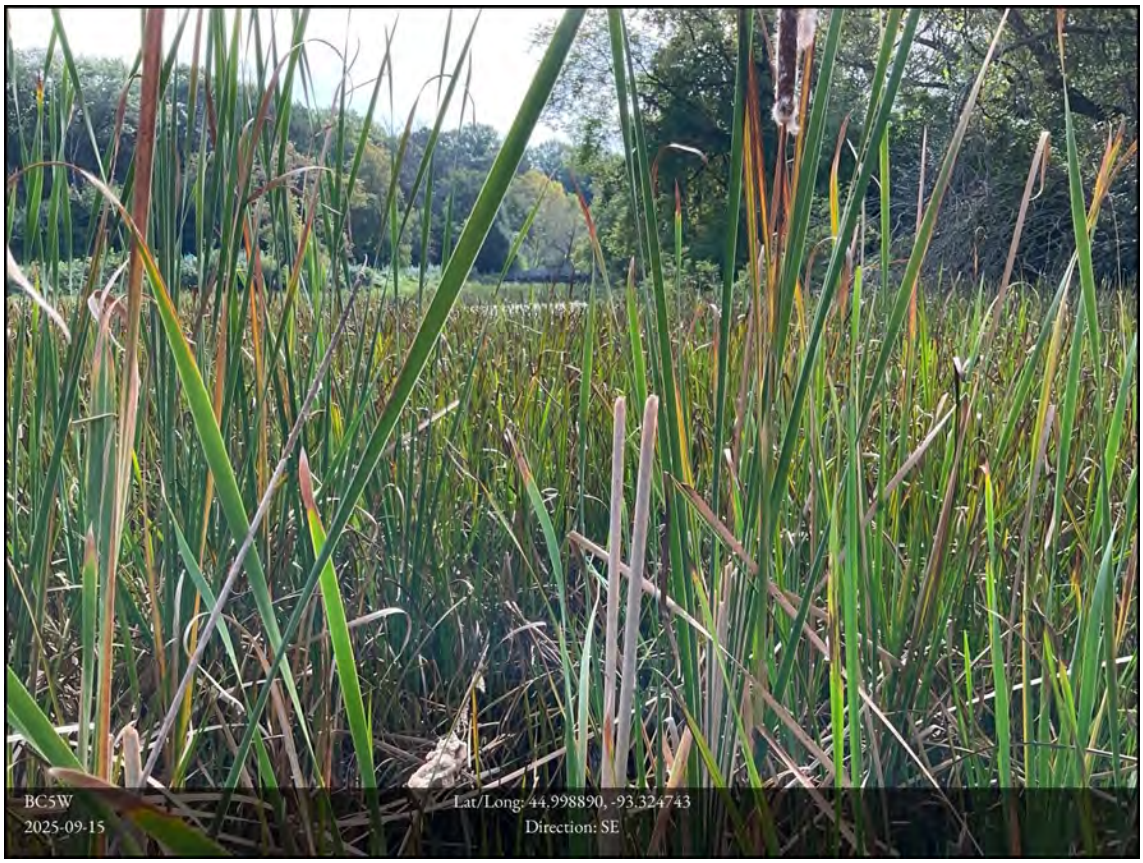
BC5W
2025-09-15
Lat/Long: 44.998852, -93.324736
Direction: NE


BC5W
2025-09-15
Lat/Long: 44.998890, -93.324743
Direction: SE

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project City/County: Hennepin County Sampling Date: 2025-09-15

Applicant/Owner: City of Golden Valley State: Minnesota Sampling Point: BC9W

Investigator(s): Gage Kriese Section, Township, Range: sec 17 T029N R024W

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave

Slope (%): 0-2 Lat: 44.998873 Long: -93.327634 Datum: WGS84

Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:
This sample plot was taken in a fresh wet meadow community within Wetland 2 and is associated with upland plot BC10U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	100	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200.00 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation
✔ 2 - Dominance Test is >50%
✔ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC9W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/1	95	10YR 5/6	5	C	M	SIL	Moist
11-24	10YR 2/1	95	5YR 3/4	5	C	M	SIL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? Yes ✔ No ___ Depth (inches): 10

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC9W
2025-09-15
Lat/Long: 44.998876, -93.327646
Direction: W


BC9W
2025-09-15
Lat/Long: 44.998876, -93.327641
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC10U
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Rise | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 44.999225 | Long: -93.326726 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: PSS1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
This sample plot was taken in an upland area and is associated with wetland sample plots BC10W, BC9W, and BC2W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	35	Y	FAC
2. Phalaris arundinacea	35	Y	FACW
3. Arctium minus	10	N	FACU
4. Cirsium arvense	10	N	FACU
5. Rumex crispus	5	N	FAC
6. Viola sororia	5	N	FAC
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	45	x 3 =	135
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		285.00 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC10U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix			Redox Features					
(inches)	Color (moist)		%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR	2/2	100					SL	Moist
20-26	10YR	3/3	100					SL	Moist

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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BC10U
2025-09-15
Lat/Long: 44.999227, -93.326731
Direction: W


BC10U
2025-09-15
Lat/Long: 44.999226, -93.326731
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC10W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Floodplain | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.999147 | Long: -93.326519 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: PSS1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in a shrub carr community within Wetland 2 and is associated with upland plot BC10U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Salix interior	40	Y	FACW
2.			
3.			
4.			
5.			
	40.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	80	Y	FACW
2. Urtica dioica	15	N	FACW
3. Impatiens capensis	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	140	x 2 =	280
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		280.00 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC10W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 2/1	60	7.5YR 4/6	5	C	M	SL	Moist
	10YR 5/2	35					SL	
11-24	10YR 2/1	75	7.5YR 4/6	5	C	M	SL	Saturated
	10YR 5/2	20					SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? Yes ✔ No ___ Depth (inches): 12

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC10W
2025-09-15
Lat/Long: 44.999145, -93.326510
Direction: NW


BC10W
2025-09-15
Lat/Long: 44.999140, -93.326510
Direction: SE

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC11U
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Summit | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 44.999087 | Long: -93.326588 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: PSS1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
This sample plot was taken in an upland and is not associated with any wetland sample plots.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Salix interior	10	Y	FACW
2.			
3.			
4.			
5.			
	10.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	25	Y	FACW
2. Solidago altissima	20	Y	FACU
3. Asclepias syriaca	15	Y	FACU
4. Rudbeckia laciniata	15	Y	FACW
5. Rhamnus cathartica	10	N	FAC
6. Urtica dioica	10	N	FACW
7. Symphyotrichum lanceolatum	5	N	FAC
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	15	x 3 =	45
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	110 (A)		305.00 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC11U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100					SL	Dry
16-25	10YR 3/1	100					SL	Moist
25-27	10YR 3/2	98	10YR 3/4	2	C	M	SL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC11U
2025-09-15
Lat/Long: 44.999074, -93.326589
Direction: SE


BC11U
2025-09-15
Lat/Long: 44.999097, -93.326486
Direction: SW


BC11U
2025-09-15
Lat/Long: 44.999128, -93.326728
Direction: NE

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC12W
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 44.999433 | Long: -93.326097 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
This sample plot was taken in Wetland 5 and is associated with upland sample plot BC13U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa palustris	40	Y	FACW
2. Poa pratensis	30	Y	FAC
3. Equisetum scirpoides	15	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	45	x 3 =	135
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		215.00 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
None.

SOIL

Sampling Point: BC12W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	98	10YR 3/3	2			SL	Moist
12-26	10Y 4/1	40	10YR 5/6	5	C	M	SCL	Saturated
	10YR 2/1	55					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✔ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___
Water Table Present?	Yes ___	No ✔	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✔	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC12W
2025-09-15
Lat/Long: 45.000111, -93.326999
Direction: E


BC12W
2025-09-15
Lat/Long: 45.000111, -93.326999
Direction: NW

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project | City/County: Hennepin County | Sampling Date: 2025-09-15
Applicant/Owner: City of Golden Valley | State: Minnesota | Sampling Point: BC13U
Investigator(s): Gage Kriese | Section, Township, Range: sec 17 T029N R024W
Landform (hillside, terrace, etc.): Rise | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 44.999380 | Long: -93.326484 | Datum: WGS84
Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ● No ○ (If no, explain in Remarks.)
Are Vegetation ○, Soil ○, or Hydrology ○ significantly disturbed? Are "Normal Circumstances" present? Yes ● No ○
Are Vegetation ○, Soil ○, or Hydrology ○ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ○ No ●
Hydric Soil Present? Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●

Is the Sampled Area within a Wetland? Yes ○ No ●

Remarks:
This sample plot was taken in an upland and is associated with wetland sample plot BC13W and BC12W.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glechoma hederacea	30	Y	FACU
2. Arctium minus	25	Y	FACU
3. Phalaris arundinacea	20	Y	FACW
4. Poa pratensis	20	Y	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	95 (A)		320.00 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:
○ 1 - Rapid Test for Hydrophytic Vegetation
○ 2 - Dominance Test is >50%
○ 3 - Prevalence Index is ≤3.0[1]
○ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
○ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ○ No ●

Remarks: (Include photo numbers here or on a separate sheet.)
5 percent bare ground cover.

SOIL

Sampling Point: BC13U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix			Redox Features					
(inches)	Color (moist)		%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	2/2	100					SL	Dry
12-30	10YR	3/2	98	10YR 3/4	2	C	M	SL	Moist

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

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PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC13U
2025-09-15
Lat/Long: 44.999906, -93.328091
Direction: N


BC13U
2025-09-15
Lat/Long: 44.999325, -93.326495
Direction: E

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bassett Creek Lagoon Dredging Project City/County: Hennepin County Sampling Date: 2025-09-15

Applicant/Owner: City of Golden Valley State: Minnesota Sampling Point: BC13W

Investigator(s): Gage Kriese Section, Township, Range: sec 17 T029N R024W

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 0-2 Lat: 44.999381 Long: -93.326685 Datum: WGS84

Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes NWI classification: R2UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
This sample plot was taken in Wetland 6 and is associated with upland sample plot BC13U.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	35	Y	FACW
2. Persicaria minor	20	Y	OBL
3. Cyperus erythrorhizos	15	N	OBL
4. Ludwigia palustris	15	N	OBL
5. Alisma triviale	10	N	OBL
6. Persicaria maculosa	5	N	FACW
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		140.00 (B)

Prevalence Index = B/A = 1.4

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation is mowed.

SOIL

Sampling Point: BC13W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	70	10YR 3/4	2	C	M	SL	Saturated
	10YR 5/1	28					SL	
12-30	N 2.5/0	100					VFSL	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

None.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✔ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ✔ No ___ Depth (inches): 9

Saturation Present? Yes ✔ No ___ Depth (inches): 2

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

None.

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx


BC13W
2025-09-15
Lat/Long: 44.999500, -93.326983
Direction: N


BC13W
2025-09-15
Lat/Long: 44.999449, -93.326859
Direction: E

Appendix B – Additional Site Photographs

Date: 9/15/2025 5:14:16 PM
ID:
Notes: Upland area dominated by common buckthorn (Rhamnus cathartica)
Photo Category: Upland

0 200 400
Feet

Bassett Creek Lagoon
Field Data Collection
Golden Valley, MN

Photo ID - 1 of 2

Date: 9/15/2025 6:18:55 PM
ID:
Notes: Gentle flowing water going into the shallow, open water wetland
Photo Category: Wetland

0 200 400
Feet

Bassett Creek Lagoon
Field Data Collection
Golden Valley, MN

Photo ID - 2 of 2

Appendix C – Wetland Functional Assessment Results

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 1	Riverine (within the river/stream banks)	0.75	0.65	0.66	0.42	0.44
		High	Moderate	Moderate	Moderate	Moderate

						Additional Information			
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 1	0.52	0.54	0.00	0.52	0.00	Combination Discharge, Recharge	0.00	0.10	0.42
	Moderate	Moderate	Not Applicable	Moderate	Not Applicable		Not Applicable	High	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 1	27-029-24-17-001	PSS1B	Type 6	Shrub Carr	40	0.1	0.10	0.10	0.10
							Low	Low	Low
		PEMB	Type 2	Fresh (Wet) Meadow	60	0.1	0.10	0.10	0.10
							Low	Low	Low
					100		0.10	0.10	0.10

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 1

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Shrub Carr

Cowardin Classification: PSS1B

Circular 39: Type 6

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEMB

Circular 39: Type 2

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Riverine
8-1	*Maximum water depth*	3 inches
8-2	*% inundated*	1%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*

11-Upland Soil	Udorthents, wet substratum, dry sandy loam
11-Wetland Soil	Udorthents, wet substratum, saturated very fine sandy loam

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	A
16	*Vegetation (% cover)*	60%
17	*Emerg. veg flood resistance*	A
18	*Sediment delivery*	B
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	A
23	*Adjacent buffer width*	27 feet

Adjacent area management

24-A	*Full*	35%
24-B	*Manicured*	65%
24-C	*Bare*	0%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	100%
25-C	*Sparse*	0%

Adjacent area slope

26-A	*Gentle*	90%
26-B	*Moderate*	10%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	Yes

Shoreline Wetland

30	*Rooted veg., % cover*	5%
31	*Wetland in-water width*	1 feet
32	*Emerg. veg. erosion resistance*	B
33	*Erosion potential of site*	B
34	*Upslope veg./bank protection*	A
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	NA
38	*Veg. community interspersion*	C
39	*Wetland detritus*	B
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Inadequate
43	*Fish presence*	C
44	*Overwintering habitat*	
45	*Wildlife species (list)*	
46	*Fish habitat quality*	A
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	B
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	B
54	*Human influence on viewshed*	C
55	*Spatial buffer*	B
56	*Recreational activity potential*	C
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Discharge
62	*Inlet/Outlet configuration*	Discharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	1.06
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

Watershed Mississippi (Metro)

WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 9/30/2025

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 2	Riverine (within the river/stream banks)	0.75	0.52	0.59	0.41	0.60
		High	Moderate	Moderate	Moderate	Moderate

							Additional Information		
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 2	0.60	0.63	0.04	0.57	0.00	Combination Discharge, Recharge	0.00	0.50	0.41
	Moderate	Moderate	Low	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 2	27-029-24-17-001	PUBG	Type 5	Shallow, Open Water Communities	35	0.5	0.50	0.30	0.30
							Moderate	Low	Low
		PEMB	Type 2	Fresh (Wet) Meadow	35	0.1	0.50	0.30	0.30
							Moderate	Low	Low
		PSS1B	Type 6	Shrub Carr	15	0.1	0.50	0.30	0.30
							Moderate	Low	Low
		PFO1A	Type 1	Floodplain Forest	15	0.5	0.50	0.30	0.30
							Moderate	Low	Low
					100		0.50	0.30	0.30

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 2

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Shallow, Open Water C

Cowardin Classification: PUBG — Circular 39: Type 5

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEMB — Circular 39: Type 2

Plant Community: Shrub Carr

Cowardin Classification: PSS1B — Circular 39: Type 6

Plant Community: Floodplain Forest

Cowardin Classification: PFO1A — Circular 39: Type 1

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Riverine
8-1	*Maximum water depth*	12 inches
8-2	*% inundated*	25%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*
11-Upland Soil		Udorthents, wet substratum, dry sandy loam
11-Wetland Soil		Muskego and Houghton, saturated silt loam and muck

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	A
16	*Vegetation (% cover)*	40%
17	*Emerg. veg flood resistance*	A
18	*Sediment delivery*	C
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	C
23	*Adjacent buffer width*	39 feet

Adjacent area management

24-A	*Full*	20%
24-B	*Manicured*	80%
24-C	*Bare*	0%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	100%
25-C	*Sparse*	0%

Adjacent area slope

26-A	*Gentle*	85%
26-B	*Moderate*	15%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	Yes

Shoreline Wetland

30	*Rooted veg., % cover*	30%
31	*Wetland in-water width*	83 feet
32	*Emerg. veg. erosion resistance*	B
33	*Erosion potential of site*	B
34	*Upslope veg./bank protection*	B
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	B
38	*Veg. community interspersion*	B
39	*Wetland detritus*	B
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Adequate
43	*Fish presence*	C
44	*Overwintering habitat*	C
45	*Wildlife species (list)*	
46	*Fish habitat quality*	A
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	B
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	B
54	*Human influence on viewshed*	C
55	*Spatial buffer*	B
56	*Recreational activity potential*	B
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Discharge
62	*Inlet/Outlet configuration*	Discharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	2.3
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

Watershed Mississippi (Metro)

WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 9/30/2025

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 3	Riverine (within the river/stream banks)	0.75	0.60	0.57	0.37	0.34
		High	Moderate	Moderate	Moderate	Moderate

							Additional Information		
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 3	0.58	0.53	0.00	0.52	0.00	Combination Discharge, Recharge	0.00	0.10	0.37
	Moderate	Moderate	Not Applicable	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 3	27-029-24-17-001	PEMB	Type 2	Fresh (Wet) Meadow	100	0.1	0.10	0.10	0.10
							Low	Low	Low
					100		0.10	0.10	0.10

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 3

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEMB

Circular 39: Type 2

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Riverine
8-1	*Maximum water depth*	0 inches
8-2	*% inundated*	0%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*

11-Upland Soil	Kingsley-Gotham complex, dry sandy clay loam
11-Wetland Soil	Udorthents, wet substratum, saturated muck

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	A
16	*Vegetation (% cover)*	30%
17	*Emerg. veg flood resistance*	B
18	*Sediment delivery*	B
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	A
23	*Adjacent buffer width*	14 feet

Adjacent area management

24-A	*Full*	20%
24-B	*Manicured*	80%
24-C	*Bare*	0%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	100%
25-C	*Sparse*	0%

Adjacent area slope

26-A	*Gentle*	0%
26-B	*Moderate*	100%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	Yes

Shoreline Wetland

30	*Rooted veg., % cover*	10%
31	*Wetland in-water width*	2 feet
32	*Emerg. veg. erosion resistance*	B
33	*Erosion potential of site*	B
34	*Upslope veg./bank protection*	B
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	NA
38	*Veg. community interspersion*	NA
39	*Wetland detritus*	B
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Inadequate
43	*Fish presence*	C
44	*Overwintering habitat*	
45	*Wildlife species (list)*	
46	*Fish habitat quality*	A
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	B
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	B
54	*Human influence on viewshed*	C
55	*Spatial buffer*	B
56	*Recreational activity potential*	C
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Discharge
62	*Inlet/Outlet configuration*	Discharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	0.11
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

Watershed Mississippi (Metro)

WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 9/30/2025

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 4	Riverine (within the river/stream banks)	0.75	0.65	0.68	0.48	0.70
		High	Moderate	High	Moderate	High

							Additional Information		
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 4	0.57	0.58	0.26	0.57	0.00	Combination Discharge, Recharge	0.00	0.50	0.48
	Moderate	Moderate	Low	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 4	27-029-24-17-001	PEMC	Type 3	Shallow Marsh	40	0.5	0.50	0.23	0.26
							Moderate	Low	Low
		PEM1B	Type 2	Fresh (Wet) Meadow	30	0.1	0.50	0.23	0.26
							Moderate	Low	Low
		PSS1B	Type 6	Shrub Carr	30	0.1	0.50	0.23	0.26
							Moderate	Low	Low
					100		0.50	0.23	0.26

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 4

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Shallow Marsh

Cowardin Classification: PEMC — Circular 39: Type 3

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEM1B — Circular 39: Type 2

Plant Community: Shrub Carr

Cowardin Classification: PSS1B — Circular 39: Type 6

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Riverine
8-1	*Maximum water depth*	6 inches
8-2	*% inundated*	15%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*
11-Upland Soil		Urban land-Lester complex, dry sandy clay laom
11-Wetland Soil		Water, Saturated muck

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	A
16	*Vegetation (% cover)*	70%
17	*Emerg. veg flood resistance*	A
18	*Sediment delivery*	B
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	A
23	*Adjacent buffer width*	51 feet

Adjacent area management

24-A	*Full*	35%
24-B	*Manicured*	65%
24-C	*Bare*	0%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	100%
25-C	*Sparse*	0%

Adjacent area slope

26-A	*Gentle*	60%
26-B	*Moderate*	40%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	Yes

Shoreline Wetland

30	*Rooted veg., % cover*	15%
31	*Wetland in-water width*	70 feet
32	*Emerg. veg. erosion resistance*	A
33	*Erosion potential of site*	B
34	*Upslope veg./bank protection*	B
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	C
38	*Veg. community interspersion*	B
39	*Wetland detritus*	B
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Adequate
43	*Fish presence*	B
44	*Overwintering habitat*	C
45	*Wildlife species (list)*	
46	*Fish habitat quality*	B
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	B
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	B
54	*Human influence on viewshed*	B

55	*Spatial buffer*	B
56	*Recreational activity potential*	C
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Discharge
62	*Inlet/Outlet configuration*	Discharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	1.77
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

Watershed Mississippi (Metro)

WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 9/30/2025

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 5	Depressional/Isolated (no discernable inlets or outlets)	0.63	0.61	0.68	0.46	0.00
		Moderate	Moderate	High	Moderate	Not Applicable

							Additional Information		
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 5	0.51	0.00	0.00	0.42	0.00	Recharge	0.00	0.10	0.46
	Moderate	Not Applicable	Not Applicable	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 5	27-029-24-17-001	PEMB	Type 2	Fresh (Wet) Meadow	100	0.1	0.10	0.10	0.10
							Low	Low	Low
					100		0.10	0.10	0.10

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 5

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEMB

Circular 39: Type 2

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Depressional/Isolated
8-1	*Maximum water depth*	0 inches
8-2	*% inundated*	0%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*

11-Upland Soil	Udorthents wet substratum, dry sandy loam
11-Wetland Soil	Udorthents wet substratum, saturated sandy loam

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	B
16	*Vegetation (% cover)*	100%
17	*Emerg. veg flood resistance*	C
18	*Sediment delivery*	A
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	A
23	*Adjacent buffer width*	0 feet

Adjacent area management

24-A	*Full*	0%
24-B	*Manicured*	85%
24-C	*Bare*	15%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	30%
25-C	*Sparse*	70%

Adjacent area slope

26-A	*Gentle*	100%
26-B	*Moderate*	0%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	No

Shoreline Wetland

30	*Rooted veg., % cover*	
31	*Wetland in-water width*	0 feet
32	*Emerg. veg. erosion resistance*	
33	*Erosion potential of site*	
34	*Upslope veg./bank protection*	
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	NA
38	*Veg. community interspersion*	NA
39	*Wetland detritus*	C
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Inadequate
43	*Fish presence*	A
44	*Overwintering habitat*	
45	*Wildlife species (list)*	
46	*Fish habitat quality*	NA
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	A
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	C
54	*Human influence on viewshed*	C
55	*Spatial buffer*	B
56	*Recreational activity potential*	C
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Recharge
62	*Inlet/Outlet configuration*	Recharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	0.05
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

Watershed Mississippi (Metro)

WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 10/6/2025

Wetland Functional Assessment Summary

Wetland Name	Hydrogeomorphology	Maintenance of Hydrologic Regime	Flood/ Stormwater/ Attenuation	Downstream Water Quality	Maintenance of Wetland Water Quality	Shoreline Protection
BC Lagoon Wetland 6	Riverine (within the river/stream banks)	0.63	0.61	0.68	0.46	0.44
		Moderate	Moderate	High	Moderate	Moderate

							Additional Information		
Wetland Name	Maintenance of Characteristic Wildlife Habitat Structure	Maintenance of Characteristic Fish Habitat	Maintenance of Characteristic Amphibian Habitat	Aesthetics/ Recreation/ Education/ Cultural	Commercial Uses	Ground-Water Interaction	Wetland Restoration Potential	Wetland Sensitivity to Stormwater and Urban Development	Additional Stormwater Treatment Needs
BC Lagoon Wetland 6	0.51	0.57	0.00	0.42	0.00	Combination Discharge, Recharge	0.00	0.10	0.46
	Moderate	Moderate	Not Applicable	Moderate	Not Applicable		Not Applicable	Moderate	Moderate

