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.

<u>State</u>

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 <u>strongly encouraged</u> 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 preapplication 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 <u>Corps and the LGU</u>.

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 (<u>https://webapps11.dnr.state.mn.us/mpars/public/authentication/login</u>). 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 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 and fill in any missing information in the remainder of the joint application.

Project Name and/or Number: Wilkinson Lake BMP Development

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: Vadnais Lake Area Water Management Organization (VLAWMO), Dawn Tanner
Mailing Address: 800 East County Road E, Vadnais Heights, MN 55127
Phone: 651-204-4463
E-mail Address: dawn.tanner@vlawmo.org

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

Agent Name:Donna JacobMailing Address:1401 21st Avenue N, Fargo, ND 58102Phone:701-499-9452E-mail Address:djacob@houstoneng.com

PART TWO: Site Location Information

County:	Ramsey County			City/Township:	North Oaks
Parcel ID a	nd/or Address:				
Legal Desc	ription (Section, Town	ship, Range):	T 30N, R 22W	', S 9	
Lat/Long (d	decimal degrees):	45.1052, -93.0613			
Attach a m	ap showing the locati	on of the site in rel	ation to local	streets, roads, high	ways.
See Appen	dix 1: Project Location	Мар			

Approximate size of site (acres) or if a linear project, length (feet): 11.62 acres

If you know that your proposal will require an individual Permit from the U.S. Army Corps of Engineers, you must provide the names and addresses of all property owners adjacent to the project site. n/a

PART THREE: General Project/Site Information

If this application is related to a delineation approval, exemption determination, jurisdictional determination, or other correspondence submitted *prior to* this application then describe that here and provide the Corps of Engineers project number.

- Pre-project correspondence has been ongoing: MVP-2021-00635-SSC
- Delineation concurrence was completed and letter sent on January 11, 2023

Project Name and/or Number: Wilkinson Lake BMP Development

Describe the project that is being proposed, the project purpose and need, and schedule for implementation and completion. The project description must fully describe the nature and scope of the proposed activity including a description of all project elements that effect aquatic resources (wetland, lake, tributary, etc.) and must also include plans and cross section or profile drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts.

Project description:

See **Appendix 2: Memorandum** – for detailed descriptions of the project and permitting items, plus a one-page description as requested for NWP details.

Project purpose:

The goal of the Wilkinson Lake BMP Project is to develop a multipurpose wetland restoration site that would both a) create a mosaic of heterogeneous deep-water wetland habitat and b) and decrease total phosphorus loading to Wilkinson Lake.

The current condition of the wetland is a drained system with an altered plant community compared with pre-settlement characteristics. The wetland, currently a wet meadow system (USACE 2023; Houston Engineering, Inc. 2022a; Kjolhaug Environmental Services Company, Inc. 2018a, 2018b), has been made shallower and is dominated by non-native, invasive species (reed canary grass and hybrid cattail). The restoration aims to reestablish the hydrology to a marsh/deep water habitat type of wetland. This will enable rehabilitation of the native plant communities and provide habitat for other organisms. For capturing phosphorus from the contributing watershed, deeper contours of a basin profile, by providing the chemical and anoxic conditions necessary for restricting phosphorus release, are more effective than shallower systems (i.e., wet meadow wetlands). As added benefits, the aesthetic view would be augmented, and a future trail system would provide residents with recreational opportunities.

Wetland functions and ecosystem services would be increased, including improved and enlarged provision of habitat and fresh water, water quality regulation (phytoremediation and sequestration of metals and excess nutrients), increased carbon storage, new recreation opportunities, and aesthetic benefits.

Project need:

Wilkinson Lake, located in Vadnais Lake Area Water Management Organization (VLAWMO), is known to be impaired with excess nutrients (MPCA Impaired Waters List (303(d)), 2010). A study was done in 2013 (Total Daily Maximum Load study, TMDL) and results showed the phosphorus loading originated from the Wilkinson Lake watershed and not from internal loading. The 1,100-acre watershed is already moderately developed with multi-family residential, commercial, industrial, and protected open space, and there is more development planned in the near future and beyond. This means the potential is likely for increased phosphorus loading to the lake into the future. This wetland rehabilitation project is needed to aid in the reduction of nutrient loading to the lake.

Schedule for implementation and completion:

Additional refinement of the site grading and stabilization will occur in the next design phase.

The proposed work would occur winter 2023/2024 or 2024/2025, depending upon final permitting timing and authorization of the construction contract.

See **Appendix 3: Project Plans** for drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts

PART FOUR: Aquatic Resource Impact¹ Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

Aquatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	Type of Impact (fill, excavate, drain, or remove vegetation)	Duration of Impact Permanent (P) or Temporary (T) ¹	Size of Impact ²	Overall Size of Aquatic Resource ³	Existing Plant Community Type(s) in Impact Area ⁴	County, Major Watershed #, and Bank Service Area # of Impact Area ⁵
Wetland *	wetland	excavation	Р	1.4 acres	N/A	2/3	
same	wetland	fill	Р	20 ft at 1 yd ³ per running ft	N/A	2/3	Ramsey Co.
same	wetland	fill	Т	approx. <1000 ft ² TBD by contractor	N/A	2/3	Watershed #20 BSA #7

¹If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".

²Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).

³This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A". ⁴Use Wetland Plants and Plant Community Types of Minnesota and Wisconsin 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2. ⁵Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

*There were three aquatic resources delineation reports describing the one wetland over three reporting segments

If any of the above identified impacts have already occurred, identify which impacts they are and the circumstances associated with each:

n/a

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: Dawn Tanner VLAWMO

2/14/2023 Date:

I hereby authorize Houston Engineering, Inc. 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.

¹ The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.

Minnesota Interagency Water Resource Application Form – Revised May 2021

Attachment B

Supporting Information for Applications Involving Exemptions, No Loss Determinations, and Activities Not Requiring Mitigation

Complete this part **if** you maintain that the identified aquatic resource impacts in Part Four do not require wetland replacement/compensatory mitigation OR **if** you are seeking verification that the proposed water resource impacts are either exempt from replacement or are not under CWA/WCA jurisdiction.