Wetland Community Summary

		Vegetative Diversity/Integrity							
		Community							
Wetland Name	Location	Cowardin Classification	Circular 39	Plant Community	Wetland Proportion	Individual Community Rating	Highest Wetland Rating	Average Wetland Rating	Weighted Average Wetland Rating
BC Lagoon Wetland 6	27-029-24-17-001	PEMB	Type 2	Fresh (Wet) Meadow	100	0.1	0.10	0.10	0.10
							Low	Low	Low
					100		0.10	0.10	0.10

☑ *Denotes incomplete calculation data.*

MnRAM: Site Response Record

For Wetland: BC Lagoon Wetland 6

Location: 27-029-24-17-001

Bassett Creek Lagoon Dredging

Plant Community: Fresh (Wet) Meadow

Cowardin Classification: PEMB

Circular 39: Type 2

4	*Listed, rare, special species?*	No
5	*Rare community or habitat?*	No
6	*Pre-European-settlement condition?*	No

Hydrogeomorphology / topography:

7		Riverine
8-1	*Maximum water depth*	0 inches
8-2	*% inundated*	0%
9	*Immediate drainage--local WS*	2422 acre
10	*Esimated size/existing site:*	*(see #66)*

11-Upland Soil	Udorthents wet substratum, dry sandy loam
11-Wetland Soil	Udorthents wet substratum, saturated sandy clay loam

12	*Outlet for flood control*	NA
13	*Outlet for hydro regime*	A
14	*Dominant upland land use*	B
15	*Wetland soil condition*	B
16	*Vegetation (% cover)*	100%
17	*Emerg. veg flood resistance*	C
18	*Sediment delivery*	A
19	*Upland soils (soil group)*	B
20	*Stormwater runoff*	B
21	*Subwatershed wetland density*	B
22	*Channels/sheet flow*	A
23	*Adjacent buffer width*	0 feet

Adjacent area management

24-A	*Full*	0%
24-B	*Manicured*	85%
24-C	*Bare*	15%

Adjacent area diversity/structure

25-A	*Native*	0%
25-B	*Mixed*	30%
25-C	*Sparse*	70%

Adjacent area slope

26-A	*Gentle*	100%
26-B	*Moderate*	0%
26-C	*Steep*	0%

27	*Downstream sens./WQ protect.*	A
28	*Nutrient loading*	B
29	*Shoreline wetland?*	Yes

Shoreline Wetland

30	*Rooted veg., % cover*	10%
31	*Wetland in-water width*	1 feet
32	*Emerg. veg. erosion resistance*	B
33	*Erosion potential of site*	B
34	*Upslope veg./bank protection*	A
35	*Rare wildlife?*	No
36	*Scare/Rare/S1/S2 community*	No
37	*Vegetative cover*	NA
38	*Veg. community interspersion*	NA
39	*Wetland detritus*	C
40	*Interspersion on landscape*	A
41	*Wildlife barriers*	A

Amphibian-breeding potential

42	*Hydroperiod adequacy*	Inadequate
43	*Fish presence*	C
44	*Overwintering habitat*	
45	*Wildlife species (list)*	
46	*Fish habitat quality*	A
47	*Fish species (list)*	
48	*Unique/rare opportunity*	No
49	*Wetland visibility*	A
50	*Proximity to population*	Yes
51	*Public ownership*	A
52	*Public access*	B
53	*Human influence on wetland*	C
54	*Human influence on viewshed*	C
55	*Spatial buffer*	B
56	*Recreational activity potential*	C
57	*Commercial crop--hydro impact*	NA

Groundwater-specific questions

58	*Wetland soils*	Recharge
59	*Subwatershed land use*	Recharge
60	*Wetland size/soil group*	Recharge
61	*Wetland hydroperiod*	Discharge
62	*Inlet/Outlet configuration*	Discharge
63	*Upland topo relief*	Discharge

Additional information

64	*Restoration potential*	No
65	*LO affected by restoration*	
66	*Existing size*	0.06
	Restorable size	0
	Potential new wetland	0
67	*Average width of pot. buffer*	0 feet
68	*Ease of potential restoration*	
69	*Hydrologic alterations*	0
70	*Potential wetland type*	0
71	*Stormwater sensitivity*	B
72	*Additional treatment needs*	B

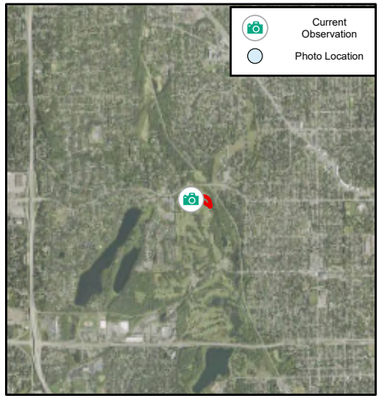
Watershed Mississippi (Metro)

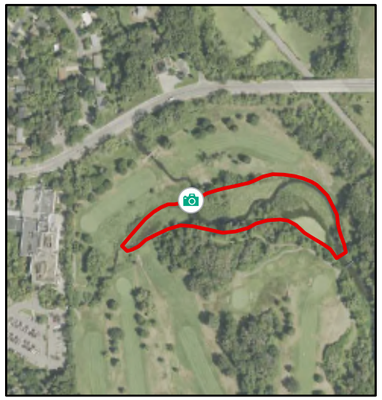
WS# 20 Service Area: 7

For functional ratings, please run the Summary tab report.

This report printed on: 9/30/2025

Appendix D – Ordinary High Water Mark Form





PROJECT INFORMATION

Length of Reach (ft): 1121

Top of Bank Width (ft): 30

OHWM Width at Sample Point (ft): 24

Bank Height (Downstream at Sample Point) - Right: .5 feet

Bank Height (Downstream at Sample Point) - Left: 3.5 feet

Watercourse Depth (in): 24 inches

Water Surface at Sample Location (ft): NA

Special Designations: None

Site Description and Site History: This section of Bassett creek runs through a golf course.

Associated Wetland(s)?: Yes shrub carr, shallow open water

WATER REGIME

Water Regime: Perennial

Explain Reasoning: Constant flowing water, true aquatic plants, sandy/gravel bottom, silt deposition along sides of creek, clear defined bank.

OHWM CRITERIA

OHWM Criteria:

Clear natural line impressed on bank,Vegetation matted down; bent or absent.

UNIQUE FEATURES

Unique Features:

Unstable Banks,Steep Sideslopes,Large Woody Debris,Aquatic Fauna, Undercut Banks, Submergent Aquatic Vegetation

BED MATERIAL CHARACTERIZATION

Bed Material - Clay/Silt (less than 0.05mm): 40

Bed Material - Sand (0.05-2mm): 45

Bed Material - Gravel (2mm-1cm): 15

Bed Material - Cobbles (1-10cm): 0

Bed Material - Boulders (greater than 10cm): 0

Bed Material %: 100

VEGETATION

Vegetation: Bare,Herbaceous

Notes: 54 feet, Phalaris arundinacea is generally dominant along the sides of the creek.

RIPARIAN AREA WIDTH

Notes: 185 feet

Date: 9/18/2025 11:51:15 AM
Investigator(s): Gage Kriese
Resource ID: Bassett Creek
DNR Waterbody Name: Bassett Creek

Photo 1 Orientation: Across
Photo 2 Orientation: Downstream
Photo 3 Orientation: Upstream

County: Hennepin County
State: MN
Latitude: 44.999056
Longitude: -93.326457

OHWM Survey Photo Summary

1 of 1

September, 2025

Bassett Creek Lagoon

Golden Valley, MN

N

Image Source: MnGeo 2023 FSA

BARR

Appendix C

Feasibility Study Engineer's Opinion of Probable Cost

Table C-1 Cost Estimate Alternative 1 - Deepen Lagoon D

Description	Unit	Estimated Quantity	Unit Price	Extension
Mobilization / Demobilization	LS	1	$ 34,000.00	$ 34,000.00
Erosion & Sediment Control	LS	1	$ 10,400.00	$ 10,400.00
Control of Water / Dewatering	LS	1	$ 15,000.00	$ 15,000.00
Remove and Dispose Dredged Material at Landfill	CY	2,100	$ 55.00	$ 115,500.00
Restoration	LS	1	$ 10,000.00	$ 10,000.00
Subtotal				$ 184,900.00
Construction Contingency (30%)				$ 55,000.00
Total w/Construction Contingency				**$ 240,000.00**
Engineering (30%)				$ 72,000.00
Total w/ Engineering				**$ 312,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 249,600.00**
	30%			**$ 405,600.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	1	$ 2,000.00	$ 2,000.00
Street Sweeping	LS	1	$ 1,000.00	$ 1,000.00
Inlet Protection	Each	8	$ 300.00	$ 2,400.00
Erosion Control Siltation Logs	LF	500	$ 5.00	$ 2,500.00
Floatation Silt Curtain	LF	100	$ 25.00	$ 2,500.00
Total				**$ 10,400.00**

Table C-2 Cost Estimate Alternative 1 - Deepen Lagoon E

Description	Unit	Estimated Quantity	Unit Price	Extension
Mobilization / Demobilization	LS	1	$ 66,000.00	$ 66,000.00
Erosion & Sediment Control	LS	1	$ 10,400.00	$ 10,400.00
Control of Water / Dewatering	LS	1	$ 15,000.00	$ 15,000.00
Remove and Dispose Dredged Material at Landfill	CY	7,650	$ 55.00	$ 420,750.00
Restoration	LS	1	$ 10,000.00	$ 10,000.00
Subtotal				$ 522,150.00
Construction Contingency (30%)				$ 157,000.00
Total w/Construction Contingency				**$ 680,000.00**
Engineering (30%)				$ 204,000.00
Total w/ Engineering				**$ 884,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 707,200.00**
	30%			**$ 1,149,200.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	1	$ 2,000.00	$ 2,000.00
Street Sweeping	LS	1	$ 1,000.00	$ 1,000.00
Inlet Protection	Each	8	$ 300.00	$ 2,400.00
Erosion Control Siltation Logs	LF	500	$ 5.00	$ 2,500.00
Floatation Silt Curtain	LF	100	$ 25.00	$ 2,500.00
Total				**$ 10,400.00**

Table C-3 Cost Estimate Alternative 1 - Deepen Lagoon F

Description	Unit	Estimated Quantity	Unit Price	Extension
Mobilization / Demobilization	LS	1	$ 49,000.00	$ 49,000.00
Erosion & Sediment Control	LS	1	$ 10,400.00	$ 10,400.00
Control of Water / Dewatering	LS	1	$ 15,000.00	$ 15,000.00
Remove and Dispose Dredged Material at Landfill	CY	4,200	$ 55.00	$ 231,000.00
Restoration	LS	1	$ 5,000.00	$ 5,000.00
Subtotal				$ 310,400.00
Construction Contingency (30%)				$ 93,000.00
Total w/Construction Contingency				**$ 404,000.00**
Engineering (30%)				$ 121,000.00
Total w/ Engineering				**$ 525,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 420,000.00**
	30%			**$ 682,500.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	1	$ 2,000.00	$ 2,000.00
Street Sweeping	LS	1	$ 1,000.00	$ 1,000.00
Inlet Protection	Each	8	$ 300.00	$ 2,400.00
Erosion Control Siltation Logs	LF	500	$ 5.00	$ 2,500.00
Floatation Silt Curtain	LF	100	$ 25.00	$ 2,500.00
Total				**$ 10,400.00**

Table C-4 Cost Estimate Alternative 1 - Deepen ALL Lagoons

Description	Unit	Estimated Quantity	Unit Price	Extension
Mobilization / Demobilization	LS	1	$ 147,000.00	$ 147,000.00
Erosion & Sediment Control	LS	1	$ 24,400.00	$ 24,400.00
Control of Water / Dewatering	LS	1	$ 45,000.00	$ 45,000.00
Remove and Dispose Dredged Material at Landfill	CY	13,950	$ 55.00	$ 767,250.00
Restoration	LS	1	$ 25,000.00	$ 25,000.00
Subtotal				$ 1,008,650.00
Construction Contingency (30%)				$ 303,000.00
Total w/Construction Contingency				**$ 1,312,000.00**
Engineering (30%)				$ 394,000.00
Total w/ Engineering				**$ 1,535,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 1,228,000.00**
	30%			**$ 1,995,500.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	3	$ 2,000.00	$ 6,000.00
Street Sweeping	LS	1	$ 1,000.00	$ 1,000.00
Inlet Protection	Each	8	$ 300.00	$ 2,400.00
Erosion Control Siltation Logs	LF	1500	$ 5.00	$ 7,500.00
Floatation Silt Curtain	LF	300	$ 25.00	$ 7,500.00
Total				**$ 24,400.00**

Table C-5 Cost Estimate Alternative 2 - Deepen Lagoon G to 6 Feet

Description	Unit	Estimated Quantity	Unit Price	Extension
Mobilization / Demobilization	LS	1	$ 100,000.00	$ 100,000.00
Erosion & Sediment Control	LS	1	$ 10,400.00	$ 10,400.00
Control of Water / Dewatering	LS	1	$ 15,000.00	$ 15,000.00
Remove and Dispose Dredged Material at Landfill	CY	33,700	$ 55.00	$ 1,853,500.00
Restoration	LS	1	$ 15,000.00	$ 15,000.00
Subtotal				$ 1,993,900.00
Construction Contingency (30%)				$ 598,000.00
Total w/Construction Contingency				**$ 2,592,000.00**
Engineering (30%)				$ 778,000.00
Total w/ Engineering				**$ 3,370,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 2,696,000.00**
	30%			**$ 4,381,000.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	1	$ 2,000.00	$ 2,000.00
Street Sweeping	LS	1	$ 1,000.00	$ 1,000.00
Inlet Protection	Each	8	$ 300.00	$ 2,400.00
Erosion Control Siltation Logs	LF	500	$ 5.00	$ 2,500.00
Floatation Silt Curtain	LF	100	$ 25.00	$ 2,500.00
Total				**$ 10,400.00**

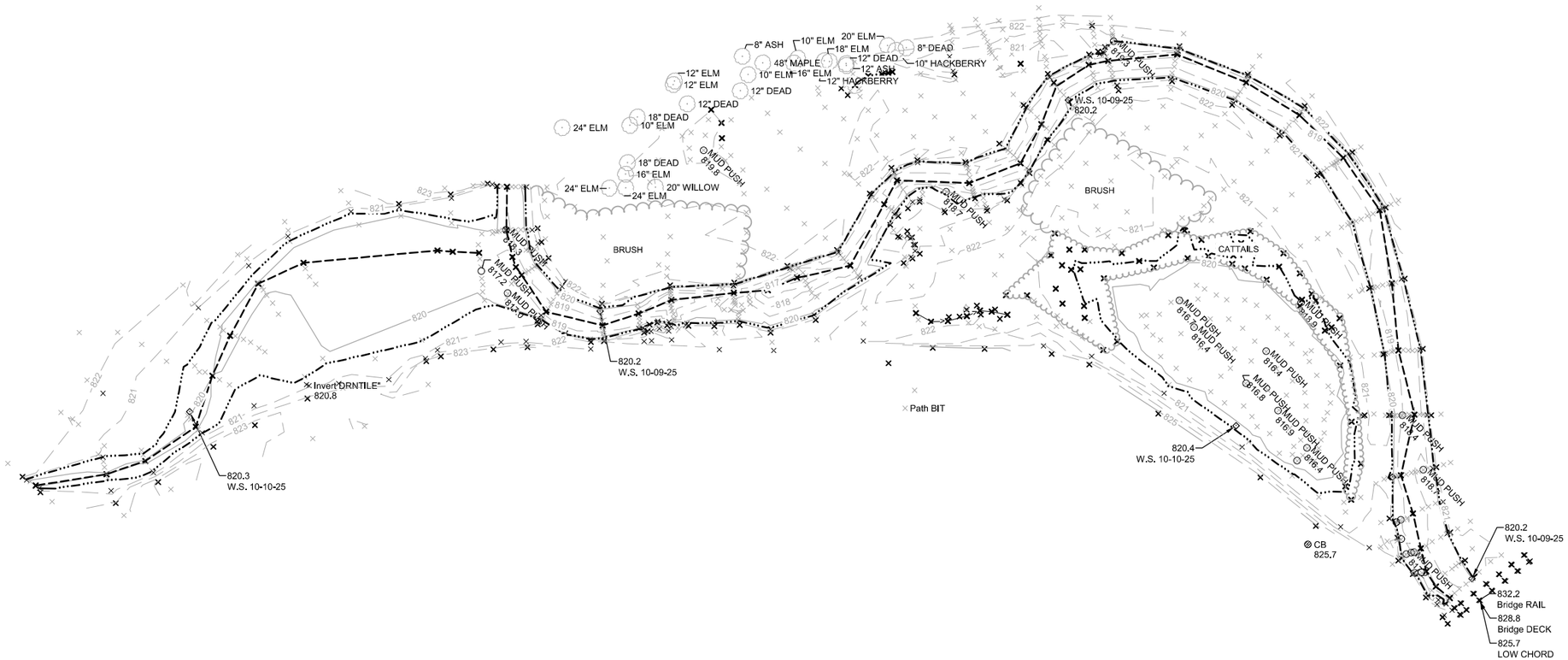
Table C-6 Cost Estimate Alternative 3 - Wetland Restoration

Description	Unit	Estimated Quantity	Unit Price	Extension
Clearing and Grubbing	AC	4	$ 2,600.00	$ 10,400.00
Erosion & Sediment Control	LS	1	$ 12,100.00	$ 12,100.00
Remove and Dispose Dredged Material at Landfill	CY	23,000	$ 55.00	$ 1,265,000.00
Common Excavation	CY	2,500	$ 13.00	$ 32,500.00
Invasive Species Removal and Control	EA	2	$ 4,000.00	$ 8,000.00
Soil Bed Preparation - Fine Grading and Power Rototilling	AC	4	$ 4,500.00	$ 18,000.00
Seeding	AC	4	$ 4,000.00	$ 16,000.00
Herbaceous Plug	EA	900	$ 5.50	$ 4,950.00
Shrub (#2)	EA	60	$ 100.00	$ 6,000.00
Erosion Control Blanket	SY	4,840	$ 3.50	$ 16,940.00
Year 1 Vegetation Establishment	LS	1	$ 20,000.00	$ 20,000.00
Year 2 Vegetation Establishment	LS	1	$ 15,000.00	$ 15,000.00
Year 3 Vegetation Establishment	LS	1	$ 15,000.00	$ 15,000.00
Ongoing Maintenance (Years 4-10)	EA	7	$ 12,000.00	$ 84,000.00
Subtotal				$ 1,523,890.00
Construction Contingency (30%)				$ 457,000.00
Total w/Construction Contingency				**$ 1,981,000.00**
Engineering (30%)				$ 594,000.00
Total w/ Engineering				**$ 2,575,000.00**
ESTIMATED ACCURACY RANGE	**-20%**			**$ 2,060,000.00**
	30%			**$ 3,347,500.00**

Item	Unit	Estimated Quantity	Unit Price	Extension
Erosion Control Construction Entrance	Each	1	$ 2,000.00	$ 2,000.00
Street Sweeping	LS	1	$ 2,000.00	$ 2,000.00
Inlet Protection	Each	2	$ 300.00	$ 600.00
Erosion Control Siltation Logs	LF	500	$ 5.00	$ 2,500.00
Floatation Silt Curtain	LF	200	$ 25.00	$ 5,000.00
Total				**$ 12,100.00**

Appendix D

Topographic, Bathymetric, and Utility Survey



1 - PLAN: SURVEY FIGURE

0 50 100

SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: MINNESOTA HENNEPIN COUNTY NAD83(2011)
VERTICAL: NAVD88 MSL REF. MNDOT VRS SYSTEM

LEGEND:

- 1380 — MAJOR CONTOUR
- 1379 — MINOR CONTOUR
- SHORELINE
- THALWEG
- EDGE OF VEGETATION
- DECIDUOUS TREE

#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	XXX	XXX	XXX	XX/XX/20XX	ISSUED FOR XXXX

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4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BCWMC
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM LAGOON DREDGING
GOLDEN VALLEY, MN

2025 TOPOGRAPHIC SURVEY
BASE MAP

BARR PROJECT # 2327005170
DWG # BASE
REV # A

Appendix E

Phase I Lagoon As-Built Survey

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-3.276	-2.000	
2	-2.000	-1.000	
3	-1.000	-0.500	
4	-0.500	0.500	
5	0.500	1.000	
6	1.000	2.000	
7	2.000	3.000	
8	3.000	5.300	

BELOW DESIGN

ABOVE DESIGN

1 R-4

2 R-4

LAGOON

F

BOTTOM OF LAGOON = 811.9
PLAN DREDGING VOLUME = 12,200 CY
RECORD SURVEY DREDGING VOLUME = 8,010 CY
4,190 CY LESS THAN PLAN

SPOT ELEVATIONS ARE EXISTING GROUND AFTER DREDGING - TAKEN ON 4/17/2023

1 - PLAN: SITE PLAN - LAGOON F

0 20 40
SCALE IN FEET

RECORD SURVEY VOLUME COMPARISON

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	— —	-

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PRINTED NAME _____

SIGNATURE _____

DATE _____ LICENSE # _____

REVIEW	—	—	—	—	—	—	—	—
BID	—	—	—	—	—	—	—	—
CONSTRUCTION	—	—	—	—	—	—	—	—
RECORD	—	—	—	—	—	—	—	—
RELEASED TO/FOR	0	1	2	3	4	5	6	
	DATE RELEASED							

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Project Office:
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4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435
Ph: 1-800-832-2277
Fax: (952) 832-2601
www.barr.com

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277

Scale	AS SHOWN
Date	04/21/2023
Drawn	PEB
Checked	PEB
Designed	BARR
Approved	PEB

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

MAIN STEM LAGOON DREDGING PROJECT
GOLDEN VALLEY, MINNESOTA

LAGOON F

BARR PROJECT No.	23/27-1860.00
CLIENT PROJECT No.	BC-7 2021
DWG. No.	R-1
REV. No.	A

LAGOON

E

BOTTOM OF LAGOON = 811.8
PLAN DREDGING VOLUME = 19,300 CY
RECORD SURVEY DREDGING VOLUME = 11,650 CY
7,650 LESS THAN PLAN

	Elevations Table			
	Number	Minimum Elevation	Maximum Elevation	Color
BELOW DESIGN	1	-3.848	-2.000	
	2	-2.000	-1.000	
	3	-1.000	-0.500	
	4	-0.500	0.500	
	5	0.500	1.000	
	6	1.000	2.000	
	7	2.000	3.000	
ABOVE DESIGN	8	3.000	5.000	

3
R-4

4
R-4

SPOT ELEVATIONS ARE EXISTING GROUND AFTER DREDGING - TAKEN ON 4/17/2023

1
-
PLAN: SITE PLAN - LAGOON E

0 30 60
SCALE IN FEET

RECORD SURVEY VOLUME COMPARISON

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	— — —	-

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PRINTED NAME _____

SIGNATURE _____

DATE _____ LICENSE # _____

	RELEASED TO/FOR	0	1	2	3	4	5	6
REVIEW		—	—	—	—	—	—	—
BID		—	—	—	—	—	—	—
CONSTRUCTION		—	—	—	—	—	—	—
RECORD		—	—	—	—	—	—	—
		—	—	—	—	—	—	—
	DATE RELEASED	—	—	—	—	—	—	—

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Scale	AS SHOWN
Date	04/21/2023
Drawn	PEB
Checked	PEB
Designed	BARR
Approved	PEB

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

MAIN STEM LAGOON DREDGING PROJECT
GOLDEN VALLEY, MINNESOTA

LAGOON E

BARR PROJECT No.	23/27-1860.00
CLIENT PROJECT No.	BC-7 2021
DWG. No.	R-2
REV. No.	A

CADD USER: Patrick E. Brockamp FILE: M:\DESIGN\23271860.00\23271860_BASE_C3D_QTY VERIFICATION.DWG PLOT SCALE: 1:2.5849 PLOT DATE: 4/21/2023 2:12 PM

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-3.154	-2.000	
2	-2.000	-1.000	
3	-1.000	-0.500	
4	-0.500	0.500	
5	0.500	1.000	
6	1.000	2.000	
7	2.000	3.000	
8	3.000	5.100	

BELOW DESIGN

ABOVE DESIGN

6
R-4

5
R-4

LAGOON
D

BOTTOM OF LAGOON = 810.6
PLAN DREDGING VOLUME = 8,100 CY
RECORD SURVEY DREDGING VOLUME = 5,978 CY
2,122 CY LESS THAN PLAN

1
-
PLAN: SITE PLAN - LAGOON D

0 20 40
SCALE IN FEET

SPOT ELEVATIONS ARE EXISTING GROUND AFTER DREDGING - TAKEN ON 4/19/2023

RECORD SURVEY VOLUME COMPARISON

CADD USER: Patrick E. Brockamp FILE: M:\DESIGN\23271860.00\23271860_BASE_C3D_QTY VERIFICATION.DWG PLOT SCALE: 1:2.5849 PLOT DATE: 4/21/2023 2:16 PM

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	— — -	

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PRINTED NAME _____

SIGNATURE _____

DATE _____ LICENSE # _____

REVIEW	—	—	—	—	—	—	—
BID	—	—	—	—	—	—	—
CONSTRUCTION	—	—	—	—	—	—	—
RECORD	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
RELEASED TO/FOR	0	1	2	3	4	5	6
	DATE RELEASED						

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Fax: (952) 832-2601
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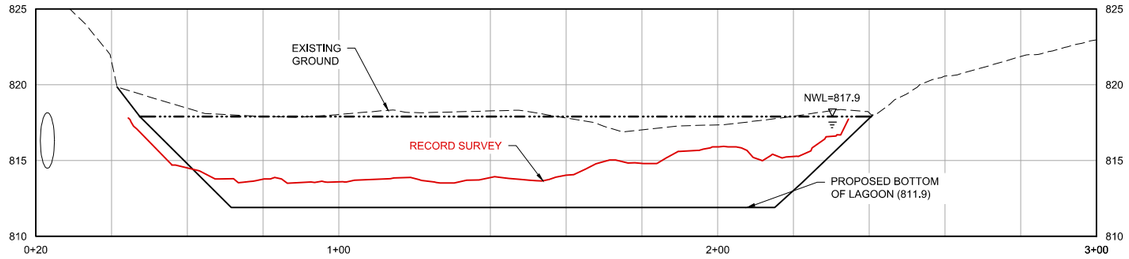
Scale	AS SHOWN
Date	04/21/2023
Drawn	PEB
Checked	PEB
Designed	BARR
Approved	PEB

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

MAIN STEM LAGOON DREDGING PROJECT
GOLDEN VALLEY, MINNESOTA

LAGOON D

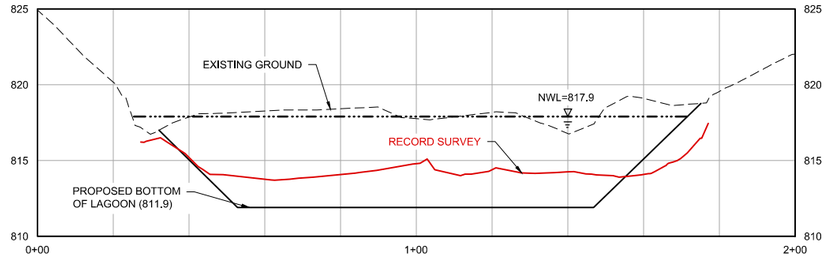
BARR PROJECT No.	23/27-1860.00
CLIENT PROJECT No.	BC-7 2021
DWG. No.	R-3
REV. No.	A



1 - SECTION: LAGOON F DREDGING - 1

0 20 40 HORIZONTAL SCALE IN FEET

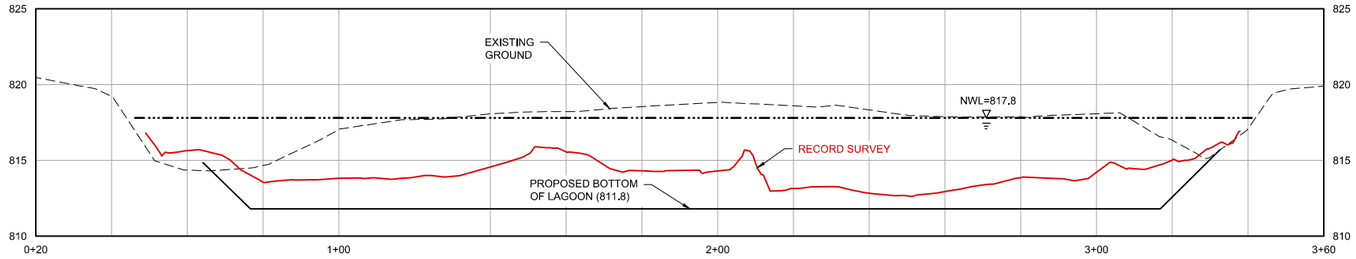
0 5 10 VERTICAL SCALE IN FEET



2 - SECTION: LAGOON F DREDGING - 2

0 20 40 HORIZONTAL SCALE IN FEET

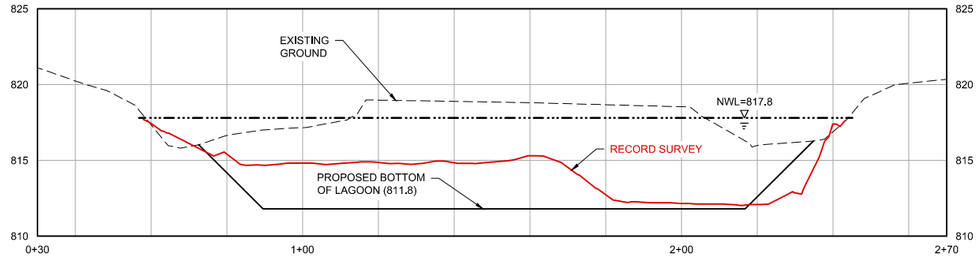
0 5 10 VERTICAL SCALE IN FEET



3 - SECTION: LAGOON E DREDGING - 1

0 20 40 HORIZONTAL SCALE IN FEET

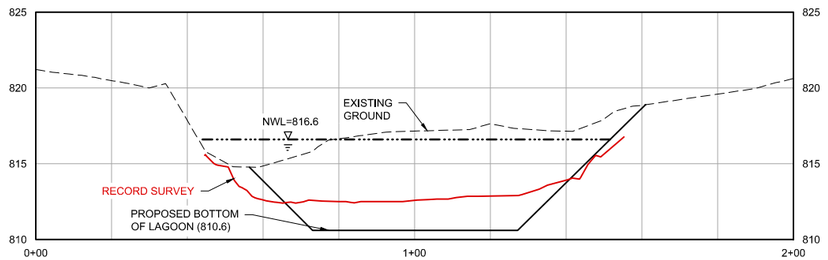
0 5 10 VERTICAL SCALE IN FEET



4 - SECTION: LAGOON E DREDGING - 2

0 20 40 HORIZONTAL SCALE IN FEET

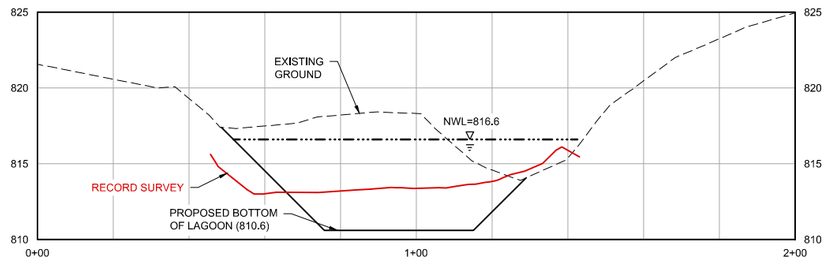
0 5 10 VERTICAL SCALE IN FEET



5 - SECTION: LAGOON D DREDGING - 1

0 20 40 HORIZONTAL SCALE IN FEET

0 5 10 VERTICAL SCALE IN FEET



6 - SECTION: LAGOON D DREDGING - 2

0 20 40 HORIZONTAL SCALE IN FEET

0 5 10 VERTICAL SCALE IN FEET

RECORD SURVEY VOLUME COMPARISON

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	— — -	

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SIGNATURE _____

DATE _____ LICENSE # _____

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	BID	— — — — — — —
	CONSTRUCTION	— — — — — — —
	RECORD	— — — — — — —
		— — — — — — —
		0 1 2 3 4 5 6

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Scale	AS SHOWN
Date	04/21/2023
Drawn	PEB
Checked	PEB
Designed	BARR
Approved	PEB

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

MAIN STEM LAGOON DREDGING PROJECT
GOLDEN VALLEY, MINNESOTA

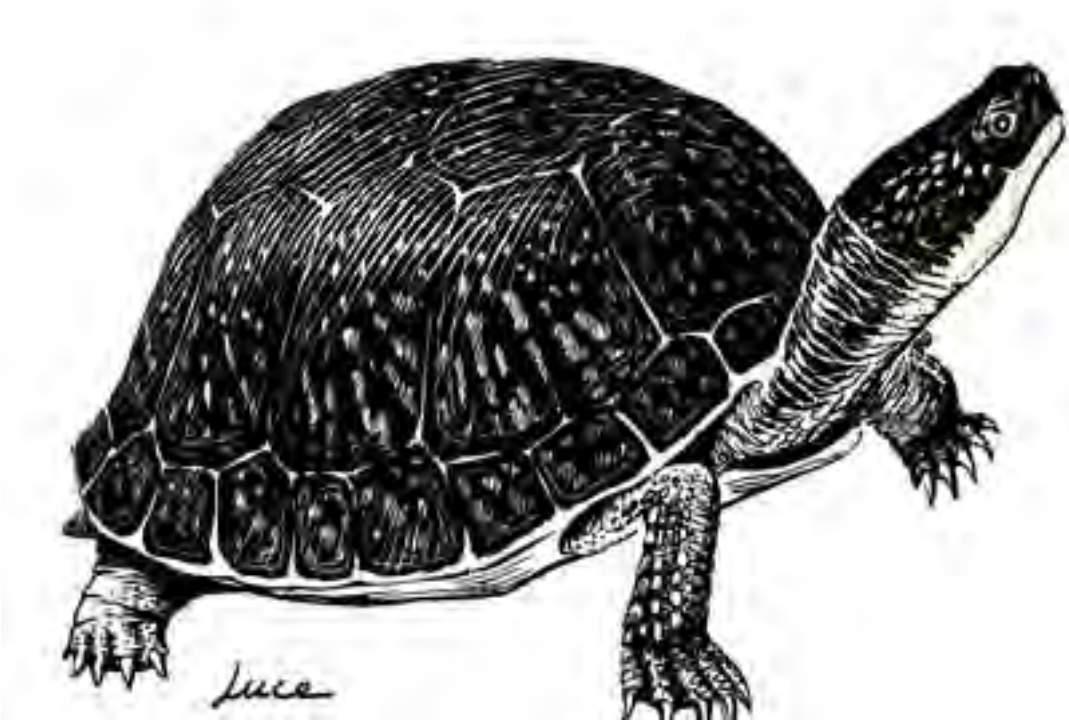
CROSS SECTIONS

BARR PROJECT No.	23/27-1860.00
CLIENT PROJECT No.	BC-7 2021
DWG. No.	R-4
REV. No.	A

Appendix F

Blanding's Turtle Flyer

CAUTION



BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are a State Threatened species and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-280-5070); or St. Paul (651-259-5764).

DESCRIPTION: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

Illustration by Don Luce, from Turtles in Minnesota, Natural History Leaflet No. 9, June 1989, James Ford Bell Museum of Natural History

SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

(see Environmental Review Fact Sheet Series for full recommendations)

- A flyer with an illustration of an adult Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest, and do not allow pets near the nest.
- Blanding's turtles do not make good pets. It is illegal to keep this threatened species in captivity.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).

Compiled by the Minnesota Department of Natural Resources Division of Ecological Resources, Updated March 2008
Endangered Species Environmental Review Coordinator, 500 Lafayette Rd., Box 25, St. Paul, MN 55155 / 651-259-5109

Appendix G

Combined IPaC Findings

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To: 04/13/2026 14:58:24 UTC
Project Code: 2026-0019343
Project Name: Main Stem Lagoon Dredging

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For projects that intersect with or are adjacent to Tribal lands: The Service has federal Trust responsibilities and a strong commitment to working with Tribal governments to help sustain fish and wildlife resources for future generations.?Tribal governments should be provided with sufficient opportunity to express their perspectives and/or concerns for proposed projects.?If your project intersects with Tribal lands or impacts culturally sensitive resources, please engage with the federally recognized Tribe to ensure they have an opportunity to provide input on this project.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected. For bat activity dates, please review Appendix L in the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or

- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the northern long-eared bat and tricolored bat range-wide D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter. Additional information about available tools can be found on the Service's northern long-eared bat website.

Whooping Crane
Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities
Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a permit. A nest take permit is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. **Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.**

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

PROJECT SUMMARY

Project Code: 2026-0019343
Project Name: Main Stem Lagoon Dredging
Project Type: Restoration / Enhancement of Waterbody
Project Description: This project is examining the feasibility of dredging accumulated sediment, reducing associated nutrient contamination, and restoring hydrologic conductivity where sediment accumulation has occurred in four lagoons (D, E, F, and G) associated with the mainstem of Bassett Creek. This project is also examining the feasibility of restoring wetlands around Lagoon G as an alternative to dredging accumulated sediment. Restoring wetlands would involve the use of herbicide on approximately 3 acres of degraded wetlands that primarily consist of monotypic communities of Phalaris arundinacea for non - native invasive vegetation control. This project is located in the City of Golden Valley, MN. The total approximate acreage for all four lagoon dredging areas is 11.24-acres.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.9988143,-93.32551165195035,14z

Counties: Hennepin County, Minnesota

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: Eastern Migratory NEP - U.S.A. (AL, AR, FL, GA, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, OH, SC, TN, VA, WI, WV) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Rusty Patched Bumble Bee *Bombus affinis* There is **proposed** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9383 General project design guidelines: https://ipac.ecosphere.fws.gov/project/NPGTQZO4RNDLDMIV5LER2SNAC4/documents/generated/9225.pdf	Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Rusty Patched Bumble Bee *Bombus affinis* https://ecos.fws.gov/ecp/species/9383#crithab	Proposed

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information

on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

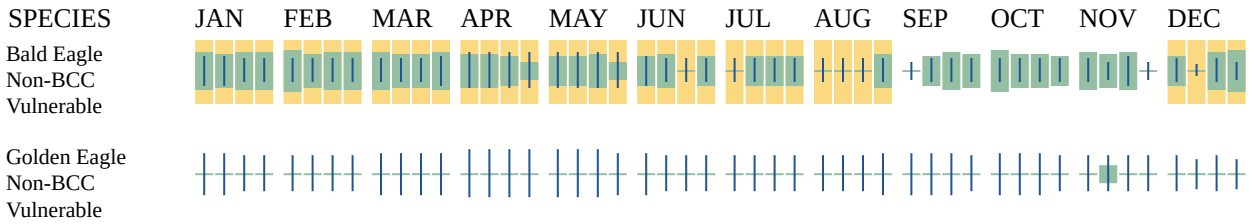
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger surinamenisis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Grasshopper Sparrow *Ammodramus savannarum perpallidus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

NAME	BREEDING SEASON
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

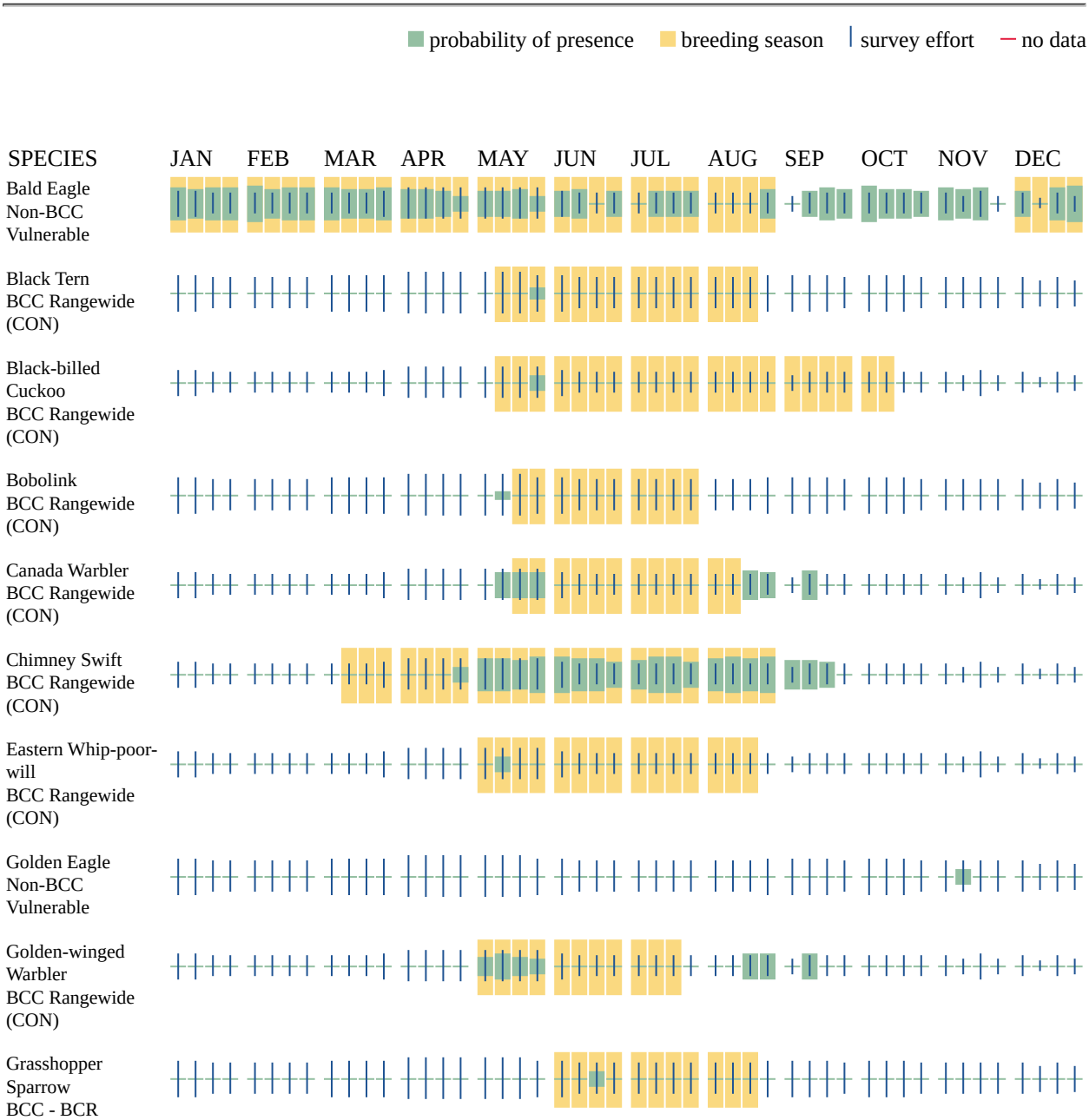
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

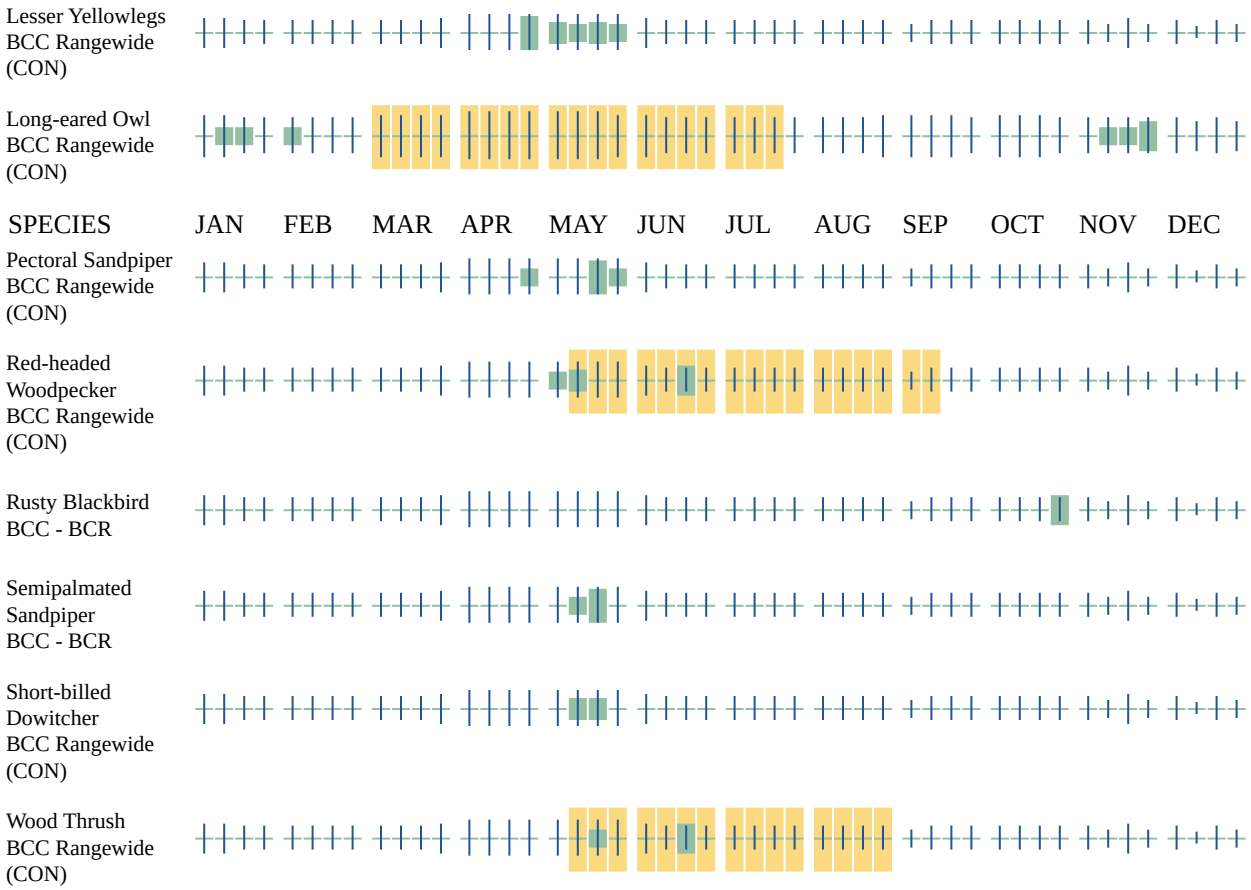
Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2USA
- R2UBH

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1A
- PFO1A

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1C

IPAC USER CONTACT INFORMATION

Agency: Barr Engineering
Name: Gage Kriese
Address: 4300 MarketPointe E Drive Suite 200
City: Bloomington
State: MN
Zip: 55435
Email gkriese@barr.com
Phone: 5073803773

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To: 04/15/2026 15:26:22 UTC
Project code: 2026-0019343
Project Name: Main Stem Lagoon Dredging

Federal Nexus: no

Federal Action Agency (if applicable):

Subject: Technical Assistance letter for 'Main Stem Lagoon Dredging' for rusty patched bumble bee that may occur in your proposed project location consistent with the Rusty Patched Bumble Bee Range Wide Determination Key (RPBB DKey).

Dear Gage Kriese:

This letter records your determination using the RPBB DKey within the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (USFWS) on **April 15, 2026**, for 'Main Stem Lagoon Dredging' (here forward, Project). This project has been assigned Project Code ‘2026-0019343’ and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC Determination Keys

The USFWS developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the RPBB DKey, invalidates this letter.**

Determination for the Rusty Patched Bumble Bee

Based on your answers and the assistance of the USFWS’ RPBB DKey, you made the following effect determination for the proposed Action:

Species	Listing Status	Determination
Rusty Patched Bumble Bee (*Bombus affinis*)	Endangered	NLAA

Coordination with the USFWS regarding the Rusty Patched Bumble Bee is complete.
Thank you for considering federally listed species during your project planning.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the rusty patched bumble bee **does not** apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

Critical Habitats:

- Rusty Patched Bumble Bee Bombus affinis Endangered

Coordination with the USFWS is advised for any species and/or critical habitat listed above.

You should coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above and if further consultation is required. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the local Ecological Services Field Office and reference Project Code ‘2026-0019343’ associated with this Project. See the top of this letter for the Project Code.