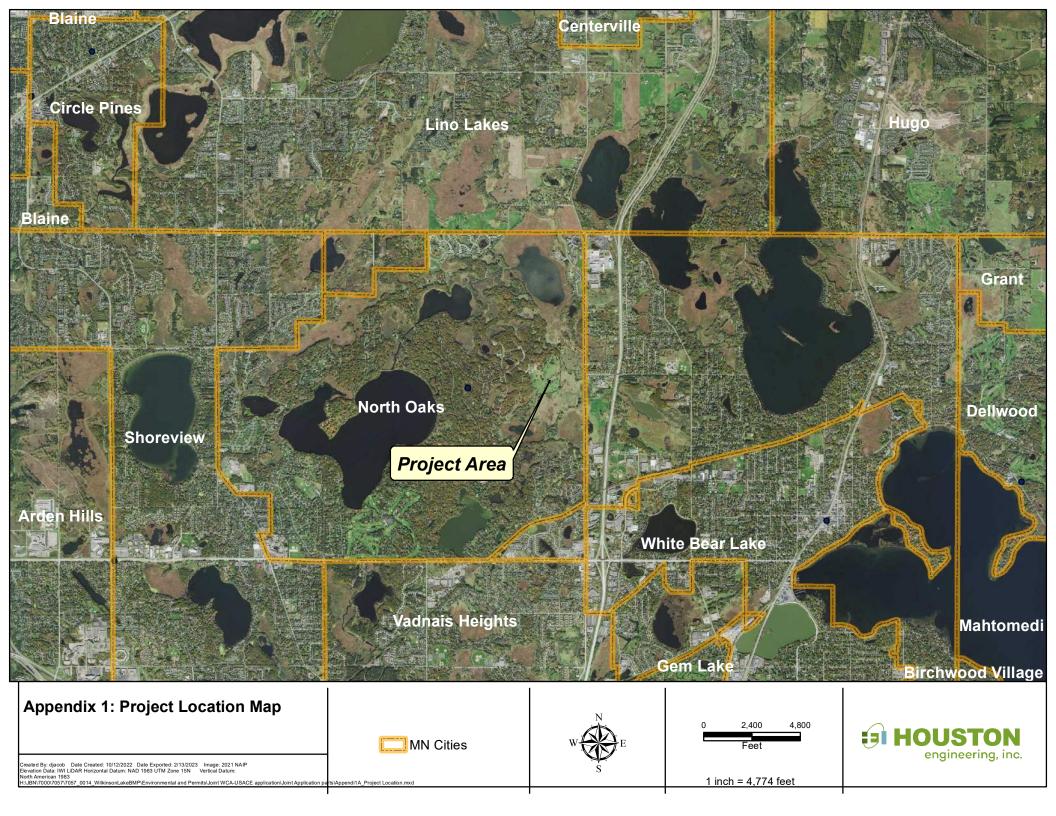
Identify the specific exemption or no-loss provision for which you believe your project or site qualifies:

- WCA Minnesota Statute 8420.0415 No-Loss Criteria, Part D
- USACE Nationwide Permit (NWP) No. 13: Bank Stabilization
- USACE Nationwide Permit No. 33: Temporary Construction, Access, and Dewatering

Provide a detailed explanation of how your project or site qualifies for the above. Be specific and provide and refer to attachments and exhibits that support your contention. Applicants should refer to rules (e.g. WCA rules), guidance documents (e.g. BWSR guidance, Corps guidance letters/public notices), and permit conditions (e.g. Corps General Permit conditions) to determine the necessary information to support the application. Applicants are strongly encouraged to contact the WCA LGU and Corps Project Manager prior to submitting an application if they are unsure of what type of information to provide:

See Appendix 2: Memorandum – for detailed descriptions of the project and permitting items.

Project Location Map



Permitting Memorandum



Memorandum

То:	Dawn Tanner and Phil Belfiori
	Vadnais Lake Area Water Management Organization (VLAWMO)
From:	Adam N. Nies PE, CFM
	Chris Otterness PE
	Donna Jacob PhD, PWS
	Houston Engineering, Inc.
Subject:	Wilkinson Lake Concept BMP Development –Permitting Memorandum
Date:	February 14, 2023
Project:	7057-0014

INTRODUCTION

The Wilkinson Lake BMP Project aims to develop a multipurpose wetland site that will both create habitat and decrease total phosphorus loading to the impaired Wilkinson Lake. Because the work, occurring within the boundaries of an existing wetland, will increase wetland acres and enhance the ecosystem function and services we are requesting no-loss permit exemptions for the project.

EXEMPTION REQUEST

We intend to apply for WCA and USACE authorization (we assume the aquatic resources are jurisdictional) via the following permit types:

- WCA Minnesota Statute 8420.0415 No-Loss Criteria, Part D
- USACE Nationwide Permit (NWP) No. 13: Bank Stabilization
- USACE Nationwide Permit No. 33: Temporary Construction, Access, and Dewatering •

The justifications for this exemption request are as follows. The types and quantities of impacts expected are shown in Table 1.

- Excavation: The methods used will result in a "clean" excavation with no grading and no regulated discharge of sediments. There may be incidental fallback, but this is not considered a regulated discharge. Spoil will be placed in upland outside of the delineated wetland boundary. The equipment to be used is an excavator, and the sediments will be loaded into trucks and hauled to the nearby spoil site.
- Riprap placement: Riprap (MnDOT Class 3) will be placed at the north end of the project to hold the established ditch grade at the outlet point of the wetland excavation. Because this location is below the ordinary high-water mark in the ditch, the work requires a pre-construction notification. However, the



1401 21ST AVE N | FARGO, ND 58102





material quantity will fall below the regulatory threshold of 500 feet long at 1 cubic yard per running foot (Nationwide Permit 13).

Temporary access impacts: Construction matting will be used for erosion control during equipment access. The area of matting needed will be determined by the contractor, but generally is approximately 1000 square feet, well below the regulatory threshold of 0.5 acres (NWPs 13 and 33). There will be no equipment staging areas within the wetland boundaries. The construction matting will be determined by the contractor, but is typically made up of timbers bolted together. After use, these mats are lifted out with an excavator and moved to a higher elevation for continued work in the excavated areas or, when the work is complete, moved to a storage site.

Other pertinent project features:

- The project will not change the current hydrological characteristics of the greater area. The volume of the basin will increase with the excavation, but the outlet will not be altered. This ensures the adjacent landowners will not experience flooding or water back-up as a result of this project.
- There will be no fill in the floodplain. The soil excavated from the basin will be placed nearby the project site outside the wetland boundaries.
- Erosion control of the spoil pile will consist of seeding to establish vegetation, perimeter controls and erosion control blanket.
- No permanent fill material (discharge), other than riprap for stabilization, will be placed within the wetland boundaries.
- The sediments proposed for excavation and placement as spoil have been analyzed by Braun Intertec. The results indicate arsenic values above background threshold values (BTV) set by the MPCA. However, these levels are consistent with naturally occurring levels in highly organic soil in this region and due to the site's location are unlikely to be resulting from outside contamination (Braun Intertec Corporation 2022). Therefore, excavation and spoiling of these sediments on site are appropriate and will result in no adverse impacts.
- The restoration plan consists of establishing native vegetation to rehabilitate the wetland areas and an appropriate seed mix for the spoil pile site. The wetland vegetation seed mix includes grasses, forbs, sedges, and other graminoids adapted to conditions along a moist to inundated gradient. For the spoil pile, an initial seeding of a cover crop will stabilize the soil, and a perennial mix (to be determined) would be seeded once the area is regraded.

PROJECT PURPOSE

The goal of the Wilkinson Lake BMP Project is to develop a multipurpose wetland restoration site that would both a) create a mosaic of heterogeneous deep-water wetland habitat and b) and decrease total phosphorus loading to Wilkinson Lake.

The current condition of the wetland is a drained system with an altered plant community compared with presettlement characteristics. The wetland, currently a wet meadow system (USACE 2023; Houston Engineering, Inc. 2022a; Kjolhaug Environmental Services Company, Inc. 2018a, 2018b), has been made shallower and is dominated by non-native, invasive species (reed canary grass and hybrid cattail). The restoration aims to reestablish the hydrology to a marsh/deep water habitat type of wetland. This will enable rehabilitation of the





native plant communities and provide habitat for other organisms. For capturing phosphorus from the contributing watershed, deeper contours of a basin profile, by providing the chemical and anoxic conditions necessary for restricting phosphorus release, are more effective than shallower systems (i.e., wet meadow wetlands). As added benefits, the aesthetic view would be augmented, and a future trail system would provide residents with recreational opportunities.