Additional Information

Sufficient project details: Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

Future project changes: The Service recommends that you contact the local Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect rusty patched bumble bee in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to rusty patched bumble bee; or 4) or critical habitat is designated. If any of the above conditions occur, additional consultation with the Service should take place before project changes are final or resources are committed.

Species-specific information

Bald and Golden Eagles: Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the "taking" of bald and golden eagles and defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The Eagle Act's implementing regulations define disturb as "… to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

If you observe a bald eagle nest in the vicinity of your proposed project, you should follow the National Bald Eagle Management Guidelines (May 2007). For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit our regional eagle website or contact the local Ecological Services Field Office. If the Action may affect bald or golden eagles, additional coordination with the Service under the Eagle Act may be required.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Main Stem Lagoon Dredging

2. Description

The following description was provided for the project 'Main Stem Lagoon Dredging':

> This project is examining the feasibility of dredging accumulated sediment, reducing associated nutrient contamination, and restoring hydrologic conductivity where sediment accumulation has occurred in four lagoons (D, E, F, and G) associated with the mainstem of Bassett Creek. This project is also examining the feasibility of restoring wetlands around Lagoon G as an alternative to dredging accumulated sediment. Restoring wetlands would involve the use of herbicide on approximately 3 acres of degraded wetlands that primarily consist of monotypic communities of Phalaris arundinacea for non - native invasive vegetation control. This project is located in the City of Golden Valley, MN. The total approximate acreage for all four lagoon dredging areas is 11.24-acres.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.9988143,-93.32551165195035,14z

QUALIFICATION INTERVIEW

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Does the action area overlap with a rusty patched bumble bee high potential zone?

   Automatically answered
   Yes

3. Does the action include - or is it reasonably certain to cause - intentional take of rusty patched bumble bee (rusty patched bumble bee) that is not covered under a scientific recovery permit under section 10(A)1(a) of the Endangered Species Act or under a cooperative agreement with a state agency?

   Note: This could include, for example, surveys or studies that include handling or capture of the species. Whether "Project Review" surveys using USFWS protocols were conducted as part of the action is addressed later in this key.

   No

4. Does the action include – or is it reasonably certain to result in – construction of one or more new roads or rail lines that will result in vehicle traffic speeds at 45mph or higher in a rusty patched bumble bee HPZ? For example, answer NO if the project will construct a low speed (< 30 mph) road (Such as Forest Service Road Maintenance Levels 1 -3 (refer to https://www.fs.usda.gov/eng/pubs/pdf/05771205.pdf).

   No

5. Does the action include – or is it reasonably certain to result in – the addition of one or more travel lanes that are likely to increase vehicle speeds to at least 45mphon one or more existing roads in a rusty patched bumble bee HPZ? For example, answer NO if considering a travel lane addition that maintains road with low speeds (< 30 mph).

   No

6. Is an increase in vehicular traffic speeds to over 45mph to an existing road in one or more HPZs a likely outcome of the federal action? For example, answer NO if traffic speeds would stay relatively low (e.g., 30 mph).

   No

7. Does the action include – or is it reasonably certain to cause – the use of commercial/ managed bees (e.g., the use of honeybees or managed bumble bees to pollinate crops).

   No

8. Is there habitat for nesting, foraging, and/or overwintering for the rusty patched bumble bee in the action area?

   Note: Please refer to the ESA Section 7(a)(2) Voluntary Implementation technical assistance for Rusty Patched Bumble Bee .

   Yes

9. Have “Project Review” surveys for rusty patched bumble bees already been conducted in the action area according to Service-approved protocols? If you don't know, answer 'no'.

   No

10. Does the action include collection of seed from native species?

    No

11. Does the action include, or will it cause the application of insecticides or fungicides?

    No

12. Does the action include, or will it cause activities to control native rodent species?

    No

13. Does the action include, or will it cause planting or seeding of non-native plant species?

    No

14. Will the action include or cause herbicide use?

    Yes

15. Will herbicide application methods include only wiping individual plants with a wick or glove, cut-stump, spot-spraying, or basal bark treatments?

    No

16. Will herbicides be applied when the rusty patched bumble bee is likely to be foraging on the affected plants in a manner that could result in direct exposure of individuals to the herbicide mixture?

    No

17. Will the action cause an increase in the extent or duration of surface flooding or soil saturation in rusty patched bumble bee overwintering or nesting habitat in a High Potential Zone?

    Note: This may occur, for example, as a result of activities or structures that impound water, otherwise alter or interrupt existing drainage patterns, or that affect surface runoff.

    No

18. Will the action cause ground disturbance in rusty patched bumble bee habitat within a High Potential Zone?

    Yes

19. Will the ground disturbance within the High Potential Zone affect more than 0.25 acre (0.1 hectare) of rusty patched bumble bee nesting habitat (upland grasslands, shrublands, and forest edges that contain native sources of pollen and nectar)?

    Note: Please refer to the ESA Section 7(a)(2) Voluntary Implementation technical assistance for Rusty Patched Bumble Bee Table 1, p. 12.

    No

20. Will the ground disturbance within the High Potential Zone affect more than 0.25 acre (0.1 hectare) of rusty patched bumble bee overwintering habitat (i.e., forested areas with native plants that provide springtime pollen and nectar, with uncompacted soils and not dominated by invasive plant species, like buckthorn)?

    Note: For a more detailed description of rusty patched bumble bee overwintering dates and habitat, see the section 7 guidelines**.**

    No

21. Will the action include or cause effects to native vegetation in rusty patched bumble bee habitat?

    Yes

22. Will the action cause effects to native vegetation in rusty patched bumble bee habitat within the High Potential Zone during the nesting period (April 15 to October 10)?

    Note: Effects could occur as a result of mowing, cutting, grazing, prescribed fire, tree removal, spot-application of herbicide, tree clearing, and/or other activities. Effects could occur as a result of activities carried out outside of the nesting period if they result in reduced forage availability during a subsequent nesting period.

    No

23. Does the action include the use of prescribed fire during the overwintering period? Overwintering dates are October 11 to April 14.

    Yes

24. Is the burn unit within rusty patched bumble bee upland forest habitat that is suitable for RPBB overwintering (i.e., forested areas with native plants that provide springtime pollen and nectar, with uncompacted soils and not dominated by invasive plant species, like buckthorn)?

    No

25. Will the action result in the regular, re-occurring, or permanent removal, reduction, or conversion of any existing rusty patched bumble bee habitat?

    No

IPAC USER CONTACT INFORMATION

Agency: Barr Engineering
Name: Gage Kriese
Address: 4300 MarketPointe E Drive Suite 200
City: Bloomington
State: MN
Zip: 55435
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Phone: 5073803773

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To: 04/13/2026 13:53:31 UTC
Project code: 2026-0019343
Project Name: Main Stem Lagoon Dredging

Federal Nexus: no
Federal Action Agency (if applicable):

Subject: Technical assistance for 'Main Stem Lagoon Dredging'

Dear Gage Kriese:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 13, 2026, for 'Main Stem Lagoon Dredging' (here forward, Project). This project has been assigned Project Code 2026-0019343 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based upon your IPaC submission and a standing analysis completed by the Service, your project has reached the following effect determination(s):

Species	Listing Status	Determination
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

Critical Habitats:

- Rusty Patched Bumble Bee Bombus affinis Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species and/or critical habitat listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Steps

Coordination with the Service is complete. This letter serves as technical assistance. All conservation measures should be implemented as proposed. Thank you for considering federally listed species during your project planning.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or

amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Minnesota-Wisconsin Ecological Services Field Office and reference Project Code 2026-0019343 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Main Stem Lagoon Dredging

2. Description

The following description was provided for the project 'Main Stem Lagoon Dredging':

> This project is examining the feasibility of dredging accumulated sediment, reducing associated nutrient contamination, and restoring hydrologic conductivity where sediment accumulation has occurred in four lagoons (D, E, F, and G) associated with the mainstem of Bassett Creek. This project is also examining the feasibility of restoring wetlands around Lagoon G as an alternative to dredging accumulated sediment. Restoring wetlands would involve the use of herbicide on approximately 3 acres of degraded wetlands that primarily consist of monotypic communities of Phalaris arundinacea for non - native invasive vegetation control. This project is located in the City of Golden Valley, MN. The total approximate acreage for all four lagoon dredging areas is 11.24-acres.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.9988143,-93.32551165195035,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   No

5. Does the proposed action involve solar energy facilities?

   No

6. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

   No

7. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

   Automatically answered
   No

8. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

   No

9. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

   No

10. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    No

11. Will the action result in effects to a culvert or tunnel at any time of year?

    No

12. Are trees present within 1000 feet of the action area? **Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

13. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

14. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

15. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

16. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

18. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

19. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

20. Will the action include drilling or blasting?

    No

21. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

    No

22. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

    Yes

23. Will the action include or result in herbicide use that may affect suitable summer habitat for the northern long-eared bat or tricolored bat? **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

24. Will all herbicide use that may affect suitable summer habitat for the northern long-eared bat or tricolored bat include only targeted application methods like hack-and-squirt, basal bark, injections, cut-stump, or spot-spraying (foliar spraying on individual herbaceous plants with no foliar spraying of deciduous tree leaves or Spanish moss)? **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

25. Will the action include or cause the application or drift of pesticides (e.g., fungicides, insecticides, or rodenticides) into forested areas that are suitable summer habitat for the northern long-eared bat or tricolored bat? Answer "Yes" if the application may result in transport (e.g., in water) or aerial drift of the pesticide into forested areas that are suitable summer habitat for the northern long-eared bat or tricolored bat. **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    No

26. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining. **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    No

27. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable forested northern long-eared bat or tricolored bat roosting habitat? **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    No

28. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

29. Is the project related to the production of coal, including projects that support the mining of coal, as well as the production and/or distribution of energy produced from coal?

    No

30. Will the proposed action occur exclusively in an already established and currently maintained utility right-of-way?

    No

31. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property.

    No

32. Does the project intersect with the 0- 9.9% forest density category?

    Automatically answered
    Yes

33. Does the project intersect with the 10.0- 19.9% forest density category map?

    Automatically answered
    No

34. Does the project intersect with the 20.0- 29.9% forest density category map?

    Automatically answered
    No

35. Does the project intersect with the 30.0- 100% forest density category map?

    Automatically answered
    No

36. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 0.5 acre in total extent?

    No

37. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

38. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

39. Is the action area located within 0.5-mile of radius of an entrance/opening to any known tricolored bat hibernacula or winter roost?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered
    No

40. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

41. Has a presence/probable absence bat survey targeting the tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area?

    No

42. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities? (If unsure, answer ""Yes."") **Note:** If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    Yes

43. Do any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pine trees)? **Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines.

    Yes

44. Will any tree cutting/trimming or other knocking or bringing down of trees be conducted during the Pup Season for tricolored bat? **Note:** Bat activity periods for your state can be found in Appendix 2 of the Service's Northern Long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Developmental Projects.

    No

45. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

1.7

IPAC USER CONTACT INFORMATION

Agency: Barr Engineering
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State: MN
Zip: 55435
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Phone: 5073803773

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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Phone: (952) 858-0793

In Reply Refer To: 04/13/2026 13:38:39 UTC
Project code: 2026-0019343
Project Name: Main Stem Lagoon Dredging

Subject: Technical Assistance letter for 'Main Stem Lagoon Dredging' for specified threatened and endangered species that may occur in your proposed project location consistent with the Minnesota-Wisconsin Endangered Species Determination Key (Minnesota-Wisconsin DKey).

Dear Gage Kriese:

The U.S. Fish and Wildlife Service (Service) received on **April 13, 2026** your effect determination(s) for the 'Main Stem Lagoon Dredging' (Action) using the Minnesota-Wisconsin DKey within the Service's Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.).

Based on your responses to the Service's Minnesota-Wisconsin DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Monarch Butterfly (*Danaus plexippus*)	Proposed Threatened	No effect
Salamander Mussel (*Simpsonaias ambigua*)	Proposed Endangered	May affect
Whooping Crane (*Grus americana*)	Experimental Population, Non-Essential	No effect

Determination Information

Coordination with the Service is not complete. Further coordination with the Minnesota-Wisconsin Ecological Services Field Office is recommended for those species with a determination of "May Affect," listed above. Please email our office at TwinCities@fws.gov and attach a copy of this letter, so we can discuss methods to avoid or minimize potential adverse effects to those species.

Additional Information

Sufficient project details: Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

Future project changes: The Service recommends that you contact the Minnesota-Wisconsin Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect federally listed species or federally designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

Species-specific information

Bald and Golden Eagles: Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the "taking" of bald and golden eagles and defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The Eagle Act's implementing regulations define disturb as "… to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

If you observe a bald eagle nest in the vicinity of your proposed project, you should follow the National Bald Eagle Management Guidelines (May 2007). For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit our regional eagle website or contact Margaret at Margaret_Martin@fws.gov. If the Action may affect bald or golden eagles, additional coordination with the Service under the Eagle Act may be required.

Additional Species Requiring Review

In addition to the species described above, the following species or critical habitats may also occur in your project area and are not covered by this conclusion:

- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Coordination with the Service is not complete if additional coordination is advised above for any species.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Main Stem Lagoon Dredging

2. Description

The following description was provided for the project 'Main Stem Lagoon Dredging':

> This project is examining the feasibility of dredging accumulated sediment, reducing associated nutrient contamination, and restoring hydrologic conductivity where sediment accumulation has occurred in four lagoons (D, E, F, and G) associated with the mainstem of Bassett Creek. This project is also examining the feasibility of restoring wetlands around Lagoon G as an alternative to dredging accumulated sediment. Restoring wetlands would involve the use of herbicide on approximately 3 acres of degraded wetlands that primarily consist of monotypic communities of Phalaris arundinacea for non - native invasive vegetation control. This project is located in the City of Golden Valley, MN. The total approximate acreage for all four lagoon dredging areas is 11.24-acres.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@44.9988143,-93.32551165195035,14z

QUALIFICATION INTERVIEW

1. This determination key is intended to assist the user in evaluating the effects of their actions on Federally listed species in Minnesota and Wisconsin. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Additionally, this key DOES NOT cover wind development, purposeful take (e.g., for research or surveys), communication towers that have guy wires or are over 450 feet in height, aerial or other large-scale application of any chemical (such as insecticide or herbicide), and approval of long-term permits or plans (e.g., FERC licenses, HCP's).

   Click **YES** to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

   Yes
2. Is the action being funded, authorized, or carried out by a Federal agency?

   No
3. Is the action being conducted by or on behalf of a Federally recognized Tribe?

   No
4. Does the action involve the installation or operation of wind turbines?

   No
5. Does the action involve purposeful take of a listed animal?

   No
6. Does the action involve a new communications tower?

   No
7. Does the activity involve aerial or other large-scale application of ANY chemical, including pesticides (insecticide, herbicide, fungicide, rodenticide, etc)?

   No
8. Will your action permanently affect local hydrology?

   Yes

9. Does your project have the potential to impact the riparian zone or indirectly impact a stream/river (e.g., cut and fill; horizontal directional drilling; construction; vegetation removal; pesticide or fertilizer application; discharge; runoff of sediment or pollutants; increase in erosion, etc.)?

   Note: Consider all potential effects of the action, including those that may happen later in time and outside and downstream of the immediate area involved in the action.

   Endangered Species Act regulation defines "effects of the action" to include all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (50 CFR 402.02).

   Yes

10. Will your action disturb the ground or existing vegetation?

    Note: This includes any off-road vehicle access, soil compaction (enough to collapse a rodent burrow), digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application (herbicide, fungicide), vegetation management (including removal or maintenance using equipment or prescribed fire), cultivation, development, etc.

    Yes

11. Will your action include spraying insecticides?

    No

12. Does your action area occur entirely within an already developed area?

    Note: Already developed areas are already paved, covered by existing structures, manicured lawns, industrial sites, or cultivated cropland, AND do not contain trees that could be roosting habitat. Be aware that listed species may occur in areas with natural, or semi-natural, vegetation immediately adjacent to existing utilities (e.g. roadways, railways) or within utility rights-of-way such as overhead transmission line corridors, and can utilize suitable trees, bridges, or culverts for roosting even in urban dominated landscapes (so these are not considered "already developed areas" for the purposes of this question). If unsure, select NO..

    No

13. [Semantic] Does the project intersect the Salamander mussel AOI?

    Automatically answered

    Yes

14. [Hidden Semantic] Does the action area intersect the monarch butterfly species list area?

    Automatically answered

    Yes

15. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

    If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project.

    Are you making a "no effect" determination for monarch?

    Yes

IPAC USER CONTACT INFORMATION

Agency: Barr Engineering
Name: Gage Kriese
Address: 4300 MarketPointe E Drive Suite 200
City: Bloomington
State: MN
Zip: 55435
Email gkriese@barr.com
Phone: 5073803773

Appendix H

Existing Conditions RAM Results

Assessor Details

Site Name:	Wetland 1
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/30/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.06 acres

User Notes

Exisiting Conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Higher	Lower	Higher
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Native Plant Habitat	Historic or Cultural Uses
Groundwater Recharge	Shoreline Stabilization	Fish Habitat	Scientific or Educational Importance
Nitrate Removal	Thermoregulation	Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Wildlife Habitat		Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 2
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	2.30 acres

User Notes

Exisiting Conditions. A portion of the shrubs in the shrub-carr community were removed.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Moderate	Lower	Moderate
	Fish Habitat	Lower	Moderate	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Nitrate Removal	Phosphorus Retention	Fish Habitat	Scientific or Educational Importance
Sediment and Pollutant Retention	Shoreline Stabilization	Carbon Sequestration	
	Thermoregulation	Recreational Uses	
	Wildlife Habitat	Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 3
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.12 acres

User Notes

Exisiting Conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Native Plant Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Fish Habitat	Scientific or Educational Importance
Nitrate Removal		Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Shoreline Stabilization		Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 4
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.77 acres

User Notes

Exisiting Conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Moderate	Higher	Higher
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Higher	Lower	Higher
	Fish Habitat	Lower	Moderate	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Nitrate Removal	Shoreline Stabilization	Fish Habitat	Scientific or Educational Importance
Phosphorus Retention	Thermoregulation	Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Wildlife Habitat		Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 5
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.05 acres

User Notes

Exisiting Conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Higher	Moderate	Higher
	Surface Water Supply	Lower	Lower	Lower
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Higher	Moderate	Higher
	Phosphorus Retention	Higher	Moderate	Higher
	Sediment and Pollutant Retention	Higher	Moderate	Higher
	Shoreline Stabilization	Not Applicable	Not Scored For This Function	Not Applicable
	Thermoregulation	Not Applicable	Not Applicable	Not Applicable
Ecological	Native Plant Habitat	Moderate	Moderate	Moderate
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Not Applicable	Not Applicable	Not Applicable
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Attenuation	Native Plant Habitat	Surface Water Supply	Shoreline Stabilization
Groundwater Recharge		Carbon Sequestration	Thermoregulation
Nitrate Removal		Recreational Uses	Fish Habitat
Phosphorus Retention		Scenic Beauty	Historic or Cultural Uses
Sediment and Pollutant Retention		Commercial Uses	Scientific or Educational Importance

Assessor Details

Site Name:	Wetland 6
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.06

User Notes

Exisiting Conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Native Plant Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Fish Habitat	Scientific or Educational Importance
Nitrate Removal		Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Shoreline Stabilization		Scenic Beauty	
		Commercial Uses	

Appendix I

Full Sediment Removal Estimated RAM Results

Assessor Details

Site Name:	Wetland 1
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/30/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.06 acres

User Notes

Estimated conditions based on full removal of sediment.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Lower	-	-
	Surface Water Supply	Higher	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Lower	Higher	Moderate
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Moderate	Higher	Higher
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Sediment and Pollutant Retention	Nitrate Removal	Carbon Sequestration	Scientific or Educational Importance
Fish Habitat	Phosphorus Retention	Recreational Uses	
	Shoreline Stabilization	Scenic Beauty	
	Thermoregulation	Commercial Uses	

Assessor Details

Site Name:	Wetland 2
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	2.30 acres

User Notes

Estimated results based on full removal of sediment in a portion of this wetland and no restoration activities taking place in the remainder of this wetland.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Moderate	Lower	Moderate
	Fish Habitat	Lower	Moderate	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Nitrate Removal	Phosphorus Retention	Fish Habitat	Scientific or Educational Importance
Sediment and Pollutant Retention	Shoreline Stabilization	Carbon Sequestration	
	Thermoregulation	Recreational Uses	
	Wildlife Habitat	Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 3
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.12

User Notes

Results remain unchanged from the existing conditions as this wetland is outside of the sediment dredging limits and restoration acitivities would not take place under this proposed alternative.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Native Plant Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Fish Habitat	Scientific or Educational Importance
Nitrate Removal		Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Shoreline Stabilization		Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 4
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.77

User Notes

Estimated conditions based on full removal of sediment.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Higher	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Moderate	Higher	Higher
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Nitrate Removal	Phosphorus Retention	Carbon Sequestration	Scientific or Educational Importance
Sediment and Pollutant Retention	Shoreline Stabilization	Recreational Uses	
Fish Habitat	Thermoregulation	Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 5
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.05

User Notes

Results remain unchanged from the existing conditions as this wetland is outside of the sediment dredging limits and restoration acitivities would not take place under this proposed alternative.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Higher	Moderate	Higher
	Surface Water Supply	Lower	Lower	Lower
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Higher	Moderate	Higher
	Phosphorus Retention	Higher	Moderate	Higher
	Sediment and Pollutant Retention	Higher	Moderate	Higher
	Shoreline Stabilization	Not Applicable	Not Scored For This Function	Not Applicable
	Thermoregulation	Not Applicable	Not Applicable	Not Applicable
Ecological	Native Plant Habitat	Moderate	Moderate	Moderate
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Not Applicable	Not Applicable	Not Applicable
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Attenuation	Native Plant Habitat	Surface Water Supply	Shoreline Stabilization
Groundwater Recharge		Carbon Sequestration	Thermoregulation
Nitrate Removal		Recreational Uses	Fish Habitat
Phosphorus Retention		Scenic Beauty	Historic or Cultural Uses
Sediment and Pollutant Retention		Commercial Uses	Scientific or Educational Importance

Assessor Details

Site Name:	Wetland 6
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.06

User Notes

Results remain unchanged from the existing conditions as this wetland is outside of the sediment dredging limits and restoration activities would not take place under this proposed alternative.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	Lower	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Native Plant Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Fish Habitat	Scientific or Educational Importance
Nitrate Removal		Carbon Sequestration	
Sediment and Pollutant Retention		Recreational Uses	
Shoreline Stabilization		Scenic Beauty	
		Commercial Uses	

Appendix J

Lagoons D, E, and F Desktop Wetland Determination Review Memo

resourceful. naturally.
engineering and environmental consultants

BARR

Technical Memorandum

To: Eric Eckman at Golden Valley; USACE Project Manager
From: Barr Engineering Company
Subject: Desktop Wetland Delineation Study for Project to Dredge Accumulated Sediment in the Main Stem of Bassett Creek in Wirth Park
Date: December 9, 2019

On behalf of Bassett Creek Watershed Management Commission (BCWMC), Barr Engineering Company (Barr) completed a Level I Desktop Wetland Determination Review of the Main Stem of Bassett Creek In Theodore Wirth Park. The BCWMC is proposing to remove sediment from three of the seven lagoons created along the Main Stem of Bassett Creek. The sedimentation of the lagoons has resulted in the creation of new "islands" in the creek/lagoons that reduce the flow capacity and floodplain storage of the creek. The project is located in Sections 17 and 20, Township 29W, Range 24N in Wirth Park, Between Golden Valley Road and Trunk Highway 55, Golden Valley, Hennepin County, Minnesota (**Figure 1**).

The proposed project would dredge accumulated sediment in lagoons D, E, and F along the Main Stem of Bassett Creek (**Figure 1**). The project would have a temporary impact to Bassett Creek and its surrounding wetlands, but no permanent impacts would occur in the wetlands or stream channel. The project area was partially delineated in 2011 by Barr for a creek restoration project and in 2016 by SEH, Inc for the Blue Line Light Rail Transit Extension project. The purpose of this desktop delineation was to utilize the two previously approved wetland delineations and use desktop wetland delineation methods to delineate the remaining area. Previous communication with the City of Golden Valley, the Local Government Unit (LGU) responsible for administration of the Minnesota Wetland Conservation Act (WCA) indicated a desktop wetland delineation would be sufficient in delineating the reaming areas (**Appendix A**).

This report includes general environmental information (Section 1.0), descriptions of the delineation results (Section 2.0), and a discussion of regulations and the administering authorities (Section 3.0). The Figures section includes the Project Location Map, Topography Map, National Wetland Inventory (NWI), Public Waters Inventory (PWI), Hydric Soils Map, Previously Delineated Wetland Map and the Wetland Boundary Map. **Appendix A** includes Communications with City of Golden Valley **Appendix B** includes the previous wetland delineation Notice of Decision for the Blue Line Light Rail.

1.0 General Environmental Information

1.1 Site Description

The wetland evaluation area is located within an urban recreational setting (**Figure 1**). The project area is centered on Basset Creek where the project work would occur. The majority of the project area consists of forested riparian area, idle grassland, open water, and wetland area. This area is predominantly used for recreation and includes walking and hiking trails. The western side of the project area is boarded by the

Theodore Wirth Golf Course and parking lot. The eastern side of the project area is bordered by the Blue Line Light Rail and residential neighborhood. The topography varies throughout the length of the project area as depicted on LiDAR topography (**Figure 2**). The highest elevation is 858 feet above MSL, the lowest elevation is 818 feet above MSL.

1.2 National Wetland Inventory

The Minnesota Department of Natural Resources (MNDNR) National Wetland Inventory (NWI) data for Minnesota identifies nine wetland communities within the project area (**Figure 3**). All of the NWI wetlands are associated with Bassett Creek. Two of the wetlands were classified as riverine, five were classified as freshwater forested/shrub wetland (PFO1A) and two were classified as freshwater emergent wetlands (PEM1C/PEM1A).

1.3 Water Resources

The MNDNR Public Water Inventory (PWI) identified one PWI basin, Ski Jump Pond (16987 P), and one PWI watercourse, Bassett Creek (47-49 PW) within the project area (**Figure 4**). Ski Jump Pond is Lagoon E. The project will require work within the PWI waterbody and watercourse as sediment will be removed from Bassett Creek and Ski Jump Pond.

1.4 Soil Resources

Soil information for the site was obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey. The soil map unit names and hydric classification are labeled in **Figure 5.** The majority of the project area is mapped within non-hydric soils (59.1% of the project area; **Table 1**).

Table 1, Soil Inventory

Map Unit Symbol	Soil Map Unit Name	Percent of Project Area	Hydric Rating
U2A	Udorthents, wet substratum, 0 to 2 percent slopes (L58B)	51.4%	0% - Non hydric
L58B	Koronis-Kingsley complex, 2 to 6 percent slopes	16.9%	10%57.4+
L42F	Kingsley-Gotham complex, 25 to 35 percent slopes	7.7%	0% - Non hydric
W	Water	24%	

2.0 Desktop Delineation

2.1 Methods

Barr conducted a wetland and waterbody desktop review by evaluating the topography, soil type, and previously mapped waterbodies and wetlands within the project area. As part of the desktop review, Barr staff reviewed the following information sources:

- Hennepin County aerial imagery;
- U.S. Geological Survey (USGS) topographic maps;
- Natural Resources Conservation Service (NRCS) Web Soil Survey
- MnDNR Public Water Inventory;
- USGS national hydrography dataset;
- Wetlands identified by the National Wetland Inventory (NWI);
- 2011 Barr wetland delineation;
- 2016 Blue Line light rail wetland delineation

The project area was partially delineated in 2011 by Barr and in 2016 by the Blue Line Light Rail Transit Extension project (**Figure 6**). Wetland boundaries from both of these delineations were used when assessing the project area for wetlands. Wetland classifications were also derived from the 2011 wetland delineation report and aerial imagery assessment.

The delineated wetland areas were classified using the Eggers and Reed plant community types (Eggers and Reed 1997), The U.S. Fish and Wildlife Service Circular 39 System (U.S. Fish and Wildlife 1956) and the U.S. Fish and Wildlife Service Cowardin System (Cowardin et al. 1979)

2.2 Findings

The desktop delineation identified 9.91 acres of wetland and stream channel (**Figure 7**). The entire wetland area was identified as Wetland 1 as all of the wetland area is hydrologically connected to Bassett Creek. The wetland boundaries were not delineated to their full extent as the boundaries extend beyond the project area. The wetland area contains a variety of vegetative community types including, floodplain forest, riverine, shallow marsh, shrub-carr, and wet meadow (**Table 2**).

Table 2, Wetland 1 Vegetation Community Types

Eggers and Reed Plant Community Type	USFWS Circular 39 Classification	Cowardin Classification	Acres
Riverine	Type 5	RUBG	5.04
Floodplain forest	Type 1L	PFOA	3.06
Shrub-carr	Type 6	PSSB/C	0.80
Shallow marsh	Type 3	PEMC	0.67
Wet meadow	Type 2	PEMB	0.34
Total			9.91

3.0 Regulatory Overview

The U.S. Army Corps of Engineers (USACE) regulates the dredge or placement of fill materials into wetlands that are located adjacent to or are hydrologically connected to interstate or navigable waters under the authority of Section 404 of the Clean Water Act. If the USACE has jurisdiction over any portion of a project, they may also review impacts to wetlands under the authority of the National Environmental Policy Act (NEPA).

Filling, excavating, and draining wetlands are also regulated by the Minnesota Wetland Conservation Act (WCA), and the Minnesota Public Waters Inventory Program, which are administered by the City of Golden Valley and the MNDNR. The City of Golden Valley, MNDNR, and the USACE, should be contacted before altering any wetlands in the Project area. Delineated wetland boundaries may be reviewed by a Technical Evaluation Panel (TEP) consisting of representatives from the Minnesota Board of Water and Soil Resources (BWSR), the City of Golden Valley, and Hennepin County along with the USACE.

4.0 References

Cowardin, L.M., V. Carter, F.C. Golet, and R.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* U.S. Fish and Wildlife Service, FWS/OBS079/31, 103 pp.

Eggers, S.D. and Reed, D.M. Version 3.2 - July 2015. *Wetland Plants and Plant Communities of Minnesota and Wisconsin.* U.S. Army Corps of Engineers, St. Paul District. St. Paul, Minnesota.

Minnesota State Climatology Office. 2019. Wetland Delineation Precipitation Data Retrieval from a Gridded Database. Accessed from: http://climateapps.dnr.state.mn.us/gridded_data/precip/wetland/wetland.asp

Natural Resources Conservation Service. 2019. United States Department of Agriculture. Web Soil Survey. Accessed from: https://websoilsurvey.sc.egov.usda.gov/.

U. S. Department of Agriculture, Natural Resources Conservation Service. 2018. *Field Indicators of Hydric Soils in the United States, Version 8.2*. G.W. Hurt and L.M. Vasilas (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

U.S. Army Corps of Engineers. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region*. August 2010. Wetlands Regulatory Assistance Program.

U.S. Army Corps of Engineers. 1987. *1987 U.S. Army Corps of Engineers Wetland Delineation Manual*. Wetlands Research Program Technical Report Y-87-1 (on-line edition). Waterways Experiment Station, Vicksburg, Mississippi.

U.S. Fish and Wildlife Service. 1956. *Wetlands of the United States Circular 39*. U.S. Government Printing Office, Washington, D.C.

Figures

Project Area

PLSS Boundary

Minnesota Rail Lines

N

0 300 600

Feet

Site Location Map
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 1

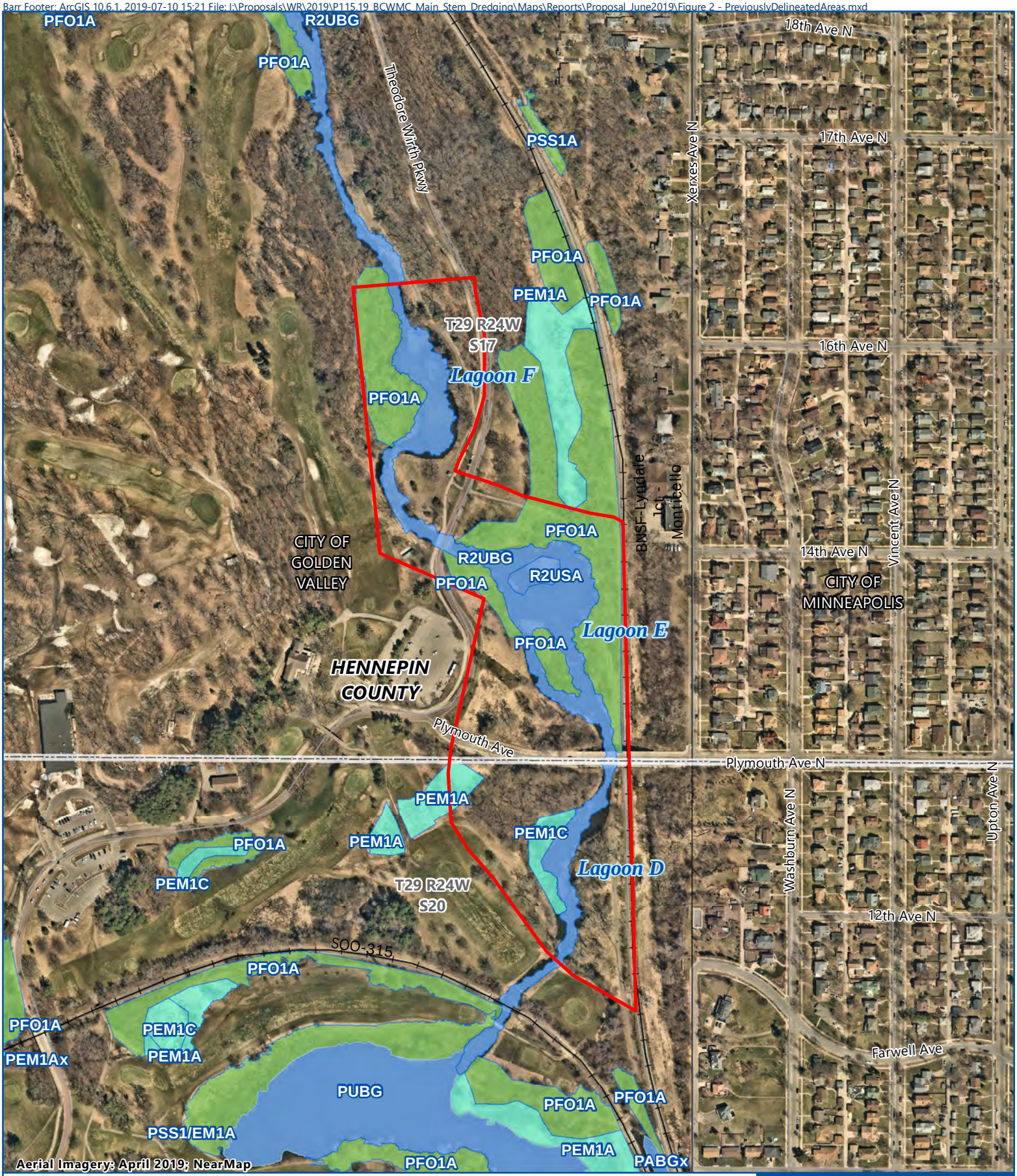
Project Area
PLSS Boundary
Minnesota Rail Lines
10-Foot Contour
2-Foot Contour

N

0 300 600
Feet

Topography Map
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 2



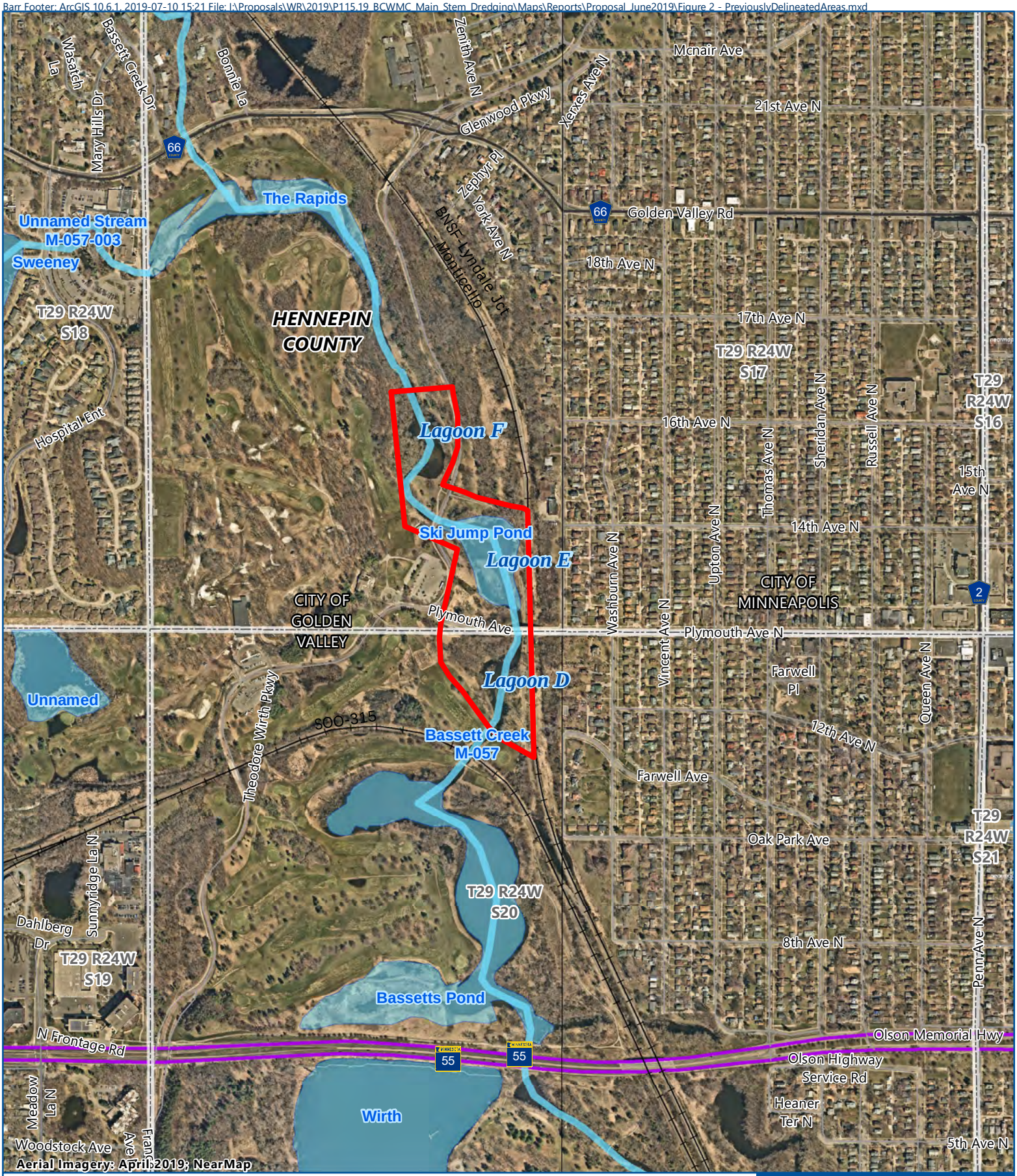
Project Area
PLSS Boundary
Minnesota Rail Lines
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Riverine

N

0 300 600
Feet

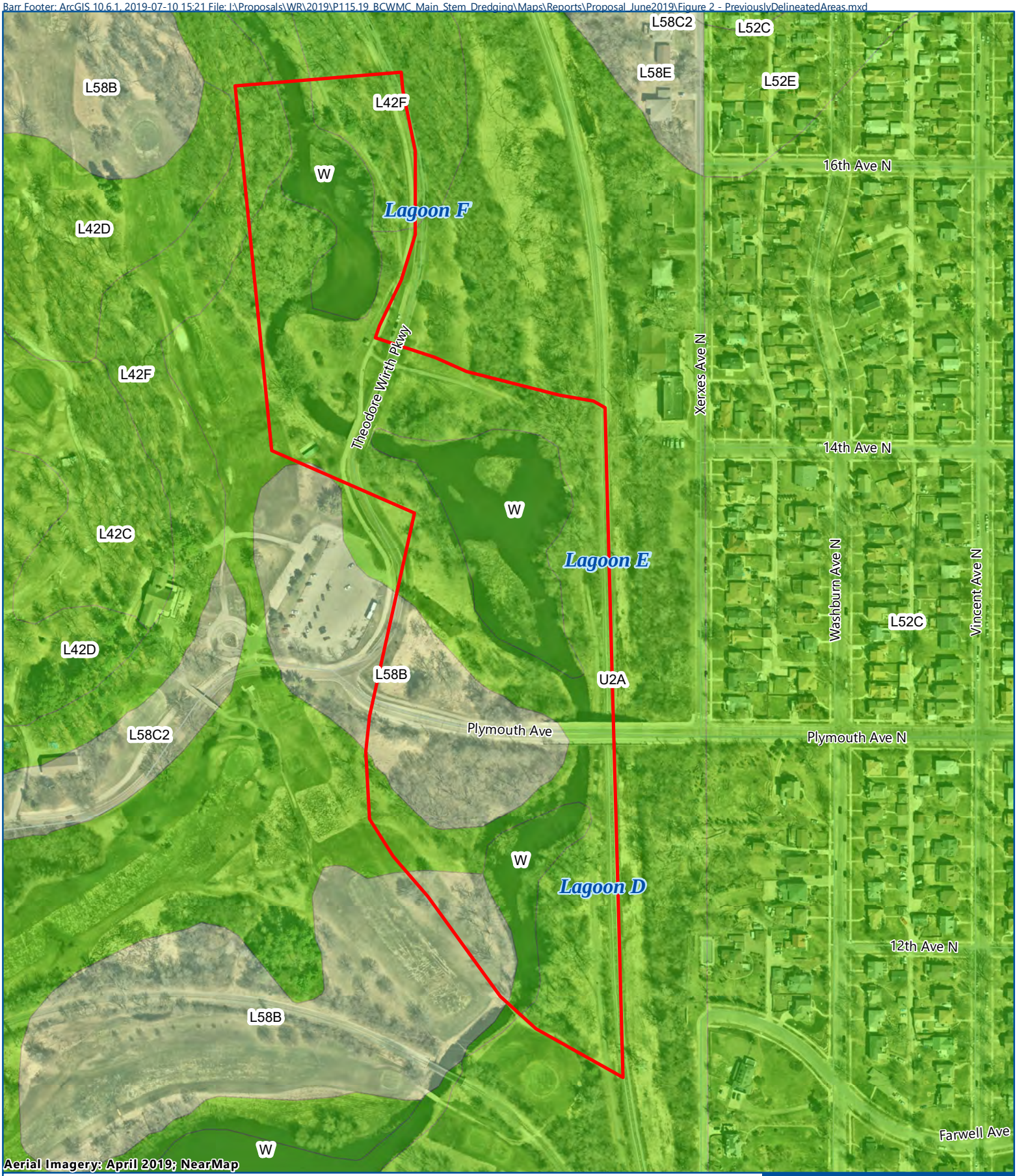
National Wetland Inventory Map
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

FIGURE 3



Public Water Inventory Map
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 4



Hydric Rating

- Not Hydric (0%)
- Predominantly non-hydric (1 to 32%)
- Partially hydric (33 to 65%)
- Predominantly hydric (66 to 99%)
- All hydric (100%)
- Project Area

N

0 300 600

Feet

Hydric Soil Map
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 5

Project Area
2011 Barr Delineated Wetlands
Blue Line Light Rail Extension Delineated Wetlands

2011 Barr Delineated Wetlands and Communities

floodplain forest
riverine
shallow marsh
shrub-carr
wet meadow

N

0 150 300 600
Feet

Previously Delineated Wetlands
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 6

2019 Desktop Wetland Delineation
Bassett Creek
Watershed Managment Commission
Golden Valley, Minnesota

Figure 7

Appendix A

Tyler A. Conley

From: Eckman, Eric <EEckman@goldenvalleymn.gov>
Sent: Wednesday, August 14, 2019 8:57 AM
To: Tyler A. Conley
Subject: RE: Bassett Creek Wetland Delineation

Yes, the desktop delineation should be okay.

Eric Eckman | Development and Assets Supervisor | City of Golden Valley
7800 Golden Valley Road | Golden Valley, MN 55427 | 763-593-8084 (direct) | 763-593-3988 (Fax) | 763-593-3968 (TTY) |
eeckman@goldenvalleymn.gov

From: Tyler A. Conley [mailto:TConley@barr.com]
Sent: Wednesday, August 14, 2019 8:09 AM
To: Eckman, Eric <EEckman@goldenvalleymn.gov>
Subject: Bassett Creek Wetland Delineation

Hey Eric,

Barr is working on preparing a feasibility study for a project within Bassett Creek. The proposed project would dredge accumulated sediment in three of the seven lagoons (Lagoon D, E, and F) along the Main Stem of Bassett Creek in Theo Wirth Park (Figure 1). It is anticipated that the proposed project would have a temporary impact on the wetlands surround Bassett Creek, but no permanent impacts to the wetlands or stream channel would occur. The project area was partially delineated in 2011 by Barr and in 2016 by the Blue Line Lightrail Expansion Survey. Attached is a figure depicting the delineated wetlands from each survey. Given that the much of the Project area was previously delineated and that the wetland impacts would be temporary would a desktop delineation be sufficient for permitting purposes? Or would a full delineation of the project area be required?

Thanks,

Tyler A. Conley

Environmental Scientist
Minneapolis, MN office: 952.842.3632
TConley@barr.com
www.barr.com

Appendix B

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit (LGU)	Address
City of Golden Valley	**7800 Golden VAlley Road Golden Valley, MN 55427**

1. PROJECT INFORMATION

Applicant Name	Project Name	Date of Application	Application Number
Metropolitan Council	**Blue Line Light Rail Extension (LRT)**	**12/11/15**	

☒ Attach site locator map.

Type of Decision:

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

2. LOCAL GOVERNMENT UNIT DECISION

Date of Decision: **1/21/16**

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

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

On behalf of the Metropolitan Council, SEH Inc. submitted a wetland delineation for the Blue Line Light Rail Extension project located within Hennepin County in Brooklyn Park, Robbinsdale, Crystal, Golden Valley, and Minneapolis. The City of Golden Valley is the WCA LGU for the portion of the project within Golden Valley. Wetlands associated with this project within the City of Golden Valley are: W34, W37, W38, W39, W40, W41, W42, W46, W47, W49, W50. Note that W34 straddles both Robbinsdale and Golden Valley. For wetland delineation purposes, the Bassett Creek WMC has reviewed W34. In addition, W42 and W49 straddle both Golden Valley and Minneapolis. The City of Minneapolis has reviewed W42 and W49.

The preliminary wetland maps and wetland data forms were submitted on 6/22/15 in preparation for a site review of the wetland boundaries which took place on 6/29/15. Present at the site review were Ben Meyer with BWSR, Stacey Lijewski with Hennepin County, Melissa Jenny with the USACE, Adam Arvidson with the Minneapolis Park and Rec Board, Jeff Olson with SEH for the applicant, and Karen Wold with Barr for the City of Minneapolis, Bassett Creek WMC portion of Robbinsdale, and Golden Valley. Wetland edits were completed based on initial comments and a complete wetland delineation report was submitted on 12/11/15.

During a TEP meeting on 12/8/15, each LGU clarified that they would each retain jurisdiction for their portions of this project.

During the comment period, Karen Wold requested some minor wetland type revisions and wetland size designations. Based on these comments, SEH submitted a revised wetland summary table on 1/4/16, which was provided to the TEP on 1/5/16 and is also attached in this document. No other comments were received during the comment period.

The updated wetland summary table includes the following wetland types and sizes for wetlands within the City of Golden Valley jurisdiction:

Wetland ID	Field Verified Cowardin	Eggers & Reed Class.	Circ. 39 Class.	Basin Size (ac)
W37	PEM1A	Seas. flooded basin	Type 1	0.08
W38	PUBGx/PEMA	Open Water/wet (fresh) meadow	Type 5/2	3.08
W39	PUBGx	Open Water	Type 5	2.00
W40	PEM1A	Seas. flooded basin	Type 1	0.31
W41	PEM1A	Seas. flooded basin	Type 1	0.19
W46	PFO1A	Floodplain forest	Type 1	11.14
W47	PFO1A	Floodplain forest	Type 1	Part of W46
W50	PEM1A	Seas. flooded basin	Type 1	0.12

Note: Wetland Types per Circular 39 indicate the majority of wetland types within a delineated basin. Several other minor wetland types may also be present within the basin.