Wetland functions and ecosystem services would be increased, including improved and enlarged provision of habitat and fresh water, water quality regulation (phytoremediation and sequestration of metals and excess nutrients), increased carbon storage, new recreation opportunities, and aesthetic benefits.

PROJECT NEED

Wilkinson Lake, located in Vadnais Lake Area Water Management Organization (VLAWMO), is known to be impaired with excess nutrients (MPCA Impaired Waters List (303(d)), 2010). A study was done in 2013 (Total Daily Maximum Load study, TMDL) and results showed the phosphorus loading originated from the Wilkinson Lake watershed and not from internal loading. The 1,100-acre watershed is already moderately developed with multi-family residential, commercial, industrial, and protected open space, and there is more development planned in the near future and beyond. This means the potential is likely for increased phosphorus loading to the lake into the future. This wetland rehabilitation project is needed to aid in the reduction of nutrient loading to the lake.

Type of Impact	Impact Purpose	Duration	Size	Permit exemption requested	Justification
Excavation	Re-establish volume of basin without changing	asin 10K yd ³ Part D		Authorized by public agencies for the purpose of wetland restoration or fish and wildlife habitat restoration or improvement	
	greater area's current hydraulic conditions			all	No grading, thus no regulated discharge
Fill	Riprap used to hold the established ditch grade, below OHWM		20 ft at 1 yd ³ per running ft	NWP 13	Not more than minimum required < Regulatory threshold of 500 feet long at 1 cubic yard per running foot
	OHWM			8420.0415 Part D	Authorized by public agencies for the purpose of wetland restoration or fish and wildlife habitat restoration or improvement
Fill	Construction Tempora matting		approx. <1000 ft ² TBD by	NWP 13 NWP 33	< Regulatory threshold of 0.5 acres
			contractor	8420.0415 Part D	Authorized by public agencies for the purpose of wetland restoration or fish and wildlife habitat restoration or improvement

Table 1: Description of impacts and size relative to permit requirements (Nationwide Permit, NWP).







PROPOSED WORK

Several alternative designs have been analyzed for achieving the best balance of nutrient sequestration, habitat enhancement, and costs (Houston Engineering, Inc. 2022b). Alternative 2 has been selected by VLAWMO. This alternative is described as follows:

This alternative focuses on creating a native dominated deep-water habitat wetland that will both restore the drained wetland to nearer the pre-drainage condition of the basin, and via excavation, will remove the non-native and invasive plant species and seed banks to pursue a native wetland habitat along the shore. To achieve this, approximately 10,000 cu.yds. of material will be removed in the creation of the deep-water wetland and will have a footprint of approximately 1.4 acres An average depth of 3 feet within the footprint of the pond will establish a permanent pool with shallow areas and a deep-water section at 6 feet deep. By excavating below the existing wetland runout elevation, the Project has no adverse effect to the hydraulic conditions of the ditch or upstream roadways.

Assuming that contamination levels are favorable, the spoil will be placed within the project easements, but outside of the wetland delineation area with an approximate restoration footprint of 2 acres, to a height of 6 ft and side slopes of 10:1.

Additional refinement of the site grading and stabilization will occur in the next design phase.

The proposed work is planned to begin winter 2023/2024 or 2024/2025, depending upon final permitting timing and authorization of the construction contract.

PROJECT PLANS

Project plans are shown in the Pre-construction notification document (Joint Application). These plans depict the locations and sizes of impacts, the spoil site, and other details.

REFERENCES

Braun Intertec Corporation (2022) Sediment (Dredge)Sampling Report, December 9.

Houston Engineering, Inc. (2022a) Wetland Delineation Report, Wilkinson Lake BMP Project, November 7.

Houston Engineering, Inc. (2022b) Wilkinson Lake Concept BMP Development Memorandum, November 19.

- Kjolhaug Environmental Services Company, Inc. (2018a) *Gate Hill Site, Wetland Delineation Report*, December 10.
- Kjolhaug Environmental Services Company, Inc. (2018b) *Red Forest Way Site, Wetland Delineation Report*, December 11.

USACE (2023) Wetland Boundary Concurrence Letter, January 11.





1401 21st Avenue North Fargo, ND 58102

February 14, 2023

U.S. Army Corps of Engineers Attn: Samantha Coungeris

Subject: Permitting Information – Exemption Request Wilkinson Lake BMP Development, MVP-2021-00635-SSC HEI Project No. 7057-0014

Dear USACE:

On behalf of Vadnais Lake Area Water Management Organization, we are intending to apply the Nationwide Permits 13 and 33 to a wetland rehabilitation project. This letter describes wetland impacts resulting from the project and the justification for the permitting exemptions requested. Please see the Pre-Construction Notification (Joint Application) for more details.

<u>Excavation</u>: The methods used will result in a "clean" excavation with no grading and no regulated discharge of sediments. Spoil will be placed in upland outside of the delineated wetland boundary. The equipment to be used is an excavator, and the sediments will be loaded into trucks and hauled to the nearby spoil site.

<u>Riprap placement:</u> Riprap will be placed below the ordinary high-water mark to hold the established ditch grade at the outlet point of the wetland excavation. The material quantity will fall below the regulatory threshold of 500 feet long at 1 cubic yard per running foot.

<u>Temporary access impacts</u>: Construction matting will be used for erosion control during equipment access. The area of matting needed will be determined by the contractor, but generally is approximately 1000 square feet, well below the regulatory threshold of 0.5 acres. There will be no equipment staging areas within the wetland boundaries.

Please let me know if you have any questions or concerns.

Thank you. Sincerely,

HOUSTON ENGINEERING, INC.