The wetland boundaries and updated wetland types were found to be accurate, based on the requirements of the 1987 USACE Wetland Delineation Manual, the 2010 Midwest Regional Supplement, and the 2015 Guidance for Submittal of Delineation Reports to the USACE and WCA LGU in Minnesota, Version 2.0. The City of Golden Valley approves the wetland boundaries and types.

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).

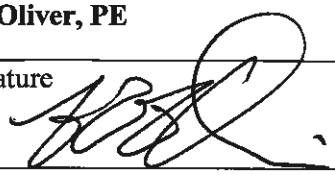
☐ **Deed Recording:** For project-specific replacement, evidence must be provided to the LGU that the BWSR "Declaration of Restrictions and Covenants" and "Consent to Replacement Wetland" forms have been filed with the county recorder's office in which the replacement wetland is located.

☐ **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	Title	
Jeff Oliver, PE	**City Engineer**	
Signature 	Date **January 21, 2016**	Phone Number and E-mail **763-593-8034** **joliver@goldenvalleymn.gov**

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 five 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 $ 500 fee (if applicable) to:	☐ 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: **Stacey Lijewski**
- ☒ BWSR TEP member: **Ben Meyer**
- ☒ LGU TEP member (if different than LGU Contact): **Karen Wold (Barr)**
- ☒ DNR TEP member: **Leslie Parris, Kate Drewry**
- ☐ DNR Regional Office (if different than DNR TEP member)
- ☒ City of Golden Valley: **Eric Eckman and Jeff Oliver**
- ☒ WD or WMO (if applicable): **Laura Jester (BCWMC)**
- ☒ Applicant and Landowner (if different) **agent Jeff Olson (SEH)**
- ☐ Members of the public who requested notice:

- ☒ Corps of Engineers Project Manager **Melissa Jenny**
- ☐ BWSR Wetland Bank Coordinator (wetland bank plan decisions 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:

- ☒ **Updated wetland summary table**
- ☒ **Wetland delineation maps**
- ☐
- ☐
- ☐

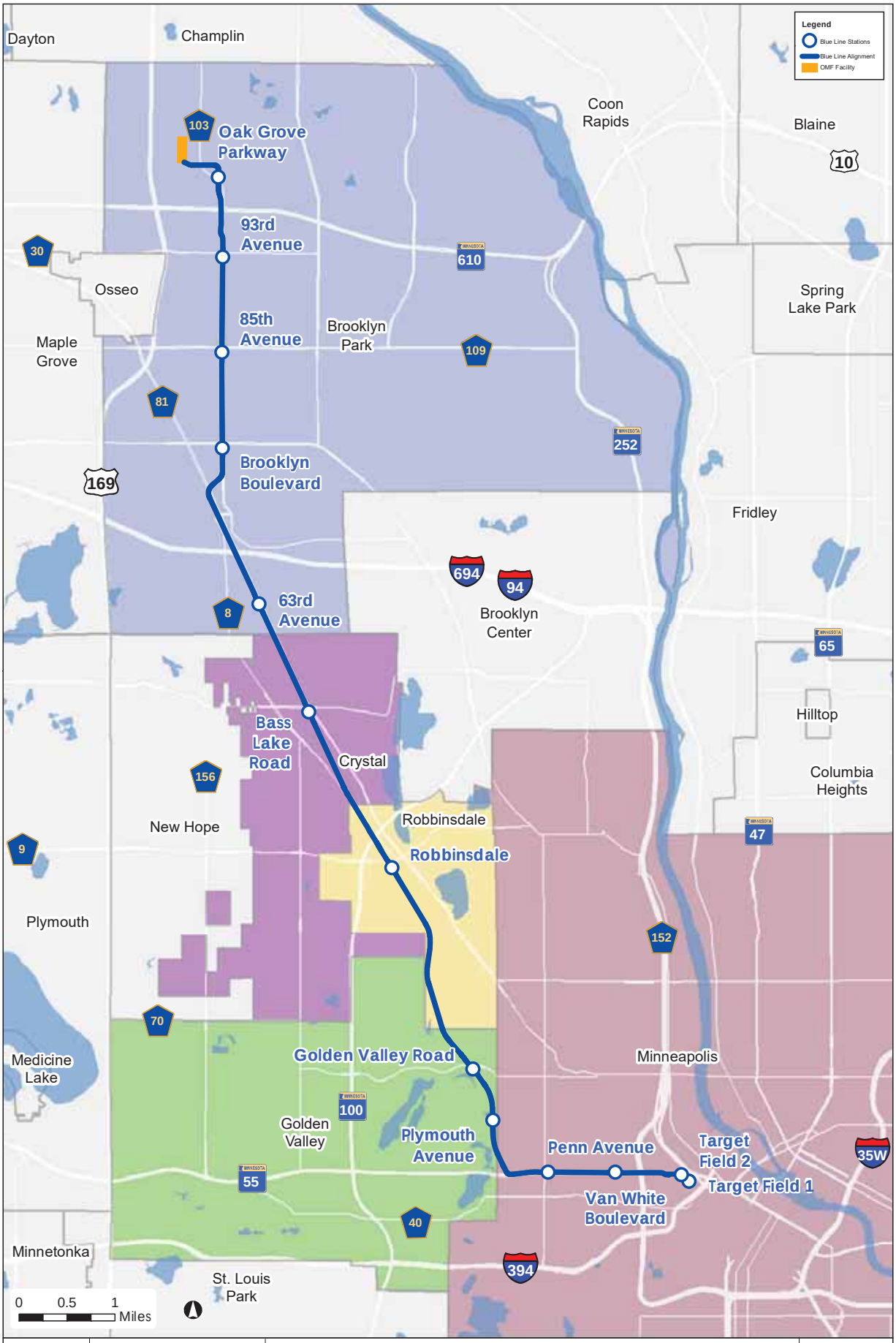
Table 1
Wetland Characteristics

Wetland ID	Updated NWI Mapping	Hydric Soil Mapping	Field Verified Cowardin	Eggers & Reed Class.	Circ. 39 Class. [1]	Basin Size (ac)	Notes
W1	PEM1A	Yes	PEM1A	Seas. flooded basin	Type 1	1.59	Natural basin
W2	PEM1C	Yes	PEM1A	Seas. flooded basin	Type 1	1.37	Natural basin
W3	PEM1A	Yes	PEM1A	Seas. flooded basin	Type 1	1.23	Natural basin
W4	Not mapped	Yes	PEM1A	Seas. flooded basin	Type 1	0.14	Natural basin
W5	PFO1A	Yes	PFO1A	Floodplain forest	Type 1	0.07	Natural basin
W6	PFO1A	Yes	PFO1A	Floodplain forest	Type 1	0.14	Natural basin
W7	PEM1A	Yes	PEM1A	Seas. flooded basin	Type 1	0.55	Natural basin
W8	PFO1A	Yes	PFO1A	Floodplain forest	Type 1	0.14	Natural basin
W9	Not mapped	Yes	PEM1A	Seas. flooded basin	Type 1	0.18	Natural basin
W10	Not mapped	Yes	PEM1A	Seas. flooded basin	Type 1	0.06	Roadside ditch
W11	PEM1A	Partially	PEM1A	Seas. flooded basin	Type 1	1.06	Natural basin
W12	Not mapped	Yes	PEM1A	Seas. flooded basin	Type 1	0.06	Natural basin
W13	PEM1A	Partially	PEM1A	Seas. flooded basin	Type 1	2.41	Natural basin
W14	PEM1A	Yes	PUBGx	Deep Marsh	Type 4	0.61	Excavated for stormwater management
W15	Not mapped	Yes	PSS1A	Shrub Carr	Type 6	0.79	Excavated for stormwater management
W16	PUBGx/ PEM1C	No	PUBGx	Deep Marsh	Type 4	0.82	Excavated for stormwater management
W17	Not mapped	No	PSS1A	Shrub Carr	Type 6	0.05	Excavated for stormwater management
W18 – W25 are part of the CSAH 103							

Wetland ID	Updated NWI Mapping	Hydric Soil Mapping	Field Verified Cowardin	Eggers & Reed Class.	Circ. 39 Class. [1]	Basin Size (ac)	Notes
Project							
W26	Not mapped	No	PEM1A	Seas. flooded basin	Type 1	0.01	Excavated for stormwater management
W27	PEM1C	No	PEM1A	Seas. flooded basin	Type 1	0.62	Excavated for stormwater management
W28	PABGx/ PEM1C	Yes	PFO1A	Floodplain forest	Type 1	2.57	Excavated for stormwater management
W29	PEM1C	Yes	PEM1C	Shallow Marsh	Type 3	1.02	Natural basin, likely excavated to augment stormwater management
W30	PUBG/ PEM1A	No	PUBGx	Open Water	Type 5	1.20	Excavated for stormwater management
W31	PSS1A	No	PSS1A	Shrub Carr	Type 6	Part of W #32	Excavated for stormwater management
W32	**PFO1A**	**No**	**PFO1A/ PEMC/ PSS1C**	**Floodplain forest/ Shallow Marsh/ Shrub Carr**	**Type 1/ Type 3/ Type 6**	**7.71**	**Excavated for stormwater management**
W33	PABG	No	PUBGx	Open Water	Type 5	7.41	Excavated for stormwater management
W34	PEM1F/ PABG	Yes	PEM1F	Deep Marsh	Type 4	17.01	Natural basin, perhaps excavated to augment stormwater management
W35	PEM1F	No	PFO1A	Floodplain forest	Type 1	0.85	Mostly a railroad ditch excavated for ballast
W36	PSS1A	No	PSS1A	Shrub Carr	Type 6	1.39	Mostly a wide railroad ditch excavated for ballast
W37	Not mapped	No	PEM1A	Seas. flooded basin	Type 1	0.08	Railroad ditch
W38	**PFO1A/ PABG**	**No**	**PUBGx/ PEMA**	**Open Water/ wet (fresh) meadow**	**Type 5/ Type 2**	**3.08**	**Excavated for stormwater management**
W39	PFO1A	No	PUBGx	Open Water	Type 5	2.00	Excavated for stormwater management
W40	PFO1A	No	PEM1A	Seas. flooded basin	Type 1	0.31	Railroad ditch
W41	Not mapped	No	PEM1A	Seas. flooded basin	Type 1	0.19	Railroad ditch
W42	Not mapped	No	PSS1A	Shrub Carr	Type 6	0.29	Railroad ditch
W43 is							

Wetland ID	Updated NWI Mapping	Hydric Soil Mapping	Field Verified Cowardin	Eggers & Reed Class.	Circ. 39 Class. [1]	Basin Size (ac)	Notes
part of the CSAH 103 Project							
W44	PABG	No	PUBGx	Open Water	Type 5	0.87	Railroad ditch
W45	Not mapped	No	PFO1A	Floodplain forest	Type 1	2.05	Excavated for stormwater management
W46	PFO1A	No	PFO1A	Floodplain forest	Type 1	11.14	Partially natural basin, partially excavated for stormwater management
W47	PEM1C	No	PFO1A	Floodplain forest	Type 1	Part of W#46	Partially natural basin, partially excavated for stormwater management
W48	R2UBG	No	R2UBGx	Riverine	Type 4	0.50	Old backwater of Bassett Creek, partially excavated to augment stormwater management
W49	PFO1A	No	PFO1A	Floodplain forest	Type 1	0.08	Railroad ditch
W50	PFO1A	No	PEM1A	Seas. flooded basin	Type 1	0.12	Railroad ditch
W51	PEMA	Yes	PEMA	Seas. flooded basin	Type 1	4.59	Wetland Mitigation Bank for Target Corporation

[1] **Note**: Wetland Types per Circular 39 indicate the majority of wetland types within a delineated basin. Se3veral other minor wetland types may also be present within the basin.



Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., SEH Inc., and USDA.

Figure 1 - Project Location

METRO Blue Line Extension

DRAFT

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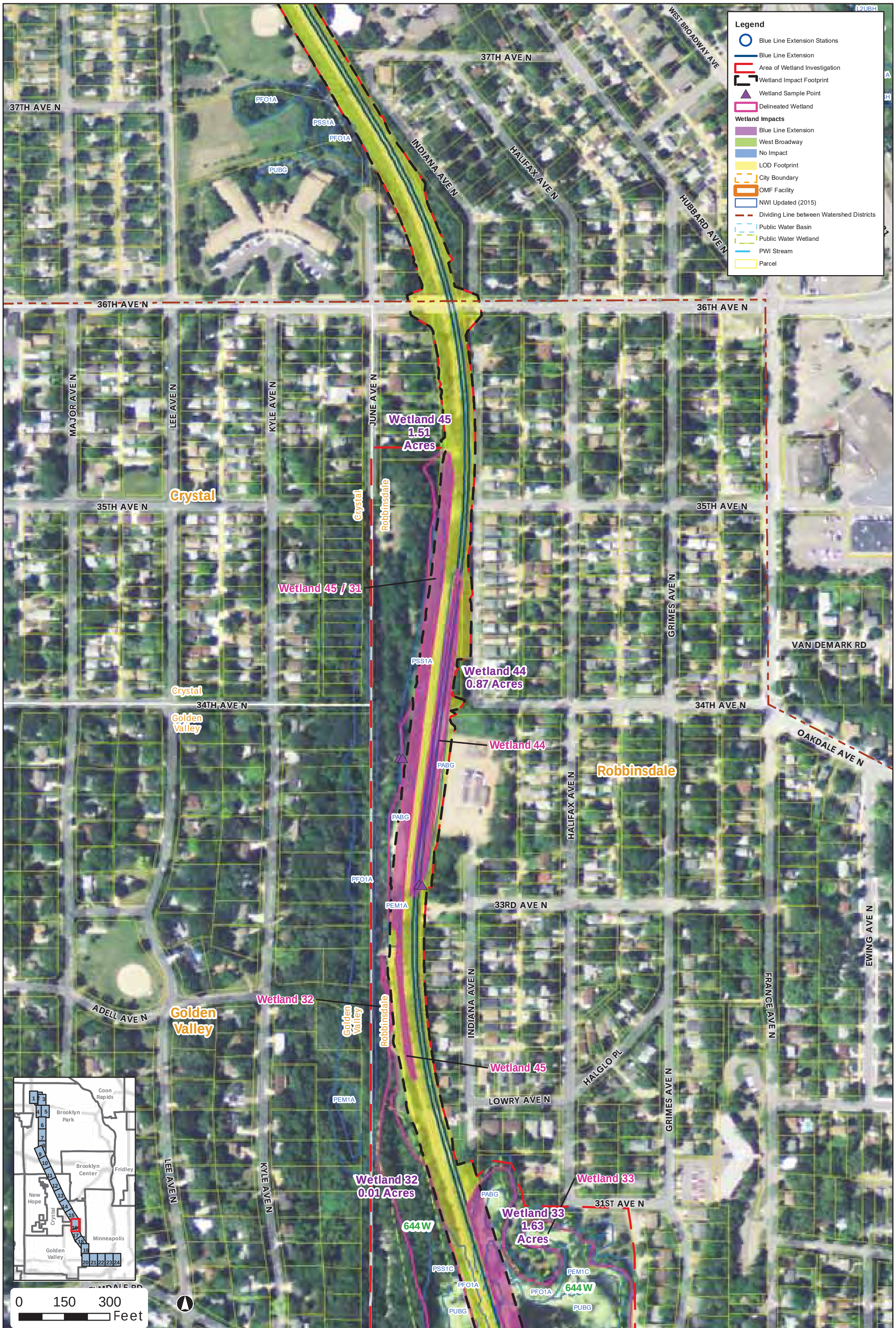


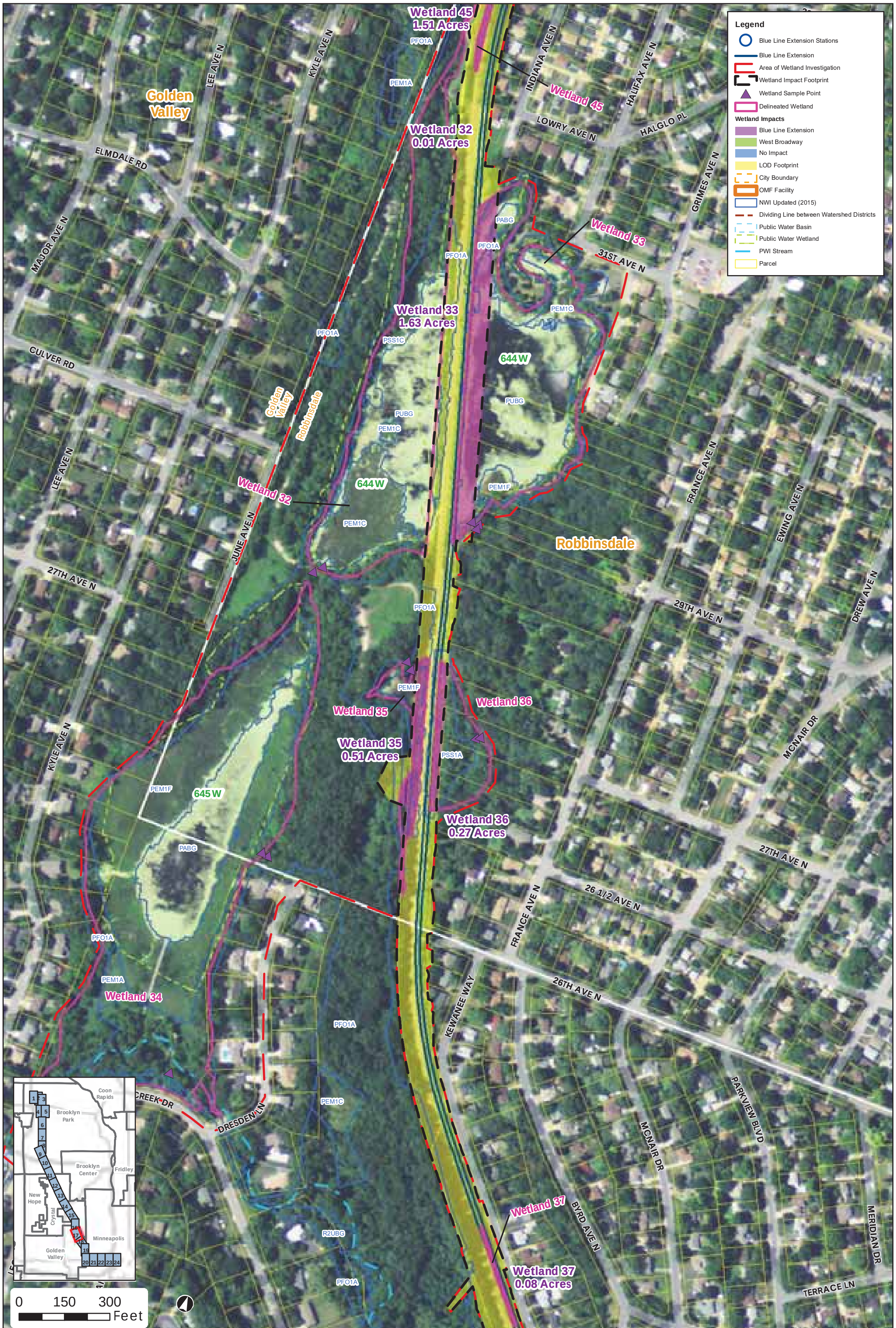
Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Figure 2 - Delineated Wetlands

Page 16

METRO Blue Line Extension

DRAFT



Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Figure 2 - Delineated Wetlands

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METRO Blue Line Extension

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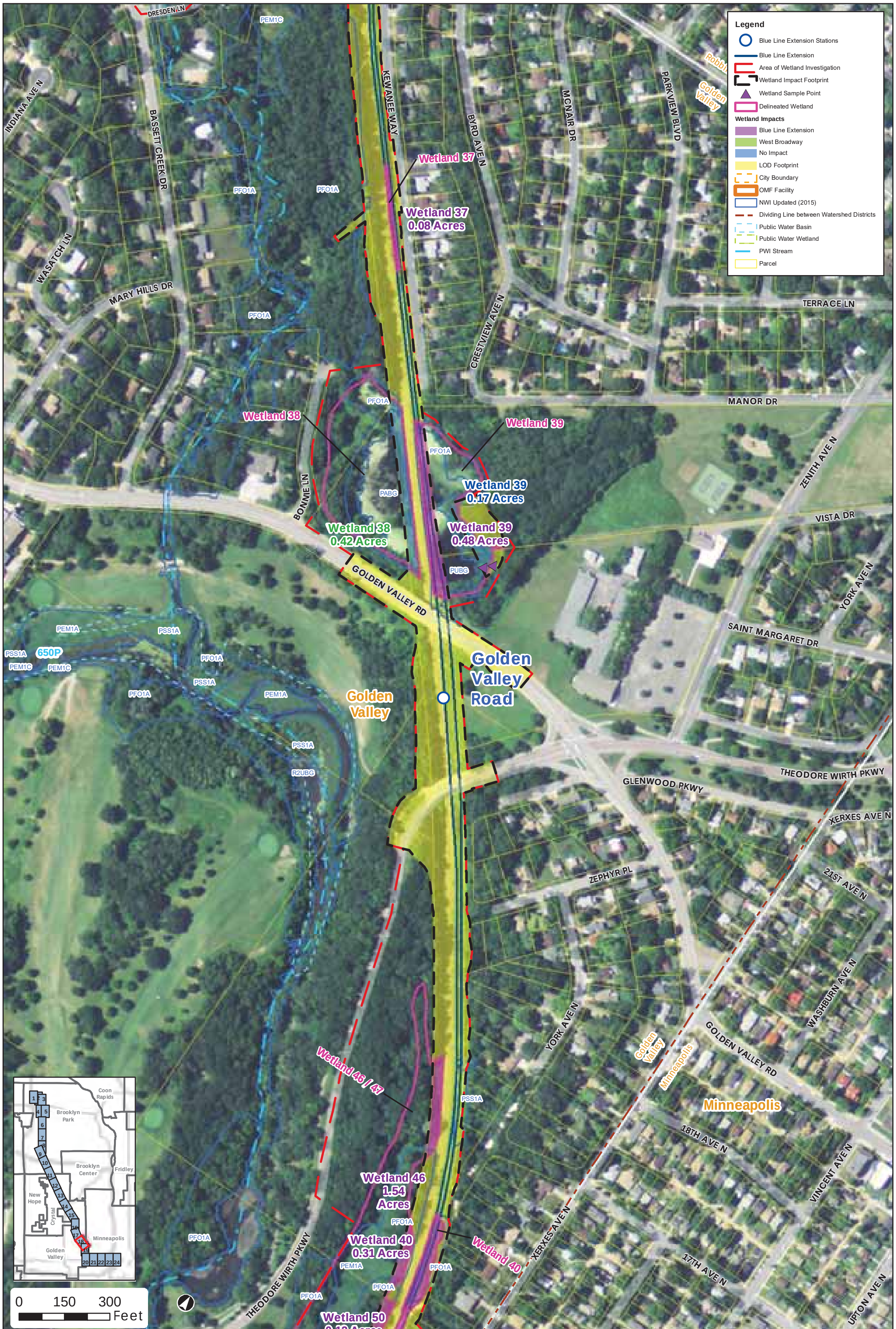

Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Figure 2 - Delineated Wetlands
Page 18

METRO Blue Line Extension

DRAFT

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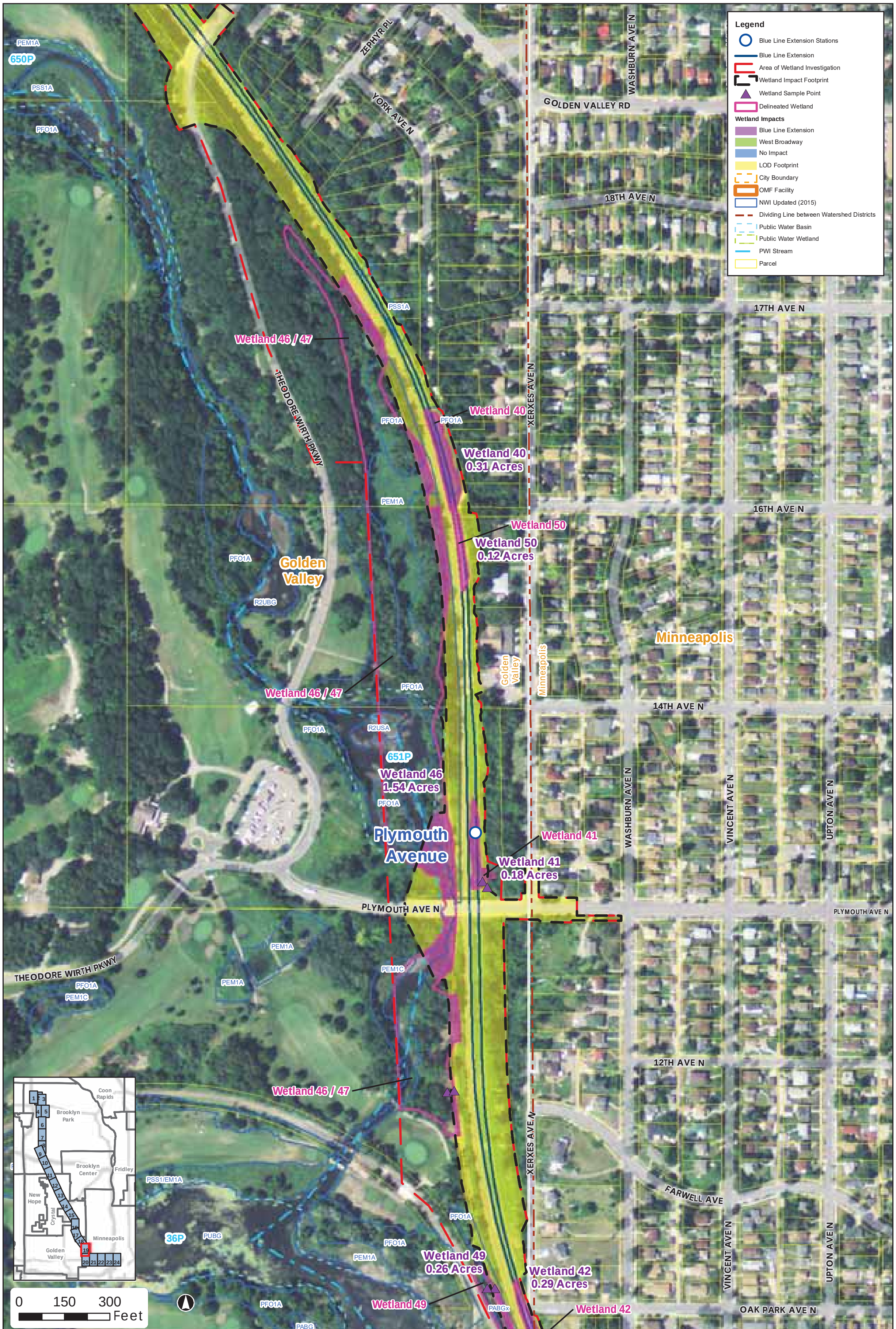
11/17/2015



Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Figure 2 - Delineated Wetlands
Page 19

METRO Blue Line Extension

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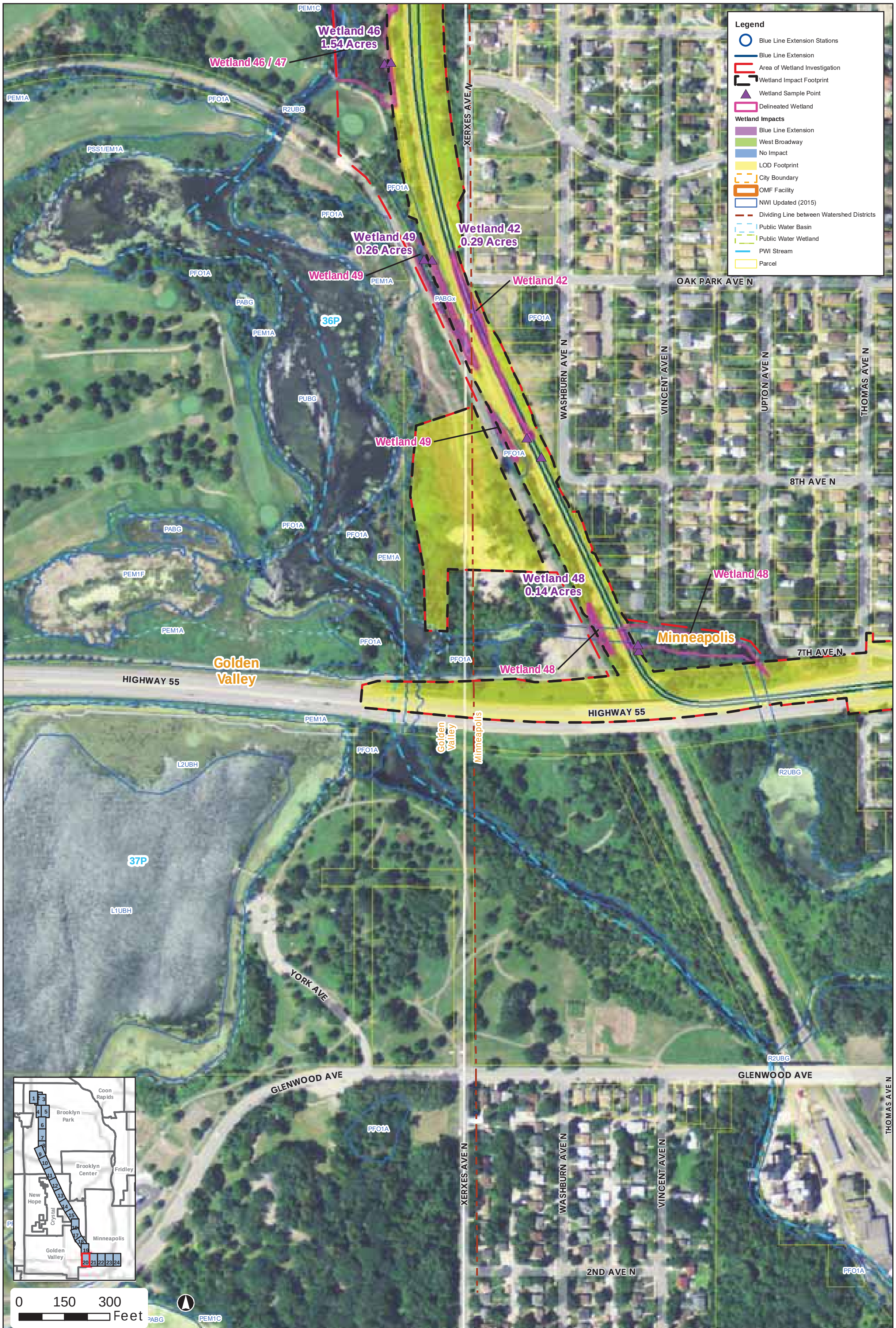
11/17/2015



Projection: Hennepin County NAD83
Source: Hennepin County, Metro Transit, MnDOT, MnDNR, HDR Engineering Inc., and SEH Inc.

Figure 2 - Delineated Wetlands

Page 20

METRO Blue Line Extension

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11/17/2015

Appendix K

Natural Heritage Review Letter

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

February 12, 2026

Gage Kriese
Barr Engineering Company

RE: Natural Heritage Review of the proposed Bassett Creek Lagoon Feasibility Study,
T29N R24W Sections 17, 20; Hennepin County

Dear Gage Kriese,

For all correspondence regarding the Natural Heritage Review of this project please include the project ID **MCE-2025-00955** in the email subject line.

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

State-listed Species

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been documented in the direct vicinity of the proposed project. Blanding's turtles use upland areas up to and over a mile distant from wetlands, waterbodies, and watercourses. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added mortality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

  This project has the potential to impact this rare turtle through direct fatalities and habitat disturbance/destruction due to excavation, fill, and other construction activities associated with the project. Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. **Given the project details and the potential for a take of a Blanding's turtle, an avoidance plan is required to demonstrate avoidance.** Submit the avoidance plan to the Reports.NHIS@state.mn.us.

  We do not currently have a template for avoidance plans. The plan needs to:

  - Provide a description of the project activities and construction methods.
  - Identify measures that will be taken to avoid take and minimize disturbance to the species.

- Include a map of disturbance areas. This can include a map of potential Blanding's turtle summer, winter, and nesting habitat overlayed with timing of project impacts.

Measures to avoid or minimize disturbance include, but are not limited to, the following:

- Avoidance of suitable habitat.
  - Avoid wetland and aquatic impacts during overwintering season if the area is suitable for overwintering.
    - For wetlands, avoid impacts between September 15 and April 15.
    - For rivers, avoid impacts between October 15 and April 15.
- Timing the impacts to avoid incidental take.
- The recommendations listed in the Blanding's turtle fact sheet.
- Training for construction crew.
- Provide details on how/when the construction areas will be monitored for turtles.
- How and when to contact the DNR:
  - Report all sightings using the DNR Plant and Animal Observation Form within 24 hours.
- Immediately notify Bridget Henning-Randa (Bridget.Henning-Randa@state.mn.us or 651-259-5073) for sightings of an injured, dead, or nesting Blanding's turtle.

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, **the DNR recommends that tree removal be avoided from June 1 through August 15.**

- The area of interest overlaps with a U.S Fish and Wildlife Service (USFWS) Rusty Patched Bumble Bee High Potential Zone. The rusty patched bumble bee *(Bombus affinis)* is federally listed as endangered and is anticipated to be listed as an endangered species in Minnesota in 2026. This species is likely to be present in suitable habitat (shrub/tree cover and the surrounding 100 feet of vegetation) within High Potential Zones and may be impacted by a variety of land management activities including, but not limited to, prescribed fire, tree-removal, haying, grazing, herbicide use, pesticide use, land-clearing, soil disturbance or compaction, or use of non-native bees. Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. I**f the project will impact more than two acres of suitable habitat within the high potential zone, avoidance measures or a permit to take may be needed when the endangered status becomes effective.** Updates to the status of this species will be posted at Endangered and Threatened Species Permits.

- Please visit the DNR Rare Species Guide for more information on the habitat use of state-listed species and recommended measures to avoid or minimize impacts.

Federally Protected Species

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available and is the most complete source of data on Minnesota's native plant communities, rare species, and other rare features. However, the NHIS is not an exhaustive inventory and does not contain the locations of all rare features in the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. **If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.** Resubmit by selecting *Clone Project as Draft* on the project page in MCE.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit Natural Heritage Review for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, please contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

James Drake

Natural Heritage Review Specialist
james.f.drake@state.mn.us

Cc: Melissa Collins

For more project details, see the MCE-generated Final Project Report, available on the MCE project page.

Bassett Creek Lagoon Feasibility Study

USA Topo Basemap With Locator Map

N
W E
S

0 0.15 0.3 0.6 0.9 1.2 Miles

Project Boundary

Project Type: Natural Resource Management - (see above note re: CPL Gran

Project Size (acres): 11.23

County(s): Hennepin

TRS: T29 R24 S17, T29 R24 S20

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Esri, NASA, NGA, USGS, FEMA
City of Golden Valley, City of Minneapolis, Metropolitan Council, MetroGIS, Three

Appendix L

Partial Sediment Removal Estimated RAM Results

Assessor Details

Site Name:	Wetland 1
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/30/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.69

User Notes

Estimated results are based on vegetation restoration and an increase in wetland size. This wetland would increase in size by approximately 0.63 acres under the restored wetland conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Higher	Higher	Higher
	Wildlife Habitat	Higher	Lower	Higher
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Fish Habitat	Historic or Cultural Uses
Groundwater Recharge	Shoreline Stabilization	Carbon Sequestration	Scientific or Educational Importance
Nitrate Removal	Thermoregulation	Recreational Uses	
Sediment and Pollutant Retention		Scenic Beauty	
Native Plant Habitat		Commercial Uses	
Wildlife Habitat			

Assessor Details

Site Name:	Wetland 2
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	2.47

User Notes

Estimated results are based on removal of sediment within the shallow, open water community in this wetland as well as vegetation restoration and expansion in the other communities in this wetland. This wetland would increase in size by approximately 0.17 acres under the restored wetland conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Higher	Higher	Higher
	Wildlife Habitat	Higher	Lower	Higher
	Fish Habitat	Lower	Moderate	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Fish Habitat	Historic or Cultural Uses
Nitrate Removal	Phosphorus Retention	Carbon Sequestration	Scientific or Educational Importance
Sediment and Pollutant Retention	Thermoregulation	Recreational Uses	
Shoreline Stabilization		Scenic Beauty	
Native Plant Habitat		Commercial Uses	
Wildlife Habitat			

Assessor Details

Site Name:	Wetland 3
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.12

User Notes

Estimated results are based on vegetation restoration.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Higher	Higher	Higher
	Wildlife Habitat	Higher	-	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Fish Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Carbon Sequestration	Scientific or Educational Importance
Nitrate Removal		Recreational Uses	
Sediment and Pollutant Retention		Scenic Beauty	
Shoreline Stabilization		Commercial Uses	
Native Plant Habitat			

Assessor Details

Site Name:	Wetland 4
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	1.77

User Notes

Estimated results are based on removal of sediment in the entire wetland.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Lower	-	-
	Surface Water Supply	Higher	Higher	Higher
	Groundwater Recharge	Lower	Higher	Moderate
Water Quality	Nitrate Removal	Lower	Higher	Moderate
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Moderate	Not Scored For This Function	Moderate
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Lower	Lower	Lower
	Wildlife Habitat	Low	-	-
	Fish Habitat	Moderate	Higher	Higher
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Groundwater Recharge	Native Plant Habitat	Historic or Cultural Uses
Sediment and Pollutant Retention	Nitrate Removal	Carbon Sequestration	Scientific or Educational Importance
Fish Habitat	Phosphorus Retention	Recreational Uses	
	Shoreline Stabilization	Scenic Beauty	
	Thermoregulation	Commercial Uses	

Assessor Details

Site Name:	Wetland 5
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.05

User Notes

Estimated results are based on vegetation restoration. This wetland would connect to Wetland 1 based on the restored wetland conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	Moderate	Moderate
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Moderate	Moderate
	Phosphorus Retention	Lower	Moderate	Lower
	Sediment and Pollutant Retention	Moderate	Moderate	Moderate
	Shoreline Stabilization	Not Applicable	Not Scored For This Function	Not Applicable
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Higher	Higher	Higher
	Wildlife Habitat	Higher	Lower	Higher
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Functions Organized by Ranking

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Surface Water Attenuation	Phosphorus Retention	Shoreline Stabilization
Groundwater Recharge	Nitrate Removal	Fish Habitat	Historic or Cultural Uses
Native Plant Habitat	Sediment and Pollutant Retention	Carbon Sequestration	Scientific or Educational Importance
Wildlife Habitat	Thermoregulation	Recreational Uses	
		Scenic Beauty	
		Commercial Uses	

Assessor Details

Site Name:	Wetland 6
Assessor Name:	Gage Kriese
Date of Desktop Assessment:	3/31/2026
Date of Field Assessment:	
If delineated, file reference number (if known):	
AA Size	0.06

User Notes

Estimated results are based on vegetation restoration, this wetland would connect to Wetland 1 based on the restored wetland conditions.

Function Rankings

Functional Group	Specific Function	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Surface Water Attenuation	Moderate	-	-
	Surface Water Supply	Moderate	Higher	Higher
	Groundwater Recharge	Moderate	Higher	Higher
Water Quality	Nitrate Removal	Moderate	Higher	Higher
	Phosphorus Retention	Lower	Higher	Moderate
	Sediment and Pollutant Retention	Moderate	Higher	Higher
	Shoreline Stabilization	Higher	Not Scored For This Function	Higher
	Thermoregulation	Moderate	Moderate	Moderate
Ecological	Native Plant Habitat	Higher	Higher	Higher
	Wildlife Habitat	Higher	-	-
	Fish Habitat	Lower	Lower	Lower
Climate	Carbon Sequestration	Lower	Not Scored For This Function	Lower
Anthropogenic	Historic or Cultural Uses	Not Scored For These Functions	Not Applicable	Not Applicable
	Scientific or Educational Importance		Not Applicable	Not Applicable
	Recreational Uses		Lower	Lower
	Scenic Beauty		Lower	Lower
	Commercial Uses		Lower	Lower

Higher	Moderate	Lower	Not Applicable
Surface Water Supply	Phosphorus Retention	Fish Habitat	Historic or Cultural Uses
Groundwater Recharge	Thermoregulation	Carbon Sequestration	Scientific or Educational Importance
Nitrate Removal		Recreational Uses	
Sediment and Pollutant Retention		Scenic Beauty	
Shoreline Stabilization		Commercial Uses	
Native Plant Habitat			

Appendix M

Hydrologic and Hydraulic Modeling Results

Maximum 1-, 2-, 10-, and 100-year Flood Elevations for Existing Conditions and the Alternative 1

	1-year, 24-hour Event		
	Existing	1-All	1-All Difference
N-BCM-023	822.26	822.20	-0.05
N-BCM-022	821.96	821.89	-0.07
N-BCM-021	821.95	821.88	-0.06
BCM-003	821.94	821.88	-0.05
N-BCM-019	821.61	821.56	-0.05
N-BCM-018	821.60	821.55	-0.05
N-BCM-017	821.60	821.55	-0.05
N-BCM-016	821.60	821.55	-0.04
BCM-025	821.59	821.55	-0.04
N-BCM-014	821.55	821.51	-0.04
N-BCM-013	821.50	821.46	-0.04
N-BCM-012	821.50	821.46	-0.04
N-BCM-011	821.50	821.46	-0.03
N-BCM-010	821.50	821.46	-0.03
N-BCM-009	821.49	821.46	-0.03

	2-year, 24-hour Event		
	Existing	1-All	1-All Difference
N-BCM-023	822.84	822.79	-0.05
N-BCM-022	822.62	822.56	-0.06
N-BCM-021	822.61	822.56	-0.05
BCM-003	822.60	822.56	-0.05
N-BCM-019	822.17	822.13	-0.04
N-BCM-018	822.16	822.13	-0.04
N-BCM-017	822.16	822.13	-0.04
N-BCM-016	822.16	822.12	-0.04
BCM-025	822.15	822.12	-0.03
N-BCM-014	822.11	822.08	-0.03
N-BCM-013	822.07	822.04	-0.03
N-BCM-012	822.07	822.04	-0.03
N-BCM-011	822.06	822.04	-0.03
N-BCM-010	822.06	822.04	-0.03
N-BCM-009	822.06	822.04	-0.02

	10-year, 24-hour Event		
	Existing	1-All	1-All Difference
N-BCM-023	825.07	825.03	-0.04
N-BCM-022	825.00	824.96	-0.04
N-BCM-021	824.99	824.96	-0.04
BCM-003	824.99	824.95	-0.03
N-BCM-019	823.93	823.90	-0.03
N-BCM-018	823.92	823.90	-0.03
N-BCM-017	823.92	823.90	-0.03
N-BCM-016	823.92	823.90	-0.02
BCM-025	823.91	823.89	-0.02
N-BCM-014	823.88	823.86	-0.02
N-BCM-013	823.86	823.84	-0.02
N-BCM-012	823.86	823.84	-0.02
N-BCM-011	823.85	823.84	-0.02
N-BCM-010	823.85	823.84	-0.02
N-BCM-009	823.85	823.84	-0.01

	100-year, 24-hour Event		
	Existing	1-All	1-All Difference
N-BCM-023	826.95	826.94	-0.02
N-BCM-022	826.86	826.84	-0.02
N-BCM-021	826.85	826.84	-0.01
BCM-003	826.83	826.82	-0.01
N-BCM-019	826.70	826.68	-0.02
N-BCM-018	826.70	826.68	-0.02
N-BCM-017	826.69	826.68	-0.01
N-BCM-016	826.69	826.68	-0.01
BCM-025	826.68	826.67	-0.01
N-BCM-014	826.64	826.63	-0.01
N-BCM-013	826.62	826.61	-0.01
N-BCM-012	826.62	826.61	-0.01
N-BCM-011	826.61	826.61	0.00
N-BCM-010	826.61	826.61	0.00
N-BCM-009	826.61	826.61	0.00

Maximum 1-, 2-, 10-, and 100-year Flood Elevations for Existing Conditions and the Alternative 2

	1-year, 24-hour Event		
	Existing	2-All	2-All Difference
N-BCM-028	825.98	825.96	-0.02
N-BCM-027	825.81	825.79	-0.02
N-BCM-026	823.82	823.37	-0.44
N-BCM-025	823.42	823.37	-0.05
N-BCM-024	823.37	823.36	-0.01

	2-year, 24-hour Event		
	Existing	2-All	2-All Difference
N-BCM-028	826.12	826.09	-0.03
N-BCM-027	825.92	825.88	-0.04
N-BCM-026	824.03	823.66	-0.37
N-BCM-025	823.72	823.66	-0.06
N-BCM-024	823.65	823.65	-0.01

	10-year, 24-hour Event		
	Existing	2-All	2-All Difference
N-BCM-028	826.65	826.60	-0.05
N-BCM-027	826.40	826.32	-0.08
N-BCM-026	825.54	825.28	-0.26
N-BCM-025	825.32	825.28	-0.05
N-BCM-024	825.25	825.26	0.00

	100-year, 24-hour Event		
	Existing	2-All	2-All Difference
N-BCM-028	828.08	827.91	-0.16
N-BCM-027	827.90	827.67	-0.23
N-BCM-026	827.54	827.18	-0.36
N-BCM-025	827.27	827.18	-0.09
N-BCM-024	827.12	827.13	0.00

Appendix N

Habitat Equivalency Analysis

Appendix N

The following information provides additional detail for the HEA developed to evaluate the increase in ecological services from the remediation and restoration of Lagoon G.

Typically, the HEA model includes a discount rate (3%) as it is often applied in a natural resource damage liability process where compensatory damages are calculated, and therefore characterizing ecological services in terms of present value (today's dollar value) is necessary. In this instance, the goal of the analysis is to evaluate the raw, cumulative, improvement of ecological services between an unrestored and remediated/restored state of Lagoon G, so the services do not need to be discounted (reference (1)). The types of data that can be used to characterize percent ecological service are wide ranging and depend on the site and project to be evaluated. Examples of relevant data in an aquatic environment are native vegetation cover, water quality monitoring data, extent of open water habitat, and quality of sediment (i.e., presence or absence of contamination, grain size, etc.).

Wetland Functional Assessment

Table A provides the RAM values, and associated percent wetland-based services calculated for the HEA. When calculating the services provided by Wetland 4 and a portion of Wetland 2, which would be converted to shallow open water wetlands, a 3-year linear recovery of ecological services was assumed, where services were 0% during the implementation year due to disturbance of the benthic invertebrate community.

Table A RAM average scores and associated percent wetland-based ecological services for the wetland quality line of evidence

	Unrestored Condition		Restored Condition	
	RAM average score	Percent wetland-based ecological services	RAM average score	Percent wetland-based ecological services
Wetland 1	2.0	62	2.4	71
Wetland 2	1.6	55	2.0	64
Wetland 3	1.7	56	2.1	66
Wetland 4/Open water[a]	1.6	55	1.6	58
Wetland 5	2.8	75	2.0	65
Wetland 6	1.7	56	2.1	59

[a] Wetland 4 is remoed and Wetland 2 partially removed under the evaluated partial removal scenario. These are evaluated jointly as open water in the Restored Condition evaluation.

Sediment Contaminants

The Minneosta Sediment Quality Thresholds (SQTs) have limited predictive capacity for toxic effects to benthic invertebrates. As documented in one of the development documents supporting the derivation of the SQTs, the accuracy of the SQTs in correctly identifying toxic impacts to benthic invertebrates varies

from 15% to 100%. When estimating the impact from sediment contaminants on the ecological services of Lagoon G, exceedances of the Level I and Level II SQT were evaluated using the following steps for the 13 contaminants which had an SQT and an exceedance of an SQT (Table B):

1. When a SQT was exceeded, a 20% effect was assumed for threshold exceedances of the Level I and Level II SQTs (multiplier of 0.2).
2. A contaminant-specific multiplier was then applied based on percent accuracy of the Level I and Level II SQTs ability to predict toxicity (reference (2)).
3. The final multiplier represented the number of sediment sampling in Lagoon G that exceeded either the Level I or Level II SQT (multiplier of 0.25 to 1.0).
4. Following the contaminant-specific calculated percent toxicity, an average percent impact was calculated for the contaminants.