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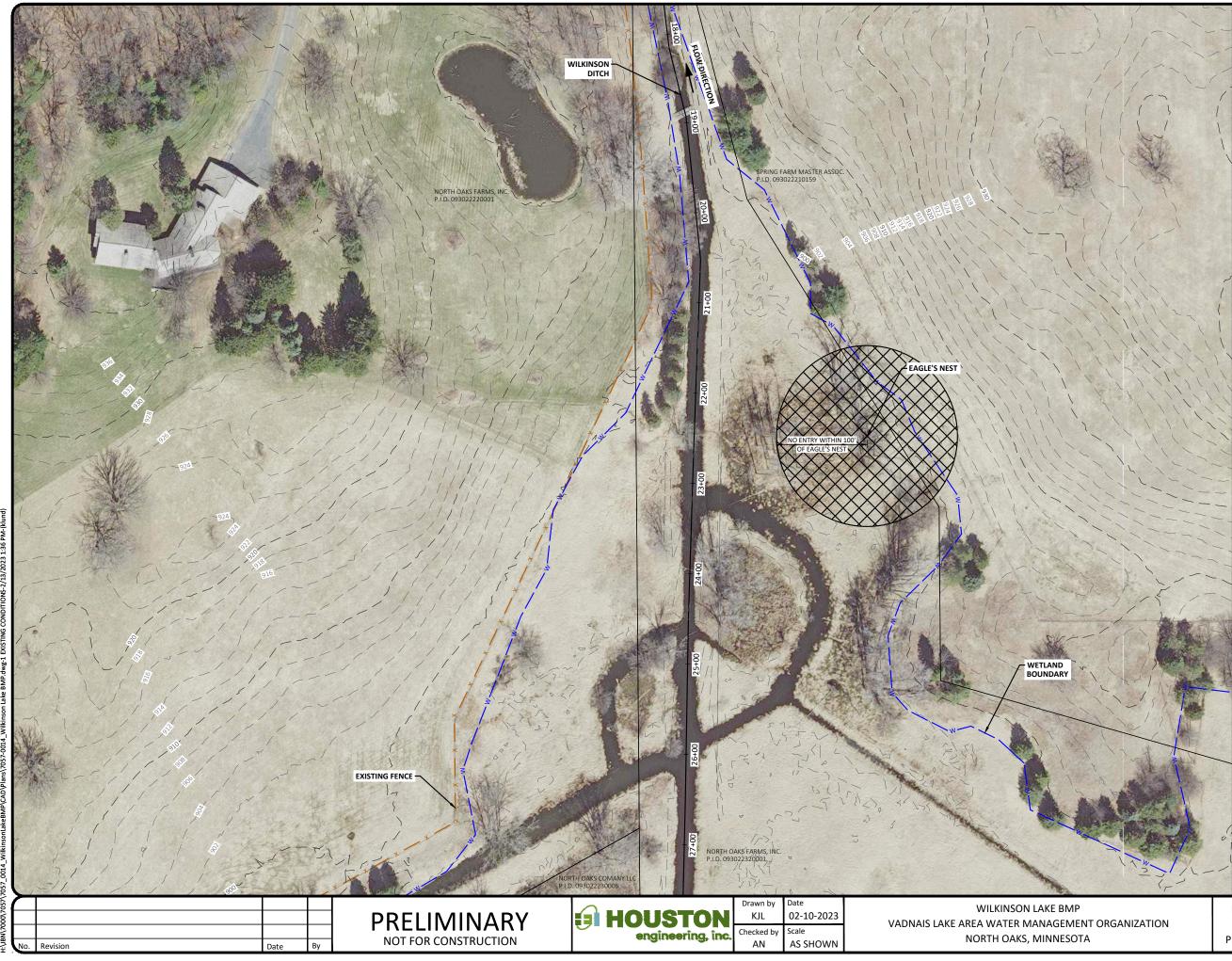
Donna Jacob, PhD CMWP No. 1267 Professional Wetland Scientist No. 2672

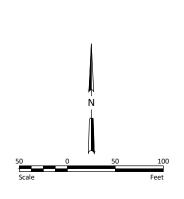
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Project Plans





LEGEND:

- × CONSTRUCTION FENCE
- ----- WETLAND BOUNDARY
- × EXISTING FENCE
- EAGLE'S NEST BUFFER NO ENTRY
- 900 - EXISTING GROUND CONTOURS

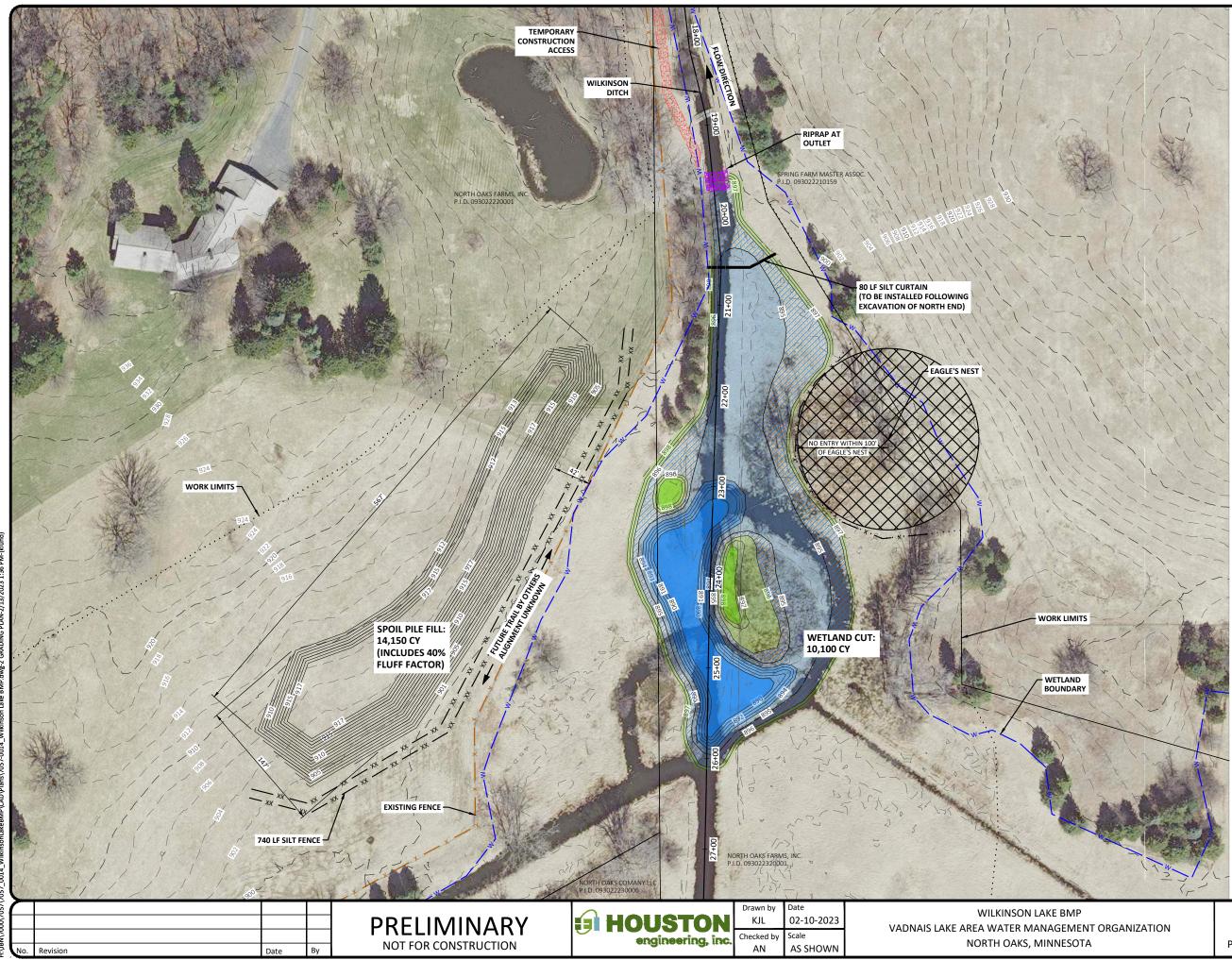
Appendix 3

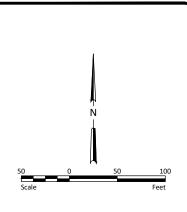
EXISTING CONDITIONS

SHEET

PROJECT NO. 7057-0014

HEI NO. 7057-0014





LEGEND:

- - - CONSTRUCTION FENCE ---- WETLAND BOUNDARY EAGLE'S NEST BUFFER - NO ENTRY CLASS III RIPRAP ······· TEMPORARY CONSTRUCTION EASEMENT TEMPORARY CONSTRUCTION PATH ---- SILT FENCE - - - EXISTING FENCE 900 - - EXISTING GROUND - CONTOURS 900 — PROPOSED GRADING - CONTOURS

PROPOSED GRADES:

EL. 898
EL. 896 - EL. 898
EL. 895 - EL. 896
EL. 894 - EL. 895
EL. 890 - EL. 894
EL. 890

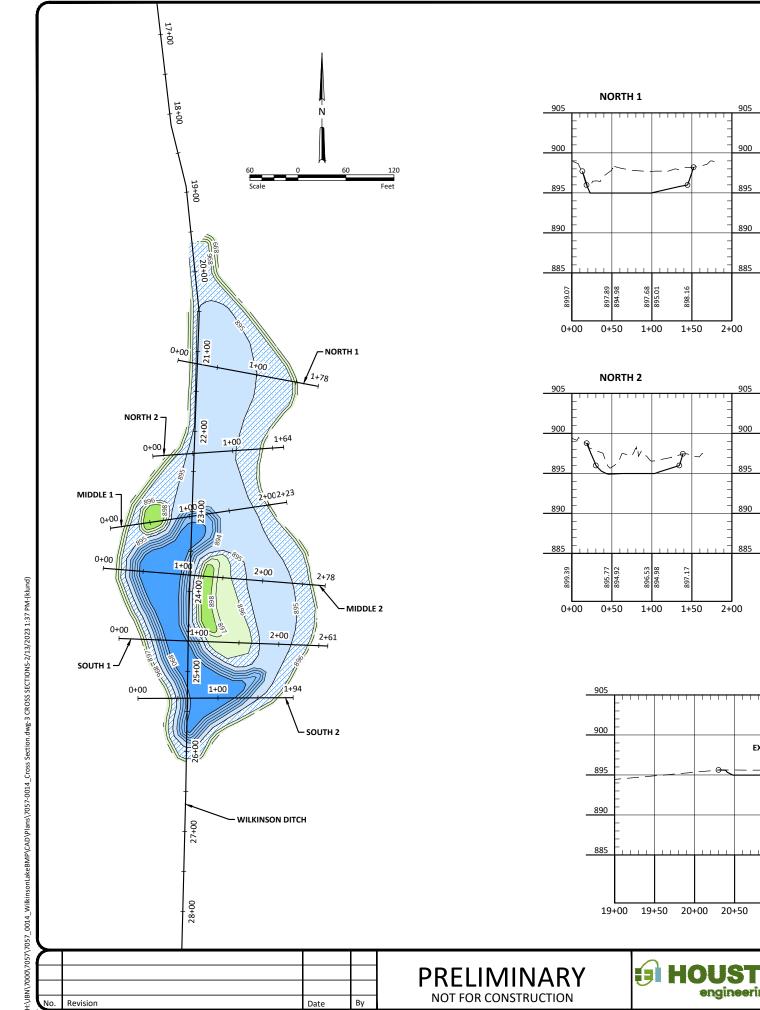
Appendix 3

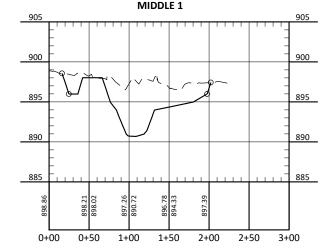
GRADING PLAN

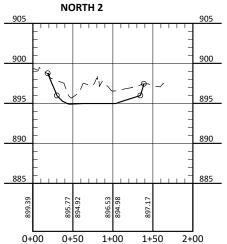
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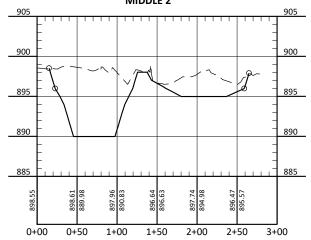
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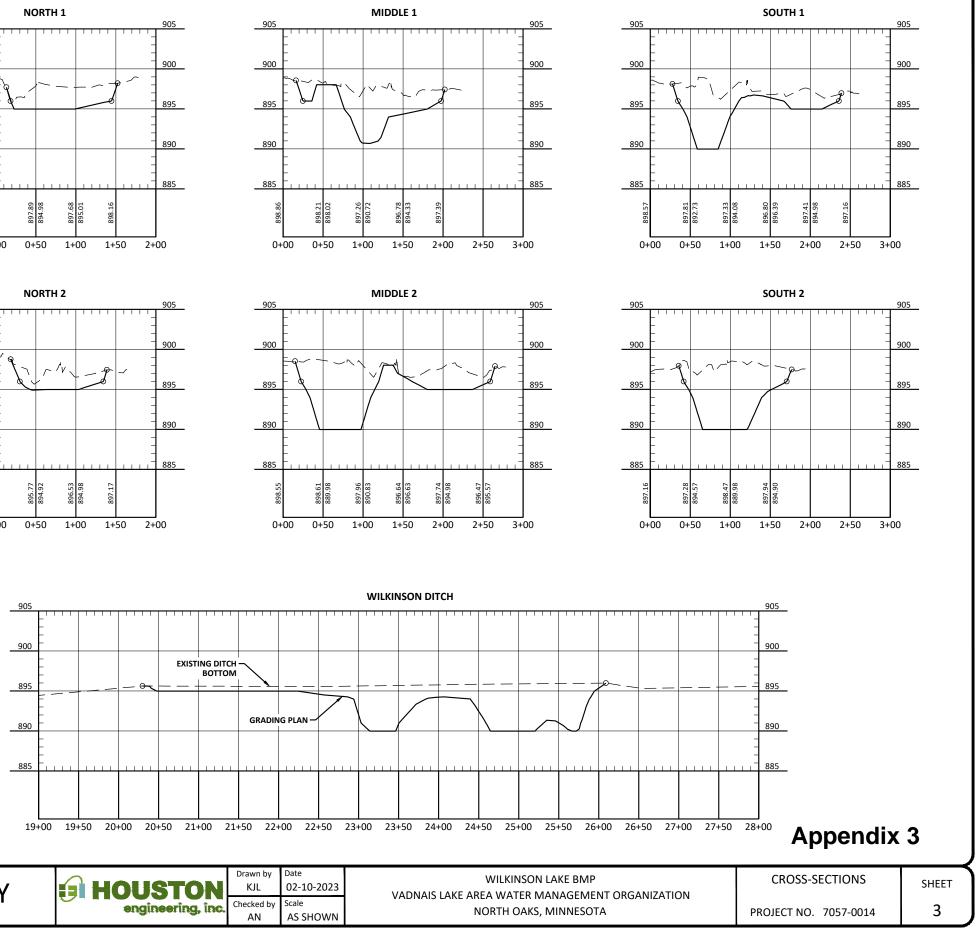
HEI NO. 7057-0014