Table B Contaminants measured in Lagoon G sediments

	Sediment Quality Threshold Available	**At Least One Exceedance of a SQT value**
Arsenic	Yes	No
Barium	No	na
Cadmium	Yes	No
Chromium	Yes	No
Copper	Yes	**Yes**
Lead	Yes	**Yes**
Mercury	Yes	No
Selenium	No	na
Silver	No	na
2-Methylnaphthalene	Yes	**Yes**
3-Methylcholanthrene	No	na
5-Methylchrysene	No	na
7,12-Dimethylbenz(a)anthracene	No	na
7h-Dibenzo(c,g)carbazole	No	na
Acenaphthene	Yes	**Yes**
Acenaphthylene	Yes	**Yes**
Anthracene	Yes	**Yes**
Benz(a)anthracene	Yes	**Yes**
Benzo(a)pyrene	Yes	**Yes**
Benzo(g,h,i)perylene	No	na
Benzofluoranthenes	No	na
Chrysene	Yes	**Yes**
Dibenz(a,h)acridine	No	na
Dibenz(a,h)anthracene	Yes	**Yes**
Dibenzo(a,e)pyrene	No	na
Dibenzo(a,h)pyrene	No	na

Dibenzo(a,i)pyrene	No	na
Dibenzo(a,l)pyrene	No	na
Fluoranthene	No	na
Fluorene	Yes	**Yes**
Indeno(1,2,3-cd)pyrene	No	na
Naphthalene	Yes	No
Phenanthrene	Yes	**Yes**
Pyrene	Yes	**Yes**
Benzene	No	na
Ethyl benzene	No	na
Toluene	No	na
Xylene, total	No	na
Diesel Range Organics, silica gel cleanup	No	na
Gasoline Range Organics, C6-C10	No	na

HEA Inputs

Based on the approach and information described in 5.3.3.3, the HEA inputs for the unrestored and restored condition for Lagoon G are provided in Table C.

Table C HEA inputs by wetland within Lagoon G under unrestored and restored conditions

Wetland	Condition	Acres	Ecological Services
Wetland 1	Unrestored	1.06	62%
	Restored	1.69	71%
Wetland 2	Unrestored	2.30	55%
	Restored	1.68	64%
Wetland 3	Unrestored	0.12	56%
	Restored		66%
Wetland 4	Unrestored	1.77	55%
Shallow Open Water Wetland	Restored	2.39	58%
Wetland 5	Unrestored	0.05	75%
	Restored		65%
Wetland 6	Unrestored	0.06	56%
	Restored		59%

References

1. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. *Habitat Equivalency Analysis: An Overview*. 21 March 1995. U.S. Department of Commerce. Damage Assessment and Restoration Program

2. CRANE, J.L. *Wetland Restoration Tables and Figures*.

Appendix O

Floristic Quality Assessment Results

Assessment Area ID:	Wetland 1 Fresh wet meadow
Wetland ID:	**Wetland 1**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Cirsium arvense	Canada thistle	Herbaceous	Introduced	FACU	0	2%	2.1%
Eleocharis acicularis	needle spike-rush	Herbaceous	Native	OBL	4	0.1%	0.1%
Equisetum scirpoides	dwarf scouring-rush	Herbaceous	Native	FAC	6	0.1%	0.1%
Impatiens capensis	spotted touch-me-not	Herbaceous	Native	FACW	2	1%	1.0%
Iris versicolor	Harlequin blueflag	Herbaceous	Native	OBL	4	0.1%	0.1%
Lemna minor	lesser duckweed	Herbaceous	Native	OBL	5	1%	1.0%
Persicaria amphibia	water smartweed	Herbaceous	Native	OBL	4	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	85%	88.8%
Poa palustris	fowl blue grass	Herbaceous	Native	FACW	5	0.1%	0.1%
Ranunculus sceleratus	cursed crowfoot	Herbaceous	Native	OBL	3	0.1%	0.1%
Rumex crispus	curled dock	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Typha angustifolia	narrow-leaved cattail	Herbaceous	Introduced	OBL	0	5%	5.2%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	1%	1.0%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.65	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	0%
Open Water (%):	4%

Survey Metrics[7]

Metric	Total Observed Species	Native Species	Native Hydrophytic Species	Introduced Species
Species Richness	13	9	9	4
Percent Cover	95.7%	3.8%	3.8%	96.2%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	2.9
Total Weighted Coefficient of Conservatism Index	wC_i	0.1
Native Mean C	C	2.6
Total Mean C	C_i	3.8
Native Floristic Quality Index	FQI	7.8
Total Floristic Quality Index	FQI_i	13.6
Weighted Native Floristic Quality Index	$wFQI$	8.8
Weighted Total Floristic Quality Index	$wFQI_i$	0.4
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husweth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 1 Shrub carr
Wetland ID:	**Wetland 1**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Calla palustris	water calla	Herbaceous	Native	OBL	8	0.1%	0.1%
Fraxinus pennsylvanica	green ash	Herbaceous	Native	FACW	2	0.1%	0.1%
Impatiens capensis	spotted touch-me-not	Herbaceous	Native	FACW	2	15%	8.6%
Lonicera morrowii	Morrow honeysuckle	Shrub	Introduced	FACU	0	1%	0.6%
Lonicera tatarica	Tartarian honeysuckle	Shrub	Introduced	FACU	0	5%	2.9%
Matteuccia struthiopteris	ostrich fern	Herbaceous	Native	FACW	5	15%	8.6%
Parthenocissus quinquefolia	Virginia creeper	Herbaceous	Native	FACU	9	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	70%	40.3%
Pilea pumila	dwarf clearweed	Herbaceous	Native	FACW	3	0.1%	0.1%
Ranunculus sceleratus	cursed crowfoot	Herbaceous	Native	OBL	3	1%	0.6%
Salix interior	sandbar willow	Shrub	Native	FACW	2	60%	34.6%
Solidago altissima	tall goldenrod	Herbaceous	Native	FACU		0.1%	0.1%
Typha angustifolia	narrow-leaved cattail	Herbaceous	Introduced	OBL	0	1%	0.6%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	5%	2.9%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.41	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Shrub-Carr	**Survey Date:**	May 19, 2026

Bare Soil (%):	0%
Open Water (%):	0%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	14	10	8	4
Percent Cover	173.5%	55.6%	55.5%	44.4%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	2.4
Total Weighted Coefficient of Conservatism Index	wC_t	1.4
Native Mean C	C	2.7
Total Mean C	C_t	3.9
Native Floristic Quality Index	FQI	8.5
Total Floristic Quality Index	FQI_t	14.6
Weighted Native Floristic Quality Index	$wFQI$	7.7
Weighted Total Floristic Quality Index	$wFQI_t$	5.1
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 2 Fresh wet meadow
Wetland ID:	**Wetland 2**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Carex lacustris	lakeshore sedge	Herbaceous	Native	OBL	5	10%	10.0%
Cirsium arvense	Canada thistle	Herbaceous	Introduced	FACU	0	0.1%	0.1%
Persicaria amphibia	water smartweed	Herbaceous	Native	OBL	4	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	90%	89.8%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.98	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	0%
Open Water (%):	0%

Survey Metrics[7]

Metric	Total Observed Species	Native Species	Native Hydrophytic Species	Introduced Species
Species Richness	4	2	2	2
Percent Cover	100.2%	10.1%	10.1%	89.9%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	5.0
Total Weighted Coefficient of Conservatism Index	wC_t	0.5
Native Mean C	C	2.3
Total Mean C	C_t	4.5
Native Floristic Quality Index	FQI	3.2
Total Floristic Quality Index	FQI_t	9.0
Weighted Native Floristic Quality Index	$wFQI$	7.1
Weighted Total Floristic Quality Index	$wFQI_t$	1.0
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 2 Shallow, open water
Wetland ID:	**Wetland 2**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Nymphaea odorata	American white waterlily	Herbaceous	Native	OBL	6	1%	50.0%
Schoenoplectus tabernaemontani	soft-stem bulrush	Herbaceous	Native	OBL	4	1%	50.0%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.62	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Shallow, Open Water	**Survey Date:**	May 19, 2026

Bare Soil (%):	0%
Open Water (%):	98%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	2	2	2	0
Percent Cover	2.0%	100.0%	100.0%	0.0%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	5.0
Total Weighted Coefficient of Conservatism Index	wC_t	5.0
Native Mean C	C	5.0
Total Mean C	C_t	5.0
Native Floristic Quality Index	FQI	7.1
Total Floristic Quality Index	FQI_t	7.1
Weighted Native Floristic Quality Index	$wFQI$	7.1
Weighted Total Floristic Quality Index	$wFQI_t$	7.1
Numerical Condition		3
Biological Condition Gradient Category		Fair

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 2 Shrub carr
Wetland ID:	**Wetland 2**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Alliaria petiolata	garlic mustard	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Calystegia sepium	American bindweed	Herbaceous	Native	FAC	1	0.1%	0.1%
Carex lacustris	lakeshore sedge	Herbaceous	Native	OBL	5	2%	2.1%
Cirsium arvense	Canada thistle	Herbaceous	Introduced	FACU	0	1%	1.1%
Echinocystis lobata	wild cucumber	Herbaceous	Native	FACW	2	0.1%	0.1%
Galium aparine	cleavers	Herbaceous	Native	FACU	1	0.1%	0.1%
Lonicera morrowii	Morrow honeysuckle	Shrub	Introduced	FACU	0	1%	1.1%
Lonicera tatarica	Tartarian honeysuckle	Shrub	Introduced	FACU	0	2%	2.1%
Parthenocissus quinquefolia	Virginia creeper	Herbaceous	Native	FACU	9	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	60%	63.4%
Rhamnus cathartica	European buckthorn	Herbaceous	Introduced	FAC	0	1%	1.1%
Ribes americanum	wild black currant	Herbaceous	Native	FACW	4	0.1%	0.1%
Rudbeckia laciniata	tall coneflower	Herbaceous	Native	FACW	4	1%	1.1%
Salix interior	sandbar willow	Shrub	Native	FACW	2	25%	26.4%
Solidago altissima	tall goldenrod	Herbaceous	Native	FACU		0.1%	0.1%
Valeriana officinalis	common valerian	Herbaceous	Introduced	No Indicator	0	1%	1.1%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.41	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Shrub-Carr	**Survey Date:**	May 19, 2026

Bare Soil (%):	7%
Open Water (%):	0%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	16	9	6	7
Percent Cover	94.7%	30.2%	29.9%	69.8%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	2.3
Total Weighted Coefficient of Conservatism Index	wC_i	0.7
Native Mean C	C	1.9
Total Mean C	C_i	3.5
Native Floristic Quality Index	FQI	5.6
Total Floristic Quality Index	FQI_i	14.0
Weighted Native Floristic Quality Index	$wFQI$	6.9
Weighted Total Floristic Quality Index	$wFQI_i$	2.8
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husweth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

A portion of the shrubs within this community were removed.

Assessment Area ID:	Wetland 2 Floodplain forest
Wetland ID:	**Wetland 2**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Acer negundo	boxelder	Tree	Native	FAC	1	60%	64.4%
Arctium minus	common burdock	Herbaceous	Introduced	FACU	0	5%	5.4%
Carex lacustris	lakeshore sedge	Herbaceous	Native	OBL	5	0.1%	0.1%
Carex lacustris	lakeshore sedge	Herbaceous	Native	OBL	5	0.1%	0.1%
Chrysosplenium americanum	American golden saxifrage	Herbaceous	Native	OBL	9	10%	10.7%
Fraxinus pennsylvanica	green ash	Herbaceous	Native	FACW	2	1%	1.1%
Geum canadense	white avens	Herbaceous	Native	FAC	2	0.1%	0.1%
Impatiens capensis	spotted touch-me-not	Herbaceous	Native	FACW	2	2%	2.1%
Iris versicolor	Harlequin blueflag	Herbaceous	Native	OBL	4	0.1%	0.1%
Lonicera tatarica	Tartarian honeysuckle	Shrub	Introduced	FACU	0	10%	10.7%
Persicaria amphibia	water smartweed	Herbaceous	Native	OBL	4	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	1%	1.1%
Plantago major	common plantain	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Poa pratensis	Kentucky blue grass	Herbaceous	Introduced	FAC	0	1%	1.1%
Ranunculus sceleratus	cursed crowfoot	Herbaceous	Native	OBL	3	0.1%	0.1%
Rhamnus cathartica	European buckthorn	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Rhamnus cathartica	European buckthorn	Shrub	Introduced	FAC	0	0.1%	0.1%
Rhamnus cathartica	European buckthorn	Tree	Introduced	FAC	0	0.1%	0.1%
Rumex crispus	curled dock	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	2%	2.1%
Vitis riparia	riverbank grape	Herbaceous	Native	FACW	2	0.1%	0.1%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.29	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Floodplain Forest	**Survey Date:**	May 19, 2026

Bare Soil (%):	70%
Open Water (%):	0%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	18	11	11	7
Percent Cover	93.2%	81.2%	81.2%	18.8%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	2.1
Total Weighted Coefficient of Conservatism Index	wC_i	1.7
Native Mean C	C	1.9
Total Mean C	C_i	3.3
Native Floristic Quality Index	FQI	6.3
Total Floristic Quality Index	FQI_i	14.1
Weighted Native Floristic Quality Index	$wFQI$	7.0
Weighted Total Floristic Quality Index	$wFQI_i$	7.3
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 3 Fresh wet meadow
Wetland ID:	**Wetland 3**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Bolboschoenus fluviatilis	river bulrush	Herbaceous	Native	No Indicator	4	1%	1.0%
Echinocystis lobata	wild cucumber	Herbaceous	Native	FACW	2	0.1%	0.1%
Lemna minor	lesser duckweed	Herbaceous	Native	OBL	5	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	90%	92.6%
Typha angustifolia	narrow-leaved cattail	Herbaceous	Introduced	OBL	0	1%	1.0%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	5%	5.1%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.12	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	3%
Open Water (%):	0%

Survey Metrics[7]

Metric	Total Observed Species	Native Species	Native Hydrophytic Species	Introduced Species
Species Richness	6	4	3	2
Percent Cover	97.2%	6.4%	5.3%	93.6%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	1.6
Total Weighted Coefficient of Conservatism Index	wC_t	0.1
Native Mean C	C	2.0
Total Mean C	C_t	3.0
Native Floristic Quality Index	FQI	4.0
Total Floristic Quality Index	FQI_t	7.3
Weighted Native Floristic Quality Index	$wFQI$	3.1
Weighted Total Floristic Quality Index	$wFQI_t$	0.2
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 4 Fresh wet meadow
Wetland ID:	**Wetland 4**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Bolboschoenus fluviatilis	river bulrush	Herbaceous	Native	No Indicator	4	0.1%	0.1%
Cirsium arvense	Canada thistle	Herbaceous	Introduced	FACU	0	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	98%	98.5%
Poa palustris	fowl blue grass	Herbaceous	Native	FACW	5	0.1%	0.1%
Solanum dulcamara	climbing nightshade	Herbaceous	Introduced	FAC	0	0.1%	0.1%
Typha angustifolia	narrow-leaved cattail	Herbaceous	Introduced	OBL	0	1%	1.0%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	0.1%	0.1%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.44	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	1%
Open Water (%):	0%

Survey Metrics[7]

Metric	Total Observed Species	Native Species	Native Hydrophytic Species	Introduced Species
Species Richness	7	3	2	4
Percent Cover	99.5%	0.3%	0.2%	99.7%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	3.3
Total Weighted Coefficient of Conservatism Index	wC_t	0.0
Native Mean C	C	1.4
Total Mean C	C_t	3.3
Native Floristic Quality Index	FQI	2.5
Total Floristic Quality Index	FQI_t	8.8
Weighted Native Floristic Quality Index	$wFQI$	5.8
Weighted Total Floristic Quality Index	$wFQI_t$	0.0
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 4 Shrub carr
Wetland ID:	**Wetland 4**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Arctium minus	common burdock	Herbaceous	Introduced	FACU	0	0.1%	0.1%
Calystegia sepium	American bindweed	Herbaceous	Native	FAC	1	0.1%	0.1%
Cirsium arvense	Canada thistle	Herbaceous	Introduced	FACU	0	2%	1.2%
Echinocystis lobata	wild cucumber	Herbaceous	Native	FACW	2	0.1%	0.1%
Impatiens capensis	spotted touch-me-not	Herbaceous	Native	FACW	2	5%	3.0%
Iris versicolor	Harlequin blueflag	Herbaceous	Native	OBL	4	0.1%	0.1%
Persicaria amphibia	water smartweed	Herbaceous	Native	OBL	4	0.1%	0.1%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	80%	48.6%
Salix amygdaloides	peach-leaf willow	Tree	Native	FACW	5	5%	3.0%
Salix interior	sandbar willow	Shrub	Native	FACW	2	60%	36.5%
Salix petiolaris	basket willow	Shrub	Native	OBL	5	10%	6.1%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	2%	1.2%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.56	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Shrub-Carr	**Survey Date:**	May 19, 2026

Bare Soil (%):	5%
Open Water (%):	0%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	12	9	9	3
Percent Cover	164.5%	50.1%	50.1%	49.9%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	2.5
Total Weighted Coefficient of Conservatism Index	wC_t	1.3
Native Mean C	C	2.2
Total Mean C	C_t	2.9
Native Floristic Quality Index	FQI	6.5
Total Floristic Quality Index	FQI_t	10.0
Weighted Native Floristic Quality Index	$wFQI$	7.6
Weighted Total Floristic Quality Index	$wFQI_t$	4.4
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 4 Shallow marsh
Wetland ID:	**Wetland 4**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Bolboschoenus fluviatilis	river bulrush	Herbaceous	Native	No Indicator	4	20%	23.2%
Impatiens capensis	spotted touch-me-not	Herbaceous	Native	FACW	2	0.1%	0.1%
Lemna minor	lesser duckweed	Herbaceous	Native	OBL	5	5%	5.8%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	20%	23.2%
Ranunculus sceleratus	cursed crowfoot	Herbaceous	Native	OBL	3	1%	1.2%
Typha angustifolia	narrow-leaved cattail	Herbaceous	Introduced	OBL	0	40%	46.5%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.77	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Shallow Marsh	**Survey Date:**	May 19, 2026

Bare Soil (%):	0%
Open Water (%):	14%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	6	4	3	2
Percent Cover	86.1%	30.3%	7.1%	69.7%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	4.1
Total Weighted Coefficient of Conservatism Index	wC_i	1.3
Native Mean C	C	2.3
Total Mean C	C_i	3.5
Native Floristic Quality Index	FQI	4.7
Total Floristic Quality Index	FQI_i	8.6
Weighted Native Floristic Quality Index	$wFQI$	8.3
Weighted Total Floristic Quality Index	$wFQI_i$	3.1
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 5 Fresh wet meadow
Wetland ID:	**Wetland 5**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Equisetum scirpoides	dwarf scouring-rush	Herbaceous	Native	FAC	6	45%	52.9%
Poa palustris	fowl blue grass	Herbaceous	Native	FACW	5	15%	17.6%
Poa pratensis	Kentucky blue grass	Herbaceous	Introduced	FAC	0	25%	29.4%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.05	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	5%
Open Water (%):	10%

Survey Metrics[7]

Metric	Total Observed Species	Native Species	Native Hydrophytic Species	Introduced Species
Species Richness	3	2	2	1
Percent Cover	85.0%	70.6%	70.6%	29.4%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	5.8
Total Weighted Coefficient of Conservatism Index	wC_t	4.1
Native Mean C	C	3.7
Total Mean C	C_t	5.5
Native Floristic Quality Index	FQI	5.2
Total Floristic Quality Index	FQI_t	9.5
Weighted Native Floristic Quality Index	$wFQI$	8.1
Weighted Total Floristic Quality Index	$wFQI_t$	7.0
Numerical Condition		3
Biological Condition Gradient Category		Fair

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.

Assessment Area ID:	Wetland 6 Fresh wet meadow
Wetland ID:	**Wetland 6**

Vegetation Summary

Scientific Name	Common Name	Stratum	Origin	NCNE Indicator[1,2]	C Value[3,4,5]	Absolute Percent Cover	Relative Percent Cover
Agrostis stolonifera	creeping bentgrass	Herbaceous	Introduced	FACW	0	0.1%	0.1%
Calystegia sepium	American bindweed	Herbaceous	Native	FAC	1	0.1%	0.1%
Eleocharis acicularis	needle spike-rush	Herbaceous	Native	OBL	4	0.1%	0.1%
Glechoma hederacea	ground-ivy	Herbaceous	Introduced	FACU	0	1%	1.2%
Juncus tenuis	path rush	Herbaceous	Native	FAC	1	0.1%	0.1%
Onoclea sensibilis	sensitive fern	Herbaceous	Native	FACW	4	0.1%	0.1%
Persicaria amphibia	water smartweed	Herbaceous	Native	OBL	4	10%	11.6%
Phalaris arundinacea	reed canary grass	Herbaceous	Introduced	FACW	0	70%	81.5%
Poa annua	annual blue grass	Herbaceous	Introduced	FACU	0	0.1%	0.1%
Poa palustris	fowl blue grass	Herbaceous	Native	FACW	5	1%	1.2%
Potentilla norvegica	rough cinquefoil	Herbaceous	Native	FAC	1	0.1%	0.1%
Ranunculus sceleratus	cursed crowfoot	Herbaceous	Native	OBL	3	0.1%	0.1%
Rumex crispus	curled dock	Herbaceous	Introduced	FAC	0	1%	1.2%
Urtica dioica	stinging nettle	Herbaceous	Native	FACW	1	2%	2.3%
Veronica peregrina	purslane speedwell	Herbaceous	Native	FACW	0	0.1%	0.1%

Assessment Area Summary and Metrics[2,4,5]

Survey Information:			
Assessment Area Acreage (ac):	0.06	**Surveyor:**	GKK
Assessment Area Community Type[4]:	Fresh (Wet) Meadow	**Survey Date:**	May 19, 2026

Bare Soil (%):	5%
Open Water (%):	9%

Survey Metrics[7]				
Metric	**Total Observed Species**	**Native Species**	**Native Hydrophytic Species**	**Introduced Species**
Species Richness	15	10	10	5
Percent Cover	85.9%	15.9%	15.9%	84.1%

Metric	Metric Notation	Value
Native Weighted Coefficient of Conservatism Index	wC	3.5
Total Weighted Coefficient of Conservatism Index	wC_t	0.6
Native Mean C	C	1.6
Total Mean C	C_t	2.4
Native Floristic Quality Index	FQI	5.1
Total Floristic Quality Index	FQI_t	9.3
Weighted Native Floristic Quality Index	$wFQI$	11.2
Weighted Total Floristic Quality Index	$wFQI_t$	2.2
Numerical Condition		4
Biological Condition Gradient Category		Poor

[1] U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[2] U.S. Army Corps of Engineers, Environmental Laboratory. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

[3] Coefficient of Conservatism

[4] Minnesota Pollution Control Agency (MPCA). 2014. Rapid Floristic Quality Assessment Manual. wq-bwm2-02b. Minnesota Pollution Control Agency, St. Paul, MN.

[5] Milburn, S.A., M. Bourdaghs, J.J. Husveth. 2007. Floristic Quality Assessment for Minnesota Wetlands. Minnesota Pollution Control Agency, St. Paul, MN.

[6] Eggers, S.D. and D.M. Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin (3rd Ed). US. Army Corps of Engineers, St. Paul District, St. Paul, MN.

[7] Survey calculations are based on vascular plant species.

[8] Endangered, Threatened and Special Concern Species Status per Minnesota Rules, Chapter 6134 and Minnesota Rules, Parts 6212.1800 to 6212.2300. August 19, 2013.

Notes:

No notes for this surveyed Assessment Area.