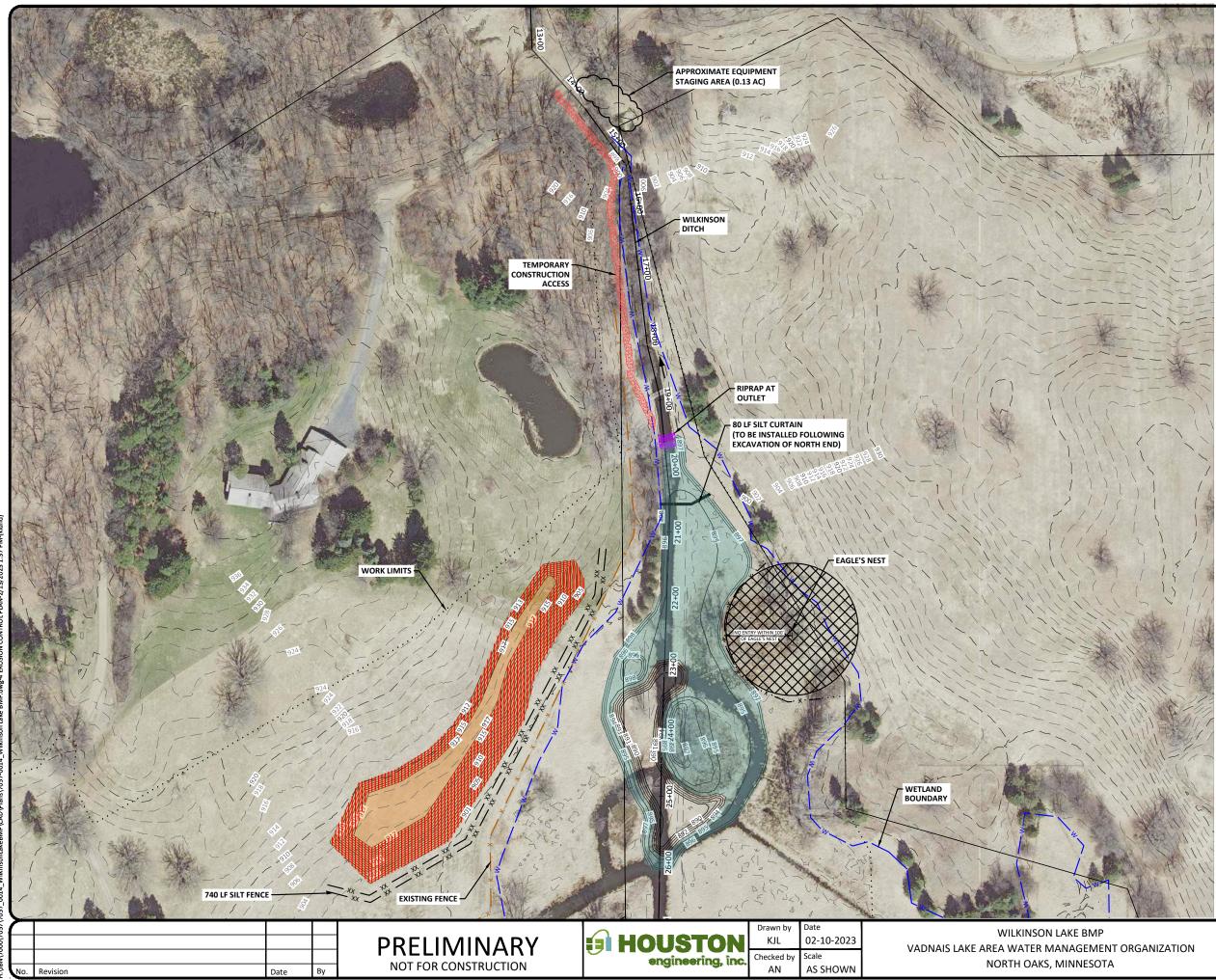


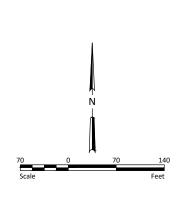






WILKINSON LAK
VADNAIS LAKE AREA WATER MAN
NORTH OAKS, MI





LEGEND:

- EROSION CONTROL BLANKET
- WETLAND SEEDING PLAN: PRAIRIE MOON NURSERY CUSTOM SEED MIX AS SPECIFIED IN ORDER #23862
- SPOIL PILE SEEDING PLAN: MNDOT 35-221 DRY PRAIRIE GENERAL, OR SIMILAR
- = SILT FENCE DOUBLE CONTAINMENT
- ---- WETLAND BOUNDARY
- EAGLE'S NEST BUFFER NO ENTRY
- * EXISTING FENCE
- CLASS III RIPRAP
- **..... TEMPORARY CONSTRUCTION EASEMENT**
- CONSTRUCTION ACCESS PATH
- 900 - EXISTING GROUND CONTOURS
- 900 PROPOSED GRADING CONTOURS
- 1. SEE SHEET 5 FOR EROSION CONTROL DETAILS.
- 2. SEE SHEETS 6 & 7 FOR SWPPP REQUIREMENTS.

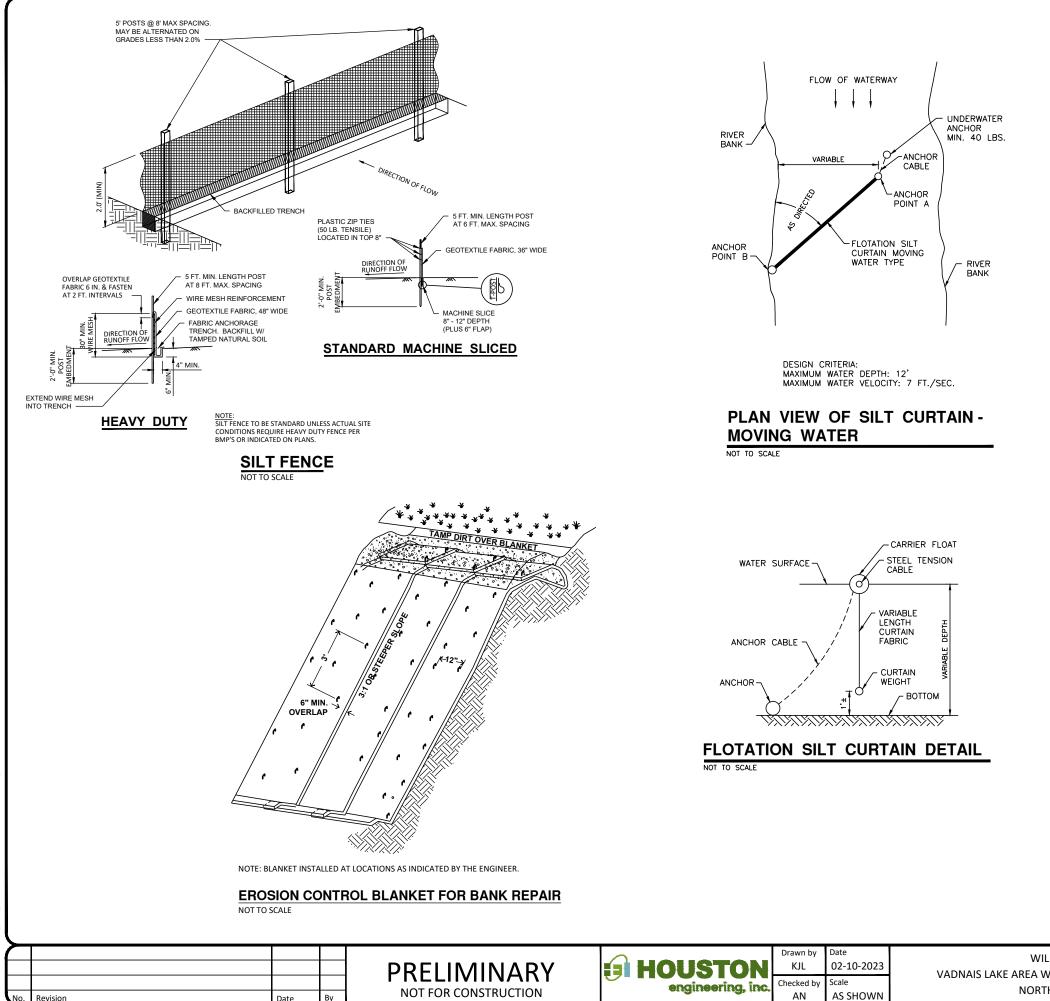
Appendix 3

EROSION CONTROL PLAN

SHEET

PROJECT NO. 7057-0014

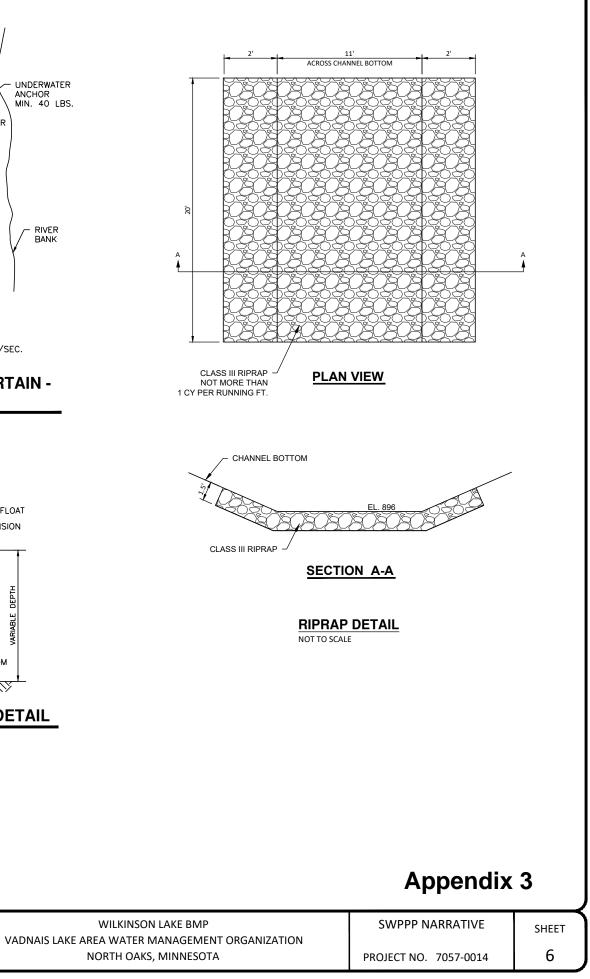
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AN

Revision

Date



SEDIMENT CONTROL PRACTICES PROJECT INFORMATION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE 1. CHAIN OF RESPONSIBILTIY: OWNER AND CONTRACTOR ARE COPERMITEES FOR THE MINNESOTA GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION GENERAL CONSTRUCTION ACTIVITY INFORMATION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE MINNESOTA GENERAL PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE PROJECT NAME: WILKINSON LAKE BEST MANAGEMENT PRACTICES MPCA. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION 1. DESCRIBE PROJECT LOCATION: PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA. ADDRESS OR DESCRIBE AREA: QUARTER-QUARTER NENW, SECTION 9 (T30 R22) IN NORTH OAKS CITY OR TOWNSHIP: NORTH OAKS 2. TRAINING DOCUMENTATION: CONTRACTOR SHALL LIST PEOPLE REQUIRING TRAINING PER PART III.F.1, STATE: MN ZIP CODE: 55127 COUNTY: RAMSEY DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING, CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING. THE OWNER SHALL LATITUDE/LONGITUDE OF APPROXIMATE CENTROID OF PROJECT: 45.1052°/-93.0610° BE PROVIDED WITH A COPY OF THE TRAINING DOCUMENTATION BEFORE THE START OF CONSTRUCTION 2. DESCRIBE THE CONSTRUCTION ACTIVITY: ON THE PROJECT. THE WILKINSON LAKE BEST MANAGMENT PRACTICES PROJECT WILL CONSIST OF WETLAND EXCAVATION AND TREE REMOVAL AS SPECIFIED IN THE PLANS. REMOVED SEDIMENT AND EXCESS BANK MATERIAL WILL BE SPOIL BANKED ON THE WEST SIDE OF THE WETLAND AND DISTURBED AREAS RE-VEGETATED. PROJECT INFORMATION PROJECT AREAS 1. ENVIRONMENTALLY SENSITIVE AREAS: 1. TOTAL AREA TO BE DISTURBED (ACRES): 10.4 IMPAIRED WATERS: THE DITCH SYSTEM DISCHARGE IS WITHIN ONE MILE OF IMPAIRED WATERS (WILKINSON LAKE), WILKINSON LAKE IS IMPAIRED FOR NUTRIENT EUTROPHICATION BIOLOGICAL INICATORS AND HAS A USEPA-APPROVED TMDL. THIS IMPAIRMENT IS CONSIDERED 2. PRE-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 0.0 NON-CONSTRUCTION RELATED. 3. POST-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 0.0 B. <u>SPECIAL WATERS</u>: THERE ARE NO SPECIAL WATERS WITHIN ONE MILE OF THE DISCHARGE FOR WILKINSON LAKE. FROM BEING TRACKED ONTO THE STREET 4. TOTAL NEW IMPERVIOUS SURFACE (ACRES): 0.0 C. WETLANDS: SEGMENTS OF THE WORK LIMITS CROSS WETLANDS. WORK SHALL CONFORM TO STATE AND FEDERAL WETLAND LAWS. RECEIVING WATERS D. KARST AREAS: THERE ARE NO KNOWN KARST AREAS WITHIN THE PROJECT BOUNDARY. SURFACE WATERS WITHIN ONE MILE OF PROJECT BOUNDARY (AERIAL RADIUS MEASUREMENT) CONTROL OF WATER THAT WILL RECEIVE STORMWATER FROM THE SITE OR DISCHARGE FROM PERMANENT E. <u>CALCAREOUS FENS:</u> THERE ARE NO KNOWN CALCAREOUS FENS WITHIN THE PROJECT BOUNDARY. STORMWATER MANAGEMENT SYSTEM: 1. WORK IN DRY CONDITIONS. F. ENDANGERED OR THREATENED SPECIES: THERE ARE NO KNOWN ENDANGERED OR THREATENED WATER BODY ID NAME OF WATER BODY TYPE SPECIAL WATER IMPAIRED WATER SPECIES WITHIN THE PROJECT BOUNDARY. 62-0043-00 WILKINSON LAKE LAKE NO YES G. HISTORIC PLACES OR ARCHEOLOGICAL SITES: THERE ARE NO KNOWN HISTORIC PLACES OR RCHEOLOGICAL SITES WITHIN THE PROJECT BOUNDARY. INSPECTIONS AND MAINTENANCE H. STEEP SLOPES: SLOPES 1:3 (V:H) OR STEEPER IN GRADE ARE CONFINED TO THE SLOPES OF THE PUBLIC CONTACT INFORMATION DRAINAGE SYSTEM. PROJECT OWNER: VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION INSPECTIONS 2. SOIL TYPES. DAWN TANNER 800 CO. RD. E EAST THE SOIL REMOVAL WILL GENERALLY CONSIST OF LOAM, CLAY LOAM, SILTY CLAY LOAM, SANDY ST. PAUL, MN 55127 LOAM, AND MUCK. ESTIMATED PARTICLE SIZE RANGING FROM 0.0001 MM TO 0.5MM. 3. ORDER OF CONSTRUCTION ACTIVITIES: CONTRACTOR: TO BE DETERMINED A. INSTALL EROSION AND SEDIMENT CONTROL MEASURES. B. PROCEED WITH REMOVAL OF TREES FROM WETLAND, DITCH, RESLOPED BANKS, AND SPOIL BANK REDUCED TO ONCE PER MONTH. AREAS. WORK FROM DOWNSTREAM TO UPSTREAM TO REMOVE SEDIMENT AND SOIL FROM WETLAND AND PLACE IN SPOIL BANK AREAS. DESIGN OF CONSTRUCTION SWPPP C. STABILIZE AREAS DISTURBED WITH TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. D. COMPLETE PERMANENT RESTORATION WITH EROSION AND SEDIMENT CONTROL MEASURES. DESIGN OF CONSTRUCTION SWPPP COMPLETED BY: AARON ZIGAN HOUSTON ENGINEERING EROSION PREVENTION PRACTICES 7550 MERIDIAN CIRCLE NORTH - SUITE 120 1. STABILIZATION MUST BE INITIATED IMMEDIATELY AND NO LATER THAN 14 DAYS CALENDAR DAYS MAPLE GROVE, MN 55369 WHENEVER ANY CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PHONE: (763) 493-4522 PORTION OF THE SITE. STABILIZATION MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOD, RIPRAP, EROSION CONTROL BLANKET. MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING. GRASS, AGRICULTURAL CROP OR OTHER SEEDING ALONE IS NOT STABILIZATION. MULCH MATERIALS MUST ACHIEVE APPROXIMATELY 90 PERCENT GROUND COVERAGE (TYPICALLY 2 TON/ACRE). 2. STABILIZATION OF THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE MUST OCCUR WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. 3. STORMWATER CONVEYANCE CHANNELS MUST BE ROUTED AROUND UNSTABILIZED AREAS. EROSION INFILTRATION AREA CONTROLS AND VELOCITY DISSIPATION DEVICES MUST BE USED ALONG THE LENGTH OF THE CONVEYANCE CHANNEL AND AT ANY OUTLET. Drawn by Date WILKINSON LAKE BMP **HOUSTON** PRELIMINARY KJL 02-10-2023

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1. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UP GRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICE MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND-DISTURBING ACTIVITIES BEGIN THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION

2. RE-INSTALL ALL SEDIMENT CONTROL PRACTICES THAT HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. COMPLETE ANY SHORT-TERM ACTIVITY THAT REQUIRES REMOVAL OF SEDIMENT CONTROL PRACTICES AS QUICKLY AS POSSIBLE. RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

3. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED BY THE PERMITTEE OR THE JURISDICTIONAL AUTHORITY. THE PERMITTEE MUST DOCUMENT THE NEED FOR REMOVAL AND RETAIN THE RECORD WITH THE SWPPP.

4. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER

5. WHERE VEHICLE TRAFFIC LEAVES ANY PART OF THE SITE (OR ONTO PAVED ROADS WITHIN THE SITE) A VEHICLE TRACKING BMP, APPROVED BY THE ENGINEER, MUST BE INSTALLED TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE. STREET SWEEPING MUST BE USED IF SUCH VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT

6. SOIL COMPACTION MUST BE MINIMIZED AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.

2. PUMPING, IF NECESSARY, SHALL BE PROVIDED AND CONDUCTED AT DISCHARGE RATES THAT DO NOT ERODE SOIL MATERIAL. DISSIPATION BMP'S SHALL BE IMPLEMENTED TO MITIGATE SOIL

1. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) CERTIFIED AS A SITE MANAGER FOR OVERSEEING IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND PERFORMING

2. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) CERTIFIED AS A BMP INSTALLER FOR PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS.

3. INSPECTIONS WILL BE CONDUCTED AT LEAST ONE TIME PER WEEK AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.50 INCH IN 24 HOURS.

4. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE

5. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR 24 HOURS PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES

6. ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF (1/2) OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

7. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION.

8. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY

9. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE

Appendix 3

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION NORTH OAKS, MINNESOTA

SWPPP NARRATIVE

SHEET

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PROJECT NO. 7057-0014

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)

POLLUTION PREVENTION MANAGEMENT MEASURES

THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES SHALL BE IMPLEMENTED ON THE SITE AND SHALL BE A LUMP SUM PAYMENT:

- 1. BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
- 2. HAZARDOUS MATERIALS, TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH.7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
- 3. SOLID WASTE MUST BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH.7035.
- 4. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH.7041.
- 5. REASONABLE STEPS SHALL BE TAKEN TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. FUELING MUST BE CONDUCTED IN A CONTAINED AREA UNLESS INFEASIBLE. ADEQUATE SUPPLIES MUST BE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND AN APPROPRIATE DISPOSAL METHOD MUST BE AVAILABLE FOR RECOVERED SPILLED MATERIALS. REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. § 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
- 6. WASHING THE EXTERIOR OF VEHICLES OR EQUIPMENT ON THE PROJECT SITE MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF FROM THE WASHING AREA MUST BE CONTAINED IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND WASTE FROM THE WASHING ACTIVITY MUST BE PROPERLY DISPOSED OF. STORE AND PROPERLY USE THE SOAPS, DETERGENTS, OR SOLVENTS. NO ENGINE DEGREASING IS ALLOWED ON SITE.
- 7. EFFECTIVE CONTAINMENT SHALL BE PROVIDED FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. THE LIOUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND, AND THE CONTAINMENT MUST BE DESIGNED SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA RULES. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES.
- 8. IN THE EVENT OF A SPILL, THE CONTRACTOR WILL MAKE THE APPROPRIATE NOTIFICATION(S) TO THE MPCA, CONSISTENT WITH THE FOLLOWING PROCEDURES:

SPILLS OF PETROLEUM IN A QUANTITY GREATER THAN 5 GALLONS MUST BE REPORTED IMMEDIATELY TO THE MINNESOTA DUTY OFFICER.

SPILLS OF ANY QUANTITY OF ALL OTHER CHEMICALS OR MATERIALS WHICH MAY CAUSE POLLUTION OF WATERS OF THE STATE MUST BE REPORTED IMMEDIATELY TO THE MINNESOTA DUTY OFFICER.

REPORTABLE SPILLS SHOULD BE DIRECTED TO THE MINNESOTA DUTY OFFICER BY IMMEDIATELY CALLING THE FOLLOWING NUMBERS: (651) 649-5451 OR (800) 422-0798

FINAL STABILIZATION

FINAL STABILIZATION IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE COMPLETE:

- 1. ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH DENSITY OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS.
- 2. ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SILT FENCE) HAVE BEEN REMOVED. BMPS DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) MAY BE LEFT IN PLACE.
- 3. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROP, FIELD PASTURE OR RANGE LAND) THE DISTURBED LAND HAS BEEN RETURNED TO ITS PRECONSTRUCTION AGRICULTURAL USE.

Date

EROSION AND SEDIMENT CONTROL QUANTITY SUMMARY AND BMP SCHEDULE				
DESCRIPTION	UNITS	QUANTITY		
SILT FENCE	LF	1480		
SEEDING & MULCH (P)	ACRE	3.0		
EROSION CONTROL BLANKETS	SY	5,250		

AMENDMENTS

Date

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02-10-2023

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Appendix 3

SWPPP NARRATIVE

SHEET

PROJECT NO. 7057-0014

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